



SAC FACILITIES MEETING
MINUTES – NOVEMBER 19, 2013
1:30P.M. – 3:00P.M.

Approved 2/18/14

The mission of Santa Ana College is to be a leader and partner in meeting the intellectual, cultural, technological and workforce development needs of our diverse community. Santa Ana College provides access and equity in a dynamic learning environment that prepares students for transfer, careers and lifelong intellectual pursuits in a global community.

Administrators		Academic Senate		CSEA	
Michael Collins, Co-chair	Rhonda Langston	Maria Aguilar Beltran	Susan Sherod	Edward Luna	Mike Ediss(a)
Bart Hoffman(a)	Loy Nashua	Ray Hicks	Valinda Tivenan(a)	Sarah Salas(a)	Maria Taylor
Jim Kennedy	Linda Rose(a)	Elliott Jones, D.M.A. Co-chair	John Zarske	District Liaison	
Eve Kikawa	Mark Wheeler(a)		Louis Pedroza(a)	Carri Matsumoto	Alex Oviedo
Guests				Campus Safety & Security	
Arnold Arsenault, Bernards	Don Mahany	Alistair Winter		James Wooley	
Scott Connors, FPPS	Deborah Shepley, HMC			ASG Representative	
Ron Jones	Sheryl Sterry, HMC			Cristina Zainos	
1. WELCOME AND INTRODUCTIONS					
				Meeting called to order – 1:31p.m. Adjourned at 3:06p.m.	
2. PUBLIC COMMENTS					
		<p>Mario Salazar – ASG Environmental Awareness Commissioner brought forward two concerns to the committee.</p> <p><u>Recycling on campus</u></p> <ul style="list-style-type: none"> • Students concerned about recycling efforts on campus. • Currently community members come on campus and recycle bottles and cans from the trash receptacles for their own needs. • Efforts are being made to build a more robust recycling program that would include construction debris, cardboard, mulching and green waste. • A higher level of sustainability will included when bidding waste management services. • There are discussions in regards to a district wide program at the SRC meetings (Sustainable RSCCD). <ul style="list-style-type: none"> ○ Mario will be attending this district committee meeting representing SAC ASG. ○ At the February SAC Facilities committee, Jim Kennedy will provide an update on the SRC progress towards the district wide recycling program. 		<p><u>FOLLOW UP</u></p> <p>Jim Kennedy will provide an update from the SRC February meeting in regards to the district wide recycling efforts.</p>	

	<p>Dr. Collins welcomed the combined efforts of the ASG, Maintenance & Operations and Student Services toward recycling efforts on campus.</p> <p><u>Drinking Fountains</u></p> <p>It was noted that some of the drinking fountains on campus do not work properly or do not work at all.</p> <p>The idea of including hydration stations in plans for future buildings was suggested.</p> <p>Campus could sell reusable water containers.</p>	
3. MINUTES	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	The Sept. 17, 2013 meeting minutes were presented for approval.	<p>ACTION</p> <p>Motion was moved by E. Kikawa to approve the Sept. 17, 2013 Facilities committee minutes as presented.</p> <p>2nd - J. Kennedy</p>
4. PROJECT UPDATES	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
SAC Active Project Update	<p>Carri Matsumoto, presented the Project Update report for the members: (Please see attachment)</p> <ul style="list-style-type: none"> • The report consisted of: • Measure E Active Major Project Updates • Measure Q Major Project Updates • Active Scheduled Maintenance & Other Projects • It was noted that only the projects that have changed from the previous meeting will be highlighted for the members. • <u>Perimeter Site Improvements</u> • Cherry tree distributor has been located. • Work is being concentrated on Phase V, however miscellaneous work going on in all phases. • Installation of new art wall will be complete before the holiday break. • Project tracking behind schedule. • Gate arm in Lot 1 <ul style="list-style-type: none"> ○ Members were advised that the gate arm in Lot 1 will not be installed at this time. ○ It has been recommended that a traffic engineer study be conducted for the entire campus for a better understanding of the campus needs to ensure safety, appropriate circulation and improved internal traffic flow. ○ The data from the study along with working with the campus will allow for a plan to be developed to address campus needs. • Project delayed due to unsatisfactory concrete work, (stairs) and a deferred approval that was awaiting DSA approval regarding the store front doors. 	

PROJECT UPDATES (cont.)	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<p><u>Parking Lot 11 Expansion</u></p> <ul style="list-style-type: none"> • The bids for the project have been rejected • This project will be packaged with the Tessman Planetarium and the Temporary Village project and delivered under the lease lease back delivery method. Lease, lease back allows for the district to go through a qualifying process, select a qualified contractor and negotiate a guaranteed maximum price. In addition: • This will improve the ability to manage the project utilizing one contractor. • Meet the timeline in completing the village which is critical for temporary housing for the Dunlap Hall and Johnson renovations. • Projects are phased. The goal is to get them completed this summer with the possibility of a few areas trickling into September and October. • Discussions regarding details of specific program relocations have not taken place yet. • A move management company will be hired to assist with the moves related to the renovation projects. <p><u>Central Plant</u></p> <ul style="list-style-type: none"> • The lease lease back delivery method is being considered for this project. <p><u>Property Acquisition of 17th and Bristol</u></p> <ul style="list-style-type: none"> • A spot soil remediation was required before the completion of the acquisition of the property. <p>It was clarified that the interim plan for the property is a surface parking lot.</p> <p>MEASURE Q PROJECTS</p> <p><u>Dunlap Hall Project</u></p> <ul style="list-style-type: none"> • Design phase funded through Measure E. • Construction funded through Measure Q. • A lease lease back delivery method will be used for this project. • Project is ready to go out to bid. • Project will move through the course of next year. Scheduled to wrap up in June 2015. <p><u>Central Plant Project</u></p> <p>The project will be completed in phases.</p> <p><u>Johnson Building Project</u></p> <ul style="list-style-type: none"> • Once the architect has been selected for this project the programming for this project will be confirmed for further refinement. <p><u>Health Service building - TBD</u></p> <ul style="list-style-type: none"> • No start date. • Measure Q does not adequately cover the cost of the project. • Project is contingent on state funding to complete construction. <ul style="list-style-type: none"> ○ Eligible for 19mil of state funding. 	

PROJECT UPDATES (cont.)	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<ul style="list-style-type: none"> • Project will require state funding and a new state bond. • There may be other opportunities for this project to move forward if there are savings realized from the other projects and/or other monies are available. <p>Members were provided a visual overview of the projects as they are phased. In addition, members were provided with the master program budget for Measure Q.</p> <p>Members were updated on the process for a project to be “officially” closed out once the construction is completed.</p> <ul style="list-style-type: none"> • The project is walked with the contractor. • Punch list is created – does the work meet the expectation? • DSA signs off on the project. • Architects signs off on the project. <p>Scheduled Maintenance</p> <ul style="list-style-type: none"> • Boiler Replacement Projects. • Scheduled shut offs (heat only) are planned. • College wide communication will be sent out outlining the timeline and as well as a caution against using portable heaters. <p>Russell Hall Guard Rail</p> <ul style="list-style-type: none"> • This project may be delayed into January depending on fabrication. • The project will be expedited under Emergency Resolutions. • Budget was set at \$400,000 however the expectation is that there will be significant savings from that original amount. <p>Members were provided and overview of 2013/2014 anticipated Scheduled Maintenance projects.</p> <ul style="list-style-type: none"> • Work is in progress in preparing the scope of work and developing budgets. • Many of these projects were identified through the Resource Allocation requests from last year’s budget development process. • The last six projects on the list identified as Roof Replacement/Repair projects listed either need a full replacement or repair. <ul style="list-style-type: none"> ○ Some cases the repair costs are comparable to replacement costs. ○ Each building’s need, costs and available funding are being carefully reviewed. ○ It was noted that the college has in place a comprehensive way to evaluate the campus roofs. This allows for the roofs to be maintained in a sequential order based on priority. <p><u>Prop. 39 Projects</u></p> <p>Members were presented with the Prop. 39 projects for review. These projects will be paid for through Proposition 39.</p>	

PROJECT UPDATES (cont.)	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<ul style="list-style-type: none"> • Proposition 39 is also known as the Clean Energy Jobs Act. The proposition provides funding to local educational agencies for improving energy efficiency and creating clean energy jobs. <ul style="list-style-type: none"> ◦ The district has received 1mill for this 1st year outside of the budget. • The projects are going out to bid and look to be completed before the end of June. • Monies from Prop. 39 could continue for the next four years if monies are set aside. <ul style="list-style-type: none"> ◦ District needs to be prepared by identifying future projects. ◦ Efforts will be made to plan future projects. 	
5. HMC Facilities Master Plan 2014 “draft” update	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<p>A Facilities Master Plan “draft” update was presented by HMC Architects to the membership.</p> <ul style="list-style-type: none"> • The “draft” update will be presented to the Physical Resource committee and then forwarded on for board approval in January/February. • The updates are to the 2011 Facilities Master Plan. Updates only include the update of the recommendation chapter. <ul style="list-style-type: none"> ◦ Once the updates are approved they will be added to the 2011 Facilities Master Plan. ◦ The updated plan will be the 2014 Facilities Master Plan. • The Planning Principles were reviewed for the committee. <ul style="list-style-type: none"> ◦ HMC has met with the Facilities Master Plan committee to ensure that the planning principles are being followed. • The 2014 Facilities Master “revised” campus plan was provided to members. <ul style="list-style-type: none"> ◦ The Johnson Center renovation, STEM bldg./Health Science bldg. and the Fine & Performing Arts Complex required more discussion to develop the revised plan. ◦ User groups came together for discussion. Working with the user groups allowed for a more accurate footprint of the master plan to be developed. <p>HMC provided input on two areas that changed the footprint of the plan.</p> <ul style="list-style-type: none"> ■ STEM bldg./Health Science bldg. ■ Fine and Performing Arts Complex. <ul style="list-style-type: none"> • Both user groups were brought together for input. • Based on user group discussion, diagrams were developed to understand the overall size of the buildings and what types of spaces would be included. • Important to consider these two buildings in concert as will function together and are in one zone of the campus. 	

HMC Facilities Master Plan 2014 “draft” update (cont.)	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<ul style="list-style-type: none"> • Both buildings will be 3 stories and the same relative scale. • There will interdisciplinary classrooms in both buildings. <p>Members were provided with a building diagram of the Fine and Performing Arts Complex.</p> <ul style="list-style-type: none"> • User group input was used in preparing the Final Proposal Project (FPP) to provide to the State Chancellor’s Office for funding consideration. • Although the diagram presented was not very detailed, members were assured that comprehensive discussions occurred within the user groups related to the size and functionality of the complex. • This is a replacement for Phillips Hall, Fine and Performing Arts and the Music. Those buildings will be demolished. <p>HMC provided an overview of the phases for the members.</p> <ul style="list-style-type: none"> • Phase 2 does not have a finite timeline. • It was clarified that the work on Chavez Hall is related to the building exterior. <ul style="list-style-type: none"> ○ An assessment of the building is underway in an effort to remedy the exterior problem. <p>In regards to the temporary village, the idea of using a higher tech type tents was suggested.</p> <p>Health Sciences and STEM buildings will be programmed at the same time.</p> <p>The library is requires further study to determine if the project needs to be a renovation or a replacement.</p> <ul style="list-style-type: none"> • The Master Plan will be presented for approval with a narrative that further discussion is required. • There will be no movement on this project until funding is identified. <p>Student Services building will have instructional space.</p> <ul style="list-style-type: none"> • Campus Safety will relocate into the new Student Services building. <ul style="list-style-type: none"> ○ The relocation of Campus Safety will allow for a new pedestrian gateway into the campus. ○ Entry court will be built in unison with the Student Services building. <p>Administration Building renovation</p> <ul style="list-style-type: none"> • Once Student Services offices move to the new Student Services building, there will be some reprogramming and renovation to the Administration building allowing for consolidation of services. <ul style="list-style-type: none"> ○ Phase 6 projects were included with the idea of a full build out long term. The projects include: <ul style="list-style-type: none"> ▪ Parking Structure ▪ Voc Tech Complex 	

HMC Facilities Master Plan 2014 “draft” update (cont.)	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<ul style="list-style-type: none"> ▪ Instructional building - MCHS ▪ New pool <p>The plan for these projects is to include them in the Facilities Master Plan with more discussion to follow.</p> <p>There was a suggestion that as the 17th and Bristol property is built out the same consideration may be given to the bus stop thought considered in the pedestrian access discussed in Phase 5. With several students utilizing the bus system, this would be a welcoming component of the project. In addition, a retail area similar to the El Don Express was also suggested.</p>	
6. Standing Reports	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
HEPSS (Health, Emergency Preparedness, Safety and Security) Task Force	<p>A HEPSS report was provided for the members (Please see attachment.) The after action report from the Great California Shakeout was reviewed.</p> <ul style="list-style-type: none"> • There continues to be difficulty hearing announcements outside of H building in the front parking area of parking lot #1. <p>There is discussion of moving the ICS to a building.</p> <ul style="list-style-type: none"> ○ There is a need for emergency back-up power. ○ Larger space required. ○ Area outside of an ICS needs to also be considered. <p>An emergency preparedness drill will be conducted specifically for the M&O staff related to their role in an emergency.</p> <p>E-cigarettes policy will fall under the current Tobacco Free campus policy.</p> <p>CERT training is being considered for Santa Ana College. More information to follow.</p>	
Facilities Report	<p>The Facilities report was presented by Mark Wheeler. (Please see attachment.)</p> <p>An update was provided on the recent water leak in lot 1. A 6” water main located at the bottom of a previously excavated channel intended to be used for compaction was nicked resulting in an extremely large pool of water.</p> <ul style="list-style-type: none"> • There were a couple of buildings that were without water – that was quickly resolved. • Only water shut off remains in lot 1. • Once the water is pumped out, the repair will take place. <p>Boiler replacement</p> <p>Members were advised that communication would be forth coming regarding the boiler replacement in Russell Hall on Friday, November 22 from 6:00a.m. – 12:00nn.</p>	

Standing Reports (cont.)	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<ul style="list-style-type: none"> • This will occur on the 3rd floor of Russell Hall. • The 17th entrance will be shut down. • Two existing boilers will be removed and replaced with two new boilers. • There is to be no one allowed in that area during the work. • Once the work is complete, faculty and staff will be allowed back in and the 17th entrance will be opened. 	
Environmental Task Force	<p>Report was provided by Susan Sherod for members to review. (Please see attachment.)</p> <p>In addition, she provided members with handout that addressed managing energy costs in colleges and universities.</p>	
7. Old Business	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
Committee Goals	<p>Committee goals</p> <p>The End of the Year results gathered from committee input was provided for review. Discussion ensued.</p> <ul style="list-style-type: none"> • In reviewing the goals it was noted that some of the goals had been met while others were expectations. • The committee goals will be reviewed by the co-chairs taking the report result into consideration. • Members were reminded that in considering goals it is important to consider what the committee wants to achieve rather than what we continue to do. • The revised goals will be presented at the February meeting. 	<p><u>FOLLOW UP</u></p> <p>The revised goals will be provided to the membership at the February 18 meeting.</p>
8. New Business	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<p>RAR Funded Facilities Requests 13/14</p> <p>Members were updated that the funded Facilities Resource Allocation Requests were available for review on the Facilities Committee webpage. The report shows:</p> <ul style="list-style-type: none"> • What projects were funded? • What was the funding level? • How it was funded. <p>It was noted that this is good information to review in preparation for the 14/15 RARs.</p> <p>Members were also encouraged to frequently review the SAC Facilities committee page for current information.</p>	
9. Other	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<p><u>Smoking Locations</u></p> <p>The butt can/smoking signage map was provided for review.</p> <ul style="list-style-type: none"> • The locations as noted on the map were physically review by Dr. Collins. <ul style="list-style-type: none"> ○ As a result, improvements for signage and butt can locations were identified. <p>Dr. Collins has been charged with updating the current “tobacco free” campus resolution by College Council.</p>	

Other(cont.)	DISCUSSION/COMMENTS	ACTIONS/ FOLLOW UPS
	<ul style="list-style-type: none"> • The major change is the inclusion of the electronic cigarette. <ul style="list-style-type: none"> ◦ Work is going on regarding this issue at the district level. ◦ State Chancellor's office has provided the districts the ability to cite if they so choose. ◦ Important for the college resolution to be consistent with the district. • Members discussed concerns regarding current "smoking hangouts." • This resolution also includes clove cigarettes, chewing tobacco and snuff. • ASG was encouraged to provide students with a clear definition of the issue when conducting upcoming poll. <ul style="list-style-type: none"> ◦ Important to hear out students, faculty and staff concerns. <p>The college's responsibility was noted:</p> <ul style="list-style-type: none"> • Important to sign the campus properly. • Educate the campus on the issue. • Continued support from Campus Safety in their contact with smokers on campus. <p>Members were advised that once the resolution is revised, it will be brought to the Facilities Committee and then forwarded on to College Council.</p> <p><u>Shared Governance Questionnaire</u> Members were asked to fill out a questionnaire related to Accreditation on behalf of Teresa Mercado Coto.</p>	

SUBMITTED BY Geni Lusk 1/13/2014



SANTA ANA
COLLEGE

FACILITIES COMMITTEE MEETING NOVEMBER 19, 2013



PROJECT UPDATES



RANCHO SANTIAGO
Community College District

MEASURE E

ACTIVE MAJOR PROJECT UPDATES

- ▶ Perimeter Site Improvements
- ▶ Building G Renovation
- ▶ Parking Lot #11 Expansion & Improvements
- ▶ Tessman Planetarium Upgrade & Restroom Addition
- ▶ Temporary Village
- ▶ Central Plant (Design)
- ▶ Chavez Hall Renovation
- ▶ Property Acquisition of 17th St. & Bristol St.

MEASURE Q

MAJOR PROJECT UPDATES

- ▶ Dunlap Hall Renovation
- ▶ Central Plant 3 Phases
- ▶ Johnson Center Renovation
- ▶ Science, Technology, Engineering and Mathematics (STEM) Building
- ▶ Health Sciences Building

ACTIVE SCHEDULED MAINTENANCE & OTHER PROJECTS

- ▶ Buildings A, F & R Boiler Replacements
- ▶ Parking Lots 6 & 8 Asphalt Overlay & Seal/Striping
- ▶ Russell Hall Guard Rail Repair & Replacement

MEASURE at WORK E



MAJOR PROJECT UPDATE

SANTA ANA COLLEGE

PERIMETER SITE IMPROVEMENTS

Project Summary:

- ▶ Renovation of parking lots 1, 2, 3, 4, 5 and 6. Construction of the entries at Bristol and 17th Streets including pedestrian access, landscaping and walkways.
- ▶ Update pedestrian pathways, parking lighting, provide exterior campus signage and graphics for the entire campus.

Current Status:

- ▶ Under construction and target completion is December 2013.
- ▶ This project is behind schedule.

Budget:

- ▶ \$ 7 million





MAJOR PROJECT UPDATE

PERIMETER SITE IMPROVEMENTS

CONSTRUCTION PROGRESS

Phase I:

- ▶ Installation of SAC banners.
- ▶ Installation of CMU direction monuments.

Phase II:

- ▶ Installation of plaque.
- ▶ Final power termination to uplights.
- ▶ Cut CMU wall at Bristol St.
- ▶ Landscaping and irrigation in Parking Lot 5.

Phase III:

- ▶ Installation of CMU direction monuments.
- ▶ Installation IPE wood benches.
- ▶ Installation of SAC banners.



Phase IV:

- ▶ Paving/stripping within construction area.
- ▶ Irrigation at planters.
- ▶ Installation of back-lit letters.
- ▶ Installation of pedestrian pavers on the center of Bristol and Washington Streets.
- ▶ Installation of CMU direction monuments.
- ▶ Installation IPE wood benches.
- ▶ Installation of SAC banners.

Phase V:

- ▶ Safe-off utilities.
- ▶ Demolition of asphalt and concrete.
- ▶ Demolition of trees and shrubs.
- ▶ Begin over-excavation of new curbs.





MAJOR PROJECT UPDATE

PERIMETER SITE IMPROVEMENTS

UPCOMING ACTIVITIES

Phase I:

- ▶ Completion of installation of lighting, irrigation and landscaping.

Phase II:

- ▶ Construction of structural steel “Art Wall”.

Phase III:

- ▶ Completion of installation of site lighting, irrigation and landscaping.

Phase IV:

- ▶ Installation of decorative tile inserts to new masonry monument walls.
- ▶ Completion of installation of lighting, irrigation and landscaping.

Phase V:

- ▶ Construction of new redesigned asphalt paving, curbs and gutters.
- ▶ Completion of installation of lighting, irrigation and landscaping.





MAJOR PROJECT UPDATE SANTA ANA COLLEGE BUILDING G RENOVATION

Project Summary:

- ▶ Replace gym doors and storefront glass at the entrance, replace non-compliant stairs, improve pedestrian access at side walk and parking lot I.
- ▶ Replace exterior building lights with new LED fixtures for energy efficiency.

Current Status:

- ▶ Project is complete.
- ▶ In Division of the State Architect certification phase.

Budget:

- ▶ \$580,000





MAJOR PROJECT UPDATE SANTA ANA COLLEGE PARKING LOT #1 EXPANSION & IMPROVEMENTS

Project Summary:

- ▶ Replace the old soccer field with a new parking lot that will include new accessible (ADA) parking and an electric car charging station.
- ▶ The storm drainage system will be enhanced to provide a retention system that will divert storm runoff back into the natural aquifer reducing runoff and pollutants that would otherwise run into the ocean.

Current Status:

- ▶ Plans approved by the Division of the State Architect.
- ▶ Bids rejected. Pending re-bid utilizing Lease-Leaseback construction delivery method.
- ▶ Work is expected to begin in March 2014 with the completion expected in September 2014.

Budget: \$8.8 million





MAJOR PROJECT UPDATE SANTA ANA COLLEGE TESSMAN PLANETARIUM UPGRADE & RESTROOM ADDITION

Project Summary:

- ▶ Renovate the Tessmann Planetarium to comply with accessibility requirements and repurpose the office space for the Veterans Affairs group.
- ▶ Enhance the building exterior.
- ▶ Construct a new restroom annex.

Current Status:

- ▶ Plans approved by the Division of the State Architect.
- ▶ Bids rejected. Pending re-bid utilizing Lease-Leaseback construction delivery method.
- ▶ Work is expected to begin in March 2014 with the completion expected in October 2014.

Budget:

- ▶ \$ 2.3 million



TESSMANN PLANETARIUM





MAJOR PROJECT UPDATE SANTA ANA COLLEGE TEMPORARY VILLAGE

Project Summary:

- ▶ Provide temporary classrooms, lecture halls, and faculty offices for the Dunlap Hall project, the Johnson Building project, as needed.

Current Status:

- ▶ Plans submitted to Division of the State Architects (DSA) for approval.
- ▶ DSA approval is expected in November 2013.
- ▶ Portable building fabrication and installation is planned for Summer 2014 as part of the Lease-Leaseback construction delivery method.

Budget:

- ▶ \$ 5.25 million





MAJOR PROJECT UPDATE

SANTA ANA COLLEGE

CENTRAL PLANT (DESIGN)

Project Summary:

- ▶ Design of the Central Plant. (excludes construction).
- ▶ Includes the design of a new central cooling plant, calculations required to obtain California Community Colleges/Investment Owned Utilities (CCC/IOU) partnership incentive money, design of underground chilled water piping loop, upgrading existing site gas and domestic water piping systems, sewer, and fire water systems.
- ▶ HVAC system conversion for 8 existing buildings to be connected to the new Central Cooling Plant and the design of a new campus wide energy management system (EMS).
- ▶ The central plant building will be designed to achieve LEED Silver accreditation.
- ▶ Construction of the Central Plant project will be funded under Measure Q.

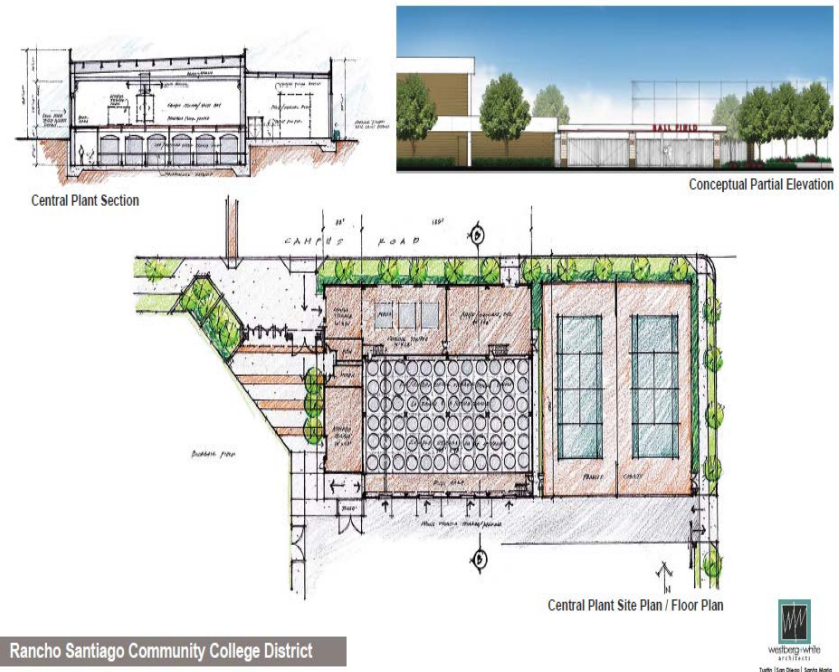
Current Status:

- ▶ Project programming is complete.
- ▶ In the design phase which is expected to be completed in April 2014.
- ▶ Target construction start is September 2014.

Budget:

- ▶ \$3.43 million
- ▶ Under review.
- ▶ Pending further funding and budget modification.

Santa Ana College - Central Plant Concept





MAJOR PROJECT UPDATE SANTA ANA COLLEGE CHAVEZ HALL PROJECT

Project Summary:

- ▶ Includes an assessment to address the exterior walls, parapet and restore or replace the exterior finish.

Current Status:

- ▶ In design phase.
- ▶ Target construction start is September 2014.

Budget:

- ▶ \$3.5 million
- ▶ Under review.





MAJOR PROJECT UPDATE

SANTA ANA COLLEGE

PROPERTY ACQUISITION OF 17TH/BRISTOL ST.

Project Summary:

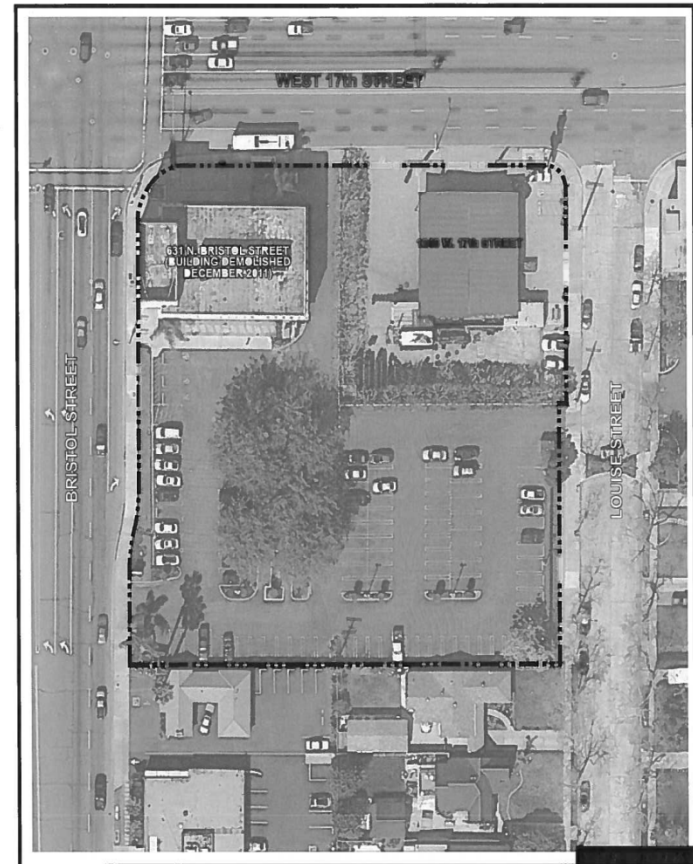
- ▶ Acquisition of property located on 17th and Bristol Streets in the City of Santa Ana.

Current Status:

- ▶ Remediation complete.
- ▶ Awaiting County Health Department site closure.
- ▶ Pending design.
- ▶ Construction to be funded from Measure Q.

Budget:

- ▶ \$5.1 million (acquisition only)



MEASURE E

COMPLETED PROJECTS (AS OF 11/1/13)

SAC	Expended
▶ Library Renovation	\$ 339,623
▶ CEC Renovation Child Care	\$ 1,662,032
▶ Land Acquisition	\$ 15,962,453
▶ Child Development Center	\$ 10,362,051
▶ Women's Locker Room	\$ 14,455,332
▶ Sheriff's Training Center	\$ 29,121,885
▶ Digital Media Center	\$ 14,000,656
▶ Parking Facilities	\$ 2,046,955
▶ Sheriff Training Academy Road	<u>\$ 56,239</u>
TOTAL SAC Projects	\$ 88,007,226





MAJOR PROJECT UPDATE SANTA ANA COLLEGE DUNLAP HALL RENOVATION

Project Summary:

- ▶ Renovate and replace the aging guard rails around the pedestrian walk ways on all levels of Dunlap Hall, as well as, providing a new elevator and stair tower.
- ▶ Remodel the existing restrooms.

Current Status:

- ▶ Plans approved by the Division of State Architect.
- ▶ Pending bid utilizing Lease-Leaseback construction delivery method.
- ▶ The work is expected to begin in March of 2014 with target completion expected in June 2015.

Budget:

- ▶ \$14.2 million
- ▶ Under review.
- ▶ Pending further funding and budget modification.





MAJOR PROJECT UPDATE SANTA ANA COLLEGE CENTRAL PLANT (CONST.) PROJECT

Project Summary:

- ▶ Construction of the Central Plant in 3 phases.
- ▶ It includes a new central cooling plant, underground chilled water piping loop as well as upgrading existing site gas and domestic water piping system, sewer, drainage and fire water systems.
- ▶ It will also include HVAC system conversion for 8 existing buildings to be connected to the new Central Cooling Plant and a new campus wide energy management system (EMS).
- ▶ The central plant building will be designed to achieve LEED Silver accreditation.

Current Status:

- ▶ Project is in design.
- ▶ First phase of the work is expected to begin in September 2014.

Budget:

- ▶ \$68.1 million
- ▶ Under review.
- ▶ Pending further funding and budget modifications.

Santa Ana College - Central Plant Concept





MAJOR PROJECT UPDATE SANTA ANA COLLEGE JOHNSON CENTER RENOVATION PROJECT

Project Summary:

- ▶ Renovate the Johnson building to better utilize the space available and repurpose the space to support the new program requirements established by the master plan.
- ▶ The old bookstore annex will be torn down due to seismic safety issues.
- ▶ New elevators will be added to increase accessibility for students and faculty. Measure E funds supported the programming phase. The construction will be funded by Measure Q.

Current Status:

- ▶ Programming is complete.
- ▶ Pending start of design phase in March 2014.
- ▶ Target construction start is June 2015.

Budget:

- ▶ \$16.7 million
- ▶ Under review.





MAJOR PROJECT UPDATE SANTA ANA COLLEGE SCIENCE, TECHNOLOGY ENGINEERING AND MATHEMATICS (STEM)

Project Summary:

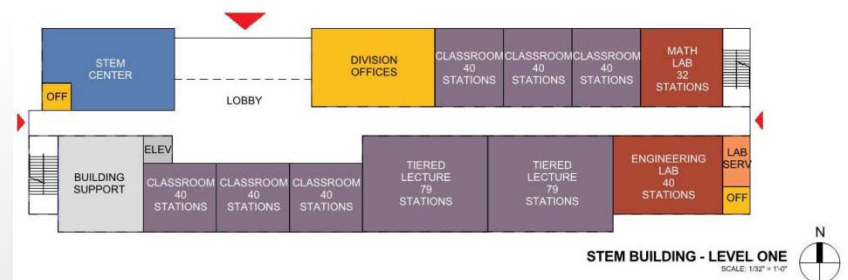
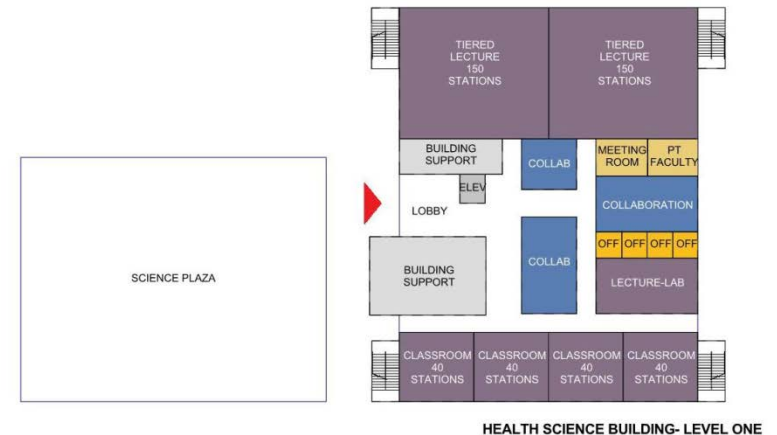
- Construction of a new 63,100 square foot science and math complex housing modern laboratories, classrooms, lecture halls, and faculty offices.

Current Status:

- The project is in the planning stages.
- Pending start of programming phase in February 2014.
- Target construction phase start summer 2015.

Budget:

- \$66 million
- Under review.





MAJOR PROJECT UPDATE SANTA ANA COLLEGE HEALTH SCIENCES PROJECT

Project Summary:

- Construction of a 55,138 square foot facility to allow for the consolidation and growth of the Health Sciences Programs including Nursing, Occupational Therapy Assistant, Medical Assistant, Emergency Medical Technician and Pharmacy Technology.

Current Status:

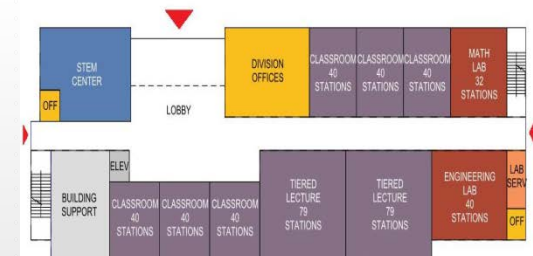
- This project has been submitted to the state for future funding.
- Design and construction start to be determined.

Budget:

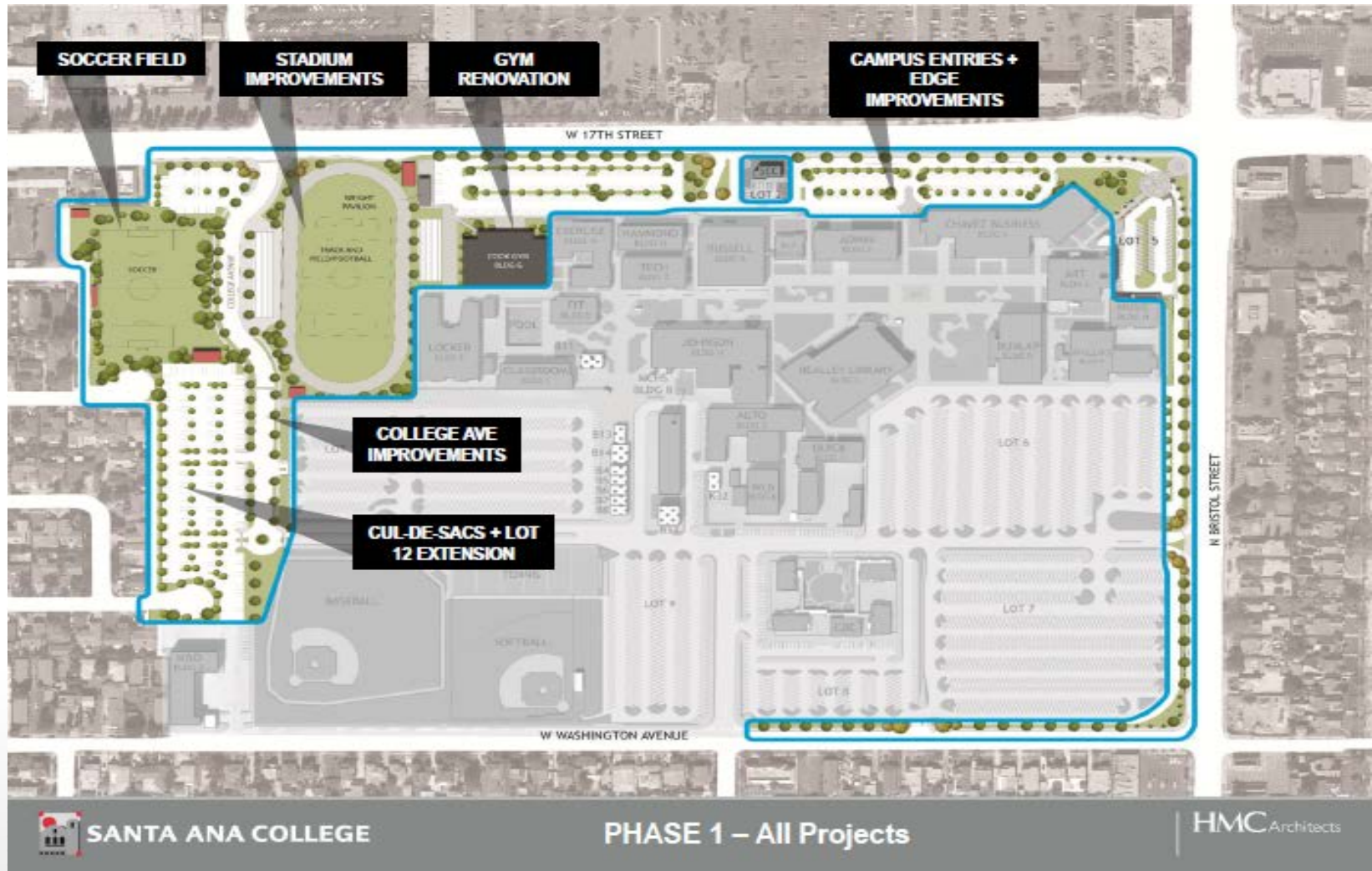
- \$50 million
- Under review.

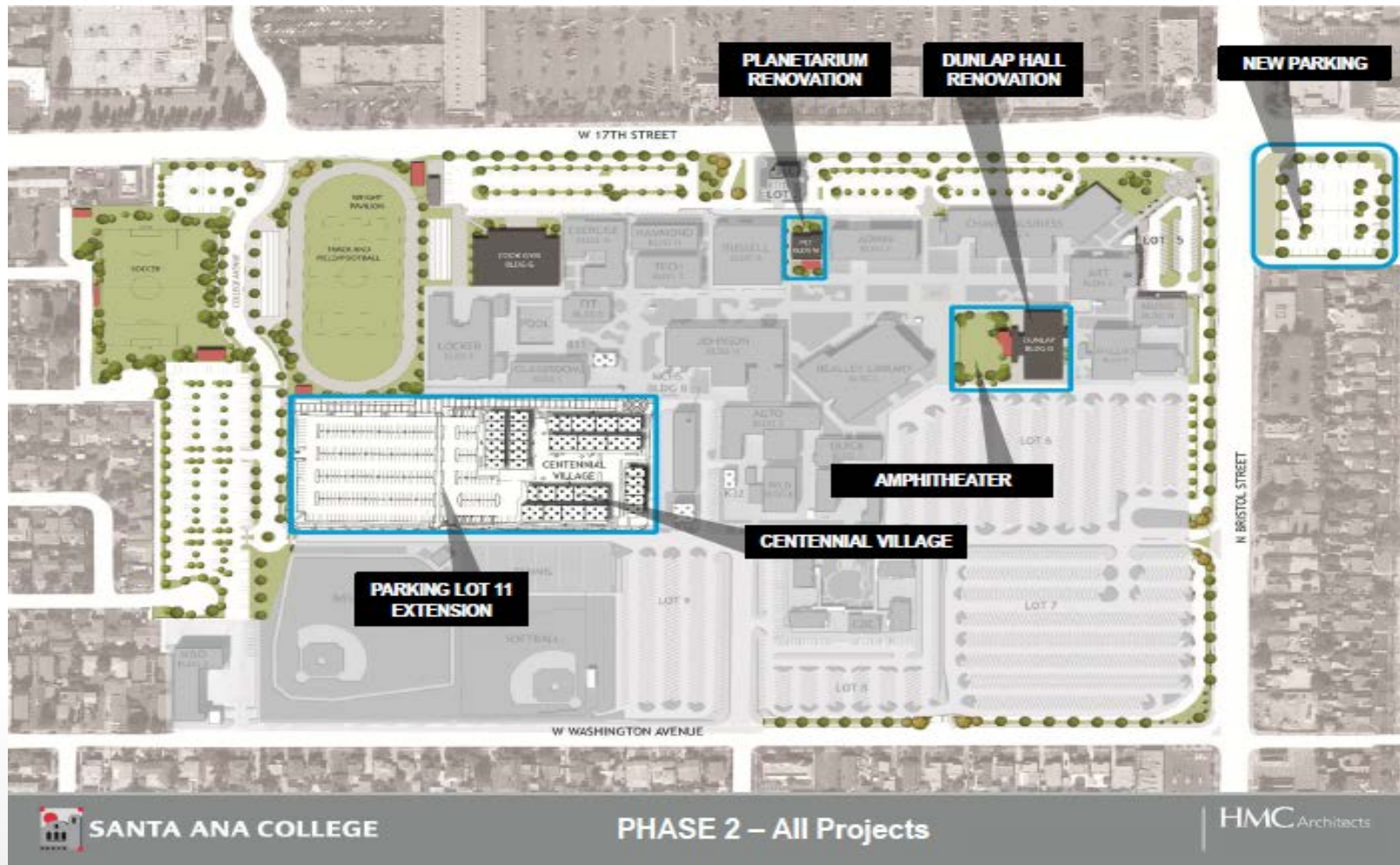


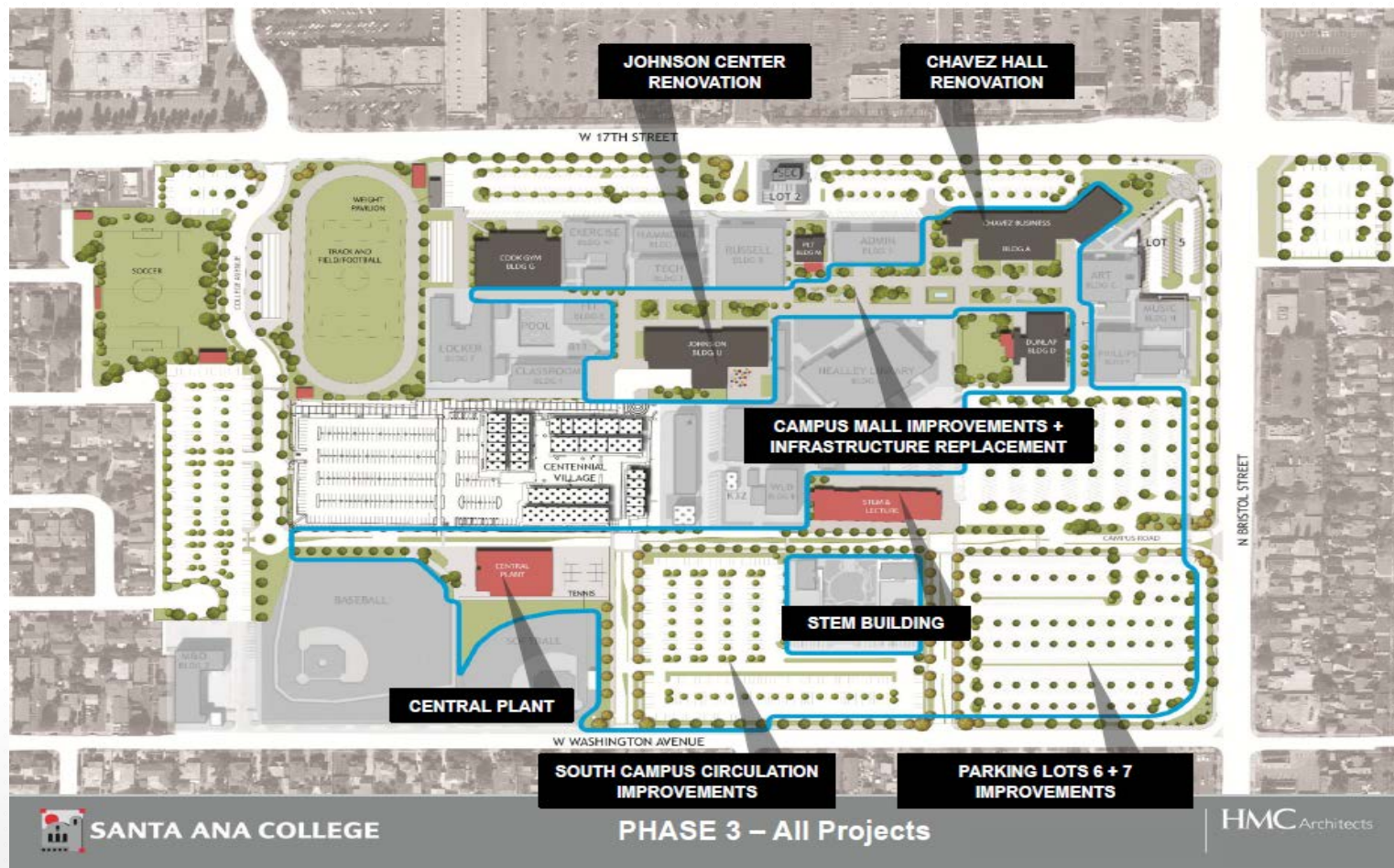
HEALTH SCIENCE BUILDING- LEVEL ONE

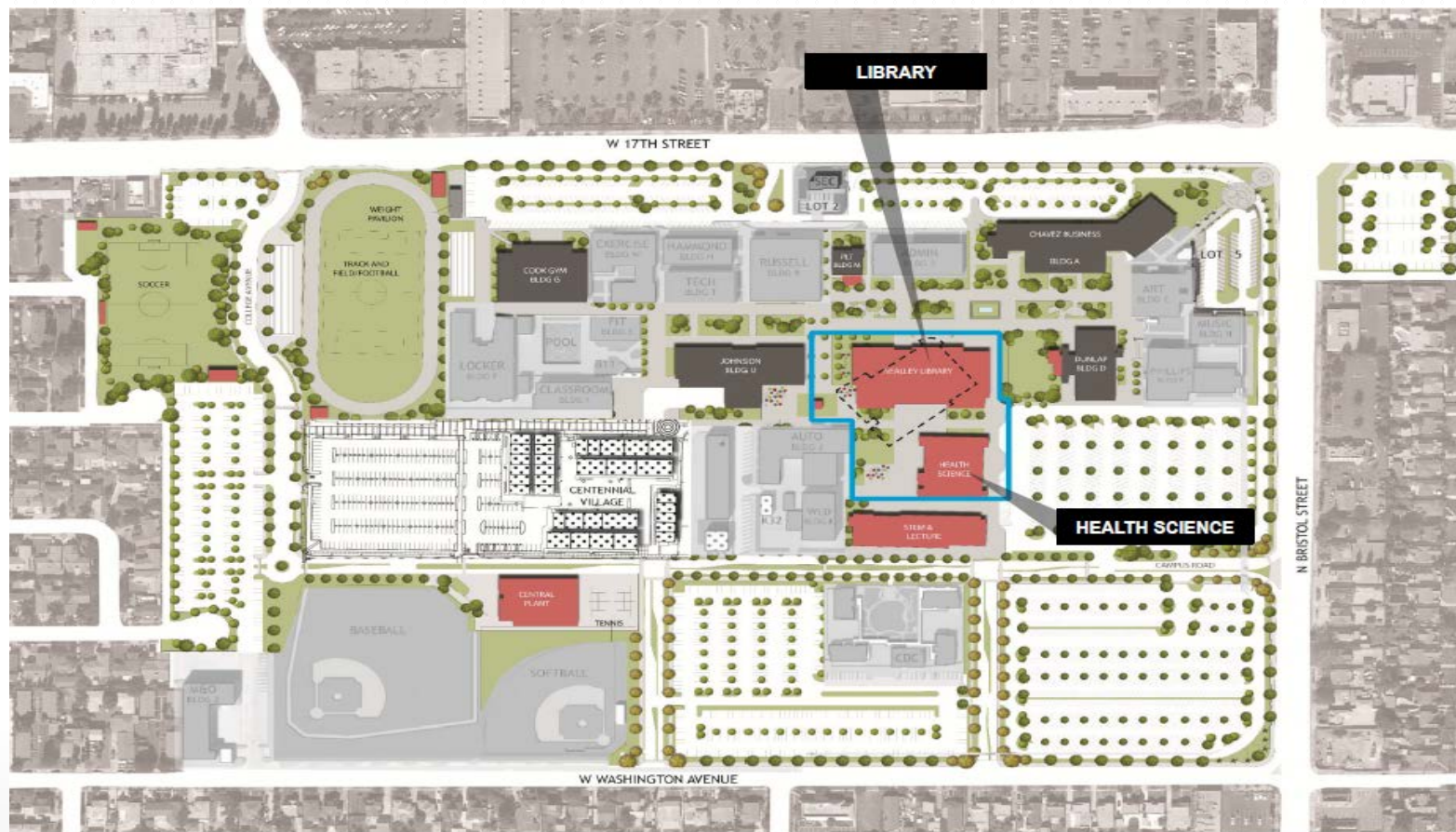


STEM BUILDING - LEVEL ONE
SCALE 1/32" = 1'-0"









SANTA ANA COLLEGE

PHASE 4 – All Projects

HMC Architects

MEASURE Q

MASTER PROGRAM BUDGET

(BASED ON NO STATE FUNDING)

**ESTIMATED

TARGET

<u>PROJECT</u>	<u>TOTAL BUDGET</u>	<u>STATUS</u>	<u>CONSTRUCTION</u>
❖ Dunlap Hall Renovation	\$14.2 M	Pending Bid	Mar 2014 - June 2015
❖ 17 th & Bristol Parking Lot	\$ 1.6 M	Pending Design	June 2014-Sept 2014
❖ Central Plant 3 Phases	\$68.1 M	In Design	Sept 2014 – Jan 2017
❖ Johnson Center Reno	\$16.7 M	Programming	June 2015 – Aug 2016
❖ STEM Building	\$66 M	Programming	March 2015 – May 2018
❖ *Health Sciences Building	\$50 M	Pending	To Be Determined
TOTAL	\$216.6 M		

*State Funding Eligible \$19 M

**Includes construction, design and owner contingencies

SCHEDULED MAINTENANCE and Other Projects

ACTIVE SCHEDULED MAINTENANCE PROJECT UPDATE BUILDINGS A, F & R BOILER REPLACEMENTS

Project Summary:

- ▶ Remove and replace existing boilers.
- ▶ The existing boilers at Building A, F & R have been deemed by the Air Quality Management Department (AQMD) to be in non-compliance with the existing state standards

Current Status:

- ▶ Project is under construction.
- ▶ Target completion date is December 2013.

Budget:

- ▶ \$359,900

Construction Progress:

- ▶ Remove existing boiler from Building F.
- ▶ Load new boiler and pump onto roof.
- ▶ Begin re-piping for the installation of the new boiler.

Upcoming Activities:

- ▶ Removal and replacement of boilers at Buildings A & R.



ACTIVE SCHEDULED MAINTENANCE PROJECT UPDATE PARKING LOT ASPHALT OVERLAY AND SEAL/STRIPING

Project Summary:

- ▶ Provide new asphalt, slurry, and striping work on the majority of the existing campus parking lots 6 & 8.

Current Status:

- ▶ Construction is complete.

Budget:

- ▶ \$475,027



ACTIVE OTHER PROJECT UPDATE

RUSSELL HALL GUARD RAIL EMERGENCY REPAIR AND REPLACEMENT

Project Summary:

- ▶ Remove, repair and replace guard rail screen system on second and third floors of the Russell Hall.

Current Status:

- ▶ Plans approved by the Division of the State Architect.
- ▶ Currently out to bid.
- ▶ Target construction December 2013.

Budget:

- ▶ \$400,000



2013-2014 ANTICIPATED SCHEDULED MAINTENANCE PROJECTS

- ▶ Centennial Ed Center Parking Lot Resurface
- ▶ Centennial Ed Center Renovation
- ▶ H Bldg. Windows and Screen
- ▶ H Bldg. Paint
- ▶ Install Water Softening System in F Bldg.
- ▶ Level Sod on Football Field
- ▶ Replace Water Softening System in G Bldg.
- ▶ Replace Gates at M&O Yard
- ▶ Paint Bldgs. E & J Exterior
- ▶ Remove Card Key Control all Elevators
- ▶ Key access and control door hardware upgrade
- ▶ Replace Centennial Ed Center Walks and Water Main
- ▶ Provide Partitions for Health & Wellness Center
- ▶ Performance Lighting C-104
- ▶ Add Lab Space for Nursing
- ▶ Paint R Bldg.
- ▶ Phillips Hall Roof Replacement/Repair
- ▶ Fine Arts Roof Replacement/Repair
- ▶ Russell Hall Roof Replacement/Repair
- ▶ Hammond Hall Roof Replacement/Repair
- ▶ Music Bldg. Roof Replacement/Repair

PROP 39 PROJECTS

CURRENT PROJECTS

- ▶ Replace interior lights with LED
- ▶ Replace exterior HPS with LED lights

FUTURE PROJECTS

- ▶ Monitoring Base Commissioning
- ▶ Premium Efficiency Motors
- ▶ High Efficiency Fans

► QUESTIONS?



SANTA ANA
COLLEGE



RANCHO SANTIAGO
Community College District

SAC Facilities Committee Meeting
November 19, 2013



SANTA ANA
COLLEGE

SANTA ANA COLLEGE

2014 Facilities Master Plan Update



SANTA ANA COLLEGE

HMC Architects

AGENDA

- Facilities Master Plan Update
- Phasing
- Next Steps



FACILITIES PLANNING PRINCIPLES

- Maximize functional space
 - Renovate facilities to support program needs
- Eliminate non-functional space
 - Remove temporary buildings
 - Replace aging facilities
- Improve efficiency / utilization of facilities
 - Consolidate related programs
 - Create flexible, interdisciplinary spaces
 - Maximize utilization of facilities / explore scheduling options
 - Incorporate sustainable features to improve efficiency and reduce operating costs
- Right- size the campus to address program needs
 - Align the space inventory with state guidelines
 - Position the College to maximize funding (state and local)
- Develop the campus environment
 - Define clear, inviting campus entry points
 - Develop clear pedestrian connections
 - Create gathering spaces to support collaboration







15TH STREET

MARTHA LANE

W 17TH STREET

W WASHINGTON AVENUE

N BRISTOL STREET



SANTA ANA COLLEGE

BUILDING PLANNING

HMC Architects

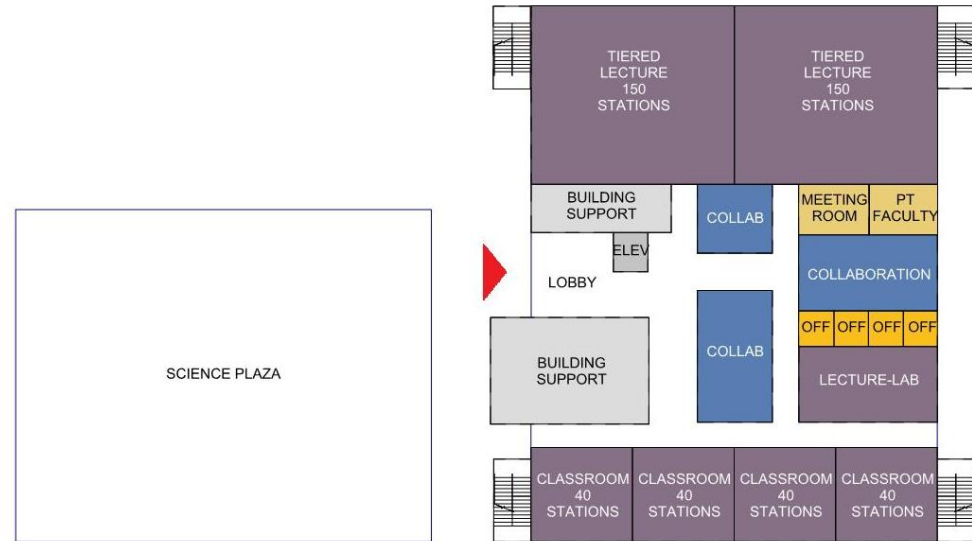
BUILDING PLANNING

- STEM Building
- Fine + Performing Arts Complex

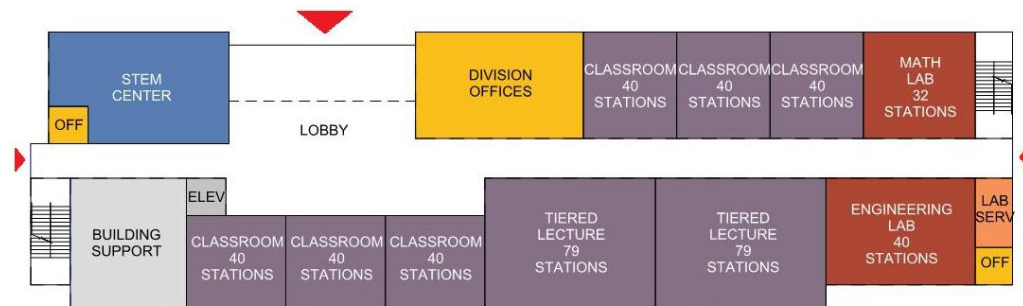


SCIENCE, TECHNOLOGY, ENGINEERING + MATH BUILDING

- Building Planning



HEALTH SCIENCE BUILDING- LEVEL ONE

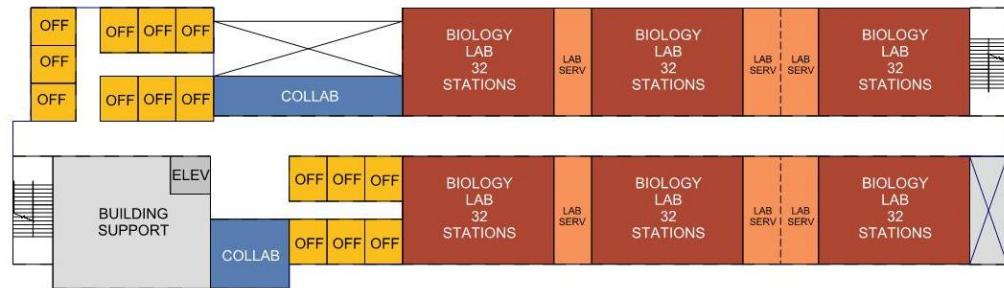


STEM BUILDING - LEVEL ONE
SCALE: 1/32" = 1'-0"

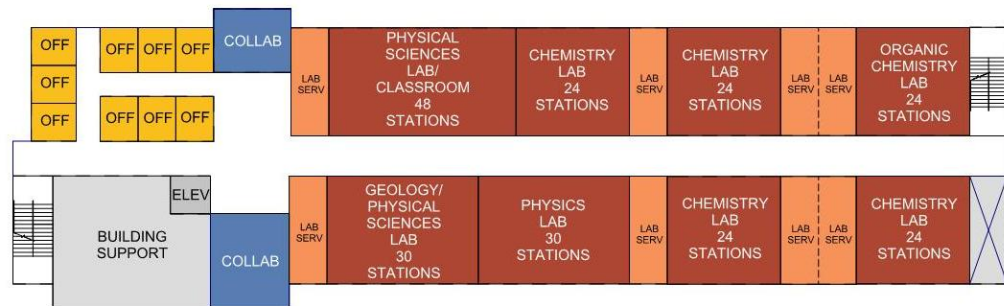


SCIENCE, TECHNOLOGY, ENGINEERING + MATH BUILDING

- Building Planning



LEVEL TWO



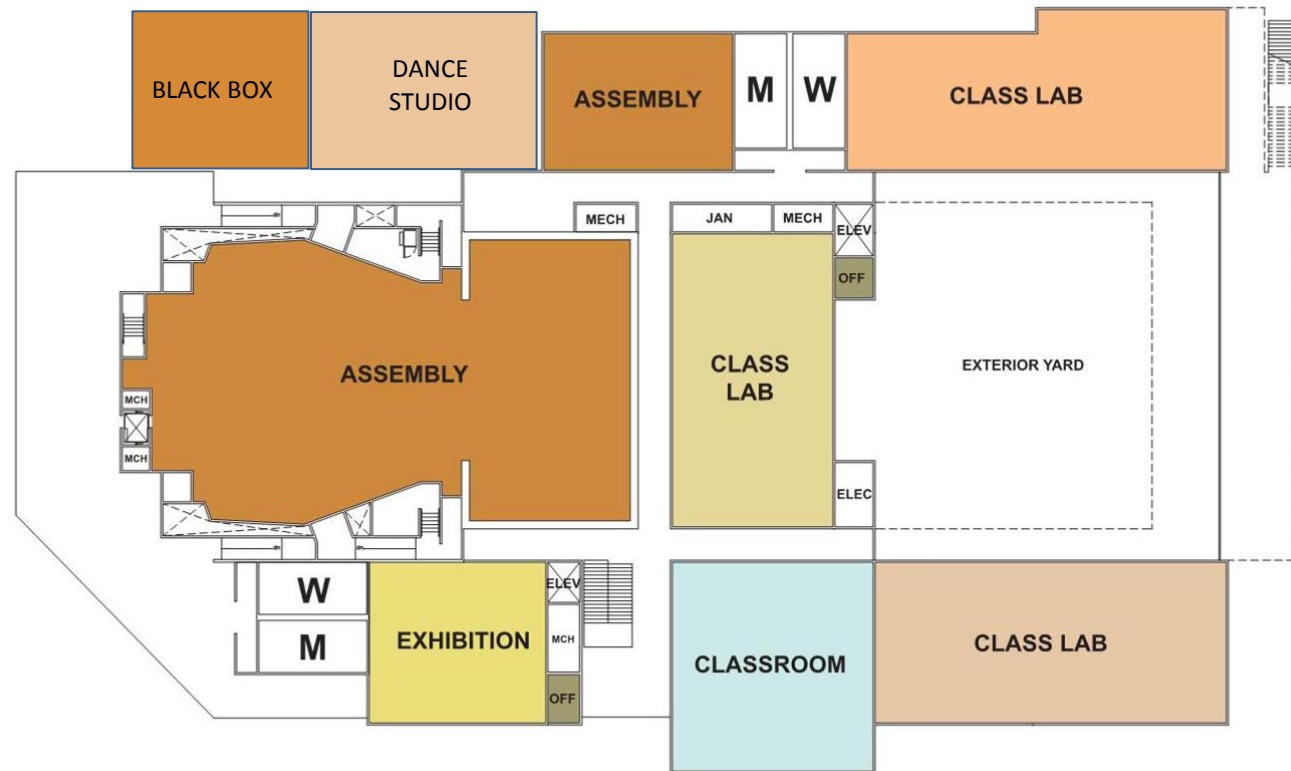
LEVEL THREE

Scale: 1/32" = 1'-0"



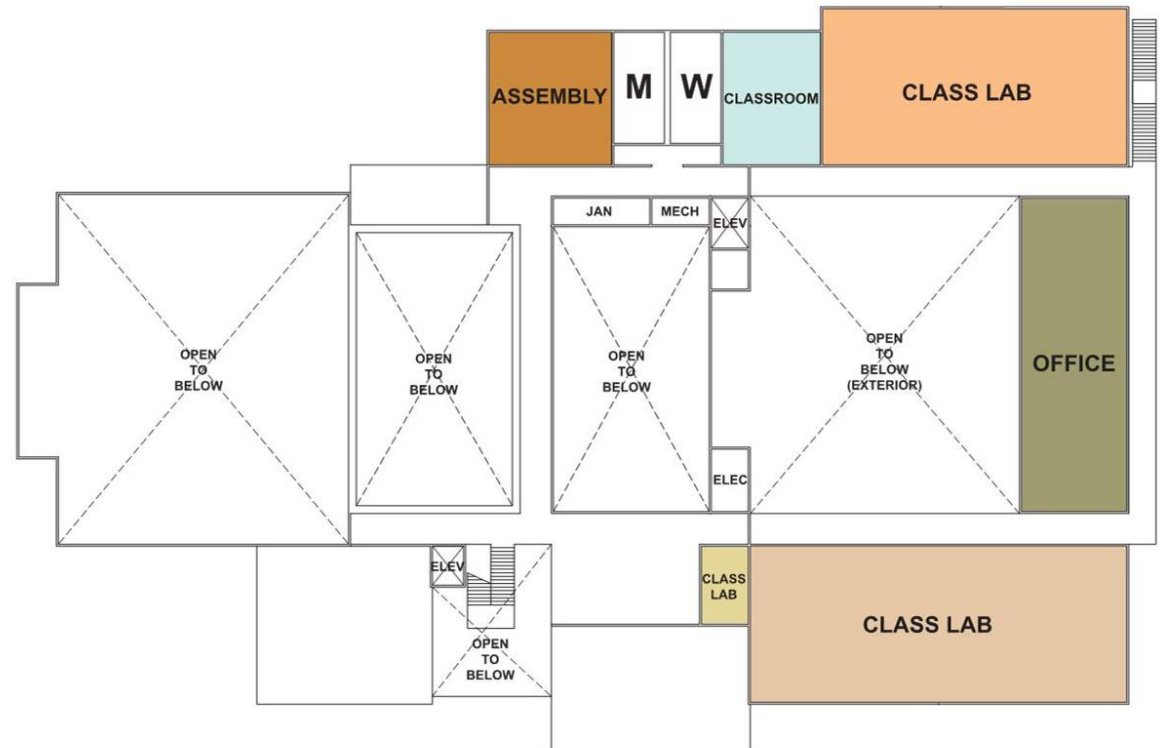
FINE + PERFORMING ARTS COMPLEX

- Final Project Proposal



FINE + PERFORMING ARTS COMPLEX

- Final Project Proposal



PRELIMINARY PHASING AND IMPLEMENTATION

CRITERIA

- Limit disruption to campus and programs
- Follow the logical sequence of moves
- Maximize local and state funding of projects
- Expedite projects that allow others to follow
- Limit the number of temporary moves required
- Limit the need for swing space

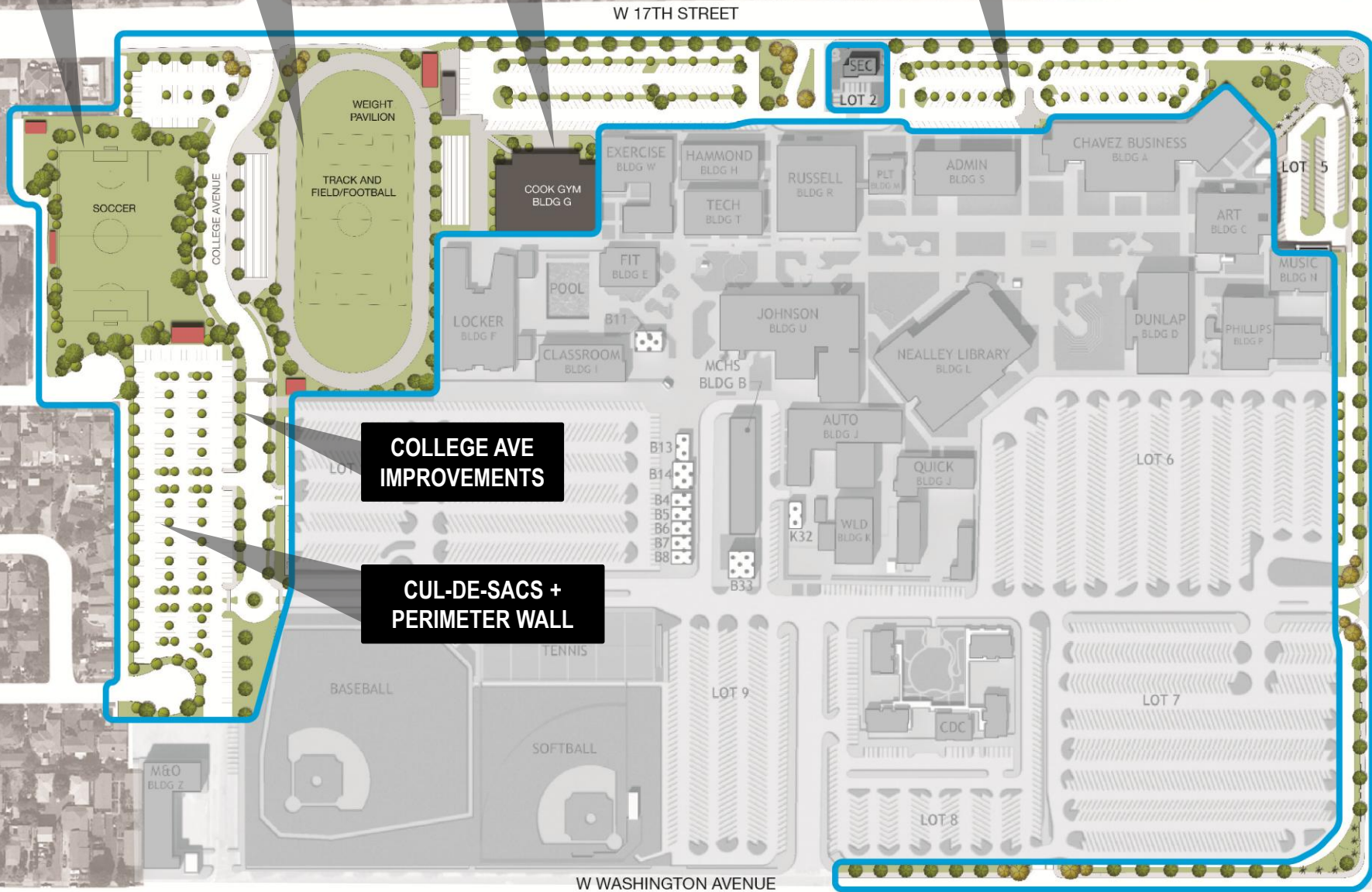


SOCCER FIELD

**STADIUM
IMPROVEMENTS**

**GYM
RENOVATION**

**CAMPUS ENTRIES +
EDGE
IMPROVEMENTS**



**COLLEGE AVE
IMPROVEMENTS**

**CUL-DE-SACS +
PERIMETER WALL**

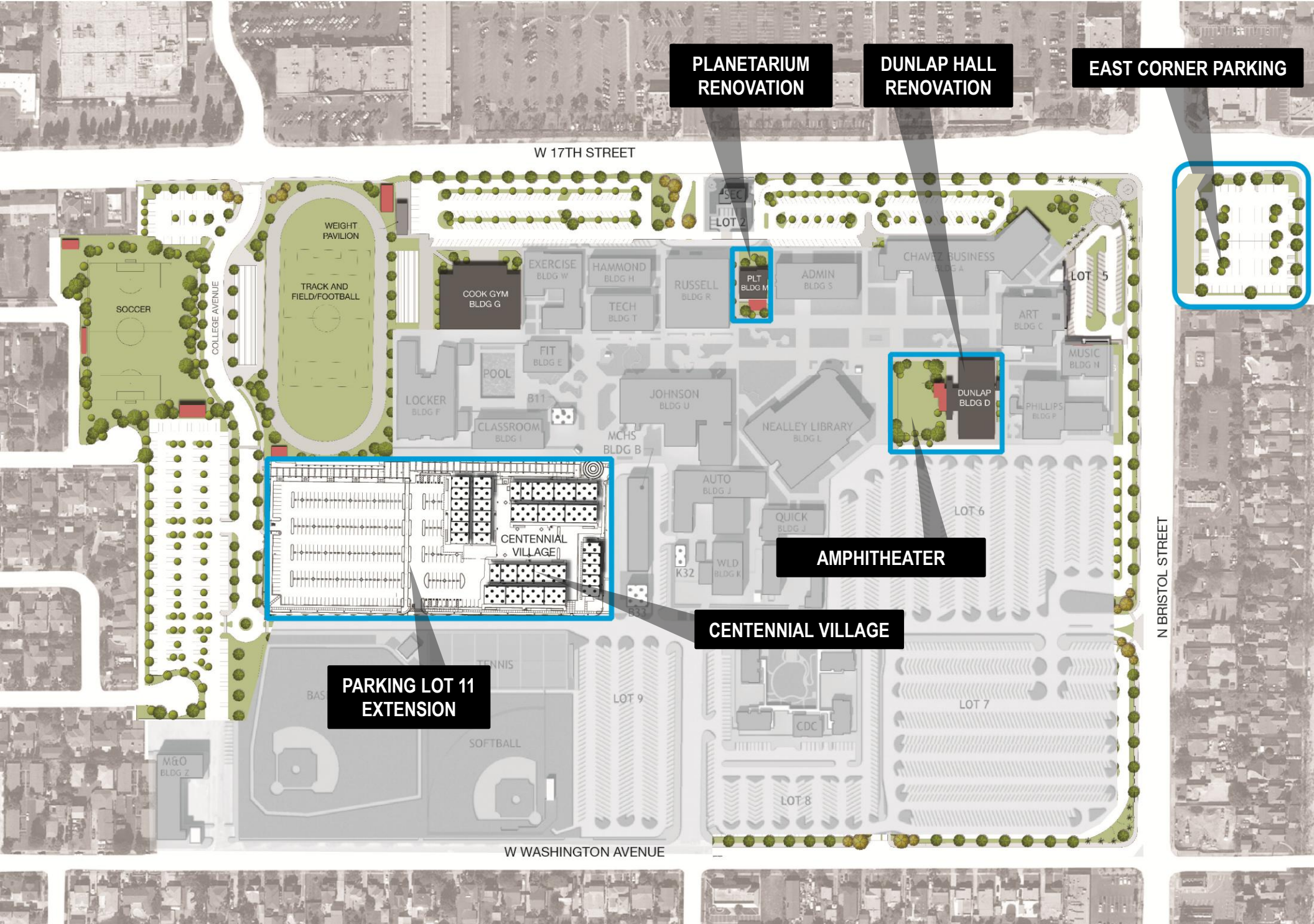
N BRISTOL STREET



SANTA ANA COLLEGE

PHASE 1

HMC Architects



PLANETARIUM
RENOVATION

DUNLAP HALL
RENOVATION

EAST CORNER PARKING

W 17TH STREET

WEIGHT
PAVILION

TRACK AND
FIELD/FOOTBALL

SOCCER

COLLEGE AVENUE

COOK GYM
BLDG G

EXERCISE
BLDG W

HAMMOND
BLDG H

TECH
BLDG T

RUSSELL
BLDG R

ADMIN
BLDG S

CHAVEZ BUSINESS
BLDG A

LOT 5

ART
BLDG C

MUSIC
BLDG N

PHILLIPS
BLDG P

NEALEY LIBRARY
BLDG L

JOHNSON
BLDG U

MCHS
BLDG B

CLASSROOM
BLDG I

LOCKER
BLDG F

POOL

FIT
BLDG E

B11

AUTO
BLDG J

QUICK
BLDG J

WLD
BLDG K

K32

LOT 6

AMPHITHEATER

CENTENNIAL VILLAGE

PARKING LOT 11
EXTENSION

LOT 9

LOT 7

LOT 8

SOFTBALL

TENNIS

W WASHINGTON AVENUE

N BRISTOL STREET

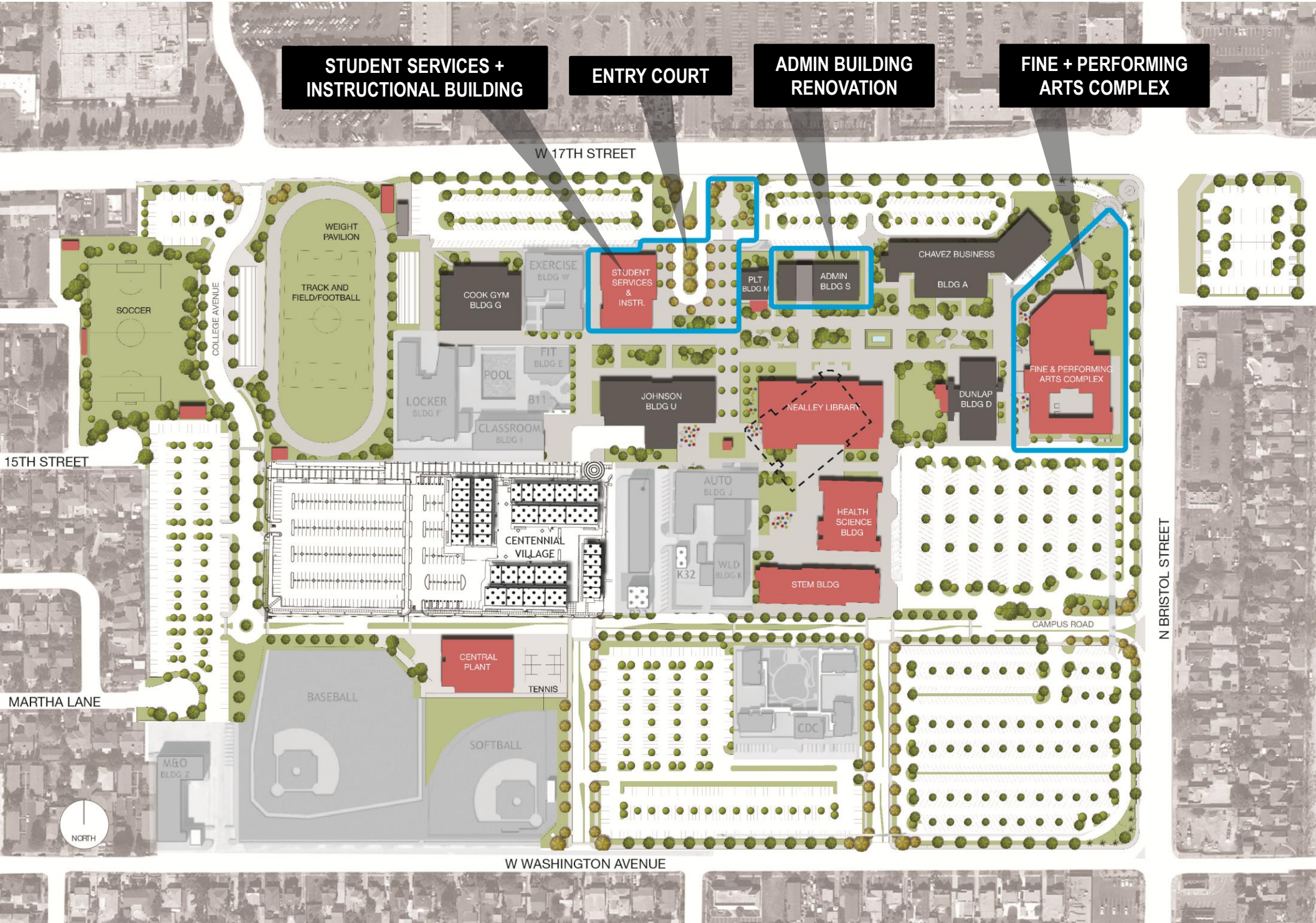


SANTA ANA COLLEGE

PHASE 2

HMC Architects







W 17TH STREET

15TH STREET

MARTHA LANE

W WASHINGTON AVENUE

N BRISTOL STREET



SANTA ANA COLLEGE

PHASE 6

HMC Architects



AGENDA

- Facilities Master Plan Update
- Phasing
- Next Steps





HEPSS Task Force
Health, Emergency Preparedness, Safety and Security
FACILITIES AND MAINTENANCE MEETING NOTES FOR
DONALD MAHANY NOVEMBER 19, 2013

The mission of Santa Ana College is to be a leader and partner in meeting the intellectual, cultural, technological, workforce and economic development needs of our diverse community. Santa Ana College prepares students for transfer, employment, careers and lifelong intellectual pursuit in a dynamic learning environment.

MEMBERSHIP				
Monica Collins, Co-Chair	Rebecca Barnard	Gary Dominguez	Mark Wheeler	
Don Mahany, Co-Chair	Alistair Winter	Andy Gonis	Don Maus	
	Michael Collins	Jim Wooley		

WELCOME; Review of meeting notes and reports on follow up items		Meeting called to order - 1:35p.m.
Alert-U Test and Training	Removed and will be replaced by new single platform system. The information gathered by Alert-U will be transferred.	ACTIONS/OUTCOME/FOLLOW UPS Alistair Winter is working on this and will report back
Fire / Evacuation Drill Great California Shake-out	Great California Shake Out; October 17 th at 10:17 <ul style="list-style-type: none"> Floor Wardens and building managers were asked to send feedback. We sent out survey requesting information and also two specific questions. <ol style="list-style-type: none"> Did you have any disabled students sheltered in place Were you able to open every door Move the ICS location to the A building for more room Conduct a drill just for M&O people 	FOLLOW UP James Wooley left message that said: <ul style="list-style-type: none"> Students were sheltered in place All doors were not open however all classrooms was open for inspection Burbee worked well Difficulty hearing outside the H-Building. A bigger speaker is needed. Mike Collins will look into this Work with Mark Wheeler on this
Standing Reports		ACTIONS/OUTCOME/FOLLOW UPS
SAC - Jim Wooley	<ul style="list-style-type: none"> Significant incident report; Report provided by James in a hand-out 	J. Wooley (Not given due to illness)
Risk Management- Don Maus	<ul style="list-style-type: none"> Presentation Injury report <ul style="list-style-type: none"> Gardener fell from off a ladder Counselor injured lifting a heavy object 	

NEW BUSINESS	DISCUSSION/COMMENTS	
<ul style="list-style-type: none"> • Eyes and Ears- threat assessment training • Disaster Survival Skills training • Wayne Bennet and his Disaster Survival Skills class • <u>Smoking policy</u> • CERT: Community Emergency Rescue Training <ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • The Nov. 19th Eyes and Ears- threat assessment training with OCDE. I will discuss in Cabinet in the morning and give you more info then. • Disaster Survival Skills training- to be scheduled in January. • Wayne Bennet and his Disaster Survival Skills class • Discussion about the existing smoking policy on campus • Students and Faculty can be FEMA skill trained to act in an emergency, along with M&O personnel • 	<p>Michael Collins</p> <p>Don Maus (SEE HANDOUT)</p> <p>Don Maus (SEE HANDOUT)</p> <p>Alistair Winter</p> <p>Mike Collins; To be discussed</p>



Facilities update 11/19/13

- For the month of October we received 214 requests and have completed 160. The balance are in process or awaiting parts.
- Due to compliance and environmental issues we are in the process of replacing boilers in buildings F, R and A. The project will be completed by Thursday December 13, 2013. As outlined in the email the access to the area below where the boiler is located will be closed during the time frame it takes to actually remove the old boiler and place the new one.
- SAC hosted the Board of Trustees meeting in The Spot on October 28th, and was a success. Big thanks to our maintenance and custodial teams for their effort and attention to detail.
- On November 4, SAC hosted Chancellor Brice Harris, community college administrators, faculty and community partners at SAC for his Chancellor's Circle event. The Chancellor toured campus and focused on the Art Gallery, Welding, and Diesel/Automotive instructional labs. We were very proud of how our College was presented and the hard work of our Facilities team.
- Our Grounds crew is pressing forward to try and get their work completed in the campus mall and out of the way on Monday mornings by 8:00am, and are combining their efforts and assisting each other to meet the expectation.
- Facilities has been supporting the Centennial Education Center and at the Criminal Justice Training Academy recently taking care of air conditioning and general maintenance issues such as water leaks, , preventive and routine maintenance, as well as replacing faulty equipment.
- The "festival" parking has taken a beating. We are doing what we can to make it look as presentable as possible but without much success.
- We also have been working closely with District personnel to identify and prioritize scheduled maintenance projects and needs throughout campus. We have many needs, but it starts with our resource allocation request process to identify critical needs on campus.

11-19-2013

The SAC Environmental Task Force meeting notes follow.

1. We noticed that the new trees were not being watered fast enough and they look dried out. Recommend this be checked out to be sure irrigation is functioning in time to save them.
2. Transportation recommendations to SAC Facilities
 - Reduce the demand for parking spaces by developing a student transit pass program to facilitate students taking the bus to campus
 - Add bike racks using the inverted-U style and in locations recommended by transportation planning professionals
 - Add the phrase "If a parking structure is built, ..." to the third and fourth bullet points.
 - When property at the South-East corner of 17th & Bristol is developed, include sufficient benches and shade for students waiting for a bus and consider including another Don Express (or other convenience retail) near the corner.

Roy Shahbahzian recommends similar accommodations to what Citrus College has for bikes. Citrus information is below:

7.6.2.2 Encourage and Enhance Public Transportation and Ridesharing Options

1. Promote current student transit passes through communication or promotional pricing
2. Developing an on-going subsidized student transit pass program to facilitate students taking the bus to campus and reduce demand for parking

7.6.2.3 Encourage and Enhance Bicycling Options

1. Add bike racks using the inverted-U style and in locations recommended by transportation planning professionals
2. Plan for and communicate the availability of showers on campus and the district office
3. Add bike lockers or other secure storage (possibly with an associated usage fee)
4. Prevent bikes from being stolen!

Managing Energy Costs in Colleges and Universities



A typical 50,000-square-foot (ft²) higher-education building in the U.S. uses more than \$100,000 worth of energy each year. Energy-saving measures thus represent a substantial resource for freeing up funds that a college or university can use elsewhere. Moreover, an energy-efficient building can result in improved occupant comfort, academic performance, staff retention, and community support.

How Colleges and Universities Use Energy

In a typical college or university facility, lighting, ventilation, and cooling are the largest consumers of electricity, and space heating accounts for the vast majority of natural gas use (Figure 1). As a result, these areas are the best targets for energy savings. By implementing economical energy-efficiency measures, many colleges and universities have the potential to cut their energy bills by 30 percent or more.

Colleges and universities spend around \$1.95 per ft² on electricity and \$0.15/ft² on natural gas annually (assuming energy use of 18.94 kilowatt-hours [kWh]/ft² and 0.17 hundred

cubic feet per ft², respectively). For a customized benchmark rating of your dormitory facilities, you can use Energy Star's free Portfolio Manager software at www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager.

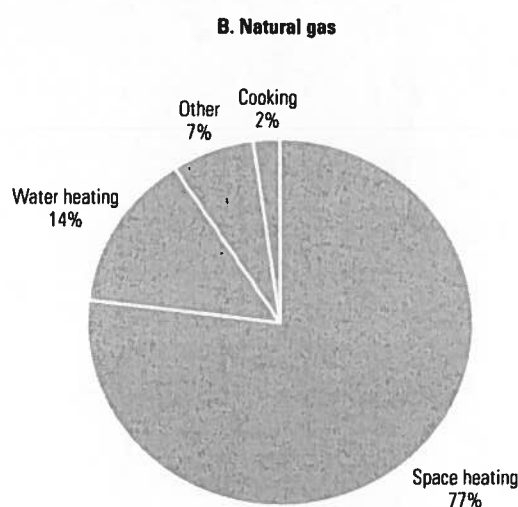
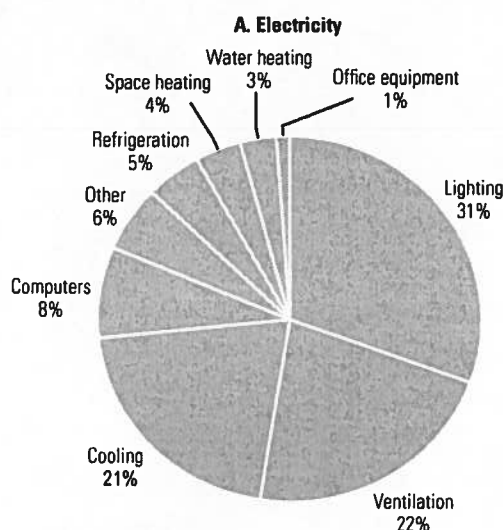
Quick Fixes

Many colleges and universities have tight facility budgets, so it's especially important to find low- or no-cost ways to reduce energy expenditures. Engaging students and faculty in energy conservation can save on campus energy bills. At many higher-education institutions, students are the biggest advocates for energy efficiency and will respond enthusiastically to educational initiatives and conservation pledge campaigns.

Turning Things Off

Turning things off might seem too simple to make a significant difference, but remember that every 1,000,000 kWh saved by turning things off takes \$100,000 off your institution's utility bill annually (assuming electricity costs of \$0.10/kWh).

FIGURE 1: Energy consumption in U.S. educational facilities by end use
Data from the U.S. Energy Information Administration show that lighting, ventilation, and cooling account for 74 percent of electric use (A) and space heating dominates natural gas use at 77 percent (B).



Note: Sum may not total 100% due to rounding.

© E Source, data from the U.S. Energy Information Administration

Computers and office equipment. Computers and other electronic equipment have become ubiquitous in campus buildings and dorms in recent years, contributing dramatically to increases in energy consumption and cost per square foot. A typical desktop computer, monitor, and shared printer, for example, can draw about 200 watts of power. Most consumer electronics sold today can be set to go into a low-power sleep mode after a specified period of inactivity. Unfortunately, users rarely take advantage of this feature. Making sure that these energy-saving modes are enabled can produce significant energy savings. If a single monitor that draws about 100 watts is left on unnecessarily overnight and on weekends, it could add \$40 or more to the annual energy bill. Multiply that by thousands of students and the impact is significant. “Smart” power strips with built-in occupancy sensors are available to shut off plugged-in devices like printers and monitors when no users are present. Get more tips and tools for computer power management from Energy Star at www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_enterprises.

Lights. Lights should be turned off when not in use, but many people forget to take this step. To ensure that switches are off when desired, two effective options are to install occupancy sensors or to recruit staff to serve as “energy monitors” in each campus building. Energy conservation-themed posters and stickers scattered around campus can be effective reminders, especially when designed as part of a larger energy-awareness campaign.

Laboratory vent hoods. Vent hoods are among the most energy-intensive equipment on college campuses and should be kept off unless they are needed for experiments or material storage purposes.

Pre-wash sprayers in kitchens. Pre-wash sprayers are used to remove food from dishes, utensils, pots, and pans before they are placed in a dishwasher. Although all low-flow sprayers are currently required to limit flow rate to 1.6 gallons per minute (gpm), many sprayers currently use up to 5.0 gpm. Given the small initial cost of low-flow valves, the payback for this measure is typically less than two months.

Water fountains. Water fountains don’t really need to provide ice-cold water 24 hours a day unless it is required for health

reasons. In most cases you can turn off the cooling systems in drinking fountains.

Turning Things Down

Some equipment cannot be turned off entirely but can be turned down to save energy.

Building management systems. Make sure setbacks are coordinated with building occupancy—each quarter or semester, facility engineers can interview campus staff to align HVAC schedules with expected occupancy to optimize energy usage. Identify buildings that are not used at night or on weekends, or for long periods such as during semester breaks, and adjust temperature settings in these locations. Also, check that HVAC systems are not set to overcool or overheat buildings.

Water heaters. Reduce water heater temperature (consistent with health requirements) in buildings that do not have laboratory or cooking facilities. You may also find that the water temperature is set higher than necessary for residential buildings. A maximum of 120 degrees in these types of settings is usually sufficient.

HVAC Operation and Maintenance

Regularly scheduled maintenance and periodic tune-ups save energy and extend the useful life of your HVAC equipment. Create a preventive maintenance plan that includes regularly scheduled tasks such as cleaning, calibration, component replacement, and general inspections. Ensure that information on setpoints and operating schedules is readily available for reference when equipment is checked or recalibrated.

Check the economizer. Many air-conditioning systems (other than in hot and humid climates) use a dampered vent called an economizer to draw in cool outside air when it is available, reducing the need for mechanically cooled air. If not regularly checked, the linkage on the damper can seize up or break. An economizer stuck in the fully opened position can dramatically inflate a building’s energy bill by allowing in hot air during the air-conditioning season and cold air during the heating season. About once a year, have a licensed technician check, clean, and lubricate your economizer’s linkage, calibrate the controls, and make repairs if necessary.

