

**STATE OF CALIFORNIA**  
**Capital Outlay Budget Change Proposal (COBCP) - Cover Sheet**  
 DF-151 (REV 07/19)

Fiscal Year 2020-21	Business Unit 6870	Department Board of Governors, California Community Colleges	Priority No. 22
Budget Request Name 6870-025-COBCP-2020-GB		Capital Outlay Program ID <b>5680</b>	Capital Outlay Project ID (7 digits. For new projects leave blank) <b>0006569</b>

Project Title <b>Coast Community College District, Orange Coast College: Chemistry Building</b>	Project Status and Type Status: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuing Type: <input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor
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Project Category (Select one)

CRI (Critical Infrastructure)  WSD (Workload Space Deficiencies)  ECP (Enrollment Caseload Population)  SM (Seismic)  
 FLS (Fire Life Safety)  FM (Facility Modernization)  PAR (Public Access Recreation)  RC (Resource Conservation)

Total Request (in thousands) <b>\$1,400</b>	Phase(s) to be Funded Preliminary Plans and Working Drawings	Estimated Total Project Cost (in thousands) \$40,547
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**Budget Request Summary**  
 The Board of Governors, California Community Colleges, requests \$1,400,000 Proposition 51 General Obligation Bond for the preliminary plans and working drawings phases of the Coast CCD, Orange Coast College, Chemistry Building project. This proposal involves the demolition of the Literature/Language Arts Building and the construction of a new 29,775 assignable square feet (ASF) Chemistry Building to address increased student demands for chemistry courses and to provide essential infrastructure for effective program delivery. The total project cost is \$40,547,000 (\$20,556,000 state funds and \$19,991,000 district funds).

Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed	CCCI <b>6684</b>
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Requires Provisional Language <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Budget Package Status <input type="checkbox"/> Needed <input checked="" type="checkbox"/> Not Needed <input type="checkbox"/> Existing
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Impact on Support Budget

One-Time Costs  Yes  No      Future Costs  Yes  No  
 Future Savings  Yes  No      Revenue  Yes  No

If proposal affects another department, does other department concur with proposal?  Yes  No  
*Attach comments of affected department, signed and dated by the department director or designee.*

Prepared By	Date	Reviewed By	Date
Department Director	Date	Agency Secretary	Date

Department of Finance Use Only	
Principal Program Budget Analyst Original Signed By Sally Lukenbill	Date submitted to the Legislature 1/10/2020

**A. COBCP Abstract:**

Coast Community College District, Orange Coast College, Chemistry Building – \$1,400,000 for the state share of the preliminary plans and working drawings. The project includes the demolition of the Literature/ Language Arts Building and the construction of a new 29,775 ASF Chemistry Building, consisting of 7,757 ASF lecture, 19,612 ASF laboratory, 1,420 ASF office, 754 ASF library, and 232 ASF other meeting space. The total project costs are currently estimated at \$40,547,000, including preliminary plans (\$1,346,000), working drawings (\$1,454,000), and construction (\$37,747,000). The preliminary plans are estimated to begin in July 2020 and be completed in January 2021. The working drawings are expected to begin in January 2021 and be completed in March 2022. Construction is scheduled to start in June 2022 and be completed in July 2024.

**B. Purpose of the Project:**

Orange Coast College has 28,721 students enrolled in its instructional programs, of which 13,698 (48 percent) students are low-income. Orange Coast College has 908.5 full-time equivalent employees who provide instruction, student services, and administrative leadership. Currently, a total of 9 full-time equivalent employees directly serve the programs associated with the proposed project.

The Chemistry Building project includes the demolition of the 44-year-old Literature/Language Arts Building (the in-progress Language Arts and Social Sciences Building will replace this facility) and the construction of a new facility to provide growth space, infrastructure systems, instructional technology, and configuration to support the chemistry program with efficient teaching space. The new Chemistry Building, serving both core transfer courses and certificate requirements (i.e. allied health programs), will expand from its existing 20,989 ASF to 29,775 ASF.

*Infrastructure Deficiencies/Programmatic Issues*

The existing Chemistry Building was constructed in 1980 and its infrastructure systems (i.e. utility/mechanical) no longer adequately meet the growing academic demands, such as extra power and data capabilities for classrooms. In recent years, the students' demand for chemistry lab increased by 39 percent. The large number of students bound for the nursing program has further accentuated the demand. In the last three academic years, the district has increased degrees and transfer degrees from 302 to 411 in programs requiring chemistry. The chemistry program has not been able to keep pace with this demand and have lost students as a result. Despite filling the classes beyond capacity, chemistry classes are frequently waitlisted and students go unserved. For example, for the fall semester of 2018, the chemistry laboratories had a waitlist of 190 students.

In addition to the need for physical space to meet student demand, there is also a need to make the chemistry laboratories more efficient and productive. The existing laboratories were designed decades ago to accommodate a maximum of 24 students per class and no longer provide efficient use of the space. In today's environment, both General and Organic Chemistry labs need to accommodate at least 28 students per class to be efficient. Existing laboratories would be configured to accommodate larger class sizes for efficiency intended to increase lab capacities by 20-25 percent. Each student station would be separate, eliminating the necessity of students having to share a workspace.

A new, expanded Chemistry Building will provide additional laboratories to serve increased student demands for these critical chemistry classes, proper building systems, configuration, and the appropriate instructional technology to promote an effective learning environment for students to attain their degree or transfer degree within the chemistry program.

#### *Solution Criteria*

To mitigate the above problems, Orange Coast College seeks a solution that addresses the following criteria:

- Cost – Is the least cost solution.
- Educational Impacts
  - Provides the growth space, configuration and technology to meet the enrollment needs and support chemistry program.
  - Creates adjacencies to other core academic zone of the campus where students can have easy access to other buildings/programs.
- Delivery Timeline – Provides a solution in the shortest amount of time.
- Campus Integration or Cohesiveness – Project is included in the campus' master plan.
- Security – Improves campus security systems.
- Energy efficiency and environmental sustainability – Improves energy efficiency and supports the campus' environmental sustainability goals.

#### **C. Relationship to the Strategic Plan:**

Coast CCD's Chemistry Building project seeks to advance the changes and goals of the Vision for Success, an effort to improve student success, increase students' transfer to four-year institutions, and build robust career education programs. The new Chemistry Building will serve multiple programs and offer non-credit support courses for lowest level Chemistry geared at improving success rates and promoting movement through the program. Chemistry plays a key role in the college's Guided Pathways efforts to have sufficient labs for major STEM related majors and to develop noncredit courses to improve student success.

The new Chemistry Building project supports a primary goal of the Facilities Master Plan to accommodate the growth programs of the college. Integral to the Plan's priorities was creating instructional space that were consistent with the state's standards for utilization, life and safety issues, and ensuring that the advantages of technology were present in all teaching/learning environments. The new Chemistry Building will address these goals and priorities.

The project will support the state's environmental sustainability goals by incorporating design strategies that promote energy efficiency, waste and water use reduction, storm water management, and occupant health. Measures that will be implemented to attain this goal include natural/native landscaping, storm water retention, reducing heat gain through efficient glazing/roofing, natural lighting, energy efficient HVAC and lighting systems, and water efficient fixtures.

#### **D. Alternatives:**

Three viable alternatives were analyzed to address the problems discussed above:

- Alternative 1 – Construct a new Chemistry Building.
- Alternative 2 – Renovate and expand the existing Chemistry Building.

- Alternative 3 – Renovate the existing Chemistry Building and accommodate new growth space in portable units.

Alternative 1 – Construct a new Chemistry Building of 29,775 ASF to increase capacity and address infrastructure and functional deficiencies to promote effective instructional space for chemistry program. The estimated cost of this alternative @ CCCI 6684 and EPI 3607 is \$40,547,000.

Pros:

- Educational Impacts
  - Provides the growth space, configuration and technology to meet the enrollment needs and support chemistry program.
  - Creates adjacencies to other core academic zone of the campus where students can have easy access to other buildings/programs.
- Delivery Timeline – Provides a permanent solution in the shortest amount of time.
- Campus Integration or Cohesiveness – Project is included in the campus' master plan.
- Security – Improves campus security systems.
- Energy efficiency and environmental sustainability – Improves energy efficiency and supports the campus' environmental sustainability goals.

Cons:

- Cost – Is not the least cost solution but is the most cost effective permanent solution.

Alternative 2 – Renovate and expand the existing Chemistry Building. This alternative would renovate 20,989 ASF that constitutes the current Chemistry Building and expand the existing facility by an additional 8,786 ASF, creating 29,775 ASF facility. The total estimated cost of this alternative @ CCCI 6684 and EPI 3607 is \$41,506,000.

Pros:

- Educational Impacts
  - Provides the growth space, configuration and technology to meet the enrollment needs and support chemistry program.
  - Creates adjacencies to other core academic zone of the campus where students can have easy access to other buildings/programs.
- Security – Improves campus security systems.
- Energy efficiency and environmental sustainability – Improves energy efficiency and supports the campus' environmental sustainability goals.

Cons:

- Cost – Is not the least cost solution.
- Delivery Timeline – Does not provide a solution in the shortest time due to risk of unforeseen conditions in this particular case.
- Campus Integration or Cohesiveness – Does not align with the college's master plan to construct a new facility.

Alternative 3 – Renovate the existing Chemistry Building (20,989 ASF) and house new growth space in portable units (additional 10,441 ASF), for a total of 31,430 ASF. The growth space would entail the loss of 240 parking spaces (Lot F), which would need to be replaced. The estimated cost of this alternative @ CCCI 6684 and EPI 3607 is \$40,051,000.

Pros:

- Cost – Is the least cost solution.
- Educational Impacts – Provides the growth space, configuration and technology to meet the enrollment needs and support chemistry program.
- Security – Improves campus security systems.

- Energy efficiency and environmental sustainability – Improves energy efficiency and supports the campus' environmental sustainability goals.

Cons:

- Educational Impacts – Does not create adjacencies to other core academic zone of the campus where students can have easy access to other buildings/programs.
- Delivery Timeline – Does not provide a permanent solution in the shortest amount of time.
- Campus Integration or Cohesiveness – Is not consistent with the campus' master plan to develop a comprehensive campus with permanent facilities.

**E. Recommended Solution:**

1. Which alternative and why?

Alternative 1, construct a new Chemistry Building, is the recommended solution as it meets all of the criteria for a permanent solution. A new Chemistry facility will provide the growth space, specialized configuration, adequate infrastructure systems, and technology to address increasing student enrollment needs and support chemistry program at Orange Coast College. The new facility will be adjacent to other core educational buildings offering mathematics, social science, language arts, business, technology and science instruction for convenient student access and not require displacement of existing facilities or resources, consistent with the campus' master plan. This alternative enhances campus security with systems that are code compliant while improving occupant safety. Additionally, the new building will be energy efficient and support the environmental sustainability goals of the campus.

2. Detailed scope description.

Demolish the Literature/Language Arts Building from the proposed site and construct a new two-story, 29,775 ASF Chemistry Building, consisting of 7,757 ASF lecture, 19,612 ASF laboratory, 1,420 ASF office, 754 ASF library, and 232 ASF other meeting space. The new Chemistry Building will border the northern edge of parking Lot F (Adams), adjacent to the existing Chemistry Building and Science Lecture Halls.

The existing Chemistry Building is to be demolished as part of a separate local project once programs are located to the new facility.

3. Basis for cost information.

JCAF 32.

4. Factors/benefits for recommended solution other than the least expensive alternative.

The proposed option, Alternative 1 new construction of Chemistry Building is the most effective solution that provides the permanent space to meet the students' chemistry program needs and best meets all the other solution criteria. The seemingly low cost of Alternative 3 does not stand up to the test of cost expended versus benefit gained as it is actually a relatively high cost for a less than permanent solution. Alternative 1 is the only solution that creates adjacencies to other core academic zone of the campus and minimizes the displacement of college resources.

5. Complete description of impact on support budget.

The district will budget any additional annual costs associated with this proposed project with existing local resources. It is anticipated that this project will result in the growth need in chemistry

faculty by 43 percent and increase instructional lab associates from 2 to 4 positions. The additional certificated or support staff that is required, however, would be in direct correlation with an increase in the number of full-time equivalent students produced. As such, any expense for additional staffing would be offset within the college's annual operating budget.

From a maintenance and operations perspective, the demolition of an inefficient building and the introduction of new energy efficient systems from the project are anticipated to result in cost reductions to the college's operating budget.

6. Identify and explain any project risks.

There is always the risk of unknown conditions on the site. However, the site has been the location for the existing Literature/Language Building for the past 40 years - it is a known entity. An assessment will be conducted as part of the site development/preparation process to ascertain if any limitations or compromising conditions exist but none are known or anticipated.

7. List requested interdepartmental coordination and/or special project approval (including mandatory reviews and approvals, e.g. technology proposals).

Division of the State Architect and State Fire Marshal reviews for structural safety, access compliance, and fire & life safety plan reviews.

**F. Consistency with Government Code Section 65041.1:**

The California Community Colleges are exempt from the specific provisions of this Government Code section.