CAPE COD COMMUNITY COLLEGE
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Appendix
In January of 2005 the Division of Capital Asset Management (DCAM) commissioned Sasaki Associates to complete a master plan for each of the Massachusetts State and Community Colleges in the Southeast Region of the state. The Southeast Region includes Bristol Community College, Bridgewater State College, Cape Cod Community College, Massasoit Community College, and the Massachusetts Maritime Academy.

The master planning process was conducted in two phases. The first phase consisted of preliminary information-gathering and analysis, and site visits to each of the five campuses. The second phase of planning focused on the formulation of a master plan vision that could inform the creation of an updated list of capital priorities for each campus. The master planning process was a collaborative one, building on a solid foundation of quantitative data and objective observations. Sasaki Associates’ relied heavily on the experiences and input of all involved parties through active engagement of the different stakeholders of each campus. This effort culminated in two on-campus workshops with participants from the colleges, the Massachusetts Board of Higher Education (BHE), and DCAM.

The goal of the first campus workshop was to establish place-making principles that would enhance the form and function of the campus facilities and landscape. Sasaki Associates presented several framework plan alternatives for campus development to illustrate and reinforce the established priorities. Representatives from DCAM, BHE, and the colleges provided input on each option and discussed how each development alternative related to the overall mission and goals of the campus.

Following the initial visioning workshops, Sasaki developed an updated list of capital priorities for each campus that balanced the needs identified by the campus community, the firm’s own observations, and the analyses provided by the System-wide Strategic Capital Plan by Eva Klein and Associates and the Space Utilization Analysis by Rickes Associates. In addition, evaluations by sub-consultants regarding the existing campus infrastructure, including site/civil, M/E/R and Tel/Data conditions, informed the overall master-plan priorities and phasing. Sasaki then presented a preferred framework plan and revised capital priorities list at a second on-campus workshop to confirm the overall direction and concepts to be documented in a master plan report to be submitted to DCAM.

The final master plan outlined in chapter four of this report is the result of extensive evaluation, deliberation, and collaboration. The phasing plan of each campus is suited to meet each school’s unique needs and vision, balanced with the overall goals of DCAM and the Massachusetts Board of Higher Education. Participants in this process for Cape Cod Community College are listed here.
Executive Summary

Cape Cod Community College (CCCC) provides educational programs and services to the residents of Cape Cod, the Islands and adjacent areas of Southeastern Massachusetts. The only comprehensive college on Cape Cod, CCCC provides associates degrees and transfer programs in the liberal arts and sciences; career and technical degrees and certificates; and workforce education. In Fall 2005 the College enrolled 4,328 students, 2,394 of which were full-time or equivalent.

With the addition of a new Technology Building in 2005, Cape Cod Community College has met many, but not all of its current space needs requirements. Cape Cod still has a deficit of classroom, laboratory and office space. According to recent space analyses, CCCC needs approximately 19,000 gsf of classroom space, 6,500 gross square feet (GSF) of laboratory space and 4,000 GSF of office space to accommodate current students and projected growth. CCCC's total space deficit amounts to approximately 43,000 gross square feet.

Cape Cod Community College's campus features eleven buildings on 116 acres, the majority of which are organized around a central quadrangle perched atop a hill. A series of twelve parking lots and a ring-road encircle the campus, and athletic fields lie to the northwest. Access to the College is from Route 132 (Iyannough Rd.) to the southwest, which connects to Route 6A, the Mid-Cape Highway, just south of the campus. The CCCC campus is internally-oriented and fortress-like in feel. The parking lots and ring-road divide it from the surrounding open space. Paths from the parking lots, which enter campus through the rear of the buildings, do not connect directly to the central quad. The façades of buildings create a courtyard feel within the quadrangle, but the presence of retaining walls and sloped areas prevent the quad from acting as a unified space. Rather than fostering a sense of community, the current layout creates barriers to social gatherings and interactions.

Another major design challenge facing CCCC is the lack of a clear gateway to the campus. The current access road is one-way and at lower grade from campus, affording views of the parking lots along the campus' perimeter rather than of the campus itself. Making connections and defining the gateway have become the major goals defining development options for the CCCC campus. In defining the gateway, CCCC will open up its central quadrangle with a terraced entry plaza, create an adjacent new building, and enhance the larger campus approach with architectural and landscape enhancements. In creating connections, a series of pedestrian plazas will enhance the pedestrian experience, with future buildings located along major pedestrian spines and an enhanced Grossman Student Commons at the heart of campus.
The priority projects that will allow the Cape Cod Community College campus to realize its goals of an enhanced gateway and improved connections, as well as fulfill the space needs illustrated by the System-wide Strategic Capital Plan by Eva Klein and Associates and the Space Utilization Analysis by Rickes Associates, are outlined below. The following projects accommodate current space needs and support the overall place-making vision for the campus. Throughout the planning process and implementation, sustainable practices play an integral part in decision-making. As the campus contains the state’s first publicly-funded LEED certified building, and plans to construct a wind-turbine in the near future, Cape Cod Community College has a critical role of enhancing its status as a leader in sustainability in Massachusetts public education.

ACCESSIBILITY / WAYFINDING / TRAFFIC / PARKING STUDY

An Accessibility/Wayfinding/Traffic/Parking Study is crucial as a priority project because of pressing issues of access and circulation for all campus users. Because of the campus’ steep topography, accessibility for the disabled has been an ongoing issue, and all future campus growth must make this a priority from the beginning stages of design and planning. The inefficient system of access plagues all campus users, especially those that are new to CCCC. Traffic on the campus ring-road often speeds because of the road’s large width, making pedestrian crossing from the parking lot dangerous. Assessment of campus circulation and accessibility must be viewed in a holistic fashion for both the development of a new signage and way-finding plan, and at the onset of future design and planning.

SCIENCE BUILDING / LECTURE HALLS MODERNIZATION

Cape Cod Community College’s existing Science Building has a shortage of general laboratory space to support current programs. The College’s new Technology Building will address some of the current space needs and allow Allied Health to expand their current instructional space into three classrooms in the Science Building. A new science building placed opposite the new Technology Building will fulfill the need for additional laboratory space. In turn (contingent on the positive results of a feasibility study on the existing Science Building) spaces in this existing building could be remodeled and used as general academic classrooms. The location of the new science building will further articulate the connection between the gymnasium and the campus core.

ADMINISTRATION BUILDING REPLACEMENT / CAMPUS FRONT DOOR

The proposed building will accommodate administrative offices, a consolidated “One-Stop” student services center and an archival storage facility. The project is also part of a larger vision to establish a new “front door” to the campus and the proposed uses reinforce this concept. Demolishing the existing Administration building further opens the campus entry and provides a generous view corridor that invites pedestrians into the core campus.
STUDENT COMMONS / ADDITION

In addition to upgrading the building system in the Student Commons, a two-story addition to the building is recommended. This will allow for the reconfiguration of existing space in the Student Commons, providing space for students to socialize and interact during breaks between classes. The addition will also provide space for the expansion of the culinary arts program on the ground floor and dining facilities on the first floor. The Student Commons addition will better engage the central quad and help to establish a new center of activity on the campus. Landscape improvements include a redesign of the quad's walkways and retaining walls to better visually connect the surrounding buildings, creating a more coherent, usable space.

NORTH CLASSROOM BUILDING MODERNIZATION

Cape Cod Community College has a need for seven additional general purpose classrooms. Interior renovations to the North Classroom Building will address this need in part by reconfiguring classrooms to create more space and installing technology to create several new "Smart Classrooms." The renovation of labs in the existing Science Building to general purpose academic space will provide the swing space necessary for improving space in the North Classroom Building.
Bird’s eye view looking south
CAPE COD COMMUNITY COLLEGE HISTORY

Cape Cod Community College (CCCC) was established in 1961 in a building that is now the Barnstable Town Hall, at 367 Main Street. For over 80 years, 367 Main St. housed a progression of educational institutions, including the Hyannis Teacher's College, the Massachusetts Maritime Academy, and Barnstable Middle School Annex. (http://www.barnstablepatriot.com/KnowBarnstable05/TownHall.htm) In 1970, Cape Cod Community College moved from Barnstable Center to its current location in West Barnstable. CCCC's early years in the town hall linked the school physically as a central force of civic involvement and improvement and established itself as part of a legacy of accessible public education in southeastern Massachusetts.

At its current location, CCCC's role as a civic force of quality education and workforce training to residents has only grown stronger and larger. The college's outreach has expanded to include the rest of Cape Cod, Nantucket, and Martha's Vineyard. Cape Cod Community College has historically served a diverse population, with its inaugural class of 166 students representing 33 different communities. CCCC is now part of two invaluable higher education networks serving a wide span of Massachusetts residents; The Massachusetts Public Higher Education System, and the 15 Massachusetts Community Colleges. CCCC was the second Massachusetts Community College to be established and, in 1961, was part of a decade of massive nation-wide expansion of community college offerings. (www.aacc.nche.edu)

The year of 2006 proved a momentous time for the college, with the opening of the Lyndon P. Lorusso Applied Technology Building, the first new building since West Barnstable campus was established in 1974, and Massachusetts' first state-funded LEED-Certified building. This was also a significant year regarding improvements to CCCC's overall resources. According to the Cape Cod Community College Foundation, from FY 2005 to 2006, scholarship funds increased by 30%, allocations to support college programs increased by 57%, and building renovation donations increased by 639%.

The Lorusso Applied Technology Building is just one example of how Cape Cod Community College's priorities continue to both reflect and influence its local, regional, and state-wide community context. As the most geographically isolated of the five Massachusetts State and Community Colleges of the Southeast Region, Cape Cod Community College caters to a significant population that is not served.
Cape Cod Community College has established the following priorities to govern its continuing development as a comprehensive institute of public higher education:

- Developmental education and English for speakers of other languages to provide access to higher education for students who lack the skills necessary for success in collegiate programs.

- Liberal arts and sciences for transfer to a wide range of baccalaureate majors such as theater, visual arts, mass communications, psychology, education, mathematics, and scientific fields.

- Technical and occupational degrees and certificates in such fields as hospitality management, culinary arts, healthcare, environmental technology, business, and information technology.

- Workforce education that serves area employees and employers; supports economic development in the region; and meets the professional development needs of its own faculty and staff.

- Student services to support student access, development, success, retention and graduation.

- A campus climate that affirms the centrality of learning, welcomes multiple perspectives, celebrates the contributions of a diverse population, and promotes the values of open inquiry and mutual respect.

- Educational and service opportunities for a senior population that is double the proportion of national averages.

- Cultural experiences that enrich learning at the College and serve the broader community with such activities as performing arts events, fine arts exhibits, distinguished speakers, athletic and recreational programs, and international education.

- Library and information services that provide the only comprehensive collegiate learning resource of the region.

- Distance learning access for students of the islands and other remote areas as well as for those whose access to campus-based education is limited by personal circumstance.

- Partnerships with other institutions to bring baccalaureate and advanced degrees to the region.

- K-12 partnerships that promote articulation and support for college-bound students.

(http://www.capecod.mass.edu/)
directly by any other analogous institution. CCCC has the significant responsibility and opportunity of continuing to operate as a leader in higher education for Massachusetts.

B. COMMUNITY CONTEXT

As the only comprehensive community college on Cape Cod, CCCC’s service area includes all of Cape Cod, the Islands of Nantucket and Martha’s Vineyard, and the adjacent areas ofSoutheastern Massachusetts, including Plymouth, Carver, and Wareham. Cape Cod Community College provides associates degrees and transfer programs in the liberal arts and sciences, as well as career and technical degrees and certificates and workforce education.

Typically, a 30 minute commute-shed around a campus is used to determine the population served by a public institution, such as CCCC. While the 30-minute commute-shed does not represent the entire population served by CCCC’s large scope, it is used in this report to establish consistency in demographic data amongst all five of the Southeastern region's State and Community Colleges. It is also pertinent to note that the residential population surrounding CCCC increases dramatically during the summer tourist season. The strain that this population imposes on housing resources can not be captured through straightforward demographic analysis of housing conditions. All of these conditions being noted, the following demographic data does provide adequate insight to draw informed conclusions about the population that CCCC serves.

In 2000 there were about 170,000 permanent residents living within a 30-minute drive of the campus. Of this year-round population, only 10% (17,000) were
between the ages of 14 and 24 (2000 US Census). This percentage of typical student-age residents is the lowest in the region. Household incomes in the area averaged $60,500, and slightly less than a quarter of the residents in the commute-shed had no education beyond high school.

As might be expected, based on CCCC's location in a highly-trafficked coastal vacation region, housing costs around the campus are comparatively high. In 2000, there were 71,000 housing units within CCCC’s commute-shed, approximately 25% (14,700 units) of which were rentals, with a median rent of $667/month. Recent rental data at the census block level are not available. However, the Town of Barnstable, in its 2005 biennial Housing Needs Assessment, indicates that most rentals were between $1300 and $1400 per month, the highest rents in the region. (Barnstable Housing Needs Assessment, 2005) This difference of nearly 100% between the 2000 and 2005 data indicates that the 6-year old US Census data is particularly out of date for this region. According to the Warren Group (www.thewarrengroup.com), the median sales price for homes in Barnstable was nearly $400,000 in 2005.

The demographic breakdown of CCCC's service area shows a disproportionate majority of elderly residents. While there is a significant need for CCCC's services in the Barnstable area, it is becoming increasingly difficult for young people to live near campus and to afford to stay in the area after graduation. Many younger CCCC students live with their parents, primarily for cost factors. Students looking to live on their own in Barnstable County have few affordable alternatives, some of which are winter rentals they must vacate during the summer. Since the vacation season begins as early as the beginning of May, many of these residences must be vacated before the school year ends.

The state of Massachusetts has an official goal of making 10% of its housing affordable. Under current conditions, Cape Cod as a whole is 6,300 affordable units short of meeting this goal. In Barnstable County, median home prices rose 103% between 1999 and 2004, which is the 8th highest increase out of 235 national MSA's (Anderson Strickler, 7). CCCC has expressed a desire to establish affordable housing for its students, many of whom would like to live near campus but face limited housing choices due to high rents.

Any mention of future housing on the Cape Cod Community College campus in this report solely represents suggestions and initiatives put out by the college itself. The college has expressed an interest in student housing, and the Board of Higher Education is studying the issue of student housing at community colleges. As policy toward student housing at community colleges is still being developed, this report contains no specific recommendations on this matter.

In April, 2005, Cape Cod Community College appointed Anderson Strickler, LLC to complete a report on the market and financial feasibility of student housing on their campus. Anderson Strickler surveyed 516 current CCCC students and 472 local high school seniors. Twenty-five current students also participated in a focus
group. Based on their own analysis of current housing conditions, surveys, and interviews, Anderson Strickler concluded that 200 beds of apartment-style housing would be best for CCCC.

Anderson Strickler also reported that 82% of part-time students surveyed said they would be full-time students if they lived on campus. While many students currently living with parents close to campus would not consider moving into college-provided housing because of cost, many students living far from campus, in more affordable areas, may move onto campus if provided the opportunity. Students reported a belief that an increase in students living on campus, as well as an increase in full-time students, could improve campus life and create a stronger sense of community at CCCC.

C. CAMPUS CHARACTER

Development History

The CCCC campus is located about a ten minute drive from Hyannis, the most densely populated village in the town of Barnstable. As mentioned in the previous section, Cape Cod Community College has seen very little construction since the existing campus was first built in the early 1970's: the 2006 Lorusso Applied Technology Building is the first new building on campus since 1974. The orientation of the original core campus creates a barrier that encloses the central quad, which has limiting flexibility for growth or change within this original configuration. In spite of this, in order to retain a cohesive campus and to take advantage of compatible adjacencies, it is essential to recognize the importance of directing future expansion of academic and student life facilities near the existing campus core.

Existing Conditions

The developed portion of CCCC's 100-acre campus is largely located on a central hill with a ring road and parking around the base of the hill. Campus buildings cluster at the top of the hill around a central quad, creating a wall-like effect around the space. As with many other community colleges, academic buildings are in the core campus. Student life and administrative uses are generally adjacent at CCCC, while a number of community-oriented uses are distributed on the west side of campus. Campus buildings are mostly brick, stone, and glass, including the new Lorusso Technology Center, giving the campus a coherent, collegiate feel.

The landscape on campus is characterized by slopes and small hills of glacial till, ranging from slight inclines to steep ravines with inclines in excess of 30%. Although the campus elevation varies by only 40 feet—from 80 to 120 ft. above sea level—steep ravines to the north and west of the main campus create significant limitations on the direction most desirable for growth. Since much of the topographic variation is created by loose till, rather than by rock outcroppings, the construction limitations of the site are not insurmountable, but they do create a specific challenge for locating new parking lots. In addition to topographical constraints, a very small wetland area of about a quarter acre is
found to the northwest and limits growth in that direction. This land, adjacent to existing athletics fields, should be preserved, in keeping with CCCC's sustainability initiatives, which are outlined at the end of this chapter.

The topographical variations on campus also create a challenge in connecting the quads and build environment at CCCC. This phenomenon is not apparent in looking at a plan view of the campus, which simply communicates a series of interconnected courts surrounding a quad. In reality, elevation changes separate the quad from the building courts, creating a series of unrelated spaces separated by topography. The quad itself is characterized by a central hill and a grove of trees that limits visual access across and into the space. As the central organizing space of the campus, the central quad has great potential to become an iconic space and lend a greater sense of community and identity to the campus. Strengthening the design and
organization of this space, and using the campus’ topographic changes to highlight this space, should be a priority as the campus grows.

**Vehicular Circulation**

Located between Routes 6 and 6A, CCCC is well-situated in terms of access to major points on the Cape. In addition, the campus is adjacent to Route 132 (Iyannough Road) which provides a direct link to Hyannis and the ferries. Oak Street is a local collector that connects to the Cape Cod Airport.

CCCC has two access points from Iyannough Road: the southern entry is the main entry, and the northern entry is for service. The main entry is located at a slight low point off of the highway. Due to municipal signage restrictions that limit the size and location of the entry sign, the entry is not immediately obvious to first-time visitors. This entrance could be enhanced with landscape improvements or architectural features.

The campus is encircled by a one-way ring road that provides vehicular access to parking and service areas. Because all parking is located outside the ring road, pedestrians must cross a primary traffic route in order to access the campus. The ring road is more than 25 feet wide, with two one-way driving lanes. This type of road design encourages higher driving speeds than a narrower road profile or single driving lane, and it reinforces the barrier to pedestrians created by the roadway.

**Pedestrian Circulation**

To enter the CCCC campus core from the ring road is a fairly steep uphill walk, ascending an elevation between ten and twenty feet up from the parking lots. This uphill climb, at grades averaging ten percent, results in a slower pedestrian pace, which is why the walk circle on the accompanying graphics has been reduced by twenty percent from the size used for analyzing other campuses. The uphill entrance also inhibits handicap-accessibility on campus. Due to the challenging topography campus-wide, ADA access is an ongoing issue and needs to be addressed.

Pedestrian circulation is less complicated once in the campus’ central core, though the pedestrian experience can use some improvement. Access between the buildings of the campus tends to ring the central quadrangle rather than cross it, which is not optimal for fostering campus activity in the quad. Restricted circulation across the quad is a result of the central hill that characterizes this space.
Transportation

The Cape Cod Regional Transit Authority operates a bus (The Villager Breeze) that connects CCCC to the Hyannis bus terminal and ferries. The Villager Breeze departs Barnstable once an hour from 9:00 a.m. to 5:00 p.m. on weekdays and 10:00 a.m. to 5:00 p.m. on weekends. Hy-Line Cruises operates a year-round high-speed ferry between Hyannis and the Islands. Public transit is not very widely used, as many students live outside of the service area, and the bus schedule does not fit the needs of students who take evening classes.

For students, staff, and faculty that drive to CCCC, on-campus parking is relatively convenient. However, no data is currently available on distribution of parking by user category. Parking capacity appears to be an issue for the college during peak enrollment at the beginning of each semester. At these times, the college delegates staff-permit vehicles with sufficient clearance to park on unpaved areas adjacent to the paved parking lots.
Campus vehicular access and circulation

CCRTA bus route
Villager Breeze
(60 min headways)
• Stops

CCRTA bus route
Pedestrian circulation routes

Pedestrian access

Street crossing

Primary internal paths

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D. APPROACH TO SUSTAINABILITY

Cape Cod Community College has taken a serious look at its impact on the natural environment and human health and views sustainability initiatives as integral to enhancing its character, resources, and role in the community. The college has set ambitious goals to make its local and regional impact as positive as it can be. CCCC's definition of sustainability goes beyond preservation of the natural environment to encompass social sustainability, working to provide resources to the community members not immediately associated with the campus. The following is CCCC's long-term sustainability goal, excerpted from the 2005 Cape Cod Community College Sustainability Plan.

"Cape Cod Community College strives to be an active and environmentally responsible member of the Cape Cod community, not only minimizing our negative impact upon our ecosystem but also simultaneously maximizing our positive impact as educators and role models and team members."

As part of its sustainability plan, CCCC has taken an inventory of its impacts on environmental and human health, using these impacts to determine positive changes to be accomplished with future development. The inventory was mandated by the state of Massachusetts as a way to begin evaluating the college's environmental impact and to create a base for measuring the current and future environmental and economic costs of relevant programs. Below is an outline of this inventory.

One of CCCC's most major investments in sustainability has been its renovations of energy production on campus. The college has planned an electricity to natural gas conversion for many campus buildings. At this point, conversion has already taken place for the Science Building and the Library. A wind turbine is expected to be in use on campus in Spring, 2007. This project should bring in approximately $65,000 per year in revenue, covering 20-25% of CCCC's annual electrical bill with renewable energy.

For more information and general recommendations on sustainable strategies for institutions, see Appendix.
AGENCY IMPACTS ON THE ENVIRONMENT AND HUMAN HEALTH

The College has a long history of seeking to minimize its negative impacts upon the fragile Cape Cod environment which include its permeable soils, sole source aquifer, adjacent marine environments, traffic congestion, air quality, seasonal population increases and wastewater disposal challenges. The following is a list of impacts that the college does have upon the Cape Cod ecosystem:

A. Significant levels light released into the night sky.
B. Auto emissions related to students and staff traveling to the Campus.
C. Solid wastes generated by the College.
D. Waste water and sewerage generated on campus.
E. Salt run-off from winter roadway and walkway de-icing.
F. Utility consumption.
G. Noise emissions impacts from grounds keeping functions.
H. Use of ground water resources.
I. Potential source of a hazardous materials release.
J. Impacts on resident and migrating wildlife.

AGENCY COSTS

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"Cape Cod Community College strives to be an active and environmentally responsible member of the Cape Cod community, not only minimizing our negative impact upon our ecosystem but also simultaneously maximizing our positive impact as educators and role models and team members."

- Cape Cod Community College Sustainability Plan
A. METHODOLOGY

On April 27, 2006, representatives from CCCC, DCAM, BHE and Sasaki Associates convened to discuss framework alternatives for future campus development. Prior to the workshop, Sasaki Associates analyzed CCCC’s current campus framework and future goals and developed four thematic alternatives that would address these issues. The alternatives, outlined in section B, focus on major place-making ideas for the CCCC campus. These alternatives we developed prior to incorporating programming data from Rickes Associates and Eva Klein Associates, which is outlined in the next chapter.

Workshop Process

After Sasaki’s presentation of the alternatives for campus development, participants split into groups to discuss the alternatives, evaluate the elements of these alternatives, and define major elements to push forward in the planning process. Representatives from the involved parties worked together to review the pros and cons of each of the following alternatives. Afterward, each small group reported back to the entire group of participants with their own preferred framework plan and a ranked list of priority projects with proposed locations.

Priorities

Sasaki’s four alternatives addressed the following themes in order to establish priorities and strategies for future campus development:
1. Administration building addition / replacement
2. Allied Health program expansion
3. Future Academic Building Sites
4. Campus Commons renovation / expansion
5. Student Housing – 320 beds (200 in Phase 1)

A new administration building could create a much-needed “front door” to the campus if placed at the current drop-off point on the campus ring road. The administration building will also incorporate “One-Stop” services and act as an active campus gathering place. If the current administration building is demolished, its current site could become an iconic open space for the campus, opening up a view corridor that would draw visitors into the central campus.
One of the greatest potential benefits for the college lies in growth of Allied Health programs. With a growing massage therapy program and a 300-student waitlist for the nursing program, the college could profit greatly from expanding its offerings and facilities. Additional lab space is needed on campus as well, which could be accommodated in a new Allied Health facility.

Under current campus conditions, the Campus Commons is separated from the central quad by the existing sunken patio. The quad holds tremendous potential for improving student life on campus, and renovation of the Commons will allow for expansion of programs, student life offerings, and accessibility. Renovation of the Campus Commons would address improvements to the quad as well, by expanding into the existing sunken patio and creating an active social use right on the quad. This placement would also improve visual connections between other campus buildings and establish a more coherent landscape framework on campus.

As mentioned in the previous chapter, any suggestions for establishing housing on the CCCC campus have come from the college itself and do not reflect the initiatives of the Massachusetts Board of Higher Education or Sasaki Associates. Establishing student housing could become a priority for the college due to the lack of affordable housing close to campus. In order to improve campus life, housing can be established near the Campus Commons. Based on the Anderson-Strickler findings, the first phase of development would consist of 200 apartment-style housing units.

B. ALTERNATIVES

Option 1: Enhance the Campus Gateway

Option 1 aims to create an iconic front door to the campus. This plan spreads academic uses further out of the campus' core and also pulls activity away from the quad. New parking would be moved to more remote parts of the campus, relocating the athletic field and separating the field from the gymnasium. The athletic field would move to the campus' southeast corner on top of a proposed groundwater recharge area. The recharge area may be located on this part of campus because, as the city of Barnstable updates the sewer system, this land's geological conditions are optimal for groundwater recharge.
Option 1

This option would be comprised of the following strategies:

a) Create a new “One-Stop Shop” student services building as the new gateway to the campus, across the campus ring-road from parking lot 1.
b) Relocate parking to current athletic field, adjacent to tennis courts.
c) Relocate athletic fields to land on top of proposed groundwater recharge area.
Option 1a: Campus Gateway

Option 1a proposes the same changes as Option 1, except for the following:

a) Create an integrated “One-Stop” and new academic building across from parking Lot 1 instead of building a separate academic building on the current site of parking Lot 1.

b) Create a terraced landscape around the new “One-Stop” building to establish an attractive, usable entry plaza to the campus.

c) Demolish the existing Administration Building.
**Option 2: Build in the Quad**

Option 2 pulls activity into the heart of the campus. The proposed expansion of the Commons/"One Stop" will delineate the quad into a series of distinct outdoor spaces. Proposed additions to North and South Hall can accommodate grade changes down to parking for ADA access. New campus housing, outside of the central academic core, can be developed without negatively impacting the campus. Unlike Option 1, this option does not address the ‘front-door’ issue. Option 2 also introduces some difficult phasing and implementation issues.

This option would be comprised of the following strategies:

a) Build new academic buildings on the periphery of the quad, across the campus ringroad from Lots 4-7.

b) Expand the Campus Commons into the quad to include the “One-Stop” shop.

c) Use the placement of new buildings and expansion in the quad to define a North, East, and South Quad.

d) Build a new campus housing quad, along with new parking, on the current site of the athletic field closest to Rte. 132.

**Option 3: Bridge the Gap**

Option 3 builds on the current circulation pattern through the Campus Commons to the new Science Center and Gymnasium. This plan creates a new ‘front door’ on the quad, with all paths leading to the “One-Stop” shop addition to the campus commons. The proposed location for new campus housing allows for more integration with the central campus. This re-orienting of circulation and orientation calls into focus the need to enhance the paved landscape behind the Campus Commons. This arrangement does not, however, address the need for a strengthened ‘front door’ to the campus as a whole.

This option would be comprised of the following strategies:

a) Expand the Campus Commons into the quad to include the “One-Stop” shop.

b) Build new academic buildings on either side of the pathway leading North from the Campus Commons to Lot 9.

c) Build new housing across the pathway from the new Science Center, establishing that pathway as a major pedestrian artery and enhancing the position of the Science Center within the larger campus.
C. MOVING FORWARD

After presenting priority frameworks from each sub-group, it was concluded that Options 1a and 3 were the preferred alternatives, with the following actions established as overall priorities:

• Remove and replace the existing Administration Building.
• Create an addition to the Campus Commons that will engage the central quad.
• Establish future building sites along the path leading past the new Science Center to the Gym.
• Locate future potential housing to the north, between Lots 9 and 10.

All future development should reinforce the goal of enhancing the campus identity and CCCC's outreach with the larger Cape Cod community. At the end of the first workshop, the following development options were promoted as preferred means for accomplishing CCCC's overall vision through planning.

1. One-stop student services: This first priority includes the addition of a prominent new building into the campus. To make room for this new building, this involves the demolition of the existing administration building, which will also allow for a more open view into the heart of the campus.

2. Allied Health: The new Allied Health facilities could be alongside the One-stop student services center, complementing the new entry landscape.

3. Campus Center: This would include a renovation of the new campus center with an expansion into and redesign of the main campus quad.

4. Housing: If approved by the BHE, a first phase of 240 beds would be placed just outside the perimeter road on the north side of campus, including landscaped courtyards screened from additional parking to the north.

5. Future Academic Building: An academic building placed just to the west of the campus center would allow for a continuation of a well defined campus core and would include the construction of walkways for clarity of access.

6. Future Academic Construction: Future academic construction would ideally be located along the connection between the campus center and the new student housing.
A. METHODOLOGY

In order to evaluate Cape Cod Community College's space needs and organization, Sasaki Associates referenced both the Rickes' Associates 2006 Space Utilization Analysis and the 2003 Eva Klein & Associates Quantitative Space Requirement Analysis. The Rickes and Eva Klein analyses provide very clear assessments of Cape Cod Community College's space needs, while they are limited in the fact that they provide only a "snapshot" of the campus at the time of the study, not representing the school's historic development or future growth and goals.

The Eva Klein and Associates' 2003 report looked at class, library, lab, and office space based on 2002 enrollment data. The Rickes Associates' 2006 report focused only on class and lab spaces based on 2004 enrollment data. While space planning was not part of Sasaki Associates' scope in this report, in order to develop a more comprehensive master plan, Sasaki referenced the Rickes' Associates' data for class and laboratory space and Eva Klein and Associates data for office and library space. Through interviews with college representatives, Sasaki was also able to determine general space needs for student life facilities. This also allowed Sasaki to verify the accuracy of both the Rickes and Eva Klein data against accounts from the college community.

B. INSTRUCTIONAL SPACE SYNOPSIS

Key conclusions from the Rickes Associates Analysis of Instructional Space Needs:

Enrollment

Cape Cod Community College's current enrollment trends predict an increase of full-time student enrollment, growing at a faster rate than part-time enrollment. Future development should aim to accommodate full-time student enrollment and foster strong campus community to support this population.

General instructional space needs

CCCC has a total of 31 general-use classrooms on campus. However, calculations project a need for 36 to 38 such spaces. The total current need for general-instruction classroom space is 31,108 asf, or an additional 9,440 asf. On average, 55% of CCCC's general-purpose classroom seats are occupied when a classroom is in use, which is below the target utilization rate of 67%. This conveys that classrooms, in general, have capacities that exceed demand. An average of 84% of general-purpose classroom time is in use during the day, based on the 30 weekly daytime hours available. This average is above the target rate of 67% and shows a high rate of use that limits scheduling flexibility.
Specialized instructional space needs

CCCC's new Lorusso Technology Building has reduced the need for specialized space, but has not fully satisfied this need. The campus' total current need is 26,650 asf, or an additional 3,204 asf. On average, 66% of specialized instructional space seating is occupied while a room is in use, which is below the 80% usage target and represents a large capacity in comparison to the actual demand.

General Recommendations and Caveats

Current class scheduling has allocated non-classroom space to be used for instruction. This needs to be addressed as something that can impact projected classroom needs. To begin addressing scheduling problems, the college should examine policy issues and scheduling priority given to other partner institutions such as Wheelock College, Lesley University, and Suffolk University. Remaining instructional space needs may require exploration of additional capital expansion.

EXECUTIVE SUMMARY OF RICKES ASSOCIATES ANALYSIS

Enrollment:

- In Fall 2004, Cape Cod Community College (CCCC) had a full-time enrollment of 1,509, a part-time enrollment of 2,819, and an FTE of 2,392.
- Between Fall 2000 and Fall 2005, CCCC experienced an unduplicated headcount enrollment increase of 6.5% and an increase in FTE production of 9.4% for the same period.
- Full-time students are growing at a faster rate than part-time students.

Utilization Findings: General-Purpose Classrooms

- There are 29 general-purpose classrooms covering 19,412 asf of space (which represents 6% of the 323,480 asf assignable space on campus).
- There are 1,067 student stations; station size ranges from 13.8 to 29.2 asf per station; mean station size across all 29 classrooms is 18.2 asf.
- Classroom capacity ranges from 10 to 125 seats; mean capacity is 37 seats; modal capacity is 40 seats.
- Course enrollment ranges from 2 to 84 students; mean enrollment is 22 students; modal enrollment size is 20 students.
- An average of 55% of the classroom seats are occupied when a classroom is in use; this is below the 67% target and a reflection of the fact that rooms, on average, have a capacity exceeding demand. The average seat occupancy rate in individual rooms ranges from 28% to 77%.
- On average, 84% of classroom time is in use during the day (the range is from 30% to 140%), based on the 30 weekly daytime hours available; this is above the target rate of 67%. A high rate of use limits scheduling flexibility.
**Utilization Findings: Specialized Instructional Spaces**

- There are 23 specialized instructional spaces covering 18,613 asf of space (which represents 6% of the 323,480 asf assignable space on campus).
- There are 565 student stations; station size ranges from 16.4 to 48.5 asf per station; mean station size across all 23 specialized instructional spaces is 32.9.
- Room capacity ranges from 8 to 37 seats; mean capacity is 25 seats; modal capacity is 24 seats.
- Course enrollment ranges from 3 to 64 students; mean enrollment is 17 students; modal enrollment size is 22 students.
- An average of 66% of the specialized instructional spaces seats are occupied when a room is in use; this is below the 80% target and a reflection of the fact that rooms have a large capacity in comparison to the demand. The average seat occupancy rate in individual rooms ranges from 8% to 120%.

**Space Utilization Analysis**

- On average, 60% of specialized instructional space time is in use during the day (the range is from 13% to 110%), based on the 30 weekly daytime hours available; this is above the target rate of 50%.

**Recommendations and Caveats**

**General Caveats:**
- Need projections assume that the current scheduling window, course sizes, and enrollment all remain constant; it also assumes courses are placed in appropriately sized rooms.
- There appear to be courses scheduled in non-classroom space, which will need to be addressed as they could impact classroom needs.

**Current Instructional Space Needs:**

- Prior to the new Technology Building coming on-line, findings suggest a need for an additional seven right-sized general-purpose classrooms to meet day scheduling requirements – for a total of 36 right-sized classrooms. This represented an additional 11,696 asf bringing the total classroom space up to 31,108 asf.
- Again, prior to the new facility, the current need was for an additional 8,037 asf of specialized instructional space to meet day scheduling needs, for a total of 26,650 asf.
- The new Technology Center, which opened in summer 2006, includes nine computer labs. Meanwhile, five former computer labs were converted to classroom space and three current classrooms are being converted to specialized instructional space for the nursing and allied health program.
- The total number of classrooms in the near-term will be 31, in contrast to a need for at least 36 (and possibly 38) such spaces. This generates a space deficit of 9,440 asf, based on the need for 31,108 asf.
- While, the need for specialized instructional space has been reduced, it has not been entirely met. The revised unmet need is 3,204 asf to achieve a total of 26,650 asf. (Additional details can be found in section 6.8, Addendum.)
Non-Capital Recommendations:

- Review Commons 115: it is being used solely for events and non-credit courses; either this room is miscoded, or it should be made available for scheduling credit-bearing courses.
- Review Library 203, an apparently unscheduled classroom.
- CCCC partners with other institutions such as Wheelock College, Lesley University and Suffolk University, to offer a broader array of programs to the population of the Cape and The Islands. To the extent that programs offered by partner institutions compete for instructional space required by CCCC courses during peak demand periods on the campus, suggests the need for a scheduling prioritization policy.

C. OFFICE AND LIBRARY SPACE SYNOPSIS: EVA KLEIN ASSOCIATES ANALYSIS

Through evaluating the existing office and library space at Cape Cod Community College, Eva Klein & Associates have determined there is a need for 2,069 asf/3,200 gsf of office space and 3,728 asf/ 5,200 gsf of library space.

D. CONCLUSION: CAPE COD COMMUNITY COLLEGE EXISTING SPACE NEEDS

In Fall of 2005, Cape Cod Community College enrolled 4,328 students, 2,394 of which were full-time or equivalent. With the addition of the Lorusso Applied Technology Building, CCCC has met many, but not all of its space needs requirements. The college currently has a total space deficit of 43,000 gross square feet. To accommodate current students and projected growth Cape Cod Community College needs to develop an additional 19,000 gsf of classroom space, 6,500 gsf of laboratory space, and 4,000 gsf of office space.

<table>
<thead>
<tr>
<th></th>
<th>Classroom R</th>
<th>Lab R</th>
<th>Office K</th>
<th>Library K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asf</td>
<td>(9,440)</td>
<td>(3,204)</td>
<td>(2,069)</td>
<td>3,728</td>
</tr>
<tr>
<td>Gsf</td>
<td>(14,500)</td>
<td>(5,000)</td>
<td>(3,200)</td>
<td>5,700</td>
</tr>
</tbody>
</table>

SUMMARY

The Framework Plan for Cape Cod Community College establishes a long-term vision for future campus development and renovation. This plan illustrates the potential building sites and overall site organization that will allow the Cape Cod Community College campus to fulfill its projected space needs while advancing the placemaking potential of the campus. The proposed plan envisions a campus with high levels of connectivity and an animated, vibrant core. A new approach sequence penetrates the campus core, producing a clear "front door" with a signature building and landscape anchoring the entry axis. Common spaces are activated with enhanced buildings, new uses, and renewed landscapes to generate an active campus that can provide dynamic, accessible spaces where students, faculty, and staff gather and interact.

OVERVIEW

Issues that inform the goals of the framework plan include the campus’ steep topography and the existing disconnected campus core. There is currently no clear arrival point or official gateway at the entry to the campus ring-road. In addition, many pedestrian paths from the parking areas terminate in entries at the backs of buildings, or at service areas. This exasperates the impenetrable feeling of the campus quad, which is centrally located yet closed off by existing retaining walls, core campus buildings, and current landscape conditions. These elements significantly limit usage of the quad as a common gathering area. Steep topography defines the landscape in many areas adjacent to the campus core, creating slopes of greater than 30%, and creating challenges for buildable sites as well as for accessibility and way-finding.
FRAMEWORK AND PRINCIPLES

The proposed plan creates a hierarchy of landscapes that enhances the campus' approach and connections. The plan guides future building and expansion in a way that generates centralized activity on campus and produces an efficient, modernized learning environment. Below are the principles guiding the projects of the CCCC Framework Plan:

• Improve campus identity and wayfinding
• Enhance student life by providing areas for social interaction and group study.
• Create a vibrant, active quad that becomes the heart of the campus
• Incorporate creative strategies to improve ADA access as the campus grows.
• Continue efforts to increase sustainable initiatives and best practices

DEFINING THE GATEWAY

The campus' entry plaza holds great potential and will benefit from construction of a new building housing "one-stop" student services. This will create an improved sense of entry onto campus and draw student energy toward this underutilized landscape. This new building will also create an accessible internal entry to campus, equipped with elevators providing a means for surmounting the grade change. Additional architectural and landscape elements (sculpture, small structures, signage) should be incorporated along key points of the access road to create a sense of arrival and departure for visitors.

In order to open up the central quadrangle and establish a connection between the campus' main entry point and its principal communal space, a new terraced entry plaza is envisioned at the quad's southern end. The landscape along the entry plaza will be extended to the central quadrangle and improve conditions along the western edge of the library with the removal of the existing administration building.

CREATING CONNECTIONS

Throughout the campus, wayfinding and circulation are constrained by grade changes, retaining walls, and indirectly connected walks and open spaces. Landscape enhancements to create a more connected campus include realigned walkways and retaining walls, and regraded open spaces. In addition, careful placement of new buildings creates opportunities for additional vertical circulation into the central campus. A new building at the main entry to campus reinforces these strategies by creating an entry axis that will terminate at a new addition to the Grossman Student Commons. The addition will extend into the campus' central quadrangle, connecting portions of the quad currently isolated by changes in grade.
Overview

Framework plan
PRIORITY PROJECTS

The following projects were identified by the campus as the priority projects to be described in the Framework Plan:
1. Accessibility / Wayfinding / Traffic / Parking Study
2. New Science Building / Renovate old Science Building – 70,650 gsf
3. New One-Stop Student Services Building with replacement Administration Space – 28,100 gsf
4. Campus Commons addition / modernization – 15,000 / 44,855 gsf
5. North Classroom Building modernization – 30,920 gsf
6. South Classroom Building modernization – 30,290 gsf
PRIORITY PROJECT DESCRIPTIONS

1. Accessibility / Wayfinding / Traffic / Parking Study

Overview:
This first project is essential for identifying opportunities and limitations on project location, orientation, and priority. Because of the varied topography at CCCC, vertical circulation is a particularly challenging issue for access for the disabled; however, wayfinding and traffic also present important challenges. Current parking appears to be at capacity; any future campus growth must consider additional parking capacity and management in order to accommodate additional students and faculty on campus. The issues of accessibility, wayfinding, traffic, and parking are interrelated and may have complementary strategic solutions. In addition, solutions may be integrated into decisions about building placement, orientation, and programming, making it crucial that this combined study be completed before the first priority projects are undertaken.

Description:
Access for the disabled is a particularly challenging issue at CCCC. Exterior paths into and around the campus are characterized by a series of ramps and steps. In order to navigate steps, it is often necessary for wheelchair users to traverse alternative routes incorporating interior elevators. These routes are often circuitous and rely heavily on a system of signage. The study should examine the path-of-travel campus-wide and assess strategies to address barriers and inefficiencies as well as strategies to create a coherent and complete wayfinding system for access.

Wayfinding and signage are not only issues for the disabled; these issues apply to all users, especially users who are new to the campus. While a sign marks the entry to campus from Iyannough Road, there is no subsequent indication of the entry to the campus core. Likewise, visual cues indicating departure from the campus core are missing. This makes it difficult for new users to intuitively find the entry to campus—important for orientation and subsequent navigation. The study should identify strategies to improve the navigability of campus by assessing existing circulation, navigation, and signage. The goal is to create a comprehensive wayfinding strategy, including developing a complete set of signage guidelines that should include consistent graphic design standards and placement criteria.
Traffic is of main concern along the ring road: the outboard parking placement means that pedestrians must cross this street to access the campus. While pedestrian crossings are well marked, the width of the road encourages speeding, and the curving nature of the road reduces visibility at key points. The traffic component of the study should analyze and assess the existing use patterns of the road, including passenger drop-off, driving speed, and pedestrian safety. The study should seek to identify strategies that address these issues, including traffic calming measures, traffic enforcement, and signage systems.

Finally, as the school expands enrollment and explores the possibility of on-campus housing, parking capacity will become a significant obstacle that must be addressed. The study should identify the current capacity at peak times—mid-morning in the first week of classes in the fall and spring semesters—as well as the capacity by user (student, faculty, staff, visitor). The College's expansion plans should be assessed and analyzed in order to quantify the additional parking demand likely to result. A strategy to address this additional demand could include reorganization of existing parking facilities to increase efficiency, addition of parking along existing roadways, as well as the location and orientation of necessary additional parking facilities.
2. New Science Building

Overview:
This first new building would replace the spaces currently in the existing Science Building, allowing those spaces to be remodeled as general academic classrooms. The location of the new building reinforces a second major entry to campus from the northwest. This creates an opportunity for articulating a gateway along the ring road at the intersection of the path between the existing Gymnasium and the new building. By locating the new building adjacent to the Technology Building, an academic district is created that extends the campus beyond its current bounds in a coherent and connected way. Fundamental to connecting this new building cluster to the existing campus is the redesign of the service area behind the Student Commons into a new plaza and quad. This redesign would create a gathering space to complement the main quad while retaining the service and fire access functions of the space.

Description:
The program outlined for this priority includes:
• 45,000 gsf of specialized instructional space replacing the uses in the current Science building
• 14,500 gsf of general classroom space,
• 5,000 gsf of lab
• 3,200 gsf of office
• Total building approximately 70,000 gsf
The modernization of the existing Science Building will yield 45,000 gsf of general classroom space.

The decision to relocate the specialized instructional space in the existing Science Building to a new science building was based on the assumption that it would not be efficient to renovate the spaces in the old building and that, due to limitations in the building's structure, and due to a lack of swing space for science labs, might even be impossible. In order to quantify and support this line of reasoning, it is necessary to study the potential for renovating the existing Science Building and determine associated costs/benefits compared with the costs/benefits of building a new facility.

Associated with the new building are landscape improvements designed to complement and extend the campus core. These include widening and landscaping the walkway from the Student Commons to the ring road, incorporating gateway signage and/or design elements at the intersection of the pathway and the ring road, and converting the service access behind the Student Commons into a quad/plaza area. The pathway to the ring road will act as an organizing feature of the extension of the campus to the west, and should become an important pedestrian walkway leading to a landscaped quad and plaza behind the Student Commons.

The plaza, which is currently a fire lane and service area, would be paved with unit pavers to enhance the pedestrian scale and create a pleasant gathering area. Seat walls and benches would encourage use of the plaza in nice weather. To maintain the service and fire access, the lanes leading up to the paved area should be paved with grass pavers or similar "green" paving systems that create the visual effect of green space or lawn while maintaining access for service and fire vehicles.
3. New One-Stop Student Service Building with replacement Administration space

Overview:
The second new building in the master plan, would create a much-needed "front door" to the campus: by placing the building along and perpendicular to the ring road at the existing dropoff area, it creates an opportunity for a signature building to delineate the campus entry. Demolishing the existing Administration building further opens the entry to campus, providing a generous view corridor that invites pedestrians into the core campus.

Description:
The need for a new one-stop student services building is dependent on the assumption that the old administration building is unfit for renovation, due to its very narrow footprint, lack of accessibility, and outdated infrastructure. According to the Eva Klein study, the cost to renovate the existing Administration building would be $3,330,000 (adjusted for inflation), while the CAMIS replacement value for the building is $3,155,895. These numbers should be verified as part of the initial feasibility study for this project. Should the study find that the existing Administration building should be replaced rather than repaired, the new building would contain the following program elements:
- 15,000 gsf new "one-stop shop" of student services
- 13,000 gsf of administration uses from the existing administration building
- 1,500 gsf of archival storage
- Total building about 29,000 gsf.

The linear space resulting from demolition of the existing Administration building would become part of a dramatic new landscape at the entry to the campus. This landscape is envisioned as a series of terraces connected by an axial approach to the campus core, aligned between the existing drop-off area and the future addition to the Campus Commons (priority #4).

With the new building located at the bottom of the hill, not only is the campus presence extended to the ring road, but the building itself can provide vertical circulation to the higher elevations of the central quad. This helps resolve accessibility issues related to the topographic challenges of this campus and provides direct access to the central campus for visitors who have entered the campus at this building.
4. Campus Commons addition

Overview:
This addition would engage the Campus Commons with the campus core by introducing a building in the sunken patio that currently separates the Commons from the quad. This location would not only connect to the quad, but would also provide an architectural element to terminate the entry sequence created by the Administration Building project (Priority #3). Landscape improvements would include a redesign of the walkways and retaining walls to better visually connect the buildings surrounding the quad with each other, creating a more coherent and usable space.

Description:
The existing 45,000 gsf Campus Commons will be completely renovated concurrent with the building of the 15,000 gsf addition, addressing issues of accessibility and space efficiency within the building. The addition will allow for the expansion of the culinary arts program on the ground floor (below the quad grade) and dining facilities on the first floor (at the quad grade). While it is anticipated that the dining facilities would help to activate the quad, in order to understand the exact programming and space implications of the expansion, the project should include an initial study to quantify both the expansion potential of culinary arts and the economically feasible limits on the size of the dining facilities. Since student life space was not addressed in either the Eva Klein or Rickes' studies, it will be important to this project to assess the amount of student life space actually in use in the Student Commons, identify the total need for student life space, and to quantify any deficit or surplus.
The landscape improvements should seek to better integrate connections across and through the quad by removing unnecessary walls, creating more direct lines of sight across the space, and introducing attractive and useable seating/gathering areas for small groups. Paths and seating areas should be regraded to reduce the slope on the primary walkways and to open up flat areas for potential gathering spaces. The landscape improvements should be integrated with the building addition, taking advantage of the uses in the building to activate the spaces around it.

The modernization of the Campus Commons includes the following items:

<table>
<thead>
<tr>
<th>COST</th>
<th>DESCRIPTION</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Upgrade</td>
<td>Upgrade system capacity.</td>
<td>$209,400</td>
</tr>
<tr>
<td>Exterior Repairs</td>
<td>Repair exterior structural problem causing leaks.</td>
<td>$135,600</td>
</tr>
<tr>
<td>Sprinkler System Install</td>
<td>Upgrade as required.</td>
<td>$282,500</td>
</tr>
<tr>
<td>ADA Improvements</td>
<td>Make needed building modifications to meet current ADA standards.</td>
<td>$327,700</td>
</tr>
<tr>
<td>Servery Renovation</td>
<td>Renovate to include new layout, fixtures and finishes.</td>
<td>$400,000</td>
</tr>
<tr>
<td>Kitchen Equipment Replace</td>
<td>Replace deteriorated equipment and finishes.</td>
<td>$113,000</td>
</tr>
<tr>
<td>Telephone System Upgrade</td>
<td>Pull additional copper cabling to upgrade capacity.</td>
<td>$33,900</td>
</tr>
<tr>
<td>Air Conditioning Install</td>
<td>Install central air conditioning.</td>
<td>$565,000</td>
</tr>
<tr>
<td>Floor Tile Replacement</td>
<td>Replace deteriorated vinyl asbestos floor tiles and stair nosings.</td>
<td>$101,700</td>
</tr>
</tbody>
</table>
5. North Classroom Building modernization

Description:
The Rickes study identified a need for seven additional right-sized general purpose classrooms, but did not indicate a need for additional square footage of general instruction space. The scope for this project includes interior renovations to allow for reconfigured classrooms to address the right-sizing issue and also for technology upgrades to create several new “Smart Classrooms.”

Modernization includes the following items:

<table>
<thead>
<tr>
<th>COST</th>
<th>DESCRIPTION</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire alarm Upgrade</td>
<td>Replace fire alarm devices new addressable types.</td>
<td>$75,000</td>
</tr>
<tr>
<td>Electrical Upgrade</td>
<td>Upgrade electrical system</td>
<td>$144,990</td>
</tr>
<tr>
<td>Structural Repairs</td>
<td>Repair spalling brick and concrete.</td>
<td>$113,000</td>
</tr>
<tr>
<td>Exterior Repairs</td>
<td>Repair water infiltration issues and exterior structural problems.</td>
<td>$90,400</td>
</tr>
<tr>
<td>Asbestos Abatement</td>
<td>Replace asbestos floor tiles.</td>
<td>$280,000</td>
</tr>
<tr>
<td>Sprinkler System installation</td>
<td>Upgrade / install fire sprinkler systems as required.</td>
<td>$212,779</td>
</tr>
<tr>
<td>ADA Improvements</td>
<td>Make building modifications needed to meet current ADA standards.</td>
<td>$282,500</td>
</tr>
<tr>
<td>Air Conditioning Installation</td>
<td>Install central air conditioning</td>
<td>$395,500</td>
</tr>
<tr>
<td>Ceiling Improvements</td>
<td>Install suspended acoustical tile ceilings in classrooms.</td>
<td>$67,800</td>
</tr>
<tr>
<td>Communication Wiring Upgrade</td>
<td>Upgrade obsolete communication and data wiring.</td>
<td>$50,850</td>
</tr>
<tr>
<td>Smart Classroom Upgrades</td>
<td>Install monitors, overhead projectors, and consoles to provide smart classroom technology.</td>
<td>$113,000</td>
</tr>
<tr>
<td>Water Valve Replacement</td>
<td>Replace deteriorated main shutoff and building water valves.</td>
<td>$8,475</td>
</tr>
<tr>
<td>Classroom Upgrades</td>
<td>An allowance is proposed to correct general upgrades to classrooms, including acoustic upgrades, technology enhancement, and interior finishes.</td>
<td>$678,000</td>
</tr>
<tr>
<td>Makeshift Archive Removal</td>
<td>Makeshift archival storage areas such as stair landings, mechanical closets, and balconies should be configured back to their original function and archives moved to a central, dedicated storage location.</td>
<td>$84,750</td>
</tr>
</tbody>
</table>

Total cost: $2,597,044
6. South Classroom Building modernization

Description:
Contrary to the Eva Klein study, the Rickes study notes a shortfall of seven specialized instruction spaces on the campus today. In addition, CCCC offers a number of non-traditional academic programs that were not reflected in the Eva Klein analysis, resulting in a misleading indication of surplus space on the campus. New academic space utilization needs to account for all scheduled uses to accurately represent current space shortage. Therefore, reuse of this building for the Workforce Education Resource Center (WERC) is no longer recommended, and the associated cost has been revised downward to reflect this change in scope. However, renovation of existing instructional space is still a high priority.

Modernization includes the following items:

<table>
<thead>
<tr>
<th>COST</th>
<th>DESCRIPTION</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Upgrade</td>
<td>Upgrade electrical system</td>
<td>$151,420</td>
</tr>
<tr>
<td>Exterior Repairs</td>
<td>Repair water infiltration issues and exterior structural problems</td>
<td>$135,600</td>
</tr>
<tr>
<td>Fire alarm Upgrade</td>
<td>Replace fire alarm devices with new addressable types.</td>
<td>$75,000</td>
</tr>
<tr>
<td>Asbestos Abatement</td>
<td>Asbestos abatement as required.</td>
<td>$13,131</td>
</tr>
<tr>
<td>Sprinkler System Installation</td>
<td>Upgrade missing or inadequate fire sprinkler systems.</td>
<td>$226,000</td>
</tr>
<tr>
<td>ADA Improvements</td>
<td>Make building and interior modifications as needed to meet current ADA requirements.</td>
<td>$152,550</td>
</tr>
<tr>
<td>Air Conditioning Installation</td>
<td>Install central air conditioning</td>
<td>$508,500</td>
</tr>
<tr>
<td>Floor Tile Replacement</td>
<td>Replace worn / broken vinyl asbestos floor tile and stair nosings.</td>
<td>$90,400</td>
</tr>
<tr>
<td>Ceiling Improvements</td>
<td>Install suspended acoustical tile ceilings in classrooms.</td>
<td>$79,100</td>
</tr>
<tr>
<td>Smart Classroom Upgrade</td>
<td>Install monitors, overhead projectors, and consoles for smart classroom technology.</td>
<td>$113,000</td>
</tr>
<tr>
<td>Communication Wiring Upgrade</td>
<td>Upgrade obsolete communication wiring.</td>
<td>$67,800</td>
</tr>
<tr>
<td>Water Valve Replacement</td>
<td>Replace deteriorated main shutoff and building water valves</td>
<td>$8,475</td>
</tr>
<tr>
<td>Makeshift Archive Removal</td>
<td>Makeshift archival storage areas such as stair landings, mechanical closets, and balconies should be configured back to their original function and archives moved to a central, dedicated storage location.</td>
<td>$84,750</td>
</tr>
</tbody>
</table>

$1,705,726
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<thead>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Dennis Rec/Hall</td>
<td>E/PS</td>
<td>(15,800)</td>
<td>(5,000)</td>
<td>(13,200)</td>
<td>(15,000)</td>
<td>0</td>
<td>0</td>
<td>51,006</td>
<td>27,419</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Project 1</td>
<td>Comparables (5 acre site)</td>
<td>1</td>
<td>Accounting Study</td>
<td>As Present</td>
<td>60,000</td>
<td>gfr</td>
<td>200,000</td>
<td>550,000</td>
<td>357,100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychology/Behavioral Science</td>
<td>As Present</td>
<td>60,000</td>
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Notes:

1. These separate studies are recommended to address statement of work/needs and to refine the relationship between future capital projects on the OSAC campus.
2. Specialized instruction spaces in the existing Science Building (1,500) of the new science building are designed as an overall educational space and not in the traditional classroom setup, and the existing lab is not included in the new building.
3. Engineering changes to the existing plant have been made through the design phase. Major changes are shown by comparison to the existing building.
4. Includes 12,500 gfr (above main floor and academic spaces) and 12,500 gfr (main floor of Science Annex, Bldg. 300).