

General Project Information

2021 BOND



Project: Chiller Replacements and Plant Optimizations

Project Description: HVAC Chiller's have met expected life cycle and require increased level of repair.

Campuses identified to receive replacements:

2022

- Beck Junior (BJH)
- Fielder Elem
- Hayes Elem (JHE)
- Holland Elem (BHE)
- Mayde Creek Elem (MCE)

2023

- Morton Ranch High (MRHS)
- Stanley Elem (SSE)
- Sundown Elem (SE)

2024

- Mayde Creek High (MCHS)
- Seven Lakes HS (SLHS)
- Taylor High (THS)

Project Cost: \$12,490,000

Background & Justification: In consideration of Katy ISD's large HVAC chiller plants, the air cooled units have a normal life cycle of 12 to 15 years. The larger water cooled centrifugal equipment has a life cycle of 20 to 25 years. Eleven campuses have reached the equipment's life cycle age. And because of this, the equipment has become more and more costly to keep on line. Campuses that require chiller replacements by the year 2022 include Beck Junior High, along with Fielder, Hayes, Holland, and Mayde Creek elementary schools. By 2023, Morton Ranch High

School and Stanley and Sundown elementary schools. And by 2024, Mayde Creek, Seven Lakes and Taylor high schools. The Return on Investment for air cooled equipment is typically 6 to 7 years, and for the centrifugal equipment it is 12 to 14 years. Katy ISD's plant optimizations are directed at our large high school plants and will replace one or possibly two of the chillers, rebuild the remaining chillers to allow them to operate another 10 to 15 years, and improve the operation of the plant to reduce operation costs.