Sabre Site Solutions™
A Division of Sabre Communications Corporation

Series UL Self-Supporting Tower
Caisson Foundation
For EIA Normal 4000 PSF Soil

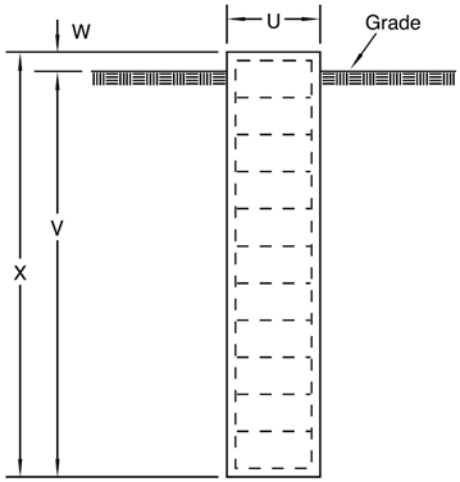
Concrete and Rebar Data

Foundation Designator	A	B	C	D	E
Diameter of Caisson (ft.) (U)	2.5	2.5	2.5	2.5	2.5
Ht. of Caisson Below Grade (ft.) (V)	11.0	13.0	18.0	23.0	27.0
Ht. of Caisson Above Grade (ft.) (W)	0.5	0.5	0.5	0.5	0.5
Total Height of Caisson (ft.) (X)	11.5	13.5	18.5	23.5	27.5
Vertical Rebars (Qty & Size)	(6) #7	(6) #7	(10) #8	(10) #8	(10) #8
Required Cu. Yds. Concrete (3 Fnds.)	6.27	7.35	10.08	12.81	15.00

Anchor Bolt Data

Foundation Designator	A	B	C	D	E
Anchor Bolt Size (in.)	0.75	0.75	0.75	0.75	1.00
Anchor Bolt Qty (3 Fnds.)	12	12	12	12	12
Diameter of Bolt Circle (in.)	5.25	6.50	6.50	6.50	8.50

Elevation View (3 required)



Two (2) #4 ties are required within the top 5-in of the pier and are spaced on 12-in centers thereafter.

Notes:

1. Concrete to conform to the requirements of ACI 318-02 and shall have a minimum 28-day compressive strength of 3,000 psi. All concrete is to be placed against undisturbed soil free of water and any foreign materials.
2. Rebar to conform to the requirements of ASTM Specification A615 Grade 60. All rebar to have a minimum of 3-in (7.62-cm) concrete cover.
3. All exposed concrete corners to be chamfered ¾-in.
4. Foundations designed in accordance with ANSI/TIA/EIA-222-F-1996 using the following:
   a. ⅓ allowable stress increase considered
   b. Allowable net vertical bearing capacity = 4000 psf
   c. Allowable net horizontal pressure = 400 psf/ft. depth (to a maximum of 4000 psf)
   d. Soil density = 100 pcf
   e. Concrete density = 150 pcf
   f. Water table located below bottom of foundation
   g. Frost depth less than depth to bottom of foundation
   h. For uplift capacity, weight of foundation plus weight of soil enclosed within an inverted pyramid or cone whose sides form an angle of 30-degrees with the vertical.
5. A soil analysis should be performed to determine the appropriate site specific parameters to be used for design of the foundations. Foundation designs should be evaluated by a competent registered professional engineer for each particular application.