WHEN BUILDINGS ARE BROKEN
Seizing the Opportunity for Total Transformation
Overcoming Reluctance
Strategies for transforming educator reluctance through engagement in the adoption of new educational and facility models.

Community Participation
Techniques for eliciting broad community participation and interactive dialogue in the school planning and design process.

today’s objectives
Building Consensus
Facility planning and design development activities that organically build consensus through hands-on, meaningful stakeholder participation.

Maximizing Capital Budgets
Facility design strategies that maximize a conservative budget and enhance long-term educational relevance.
a need for change

SETTING
the stage
a need for change
Antiquated building systems
Safety and security concerns
Energy inefficiency
Obsolete learning environments

existing physical environment
Opened in 1973
Design based on the “factory model” of the industrial age...

“cells and bells”

20th century school

BLRB architects
existing
EDUCATIONAL
MODEL

20th century school
20th century learning
21st century learning

University of Massachusetts
Cambridge Seven Associates

STUDENT centered

BLRB architects

CHARTIERS VALLEY SCHOOL DISTRICT
a process for CHANGE
# Visioning - Programming & Planning

**Chartiers Valley Middle School & High School // Chartiers Valley School District**

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**a process for change**

**Chartiers Valley School District**

**BLRB architects**
empowerment through meaningful involvement

a process for change
Make It New

Look at your learning space with 21st Century eyes...

Does it work for what we know about learning today...

Or just what we knew about learning in the past?

a process for change
research driven
Recognition Networks
*The “what” of learning*

How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author’s style are recognition tasks.

Strategic Networks
*The “how” of learning*

Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.

Affective Networks
*The “why” of learning*

How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.

Present information and content in different ways

Differentiate the ways that students can express what they know

Stimulate interest and motivation for learning

research driven
1. Linguistic – word smart
2. Logical/Mathematical – number smart
3. Musical – music smart
4. Bodily/Kinesthetic – sports/fitness smart
5. Spatial – picture/3D smart
6. Naturalist – nature smart
7. Interpersonal – social smart
8. Intrapersonal – self smart
1. Independent study
2. Peer tutoring
3. Team collaboration
4. One-on-one learning with teacher
5. Lecture format – teacher-directed
6. Project-based learning
7. Technology with mobile computers
8. Distance learning
9. Internet-based research
10. Student presentation
11. Performance-based learning
12. Seminar-style instruction
13. Inter-disciplinary learning
14. Naturalist learning
15. Social/emotional/spiritual learning
16. Art-based learning
17. Storytelling
18. Design-based learning
19. Team teaching/learning
20. Play-based learning
Blueprint for Tomorrow
Prakash Nair

The Language of School Design: Design Patterns for 21st Century Schools
Prakash Nair; Randall Fielding; Jeffery Lackney

The Third Teacher
OWP/P Architects; VS Furniture; Bruce Mau Design

Make Space: How to Set the Stage for Creative Collaboration
Scott Doorley and Scott Wittholf

resources
Architecture for Achievement: Building Patterns for Small School Learning
Victoria Bergsagel, Tim Best, Kathleen Cushman, Lorne McConachie, Wendy Sauer, David Stephen

Linking Architecture and Education: Sustainable Design of Learning Environments
Anne Taylor

The L-Shaped Classroom: A Pattern for Promoting Learning
Peter C. Lippman

resources
STUDY TO URS
opening your mind’s eye to what’s possible

research
Intentional
Focused
Structured
formal evaluations

STUDY TO URS
opening your mind’s eye to what’s possible

research
VIRTUAL TOURS
contemporary learning environments

North Shore Day School
Cannon Designers

research
SCHOOL VISITATIONS contemporary learning environments

research
FOLLOW THE guiding principles
#1 | Be a learner-focused campus
#2 | Be a safe environment
#3 | Be flexible and agile
#4 | Be the heart of the community
#5 | Promote meaningful collaboration
#6 | Honor the diversity and history of the community as we look to the future

#7 | Be a model campus for stewardship and sustainability

#8 | Have adaptable and accessible technology

#9 | Encourage total wellness

guiding principles
LISTEN TO THE COMMUNITY
meaningful involvement is key

SUCCESS is dependent on community buy-in
community outreach
Define

Values/priorities

Characteristics/attributes

History/legacy

community outreach
Primary

Transparency is critical
Interactive and on-going engagement
Illustrate how community influenced design

community outreach
the VISION
Moving From

Classrooms to...
Learning Studios

Learning Studios to...
Learning Suites

Learning Suites to...
Small Learning Communities

the vision

Naperville Central High School
Wight and Company

CHARTIERS VALLEY SCHOOL DISTRICT
BLRB architects
Moving From
Classrooms to…
Learning Studios
Learning Studios to…
Learning Suites
Learning Suites to…
Small Learning Communities

the vision
Moving From
Classrooms to... *Learning Studios*

Learning Studios to... *Learning Suites*

Learning Suites to... *Small Learning Communities*

the vision
SLC charette
creating the ideal learning setting

the vision
SLC puzzle piece solutions

Middle School

High School

the vision
the vision

SLC middle school
the vision
the vision

SLC middle school

CHARTIERS VALLEY SCHOOL DISTRICT
BLRB architects
SLC high school

the vision
the vision

SITE

master plan

CHARTIERS VALLEY SCHOOL DISTRICT

BLRB architects
EXISTING campus
SITE
master plan

Existing Building
1. Pool
2. Gymnasium
3. S. Wing
4. Shared Auditorium & Music

New Building
a. Entry
b. Administration & Student Services
c. Commons
d. Learning Towers
e. Kitchen & Service
f. Tech Ed & Art
g. Gymnasium
h. Shared Fitness Center

Chartiers Valley School District
the vision
the vision
floor plan - level 2 and 3
middle school

the vision
PUZZLE PIECE SOLUTION
high school
the vision
concept floor plan - level 1
high school

the vision
concept floor plan - level 2
high school

the vision
concept floor plan - level 3 and 4
high school

the vision
the learning studio
HIGH SCHOOL
SLC applied engineering and technology HIGH SCHOOL
the student commons
MIDDLE SCHOOL
the student commons
HIGH SCHOOL
the student commons

HIGH SCHOOL
learning towers
MIDDLE SCHOOL
main entry
MIDDLE SCHOOL
Main entry / learning towers

High School
maximizing the budget
“Whatever you plan for doesn’t happen...

Whatever you don’t plan for does!”

maximizing the budget
Inevitably...

The learning environment will undergo philosophical, pedagogical, technological and spacial change over the life span of your school.

maximizing the budget
The Learning Environment MUST BE...

flexible
agile
adaptive

maximizing the budget
**Strategies**

Minimize specialized spaces

Design multiplicity of use of space

- from classroom to *learning studio*
- from science lab to *learning lab studio*
- from “shop” space to *applied learning lab*

*maximizing the budget*
maximizing the budget

STRATEGIES
flexible space types

Small Group
1-6

Core Learning
[learning studios]
20-30

Learning Lab Studios
[science, art studios]
20-30

Applied Learning Labs [CTE]
20-30

Shared Learning
[learning commons]
10-60
Strategies

Re-think core facilities

- corridors to learning commons
- cafeteria to student commons

maximizing the budget
STRATEGIES
re-think core facilities

maximizing the budget
STRATEGIES
re-think core facilities

maximizing the budget
STRATEGIES
re-think core facilities

maximizing the budget
STRATEGIES
re-think core facilities

maximizing the budget
Strategies

Increase utilization rate of learning spaces by providing staff planning space

maximizing the budget
Strategies

Secondary learning campus

Shared facilities

• Performing Arts
  - music
  - dance
  - drama

• PE/Athletics
  - gym space
  - fitness center
  - playfields

maximizing the budget
FACILITATION strategies

**Sage** on the stage

-or-

**Guide** on the side
Establish team norms

Define purpose and responsibilities

Share givens

Share process overview
  - get commitment and buy-in

Break-up clicks

facilitation strategies
Begin each workshop by clearly identifying “today’s objectives”

End each workshop by:
- reviewing objectives
- allowing each team member to comment/reflect on the day
Experiential

Study tours
- powerful learning
- bonding opportunity

facilitation strategies
Engagement

Break-out group work
- 6 to 8 people
- defined task
- multiple engagement tools
- report back… WOWS and WONDERS
Engagement

Design thinking
- mind mapping
- charetting: hands-on design exploration

facilitation strategies
LESSONS learned

Transparency is critical
Meaningfully **engage** and **empower** stakeholders

**lessons learned**
Always begin the visioning process **not** with a focus on architecture but rather a conversation and exploration about learning...

Where do we learn best and why?

Does the physical environment play a role in learning?

How do we learn?

How do we achieve academic success for all students?

**lessons learned**
lessons learned
Only systemic change can allow teachers to reach all students and be more effective in their practice.
Professional development is **key** to make **systemic change** work;

Teachers need to know how to **teach differently**

(longer blocks, team teaching, interdisciplinary, project based)

**lessons learned**