

The Big Train Project Status Report (Part 109)

This month's article describes the second part of a project recently completed on the EnterTRAINment Junction (EJ) layout -- lighting the marquee on the Middle City's Fox Theater (Figure 1). As mentioned last time, this EJ building was modeled roughly after the Fox Theater in Detroit, Michigan. (See <http://buildingphotos.com/venues/fox-detroit.php>, if you're interested.)

The key to the planned upgrade was to use the original sign and marquee, modifying them as necessary with appropriate lighting. The plan was to remove the original parts and replace them temporarily with mockups made up mostly of Gatorboard® covered with appropriately sized printouts from photos of the original parts. The lighting would be installed in the originals, the mockups would be removed, and the modified original would be returned to their proper places.

Attempting to remove the marquee brought the first surprise. When the two screws we thought held it to the wall were removed, it did not come loose. It took some "judicious" prying with a putty knife behind the marquee, to finally break it loose. In the process, we had separated it from its back panel, which in addition to being screwed to the theater wall, had also been glued to the wall. Since we intended to take the marquee apart and eventually raise the entire assembly to a more realistic height, the back needed to be modified or replaced anyway, so no harm was done.



Figure 1 The Unmodified Fox Theater Marquee (14 Dec 2015)

The three sections of the front of the marquee -- the two playbill signs and the central "Fox" -- were made of thick white translucent plastic with the edges painted gold. The lettering in the playbills was recessed with the letters in the indentations painted black. Contrary to such signs on real theaters, this lettering was not changeable. There was no way to correct the "typographical errors" on the signs without replacing the whole sections. ("What typo?" you say? If you don't see it, you'll have to read the rest of the article to find out.) The central "Fox" had an indented background, painted gold, with raised letters made of orange and red translucent plastic applied to it. Clear plastic, painted black on the outside was used for the marquee's top and bottom. The top sported a red and gold central finial with golden gryphons on either side. The finial had a cut-out in the back to make room for the vertical "Fox" sign behind it. (Upgrading that sign was discussed in the previous BTP Report, Part 108.)

One significant difference between Detroit's Fox Theater and the EJ model was that the model did not have an outside ticket booth between the sets of front doors. Building such a booth for the model became another part of the project.

The marquee was "disassembled" with minimal damage. The plastic parts had been glued on their edges, providing only limited surface area for the glue to hold. A sharp rap with a wooden tool handle was enough to loosen most of the parts from each other. In the reassembly, these glue joints were reinforced with strips of square clear plastic in the corners of the joints. These strips also provided locations onto which some adjoining parts could be screwed rather than glued, allowing for subsequent disassembly, if needed.

The lighting needed for the marquee was as follows: the two playbill signs, the central "Fox" sign, the area below the marquee, the ticket booth, and the gryphons. As with most of our other lighting projects, our intent was that none of the LEDs would be directly visible from any location accessible by EJ customers, so all lighting for the marquee was located inside the assembly. The thick white plastic of the playbill signs and central "Fox" sign provided excellent diffusion of light from behind. This allowed close spacing (about 1/4") from the LEDs to the rear surface of the signs. For lighting the area below the marquee and in the ticket booth, holes were drilled in the marquee base so that the LEDs, mounted on top of the base would shine unobstructed through the holes. This recessed the LEDs to the degree that they would not be visible from the EJ aisle. Similarly, the LEDs for lighting the gryphons were mounted under the marquee's top and would shine through holes in that top. All LED light strip sets were mounted on stiff plastic or wood sections to hold them in position for their particular lighting task (Figure 2). Each section had its own feeder wires which were connected with wire nuts to the same polarity wires from all the other sections and to the two main power leads which would be routed inside the building (red for the positive lead, black for the negative). The sections were secured in place with appropriate brackets, spacers, and screws (Figure 3). The intent was to allow disassembly and removal of any of the sections, in case maintenance was required. A total of 96 LEDs were used for all of the sections. Holes were also drilled in the base and top to allow some ventilation for the marquee's interior.

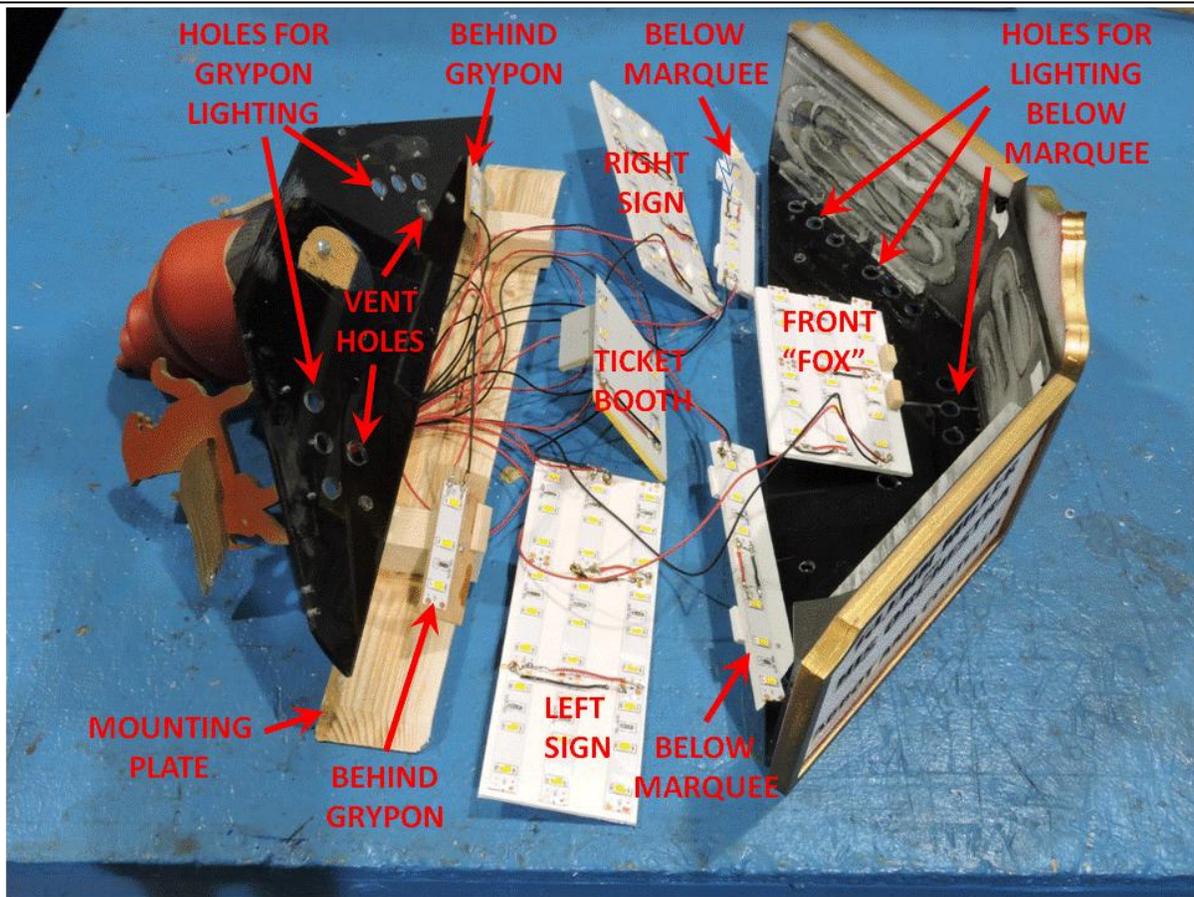


Figure 2. Fox Theater Marquee Lighting Sections

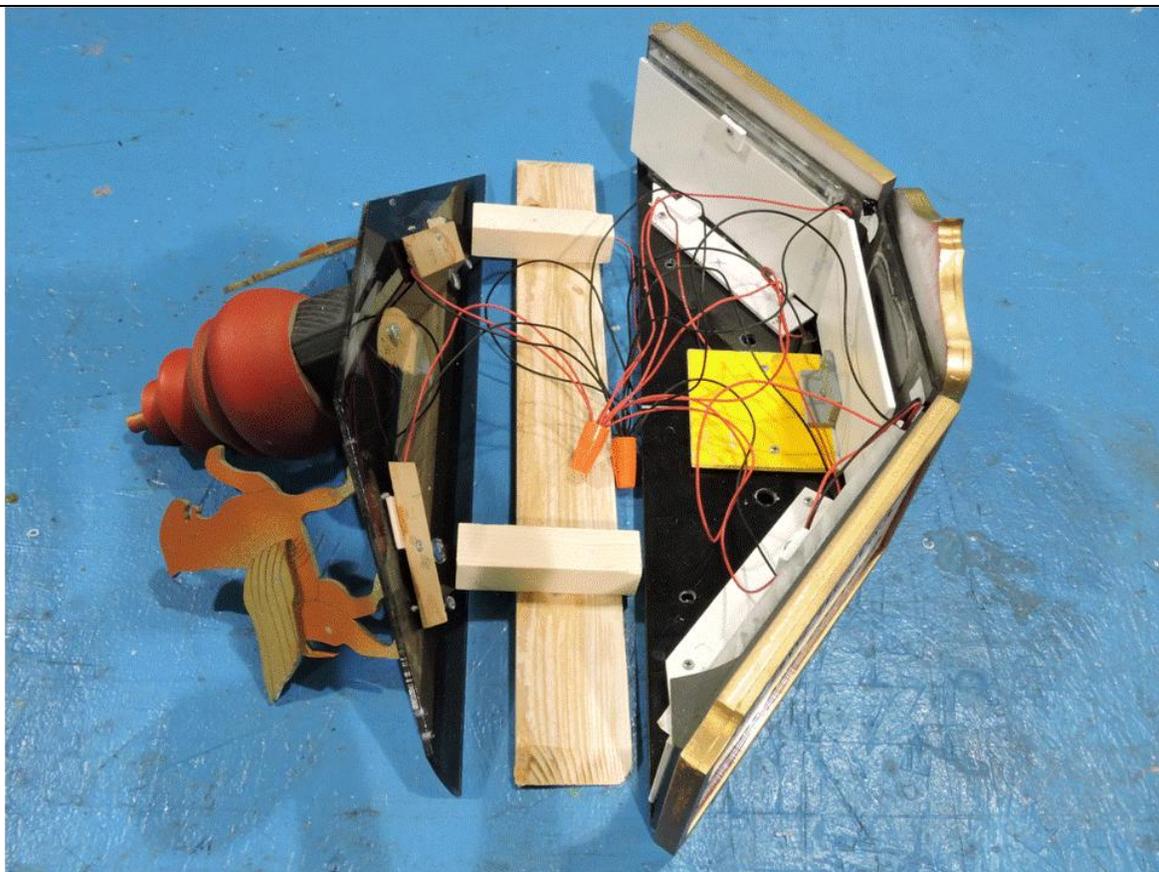


Figure 3. Lighting Sections Mounted in Position

The marquee is shown fully assembled except for the top in Figure 4. All the LEDs were lit.

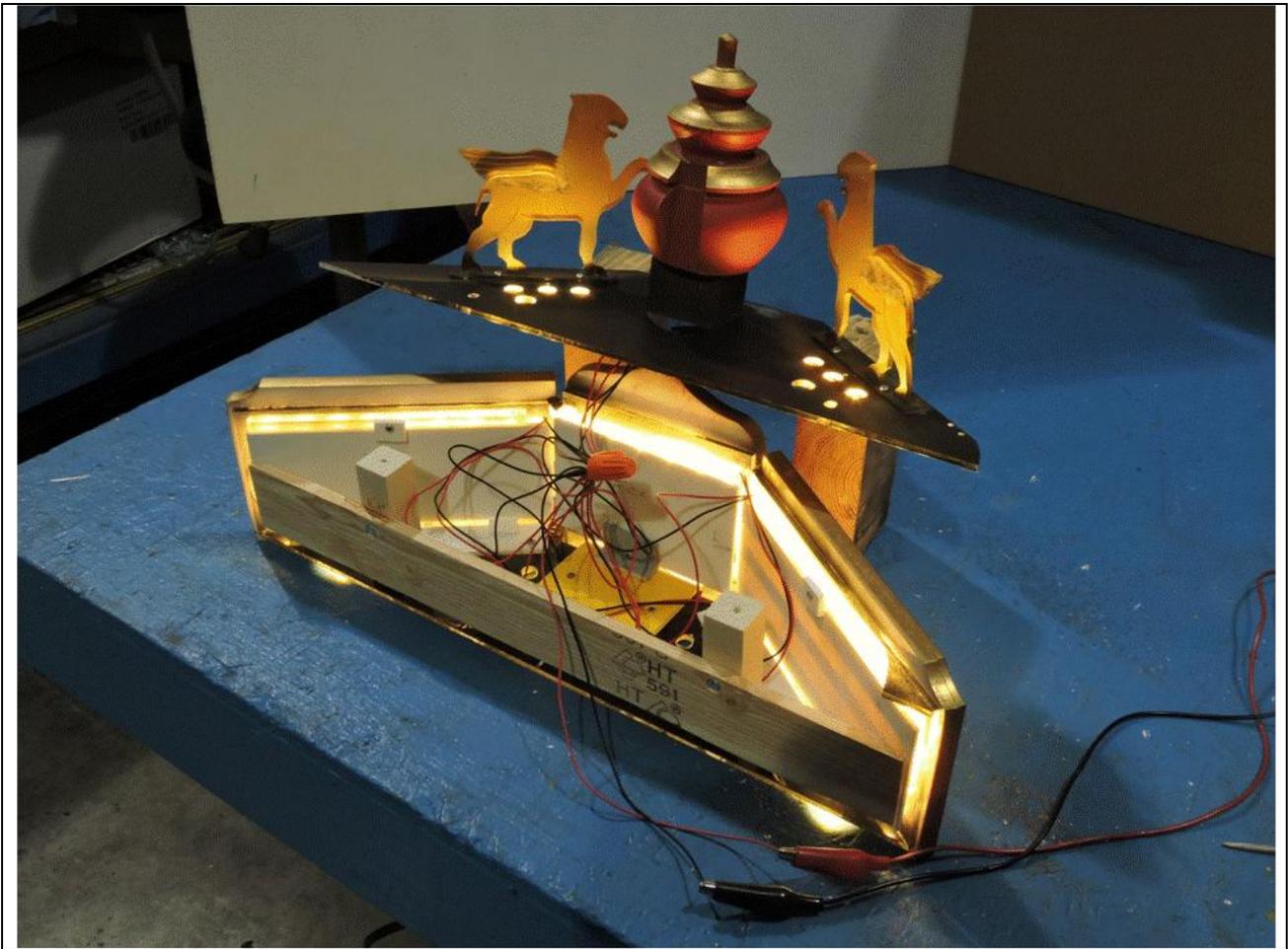


Figure 4. All-Lights-On Functional Check

As we were exploring ways to light the two gryphons on top of the marquee, we discovered that if they were lit from behind and below, the lines etched into the front surface for defining their faces and other features would glow. Similarly, a slight chamfer around the edges would do likewise for the outline of each gryphon. Further, the gold paint on their outward-facing side was not completely opaque, and the entire body would glow slightly when lit from behind (Figure 5). This provided a fairly reasonable though much more limited simulation of the neon lighting used to define the gryphons' features on Detroit's theater.



Figure 5. Gryphon Detail



Figure 6. Fully Assembled and Lit Marquee and Ticket Booth

So, fully assembled and lit, and set atop the newly created ticket booth, the marquee showed itself ready for installation (Figure 6). Even so, the issue of the misspelling of Bud Abbott's name remained. You'll have to wait until the next article to find out how we dealt with that problem.

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