

90 MPH 3-SECOND GUST WIND SPEED															
HEIGHT (FT)	25G			45G			45GSR			55G			65G		
	EPA		PART NO.	EPA		PART NO.	EPA		PART NO.	EPA		PART NO.	EPA		PART NO.
	EXP. B	EXP. C		EXP. B	EXP. C		EXP. B	EXP. C		EXP. B	EXP. C		EXP. B	EXP. C	
10	26.8	21.3	25SS010	60.0	47.5	45SS010	95	84	45SR010	80	79	55SS010	95	95	65SS010
20	18.5	13.4	25SS020	31.3	22.7	45SS020	95	71	45SR020	56	42	55SS020	95	95	65SS020
30	7.9	4.1	25SS030	16.1	8.4	45SS030	87	58	45SR030	34	21	55SS030	95	71	65SS030
35	4.4	1.2	25SS035	9.8	3.8	45SS035	76	52	45SR035	25	14	55SS035	80	54	65SS035
40	1.3	-	25SS040	4.9	-	45SS040	60	40	45SR040	17	8	55SS040	62	41	65SS040
45				0.7	-	45SS045	48	31	45SR045	11	3	55SS045	48	30	65SS045
50							38	23	45SR050	5	-	55SS050	37	21	65SS050
55							29	16	45SR055				28	14	65SS055
60							22	11	45SR060				20	7	65SS060

100 MPH 3-SECOND GUST WIND SPEED															
HEIGHT (FT)	25G			45G			45GSR			55G			65G		
	EPA		PART NO.	EPA		PART NO.	EPA		PART NO.	EPA		PART NO.	EPA		PART NO.
	EXP. B	EXP. C		EXP. B	EXP. C		EXP. B	EXP. C		EXP. B	EXP. C		EXP. B	EXP. C	
10	20.7	16.4	25SS010	47.4	39.5	45SS010	82	66	45SR010	78	63	55SS010	95	95	65SS010
20	14.0	9.9	25SS020	23.2	16.9	45SS020	74	55	45SR020	43	32	55SS020	95	95	65SS020
30	5.3	2.2	25SS030	9.7	4.8	45SS030	66	43	45SR030	24	14	55SS030	81	55	65SS030
35	2.1	-	25SS035	5.1	0.7	45SS035	59	38	45SR035	17	8	55SS035	61	40	65SS035
40				1.2	-	45SS040	46	30	45SR040	10	3	55SS040	47	29	65SS040
45							35	22	45SR045	5	-	55SS045	35	20	65SS045
50							27	15	45SR050				26	13	65SS050
55							20	9	45SR055				17	6	65SS055
60							13	4	45SR060				11	1	65SS060

110 MPH 3-SECOND GUST WIND SPEED															
HEIGHT (FT)	25G			45G			45GSR			55G			65G		
	EPA		PART NO.	EPA		PART NO.	EPA		PART NO.	EPA		PART NO.	EPA		PART NO.
	EXP. B	EXP. C		EXP. B	EXP. C		EXP. B	EXP. C		EXP. B	EXP. C		EXP. B	EXP. C	
10	16.5	12.7	25SS010	39.4	31.9	45SS010	67	53	45SR010	63	51	55SS010	95	95	65SS010
20	10.6	7.2	25SS020	18.3	12.3	45SS020	59	43	45SR020	34	25	55SS020	95	81	65SS020
30	3.1	0.4	25SS030	6.5	1.9	45SS030	51	32	45SR030	17	9	55SS030	65	43	65SS030
35				1.7	-	45SS035	45	27	45SR035	11	4	55SS035	48	30	65SS035
40							35	22	45SR040	5	-	55SS040	35	21	65SS040
45							26	15	45SR045				25	13	65SS045
50							19	9	45SR050				17	7	65SS050
55							13	4	45SR055				10	-	65SS055
60							7	-	45SR060				4	-	65SS060

GENERAL NOTES:

1. TOWER DESIGNS ARE IN ACCORDANCE WITH APPROVED NATIONAL STANDARD ANSI/TIA-222-G, STRUCTURE CLASS I, EXPOSURES B AND C, TOPOGRAPHIC CATEGORY 1.
2. ALL TOWERS MUST HAVE "FIXED" BASES. PINNED BASES MAY NOT BE USED.
3. TOWER DESIGNS ASSUME TRANSMISSION LINES SYMMETRICALLY PLACED AS FOLLOWS:

25G TOWER - ONE 5/8" LINE ON EACH FACE (TOTAL = 3

45G TOWER - ONE 7/8" AND ONE 1/2" LINE ON EACH FACE (TOTAL = 3 @ 7/8" & 3 @ 1/2")

45GSR, 55G, & 65G TOWERS - TWO 7/8" LINES ON EACH FACE (TOTAL = 6)
4. ANTENNAS AND MOUNTS ASSUMED SYMMETRICALLY PLACED AT TOWER APEX.
5. THE SUITABILITY OF A ROHN STANDARD DESIGN AND STANDARD FOUNDATION FOR A SPECIFIC APPLICATION MUST BE VERIFIED BY THE PURCHASER BASED ON SITE-SPECIFIC DATA IN ACCORDANCE WITH ANSI/TIA-222-G.
6. THE EFFECTIVE PROJECTED AREA AND LINES TO BE INSTALLED MUST NOT EXCEED THE DESIGN VALUES FOR THE STRUCTURE.
7. DO NOT INSTALL OR DISMANTLE TOWERS WITHIN FALLING DISTANCE OF ELECTRICAL AND/OR TELEPHONE LINES.
8. TOWER ERECTION AND DISMANTLING MUST BE DONE BY QUALIFIED AND EXPERIENCED PERSONNEL.
9. INSTALLATION MUST BE GROUNDED IN ACCORDANCE WITH LOCAL AND NATIONAL CODES. ANSI/TIA-222-G REQUIRES THAT THE RESISTANCE TO GROUND MUST NOT EXCEED 10 Ohms. ADDITIONAL GROUNDING MAY BE REQUIRED IN ADDITION TO GROUNDING KITS PROVIDED BY ROHN.
10. INSTALL WARNING PLATE (P/N ACWS) IN A HIGHLY VISIBLE LOCATION.
11. FOR FOUNDATION DETAILS AND GENERAL FOUNDATION NOTES, BASED ON ANSI/TIA-222-G PRESUMPTIVE CLAY SOIL, SEE DRAWINGS DWG-0128 AND B090548 RESPECTIVELY.
12. FOR 25G, 45G, 55G, AND 65G TOWER PROFILE DRAWINGS, REFER TO DRAWING NUMBER 25GSS, 45GSS, 55GSS, AND 65GSS, RESPECTIVELY.
13. STRUCTURES SUPPORTED ON BUILDINGS OR OTHER STRUCTURES REQUIRE SPECIAL CONSIDERATION. DESIGNS ASSUME STRUCTURES ARE INSTALLED ON LEVEL FLOOR.
14. DESIGN ASSUMES MAINTENANCE AND INSPECTION WILL BE PREFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA-222-G. ALL TOWERS SHOULD BE THOROUGHLY INSPECTED BY QUALIFIED PERSONNEL AND RE-MARKED AS REQUIRED WITH APPROPRIATE DANGER AND ANTI-CLIMB LABELS AT LEAST TWICE A YEAR TO ENSURE SAFETY AND PROPER PERFORMANCE.
15. STANDARD DESIGNS ARE INTENDED TO BE CLIMBED BY SKILLED AND COMPETENT CLIMBERS ONLY. A SAFETY CLIMB SYSTEM, BY OTHERS, IS REQUIRED FOR ALL STRUCTURES TO BE ORDERED SEPARATELY.
16. THE TOLERANCE ON INSTALLED HEIGHT IS EQUAL TO PLUS 1% AND MINUS 1/2%.
17. INSTALLATION MUST BE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKING AND LIGHTING.

FILE NO.

REV.

DESCRIPTION

DWN

CHK

APP

2


UPDATED NOTES

DATE: 7/19/2013

ZAW

JDM

HA



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SELF-SUPPORTING G SERIES TOWERS  
REV. G EFFECTIVE PROJECTED AREAS  
(90-110 MPH 3-SEC GUST, NO ICE)

DWN: JHY

CHK'D: JDM

DATE: Oct/12/2012

ENG'R: HA

SHEET #: 1 OF 1

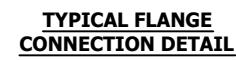
PRJ. ENG'R: SSM

PRJ. MANG'R:

DRAWING NO: DWG-0617

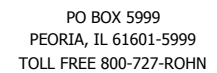
REV: 2

1. REFER TO DRAWING NO. DWG-0617 FOR TOWER EFFECTIVE PROJECTED AREAS AND GENERAL NOTES.
2. REFER TO DRAWING NO. DWG-0128 FOR FOUNDATION DETAILS.
3. REFER TO DRAWING NO. B090548 FOR STANDARD FOUNDATION NOTES.
4. REFER TO DRAWING NO. A810214 FOR FOUNDATION AND ANCHOR TOLERANCE.



## REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	REMOVED NOTE #5  DATE: 3/3/2015	JHY	MDF	HA




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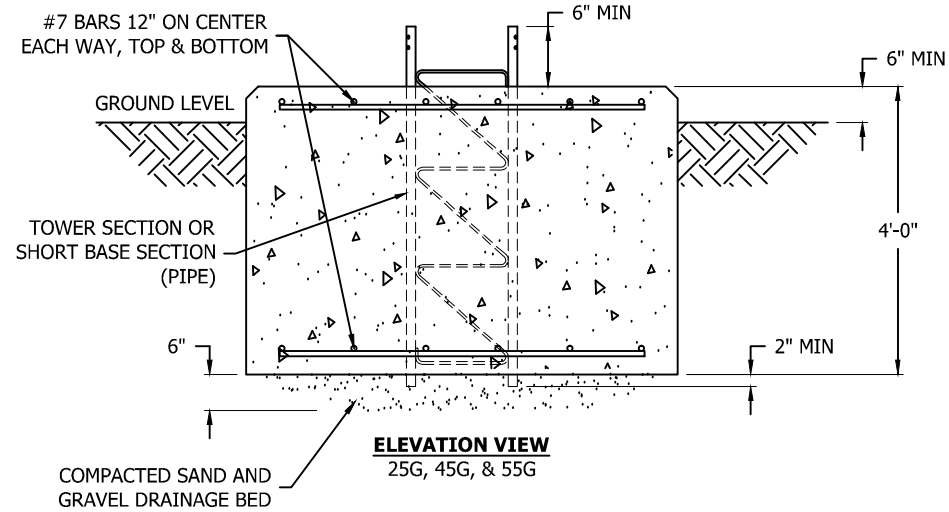
DWN: JHY	CHK'D: KTL	DATE: 3/2/2015
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PRJ. ENG'R:	PRJ. MANG'R:
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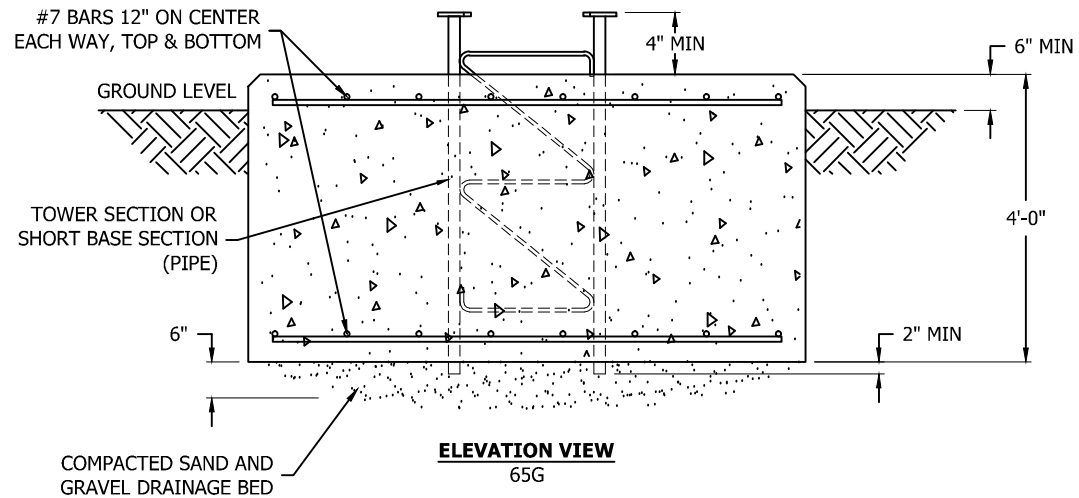
DRAWING NO:	REV:
45GSRSS	1



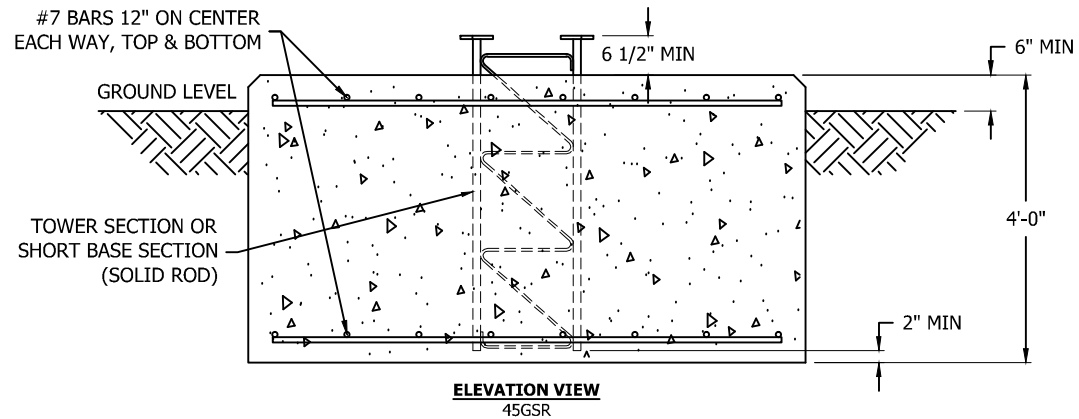
FILE NO.				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
1	REMOVED NOTE #5 DATE: 3/3/2015	JHY	MDF	HA
<div><p>PO BOX 5999 PEORIA, IL 61601-5999 TOLL FREE 800-727-ROHN</p></div>				
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45GSR SERIES TOWER ASSEMBLY 10' - 60'				
DWN: JHY		CHK'D: KTL	DATE: 3/2/2015	
ENG'R: HA		SHEET #: 2 OF 2		
PRJ. ENG'R:		PRJ. MANG'R:		
DRAWING NO: 45GSRSS			REV: 1	



**ELEVATION VIEW**  
25G, 45G, & 55G



**ELEVATION VIEW**  
65G

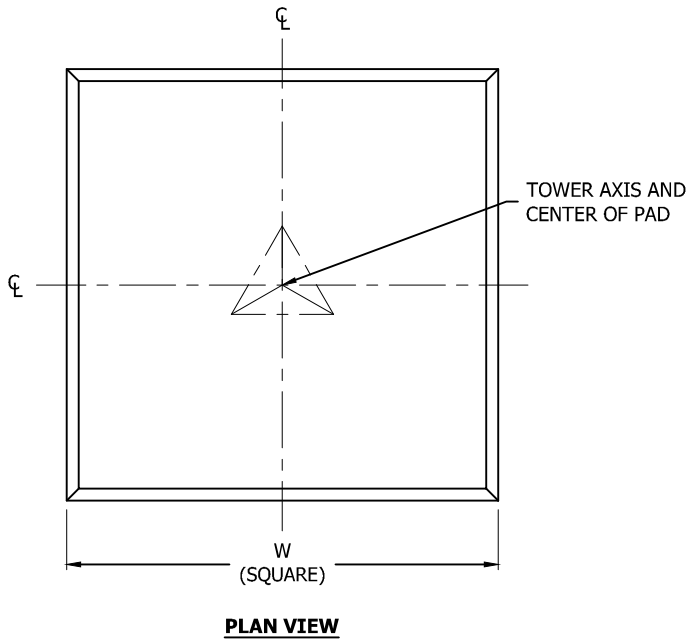


**ELEVATION VIEW**  
45GSR

FOUNDATION DETAILS				
TOWER NUMBER	OVER-TURNING MOMENT (FT-LBS)	TOTAL SHEAR (LBS)	MAT WIDTH "W"	CONCRETE VOLUME (CU. YDS.)
25G	7000	500	4'-0"	2.4
45G	12300	1000	5'-3"	4.1
55G	22100	1600	6'-0"	5.3
45GSR/65G	53100	3500	7'-9"	8.9

**GENERAL NOTES:**

- FOR STANDARD FOUNDATION NOTES, SEE DRAWING NUMBER B090548.
- FOR 25G, 45G, 55G, 65G, AND 45GSR TOWER ASSEMBLY DRAWINGS AND MAXIMUM TOWER HEIGHTS, REFER TO DRAWING NUMBER 25GSS, 45GSS, 55GSS, 65GSS, AND 45GSRSS RESPECTIVELY.



FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
3	ADDED 45GSR ELEVATION VIEW	JHY	CTL	HA
DATE: 3/2/2015				

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FOUNDATION  
MAT FND FOR SS G SERIES TOWERS

DWN:	CHK'D:	DATE:
FAD	HA	5/27/2010

ENG'R:	SHEET #:
HA	1 OF 1

PRJ. ENG'R:	PRJ. MANG'R:
-------------	--------------

DRAWING NO:	REV:
DWG-0128	3

STANDARD FOUNDATION NOTES  
ANSI/TIA-222-G

1. STANDARD FOUNDATION DESIGNS ARE IN ACCORDANCE WITH ANSI/TIA-222-G, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES", SECTION 9 AND ANNEX F FOR THE FOLLOWING PRESUMPTIVE CLAY SOIL PARAMETERS:

N (blows/ft) [blows/m]	$\Phi$ (deg)	Y (lb/ft <sup>3</sup> ) [kN/m <sup>3</sup> ]	C (psf) [kPa]	Ultimate Bearing (psf) [kPa]		Ultimate Skin Friction (psf) [kPa]	k (pci) [kN/m <sup>3</sup> ]	$\epsilon_{50}$
				Shallow Fnds.	Deep Fnds.			
8 [26]	0	110 [17]	1000 [48]	5000 [240]	9000 [431]	500 [24]	150 [41,000]	0.01

2. THE PURCHASER MUST VERIFY THAT ACTUAL SITE SOIL PARAMETERS MEET OR EXCEED ANSI/TIA-222-G PRESUMPTIVE CLAY SOIL DESIGN PARAMETERS AND THAT THE 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.
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 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 CHAPTER 4 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 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL 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 100 POUNDS PER CUBIC FOOT (16 kN/m3).
15. FOUNDATION DESIGNS ASSUME LEVEL GRADE AT THE 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. FOR FOUNDATION AND ANCHOR TOLERANCES SEE DRAWING A810214.
18. LOOSE MATERIAL SHALL BE REMOVED FROM BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT. SIDES OF EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
19. 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.
20. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING SIDES OF EXCAVATION, FORMWORK, REINFORCING BARS, FORM TIES, CAGE BRACING OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
21. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL EXCEPT FOR PIERS OR PIER AND PAD FOUNDATIONS. FORMS FOR PIERS SHALL BE REMOVED PRIOR TO PLACING STRUCTURAL BACKFILL.
22. CONSTRUCTION JOINTS, IF REQUIRED IN PIER MUST 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.
23. 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.
24. 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.
25. FOR ANCHOR BLOCK TYPE FOUNDATIONS, FOR GUYED TOWERS, 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 MUST BE IMPLEMENTED BASED ON OBSERVED SITE-SPECIFIC CONDITIONS.

FILE NO.

REV.

DESCRIPTION

DWN

CHK

APP

2

REVISED NOTE 7 TO 4500 PSI  
  
DATE: 2/10/2014

JHY

HA

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ANSI/TIA-222-G  
STANDARD FOUNDATION NOTES

DWN:  
FAD

CHK'D:  
HA

DATE:  
Nov/20/2009

ENG'R:  
HA

SHEET #:  
1 OF 1

PRJ. ENG'R:

PRJ. MANG'R:

DRAWING NO:  
B090548

REV:  
2

FILE NO.						
Standard-SSV						
REVISIONS						
REV.	DESCRIPTION			DWN	CHK	APP
8	REDRAWN TO AUTOCAD			JDA	JDM	H.A
DATE: Jul/17/2006						
DWG REFERENCE						