

Wold

Berkeley School District 87

LONG RANGE PLANNING

Life Cycle Cost

20 May 2019

METHODOLOGY

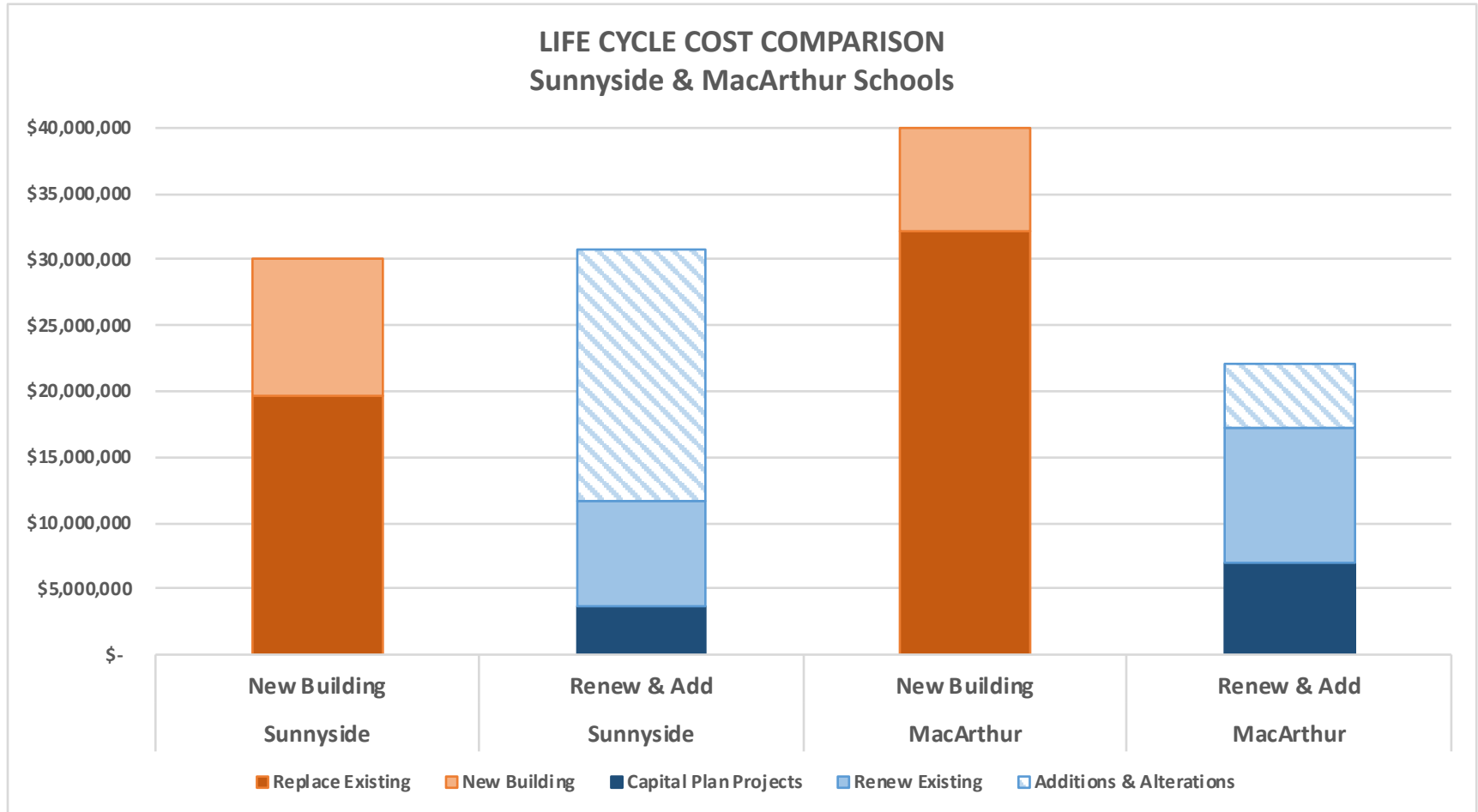
- Evaluate Building Systems – for each building
 - Site, Structure, Walls & Roof, Interior, HVAC, Plumbing, Electrical
- Age vs Expected Life – modify by Condition
- Replacement costs based on \$450/SF Project Budget (same as for new)
- System Replacement Costs allocated based on representative new construction
- $\text{Renewal Cost} = \text{Replacement Cost} \times \text{Condition Index}$

Long Range Planning

LIFE CYCLE COST ANALYSIS EXAMPLE

SYSTEM	LIFE EXPECTANCY	AGE/ CONDITION	% of Building	Adjusted F.C.I.	REPLACEMENT COST	RENEWAL COST
Site						
Site Earthwork	100	49	3.31%	0.71	\$653,086	\$189,395
Site Utilities	50	49	5.22%	0.32	\$1,029,943	\$700,361
Site Paving	30	22	2.93%	0.27	\$578,110	\$423,947
Site Development	20	22	1.53%	0.00	\$301,880	\$301,880
Substructure	100	49	6.13%	0.61	\$1,209,492	\$471,702
Superstructure	100	49	6.53%	0.79	\$1,288,415	\$270,567
Exterior Walls						
Exterior Masonry Walls	100	49	11.46%	0.51	\$2,261,138	\$1,107,958
Exterior Glazing	30	22	4.42%	0.27	\$872,097	\$639,538
Exterior Doors (Alum)	30	22	0.19%	0.27	\$37,488	\$27,491
Roofing	23	22.8	4.48%	0.01	\$883,935	\$876,249
Interior Construction						
Partitions	100	49	6.24%	0.51	\$1,231,196	\$603,286
Doors & Hardware	40	40.5	1.63%	0.00	\$321,610	\$321,610
Interior Wall Finishes	13	10	2.90%	0.23	\$572,190	\$440,146
Floor Finishes	26.5	27.9	2.93%	0.20	\$578,110	\$462,488
Ceilings	20	8.5	1.37%	0.58	\$270,311	\$114,882
Service & Distribution						
Service & Distribution	35	32	4.33%	0.09	\$854,339	\$781,110
Lighting	25	15	2.76%	0.40	\$544,567	\$326,740
LV Systems	20	10.5	1.91%	0.48	\$376,856	\$197,850
			100.00%	Total (Rounded)	\$19,700,000	\$11,700,000

Long Range Planning LIFE CYCLE COST



RENEWAL APPROACH OUTCOMES

SUNNYSIDE INTERMEDIATE:

Opportunities

- Provides new Multi-purpose/Cafeteria Space and new Gymnasium
- Provides improved site circulation and secure entrance/office to school
- Creates Exploratory Classrooms with renovation
- Provides additional Support Space
- Refreshes Classrooms and Media Center
- Addresses Capital Plan Projects

Compromises

- Limited by original layout
- Narrow stairs restrict 2nd floor capacity/impact student flow
- Narrow corridors, low ceilings
- Classrooms lack proximity to Collaborative Learning Spaces

RENEWAL APPROACH OUTCOMES

MACARTHUR MIDDLE:

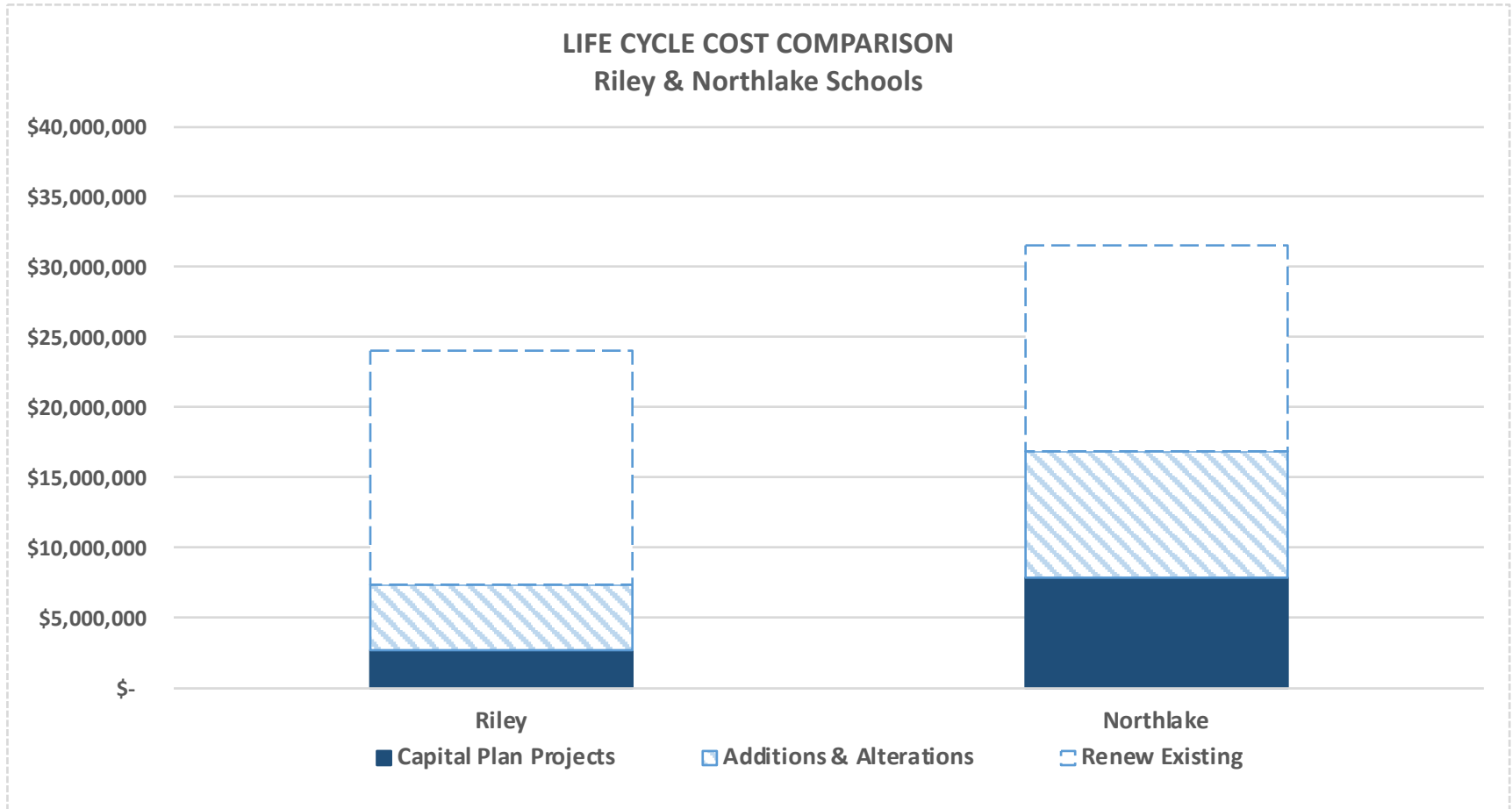
Opportunities

- Provides improved site circulation and secure entrance to school
- Improves Science Labs, Media Center and Creates Stem Lab
- Provides Learning Breakout Spaces
- Refreshes Classrooms
- Addresses Capital Plan Projects

Compromises

- Limited by original layout
- Multiple floor levels (5) remain
- Narrow corridors, low ceilings

Long Range Planning LIFE CYCLE COST



CAPITAL PLAN

- Prepared in 2014 – updated periodically
- Current Items: ~ \$8.6 M (district-wide, current dollars)
 - Examples: Galvanized water pipe replacement, plumbing-code compliance, Intercom & clock system replacement, door & hardware issues
- New items (based on recent review): ~ \$13.4 M (SI, RI, MM, NM)
 - Examples: Re-roofing, replace remaining original electrical equipment, replace condenser fans (SI/MM), replace gym floor and bleachers (NM), abate ACM

Long Range Planning NEXT STEPS

- Life-Cycle Cost Analysis (Wold) **May 2019**
- Refine Concepts, Validate Budgets, Investigate Critical Systems (Wold) **June-July 2019**
- Evaluate Financial Feasibility (District 87) **July-August 2019**
- Community Outreach, Test Support (District 87) **August-September 2019**
- Refine Options & Budgets (Wold) **October-November 2019**
- Board Decision (District 87) **December 2019**