Stephen Blatt
Architects

SAD # 46 Concept Design Meeting Notes

An **Electrical & Technology Systems Committee** Meeting was held on May 31th, 2007.

Attending:

Rick Bilodeau Jr.	Facilitator- School Board, Mid Maine Communication,
David Fournier	SAD 46 Tech
Pete Mealey	Citizen
Leah Tondreau	Teacher
Kristin Briggs	Teacher
Dave Gudroe	Maintenance
Gary Crane	
Kevin Jordan	Superintendent
Larry Bartlett	Bartlett Design, Bath
Joe Hemes	SBA

Not present: Terry Staples, Steven Crane, Rory Sanders, Art Roy, Mike McCormick Julie Richards, Gary Smith.

1. **Agenda** was distributed with meeting notes from 5/15/07.

2. **Technology Matrix** to identify and understand in detail the electrical and technology systems that SAD 46 would like to have in every room of the new school. Larry will fill in the list for review by the committee. The drawings and specs will be based on this matrix and the drawings

3. **Site Plan** was reviewed:
   a. Overhead lines up Fern road and across northern side of property at service drive.
   b. Underground cables from pole to transformer.
   c. Transformer (oil filled) close to paved area for CMP access in service
   d. Underground short run secondary cables to electrical room.

4. **Electricial Distribution System**
   a. Two options for electrical 120/208 & 277/480 were reviewed. The 277/480 is most economical for this school, based on wire size & amperage in panels.
   b. Building will have 5 distribution zones. Energy metering would be really desirable to monitor the building.
   c. Transformers will be required and ventilation of the rooms will be required.
   d. Electrical panels will have 2 levels of transient protection for computer, data power lines.

5. **Lighting Systems:**
   a. ASHRAE code energy requirements to meet and exceed.
   b. ME Energy Efficient Schools Grant is more difficult with recent changes, but we should be able to receive some funds.
   c. Energy efficient fluorescent, compact fluorescent and electronic ballasts will be used.
   d. SAD 46 does not have specific bulb types they prefer. Larry will design the lights to minimize the type of bulbs required to stock.

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6. **Lighting fixtures:**
    a. Classroom lighting is very critical for performance and impacts the educational experience.
    b. Fixture types reviewed: Lens, Parabolic Louvers, Perforated basket and linear pendant. The linear pendant, although it is slightly less efficient is recommended as the best quality light, with 80% of the light bounced off the ceiling to minimize bulb glare on desk surfaces.

7. **Daylighting**
    a. Lighting Controls are an automatic dimming system of the linear pendant lights to provide only the required lighting levels and no more. When there is enough daylight in the classroom, the lights will dim to off.
    b. The classroom windows will be designed to harvest daylight, to provide the best quality light in the room, with less requirement for artificial lights.
    c. These classrooms lights will be automatic, but will have manual switches to override the automatic controls if required. Lights will return to automatic mode after a period of time.
    d. Lights will be turned off by motion and infra-red sensors if there are no occupants in the room.
    e. This lighting control system saves electrical energy.
    f. System is very programmable for timer options.

12. **Next meeting:** will include presentation on multimedia and smartboards.

CC: K. Jordan, L. Bartlett, S. Blatt