

# Bellarmino Jesuit Retreat House

## Project Highlights and Results

- Converted heating system from steam to hot water
- Improved boiler efficiency and overall heating plant performance
- Minimized project cost by utilizing existing secondary piping network and reusing existing pipe mains
- Occupants and retreatants experienced notable comfort increase with no complaints of overheating in any of the project areas

## Project Background

<b>Owner:</b>	Loyola University Chicago
<b>Location:</b>	Barrington, IL
<b>Team/Team Lead:</b>	Don McLauchlan, Caitlin Levitsky
<b>Elara Role:</b>	ME Design
<b>Type:</b>	Energy Retrofit
<b>Construction Cost:</b>	\$250,000

## Project Overview

<b>Building Type:</b>	Religious Facility, Retreat House
<b>Building Attributes:</b>	3 Stories, 30,373 SF
<b>Initial Construction:</b>	1924, 1956
<b>MEFPIT Systems:</b>	Condensing and Non-Condensing Boiler Plants

## Innovation

- Designed a steam to hot water conversion by installing a high temperature hot water boiler plant to serve the 1956 convectors and a low temperature condensing hot water boiler plant to serve the 1924 cast iron radiators.
- Existing piping was reused wherever possible reducing the overall construction cost of the conversion

## FIRST PLACE

ASHRAE Excellence in Engineering Award  
*Chapter Level*

