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Mechanical Option
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Freetown Elementary School
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Thesis Presentation Outline

- I. Introduction (3 Slides)**
 - A. Project Background**
 - B. Project Team**

- II. Existing Mechanical Summary (3 slides)**
 - A. Mechanical Room**
 - B. Air Handling Units**

- III. Re-design Objectives (1 slide)**
 - A. Reduce energy consumption**
 - B. Reduce emissions**
 - C. Maintain comfortable environment**

IV. Re-design Alternative Systems (3 slides)

- A. Ground Source Heat Pump**
- B. Solar Panels**
- C. Ventilation Sensors**

V. Ground Source Heat Pump (7 slides)

- A. Selection**
- B. Cost Savings**
- C. Energy Savings**
- D. Emission Savings**
- E. Payback period**

VI. Solar Panels (4 slides)

- A. Selection**
- B. Analysis**
- C. Energy Savings**
- D. Payback Period**

- E. Structural Breadth (3 slides)**
 - 1. Existing beams and columns**
 - 2. New beams and columns**

VII. Ventilation Sensors (5 slides)

- A. Selection**
- B. Benefits**
- C. Example**
- D. Cost**

VIII. System Comparison (3 slides)

- A. Ground Source Heat Pump**
- B. Solar Panels**
- C. Ventilation Sensors**

IX. Conclusion (3 slides)

- A. Benefits and costs of proposed system to original**

Total proposed slide count – 35 slides