

Sustainability Master Planning for Schools

Setting the Stage: A District Perspective

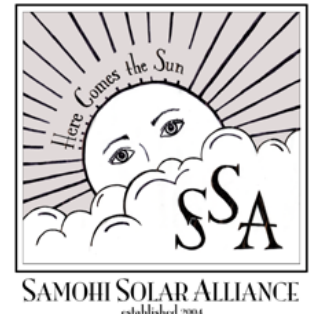
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Santa Monica - Malibu Unified School District



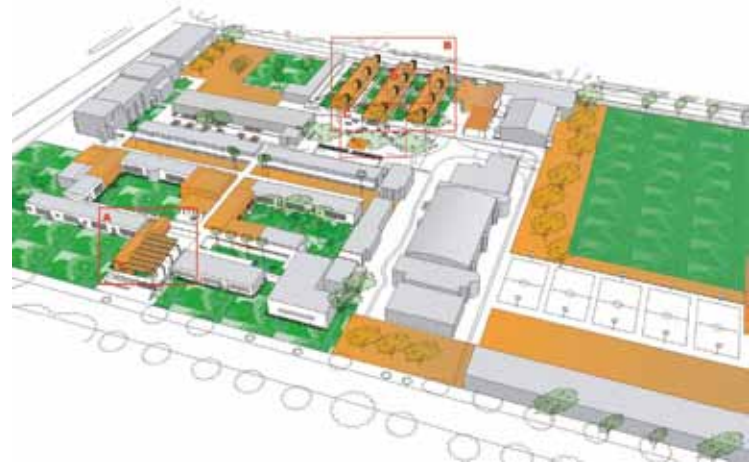
Building in a Green Culture

- Unique and vulnerable environmental setting on the Pacific Ocean
- Special responsibility to be stewards of the environment
- Many local environmental advocacy groups and leaders in the field of sustainable design



Look at Land with an Open Mind

- Demo vs. Reuse
- Orientation
- Open Spaces



John Adams Middle School, SMMUSD
Osborn/Koning Eizenberg Architecture



Malibu Middle and High School, SMMUSD
HMC Architects

District Policies

- Establishing enrollment caps at sites
- Adopting CHPS Criteria – Sustainability
- Equity between Sites
- Green Cleaning
- Purchasing Standards/Multi-Year Contracts
- Storm Water
- Alternative Fuel Vehicles

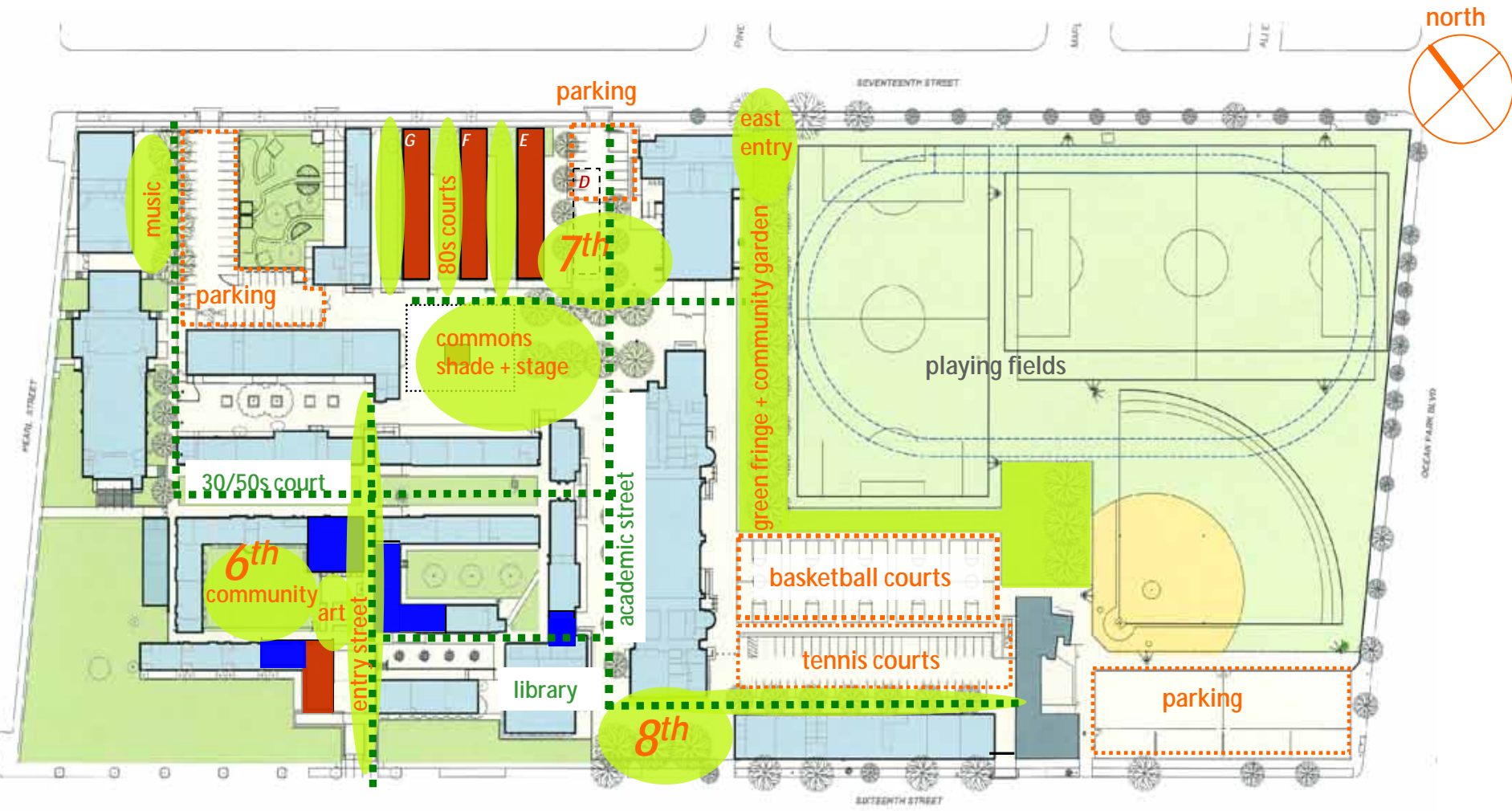
District Sustainability Goals

- Reduce Waste - Recycling/Composting
- Create/Utilize Outdoor Learning Spaces
- Engage Community Partnership
- Encourage Trip Reductions
- Involve Students
- Create/Utilize Community Gardens
- Improve Indoor Air Quality
- Pursue Solar/Alternative Energy Source



John Adams Middle School, SMMUSD
Osborn/Koning Eizenberg Architecture

Organize around Outdoor Space



John Adams Middle School, SMMUSD
 Osborn/Koning Eizenberg Architecture

- = new building
- = interior remodel
- = circulation
- = open space improvements

Organize around Outdoor Space

- Reinforce identity of schools within schools
- Organize campus
- Tell a story:

From Sky to Sea depicts the physical journey of a raindrop to Zuma Beach, and the educational journey of the next generation of environmentalists.



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Improve Outdoor Spaces

- Program options
 - Outdoor Classroom
 - Breakout/project spaces
 - Performance space
 - Commons



Lincoln Middle School, SMMUSD
DLR Group/WWCOT Architects

Activate Outdoor Spaces

- Program “in-between” spaces
- Outdoor classrooms
- Planned and impromptu performance
- Available for community use



Lincoln Middle School, SMMUSD
DLR Group/WWCOT Architects



District Environmental Initiatives

- Solar hot water system at Samohi pool
 - Requested by Santa Monica High School Solar Alliance
- Pilot program for recycled food trays and paper products, reducing or eliminating polystyrenes
- 8 CNG buses in the fleet of 11 transit buses
- Waterfree urinals installed at most campuses
- Solar/PPA project for ten school sites
- 2 KW Solar Demonstration project completed at Pt. Dume Marine Science Elementary School
- Sustainable Works audit of District Offices
- CHPS Criteria for Performance and Operations Pilot Program – Muir ES/SMASH

Design Guidelines

- Implement CHPS Best Practices
- Exceed CHPS by 15%
 - New (37 pts) and Renovation (29 pts) Standards
- Meet Performance Goals
 - 20% > T24 Reduce Energy Use below State Standards
 - 30% > ASHRAE 62 Increased Ventilation
 - 75% Diversion of Construction Waste
 - PV Ready
 - 0 New Net Discharge Stormwater
- Improve Indoor Air Quality
- Maximize Educational Opportunities
 - Educational Display
 - Demonstration Areas
- Incorporate Outdoor Learning Environments
- Implement Monitoring and Reporting Process

District Standards

- Community Spaces
- Child Care
- Special Education
- Libraries
- Parking/Biking
- Furniture
- Historical
- Classroom Use (sec 3.3.1 in Master Plan)
- Maintenance/Grounds/Operations
- Educational Services
- Food Services
- Technology

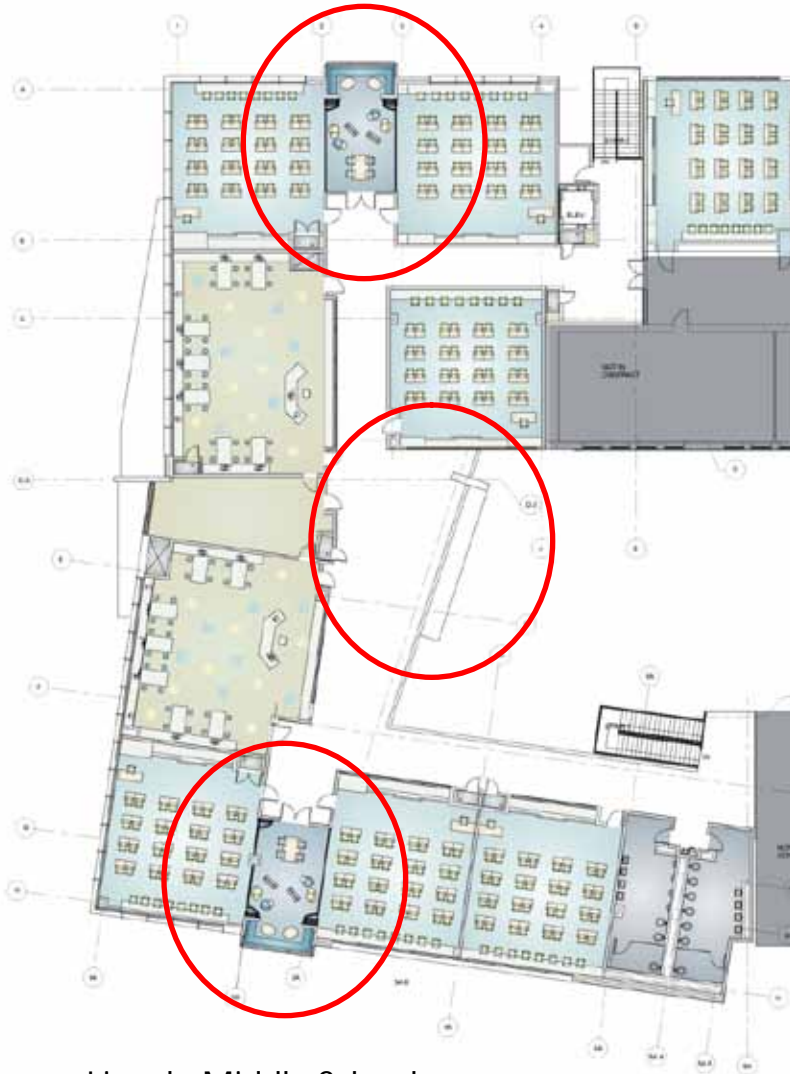
Classroom Use

CLASSROOM USE BY SITE

	Middle/High Schools											Elementary Schools											Totals
	Middle/High Schools											Elementary Schools											
	Adams	Lincoln	MM/HS	Samohi	Olympic	Totals	Webster	Roosevelt	Rogers	Pt. Dume	SMASH	Muir	McKinley	Gant	Franklin	Edison	Cabrillo						
Existing 2006/07 Enrollment	1055	1193	1295	3192	128	11880	405	753	553	285	194	304	393	655	800	396	281						
Assumed 2015/16 Enrollment	1028	1200	1163	2671	400	12188	359	800	650	305	196	389	650	700	800	650	247						
Net Enrollment Change	-27	7	-132	-521	274	308	-46	47	97	20	2	85	257	0	254	-34							
Required (K-12)	34	40	39	89	13	464	16	35	28	13	9	16	28	30	28	11	11						
Existing (K-12)	31	31	29	97	28	454	20	32	31	14	10	16	18	29	19	15	15						
Demolished	18	0	16	13	19	131	3	8	0	0	0	0	4	6	19	4	4						
Transferred to other use	5	0	0	0	0	23	7	4	3	3	1	2	0	0	0	0	0						
Transferred from other use	3	0	0	0	0	15	1	4	0	4	0	1	1	2	0	0	0						
Total Remaining	11	31	13	84	7	315	11	23	15	15	9	14	15	24	0	11	11						
Net added	23	9	26	5	6	140	5	12	-2	13	0	2	13	6	28	0	0						
Total FMP	34	40	39	89	13	464	16	35	28	13	9	16	28	30	28	11	11						
Required	10	10	18	13	7	153	8	9	10	8	5	8	11	9	8	10	10						
Existing	10	10	21	14	0	195	1	8	7	6	5	5	12	5	6	10	10						
Demolished	0	0	0	2	0	47	0	7	0	0	4	0	8	0	6	8	8						
Transferred to other use	0	0	0	0	0	15	1	1	6	5	0	0	0	2	0	0	0						
Transferred from other use	0	0	0	0	0	19	5	2	2	5	0	0	0	1	0	0	0						
Total Remaining	31	22	21	14	7	156	1	1	6	5	5	3	4	4	8	8	8						
Net added	-12	-3	4	-22	7	36	1	8	4	3	5	8	7	5	8	8	10						
Total FMP	19	19	25	192	7	192	8	9	10	8	5	8	11	9	8	10	10						
Total Existing Classrooms	62	53	50	148	26	640	21	40	38	20	10	21	30	34	25	25	25						
Total Demolished Classrooms	18	0	16	15	19	178	3	15	12	0	4	4	12	6	25	12	12						
Total FMP Classrooms (Net)	11	6	30	133	7	462	18	25	26	1	6	7	18	11	18	8	8						
Total FMP Classrooms (Gross)	53	59	64	163	20	858	24	44	38	21	14	24	39	39	36	33	33						
Classrooms Net Change	-9	6	14	-32	-6	7	3	4	0	1	4	3	9	5	11	4	4						

Classrooms under 800
 classrooms under 800, min one

Provide Adaptable Places for Learning



- Breakout spaces, common rooms, project spaces
- Shared between classroom and teachers
- Visibility and flexibility
- Utilize decks, outdoor spaces

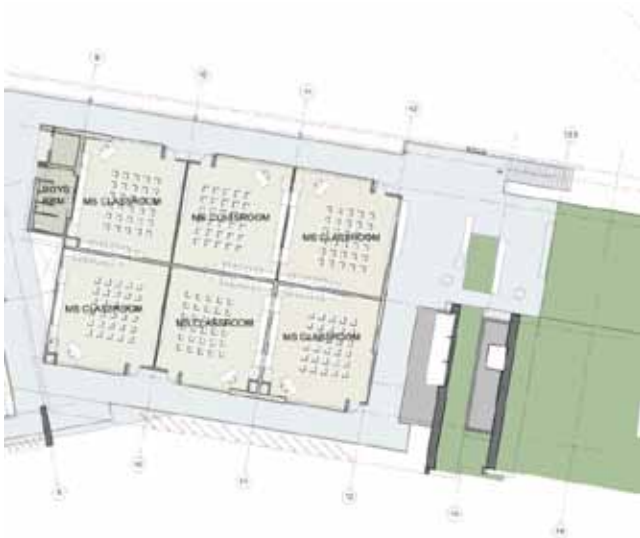
Lincoln Middle School
DLR Group/WWCOT Architects

Provide Adaptable Places for Learning

- Rooftop outdoor classroom
- Green roof as teaching tool



Malibu Middle and High School
HMC Architects



Provide Adaptable Places for Learning

- Library is the heart of the school
- Provide variety of seating areas
- Allow for Community use

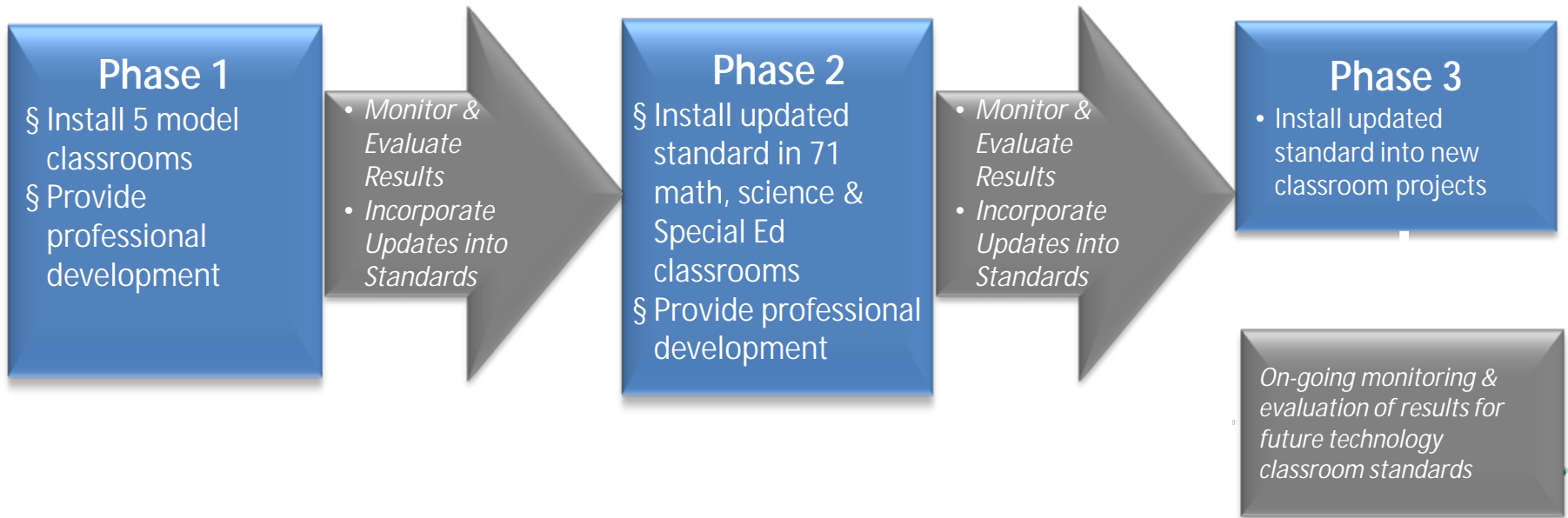


Lincoln Middle School, SMMUSD
WWCOT Architects

Incorporate Technology

Define secondary classroom technology standard

- Technology Program includes:
 - Infrastructure Upgrades
 - Central Data Center
 - IP Telephony
 - Classroom Technology



Partnerships

- Playground partnership
- Cities (Malibu/Santa Monica)
- Advocacy Groups – Global Green, Surf Rider, Heal the Bay, etc.
- Santa Monica High School Solar Alliance
- Environmental
- Community Gardens
- Community Involvement (meetings and Charities)

Sustainable Design Charrette

- All Day Charrette and Team Building
- Held in LEED Gold Santa Monica Public Library
- 60 Participants
 - District Staff
 - Architects and Engineers
 - City Staff
 - Stakeholders
 - Parsons – Program Manager
 - LAUSD
 - Global Green
 - BB Advisory Committee
 - Board of Education



Charrette Goals



- Align A/E teams, District, and community around basic values, purpose and expectations
- Engage District M&O in design process
- Integrate community and identify resources
- Identify key concepts and systems that most benefit the environmental & project goals
- Identify measurable goals
- Support development of the Design Guide
- Complete and sign Measure BB Mission Statement

Charrette Benefits

- Tap into the expertise and experience of the architects, local community groups, advocacy groups, city agencies and neighboring districts
- Allow and encourage innovative thinking regarding sustainable design
- “Raise the bar” - issue the challenge to educate and inspire each other



SMMUSD Mission Statement



Through our dedication and spirit of collaboration, we the Project Teams and Community stakeholders will create safe and healthy high performance facilities of enduring quality, sustainability and efficiency that enhance the learning environment for District students and employees. We will enhance the communities of Santa Monica and Malibu as stewards of our environment and natural resources to ensure that they are sustainably managed for current and future generations.

