



CASE STUDY

PROJECT NAME

Retreat Facility

DESIGN FLOW

12,000 Gallons Per Day

PROCESS USED

Extended Aeration

DEGREE OF TREATMENT

Aeration
Clarification

WASTE TYPE

Domestic

LOCATION

Eastern Nebraska

New System to provide Treatment, Aesthetics and Low Noise Level

SUMMARY

This newly constructed religious retreat required a wastewater treatment system that was both visually appealing and quiet in operation to service the facilities on-site. The unit services 7 housing lodges, each with 10 guestrooms and a chapel. Several lift stations are used to pump the wastewater from various locations throughout the facility to a separate flow equalization chamber. The effluent is then time dose pumped into the treatment unit. Based on the specifications provided by the project engineer, a system was provided that was constructed entirely of 304 stainless steel plate with an aeration basin sized at 15,000 gallons, in order to accommodate the elevated BOD loading. To maintain the low decibel sound requirement, Delta provided Sutorbilt 3M blower packages contained within custom manufactured acoustical enclosures. The treatment system was designed to sit above grade, therefore grating over service area was provided with an access stairway. Delta Environmental supplied the treatment unit, ancillary equipment and controls.



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