



Case Study: Sinclair Community College

Challenges

Sinclair Community College was facing the hassle of dealing with two old, inefficient, unreliable boilers. The old boilers were 25,000 MBH input boilers that had reached the end of their useful life. The upkeep for these boilers was causing Sinclair headaches and increasing maintenance costs. They decided that to ensure their college's facilities were kept at peak performance it was time for an upgrade. This project required a large heating load, meaning they needed to maximize size of boilers for in their smaller boiler room. Unfortunately, the old boilers were in the basement and getting new boilers in would be a great challenge.

The Hunt for an Efficient Boiler

The first step for Sinclair was to start contracting with a mechanical engineer who specified a boiler that was 80% efficient. The job was put out to bid and after determining Unilux was an acceptable manufacturer for the project, Lathrop Trotter participated in the process. The first step for Lathrop Trotter, even prior to winning the job was to figure out how the boiler would get into the boiler room. The process would have them dropping a cardboard cutout of the boiler down a maintenance shaft, avoiding cable trays, going through an outdoor air louver, into an electrical room, down a hallway, around a corner, and into the boiler room staying underneath the piping and wiring. This maze like path was going to be a challenge for the boilers, especially navigating through the electrical room.

Lathrop Trotter understood that knowing the route wouldn't be enough so they took an extra step. They knew the length and width of the boiler were the greatest cause for concern. To ensure the actual boiler fit they created a cardboard cutout of the boiler foot print and took it to Sinclair. Once there they guided it through the path the boiler would take, starting from the outside of the building all the way into the boiler room.

"The process would have Jon and Ed out at Sinclair diving down a hole, through an electrical room, through a hallway, and into the boiler room."

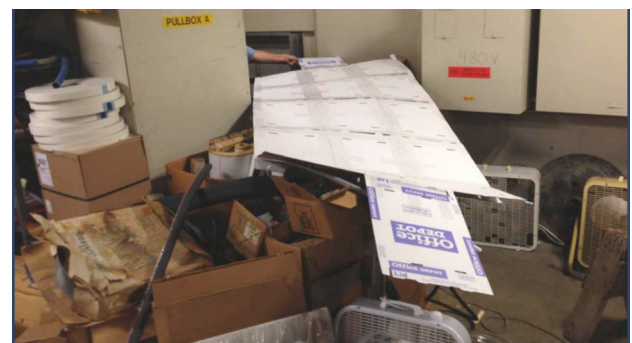
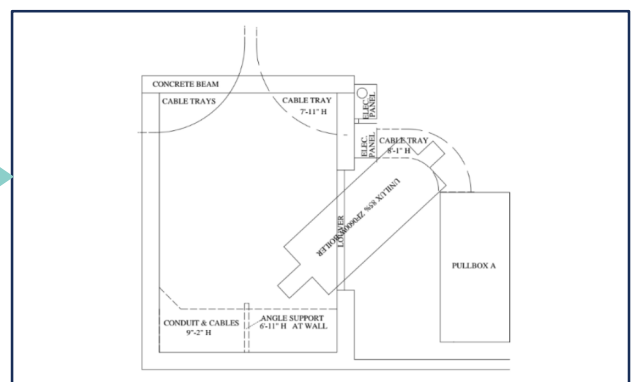
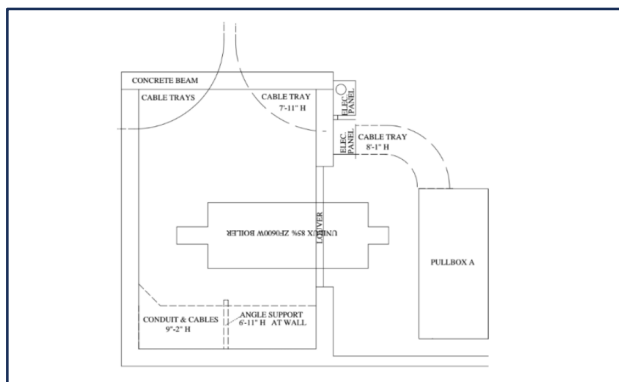
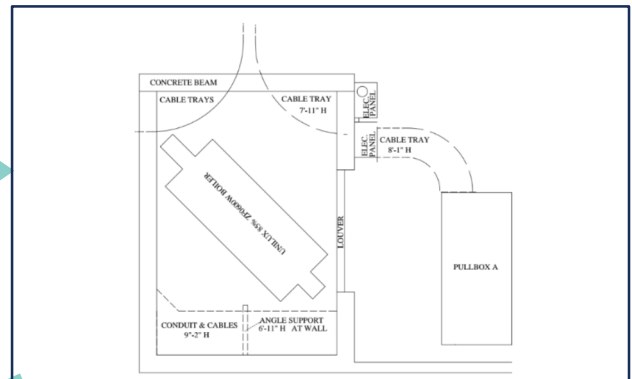
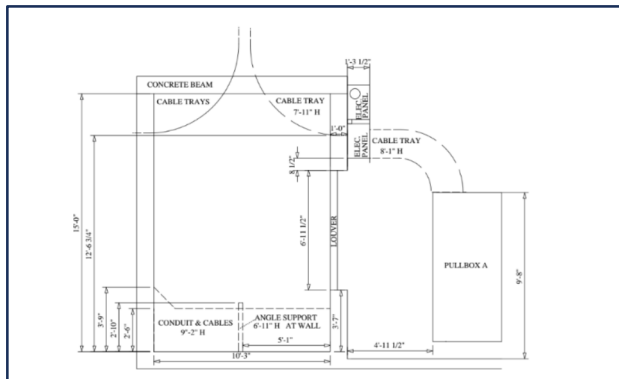
The Hunt for an Efficient Boiler

Lathrop took pictures of the process to give to the mechanical contractor. This step showed that their boiler would fit without significant disassembly as well as highlighted the pinches along the path that would cause concern.

Unlike Lathrop's boiler, other options would have to be significantly disassembled. Some even had to cut off parts of the boiler to later be re-welded on. Lathrop bid the option of 80% against their competitors 80%. Based on total installed cost, Lathrop secured the bid. Sinclair wanted to see other Unilux installations so Lathrop took them on a site visit to another university using Unilux boilers. While at the site, Lathrop told Sinclair about the option of an 85% efficient boiler.

Not only would this boiler be able to fit into the space, it also would meet the output capacity.

Based on the footprint, the 85% option would be doable because it is just longer, not wider. Not only would this boiler be able to fit into the space, it also would improve the efficiency of their new plant. Ultimately the change would improve input costs, saving Sinclair even more.



The Chosen Boiler

Sinclair decided on the 85% efficient boiler, the Unilux ZF 600W.

To learn more about this hot water boiler check out [Lathrop Trotter's information on Unilux](#) or their online brochure.

Results

Lathrop provided Sinclair with

- **A more efficient boiler**
- **6.3% reduction in fuel costs**
- **More reliability**
- **Better options than the competitors**

The efficient and reliable product Lathrop provided as well as the remarkable service created an positive rapport between Sinclair and Lathrop.

