2015 Exhibition of School Planning and Architecture

Milpitas Elementary School #10

Category: Design Concept

Milpitas Unified School District

Milpitas, California

Milpitas Elementary School

Milpitas Elementary School

Site Plan

Milpitas Elementary School

Context | Area Plan

Legend

- Site
- Very High Density Residential
- High Density Residential
- Transit Retail
- Industrial Park
- Transit Facility
- Parks/Community Facilities
- Linear park around Creek
- Future Pedestrian Bridge
- Future BART Line
- VTA Light Rail Transit
- Union Pacific Railroad
- Arterial Road
- Collector Road
- Existing Creek

A New Community to be Served

Community Environment:
Surrounding Neighborhood:

The school site resides in a community where housing is only beginning to be built – one in which the future families do not yet reside.

A large majority of the students are projected to be new immigrants to this country, predominantly from India and China, their families moving here to support the technology industry in Silicon Valley.

The school must be a valued resource for this community, cultivating community among families that speak different languages. The front plaza is envisioned as “the front porch” for the community. It offers places for parents to mingle, or simply sit while their children play in the adjacent park and playgrounds. A Community Room opens onto this space – it supports a wide variety of uses to serve this diverse community. Adjacent is the front office where parent volunteers can support the school and teachers.

“The front porch must have plenty of sticky spaces for parents to gather and share life experiences.”

Andrea Ballestero, Anthropologist
Think Tank Collaborator

A Culture Designed for Innovation

Community Environment-
Internal School Community:

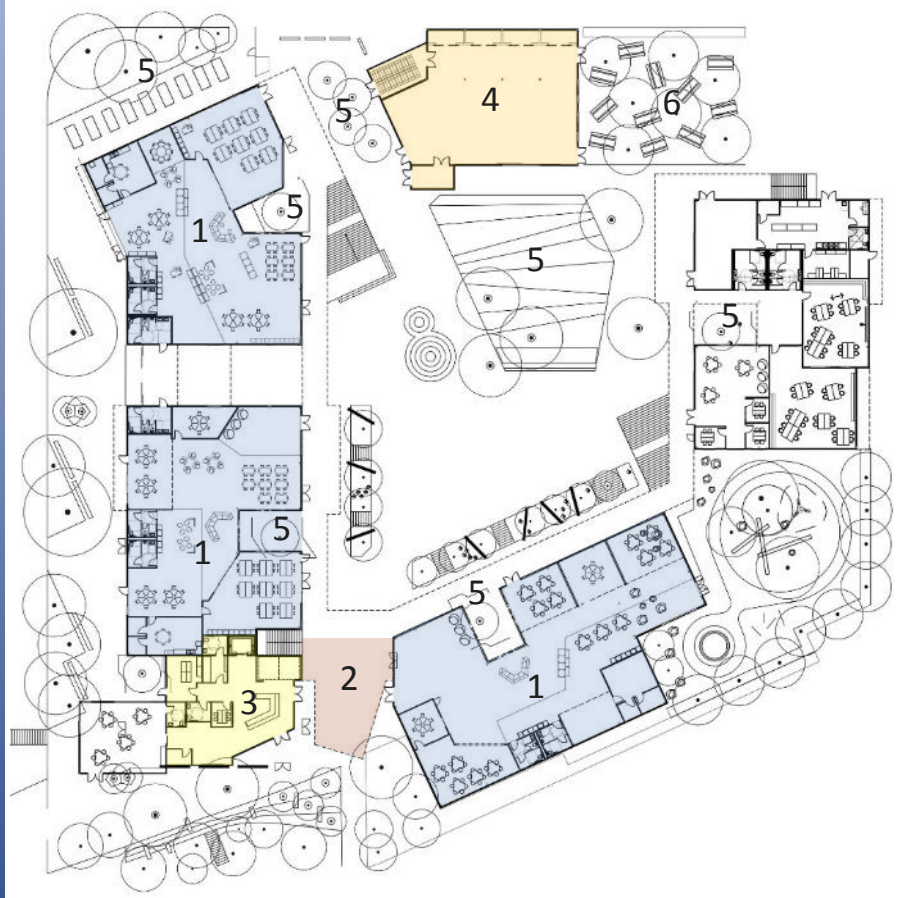
"Learning Teams" will comprise 4-5 teachers teamed by grade level to lead each Learning Community. A collaborative approach toward the learning goals of each student is imperative – to the extent that **a behaviorist will assist in staff development and training**. Teachers will be heavily evaluated on their collaborative merit – ongoing, every year. Progressive faculty development programs will be supported by a Learning Coach permanently on site.

"This school will demand that the teachers work as collaborators rather than individual 'directors' of their classrooms."

Cary Matsuoka, Superintendent

"We need to have professional development spaces that are as innovative as the methods we're trying to adopt."

Chin Song, Associate Superintendent
Director of Technology



Legend:

1. Innovative grade level Learning Communities (96-120 students)
2. Faculty Development "Collaboratory" (above-2nd floor)
3. Learning Coach & Chief Cultural Officer (home base)
4. Cross-curricular indoor/outdoor learning center
5. Outdoor collaborative learning and maker yards

"We must recognize the power that results when we treat our teachers as the professionals that they are."

Trevor Croghan, Former 6th Grade Teacher,
Think Tank Collaborator

An Innovative Learning Community

Learning Environment:

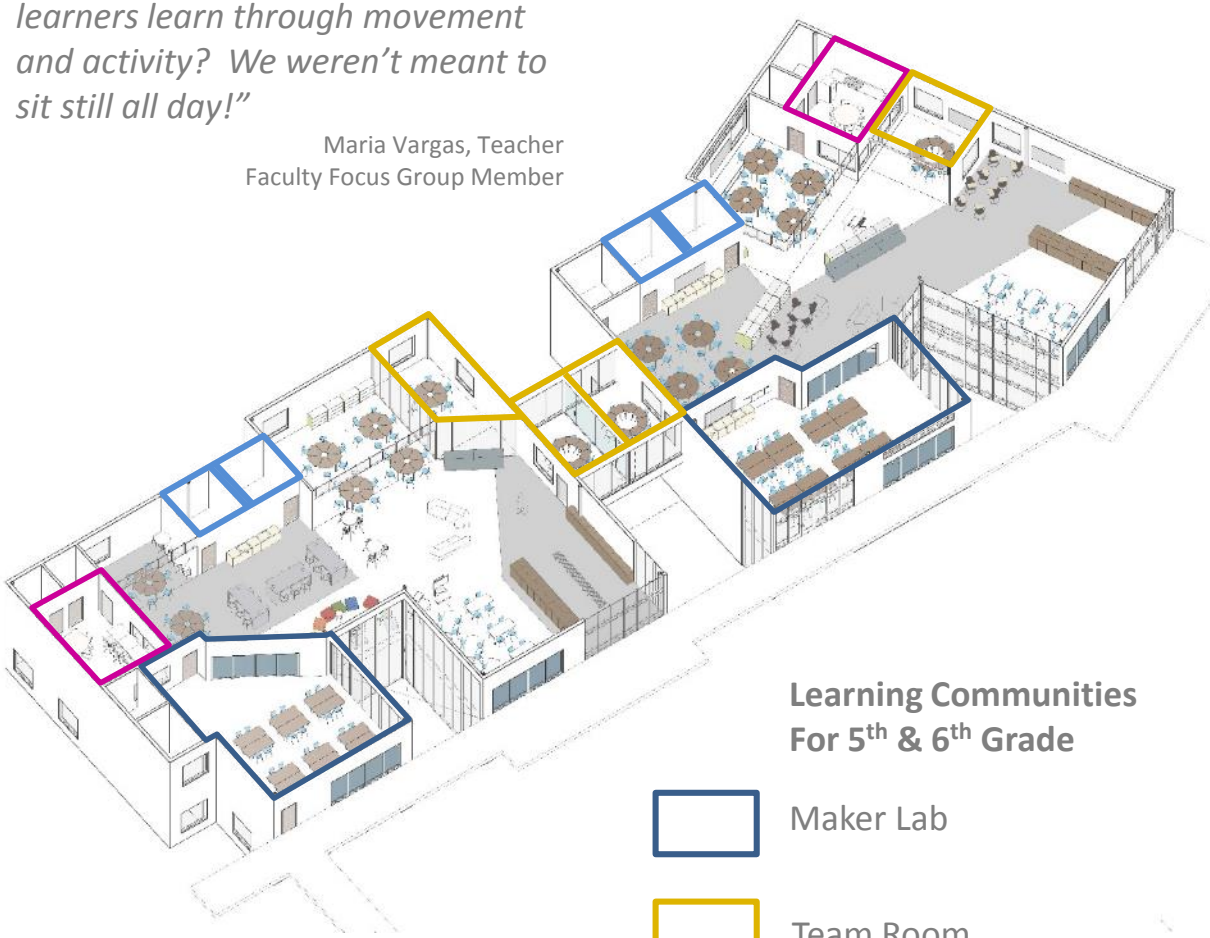
Learning Communities (LC's) replace classrooms. Each LC supports 96-120 students and 4-5 teachers (dependent on grade level). Each student has a differentiated learning plan. "Sit-n' get" learning is replaced with active self-directed learning.

Success is in the details: Learning Communities are reliant on high-performance acoustics, effective team teaching, integrated use of technology, and a blend of settings to support a wide range of activities; open and private, large and small, soft and hard, indoors and outdoors. Principles of 'Universal Design for Learning' are employed throughout – a space for every learner.

A Maker Ethos: Each Learning Community features a dedicated Maker Space but project based learning extends far beyond; exterior maker yards, the Multi-Purpose Building, and the balance of the learning spaces all support varying scales of making.

"Can quiet learners find quiet learning spaces? And active learners learn through movement and activity? We weren't meant to sit still all day!"

Maria Vargas, Teacher
Faculty Focus Group Member



"The design does not allow 'business as usual'; by design, teachers cannot default to existent, old fashioned ways of teaching."

Learning Courtyards, Outdoor Classrooms, and a School-Wide Maker Ethos

Learning Environment: Exterior Learning Spaces

Each Learning Community opens onto the central courtyard as well as smaller outdoor rooms dedicated to each Learning Community. Transparency permits easy supervision of exterior learning activities to enable fluid breakout from the interior to exterior.

In the middle of the main courtyard is the Multi-Purpose Building – this building opens onto surrounding exterior spaces including the amphitheater. It supports dining commons & adjacent dining patio, provides a stage and proscenium for the exterior amphitheater (host to performances and all-school gatherings), and supports large-scale maker activities.

Site as Learning Laboratory

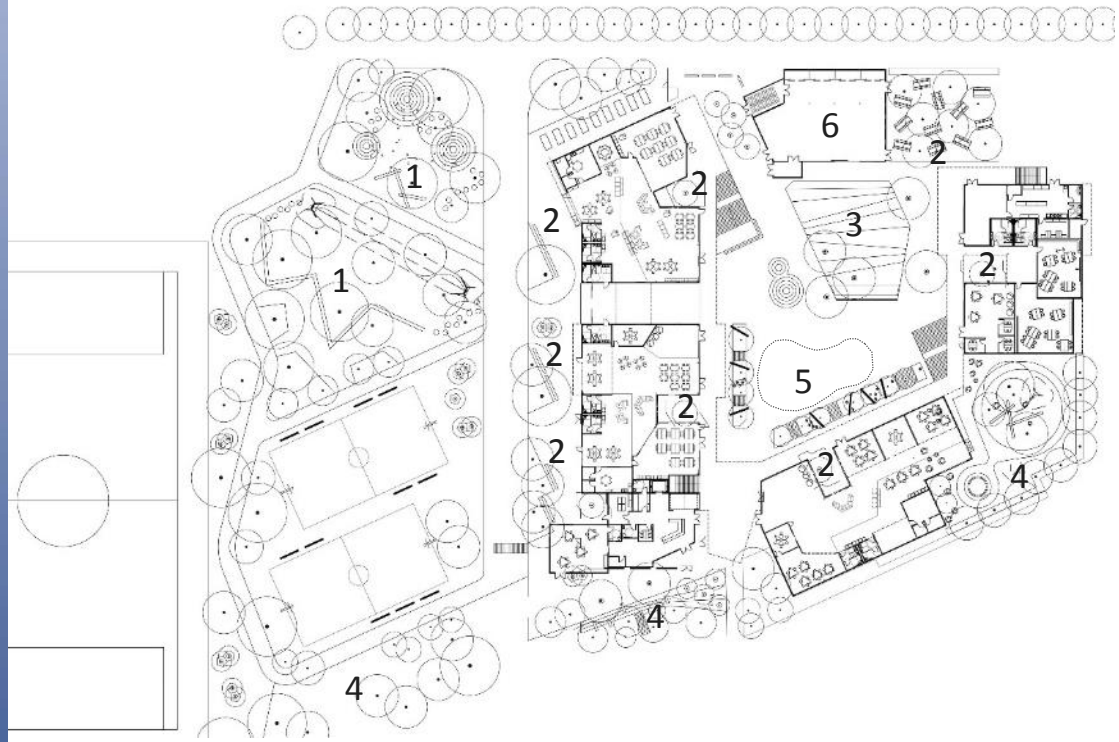
Physical Environment:

The site development expressly provides a diverse range of exterior learning experiences to promote learning-based play:

- Adventure Playgrounds inspired a constructivist play area where students can build and create their own environments. No more prescriptive play!
- Maker Yards are accessible off each Learning Community
- An Amphitheater doubles as a setting for imaginative play and class gatherings
- Bioswales double as exterior science laboratories
- A “Monument to Play” anchors the central courtyard – its component design allows it to transform to become a stage, fort, sundial, rain gauge, and more – “plug-ins” can be invented, created, and tested by children with found materials.

Legend:

1. Constructivist Play Area
2. Maker Yards
3. Amphitheater
4. Bioswales
5. “Monument to Play”
6. Indoor/Outdoor Learning Center



The Indoor/Outdoor Learning Center opens onto the outdoor

A Culture Designed for Innovation

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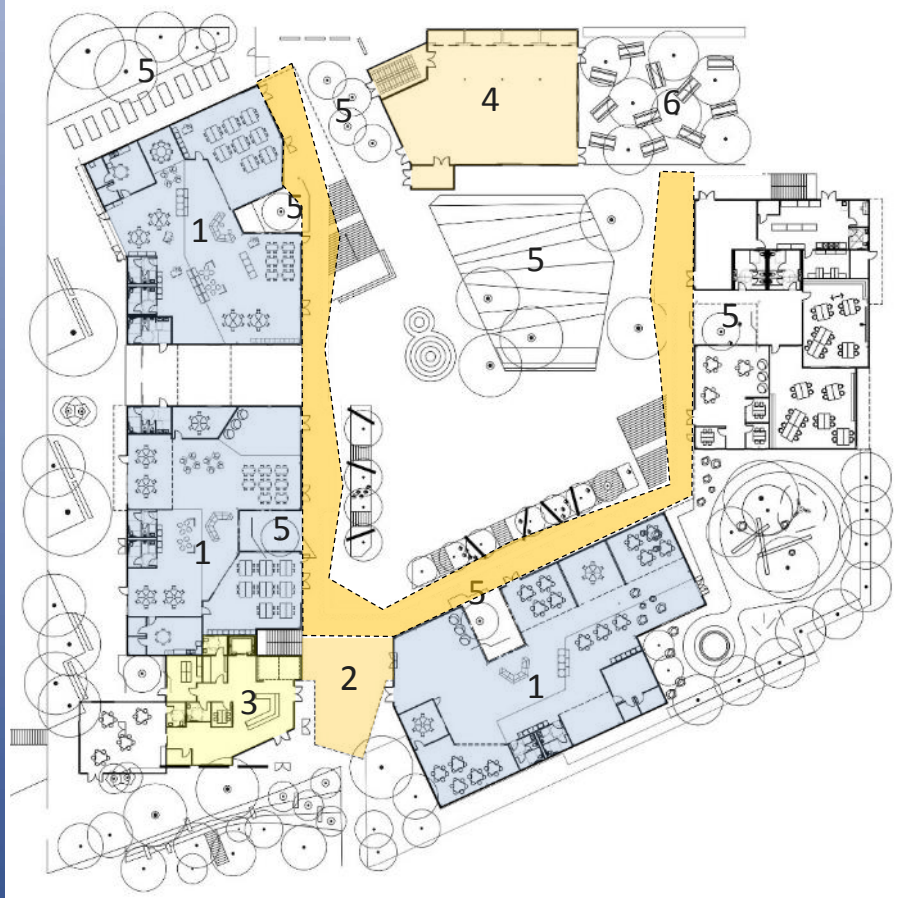

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Design Planning: A Photo Journal

Planning Process:

The planning process reached across the entire district engaging parents, students, teachers, staff, community members, and board members. We asked them deep, provocative questions; hard questions! With no obvious answers. We challenged their status quo! We kept an emphasis on the student experience, without undermining the importance of treating great teachers as proper professionals.

Highlights:

1. **International Benchmarking** took the team on a global search for the most innovative schools world wide – we followed up with Skype conferences and site visits to learn about the human side; the day-to-day experiences.
2. **Think Tank Sessions** brought together a national team of thought leaders; an Anthropologist, an Industrial Designer, a Play-Based-Learning Specialist, a Behaviorist, two International Landscape Architects, and a Furniture Design Innovator.

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Benchmarking/Case Studies

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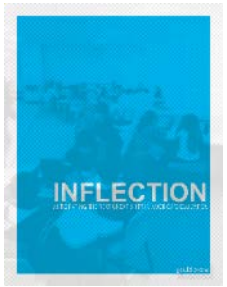
Think Tanks and Visioning Sessions

3

Collaborative Work Sessions with District Staff & Students

4

Community Focus Groups Students, Parents, Bus. Owners



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Visioning/Planning Document The Manifesto for Education!
(link to full document)

Full Scale Pilot Learning Spaces

Planning Process:

Two and a half years prior to design kick-off of the new elementary school, the design team developed four prototype learning spaces which were renovated on four existing school campuses. Each varied from the others – intentionally in order to test different design strategies. A year after occupancy, the design team performed an extensive Post Occupancy Evaluation (POE) of these spaces, determining successes and weaknesses. These lessons learned were applied to the design of the new elementary and offered valuable confirmation of the innovative design principles being proposed.

POE Process:

- Student Survey (online)
- Teacher Survey (online)
- Furniture Preference Polling
- Photo Surveys (staff)
- Round Table Discussion (staff)
- Round Table Discussion (students)

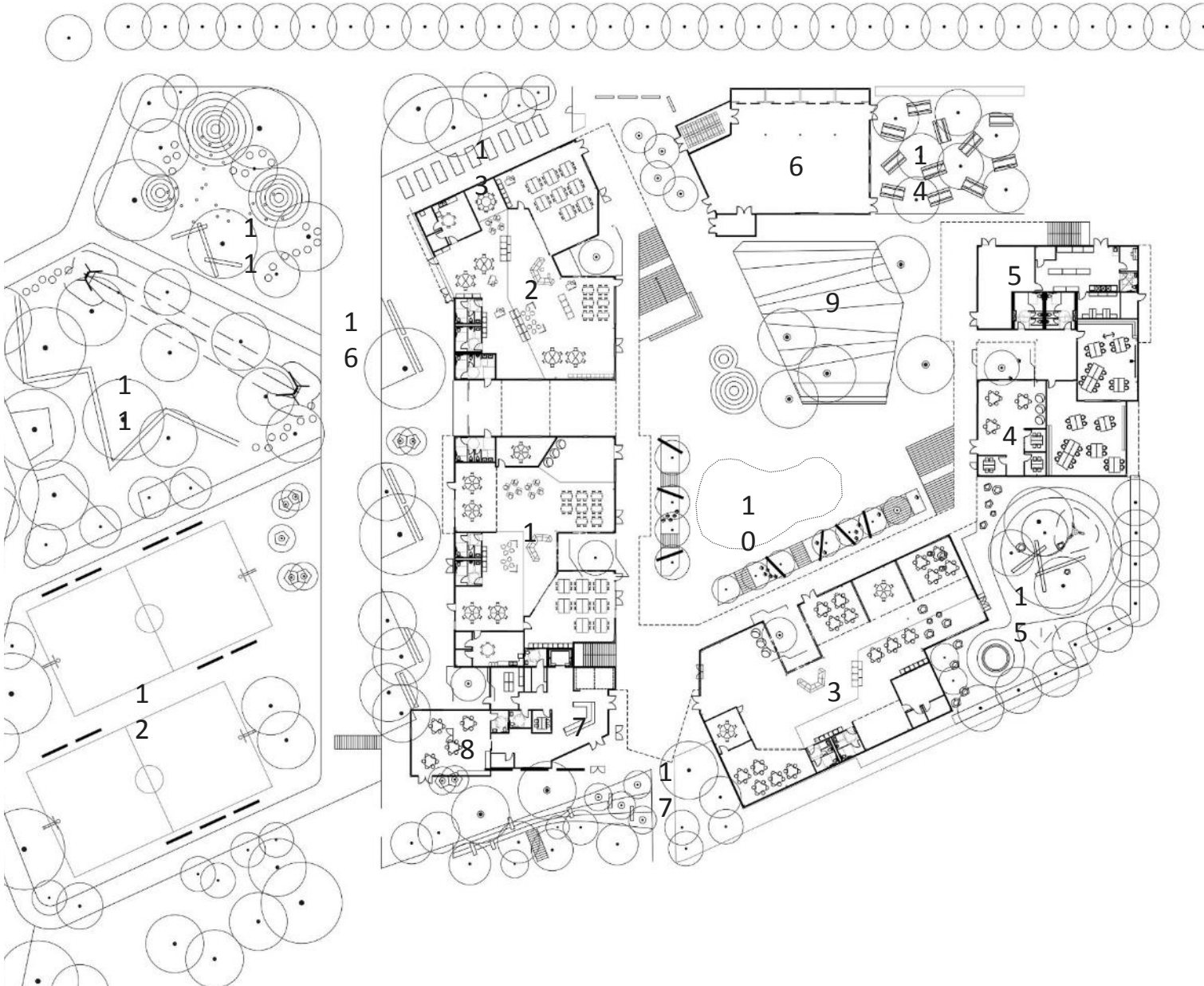
Rose Elementary Learning Center – Phase 1 Prototype

Post Occupancy Evaluation (Link to full POE Document)

Ground Floor Plan

Legend:

1. Learning Community (Grade 1)
2. Learning Community (Grade 2)
3. Learning Community (Kindergarten)
4. Special Education
5. Food Service
6. Indoor/Outdoor Learning Center & Multi-Purpose Space
7. Administration, Business Office
8. Community-Use Room
9. Amphitheater
10. Monument to Play
11. Constructivist Play Area
12. Court Play
13. Vegetable Gardens
14. Outdoor Eating
15. Kinder Play Yard
16. Fire Access Lane
17. Main Entry Plaza



Second Floor Plan

Legend:

1. Faculty Development ‘Collaboratory’
2. Faculty Break
3. Learning Community (Grade 3)
4. Learning Community (Grade 4)
5. Learning Community (Grade 5)
6. Learning Community (Grade 6)
7. Outdoor Maker Deck
8. Shared Team Room
9. Roof

Exhibition of School Planning and Architecture Project Data

Submitting Firm :	Gould Evans
Project Role	Prime Architect
Project Contact	Robert Baum
Title	Principal
Address	95 Brady Street
City, State or Province, Country	San Francisco, CA
Phone	415.503.1411 ext. 1111

Joint Partner Firm:	BASE Landscape Architecture
Project Role	Landscape Architect
Project Contact	Andreas Stavropoulos, PLA
Title	Principal
Address	2212 5th Street
City, State or Province, Country	Berkeley, CA 94710
Phone	415.710.0431

Other Firm:	
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	

Construction Firm:	Blach Construction Company
Project Role	General Contractor
Project Contact	Tony Mirenda
Title	Project Executive
Address	202 Fortune Drive, Suite 100
City, State or Province, Country	San Jose, CA 95131
Phone	408.244.7100

Exhibition of School Planning and Architecture Project Details

Project Name	Milpitas Unified School District - New Elementary School
City	Milpitas
State	CA
District Name	Milpitas Unified School District
Supt/President	Dr. Cary Matsuoka
Occupancy Date	
Grades Housed	
Capacity(Students)	800
Site Size (acres)	6.7 acres
Gross Area (sq. ft.)	70,000 SF
Per Occupant(pupil)	87 SF
gross/net please indicate	gross
Design and Build?	No
If yes, Total Cost:	
Includes:	
If no,	
Site Development:	$8,200,000
Building Construction:	$24,000,000
Fixed Equipment:	
Other:	
Total:	$32,200,000

Six Design Principles

- Innovative professional development program
- Learning Coach embedded within the school-hands-on coaching
- Faculty Collaboratory-a place to share ideas and innovate
- Learning Community organization necessitates team-teaching
- Administration encourages change and rewards risk-taking

- Palette of space types support diverse learning styles
- Multi-modal furniture and equipment easily reconfigure
- Flexible learning spaces with extra breathing room
- Hi-tech & low-tech tools
- Freedom for students to choose where they learn
- Indoor, outdoor, & in-between Learning Studios

- Engaged, active, hands-on, student-directed, physical, kinesthetic learning
- Outdoor learning built into the curriculum
- Furniture that supports movement
- An indoor/outdoor learning center (“Winter Atrium”) that supports movement-based learning year-round

- Students work with professionals out in the community
- Extend learning into the natural environment, especially for science
- Cross-curricular learning emulates the real world
- Opportunities for students to present to authentic audiences

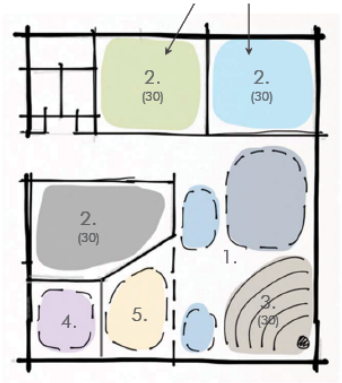
- Create a culture and place that promotes “extreme hospitality”
- Cultivate a close-knit multi-cultural community
- Educate the parents as well as the kids
- Displays help the parents see the work the students are doing
- Flexible community-use spaces
- Create outdoor “sticky space” to promote parent gathering

- A healthy school promotes healthy students
- Create sustainable learning models indoors and outdoors
- Sustainable building design becomes a learning tool; solar orientation, natural light, sustainable materials, rainwater collection, solar panels

12 Design Patterns

LEARNING COMMUNITIES

DESIGN PATTERN #1

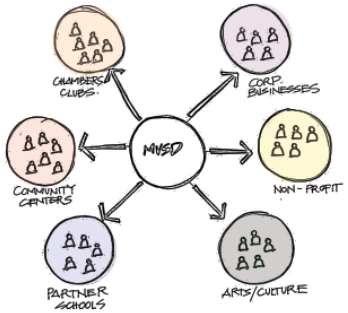


KEY LEGEND

1. Shared learning commons
2. Learning studio/flex laboratory: enclosed
3. Learning studio: open
4. Team/group room: enclosed
5. Team/group area: open

COMMUNITY OUTREACH

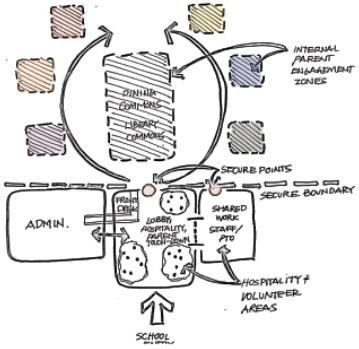
DESIGN PATTERN #2



By engaging with the outside community, students can receive real world experiences and mentoring from professionals in the community.

PARENT COMMUNITY CONNECTIONS

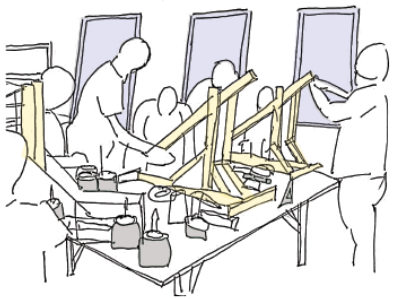
DESIGN PATTERN #3



The design of the school should foster spaces for both parent and community engagement. These might be spaces for community and parent activities, such as before and after school programs and community events.

HIGH-TECH MEETS LOW-TECH

DESIGN PATTERN #4



The mixing of low-tech tools (hammers, glue, scissors) and high tech tools (3d printers, laser cutters, CNC machine) can foster a dual use process amongst students.

12 Design Patterns

BUILDING AS A CONTINUAL LEARNING TOOL

DESIGN PATTERN #5

Using the sustainable design elements of the building as a learning model can allow students to better understand this healthy building model from solar power to rain-water catchment systems, to vegetable gardens.

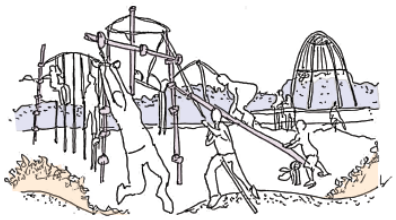
LIBRARY AS A "KITCHEN" IN LIEU OF A "GROCERY STORE"

DESIGN PATTERN #6

A library that supports 21st century learning integrates multiple types of resources such as: green screens, audio/ video editing equipment, books, computers, small performance spaces, and the ability for both large and small groups to collaborate.

ADVENTURE PLAYGROUNDS

DESIGN PATTERN #7



Adventure playgrounds can allow for students to experience unscripted play. These types of models are important for allowing students the ability to play and explore on their own.

TEACHER'S COLLABORATION STUDIO

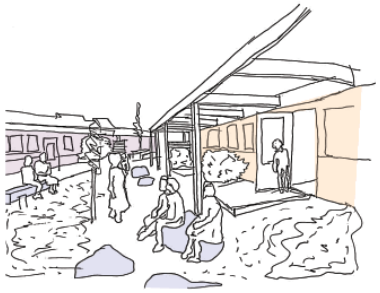
DESIGN PATTERN #8

The space should foster a sense of professionalism and be adaptive to meet the needs of the teachers and administrators while providing spaces for storage and dedicated office space.

12 Design Patterns

INDOOR/OUTDOOR LEARNING SPACES

DESIGN PATTERN #9



Outdoor learning should be fully integrated with the campus and allow for students to engage directly with nature. These spaces can support educational gardens, outdoor sciences, outdoor kitchens, and more.

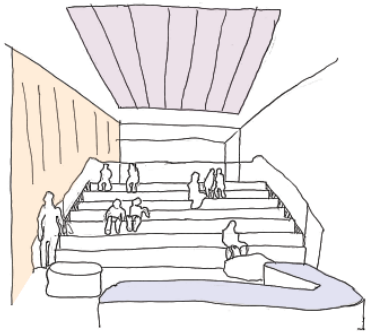
AMBIENT TECHNOLOGY

DESIGN PATTERN #10

Technology should be integrated but not obstructive. It should not create a "black hole" in the learning environment when not in use. Yet it should be ever-present (ambient) such that shifting from analog to digital activities is seamless.

ALL-SCHOOL GATHERING SPACE

DESIGN PATTERN #11



These spaces work nicely as casual seating within a larger space. The amenities should support a speaker and audience with sound refinement and have good acoustical properties.

CHIEF CULTURAL OFFICER

DESIGN PATTERN #12

This individual helps works with teachers on their professional development and supports their abilities to promote new learning models within the school.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