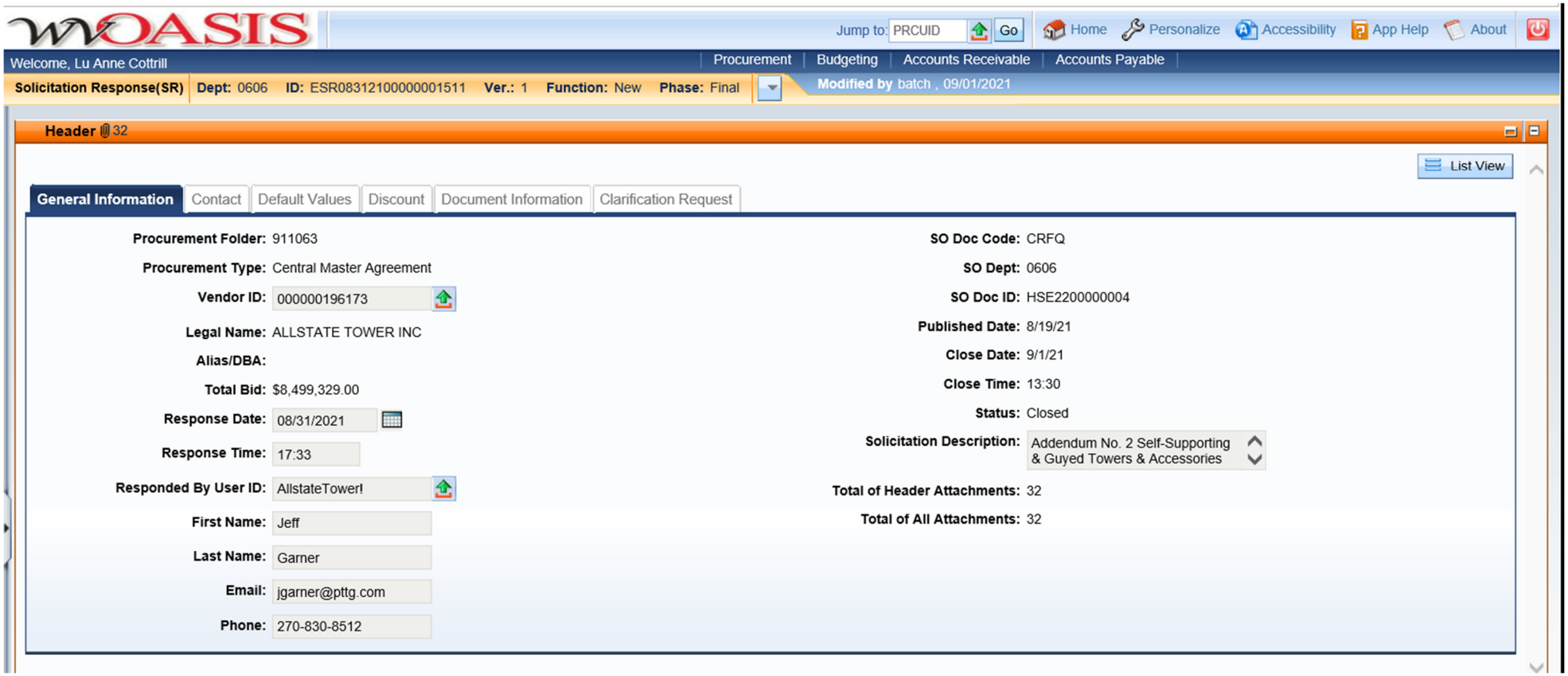
The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.


wvOASIS
Jump to: PRCUID Go
Home
Personalize
Accessibility
App Help
About
Welcome, Lu Anne Cottrill
Procurement
Budgeting
Accounts Receivable
Accounts Payable
Solicitation Response(SR) Dept: 0606 ID: ESR08312100000001511 Ver.: 1 Function: New Phase: Final
Modified by batch , 09/01/2021
Header 32
List View
General Information
Contact
Default Values
Discount
Document Information
Clarification Request
Procurement Folder: 911063
Procurement Type: Central Master Agreement
Vendor ID: 000000196173
Legal Name: ALLSTATE TOWER INC
Alias/DBA:
Total Bid: $8,499,329.00
Response Date: 08/31/2021
Response Time: 17:33
Responded By User ID: AllstateTower!
First Name: Jeff
Last Name: Garner
Email: jgarner@pttg.com
Phone: 270-830-8512
SO Doc Code: CRFQ
SO Dept: 0606
SO Doc ID: HSE2200000004
Published Date: 8/19/21
Close Date: 9/1/21
Close Time: 13:30
Status: Closed
Solicitation Description: Addendum No. 2 Self-Supporting & Guyed Towers & Accessories
Total of Header Attachments: 32
Total of All Attachments: 32

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Solicitation Response

Proc Folder:	911063
Solicitation Description:	Addendum No. 2 Self-Supporting & Guyed Towers & Accessories
Proc Type:	Central Master Agreement

Solicitation Closes	Solicitation Response	Version
2021-09-01 13:30	SR 0606 ESR08312100000001511	1

VENDOR

000000196173
ALLSTATE TOWER INC

Solicitation Number: CRFQ 0606 HSE2200000004

Total Bid: 8499329 **Response Date:** 2021-08-31 **Response Time:** 17:33:57

Comments:

FOR INFORMATION CONTACT THE BUYER
David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor
Signature X **FEIN#** **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Total bid price	1.00000	EA	8499329.000000	8499329.00

Comm Code	Manufacturer	Specification	Model #
43190000			

Commodity Line Comments:

Extended Description:

Vendor must complete the Pricing Pages by filling out the Unit Price and Extended Price for each item and provide "Grand Total" in the space provided if submitting manual/paper bid see section 5.3 below for further instructions. If submitting the bid electronically through wvOasis input the Grand Total on the commodity line of the wvOasis' portal online bid. Vendor must complete pricing page named Exhibit "A" by providing the "Unit Price", the Extended Price and Grand total will self-populate. Pricing is to include freight costs. This page must be attached to your electronic bid, see section 5.2.1. Vendor will pre-pay freight costs for delivery to all sites in West Virginia and other SIRN sites in surrounding states as specifically required. The vendor will then be paid the actual freight costs upon submission of the original freight invoice to WV EMD. Vendor must complete the Pricing Pages in their entirety as failure to do so may result in Vendor's bids being disqualified
See specifications for complete instructions.

CRFQ HSE22*04 - EXHIBIT A
Pricing Page - WV EMD -
Bidder is only to input pricing on the Unit Price the spreadsheet will calculate Extended Price if submitting electronically

Contract Item #	Description	Estimated Annual Quantity	Unit Price	Extended Price
3.1.1	100' Self Supporting Tower	1	65553	65553
3.1.2	120' Self Supporting Tower	1	77429	77429
3.1.3	140' Self Supporting Tower	1	101478	101478
3.1.4	160' Self Supporting Tower	1	119264	119264
3.1.5	180' Self Supporting Tower	2	132805	265610
3.1.6	200' Self Supporting Tower	1	172689	172689
3.1.7	220' Self Supporting Tower	1	209585	209585
3.1.8	240' Self Supporting Tower	2	224249	448498
3.1.9	260' Self Supporting Tower	1	253661	253661
3.1.10	280' Self Supporting Tower	1	282442	282442
3.1.11	300' Self Supporting Tower	2	306352	612704
3.1.12	320' Self Supporting Tower	2	337654	675308
3.1.13	340' Self Supporting Tower	2	370504	741008
3.1.14	360' Self Supporting Tower	2	418081	836162
3.1.15	380' Self Supporting Tower	2	457918	915836
3.1.16	400' Self Supporting Tower	1	494636	494636
3.1.17	100' Guyed Tower	1	53716	53716
3.1.18	120' Guyed Tower	1	60550	60550
3.1.19	140' Guyed Tower	1	75151	75151
3.1.20	160' Guyed Tower	1	80682	80682
3.1.21	200' Guyed Tower	1	114037	114037
3.1.22	240' Guyed Towers	1	135578	135578
3.1.23	280' Guyed Tower	1	144182	144182
3.1.24	320' Guyed Tower	1	169138	169138
3.1.25	360' Guyed Tower	1	197320	197320
3.1.26	400' Guyed Tower	1	214757	214757
3.1.27	440' Guyed Tower	1	226524	226524
3.1.28	480' Guyed Tower	1	243576	243576
3.1.29	Six (6) foot standard arms	10	1070	10700
3.1.30	Six (6) foot tapered side arms	10	1220	12200
3.1.31	Safety climb device (acceptable increments of 100 foot)	10	840	8400
3.1.32	FAA approved white light and red LED beacon combinations	10	17920	179200
3.1.33	Red side lights, shall be LED fixtures	10	1400	14000
3.1.34	Four (4) inch microwave dish pipe mounts with all hardware. Must have capability of attaching to straight sections of tapered section	60	1050	63000
3.1.35	Ice shields for six (6) foot dishes	16	1660	26560
3.1.36	Ice shields for eight (8) foot dishes	16	1970	31520
3.1.37	Twenty (20) foot vertical waveguide ladder (minimum width of 24 inches)	100	232	23200
3.1.38	Ten (10) foot horizontal waveguide bridge (minimum width of 24 inches)	12	1590	19080
3.1.39	Three (3) foot standard side arms	24	1030	24720
3.1.40	Three (3) foot tapered side arms	24	1180	28320
3.1.41	Twelve (12) foot sector booms capable of supporting four (4) antennas on each sector. Assume one (1) foot solid panel that is six (6) feet in length and six (6) inches thick.	6	10590	63540
3.1.42	Tower light controller kit for tower lights. Tower lights must be capable of providing telemetry.	3	2605	7815
			GRAND TOTAL	8499329

CRFQ HSE22*04 - EXHIBIT A
Pricing Page - WV EMD -
Bidder is only to input pricing on the Unit Price the spreadsheet will calculate Extended Price if submitting electronically

Estimated Annual Quantities are for bid evaluation purposes only. Actual quantities ordered may be more or less.

Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost.

VENDOR SECTION:

Vendor Name:	Allstate Tower, Inc.
Physical Address.	232 Heilman Ave, Henderson, Ky 42420
Remit to Address:	PO Box 25 Henderson, KY 42419
Telephone:	270-830-8512
Fax:	270-830-8475
Email:	mbarnhill@pttg.com
Vendor Representative (print name):	Matt Barnhill
Signature:	Matt Barnhill

West Virginia Ethics Commission

Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of $1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

"Interested party" or *"Interested parties"* means:

(1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
(2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
(3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

Revised June 8, 2018

West Virginia Ethics Commission

Disclosure of Interested Parties to Contracts

(Required by *W. Va. Code* § 6D-1-2)

Name of Contracting Business Entity: Allstate Tower, Inc. **Address:** PO Box 25, Henderson, Ky 42419

Name of Authorized Agent: P. Keegan O'Daniel **Address:** PO Box 25, Henderson, KY. 42419

Contract Number: CRFQ HSE 22*04 **Contract Description:** Self Support & Guyed Communication towers

Governmental agency awarding contract: WV Emergency Management Division

☐ **Check here if this is a Supplemental Disclosure**

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below *(attach additional pages if necessary)*:

1. **Subcontractors or other entities performing work or service under the Contract**
   ☑ Check here if none, otherwise list entity/individual names below.

2. **Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)**
   ☐ Check here if none, otherwise list entity/individual names below.

3. **Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)**
   ☐ Check here if none, otherwise list entity/individual names below.
   Matt Barnhill
   P. Keegan O'Daniel

Signature: P. Keegan O'Daniel Date Signed: 8-31-2021

Notary Verification

State of Ky, County of Henderson:

I, P. Keegan O'Daniel, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 31 day of August 2021

Notary Public's Signature 608368

GRETCHEN HALLMARK NOTARY PUBLIC STATE AT LARGE KENTUCKY

To be completed by State Agency:

Date Received by State Agency: _____

Date submitted to Ethics Commission: _____

Governmental agency submitting Disclosure: _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Allstate Tower, Inc.

Authorized Signature: P. Keegan O'Dair Date: 8-31-2021

State of Ky

County of Henderso, to-wit:

Taken, subscribed, and sworn to before me this 31 day of August, 2021

My Commission expires 10-2-22, 20___.

AFFIX SEAL HERE

NOTARY PUBLIC D Hale 608368

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFQ HSE2200000004

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

[x]	Addendum No. 1	[ ]	Addendum No. 6
[X]	Addendum No. 2	[ ]	Addendum No. 7
[ ]	Addendum No. 3	[ ]	Addendum No. 8
[_]	Addendum No. 4	[ ]	Addendum No. 9
[ ]	Addendum No. 5	[ ]	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Allstate Tower, Inc.
Company

P. Keegan O'Dair
Authorized Signature

8/31/2021
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Matt Barnhill, Sales Representative
(Name, Title)
Matt Barnhill, Sales Representative
(Printed Name and Title)
232 Heilman Ave, Henderson, KY 42420
(Address)
270-860-7270
(Phone Number) / (Fax Number)
mbarnhill@pttg.com
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

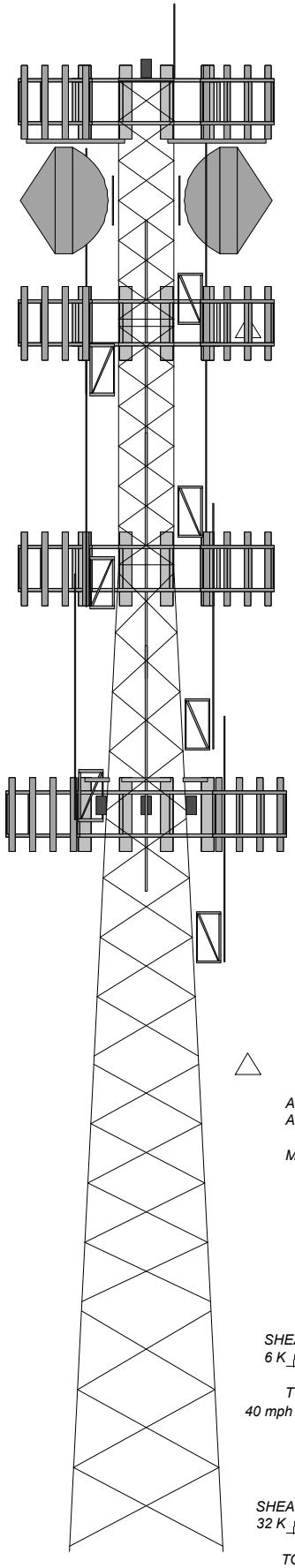
Allstate Tower, Inc.
(Company)
P. Keegan O'Daniel
(Authorized Signature) (Representative Name, Title)
P. Keegan O'Daniel, President
(Printed Name and Title of Authorized Representative)
8/31/2021
(Date)
270-830-8512 270-830-8475
(Phone Number) (Fax Number)

8.3 Reports: Vendor shall provide quarterly reports and annual summaries to the WV EMD showing the WV EMD's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.

8.4 Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Matt Barnhill
Telephone Number: 270-830-8512 ext. 3623
Fax Number: 270-830-8475
Email Address: mbarnhill@pttg.com

Section	T4	T3	T2	T1	L2	L1
Legs	SR 3 1/2	SR 3	SR 2 3/4	SR 2	SR 1 3/4	
Leg Grade	A572-50					
Diagonals	L2 1/2x2 1/2x3/16	L2x2x3/16	L1 3/4x1 3/4x3/16	L1 1/2x1 1/2x3/16	SR 7/8	
Diagonal Grade	A529-50				A572-50	
Top Girts	N.A.				SR 7/8	
Bottom Girts	N.A.				SR 7/8	
Face Width (ft) 12.5	10.5	8.5	6.5	4.5		
# Panels @ (ft)	3 @ 6.40278	8 @ 4.82292		4 @ 4.84375	12 @ 3.23611	
Weight (K) 11.2	2.9	2.3	2.1	1.7	1.2	1.0



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
6' Lightning Rod	120	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80
L-Lighting Beacon	120	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	120	(3) 12' Gate Mount(s)	80
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	120	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	78.89
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	120	3' Sidearm(s)	78.89
(3) 12' Gate Mount(s)	120	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	73.11
Ice Shield For 08' Dish	115	3' Sidearm(s)	73.11
Ice Shield For 08' Dish	115	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	67.33
Leg Mounted 8' Dish Mount Assembly	110	3' Sidearm(s)	67.33
Leg Mounted 8' Dish Mount Assembly	110	2'x2' Ice Shield / Rest Platform	63
8' Std. Dish w/Radome (EW63)	110	2'x2' Ice Shield / Rest Platform	63
8' Std. Dish w/Radome (EW63)	110	2'x2' Ice Shield / Rest Platform	63
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	102	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	61.56
3' Sidearm(s)	102	3' Sidearm(s)	61.56
(3) 12' Gate Mount(s)	100	L-Side Light / Obstruction Light	60
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	L-Side Light / Obstruction Light	60
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	L-Side Light / Obstruction Light	60
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	96.22	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
3' Sidearm(s)	96.22	(3) 12' Gate Mount(s)	60
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	90.44	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
3' Sidearm(s)	90.44	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	55.78
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	84.67	3' Sidearm(s)	55.78
3' Sidearm(s)	84.67	3' Sidearm(s)	50
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	50

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A529-50	50 ksi	65 ksi

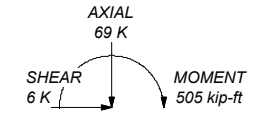
TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 40 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. Conservative ground elevation of 230' assumed.
8. Tower designed for step bolts up all three legs.
9. Tower designed for feedlines to be supported with waveguide ladder(s).
10. All bolted legs and/or weld together tower sections have flange connections.
11. Structural connections use galvanized A325 bolts and/or equivalent with nuts and/or nut locking devices. Installation per TIA/EIA-222 and AISC Specifications.
12. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
13. All structural steel welding will be in compliance with AWS D1.1 latest revision and fabricated with ER-70S-6 electrodes.
14. Structure is designed to arrange feedlines based on using stackable hangers currently available in the communications industry unless specified otherwise by customer. See plan view of sheet E-7 for feedline arrangement used for the design of this structure.
15. TOWER RATING: 95.6%

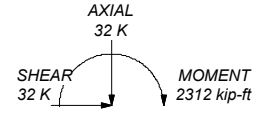
ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 219 K
SHEAR: 19 K

UPLIFT: -196 K
SHEAR: 18 K



TORQUE 3 kip-ft
40 mph WIND - 1.0000 in ICE

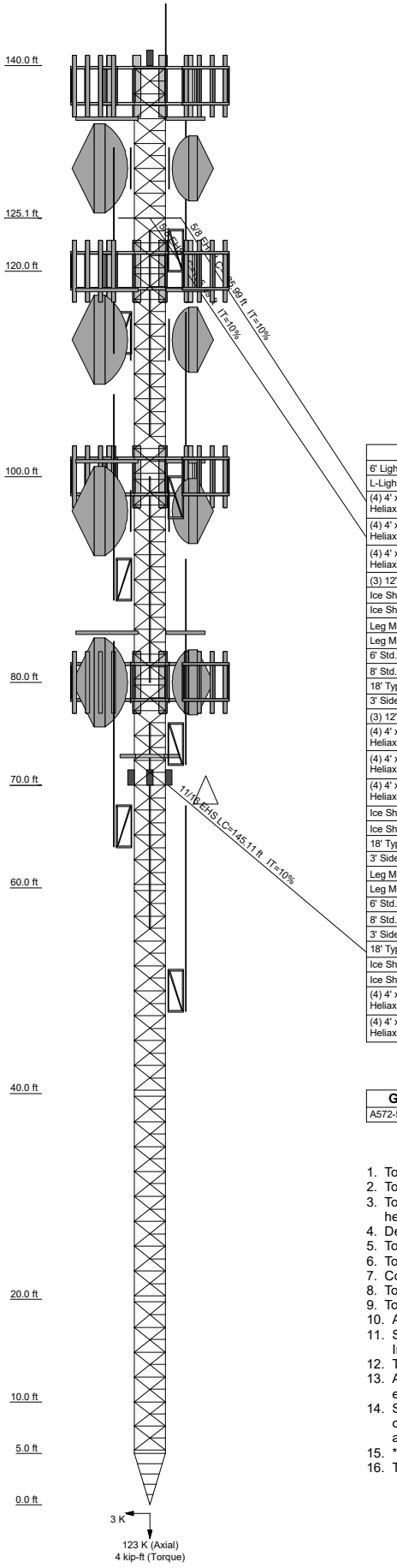


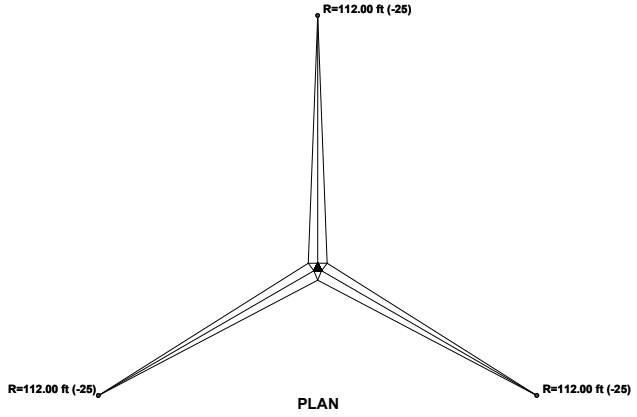
TORQUE 15 kip-ft
REACTIONS - 118 mph WIND

PTTG ALLSTATE TOWER Since 1919
Allstate Tower Inc.
P.O. Box 25
Henderson, KY. 42419
Phone: (270) 830 - 8512
FAX: (270) 228 - 4551

Job: ***WV-120SS-r1 : 2021 Matrix***			
Project: ***As Req'd***			
Client: State of WV.	Drawn by: Allstate Tower Inc.	App'd:	
Code: TIA-222-H	Date: 08/26/21	Scale: NTS	
Path:		Dwg No. E-1	

Section	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs						SR 1 3/4			
Leg Grade						A572-50			
Diagonals	N.A.			SR 3/4			SR 7/8		
Diagonal Grade	N.A.					A572-50			
Top Girts	3x5/8					SR 3/4			
Mid Girts			N.A.				SR 3/4		
Bottom Girts	N.A.	SR 3/4		N.A.			SR 3/4		
Horizontals	C4x5.4					SR 3/4			
Sec. Horizontals	N.A.					SR 5/8			
Top Guy Pull-Offs					N.A.				SR 1 1/8
Face Width (ft)						52 @ 2.42708			4
# Panels @ (ft)	5 @ 1	1 @ 2.35417							
Weight (K)	8.4	0.4	0.3	0.5	1.0	1.1	1.1	1.1	2.0





DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION
6' Lightning Rod	140
L-Lighting Beacon	140
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	140
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	140
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	140
(3) 12' Gate Mount(s)	140
Ice Shield For 06' Dish	135
Ice Shield For 08' Dish	135
Leg Mounted 6' Dish Mount Assembly	130
Leg Mounted 8' Dish Mount Assembly	130
6' Std. Dish w/Radome (EW63)	130
8' Std. Dish w/Radome (EW63)	130
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	122
3' Sidearm(s)	122
(3) 12' Gate Mount(s)	120
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	120
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	120
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	120
Ice Shield For 06' Dish	118.33
Ice Shield For 08' Dish	118.33
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	114
3' Sidearm(s)	114
Leg Mounted 6' Dish Mount Assembly	113.33
Leg Mounted 8' Dish Mount Assembly	113.33
6' Std. Dish w/Radome (EW63)	113.33
8' Std. Dish w/Radome (EW63)	113.33
3' Sidearm(s)	106
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	106
Ice Shield For 06' Dish	101.67
Ice Shield For 08' Dish	101.67
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100

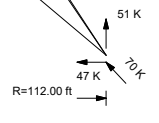
TYPE	ELEVATION
(3) 12' Gate Mount(s)	100
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100
3' Sidearm(s)	98
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	98
Leg Mounted 6' Dish Mount Assembly	96.67
Leg Mounted 8' Dish Mount Assembly	96.67
6' Std. Dish w/Radome (EW63)	96.67
8' Std. Dish w/Radome (EW63)	96.67
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	90
3' Sidearm(s)	90
Ice Shield For 06' Dish	85
Ice Shield For 08' Dish	85
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	82
3' Sidearm(s)	82
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80
(3) 12' Gate Mount(s)	80
Leg Mounted 6' Dish Mount Assembly	80
Leg Mounted 8' Dish Mount Assembly	80
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80
6' Std. Dish w/Radome (EW63)	80
8' Std. Dish w/Radome (EW63)	80
3' Sidearm(s)	74
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	74
2'x2' Ice Shield / Rest Platform	73
2'x2' Ice Shield / Rest Platform	73
2'x2' Ice Shield / Rest Platform	73
L-Side Light / Obstruction Light	70
L-Side Light / Obstruction Light	70
L-Side Light / Obstruction Light	70
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	66
3' Sidearm(s)	66
3' Sidearm(s)	58
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	58
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	50
3' Sidearm(s)	50

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi			

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 118.00 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 40.00 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60.00 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. Conservative ground elevation of 230' assumed.
8. Tower is designed for integral climbing ladder.
9. Tower is designed for integral feedline tab(s).
10. All bolted legs and/or weld together tower sections have flange connections.
11. Structural connections use galvanized A325 bolts and/or equivalent with nuts and/or nut locking devices. Installation per TIA/EIA-222 and AISC Specifications.
12. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
13. All structural steel welding will be in compliance with AWS D1.1 latest revision and fabricated with ER-70S-6 electrodes.
14. Structure is designed to arrange feedlines based on using stackable hangers currently available in the communications industry unless specified otherwise by customer. See plan view of sheet E-7 for feedline arrangement used for the design of this structure.
15. ** Preliminary Design - Not For Construction **
16. TOWER RATING: 97.3%



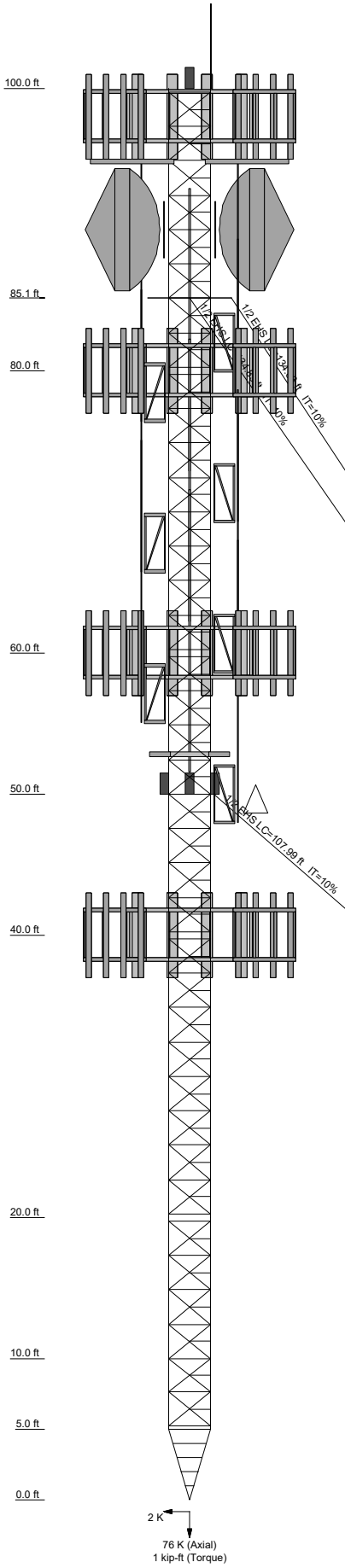
ALL REACTIONS ARE FACTORED

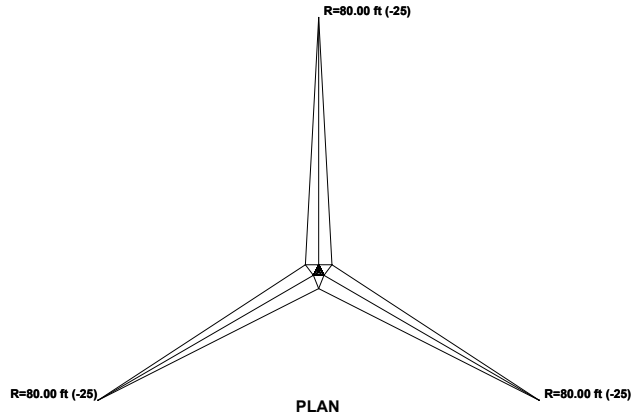
PTTG ALLSTATE TOWER (Since 1919)

Allstate Tower Inc.
P.O. Box 25
Henderson, KY. 42419
Phone: (270) 830 - 8512
FAX: (270) 228 - 4551

Job:	***WV-140GT-r1 : 2021 Matrix***		
Project:	***As Req'd***		
Client: State of WV	Drawn by: Allstate Tower Inc.		App'd:
Code: TIA-222-H	Date: 08/25/21		Scale: NTS
Path:			Dwg No. E-1

Section	T7	T6	T5	T4	T3	T2	T1
Legs					SR 1 1/2		SR 3/4
Leg Grade					A572-50		A572-50
Diagonals	N.A.			SR 5/8			
Diagonal Grade	N.A.			A36			
Top Girts	3x5/8				SR 3/4		
Mid Girts		N.A.					
Bottom Girts	N.A.	SR 3/4	N.A.				
Horizontals	C4x5.4				SR 3/4		
Sec. Horizontals	N.A.				SR 5/8		
Top Guy Pull-Offs				N.A.			SR 1
Face Width (ft)							4
# Panels @ (ft)	5 @ 1	2 @ 2.375				36 @ 2.4375	
Weight (K)	4.5	0.3	0.2	0.4	0.7	0.7	1.4





DESIGNED APPURTENANCE LOADING

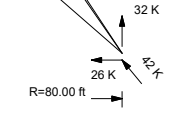
TYPE	ELEVATION	TYPE	ELEVATION
6' Lightning Rod	100	3' Sidearm(s)	67.78
L-Lighting Beacon	100	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	64.22
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	3' Sidearm(s)	64.22
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	60.67
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	3' Sidearm(s)	60.67
(3) 12' Gate Mount(s)	100	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
Ice Shield For 08' Dish	95	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
Ice Shield For 08' Dish	95	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
Leg Mounted 8' Dish Mount Assembly	90	(3) 12' Gate Mount(s)	60
Leg Mounted 8' Dish Mount Assembly	90	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	57.11
8' Std. Dish w/Radome (EW63)	90	3' Sidearm(s)	57.11
8' Std. Dish w/Radome (EW63)	90	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	53.56
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	82	3' Sidearm(s)	53.56
3' Sidearm(s)	82	2'x2' Ice Shield / Rest Platform	53
(3) 12' Gate Mount(s)	80	2'x2' Ice Shield / Rest Platform	53
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80	2'x2' Ice Shield / Rest Platform	53
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80	L-Side Light / Obstruction Light	50
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80	L-Side Light / Obstruction Light	50
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	78.44	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	50
3' Sidearm(s)	78.44	3' Sidearm(s)	50
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	74.89	L-Side Light / Obstruction Light	50
3' Sidearm(s)	74.89	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	40
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	71.33	(3) 12' Gate Mount(s)	40
3' Sidearm(s)	71.33	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	40
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	67.78	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	40

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 118.00 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 40.00 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60.00 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. Conservative ground elevation of 230' assumed.
8. Tower is designed for integral climbing ladder.
9. Tower is designed for integral feedline tab(s).
10. All bolted legs and/or weld together tower sections have flange connections.
11. Structural connections use galvanized A325 bolts and/or equivalent with nuts and/or nut locking devices. Installation per TIA/EIA-222 and AISC Specifications.
12. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
13. All structural steel welding will be in compliance with AWS D1.1 latest revision and fabricated with ER-70S-6 electrodes.
14. Structure is designed to arrange feedlines based on using stackable hangers currently available in the communications industry unless specified otherwise by customer. See plan view of sheet E-7 for feedline arrangement used for the design of this structure.
15. ** Preliminary Design - Not For Construction **
16. TOWER RATING: 89.9%



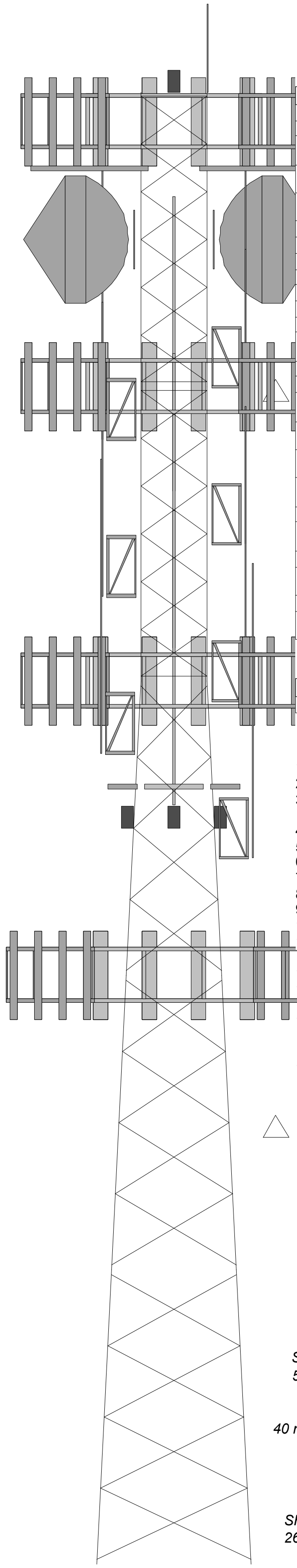
ALL REACTIONS ARE FACTORED

PTTG ALLSTATE TOWER Since 1919
Allstate Tower Inc.
P.O. Box 25
Henderson, KY. 42419
Phone: (270) 830 - 8512
FAX: (270) 228 - 4551

Job: ***WV-100GT-r1 : 2021 Matrix***		
Project: ***As Req'd***		
Client: State of WV	Drawn by: Allstate Tower Inc.	App'd:
Code: TIA-222-H	Date: 08/25/21	Scale: NTS
Path:		Dwg No. E-1

Section	Legs	Leg Grade	Diagonals	Diagonal Grade	Top Girts	Bottom Girts	Face Width (ft)	# Panels @ (ft)	Weight (K)
L1	SR 1 3/4	A572-50	SR 7/8	A572-50	SR 7/8	SR 7/8	4.5	12 @ 3.23611	1.0
L2	SR 2 1/4	A572-50	SR 7/8	A572-50	SR 7/8	SR 7/8	4.5	12 @ 3.23611	1.3
T1	SR 2 3/4	A572-50	L1 1/2x1 1/2x3/16	A529-50	N.A.	N.A.	6.5	4 @ 4.84375	1.7
T2	SR 2 3/4	A572-50	L1 3/4x1 3/4x3/16	A529-50	N.A.	N.A.	8.5	8 @ 4.82292	1.9
T3	SR 3	A572-50	L1 3/4x1 3/4x3/16	A529-50	N.A.	N.A.	10.5	8 @ 4.82292	2.2
									8.1

(Face width at top of L1: 4.5)



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
6' Lightning Rod	100	3' Sidearm(s)	67.78
L-Lighting Beacon	100	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	64.22
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	3' Sidearm(s)	64.22
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	60.67
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	3' Sidearm(s)	60.67
(3) 12' Gate Mount(s)	100	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
Ice Shield For 08' Dish	95	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
Ice Shield For 08' Dish	95	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
Leg Mounted 8' Dish Mount Assembly	90	(3) 12' Gate Mount(s)	60
Leg Mounted 8' Dish Mount Assembly	90	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	57.11
8' Std. Dish w/Radome (EW63)	90	3' Sidearm(s)	57.11
8' Std. Dish w/Radome (EW63)	90	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	53.56
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	82	3' Sidearm(s)	53.56
3' Sidearm(s)	82	2'x2' Ice Shield / Rest Platform	53
(3) 12' Gate Mount(s)	80	2'x2' Ice Shield / Rest Platform	53
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80	2'x2' Ice Shield / Rest Platform	53
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80	L-Side Light / Obstruction Light	50
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80	L-Side Light / Obstruction Light	50
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	78.44	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	50
3' Sidearm(s)	78.44	3' Sidearm(s)	50
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	74.89	L-Side Light / Obstruction Light	50
3' Sidearm(s)	74.89	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	40
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	71.33	(3) 12' Gate Mount(s)	40
3' Sidearm(s)	71.33	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	40
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	67.78	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	40

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A529-50	50 ksi	65 ksi

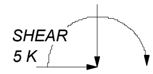
TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 40 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. Conservative ground elevation of 230' assumed.
8. Tower designed for step bolts up all three legs.
9. Tower designed for feedlines to be supported with waveguide ladder(s).
10. All bolted legs and/or weld together tower sections have flange connections.
11. Structural connections use galvanized A325 bolts and/or equivalent with nuts and/or nut locking devices. Installation per TIA/EIA-222 and AISC Specifications.
12. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
13. All structural steel welding will be in compliance with AWS D1.1 latest revision and fabricated with ER-70S-6 electrodes.
14. Structure is designed to arrange feedlines based on using stackable hangers currently available in the communications industry unless specified otherwise by customer. See plan view of sheet E-7 for feedline arrangement used for the design of this structure.
15. TOWER RATING: 97.3%

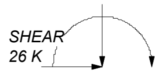
ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 185 K
SHEAR: 16 K

UPLIFT: -166 K
SHEAR: 15 K



TORQUE 2 kip-ft
40 mph WIND - 1.0000 in ICE

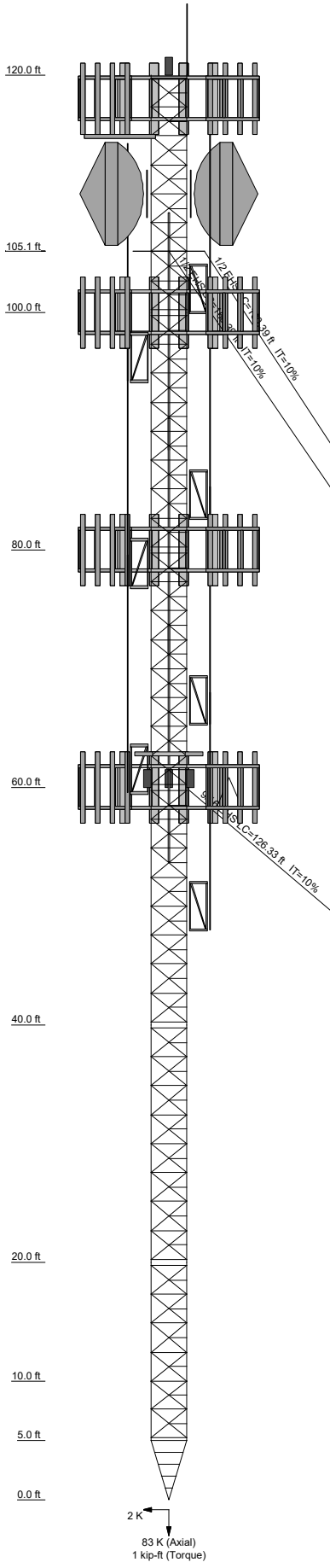


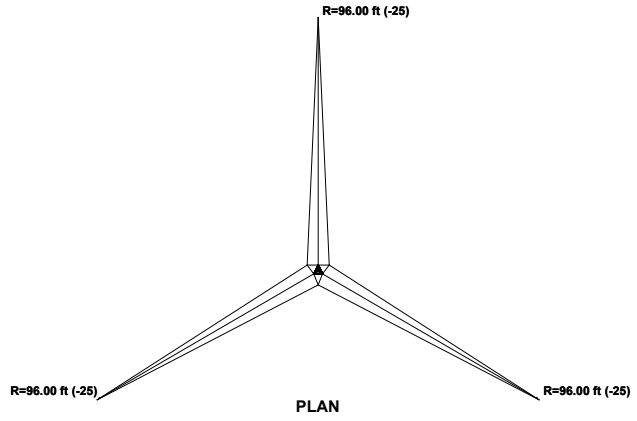
TORQUE 11 kip-ft
REACTIONS - 118 mph WIND

PTTG ALLSTATE TOWER Since 1919
Allstate Tower Inc.
P.O. Box 25
Henderson, KY. 42419
Phone: (270) 830 - 8512
FAX: (270) 228 - 4551

Job: ***WV-100SS-r1 : 2021 Matrix***			
Project: ***As Req'd***			
Client: State of WV.	Drawn by: Allstate Tower Inc.	App'd:	
Code: TIA-222-H	Date: 08/26/21	Scale: NTS	
Path:		Dwg No. E-1	

Section	T1	T2	T3	T4	T5	T6	T7	T8
Legs			SR 1 1/2					
Leg Grade			A572-50					
Diagonals		SR 3/4			SR 5/8			N.A.
Diagonal Grade			A572-50					N.A.
Top Girts			SR 3/4					3x5/8
Mid Girts			SR 3/4			N.A.		
Bottom Girts			SR 3/4			N.A.	SR 3/4	N.A.
Horizontals			SR 3/4				C4x5.4	
Sec. Horizontals			SR 5/8					N.A.
Top Guy Pull-Offs				N.A.				
Face Width (ft)				SR 1				
# Panels @ (ft)	4		44 @ 2.4375				2 @ 2.375	5 @ 1
Weight (K)	1.4	0.8	0.8	0.7	0.7	0.4	0.2	0.3





DESIGNED APPURTENANCE LOADING

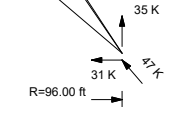
TYPE	ELEVATION	TYPE	ELEVATION
6' Lightning Rod	120	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80
L-Lighting Beacon	120	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	120	(3) 12' Gate Mount(s)	80
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	120	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	78.89
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	120	3' Sidearm(s)	78.89
(3) 12' Gate Mount(s)	120	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	73.11
Ice Shield For 08' Dish	115	3' Sidearm(s)	73.11
Ice Shield For 08' Dish	115	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	67.33
Leg Mounted 8' Dish Mount Assembly	110	3' Sidearm(s)	67.33
Leg Mounted 8' Dish Mount Assembly	110	2'x2' Ice Shield / Rest Platform	63
8' Std. Dish w/Radome (EW63)	110	2'x2' Ice Shield / Rest Platform	63
8' Std. Dish w/Radome (EW63)	110	2'x2' Ice Shield / Rest Platform	63
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	102	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	61.56
3' Sidearm(s)	102	3' Sidearm(s)	61.56
(3) 12' Gate Mount(s)	100	L-Side Light / Obstruction Light	60
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	L-Side Light / Obstruction Light	60
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100	L-Side Light / Obstruction Light	60
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	96.22	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
3' Sidearm(s)	96.22	(3) 12' Gate Mount(s)	60
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	90.44	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	60
3' Sidearm(s)	90.44	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	55.78
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	84.67	3' Sidearm(s)	55.78
3' Sidearm(s)	84.67	3' Sidearm(s)	50
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	80	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	50

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi			

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 118.00 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 40.00 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60.00 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. Conservative ground elevation of 230' assumed.
8. Tower is designed for integral climbing ladder.
9. Tower is designed for integral feedline tab(s).
10. All bolted legs and/or weld together tower sections have flange connections.
11. Structural connections use galvanized A325 bolts and/or equivalent with nuts and/or nut locking devices. Installation per TIA/EIA-222 and AISC Specifications.
12. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
13. All structural steel welding will be in compliance with AWS D1.1 latest revision and fabricated with ER-70S-6 electrodes.
14. Structure is designed to arrange feedlines based on using stackable hangers currently available in the communications industry unless specified otherwise by customer. See plan view of sheet E-7 for feedline arrangement used for the design of this structure.
15. ** Preliminary Design - Not For Construction **
16. TOWER RATING: 92.6%

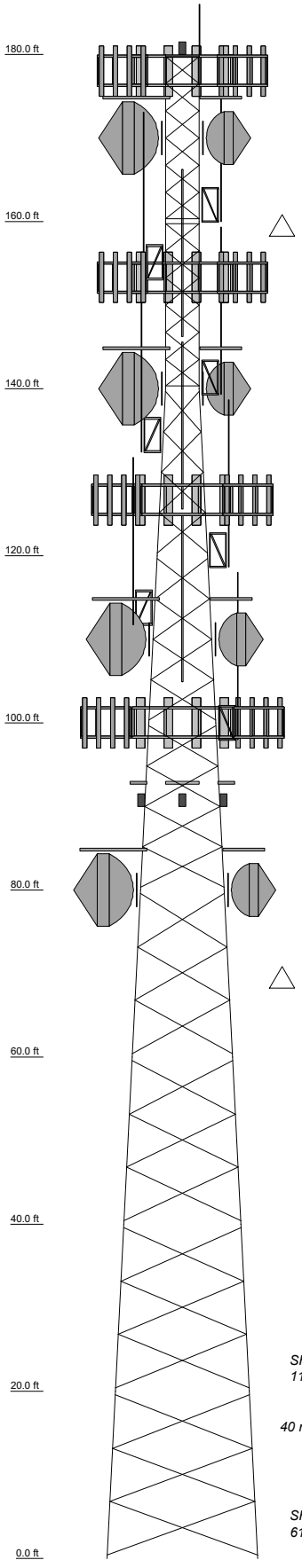


ALL REACTIONS ARE FACTORED

PTTG ALLSTATE TOWER Since 1919
Allstate Tower Inc.
P.O. Box 25
Henderson, KY. 42419
Phone: (270) 830 - 8512
FAX: (270) 228 - 4551

Job: ***WV-120GT-r1 : 2021 Matrix***			
Project: ***As Req'd***			
Client: State of WV	Drawn by: Allstate Tower Inc.	App'd:	
Code: TIA-222-H	Date: 08/25/21	Scale: NTS	
Path:		Dwg No. E-1	

Section	T7	T6	T5	T4	T3	T2	T1	L2	L1
Legs	SR 4 1/4		SR 4	SR 3 3/4	SR 3 1/4	SR 3	SR 2 3/4	SR 2 1/4	SR 1 3/4
Leg Grade				A572-50					
Diagonals	L3x3x1/4		L3x3x3/16		L2 1/2x2 1/2x3/16		L2x2x3/16		SR 7/8
Diagonal Grade				A529-50				A572-50	
Top Girts				N.A.					SR 7/8
Bottom Girts				N.A.					SR 7/8
Face Width (ft)	18	16	14	12	10	8	6	4	
# Panels @ (ft)		6 @ 6.375		6 @ 6.40278		8 @ 4.82292		4 @ 4.84375	12 @ 3.23611
Weight (K)	25.7	4.9	4.7	3.8	3.4	2.7	2.1	1.8	1.3	1.0



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
6' Lightning Rod	180	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	126.67
L-Lighting Beacon	180		
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	180	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	126.67
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	180	(3) 12' Gate Mount(s)	126.67
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	180	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	126.67
		3' Sidearm(s)	120.67
(3) 12' Gate Mount(s)	180	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	120.67
Ice Shield For 06' Dish	175	Ice Shield For 06' Dish	115
Ice Shield For 08' Dish	175	Ice Shield For 08' Dish	115
Leg Mounted 6' Dish Mount Assembly	170	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	113.78
Leg Mounted 8' Dish Mount Assembly	170	3' Sidearm(s)	113.78
6' Std. Dish w/Radome (EW63)	170	Leg Mounted 6' Dish Mount Assembly	110
8' Std. Dish w/Radome (EW63)	170	Leg Mounted 8' Dish Mount Assembly	110
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	162	6' Std. Dish w/Radome (EW63)	110
3' Sidearm(s)	162	8' Std. Dish w/Radome (EW63)	110
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	155.11	3' Sidearm(s)	106.89
3' Sidearm(s)	155.11	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	106.89
(3) 12' Gate Mount(s)	153.33	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	153.33	3' Sidearm(s)	100
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	153.33	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100
(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	153.33	(4) 4' x 1' Typ. Flat Panel Antenna(s) (1-5/8" Heliax)	100
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	148.22	(3) 12' Gate Mount(s)	100
3' Sidearm(s)	148.22	18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	100
Ice Shield For 06' Dish	145	2'x2' Ice Shield / Rest Platform	93
Ice Shield For 08' Dish	145	2'x2' Ice Shield / Rest Platform	93
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	141.33	2'x2' Ice Shield / Rest Platform	93
3' Sidearm(s)	141.33	L-Side Light / Obstruction Light	90
Leg Mounted 6' Dish Mount Assembly	140	L-Side Light / Obstruction Light	90
Leg Mounted 8' Dish Mount Assembly	140	L-Side Light / Obstruction Light	90
6' Std. Dish w/Radome (EW63)	140	Ice Shield For 08' Dish	85
8' Std. Dish w/Radome (EW63)	140	Ice Shield For 06' Dish	85
3' Sidearm(s)	134.44	Leg Mounted 8' Dish Mount Assembly	80
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	134.44	Leg Mounted 6' Dish Mount Assembly	80
3' Sidearm(s)	127.56	6' Std. Dish w/Radome (EW63)	80
18' Typ. Omni/Whip Antenna(s) (1-1/4" Heliax)	127.56	8' Std. Dish w/Radome (EW63)	80

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A529-50	50 ksi	65 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 40 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. Conservative ground elevation of 230' assumed.
8. Tower designed for step bolts up all three legs.
9. Tower designed for feedlines to be supported with waveguide ladder(s).
10. All bolted legs and/or weld together tower sections have flange connections.
11. Structural connections use galvanized A325 bolts and/or equivalent with nuts and/or nut locking devices. Installation per TIA/EIA-222 and AISC Specifications.
12. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
13. All structural steel welding will be in compliance with AWS D1.1 latest revision and fabricated with ER-70S-6 electrodes.
14. Structure is designed to arrange feedlines based on using stackable hangers currently available in the communications industry unless specified otherwise by customer. See plan view of sheet E-7 for feedline arrangement used for the design of this structure.
15. TOWER RATING: 94.9%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 413 K
SHEAR: 37 K

UPLIFT: -358 K
SHEAR: 33 K

AXIAL 128 K
SHEAR 11 K
MOMENT 1196 kip-ft

TORQUE 4 kip-ft
40 mph WIND - 1.0000 in ICE

AXIAL 63 K
SHEAR 61 K
MOMENT 6236 kip-ft

TORQUE 26 kip-ft
REACTIONS - 118 mph WIND

PTTG ALLSTATE TOWER (Since 1919)
Allstate Tower Inc.
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Phone: (270) 830 - 8512
FAX: (270) 228 - 4551

Job:	***WV-180SS-r1 : 2021 Matrix***		
Project:	***As Req'd***		
Client: State of WV.		Drawn by: Allstate Tower Inc.	App'd:
Code: TIA-222-H		Date: 08/26/21	Scale: NTS
Path:			Dwg No. E-1