WELCOME

Thank you for your participation!
Work to Date

Best Practices in Educational Facility Planning

Work Activity #1
Review Master Plan Scenarios

Work Activity #2

Strategic Goals

• Align facilities with educational programs
• Maximize effectiveness of District resources
• Address major planning considerations for the future
  – Enrollment Growth
  – Aging Infrastructure
  – Equity
  – Educational Program Change
SCHEDULE REVIEW

PROPOSED SCHEDULE

work to date

FACILITY ASSESSMENTS
BUILDING COMPONENTS

- Electrical
- Exterior Walls
- Fire Detection
- HVAC
- Interior
- Lighting
- Plumbing
- Roof
- Site
- Building Envelope
- School Security
Physical Needs Assessment:
ALL COSTS PER SQUARE FOOT

Physical Needs Assessment:
SUMMARY OF COSTS BY COMPONENT
Educational Adequacy
BUILDING ON EXCELLENCE

Ten Recent Status Quo - Average Educational Adequacy Scores

ICCSD
EDUCATIONAL ADEQUACY
Elementary Schools
Student Capacity vs. Current and Projected Enrollment
ICCSD High Schools

- Enrollment
- Capacity
- Projected 2022-23 Enrollment

Student Capacity vs. Current and Projected Enrollment
ICCSD High Schools

- Enrollment
- Capacity
- Projected 2022-23 Enrollment

- Tate High
- City High
- West High

Tate High
City High
West High

Enrollment Capacity Projected 2022-23 Enrollment

0 500 1000 1500 2000 2500

2013 ICCSD
Employers are demanding that employees demonstrate the skills to work productively in teams, communicate effectively, think innovatively and solve problems creatively. An overwhelming number of students leave their educational experience unprepared for the world of work.

“The need to remain globally competitive. The sheer number of college graduates from other countries will change world dynamics. No longer do students from foreign countries have to come to the US for higher education. **No longer will the US have enough engineers and scientists to fill the needs.** Other countries will have numbers that create new ideas, building companies that launch innovations, and produce goods wanted by the world.”

Source: Iowa Department of Education
UNIVERSAL CONSTRUCTS: Essential for 21st Century Success

- Critical Thinking
- Complex Communication
- Creativity
- Collaboration
- Flexibility and Adaptability
- Productivity and Accountability

characteristics of 21st CENTURY SCHOOLS
Indoor Air Quality, Temp & Humidity, Ventilation, and Thermal Comfort

Energy Efficient: Consume less (25-35) kbtu sf/yr
SUSTAINABLE

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

SUPERIOR LIGHTING

Abundant natural light
SAFE & SECURE

Transparent environment, easily observed, access controlled, a feeling of home.

TECHNOLOGY INFUSED

Designed for media literacy and connection to a global community of learners.
ENGAGING

“If children have interest, education happens.” Arthur C. Clark

FLUID/FLEXIBLE

Rapidly reconfigurable
STUDENT-CENTERED

Students are active participants in the learning process.

CONNECTED TO NATURE

Encouraging environmental stewardship.
FOSTER CREATIVITY

Supporting creativity and innovation to meet the needs of the generation.

COLLABORATIVE

Allowing students to learn from students.
VARIETY OF LEARNING ENVIRONMENTS

Appropriate to the learning activities housed.

Work Activity #1 RESULTS

engaging technology welcoming modern flexible student-centered equitable safe
Work Activity #2 RESULTS

Crowded

Work to date

PLANNING PRINCIPLES
PLANNING PRINCIPLES

• **STUDENT-CENTERED:** Building and grounds should provide a variety of spaces for hands-on activities, project-based learning, student collaboration, research and study space, and presentations.

• **EQUITABLE:** Schools will have equitable facilities and adequate space to provide a full range of academic and co-curricular programs.

• **TECHNOLOGY-INFUSED:** Technology should be flexible and up-to-date in order to support a variety of learning environments.

• **NEIGHBORHOOD SCHOOLS:** Schools that provide a host of community services, such as before and after school programs, should be encouraged.

• **HEALTHY BUILDINGS:** Buildings will have controllable indoor environmental quality including proper ventilation, humidity control, air temperature, and natural light with modern controls in each classroom.

BEST PRACTICES IN EDUCATIONAL FACILITY PLANNING
Elementary School: 600 students

Jr. High / Middle School: 936 students

High School: 1,600 students

CASE STUDY:
St. Joseph, Missouri School District

Dr. Franklin Hill, Facility Planner
Standards adopted for the Master Plan
Elementary Schools: 400 - 600
High Schools: 800 - 1600
• High school national average enrollment falls below 1000; Elementary school approx. 450

• ICCSD High School size is comparable with peer districts (10,000-20,000 students) at approximately 1,100. Peer districts average 300-500 at Elementary schools.

Measures of Student Outcomes

• No definitive, causal relationship between high school size and student achievement
  • large high schools offer greater curricular breadth, while smaller high schools offer greater curricular focus
  • the relationship between high school size and student outcomes is mediated by other variables, such as student age, race, socioeconomic status, and parental educational attainment.

• More substantive body of evidence exists regarding graduation and attendance rates.
  • Smaller high schools typically promote higher graduation and attendance rates

HIGH SCHOOLS: “Small” = max 500-600; “Large” = 1,500+
ELEMENTARY: “Small” = max 300; “Large” = 1,000+
**Measures of Student Outcomes**

- Evidence suggests that both types of schools may confer positive social benefits
  - Small schools promote increased student engagement, extracurricular participation, positive patterns of social behavior
  - Large schools have more diverse populations, stimulating environments for students (academically and socially); and more diverse and specialized instructors.
- Cost efficiencies, and economies of scale
  - District and school efficiency tend to increase in proportion to school size
  - However, research indicates that there may be diminishing returns on very large high schools, and that small and mid-size schools may ultimately be the most sustainable option in terms of cost-effectiveness.
  - "Outputs" - specifically student outcomes - must be considered in addition to financial "inputs" (administrative expenditures).

HIGH SCHOOLS: "Small" = max 500-600; "Large" = 1,500+
ELEMENTARY: "Small" = max 300; "Large" = 1,000+

---

**WORK ACTIVITY**

1. Review the list of Planning Principles
2. Elect a recorder
3. Write your table number on the worksheet
4. As a group, discuss and record your answers to the three questions
5. Turn in worksheet
MASTER PLAN WORKSHOP
WORK ACTIVITY #1

As a group, please answer the following questions using the planning principles as a guide:

Should the facilities plan identify and adopt standards for building level size at each grade level configuration?

☐ YES
☐ NO

If it is educationally and financially feasible, which junior high grade alignment would you support?

☐ 7th-8th grade
☐ 6th-8th grade

What criteria should be used to determine if a building has reached the end of its useful life?
ASSUMPTIONS

• 21st Century Capacity
• Future-proofing
• Phased work over time
SCENARIO DEVELOPMENT PROCESS

I27 OPTIONS

Operational  Educational  Community

MMCC  Scenario 1  Scenario 2
### Status Quo

**Minimum Maintenance and Code Compliance** - Continue to use existing buildings as is.

<table>
<thead>
<tr>
<th>Description</th>
<th>Year</th>
<th>Purpose</th>
<th>Capacity</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5/10/2013</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Scenario 1

**Original Proposed Plan** - 3 new 500 student elementary schools and additions to 9 elementary schools, addition to North Central Junior High, New 1000 student High School

---
### Scenario 3: Minimize New Construction - Move 6th grade to Junior High, new 500 student elementary; new 900 student Junior High School; additions to existing Junior and Senior High Schools

<table>
<thead>
<tr>
<th>Description</th>
<th>Junior Alignment</th>
<th>Capacity</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New mango</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconstruc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New mango</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconstruc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Scenario 4: K-5 Feeder Alignment - Move 6th grade to Junior High; new 500 student elementary school; additions to North Central, Northwest, & South East, new 1500 student High School
### Scenario 7

**Proposed Plan, New Alignment:** Move 6th Grade to Junior High; 3 new 500 student elementary schools and additions to 6 elementary schools; additions to 3 Junior High Schools and City High.

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Project Area</th>
<th>Project Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repairs and Maintenance</td>
<td>125,000.00</td>
<td>125,000.00</td>
<td>125,000.00</td>
</tr>
<tr>
<td>Electrical Systems</td>
<td>200,000.00</td>
<td>200,000.00</td>
<td>200,000.00</td>
</tr>
<tr>
<td>Mechanical Systems</td>
<td>150,000.00</td>
<td>150,000.00</td>
<td>150,000.00</td>
</tr>
<tr>
<td>Architectural Systems</td>
<td>100,000.00</td>
<td>100,000.00</td>
<td>100,000.00</td>
</tr>
<tr>
<td>Total</td>
<td>575,000.00</td>
<td>575,000.00</td>
<td>575,000.00</td>
</tr>
</tbody>
</table>

**QLEO**

Quantified Learning Environment Outcomes

Master plan modeling and analysis
INSTRUCTIONS

- Elect a recorder and spokesperson
- Write your table number on the worksheet
- Review the Master Plan Scenarios
- As a group, choose your top 3 scenarios and rank them
- Record strengths and improvements to the scenarios
- Report out to group
Life Cycle Costs (30 yr)

Educational Adequacy

Cost Benefit Ratio

IOWA CITY COMMUNITY SCHOOL DISTRICT

1ne VISION
Facilities Master Planning

THANK YOU

May 2013