Conceptual Plan for the Edgington Oxnard Refinery Interpretative Display

The conceptual plan is comprised of three key parts, all of which repurpose some of the oldest parts of the refinery.

First, is the steel riveted vessel. Since tanks were an essential part of the refinery across various stages of the oil refining process, we wanted to preserve one of these tanks to exhibit the materials and look of the original refinery. We focused on a tank that was mobile and a smaller vessel but showed some of the old character and technologies of the time. The vessel is riveted with riveted patches and is composed of painted steel. Riveting is a practice that has been replaced in modern times with welding and bolting. Therefore, we deducted that this tank was likely an original to the refinery or installed very close to the refinery's inception. Further, the tank's purpose was likely as a drip gas scrubber or a test scrubber. A scrubber is a catch pot for catching unwanted or overflow materials while the oil is being refined, making this tank a signature vessel in the refining process. There is also a site tube on the side of the tank, which was used to see the fluid level so that operators of the refinery would know when to drain or dump the tank.

The second component of the display is a tube sheet. The tube sheet is also made from steel. It was a significant component of a boiler that was one of the oldest parts of the refinery and likely an original. In the boiler, a bundle of tubes would be weaved through the tube sheet. A tube would come out through one hole in the tube sheet, turn 180 degrees, and go out through another hole on a tube sheet on the opposite end of the boiler. The tubes are filled with water. A fire, likely fueled by oil at the time, would heat the water in the tubes to create steam. The steam would then travel through jacketed pipes to heat up the heavy oil to keep it viscus as it moved through the refining process. This is an important characteristic of refining in the Oxnard Plain because the oil is of a low gravity and very thick. These attributes made it ideal to produce asphalt.

The third material used in the display is a refractory fire brick also used in a boiler. The fire brick is slightly more modern than the tube sheet and was part of a more modern boiler configuration where the boiler was made of steel and insulated with this brick. The bricks are made of refractory, which makes it heat tolerate and insulated, so that the bricks would not explode or warp under high heat.

Up to four interpretative panels will be mounted to the display comprised of black powder coated aluminum using a sign manufacture with experience producing multiple similar interpretative signs, such as that below (pedestal mounted unlike these which will be mounted to the salvaged materials).


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Boiler Tube Sheet

Riveted Vessel