

Dixie Precast, Inc.

DP-16B Quad Mast Cantilever Foundation

Installation Instructions





1. Layout the foundation excavation area in compliance with railroad standards and specifications, including allowances for proper clearances and in accordance with the project drawings.



1 DP-16B Elevation View

	∫ 7'0" X 7'0"	4,200 lbs.	Mk. Top	8"
	6'6" X 6'6"	3,200 lbs.	Mk. # 3 /	6"
	6'6" X 6'6"	3,200 lbs.	Mk. # 3	6'
	6'6" X 6'6"	3,200 lbs.	Mk. # 3	6'
	6'6" X 6'6"	3,200 lbs.	Mk. # 3	6'
	6.e., X e.e.,	3,200 lbs.	Mk. # 3	6'
	6'e" X 6'e"	3,200 lbs.	Mk. # 3	6'
	e.e., x e.e.,	3,200 lbs.	Mk. # 3	6
	e.e., x e.e.,	3,200 lbs.	Mk. # 3	6
	6'e" X 6'e"	3,200 lbs.	Mk. # 3	6'
	e.e. x e.e.	3,200 lbs.	Mk. # 3	6'
3	9" X 7'6" (X 2)	2,000 lbs. (X 2)	Mk. # 2 (X 2)	6 <u>1</u>
ß	9" X 7'6" 2,300 lbs.	Mk. Base3'9" X 7'6"	2,300 lbs. Mk. Base	62



- 2. Determine the required depth of the excavation. The overall height of the DP-16B Foundation is 5'-9". Excavation depth should be made in accordance with specific railroad standards for the location of the top of the foundation (i.e. top of the tie, top of the rail, etc.).
- 3. Excavate for the foundation, allowing ample space for the installation of the base sections. The minimum excavation area should be 7'-6" X 7'-6". Several inches around the area should be excavated to facilitate proper alignment of the foundation. Level the bottom of the excavation to insure proper alignment of the foundation.



4. The DP-16B series foundations have a 2 piece split base. The base sections will be stenciled on the side of the slab with the marking "Mk. DP-4B Base". To lift, insert the lifting eyes into the inserts that are cast in the base section. Through the use of a four point sling or chain, hook each lifting eye and lower the each base section into place. The base sections are identical in design. IMPORTANT: The perpendicular side should be placed so that the side will be parallel to each other. The angled sides will be along the exterior sides of the foundation. The second base section is set into place with an approximate $\frac{1}{2}$ " – 1" gap between the slabs. Note that the weight of each piece is stenciled on the piece.







5. Check the alignment of the base section with the track, making sure the base is aligned properly in accordance with the standards. Check the top of the base after installation for level and make any necessary adjustments by adding or removing fill material under the base. Remove the lifting eyes for reuse.





6. Install the anchor bolts into the foundation bases. The anchor bolts will "bottom out" when installed properly. The base plate design eliminates the need to torque the bolts.



7. Sweep any debris from the top of the base sections prior to the placement of the # 2 sections. The next layer consists of 2 each of the # 2 sections. The gap in the # 2 section layer should be perpendicular to the gap in the base layer. Secure the sling/chain to the cast in place lifting pockets for proper lifting. Set the # 2 section in place, aligning the anchor bolts with the bolt holes in the slab. The Bolt Alignment Tool allows the bolts to be safely adjusted to align with holes in the slab. Lower the # 2 section onto the base. Perform the same procedure with the second # 2 section.







8. Sweep the top of each layer prior to setting the next piece. Locate and prepare the # 3 Sections for installation. The chain sling should be secured to the lifting pockets and the # 3 section lowered into place, aligning all 16 bolts with the openings in the slab. Repeat this procedure for all remaining # 3 sections (4 total for the DP-16B, 8 total for the DP-16B-8, and a total of 10 for the DP-16B-10).









9. For the DP-16B model only, a level of "spider" sections is required. The spider section is lifted through the use of the lifting eyes installed into the cast in place inserts. A spider is set on each group of 4 bolts. Orient the cable chute in the top of the spider to align with the direction the cable/conduit knockouts in the top section. This will insure that the cable entry into the bottom of the mast through the foundation is facilitated.



10. The top is then lifted and set in place, again through the use of the lifting eyes. After the top has been set in place, install a flat washer, lock washer, and nut on each bolt. After tightening, install the lower leveling nuts and associated hardware prior to installation of the structure.







11. Backfill the foundation with the excavated material, tamping (can be accomplished with the backhoe bucket) the material to eliminate any voids and to reduce the settlement of the ground around the foundation.