

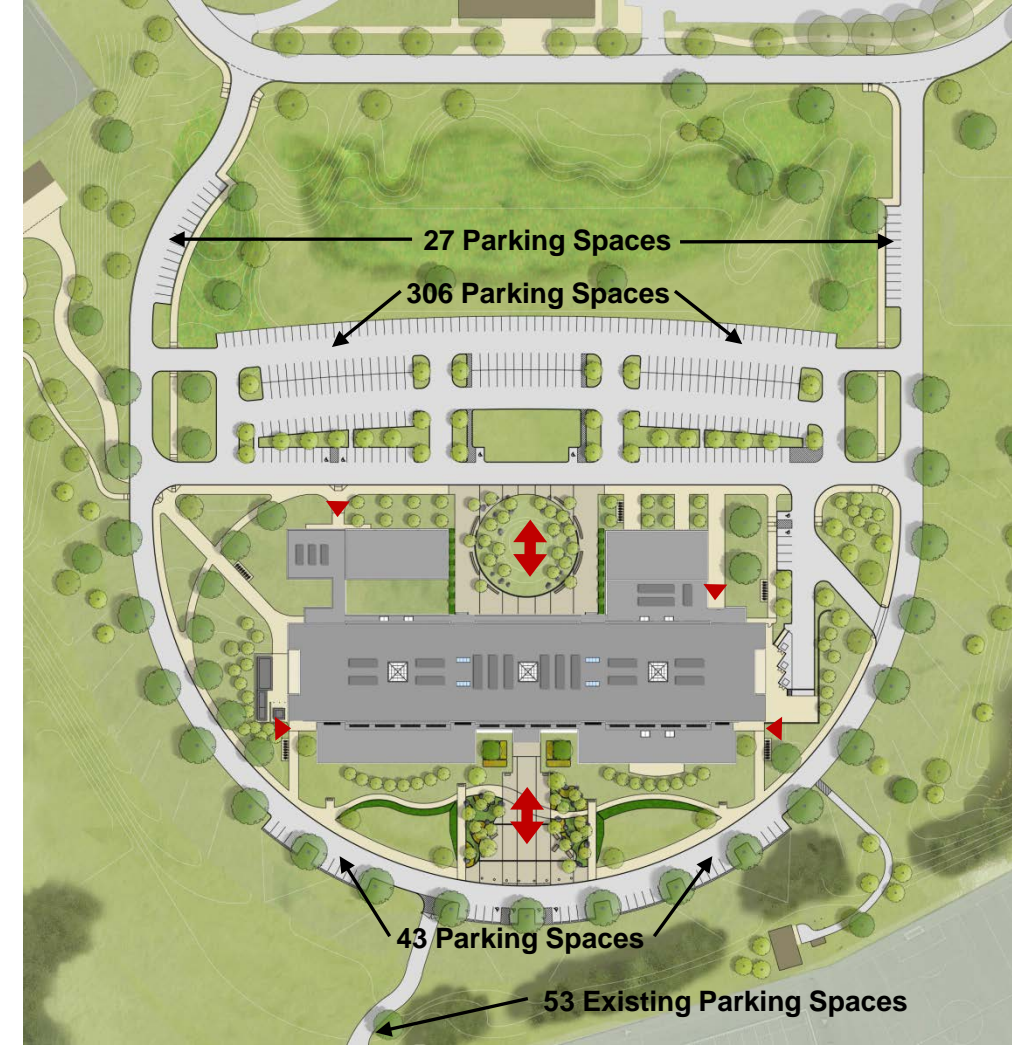
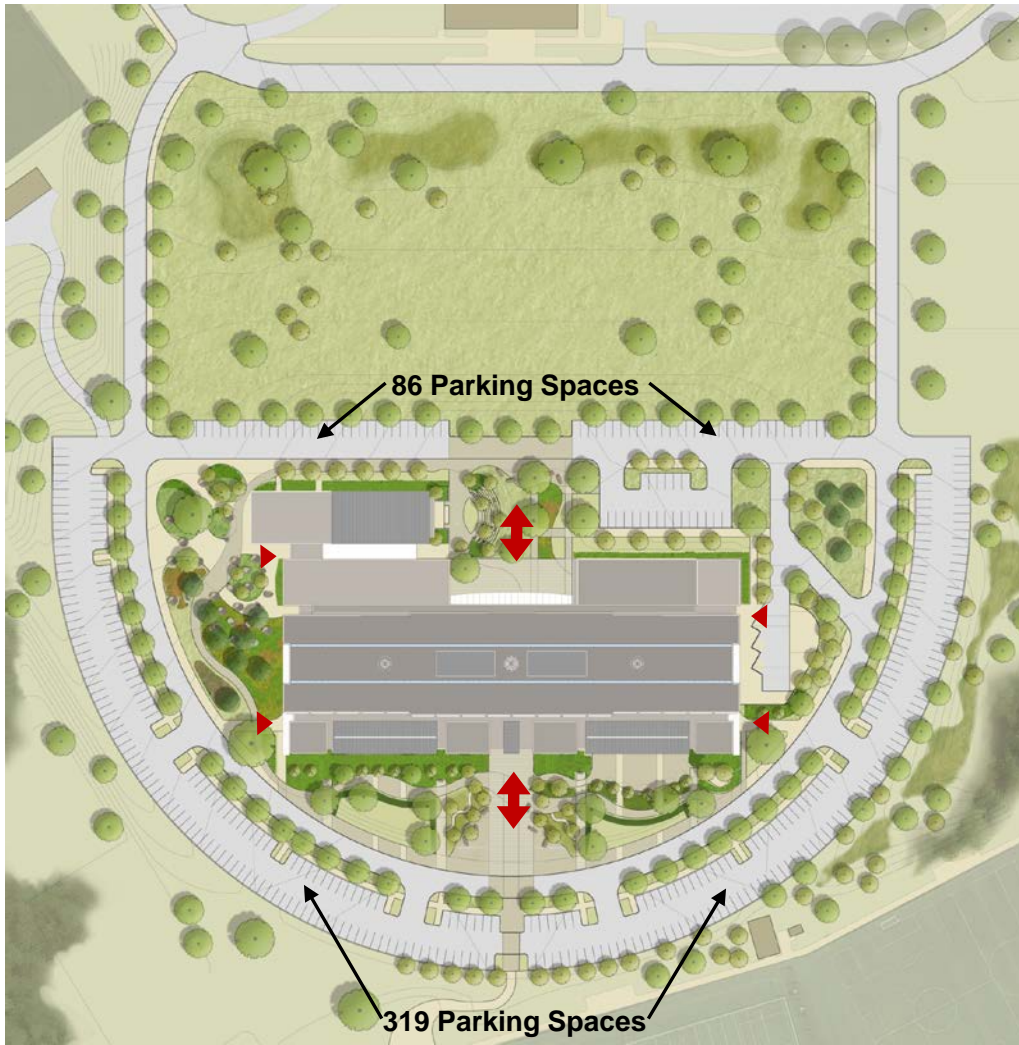
# Value Engineering - Site Plan:

The site has less paving, more undisturbed green space and a greener water retention system. Utilities to the site have been reduced.

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MARCH DD BASELINE ESTIMATE

JUNE DD ESTIMATE



- Utilities:**
- 4416' new looped water line (SD-VE target to use existing)
  - 1730' of new high pressure gas line
  - 35 new catch basins
  - 2778' of new sewer main piping
  - 6 new water quality structures (SD-VE target for SWM Bio savings)

- Landscape/Site Improvements: \$1.8m**
- Outdoor amphitheater
  - 404 new parking spaces

- SD-VE Listed Targeted Savings:**
- 1/3 reduction in site hardscape, light bollards, and pavement
  - 10% reduction in planting
  - Delete irrigation system and add sleeves
  - Reduce cut/ fill by dropping Building Elevation, soils and grading

- Utilities:**
- 1600' of new water line loop
  - 2350' of new high pressure gas line
  - 50 new catch basins
  - 1462' of new sewer main piping
  - 3 new water quality structures

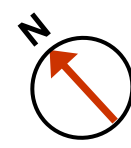
- Landscape/Site Improvements: \$3.3m**
- Outdoor amphitheater
  - 429 new parking spaces

- Additional Scope:**
- Water storage collection system for irrigation
  - Additional post construction stormwater control

- Utilities:**
- Re-use existing water line loop
  - 1430' of new high pressure gas line
  - 15 new catch basins
  - 1300' of new sewer main piping
  - No water quality structures (utilize bio-retention areas)

- Landscape/Site Improvements: \$1.8m**
- Delete outdoor amphitheater
  - 376 new parking spaces and re-use 53 existing spaces

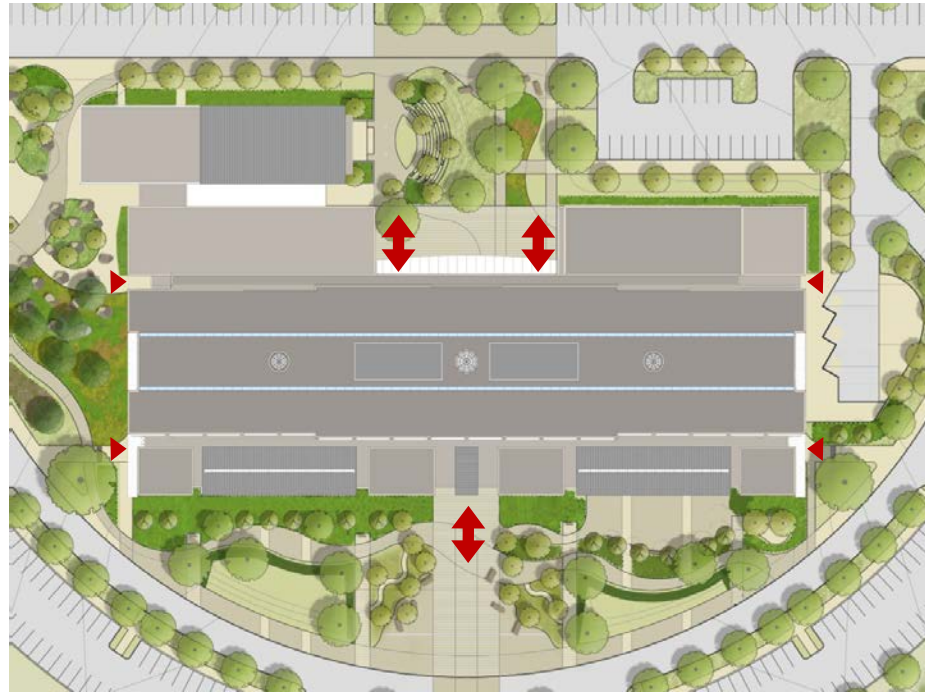
- Achieved VE Savings from SD Targeted List:**
- Reduction in site hardscape, bollards, and pavement
  - Reduction in planting
  - Delete irrigation system and add sleeves
  - Reduced cut/fill and grading
  - No water storage collection system



# Value Engineering - Roof:

Roofs/ Roof Structures/ Skylights: Everything has been made more straight forward, simpler and less expensive while maintaining high performance standards.

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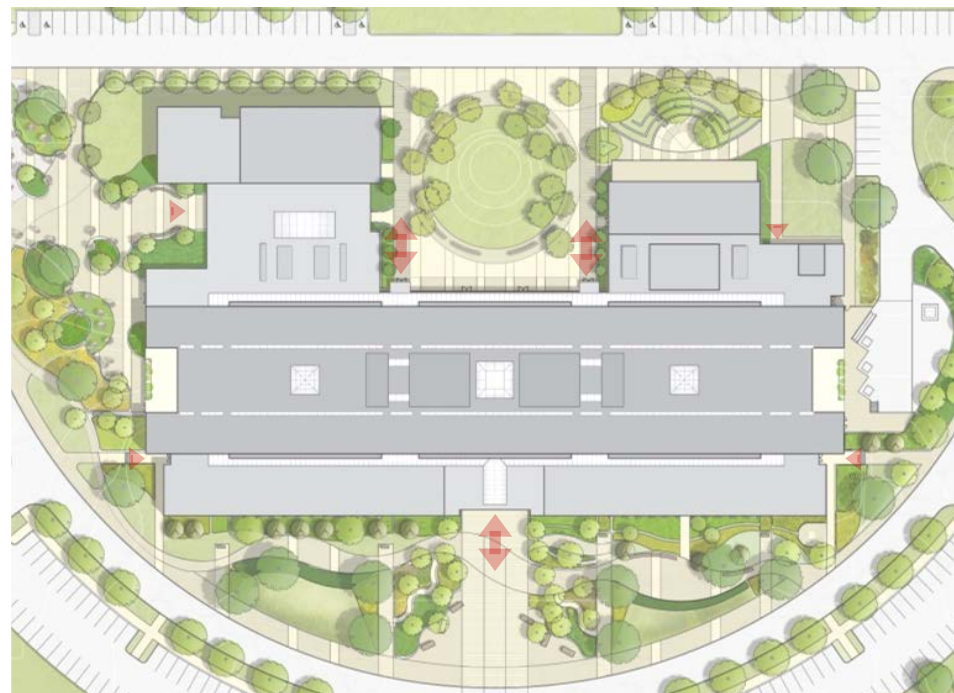


- Skylights at stairs
- 2 roof penthouses (boiler and chiller)
- No roof screens

SD-VE Listed Targeted Savings:

- Targeted roof savings (materials, details and delete curved roofs)
- Targeted savings to reduce design of 3 cupolas at light wells
- 1/3 reduction in continuous skylights at light shafts

MARCH DD BASELINE ESTIMATE

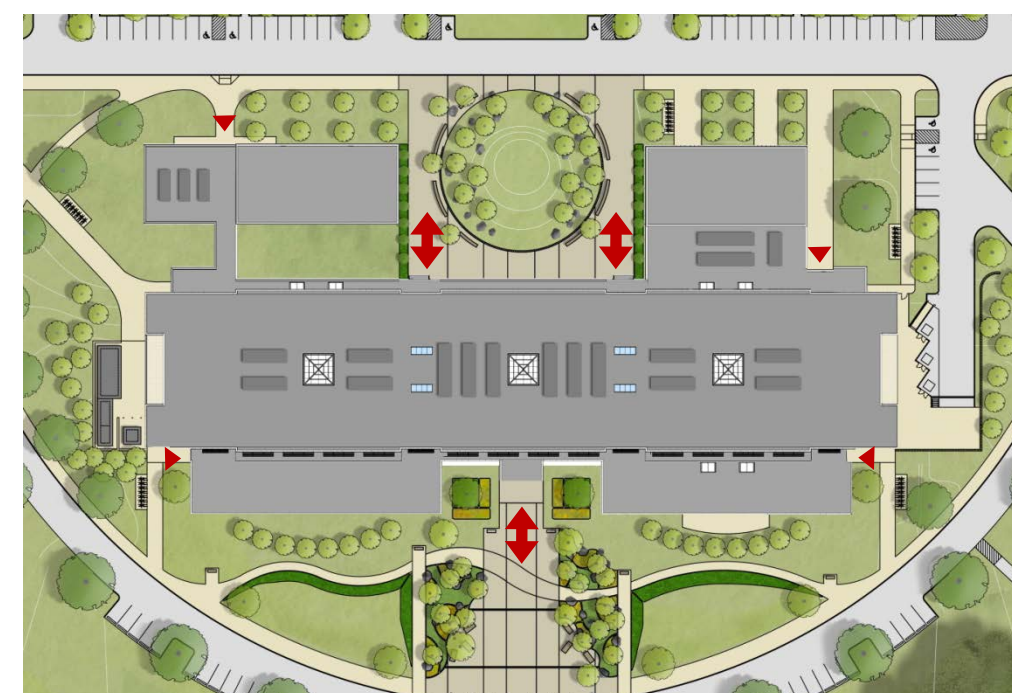


- 8 skylights at stairs
- 2 roof top penthouses (boiler and chiller)
- Mechanical roof screens

Achieved VE Savings from SD Targeted List :

- TPO roofing and no curved roofs
- 3 skylights at light wells
- 1/3 reduction in continuous skylights at light shafts

JUNE DD ESTIMATE



- 6 skylights at stairs
- 1 roof penetration (boiler)
- No roof screens

Achieved VE Savings from SD Targeted List:

- PVC roofing and no curved roofs
- 3 skylights at light wells
- Eliminate continuous skylights and light shafts but retain daylighting to classrooms from corridor side via light wells (Energy model improved)



# Value Engineering - Exteriors:

- The building envelope will look and perform at the same high level as represented in the SD submission
- The building elevations have been refined and glass has been reduced
- Sun shading and controlling devices are included
- The amount of perimeter wall has been reduced



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- High performance building envelope
- Composite metal panels and utility size brick
- Curtainwall with heat mirror glass
- Continuous clerestories
- 2 rows of sunshades on 3<sup>rd</sup> & 4<sup>th</sup> floors

SD-VE Listed Targeted Savings:

- Eliminate vertical sunscreens on north façade, replace with shades
- Change clerestory curtainwall to window units
- Change brick on athletic building to ground face block
- Delete interior light shelves
- Targeted exterior wall detailing and wall material savings



MARCH DD BASELINE ESTIMATE

- High performance building envelope
- Composite metal panels and norman brick
- Curtainwall with heat mirror glass
- Increased continuous clerestories
- 4 rows of sunshades on 3<sup>rd</sup> & 4<sup>th</sup> floors
- Added trellis on south side of second floor to control sun due to daylight model
- Added vertical sunshades to north and south due to daylight model
- Added terrace classrooms at end of building
- Added light shelves due to daylight model



JUNE DD ESTIMATE

- High performance building envelope
- Reduced composite metal panels and increased pressed metal panels and utility size brick
- Reduced amount of curtainwall w/ high performance glass (Solarban 60 or equal)
- Reduced amount of clerestories
- 1 row of sunshades on 3<sup>rd</sup> & 4<sup>th</sup> floors
- Delete Vertical sunscreens, add shades
- Delete the added trellis
- Delete R19 batt at stud cavity (no change to envelope performance)
- Delete parapet on high roof
- Shorten ends of buildings and eliminate 2 exterior terrace classrooms (not in program)
- Retain interior light shelves at south only

Achieved VE Savings from SD Targeted List in overall composition

# Value Engineering - Interiors:

We have maintained good quality levels of finishes. We would like to be able to add finishes back as drawings progress into CD and the CMr budget is further refined.

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### Flooring:

- Porcelain tile: 12,000 s.f. (SD-VE listed target savings)
- Epoxy @ \$9 s.f.: 10,500 s.f.
- Rubber flooring: 8800 s.f.
- Carpet tile: 27,300 s.f. (SD-VE listed target savings)
- Linoleum: 123,900 s.f. (SD-VE listed target savings)
- Sealed Concrete : 4000 s.f.

### Walls:

- Phenolic Panel: 33,400 s.f. (SD-VE listed target savings)
- Ceramic tile for corridors: 13,800 s.f. (SD-VE listed target savings)
- Ceramic tile for toilet rooms: 17,500 s.f.
- Interior brick: 24,326 s.f. (SD-VE listed target savings)
- Interior ground face block: 3060 s.f.
- Interior glazing: 13,200 s.f. (SD-VE listed target savings)
- 1 Hour Fire Glass: 0
- Acoustical paneling: 7350 s.f.

### Ceilings

- ACT ceilings 160,100 s.f.
- GWB ceilings 51,000 s.f.
- GWB assumed in Gym

### Specialties:

- HDPE toilet partitions
- No electric hand dryers
- Metal Lockers
- Marker boards 4 per classroom
- 8 new Fume hoods
- Kitchen Equipment Budget all new
- Wood veneer casework

## MARCH DD BASELINE ESTIMATE

### Flooring:

- Porcelain tile: 20,432 s.f.
- Safety floor @12 s.f.: 7520 s.f.
- Rubber flooring: 7800 s.f.
- Carpet tile: 41,400 s.f.
- Linoleum: 106,800 s.f.
- Sealed concrete: 1600 s.f.

### Walls:

- Reduced phenolic panel: 24,600 s.f.
- Ceramic tile for corridors: 8370 s.f.
- Ceramic tile for toilet rooms: 15,050 s.f.
- Interior brick: 2,300s.f.
- Interior ground face block: 3000 s.f.
- Interior glazing : 24,100 s.f.
- 1 Hour Fire Glass: 2130 s.f.
- Acoustical paneling: 5800 s.f.

### Ceilings

- ACT ceilings 166,800 s.f.
- GWB ceilings 36,960s.f.
- Metal Ceiling in Gym 10,000 s.f.

### Specialties:

- Stainless Steel toilet partitions
- Electric hand dryers in all toilet rooms
- HDPE Lockers
- Marker boards 4 per classroom
- 13 new Fume Hoods
- Kitchen Equipment budget expanded
- Wood veneer casework

## JUNE DD ESTIMATE

Achieved VE Savings from SD Targeted List in overall composition

### Flooring:

- Delete porcelain tile and use linoleum (café and Lobby)
- Use epoxy @ \$9 s.f.
- Delete rubber flooring and use epoxy
- Use carpet tile @ \$4.30 s.f. in classrooms in lieu of linoleum
- Linoleum in Corridors, Labs, Art, Band @ \$7.50 s.f (better than VCT)
- Use sealed concrete in all back of house spaces

### Walls:

- Delete phenolic panel use abuse resistant board
- Ceramic tile for corridors in minimal locations
- Ceramic tile for toilet rooms on plumbing walls only
- Interior brick to remain at second floor entrances only
- Delete interior ground face block
- Reduce Interior glazing
- Reduce 1 Hour Fire Glass to1400 s.f.
- Reduce acoustical paneling

### Ceilings

- Use more 2x4 ACT ceilings in place of 2x2 ACT
- Tectum in place of metal in Gym Ceiling

### Specialties:

- HDPE toilet partitions
- Reduce electric hand dryers to 1 per each gang toilet room
- Metal Lockers
- Marker boards 2 per classroom
- 8 new fume hoods plus 1 existing hood
- Kitchen equipment budget reduced to retain some existing
- P.lam casework and reduced casework scope