

American Porch Lamp Post Installed on Existing Steel Pole

Wanted to replace original-to-house (1965) 3" steel lamp post pole with more attractive tapered lamp post from American Porch (AP). Pole was crooked and defied efforts to straighten it.



Found on excavating around the pole that there was a giant tree root about 6" below grade that had pushed the pole out of plumb. Also determined that 20" down there was something hard, all around the perimeter of the pole. Probably concrete. So, other than through major excavation, there would be no practical way to fully replace the pole.



Measured that the steel pole in the ground and the aluminum pole in the AP post were identical dimensions: 3" OD and 2.875" ID. Also found that heavy-duty Schedule 80 PVC conduit had an OD of 2.875". Purchasing a 10' length of that (\$28), I found that making a single axial cut on a sample on a table saw yielded a nice snug fit in both the steel and the aluminum.



Using a long, tubular metal pole to shield the internal wires, I sliced through the old pole about 2" below grade using my Harbor Freight grinder with a 3" cut off disk. After measuring the pole (3X to be sure), I used a circular saw set to cut just shy of the internal pole to make four cuts through the base, so as to leave 2" of metal pole exposed. A chisel cleaned things up. A 3" band connector (\$11 on eBay), used for butt joints on auto exhaust pipes, would be used to connect the remaining steel pole with the extended aluminum pole in the AP post, after the new post was slipped over a 4' piece of the split PVC inserted into the old post.

I wanted to insert a GFI outlet in the base of the post, so I first practiced on a 1' piece of the AP post I'd cut of the bottom (since I only needed 60" above grade) and practiced routing a proper rectangular space for the weather-proof metal outlet box (\$25 at Home Depot). The actual post was routed, then painted, prior to placement.



I drilled a small hole in the center of the cut-out for the outlet box, put the post onto the PVC, used my iPhone compass to orient the post properly, and drilled through the outlet box hole and into the PVC. Removing the post I used those small holes as guides for a 1.5" hole saw to put holes in both the aluminum pole in the post and the PVC, again shielding the wire with a metal tube. These larger holes were to accommodate the wiring clamp screwed into the outlet box.

Placing the post on the PVC for a final time, slipping the trim piece over it and aligning those outlet box holes, I used the string I had attached to the original Romex, which I bent near the top of the PVC back downward, to pull it through the hole. I used that same string to fish another piece of Romex from the outlet box to the top of the pole for the lamp.

Once the wires were secured by the clamp and the box secured with two screws into its recess, I completed the wiring of the GFI outlet and turned on the power to test it, before turning off the power, fixing the receptacle into the box and adding the water-proof cover.

Turning to the top, I put the old lamp into place, marked the position for the three stainless steel attachment screws, removed the lamp and carefully drilled holes for the screws in the extended aluminum pole. Connecting the three wires to the lamp fixture, putting it in place and adding a dusk-to-dawn 800 lumen LED (\$8.00 at Target) left only the based trim to complete.

I should have attached support strips for the trim to the bottom of the lamp post base before final placement, but instead, after installing shim pieces (the trim piece was much too loose a fit), I used an air nailer to attached it to the post. After backfilling the hole with #2 stone and stone dust, I filled the nail holes, caulked the trim piece and the outlet box, and then touched up the paint.

