

# Palm Crest Elementary

Modular Construction Considerations  
For New Classroom Building Addition

April 16, 2019

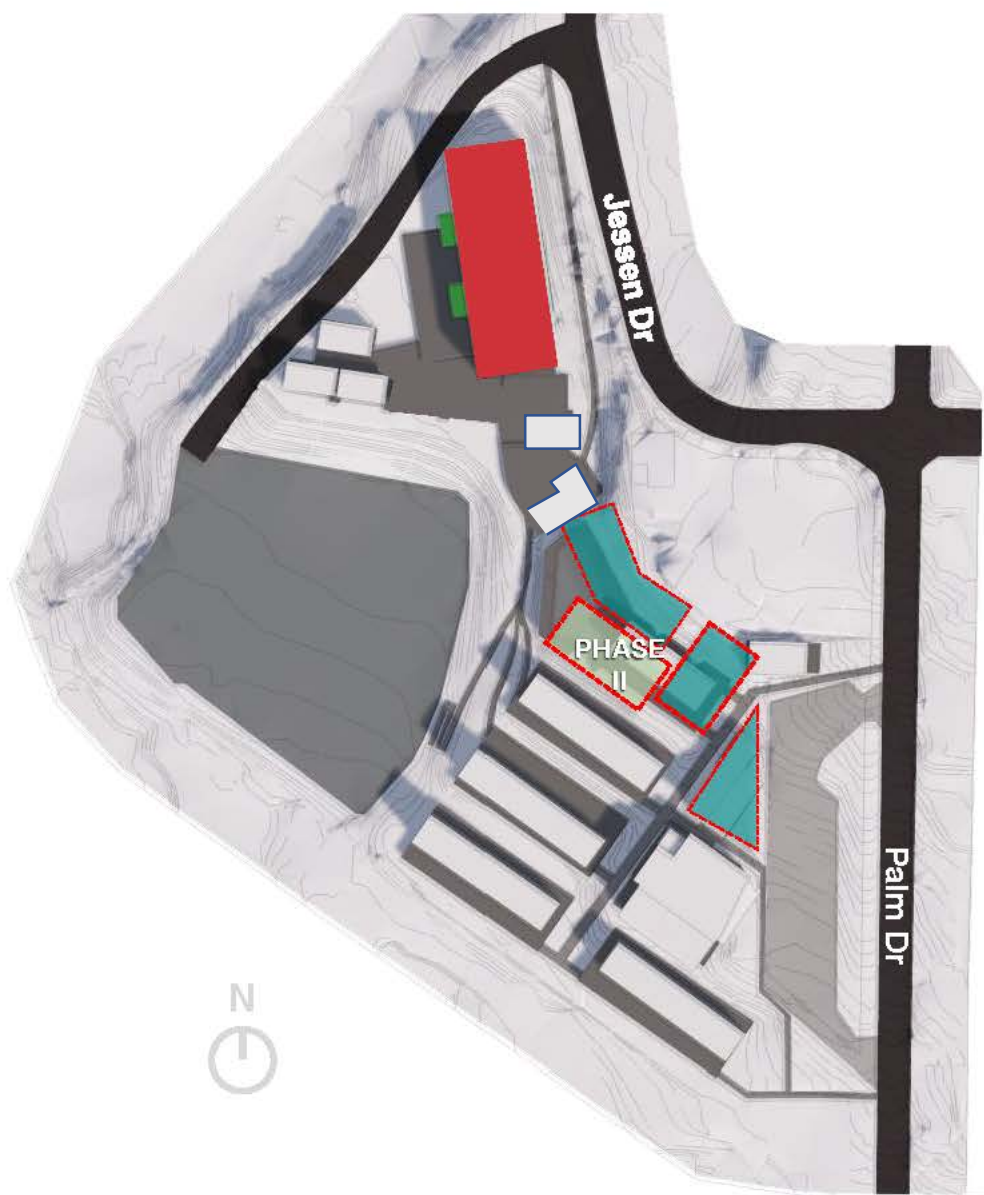
# Modular Construction Considerations

- Advantages

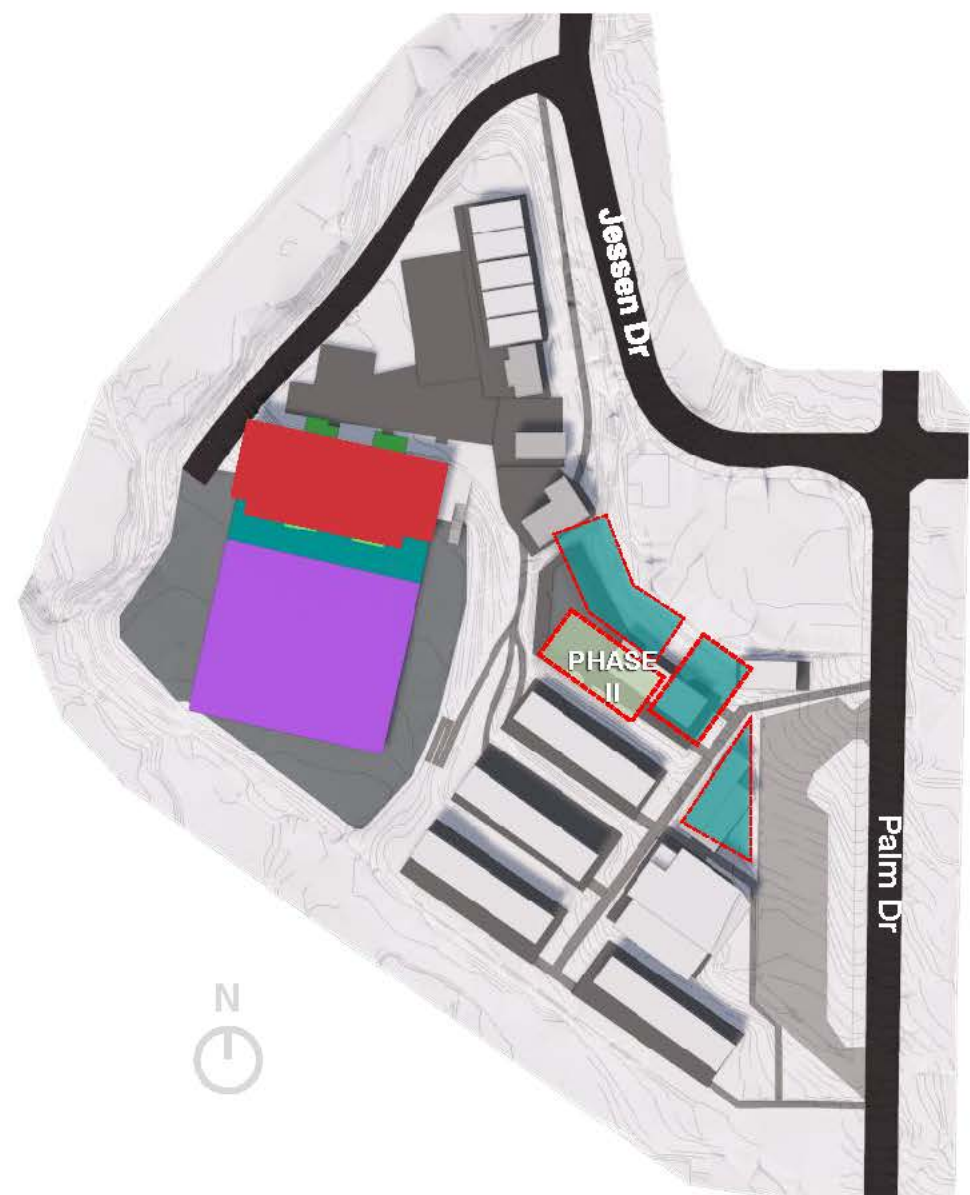
- Reduce the overall cost of the project
- Reduce the construction time

- Disadvantages

- Limitations on siting
- Custom design brings costs closer to a site built building
- More complex acquisition



Concept A



Concept B



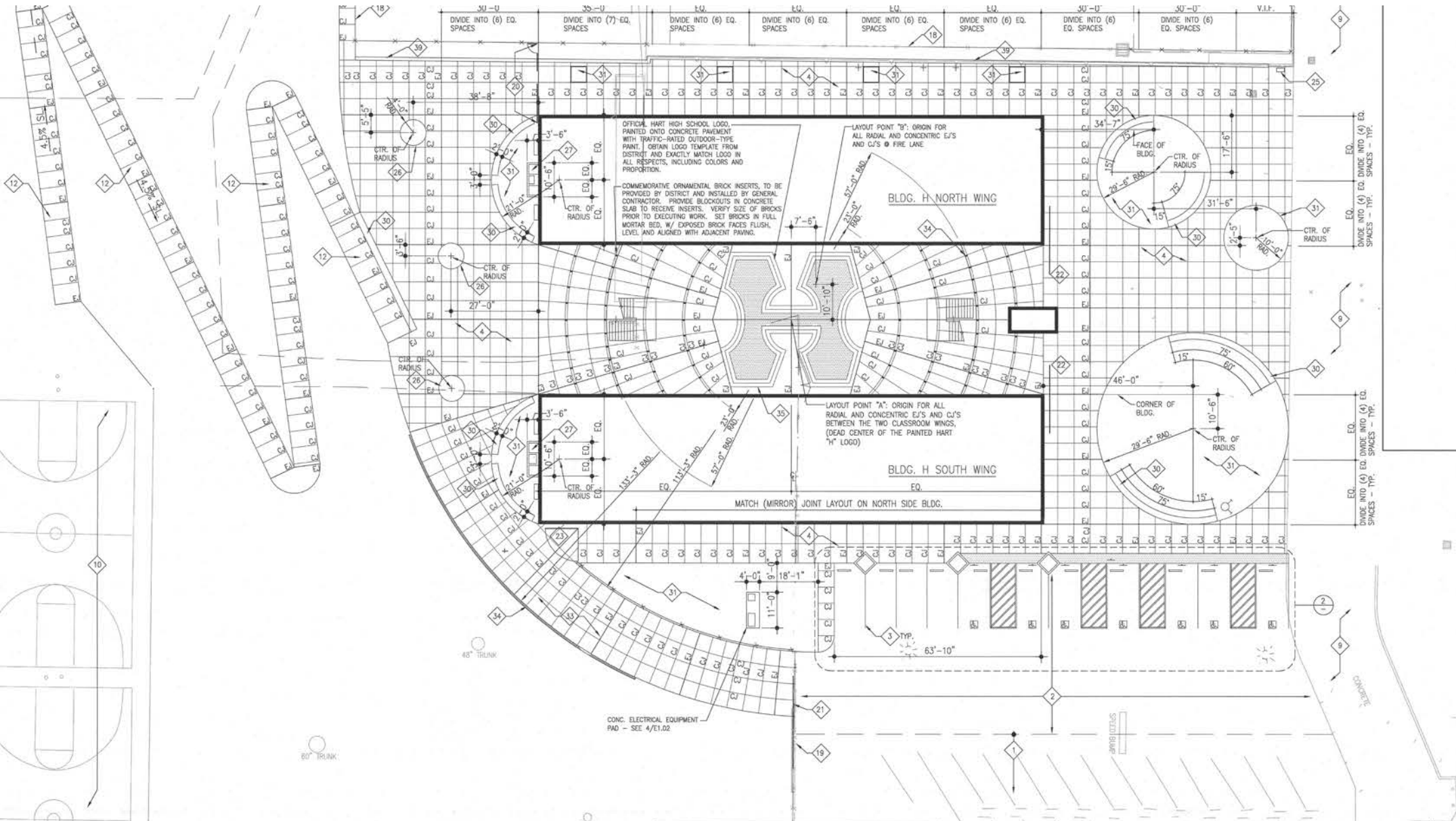
AMS Modular

W.S. Hart High School  
W.S. Hart High School District

Classroom Building -  
20 standard classrooms and  
restrooms  
24,000 SF

Original Estimate (Site Built): \$21 M

Total Current Cost (Modular): \$15 M  
Modular Building Cost: \$9M  
Building Cost \$375/Sq. Ft



- 2 REMOVE (E) A.C. PAVING AND REPLACE WITH NEW A.C. PAVING, WITH NO SLOPE EXCEEDING 2% IN ANY DIRECTION. TRANSITION SMOOTHLY BETWEEN EXISTING AND NEW PAVING, WITH NO VERTICAL OFFSET, JOG OR UNEVENNESS WHATSOEVER BETWEEN NEW AND (E)
- 3 PARKING LOT STRIPING
- 4 CONCRETE PAVING WITH MEDIUM BROOM NON-SLIP FINISH, WITH NO SLOPE EXCEEDING 2% IN ANY DIRECTION
- 5 (E) TENNIS COURT CONCRETE SLAB
- 6 NEW TENNIS COURT CONCRETE SLAB OF CONSTRUCTION TO MATCH (E)
- 7 REMOVE (E) TENNIS COURT SECTION AS SHOWN, IN ORDER TO PROVIDE ACCESS FOR BELOW-GRADE INFRASTRUCTURE WORK BY SEPARATE A/E. REPLACE WITH NEW TENNIS COURT CONCRETE SLAB OF CONSTRUCTION TO MATCH (E)
- 8 PROVIDE ALL NEW TENNIS COURT RESURFACING AND RESTRIPIING, OVER ENTIRE EXTENT OF ALL (6) TENNIS COURTS
- 9 (E) A.C. PAVED DRIVEWAY
- 10 PATCH AND REPAIR (E) A.C. PAVED BASKETBALL COURTS. PROVIDE SLURRY TOPPING AS NECESSARY TO ACHIEVE SMOOTH, UNIFORM PAVEMENT, WITH NO DEPRESSIONS OR VOIDS TO RESULT IN PONDING, AND WITH NO SLOPES EXCEEDING 2% IN ANY DIRECTION. NOT USED
- 11 CONCRETE WALKWAY WITH 5% MAX. SLOPE IN DIRECTION OF TRAVEL AND NO GREATER THAN 2% CROSS SLOPE. PROVIDE MEDIUM BROOM NON-SLIP FINISH.
- 12 NOT USED
- 13 NOT USED
- 14 NOT USED
- 15 NOT USED
- 16 NOT USED
- 17 NOT USED
- 18 COMPLETELY REMOVE (E) PERIMETER CHAIN LINK FENCING FROM AROUND TENNIS COURTS. PROVIDE NEW CHAIN LINK FENCE (12' MAX. HEIGHT), AROUND ENTIRE (4) SIDES OF PERIMETER OF NEW ENLARGED TENNIS COURTS. SEE 3/A2.00 FOR ADD. INFO.
- 19 (E) CHAIN LINK FENCE
- 20 6' HIGH COMBINATION CANTILEVERED CHAIN LINK GATE, FIXED FENCE PANEL, AND HINGED GATE. FOR ADD. INFO., SEE 1/A1.02
- 21 6' HIGH X 21' LONG CANTILEVERED CHAIN LINK GATE (14' OPENING)
- 22 6' HIGH X 18' LONG CANTILEVERED CHAIN LINK GATE (12' OPENING)
- 23 6' HIGH X 26' LONG CANTILEVERED CHAIN LINK GATE (18' OPENING)
- 24 NOT USED
- 25 ACCESSIBLE PEDESTAL-TYPE BOTTLE FILLING STATION AND DRINKING FOUNTAIN WITH PROTECTIVE SIDE RAILS: ELKAY OUTDOOR E2H20 BOTTLE FILLING STATION TRI-LEVEL PEDESTAL, NON-FILTERED NON-REFRIGERATED FREEZE RESISTANT MODEL #L4430BFTLFRK. FOR ADD. INFO., SEE 13/A1.02, 14/A1.02 AND 15/A1.02
- 26 8" DIAMETER TREE WELL
- 27 CONCRETE ELECTRICAL EQUIPMENT PAD - SEE DETAIL 16/A1.03
- 28 NOT USED
- 29 NOT USED
- 30 2' X 2' CAST IN PLACE CONCRETE BENCH SEAT W/ SMOOTH FINISH. SEE PLAN FOR LENGTH. ALSO SEE 17/A1.02
- 31 PLANTER
- 32 NOT USED
- 33 MIN. 20' WIDE CONCRETE FIRE LANE CAPABLE OF SUPPORTING 75,000 VEHICLE LOAD WITH MINIMUM 13'-6" VERTICAL CLEARANCE
- 34 RETAINING WALL - FOR ADD. INFO., SEE SHT. C-2.0, 1/C-2.3, 2/C/ ALSO SEE 19/A1.02
- 35 4' X 4' TREE WELL
- 36 NOT USED

## Various Modular Classroom Building Solutions in California





## Meehleis Modular Buildings

Ralston Middle School  
Belmont – Redwood Shores School  
District

Two Story Classroom Wings and  
Restrooms  
9,074 SF



Meehleis Modular Buildings

Lawson Middle School  
Cupertino Union School District

Two-Story Classrooms & Music Building  
27,388 SF





Meehleis Modular Buildings

Nesbit Elementary School  
Belmont – Redwood Shores  
School District

Two Story Classroom Building  
12,692 SF



JL Modular

Parkside Middle School  
San Bruno Park School District

Two-story Classroom Building  
28,000 SF





JL Modular

San Benito High School  
San Benito High School District

Visual & Performing Arts Building -  
six standard classrooms, three studio  
art rooms, dance studio, ceramics  
studio with outside kilns, and  
restrooms & offices



AMS Modular

Educare Center

Long Beach Unified School District

Two-story Classroom & Admin Bldg

Early childhood education program





Silvercreek

Westcreek Academy  
Saugus Union School District

Custom Two-story Classroom  
Bldg

Modular Expenses - \$7 million



Lab Space

# Palm Crest Conceptual Design

- **New Building Addition – Site-Built Concept (Option B Site Plan)**

13 Classrooms (12,480 SF)

Co-Labs (1,920 SF)

1 RSP Classroom (960 SF)

1 Intervention (480 SF)

1 Speech (280 SF)

1 Counseling (200 SF)

1 Staff Workroom (650 SF)

Restrooms /Storage (1,790 SF)

Net Usable Space – 18,760 SF

**Circulation Space – 6,190 SF**

Total Square Footage - 24,951 SF

Estimated Cost - \$12,800,000 (Site B Building Only)

Unit Cost - \$513/SF

- **New Building Addition – Modular Bldg Approach**

- Site Option B would not be recommended

- Site Option A is better suited for modular construction

- Standard modular bldg with external walkway is most cost effective

- Opportunity to increase net total usable space

- Compare two recent projects – \$300/SF- \$375/SF

- **Received an initial budget figure from a modular company - \$350/SF (internal Corridor)**

- **26,000 - 28,000 SF facility (w/ external walkway) could account for 20 classrooms & Co-labs**

- **Shorter construction duration than site built.**