TOWER DESIGN LOADING ACCORDING TO ANSI/TIA-222-H

3-SECOND GUST WIND SPEEDS AT 33 FT ABOVE GRADE (MPH) BASED ON DESIRED RISK CATEGORY
TOPOGRAPHIC CATEGORY 1, EXPOSURE CATEGORY B & C, Z_S = 0 FT. ANSI/TIA-222-H

SERIES	TOWER HEIGHT (FT)	TOWER KIT P/N	ALLOWABLE EFFECTIVE PROJECTED AREA, EPA (FT^2) 3-SECOND GUST WIND SPEED WITHOUT ICE (MPH)																				
			EXPOSURE B											EXPOSURE C									
			85	90	95	100	105	110	115	120	130	140	150	85	90	95	100	105	110	115	120	130	140	150
25G	40	25SS040	9	7	6	4	3	2	1	-	-	-	-	4	3	2	1	-	-	-	-	-	-	-
25G	35	25SS035	14	12	10	8	7	5	4	3	1	-	-	9	7	5	4	3	2	1	-	-	-	-
25G	30	25SS030	20	17	14	12	10	9	7	6	4	2	1	13	10	8	7	6	5	4	3	1	-	-
25G	20	25SS020	37	32	28	25	22	20	18	16	13	10	7	28	24	21	19	16	14	13	11	8	6	4
25G	10	25SS010	49	43	38	34	30	27	24	22	18	15	12	40	35	31	27	24	22	19	17	14	11	9
45G	45	45SS045	13	10	7	4	2	-	-	-	-	-	-	5	2	-	-	-	-	-	-	-	-	-
45G	40	45SS040	20	16	13	10	7	5	3	2	-	-	-	10	8	5	3	1	-	-	-	-	-	-
45G	35	45SS035	29	24	20	17	14	11	9	7	4	1	-	17	14	11	8	6	5	3	2	-	-	-
45G	30	45SS030	40	34	29	25	22	19	16	13	10	6	4	26	22	18	15	13	10	8	7	4	2	-
45G	20	45SS020	72	63	56	50	44	39	35	32	26	21	17	54	47	41	37	33	29	26	23	18	15	12
45G	10	45SS010	164	145	130	117	106	96	87	80	67	57	50	134	118	106	95	86	78	71	65	54	46	40
55G	50	55SS050	28	22	18	14	11	8	6	3	-	-	-	15	11	8	5	3	1	-	-	-	-	-
55G	45	55SS045	35	29	24	20	16	13	10	7	3	-	-	21	16	12	9	6	4	2	-	-	-	-
55G	40	55SS040	48	41	35	30	25	22	18	15	11	7	4	31	25	21	17	14	11	9	7	3	1	-
55G	35	55SS035	61	52	45	39	34	29	25	22	16	12	8	40	34	28	24	20	17	14	12	7	4	2
55G	30	55SS030	81	71	62	55	49	43	38	34	27	21	17	55	48	41	36	32	28	24	21	16	12	9
55G	20	55SS020	136	120	107	95	86	77	70	63	53	44	37	104	91	81	71	65	58	53	48	39	33	27
55G	10	55SS010	186	166	148	133	119	108	98	90	75	64	54	152	135	120	108	97	88	79	72	60	51	43
65G	60	65SS060	54	45	37	31	25	21	16	13	6	1	-	33	26	21	16	11	8	5	2	-	-	-
65G	55	65SS055	62	52	44	36	30	25	20	16	9	3	-	38	31	25	19	14	10	7	4	-	-	-
65G	50	65SS050	81	69	60	52	44	39	33	29	21	14	9	54	45	38	32	27	22	18	15	9	4	1
65G	45	65SS045	99	86	75	65	57	50	44	38	30	22	17	67	58	50	43	37	31	27	23	16	11	7
65G	40	65SS040	121	106	93	82	72	65	57	51	40	32	25	84	73	63	55	48	42	37	32	24	18	13
65G	35	65SS035	147	129	113	100	89	79	70	63	50	40	32	101	88	77	67	59	52	46	40	31	24	18
65G	30	65SS030	191	169	150	133	120	108	97	88	72	60	51	133	117	104	92	82	74	66	59	48	40	33
65G	20	65SS020	200	200	200	200	195	178	162	148	124	106	91	200	200	187	168	151	137	125	114	95	81	69
65G	10	65SS010	200	200	200	200	200	200	200	197	166	142	122	200	200	200	200	200	193	176	161	136	116	100
45GSR	60	45SR060	54	46	39	33	27	23	19	16	10	5	1	35	28	23	18	15	11	8	6	1	-	-
45GSR	55	45SR055	65	56	48	41	36	30	26	22	16	11	6	43	36	30	25	21	17	14	11	6	2	-
45GSR	50	45SR050	79	68	59	51	45	39	34	30	22	17	12	53	45	38	33	28	24	20	17	11	7	4
45GSR	45	45SR045	95	83	73	64	56	50	44	39	30	24	18	65	56	48	42	36	32	27	24	18	13	9
45GSR	40	45SR040	115	102	89	79	70	62	56	50	40	32	26	80	70	61	53	47	41	37	32	25	18	12
45GSR	35	45SR035	143	125	111	99	88	79	71	64	53	43	34	99	87	77	68	60	54	48	43	34	26	19
45GSR	30	45SR030	174	153	135	119	106	95	85	76	61	49	40	120	105	92	81	71	63	56	50	39	30	24
45GSR	20	45SR020	182	161	143	127	114	103	92	84	69	57	48	139	122	108	95	85	77	69	62	51	42	34
45GSR	10	45SR010	184	163	146	131	118	107	97	88	74	63	54	150	132	118	105	95	86	78	71	60	50	43

(3) 1/2 INCH LINES , (1) 3/8 INCH SAFETY CABLE MAXIMUM APPURTENANCE WEIGHT: 500 LBS WITHOUT ICE AND 1,000 LBS WITH ICE. TABULATED EPA VALUES INCREASED 100% FOR ICE LOADING CONDITION. k_a=1.0 FOR ALL TABULATED EPA

EARTHQUAKE LOADING CRITERIA

S_S = SPECTRAL RESPONSE ACCELERATION PARAMETER AT SHORT PERIODS
S_1 = SPECTRAL RESPONSE ACCELERATION PARAMETER AT 1 SECOND PERIOD
T_L = LONG PERIOD TRANSITION PERIOD
SITE CLASS D
ANSI/TIA-222-H

RISK CATEGORY	MAX S_S	MAX S_1	T_L
I	N/A*	N/A*	N/A*
II	1.00	0.50	6.00
III	0.80	0.40	6.00
IV	0.67	0.33	6.00

ICE LOADING CRITERIA

MAXIMUM RADIAL GLAZE ICE THICKNESS
CONCURRENT WITH 40 MPH 3-SECOND GUST
WIND SPEED 33 FT ABOVE GRADE
TOPOGRAPHIC CATEGORY 1
EXPOSURE CATEGORY C
ANSI/TIA-222-H

RISK CATEGORY	ASCE 7-16 500-YR MRI
I	N/A*
II	2.00
III	1.74
IV	1.6

*ICE AND EARTHQUAKE LOADING NEED NOT BE CONSIDERED FOR RISK CATEGORY I STRUCTURES.

GENERAL NOTES

1. THE SUITABILITY OF THE TABULATED TOWER DESIGN CRITERIA FOR A SPECIFIC APPLICATION MUST BE VERIFIED PRIOR TO INSTALLATION BY THE PURCHASER BASED ON SITE-SPECIFIC DATA AND THE INTENDED USE OF THE STRUCTURE.
2. ALL USERS ARE SOLELY RESPONSIBLE FOR THE INSTALLATION, USE, MAINTENANCE, INSPECTION, CONDITION ASSESSMENTS AND OTHER WORK TO BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE INDUSTRY, LOCAL, STATE AND FEDERAL REQUIREMENTS.
3. THE TABULATED ALLOWABLE EFFECTIVE PROJECTED AREAS (EPA) REPRESENT THE SUMMATION OF THE PROJECTED AREAS OF ALL ANTENNAS, MOUNTS, AND APPURTENANCES MULTIPLIED BY APPROPRIATE DRAG FACTORS. THE ALLOWABLE PROJECTED AREAS ARE ASSUMED TO BE PLACED SYMMETRICALLY ON THE STRUCTURE. LOWER EPA VALUES MAY APPLY FOR OTHER EPA ARRANGEMENTS.
4. THE FOLLOWING MATERIAL SPECIFICATIONS APPLY TO THE TOWER DESIGN:
   STRUCTURAL STEEL: 50 KSI MINIMUM YIELD STRENGTH
   FASTENERS: 120 KSI MINIMUM TENSILE STRENGTH
   ANCHOR RODS: 125 KSI MINIMUM TENSILE STRENGTH
   GALVANIZING: PER ANSI/TIA-222-H
5. TOWER FABRICATION SHALL BE BY ROHN PRODUCTS, LLC, CERTIFIED AISC FABRICATOR.
6. THE TOWER DESIGN ASSUMES INSTALLATION ON A PROPERLY DRAINED LEVEL SITE. THE TOWER DESIGN MAY REQUIRE MODIFICATIONS FOR INSTALLATIONS ON SITES WITH A SLOPING GRADE OR FOR TOWERS SUPPORTED ON OTHER STRUCTURES.
7. INSTALLATION SHALL BE IN ACCORDANCE WITH ANSI/TIA-222-H. INITIAL CONSTRUCTION INSPECTION REQUIREMENTS SHALL BE DETERMINED AND PERFORMED BY THE PURCHASER BASED ON THE LOCATION AND USE OF THE STRUCTURE.
8. SAFETY, STRENGTH AND STABILITY REQUIREMENTS FOR THE STRUCTURE FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES SHALL BE IN ACCORDANCE WITH ANSI/ASSE A10.48, "CRITERIA FOR SAFETY PRACTICES WITH THE CONSTRUCTION, DEMOLITION, MODIFICATION AND MAINTENANCE OF COMMUNICATION STRUCTURES" AND ALL APPLICABLE INDUSTRY, LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
9. ALL RIGGING, SAFETY EQUIPMENT AND TEMPORARY SUPPORTS REQUIRED FOR CONSTRUCTION AND MAINTENANCE SHALL BE DETERMINED, FURNISHED AND INSTALLED BY THE CONTRACTOR BASED ON THE MEANS AND METHODS CHOSEN BY THE CONTRACTOR. ALL CONSTRUCTION AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED BY COMPETENT, QUALIFIED AND TRAINED PERSONNEL.
10. FIELD CONNECTIONS SHALL BE BOLTED. NO FIELD WELDING SHALL BE ALLOWED.
11. UNLESS OTHERWISE SPECIFIED, BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION WITH A NUT-LOCKING DEVICE IN ACCORDANCE WITH ANSI/TIA-222-H WITH NO MINIMUM INSTALLED BOLT TENSION OR TORQUE VALUES REQUIRED.
12. A SAFETY CLIMB SYSTEM SHALL BE USED IN ACCORDANCE WITH ANSI/TIA-222-H. ALL CLIMBING FACILITIES, INCLUDING SAFETY CLIMB SYSTEMS, SHALL BE INSPECTED PRIOR TO EACH USE.
13. PURCHASER SHALL VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH ALL APPLICABLE INDUSTRY, LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR GROUNDING AND OBSTRUCTION MARKING.
14. MAINTENANCE AND CONDITION ASSESSMENTS SHALL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA-222-H.
15. FOUNDATIONS SHALL BE DESIGNED TO SUPPORT THE TABULATED FACTORED REACTIONS FOR THE CONDITIONS EXISTING AT THE SITE.
16. FOR 25G, 45G, 55G, 65G, AND 45GSR TOWER PROFILE DRAWINGS, REFER TO DRAWING NUMBER 25GSS, 45GSS, 55GSS, 65GSS, AND 45GSR, RESPECTIVELY.

FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP

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www.3starinc.com | sales@3starinc.com | Tel: (804) 550-7202

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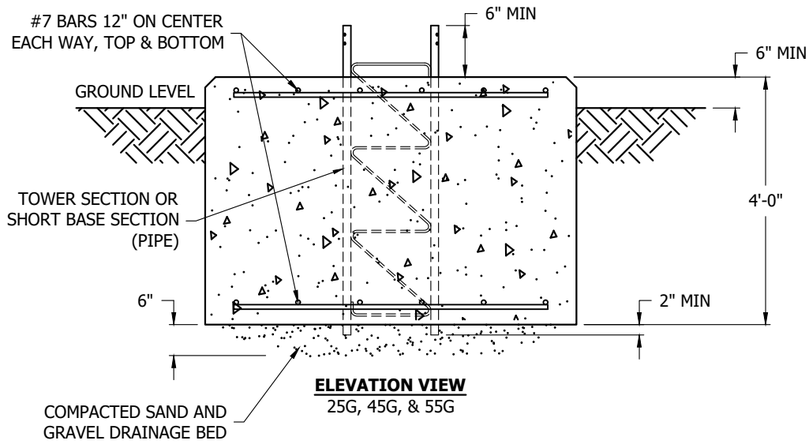
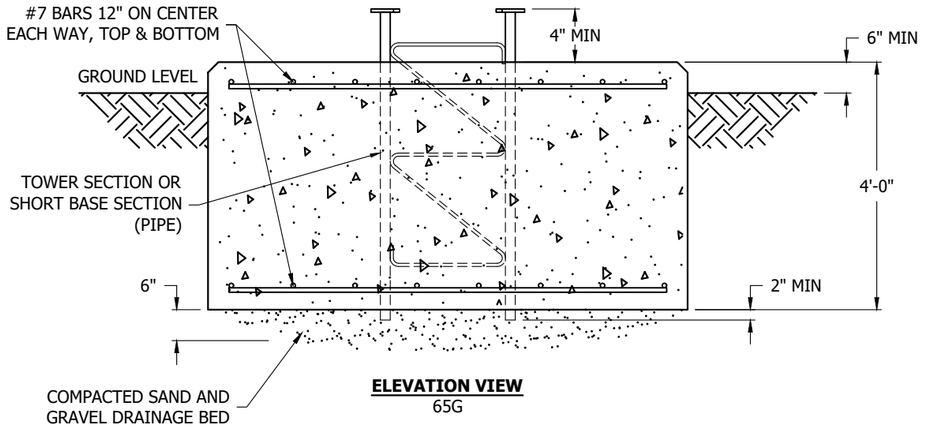
TOLL FREE 800-727-ROHN

G SERIES TOWER DESIGN LOADING
REV H

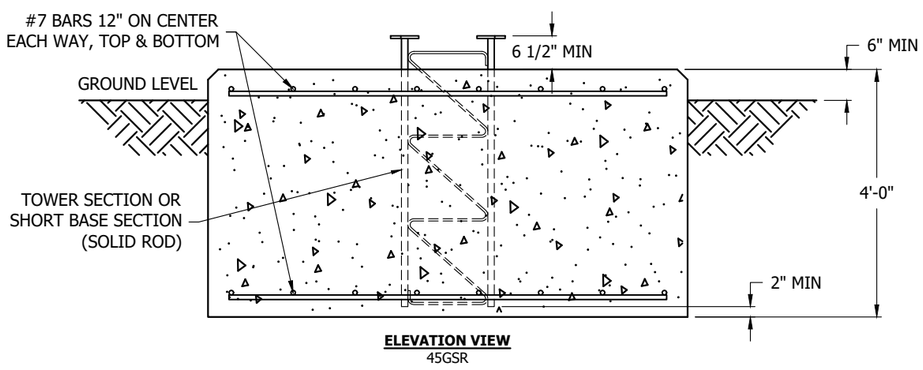
DWN:	CHK'D:	DATE:
JHY	CEJ	10/09/2023
ENG'R: SY	SHEET #: 1 OF 1	
PRJ. ENG'R: AS	PRJ. MANG'R:	
DRAWING NO: GS-CAT-H	REV: 0	



ELEVATION VIEW
25G, 45G, & 55G



ELEVATION VIEW
65G



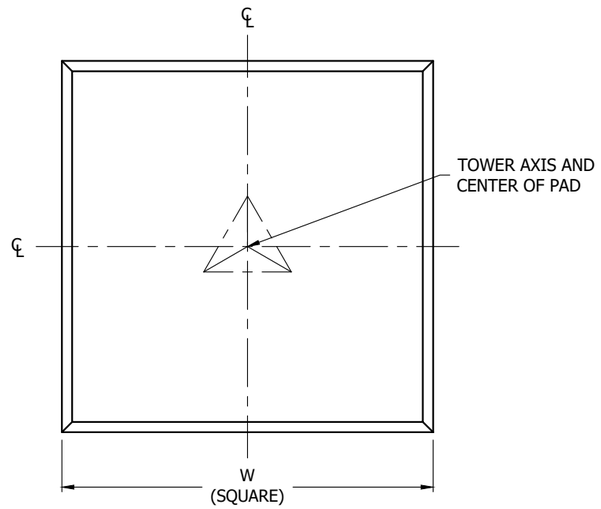
ELEVATION VIEW
45GSR

FOUNDATION DETAILS

TOWER NUMBER	OVER-TURNING MOMENT (FT-LBS)	TOTAL SHEAR (LBS)	MAT WIDTH "W"	CONCRETE VOLUME (CU. YDS.)
25G	7000	510	4'-0"	2.4
45G	12300	1000	5'-3"	4.1
55G	22100	1600	6'-0"	5.3
65G/45GSR	53100	3500	7'-9"	8.9

GENERAL NOTES:

1. FOR 25G, 45G, 55G, 65G, AND 45GSR TOWER ASSEMBLY DRAWINGS AND MAXIMUM TOWER HEIGHTS, REFER TO DRAWING NUMBER 25GSS, 45GSS, 55GSS, 65GSS, AND 45GSR RESPECTIVELY.



PLAN VIEW

FILE NO.
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REV.	DESCRIPTION	DWN	CHK	APP

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G SERIES MAT FOUNDATION

DWN:	CHK'D:	DATE:
JHY	JDM	10/02/2023
ENG'R: SY	SHEET #: 1 OF 1	
PRJ. ENG'R: JTS	PRJ. MANG'R:	
DRAWING NO: GS-CAT-FND		REV: 0

STANDARD FOUNDATION NOTES
ANSI/TIA-222-G/H

1. STANDARD FOUNDATION DESIGNS ARE IN ACCORDANCE WITH ANSI/TIA-222-G/H, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES" FOR THE FOLLOWING PRESUMPTIVE CLAY SOIL PARAMETERS:

N (blows/ft) [blows/m]	Φ (deg)	Y (lb/ft3) [kN/m3]	C (psf) [kPa]	Ultimate Bearing (psf) [kPa]		Ultimate Skin Friction (psf) [kPa]	k (pci) [kN/m3]	ε_{50}
				Shallow Fnds.	Deep Fnds.			
8 [26]	0	110 [17]	1000 [48]	5000 [240]	9000 [431]	500 [24]	150 [41,000]	0.01
GROUND WATER TABLE IS AT OR BELOW FOUNDATION DEPTH MAXIMUM FROST PENETRATION DEPTH LESS THAN FOUNDATION DEPTH								

2. THE PURCHASER SHALL VERIFY THAT ACTUAL SITE SOIL PARAMETERS MEET OR EXCEED ANSI/TIA-222-G/H PRESUMPTIVE CLAY SOIL DESIGN PARAMETERS AND THAT THE DEPTH OF STANDARD FOUNDATIONS ARE ADEQUATE BASED ON THE FROST PENETRATION AND/OR ZONE OF SEASONAL MOISTURE VARIATION AT THE SITE. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT PRESUMPTIVE CLAY SOIL PARAMETERS ARE NOT APPLICABLE FOR THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED.
3. A SITE-SPECIFIC INVESTIGATION IS REQUIRED FOR CLASS III STRUCTURES IN ACCORDANCE WITH ANSI/TIA-222-G/H.
4. FOUNDATION DESIGNS ASSUME FIELD INSPECTIONS WILL BE PERFORMED BY THE PURCHASER'S REPRESENTATIVE TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON THE CONDITIONS EXISTING AT THE SITE.
5. WORK SHALL BE IN ACCORDANCE WITH THE PROJECT CONSTRUCTION DOCUMENTS, LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.
6. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE STATE REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
7. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENT OF ACI 318 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. AS A MINIMUM, CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI (31.0 MPa) IN 28 DAYS.
8. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 3/4 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING SHALL BE UTILIZED TO PREVENT HONEYCOMBS OR VOIDS.
9. REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED. SPLICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED.
10. REINFORCING CAGES SHALL BE BRACED TO RETAIN PROPER DIMENSIONS DURING HANDLING, THROUGHOUT PLACEMENT OF CONCRETE AND DURING EXTRACTION OF TEMPORARY CASING.
11. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
12. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES (76 mm) UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH (76 mm) MINIMUM COVER ON REINFORCEMENT. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES (76 mm) NOR BE LESS THAN 2 INCHES (51 mm).
13. SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF VERTICAL REINFORCING CAGES TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.
14. FOUNDATION DESIGNS ASSUME STRUCTURAL BACKFILL TO BE COMPACTED IN 8 INCH (200 mm) MAXIMUM LAYERS TO 95% OF MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 110 POUNDS PER CUBIC FOOT (17 kN/m3).
15. FOUNDATION DESIGNS ASSUME AN INSTALLATION ON A PROPERLY DRAINED LEVEL SITE.
16. FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED INSTALLATION PRACTICES.
17. ALL CONSTRUCTION AND SAFETY EQUIPMENT AND TEMPORARY SUPPORTS REQUIRED FOR CONSTRUCTION SHALL BE DETERMINED, FURNISHED AND INSTALLED BY THE CONTRACTOR BASED ON THE MEANS AND METHODS CHOSEN BY THE CONTRACTOR. ALL CONSTRUCTION ACTIVITIES SHALL BE PREFORMED BY COMPETENT, QUALIFIED AND TRAINED PERSONNEL.
18. FOR FOUNDATION AND ANCHOR TOLERANCES SEE ANCHOR ROD LAYOUT DRAWING.
19. LOOSE MATERIAL SHALL BE REMOVED FROM BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT. SIDES OF EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
20. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS, INFILTRATION OF WATER OR SOIL AND OTHER OCCURRENCES WHICH MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.
21. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING SIDES OF EXCAVATION, FORMWORK, REINFORCING BARS, ANCHORAGES, FORM TIES, CAGE BRACING OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
22. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL EXCEPT FOR PIERS SUPPORTED ON SPREAD FOUNDATIONS. FORMS FOR PIERS SHALL BE REMOVED PRIOR TO PLACING STRUCTURAL BACKFILL.
23. CONSTRUCTION JOINTS, IF REQUIRED IN DRILLED PIER OR CAISSON FOUNDATIONS, SHALL BE AT LEAST 12 INCHES (305 mm) BELOW BOTTOM OF EMBEDMENTS AND MUST BE INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF 1/4 INCH (6 mm). FOUNDATION DESIGN ASSUMES NO OTHER CONSTRUCTION JOINTS.
24. CONSTRUCTION JOINTS, IF REQUIRED AT THE BASE OF PIERS SUPPORTED ON SPREAD FOUNDATIONS, SHALL BE INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF 1/4 INCH (6 mm). FOUNDATION DESIGN ASSUMES NO OTHER CONSTRUCTION JOINTS.
25. CASING, IF USED, SHALL NOT BE LEFT IN PLACE. EQUIPMENT, PROCEDURES, AND PROPORTIONS OF CONCRETE MATERIALS SHALL INSURE CONCRETE WILL NOT BE ADVERSELY DISTURBED UPON CASING REMOVAL. DRILLING FLUID, IF USED, SHALL BE FULLY DISPLACED BY CONCRETE AND SHALL NOT BE DETRIMENTAL TO CONCRETE OR SURROUNDING SOIL. CONTAMINATED CONCRETE SHALL BE REMOVED FROM TOP OF FOUNDATION AND REPLACED WITH FRESH CONCRETE.
26. TOP OF FOUNDATION SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISHED. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" X 3/4" (19 mm X 19 mm) MINIMUM.
27. FOR ANCHOR BLOCK TYPE FOUNDATIONS, FOR GUYED MASTS, ADDITIONAL CORROSION PROTECTION MAY BE REQUIRED FOR STEEL GUY ANCHORS IN DIRECT CONTACT WITH SOIL. DESIGN ASSUMES PERIODIC INSPECTIONS WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE TO DETERMINE IF ADDITIONAL ANCHOR CORROSION PROTECTION MEASURES SHALL BE IMPLEMENTED BASED ON OBSERVED SITE-SPECIFIC CONDITIONS.

FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
6	REVISED TO ANSI/TIA-222-G/H DATE: 1/28/2020	SWG	HA	HA

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ANSI/TIA-222-G/H
STANDARD FOUNDATION DESIGN NOTES

DWN:	CHK'D:	DATE:
FAD	HA	11/20/2009
ENG'R: HA	SHEET #: 1 OF 1	
PRJ. ENG'R:	PRJ. MANG'R:	
DRAWING NO: B090548	REV: 6	

FOUNDATION AND ANCHOR TOLERANCES

ALL FOUNDATIONS

1. CONCRETE DIMENSIONS: PLUS OR MINUS 1" (25mm)
2. DEPTH OF FOUNDATION: PLUS 3" (76mm) OR MINUS 0"
3. DRILLED FOUNDATIONS OUT OF PLUMB: 1.0°
4. REINFORCING STEEL PLACEMENT: PER A.C.I. 301
5. PROJECTION OF EMBEDMENTS: PLUS OR MINUS 1/8" (3mm)
6. VERTICAL EMBEDMENTS OUT OF PLUMB: 0.5°

ANCHOR BOLTS

7. MAXIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLTS TO CENTERLINE OF FOUNDATION: 1/24 OF PIER DIAMETER UP TO A MAXIMUM OF 2" (51mm)
8. ANCHOR BOLT SPACING: 1/16" (2mm)
9. ANCHOR BOLT CIRCLE ORIENTATION: 0.25°
10. ANCHOR BOLT CIRCLE DIAMETER: PLUS OR MINUS 1/16" (2mm)

SELF-SUPPORTING TOWERS

11. FACE SPREAD DIMENSION CENTER TO CENTER OF ANCHOR BOLT CIRCLES: PLUS OR MINUS 1/16" (2mm) OR 1/16" (2mm) PER 20 FT. (6m) OF FACE SPREAD
12. MAXIMUM DIFFERENCE BETWEEN ANY TWO FOUNDATION ELEVATIONS: 1/2" (13mm)

GUYED TOWERS

13. GUY RADIUS: PLUS OR MINUS 5% OF DISTANCE SPECIFIED
14. ANCHOR ELEVATION: PLUS OR MINUS 5% OF GUY RADIUS
15. ANCHOR ALIGNMENT (PERPENDICULAR TO GUY RADIUS): 1.0°
16. ANCHOR ROD SLOPE: PLUS OR MINUS 1.0°
17. ANCHOR ROD ALIGNMENT WITH GUY RADIUS: PLUS OR MINUS 1.0°
18. ANCHOR HEAD OUT OF PLUMB: 1.0°
19. GUY INITIAL TENSION: PLUS OR MINUS 10% OF TENSION SPECIFIED

NOTE: TOLERANCES IN NOTES 13 AND 14 CAN NOT OCCUR SIMULTANEOUSLY.

FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
10	REMOVED WARNING TEXT DATE: 01/12/2017	MJH	JDM	HA

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