I. Approval of Minutes (March 1, 2001)

II. Reports

A. Chair’s Report – Nagel
B. Commissioners’ Reports
C. Advisory Committee Reports
D. Public Comment

III. Consent Items

A. Teacher Education Authorization: University of Colorado at Denver – Lindner
B. Policy Deletions – Samson

IV. Action Items

A. Report on Low Demand Programs - Samson (10 minutes)
B. Proposed Changes to Capital Assets Policy Concerning Renovation of Facilities – Adkins/Ferris (15 minutes)
C. Revisions to Section III, Part D Guidelines for Long-Range Facilities Master Planning – Adkins/Hoffman/Richardson (15 minutes)
D. University of Southern Colorado Master Plan Addendum Review – Hoffman/Adkins (5 minutes)

V. Items for Discussion and Possible Action

A. None

VI. Written Reports for Possible Discussion

A. Degree Program Name Change: University of Colorado at Denver and Metropolitan State College of Denver – Samson
B. Concept Paper:
   1. Doctor of Philosophy (Ph.D.) In Neuroscience at the University of Colorado at Boulder – Kieft
COLORADO COMMISSION ON HIGHER EDUCATION

March 1, 2001
Colorado History Museum
Denver, Colorado

M I N U T E S

Commissioners
Present: Raymond T. Baker; Marion S. Gottesfeld; David E. Greenberg; Robert A. Hessler; Peggy Lamm, Vice Chair; Ralph Nagel, Chair; James M. Stewart; and William B. Vollbracht.

Advisory Committee
Present: Wayne Artis; Tiffany Eberle; Calvin Frazier; Sandy Hume; Representative Keith King; and Representative Nancy Spense.

Commission Staff
Present: Timothy E. Foster, Executive Director; Jeanne Adkins; JoAnn Evans; Laureen Ferris; Gail Hoffman; Ray Kieft; Sharon Samson.

I. Call to Order

The regular meeting of the Colorado Commission on Higher Education was called to order at 9:07 a.m. in Boettcher Auditorium of the Colorado History Museum in Denver, Colorado, by Chair Ralph Nagel.

Action: Commissioner Hessler moved approval of the minutes of the February 1, 2001, Commission meeting. Commissioner Stewart seconded the motion, and the motion carried unanimously.
II. Reports

A. Chair’s Report

The Chair, Commissioner Ralph Nagel, reported that Commissioners Terrance Farina and Dean Quamme were excused absent. Chair Nagel had no further report.

B. Commissioners’ Reports

No reports.

C. Advisory Committee Reports

No reports.

D. Public Comment

No comments.

III. Consent Items

A. 2001-2002 Student Financial Aid Budget Parameters

The Commission annually recommends guidelines for student living expenses (room and board, transportation, books and supplies, personal, and childcare expenses) for use by postsecondary institutions approved to participate in Colorado student financial assistance programs. While the state budget parameters establish a reference point, each institution adjusts these parameters to reflect actual local costs and must use actual data to support their adjusted budget. This year the CCHE staff used published data obtained from Chambers of Commerce (housing), business and industry (health and child care), and colleges and universities (e.g., books) to establish the parameters.

Staff Recommendation:

That the Commission approve the 2001-2002 Student Financial Aid Budget Parameters.

B. 2001 Report on Newly Approved Degree Programs

The Annual Report on Newly Approved Degree Programs monitors the implementation of the new academic programs. It compares the projected enrollment and graduation numbers originally provided by the proposing institution with the actual enrollment and graduation data of the degree program. If a degree program meets its projections during its first five years, its approval status moves from provisional to full approval. The 2001 Report provides
information on all academic degree programs that the Commission has approved within the last five years or that are still operating with provisional status. Excluding vocational certificates and two-year degree programs, the Commission approved nine degree programs in 2000. A total of 32 new baccalaureate and graduate degree programs were approved in the last five years.

The Commission approved four new academic degree programs during AY 1994-95. Two of the four programs admitted the first cohort of students in 1995-96 and therefore, have been operating for five years. According to CCHE policy, these degree programs are subject to Commission review in March 2001.

**Staff Recommendation:**

That the Commission approve full degree approval for the following degree programs:

- University of Colorado at Denver: Health and Behavioral Sciences (Ph.D.)
- University of Colorado at Denver: International Business (M.S.)

**Action:** Commissioner Vollbracht moved approval of the staff recommendation for Consent Items A and B. Commissioner Stewart seconded the motion and the motion carried unanimously.

IV. Action Item

A. Teacher Education Authorization

CCHE, in conjunction with Colorado Department of Education, has been reviewing teacher education programs offered by Colorado colleges and universities. Dr. Sharon Samson reported that CCHE has approached teacher education reauthorization as a joint effort with the institutions. In addition, staff have consulted with numerous leaders in teacher education including TAC, NCATE, and training for the site review team by Sol Solomon of the Milliken Foundation and Checker Finn. Diane Lindner of the CCHE staff was the program review team chair and Dorothy Snozek, a literacy expert faculty member on loan, have been instrumental in conducting the institutional site review process.

Chair Nagel confirmed that the successful work that is being done in teacher education is terrific and is being shared with campuses that are still finalizing their teacher education programs.

1. **Colorado State University**

Dr. Nancy Hartley, Dean of the College of Human Services at Colorado State University, highlighted the evidence that supported authorization for Colorado State University. USC made an effort to integrate general education the professional programs through the collaboration between the
The arts and science faculty and the faculty of the school of education. She also reported that the university has endorsed professional development programs in all the high schools in Fort Collins as well as in Loveland and is beginning to move into all the junior high schools.

Dr. Samson reported that the review team found CSU had the most integrated general education curriculum in the way they selected courses to make connections to the general education curriculum is not fragmented; it is a unit and stands by itself providing a strong foundation.

**Staff Recommendation:**

That the Commission approve Colorado State University's request for teacher education authorization for fourteen degree programs.

2. **Fort Lewis College**

Dr. Steve Roderick, Vice President for Academic Affairs at Fort Lewis College, highlighted the revisions made by the institution to expand the partnership with K-12, improve the writing class, revise the professional education sequence, and implement a more comprehensive assessment. The arts and science faculty have taken a stronger role in supervision of student teachers in the public schools. The review process has raised the consciousness of the Fort Lewis faculty and they are close to having an additional mathematics requirement for general education that specifies a quantitative requirement. Dr. Samson reported that the review team felt that Fort Lewis had the most personal and up-front advising system for students and the students reported that they felt that faculty genuinely cared about them.

**Staff Recommendation:**

That the Commission approve Fort Lewis College's request for teacher education authorization for thirteen degree programs and post-baccalaureate programs.
3. **Mesa State College**

Dr. Sam Gingerich, Vice President of Academic Affairs at Mesa State College, acknowledged that Mesa State College worked diligently over the past 18 months in revising the teacher preparation programs. He acknowledged Janine Rider, Dean of the School of Humanities and Social Science, as well as the faculty members in education did an outstanding job as well as the review team. Not only did the review team acknowledge the work of Mesa State College, they pointed out some areas where they could do better. Mesa State is responding to those suggestions. The institution has a strong partnership with School District 5 in Grand Junction to prepare teachers. All faculty were involved in revising the education curriculum and assuring that the content areas met standards. He concluded by assuring that Mesa State College is committed to preparing the best teachers.

**Staff Recommendation:**

That the Commission approves Mesa State College's request for teacher education authorization for nine degree programs.

4. **Western State College**

Dr. Jay Helman, Vice President for Academic Affairs at Western State College (WSC), reported that Western State reported that the department chairs and the teacher education director, Dr. Terry Winsloft, began revising the teacher education program in 1997.

The most visible change for WSC has been the positive impact for students going into the K-12 classroom early in their college experience. They come to a realization early in their preparation program as to whether teaching is something they want to pursue and it is no longer delayed until the end of the program. For those who decide that teaching is right for them, it makes them better and more engaged students through their senior year.

**Staff Recommendation:**

That the Commission approve Western State College's request for teacher education authorization for twenty-five degree programs.

5. **University of Colorado at Colorado Springs**

A representative from the University of Colorado at Colorado Springs was unable to attend this meeting. Dr. Samson reported that UCCS has an extremely strong Special Education program. The university has taken a
unique approach by selecting five degree-program areas in which students are prepared in elementary, secondary and special education with a strong knowledge base. By focusing their energy in those areas, they were able to develop some interesting curriculum reform efforts.

Commissioner Stewart spoke in support of UCCS. He had the opportunity to talk with students as well as professors who are very interested in the teacher preparation program. UCCS worked very hard to meet some of the goals and objectives.

**Staff Recommendation:**

That the Commission approve the University of Colorado at Colorado Spring's request for teacher education authorization for twenty areas.

6. **University of Northern Colorado**

Dr. Marlene Strathe, Provost of the University of Northern Colorado, reported that UNC began in the mid-90s with the K-12 school partnership program and currently has partnerships with 34 school not only in northern Colorado but also in the Denver metropolitan area. These partnerships validate the importance of having dedicated practitioners and students in the field early resulting in an intensive field experience.

In 1999 UNC initiated a revision of the elementary teacher preparation program and developed an interdisciplinary major to prepares elementary educators in a much better fashion. Dr. Strathe stated that the review team reported a real strength at UNC is the special education program. The program was moved to graduate level some years ago and recently was returned to the undergraduate level because of the need in the field for more special educators. The American Association of Colleges of Teacher Education recently presented a national award of excellence to UNC's special education program in the use of technology.

Dr. Samson reported that the review team also sited UNC's elementary and special education program for their quality. They have such high student demand for the program, UNC is facing a resource problem in how they are going to be able to deliver the courses to meet the demand.

**Staff Recommendation:**

That the Commission approve the University of Northern Colorado's request for teacher education authorization for degree programs listed in the agenda.
That the Commission approve the teacher Education programs proposed for Colorado State University, Fort Lewis College, Mesa State College, Western State College, University of Colorado at Colorado Springs and the University of Northern Colorado, with the understanding that approval is contingent upon the assessment of general education knowledge in the undergraduate program and content knowledge prior to admission in the post-baccalaureate programs.

**Action:** Commissioner Stewart moved to approve the staff recommendation. Commissioner Lamm seconded the motion and the motion carried unanimously.

B. **Proposed Revisions to FTE Policy**

Dr. Samson reported that in August, the Commission and governing boards concurred that CCHE’s FTE Policy needs to align with state priorities and become simpler to apply and interpret. The Full-Time Equivalent (FTE) Policy was developed in consultation with the governing boards and institutions and translates statutory language regarding general fund eligibility and limitations into a single policy document. Upon adoption, the policy becomes effective July 1, 2001, for FY 2001-02.

The new policy provides a general framework so that a “reasonable person” could interpret the FTE Policy. The proposed language:

- States the policy goals.
- Shortens the length of the policy, reducing the FTE Policy from 36 pages to 4 pages.
- Focuses the state’s funding priorities by summarizing the statutory language regarding state general fund eligibility for different students and different instruction into an eligible and non-eligible list.
- Acknowledges that a credit hour equates to a measure of student learning, moving away from the counting-of-clock-hours mentality, e.g., “55 minutes equals a credit hour.”
- Defines the roles of the Commission, the governing boards, and the institutions and the associated policy accountability processes.
- Addresses the major audit issues, particularly concurrent high school enrollments. A tool has been developed that both schools and colleges can use to recruit students and identify students who are candidates for college while still in high school.

The policy clarifies that Commission is the body that interprets the FTE policy and authorizes exemptions to the policy.

Commissioner Hessler requested clarification of section 5.01.02, entry-level workforce preparation. Dr. Samson reported that the FTE Advisory Committee agreed that workforce preparation is part of the role and mission of the
community colleges. However, section 5.01.02 may over clarify and may cause confusion. Therefore, the Commission decided to clarify section 5.01.02 to state that credit hours earned in courses that are congruent with the delivering institution's statutory role and mission.

The Commission's interpretation of statute (C.R.S. 23-7-101 to 107) is that the state is willing to support courses that benefit the whole state of Colorado. Statute implies that the state funding for the general public open courses. If there is a legitimate reason to close a course to the general public, the institution may apply for an exception under the policy and will be dealt with on a case by case basis.

**Staff Recommendation:**

That the Commission approve the proposed FTE Policy as amended in section 5.01.02, effective July 1, 2001, and request the Executive Director to appoint an FTE Advisory Committee to develop the FTE Audit Guidelines.

**Action:** Commissioner Stewart moved approval of the staff recommendation. Commissioner Hessler seconded the motion and the motion carried unanimously.

C. Northeastern Junior College 2000 Facilities Master Plan

Gail Hoffman reported that Northeastern Junior College first submitted a facilities master plan to CCHE and Community Colleges of Colorado system in spring 1999 while CCHE space utilization guidelines were being rewritten. That master plan was not acted upon. The Northeastern Junior College Facilities Master Plan 2000, submitted to CCHE in May 2001, is the first facilities master plan for the college. Northeastern Junior College became part of the Community Colleges of Colorado system in July 1997, after the electorate passed a dissolution proposal in November 1996. For 55 years before that, the college was a local community college supported in part by tax revenues from Logan County, its home county.

With no enrollment growth projected for the college, the facilities master plan outlined a program of consolidating space, demolishing some buildings, and upgrading others as a way of addressing the large space surpluses on campus. The large space surpluses were not the result of earlier higher enrollments. Instead, prior to joining the state system, the institution officials believed it was appropriate to build facilities as large as its financial resources would allow.

By target year of 2004, using CCHE space utilization guidelines, the master plan projects Northeastern Junior College will have space surpluses in almost every capital construction-funded category but Physical Plant (-45 percent) and Physical Education/Recreation (-6 percent).
Ms. Hoffman pointed out that the percentage of freshmen that continue to sophomores at NJC is the highest among the community colleges in the state system and a small percentage are full-time students. NJC’s academic offerings are focused in the humanities and human services, preparing students for transfer to a four-year institution or a technology area. The master plan outlined options that the institution will utilize to achieve space efficiency. Since the institution has addressed how to deal with academic programs and technology, staff recommended that the Northeastern Junior College's master plan be approved.

**Staff Recommendation:**

Staff recommends that the Commission approve the Northeastern Junior College 2000 Facilities Master Plan.

**Action:** Commissioner Hessler moved approval of the staff recommendation. Commissioner Gottesfeld seconded the motion and the motion carried unanimously.

D. **University of Colorado at Boulder Facility Master Plan Review**

Jeanne Adkins reported that Chancellor Richard Byyny presented the University of Colorado at Boulder Facility Master Plan for Commission review at the October 5, 2000, Commission meeting and subsequently reviewed by staff in November 2000. Following concerns raised by the Commission, President Elizabeth Hoffman of the CU-System withdrew the plan from consideration to enable the institution to address several issues raised in the initial evaluation.

These issues included:

1) That UCB provide a class utilization review based on actual classroom/lab space available and used for that purpose both within its centrally-scheduled classroom system and its departmentally scheduled academic/lab system in conjunction with the building inventory directed jointly by the Regents and CCHE as a condition of approval for the Center for Visualization.

2) That UCB provide the previously requested assessment of the centrally scheduled classroom pool and its reduction and growth over no less than the past five-year period within 60 days.

3) That UCB resubmit its project list in a prioritized format and by function to indicate how the top priorities in each category would be integrated if the decisions were made today and to reflect the deletion of the Science Library agreed to in the Law School approval and the center renovations also to be incorporated in the Fleming remodel.

4) That UCB be allowed to proceed with planning and construction on the Grandview property, but that no projects be approved for the property until a more detailed assessment of density issues and corresponding traffic and parking solutions is presented.
5) That the Commission deny approval to fully develop the South Campus and that no projects be approved in this area.

6) That the institution provide an updated examination of its building inventory condition, incorporating projects completed since it was implemented in 1985 and the impact on the backlog, the institutional investment (historic and projected), the annual controlled maintenance investment and future projections for allocations, and alternate solutions to safeguard the historic and non-historic facilities.

7) That no new projects be approved until the institution addresses the housing issues it raises in the plan and provides a timetable for resolution.

8) That cash-funded projects, including athletic facilities, be prioritized by the institution and evaluated in some context within a plan amendment.

In the interim, the institution addressed several of the larger issues. The Commission must determine whether the changes are sufficient and whether the plan is adequate and should be the basis for future expansion and renovation of the Boulder campus.

Ms. Adkins reported that the Boulder master plan includes the Main Campus which is 306 acres, the East Campus which is 197 acres, William Village which is 64 acres and the South Campus of 308 acres. Sixty-eight percent of the students at the Boulder campus are residential students.

In the summer of 2000, members of the Boulder Historic Society and the City of Boulder asked the Commission for help in reaching an agreement regarding the Grandview development and potential historic preservation of bungalows in that area. The Commission asked the institution and the community to enter into mediation. They reached an agreeable amendment of the development plan that set aside the 25-year preserve area to preserve several bungalows in the central part of the neighborhood. The external areas however, are allowed to be redeveloped by the institution. The agreement also resulted in a plan to use some of the property for short-term parking needs, plus approximately 400 parking spaces on street and property that will be vacated making a significant step toward alleviating the parking shortage.

Ms. Adkins pointed out that the master plan did not define use planned for the East campus. The Commission may want to address what the overall objectives are for the East Campus. In addition, the total planned recreational space is significantly greater than what is expected for a campus this size.

CCHE Staff analysis:

- 10-minute walk assumption limits the option of the development of the East Campus to external research. As a result, much of the development of academic and research that is tied together will have to go into Grandview and the Main campus area using existing sites that are not now built upon.
• The overall objectives for the East Campus are not well defined. The campus has significant underdeveloped space.
• The Grandview and East Campus research areas are planned, but the Master Plan does not indicate location of specific type of facilities.
• Address the utility of the facility with the academic plan.
• Is there an optimal size for the Boulder campus?

Housing Issues
Ms. Adkins reported that the university administration has proposed construction on at least two of the four planned student housing units in Williams Village. The recommended analyses were done and the campus recommendation is that the land be developed by the Foundation using a limited liability company or corporation that would contract with a private developer to provide this housing. Only two of the four phases are proposed in this timetable, so there is additional land where surface parking can occur. The proposal includes a recommendation that the transportation system connect the main campus from the housing units.

Phase One would incorporate 400 beds and be ready by fall 2003. Phase two is anticipated to have 500 beds with occupancy no later than 2004.

Controlled Maintenance
Maintaining its existing building inventory and accommodating the addition of new space with operational and maintenance costs is a continuing issue for UCB. In order to reduce the backlog of deferred maintenance, the institution must allocate more resources from its operational budget and continue to make this a priority. This is particularly of concern because of the age of some of the more historic buildings on the campus. The Commission needs to continue to address this, not just with the University of Colorado at Boulder, but with all higher education institutions in terms of deferred maintenance.

Technology
The technology plan was submitted as an addendum to the master plan. It is a five-year plan that is slightly more than halfway complete at this point. It is recommended that all institutions integrate their technology plan with their facility plan. More detail regarding the strategic assessment of where the University intends to go and the extent that programmatic efforts are dedicated to this. This is not a CCHE policy however, the Commission may want to address this.

South Campus Development
The South Campus development continues to raise issues of flood hazards and potential integrated uses that are undefined. The University submitted an amended plan for the South Campus that narrowed the potential development to athletic and recreational facilities for the life span of the Master Plan which is 2008. Ms. Adkins pointed out that not all the property on the South Campus is in a flood plain and potentially could be developable for other purposes.
Graduate Enrollment

Responding to CCHE staff, UCB submitted a supplemental summary of its December 1999 review of graduate mission and how it would grow. Improving financial support for graduate students will be a significant step in attracting students within some lower-enrollment programs. UCB has outlined several steps to provide financial assistance to graduate students. One is an initiative to centralize graduate admission and financial aid issues to enhance graduate enrollment. Another initiative is to allow more teaching opportunities for graduate assistants.

Ms. Adkins reported that the staff recommend approval of the UCB Master Plan based on six recommendations.

Chair Nagel invited testimony on the University of Colorado at Boulder Master Plan.

Testimony

Elizabeth Hoffman, President of the University of Colorado System, thanked the Commission for the opportunity to bring the UCB Master Plan back. The Master plan has been through a rigorous process and has been approved by the Board of Regents.

Richard Byyny, Chancellor of the University of Colorado at Boulder, appreciated working with CCHE staff to get the Master Plan improved and he outlined the process the institution will use to comply with the recommendations. The institution is collecting better information on the classroom and laboratory space, has established a memorandum of understanding with the city of Boulder on the Grandview property, and if the recommendation is approved will begin development of the recreation and athletic facilities on the south campus. The university has the potential to mitigate some of the flood problems as the south campus property is developed into athletic and recreational facilities. Bill DeGrott, of the Boulder Urban Drainage and Flood Control District was available to respond to Commission questions.

Chancellor Byyny acknowledged that deferred maintenance is a problem and the university will continue to seek funding to mitigate the problem. Upon approval of the Master Plan the institution will proceed with negotiations to combine phase one and two of their housing plan to provide additional 900 beds by the year 2004. In the process of looking at housing they will also address the parking concerns. Regarding the East Campus, the intent is to move administrative functions from the Central Campus to the East Campus, then backfill with expansion of academic programs. The East Campus also includes laboratories for atmospheric and space physics which has about one hundred undergraduates and graduate students, a very strong academic program.
William "Will" Toor, Mayor of the city of Boulder, testified on three issues that have been of concern to the city of Boulder. The first has been the redevelopment of Grandview Terrace neighborhood and the city is pleased with the results of the mediation process. The process will lead to improved cooperation between the city and the university in resolving other difficult issues. However, he expressed the City Council's concerns regarding the development of the South Campus. He offered on behalf of the city of Boulder to buy the property from the university. In the absence of the sale of the South Campus to the city it is inevitable there will be some discussion concerning annexation of that property.

Mayor Toor said the city remains committed to the university providing additional housing. The city has a significant problem with housing affordability and the increased number of students. The city supports the development of Warren Village including working with a private developer. He stated that the city has a cooperative relationship with the university on transportation and parking.

Ralph Brown, a citizen of Boulder County, expressed his concern on the development of the South Boulder Campus flood plain. He referred to a study committee report of the Flatiron property and the South Boulder Creek waterway. He recommended that the university remove the South Campus from the Master Plan, enter into negotiations with the city of Boulder to purchase the Flatirons property in its entirety at a fair and reasonable price, and that the university take an official formal position on the flood mitigation alternatives discussed in the report he referred to earlier.

Betty Chronic, representative of the Historic Boulder Society, stated that Historic Boulder wants to prevent demolition and is appreciative of the fact the university wants to become positive stewards of its historic resources. She thanked the university for including Historic Boulder in the negotiation.

Ernest Punt, citizen of Boulder County, said his home is will be taken in the event that a dam is built to mitigate flood problems in the area of the Flatirons property. He added his endorsement to statements of Mayor Toor and Mr. Brown to encourage the university to negotiate with the city and county for possible purchase of the property to be retained as open space.

Doretta Hultquist, Boulder native and former employee of UCB, spoke on behalf of the residents of the Sans Souci Mobile Home Park whose homes would be relocated if the plan is approved. They support protecting affordable housing in the Flatirons property area and requested that the Commission defer the approval of the UCB master plan for the South Campus to allow the stakeholders an opportunity to participate in the negotiation procedures.

Charles Scoggen, UCB faculty member and Boulder homeowner, said that one of the issues is the hydrology as it relates to the flood area. The Flatirons property
impacts homeowners all along the South Boulder Creek. One of the biggest concerns of property owners, as Ms. Hultquist stated, is the destruction and relocation of homes.

George Walker provided comments regarding growth and the problems involved when an institution is landlocked.

William DeGroot was present to respond to Commission questions.

Richard Byyny, Chancellor of UCB, reported that the university, the City of Boulder, and the Urban Land Drainage District entered into a hydraulic/flood study and will determine what kinds of mitigation approaches would be best. The Regents have taken no official action on the flood control study.

Chancellor Byyny and Mayor Toor discussed the Boulder City Council's resolution to offer to buy the Flatirons property and the possibility of the university leasing it for recreation athletic purposes.

Commissioner Lamm asked Chancellor Byyny what the university and Regents project as the future enrollment limit for UCB in ten to twelve years. Chancellor Byyny responded that the Master Plan is based on seven-percent growth and the Boulder campus currently has 26,000 students enrolled. In response to Commissioner Lamm's inquiry about the housing agreement, Mayor Toor confirmed that the city of Boulder and the university have negotiated a Memorandum of Understanding on developing housing at Williams Village, however, has not made a specific offering price for the Flatirons property.

Commissioner Vollbracht pointed out that the concerns expressed by the property owner regarding relocation, flooding and drainage issues may exist regardless of the Flatirons property ownership. Mayor Toor confirmed that point and stated that the flood mitigation study includes an option that does not involve building a major dam.

Several Commissioners are not comfortable in the position of micromanagement or referee.

There was discussion regarding the housing needs. The university is looking at three different options for student housing. One model is the traditional model where the university builds and manages the housing. A second is a long-term ground lease to a developer to develop the property under university specifications. The third option is the CU Foundation forms a limited liability corporation and the developer and the ultimate manager come in and build and manage the property under the auspices of the Foundation. Commissioner Vollbracht said there might be restrictions in the transfer of state property to another entity. For an institution to do that it would require Commission approval.
Staff Recommendation:

The supplemental master plan information has significantly addressed concerns staff raised in the initial assessment.

Staff would alter its recommendation given the supplemental data to approve the Master Plan but would suggest the Commission conditionally approval of the South Campus revisions.

Planning for the East Campus continues to lack depth in staff’s view, boxing the institution into continuing its past assumptions and limiting its flexibility. How UCB integrates its cash-funded space with its general-funded space is of concern to the Commission. Its use of its land resources – limited by its setting – is also a concern.

Staff recommends approval of the UCB Campus Master Plan 2000 based on the following recommendations:

1. That UCB proceed with its facility utilization review based on actual classroom/lab space available and used for that purpose both within its centrally-scheduled classroom system and its departmentally scheduled academic/lab system submitting the results to the Commission and the Regents in June 2001. The additions suggested to the UCB outline by staff in the analysis should be incorporated in the assessment.

2. That UCB proceed with planning and construction on the Grandview property pursuant to the agreement negotiated with the City of Boulder and the amended master plan submitted for this area.

3. That the Commission grants South Campus development approval only for non-facility athletic uses. When flood plain studies, environmental studies and flood mitigation efforts are complete, the campus may bring forward a plan amendment that allows other athletic facility uses involving structures. Until this information is available for review, assessment of any facility construction is premature. The plan supplemental information limits the athletic uses to the lifespan of this document. Insufficient information exists to evaluate other potential uses and the approval should clearly limit that option.

4. That the institution continues to develop a more comprehensive strategy for addressing its maintenance backlog and its historic preservation goals.

5. That the Commission monitor the progress on the housing unit timetable set forth in the supplemental data to ensure progress is being made as other projects are brought forward.

6. That as its technology plan is updated, the campus present a strategic assessment of its integration of technology in on-campus classrooms, its long-term goals in this arena and a strategic plan for its on-line growth and how that plan integrates with facility needs for the future.
**Action:** Commissioner Lamm moved to accept the Master Plan as proposed with the exception of the South Boulder Campus Plan and ask the university and the city of Boulder to negotiate a plan for the future of the South Boulder Campus. Commissioner Nagel seconded the motion. After further discussion, Commissioner Lamm withdrew the motion.

**Action:** Chair Nagel moved to sever the staff recommendation and to accept recommendations one, two, four, and six. The motion to approve the staff recommendations one, two, four and six carried unanimously. Staff recommendations three and five were discussed further.

Recommendation 3, South Campus:

The discussion continued regarding the use of the South Campus. Executive Director Foster reiterated that the Commission's intent is to assure the best use of the property. The discussion about what the Regents see as the optimum size for CU Boulder and the optimum size for CU Colorado Springs as the growth campus are still unclear to the Commission. He suggested that the city of Boulder may want to consider engaging with the in a collaborative property acquisition, not a buying of an asset but rather for the common good. Chancellor Byyny and President Hoffman both reported that the request for the South Campus is to meet an urgent deficit for athletic and recreation fields and will be done on a cash-funded basis.

Mayor Toor stated that the city needs an understanding of the future of the property as a whole. It makes sense for the city and the university to figure out the future of the property including the question of what portion of it might be sold to the city. It is inappropriate to take action without an understanding of the overall future of the property.

Senator Andy McElhany mentioned that there is plenty of space for the CU campus to grow in Colorado Springs.

Regent Peter Steinhauser testified that the Regents have over the last several years acted very wisely in acquiring land at Colorado Springs, Fitzsimons and Boulder for future development. He reported that the South Campus is not for sale.

Commissioner Hessler asked Chancellor Byyny to confirm the intent for the South Campus property and Dr. Byyny stated that the university intends to use the property for athletic and recreational facilities. The university will be looking at whether it should develop the property in the future and come back to the Commission at a later time.

**Action:** Commissioner Lamm moved approval of staff recommendation three. Commissioner Hessler seconded the motion and the motion carried unanimously.

Recommendation 5, Housing:
Commissioner Nagel stated that it was his understanding there was a higher and urgent need for housing. He suggested the university consider construction of two phases of one thousand units each to meet the deficiency.

Vice Chancellor Paul Tabolt reported that the university has been working with a private financial consultant regarding privatized student housing and will continue discussion process.

Commissioner Baker recommended that the university test the market with a certain number of beds, allow flexibility on the land-lease with the private developer, and you don't know what will happen over the next ten to fifteen years. He supports the Chair's suggestion for providing more housing. The housing issue is not just a University issue and city of Boulder should be involved in solving the problem.

**Action:** Chair Nagel moved approval of staff recommendation 5, with the caveat that the Commission not only monitor but support the university's RFP program to solicit from private developers proposals up to and including the full resolution of the deferred deficiency. The responsibility of the developer is to have no impact on the university's balance sheet and accomplish it in an orderly and high quality manner. Commissioner Gottesfeld seconded the motion and the motion carried unanimously.

V. Items for Discussion and Possible Action

A. **Proposed Changes to Capital Assets Policy Concerning Renovation of Facilities**

   No discussion or action.

B. **Revisions to Section III, Part D Guidelines for Long-Range Facility Master Planning**

   No discussion or action

VI. Written Reports for Possible Discussion

A. **Report on Out-of-State Instruction**

   The Commission accepted the report on out-of-state instruction as follows:

   The Trustees of The State Colleges has submitted a request for approval of a course to be delivered by Adams State College:

   **ED 589: Land of the Maya: Examining Culture and Ethnomathematics** to be delivered from March 7 through April 18, 2001, in Yucatan, Mexico.
The Board of Regents of the University of Colorado has submitted a request for approval for a course to be delivered out-of-state by the University of Colorado at Colorado Springs.

**National Soccer Coaches Association of America (NSCAA) National and Advanced diploma courses** to be offered at various locations within the United States beginning January 2001.

**SPED 595-2/SPED 495-2, Reaching the Tough to Teach Summer Institute**, A series of workshops offered in Texas, Michigan, Florida, Tennessee, Georgia and Virginia during a one-year period.

### B. Concept Papers

1. **Master of Science (M.S.) in Recording Arts at the University of Colorado at Denver**

   The University of Colorado at Denver has submitted a concept paper for a Master of Science (M.S.) degree in Recording Arts. The proposed degree is “designed to prepare students for audio applications to the field of mass communications, education, arts and the entertainment industries.”

2. **Bachelor of Science (B.S.) in Liberal Studies at the University of Southern Colorado**

   The University of Southern Colorado (USC) has submitted a concept paper for a Bachelor of Science (B.S.) degree in Liberal Studies. The proposed degree is “designed to address the needs of elementary education preservice teachers,” and to “meet all mandates of SB154 and the Performance-Based Standards for Colorado Teachers.”

**Action:** Commissioner Greenberg moved to adjourn the meeting. Commissioner Hessler seconded the motion and the motion carried unanimously. The meeting adjourned at 12:35 p.m.
TOPIC:  CHAIR'S REPORT

PREPARED BY:  RALPH NAGEL

This item will be a regular monthly discussion of items that he feels will be of interest to the Commission.
This item provides an opportunity for Commissioners to report on their activities of the past month.
TOPIC: ADVISORY COMMITTEE REPORTS

PREPARED BY: ADVISORY COMMITTEE MEMBERS

This item provides an opportunity for Commission Advisory Committee members to report on items of interest to the Commission.
TOPIC: PUBLIC COMMENT

PREPARED BY: TIM FOSTER

This item provides an opportunity for public comment on any item unrelated to the meeting agenda. A sign-up sheet is provided on the day of the meeting for all persons wishing to address the Commission on issues not on the agenda. Speakers are called in the order in which they sign up. Each participant begins by stating his/her name, address and organization. Participants are asked to keep their comments brief and not repeat what others have said.
I. SUMMARY

CCHE, in conjunction with Colorado Department of Education, has reviewed the teacher education programs offered by fifteen Colorado colleges and universities. This agenda item provides an in-depth look at the teacher education programs offered by the University of Colorado at Denver (UCD), an evaluation of the program design, its capacity to become a performance-based model, and recommendations for reauthorizing UCD’s teacher education programs. Including UCD, the Commission will have authorized eight institutions.

The Commission’s primary responsibilities for public institutions include content, assessment and field experience. Since UCD offers only post-baccalaureate teacher education programs, the review differs slightly from the previous reviews of undergraduate teacher education programs. It examines the content knowledge of the program through its admission criteria. UCD’s hallmark in teacher education is its rigorous field experience, supported by faculty and close involvement in its partner schools. It has strong professional knowledge, good counseling systems, and high performance on the PLACE examination. The weakness of UCD’s program is that it has admission standards that do not provide conclusive evidence of mastery of content knowledge. The complete analysis of UCD’s teacher education programs is described in detail in the Report of the Teacher Education Review Team (Attachment A).

Based on the findings of the teacher education review team, the staff recommends approving teacher education authorization for the University of Colorado at Denver’s teacher education programs for post-baccalaureate degree programs in the following licensure levels:

- Elementary
- Secondary Education
  - English
  - Mathematics
  - Science
  - Social Studies
  - Foreign Language
- Special Education (Both Early Childhood and School Age)
The staff recommends that UCD develop a baccalaureate program for elementary education for its undergraduate students who plan to become teachers. It appears that a significant number of UCD undergraduates are moving directly into the post-baccalaureate teacher program, which circumvents the statutory four-year mandate. It is in the best interest of these students to provide an undergraduate pathway to teacher education.

II. BACKGROUND

The on-site visit occurred on November 8 and 9, 2000. Two teacher education faculty members reviewed the curriculum materials -- David Whaley, CSU and Bill Wiener, MSCD. Bill Wiener briefed the team on issues and areas needing further investigation based upon the curriculum review. The site review team spent two days on the campus of UCD. The review team included:

- Florence Arellano - retired DPS principal
- Bill Wiener – Program Director of Alternative School
- Carol Wilson – Executive Director, Colorado Partnership for Education Renewal
- JoAnn Evans – CCHE Academic Policy Analyst
- Bill Ottey – Assistant to the Commissioner, CDE
- Dorothy Snozek – CCHE, Literary Expert on Loan to CCHE
- Diane Lindner – CCHE, Site Review Team Chair

III. STAFF ANALYSIS

The strengths of the teacher education programs at UCD include:

- Student advising occurs regularly at the K-12 school sites.
- UCD exemplifies a partner school with University faculty assigned to teach in partner schools as part of their regular course workload.
- A successful collaboration exists between the faculty and administration of UCD teacher education and the K–12 faculty and administration of the partner schools.
- The University of Colorado at Denver has been working toward the preparation of students to meet the Colorado professional content standards and has successfully addressed each of those components.
- A review of the coursework prior to student teaching defines school law preparation that pertains to the classroom. IPTE 5130, Democratic Schooling: Issues of Laws and Ethics, provides the base for school law and ethical behaviors.
Collaboration between the teacher education faculty and the members of the partner school has resulted in a comprehensive assessment plan for the teacher education candidates. Within each component of the teacher education program, the curriculum defines and addresses the assessment of student content mastery.

The PLACE content exam pass rate is close to 99%. Prospective teacher candidates, however, are not required to take the PLACE exam until the end of their field experience.

UCD has strengthened its admission process in response to the site review.

IV. STAFF RECOMMENDATION

The site review team recommends that the Commission approve the post-baccalaureate teacher education programs offered by the University of Colorado at Denver for full approval with a modification to UCD’s current admission requirements. Specifically, students admitted into UCD’s post-baccalaureate program will need to pass a content exam prior to admission into the program and placement in the field. The ETS Academic Profile long form will be used until UCD identifies its content exam and CCHE approves the content test selection.
Statutory Performance Measure #1:

a. Admission System

Comprehensive admission system, which includes screening and counseling for students who are considering becoming teacher candidates.

General Comments:

(1) The University of Colorado at Denver only offers post-baccalaureate teacher education programs.

(2) UCD’s admission criteria for prospective teacher candidates who enter the university as post baccalaureate students include:

- baccalaureate degree from a regionally accredited college or university
- a minimum grade point average of 2.75 for undergraduate work or a 3.0 graduate grade point average for those who have completed a master’s degree. Students who have a GPA below the minimum necessary for admission may provide evidence of “academic promise” with a 1,000-combined verbal and quantitative score on the GRE or a 40 on the GMAT.
- Special education students are required to take the GRE to assess content knowledge.
- Acceptable writing skills as assessed from the goals statement the student submits with the application.
- Work experience with youth at the same age as their teaching endorsement will be.
- Recommendation letters.
- Attendance at a full-day orientation session. Applicants meet with district personnel directors and site coordinators to learn about UCD’s programs and register for field placements.
- Personal interview ratings from potential school field experience sites. The interview is one factor in the admissions decision. Teams of interviewers are typically 50/50 in terms of K-12 and Higher Education participation.

(3) Admission into the teacher education program occurs twice per year with the cohorts starting in the fall and spring semesters.

(4) UCD provides a handbook to students accepted into the teacher education program that identifies the licensure and degree graduation requirements.
(5) The education faculty evaluate each applicant’s transcript to determine if the applicant has the completed the appropriate course work in the content area. Each student receives an advising sheet listing the content courses they must take to qualify for licensure. The transcript review for elementary education candidates is based on the content that a student needs to meet the knowledge required in Colorado Model Content Standards. The secondary student evaluation is against the degree program offered by UCD. This transcript review compares the syllabi of course work taken at other institutions to those courses offered by UCD.

(6) The files indicate that a majority of admitted students have content course deficiencies. The average candidate is required to take between three and twelve credits in content courses. Candidates who are required to take more than six credits to make up deficiencies in content knowledge are not accepted into the one-year program until those courses have been completed. If a candidate has six credits or less to take, they must be completed prior to the final field experience.

(7) Another transcript analysis is done prior to the student’s final internship that ensures the courses have been taken. Because UCD students are placed in the field immediately, the identified deficiencies may encourage under-prepared teacher candidates for the early field experience.

Sources of Evidence:

Student file review.
Meetings with current and past students
Meetings with UCD faculty and administrators
Review of online teacher education monitoring system.

Strengths:

Secondary applicants received very clear guidelines for content knowledge that must have been received during their baccalaureate program.

Weaknesses:

As a result of the team visit, UCD has added specific content standards to the elementary admissions standards that parallel the Colorado Model Content Standards. Using Arts and Science faculty to evaluate the strength of content knowledge might further strengthen the content assessment.

Recommendations

The student enrollment patterns indicate that many UCD undergraduates become licensed by completing the post-baccalaureate degree program as well as the undergraduate degree. This in effect functions as a five-year undergraduate program. Since a significant number of UCD undergraduates enter the post-baccalaureate program upon
graduation, UCD needs to consider offering an undergraduate degree path to teacher education in elementary education.

When the transcript evaluation indicates that a prospective teacher candidate needs additional content knowledge, the students enroll at other colleges to make up for deficiencies (e.g., Metropolitan State College or a community college). Because they are admitted as post-baccalaureate students, UCD charges graduate tuition for the undergraduate content courses. UCD may wish to offer certain content courses through the extended studies program to alleviate the tuition burden.

According to student interviews, UCD’s admission process is impersonal. The teacher education faculty does not meet with students until the student is officially admitted. Although three advisors are available to students prior to admission, UCD is encouraged to review its admission process to make it more student-friendly.
Statutory Performance Measure:

b. Ongoing Screening and Counseling of teacher candidates by practicing teachers or faculty members.

General Comments:

(1) The Counseling Process includes individual advisement and monitoring of future teacher candidates throughout the process. Once students are admitted to the program a faculty advisor is assigned. Elementary, secondary and special education teacher candidates who see a professor in a partner school weekly are assigned that professor as their faculty advisor. Students doing internships outside the partner schools are assigned advisors from among faculty who supervise their internships. This allows faculty to advise students on both their education plan and their strengths and weaknesses demonstrated during their field experience.

(2) To facilitate the monitoring of each student’s academic progress, the university utilizes online systems with faculty advisors. Continuous progress and programmatic requirements are defined. Advising records are kept and maintained in a central program area with specific reference to advice provided and actions taken throughout the student’s program. The program is designed to address content deficiencies of the post baccalaureate student through maintenance of advising sheets that have been developed for each of the endorsement areas and aligned with the Colorado Department of Education model content standards.

(3) To facilitate monitoring of student academic progress, online systems are being developed. Faculty advisors will be able to review progress and identify which program requirements are yet to be met. Advising records are kept and maintained in a central program area with specific reference to advice provided and actions taken throughout the student’s program. Advising sheets have been developed for every endorsement area (Elementary, Secondary and Special Education). Advising sheets are clear and comprehensive. The student knows precisely what requirements s/he must meet and those they have met to-date.

(4) Each teacher education candidate must meet with a key education advisor each semester. Full-time students meet once during their program while part-time students meet until they graduate. All meetings are documented. Students initially meet with a full-time advisor prior to admission and placement. Once students are placed in a school, the site professor becomes their advisor of record. Site professors/advisors meet with students once a week in their partner school.

(5) Each of the four licensure areas has a published policy that describes the academic and professional expectations of teacher candidates. Presented within the documentation is a list of the publications through which evidence of professional expectations is provided. The counseling process includes individual and group advisement and monitoring of future teacher candidates. The group advisement is
separate and distinct from the group information sessions conducted for persons interested in applying to the teacher education program.

(6) UCD maintains student records at both the central site and in the teacher education program. The database includes notice of formal admission, deficiencies, incomplete status of application, and successful completion of the licensure requirements. The student files provided at each level that students are treated equitably and in-alignment with standards identified. A Performance-Based Assessment tracking system is currently 80% complete and will be fully complete by April 15th, 2001. This system will allow students to access their records through their advisor. In addition, students can access course records through the campus database.

Sources of Evidence:

- Student file review.
- Meetings with current and past students
- Meetings with UCD faculty and administrators.
- Review of online teacher education monitoring system.

Strengths:

- Student advising occurs regularly and is accessible from a K-12 school site. Advising is a priority for the site faculty who see the student weekly.

Weaknesses:

- No weaknesses were identified in this area.
Statutory Performance Measure:

c. Course work and field based training that integrates theory and practice (i.e. early field experience) and educates teacher candidates in the methodologies, practices and procedures of teaching standards-based education.

General Comments:

(1) General Education. Since all students enrolled in UCD’s teacher education programs have previously earned bachelors’ degree from an accredited institution, general education is not a factor for this institution.

(2) Content Major: The quality of the content is evaluated in the admission process for a post-baccalaureate teacher education program. See Statutory Performance Measure a for information on the quality of the content preparation.

(3) Professional Knowledge: The faculty of The School of Education have redesigned all courses to meet the Colorado Department of Education Performance Based Standards in Early Childhood, Elementary, Special Education, and Secondary Education. A single set of courses is offered for elementary, secondary, and special education under the new design. Teacher candidates in general education and special education will be prepared side-by-side in most classes and internships. Professional knowledge syllabi for the early childhood, elementary, secondary and special education programs showed the incorporation of the concepts of standards-based education, including assessment development and interpretation.

(4) The elementary licensure program requires thirty-nine (39) hours; the secondary licensure program is thirty-six (36) hours.

(5) The Initial/Professional Teacher Education Council provides opportunities for continuing dialogue and exchange of information, ideas, concerns, issues and development across programs and partner schools with site professors, site coordinators and faculty. Regular meetings involve K-12 faculty and administrators and UCD faculty and administrators who discuss curriculum change, program modification, and provide the opportunity for continuous improvement.

Sources of Evidence:

Meetings with current and past students
Meetings with university faculty and administrators
Meetings with K-12 faculty and administrators
Review of “new” syllabi and assessment components were being piloted during the fall semester.
Observation of an ITPE Council meeting.
<table>
<thead>
<tr>
<th>Teacher Education Authorization</th>
<th>Professional Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Secondary:</td>
<td>The professional knowledge component involves students in the elementary classroom through four internships. These internships are sequence with a gradual increase in responsibility for student learning.</td>
</tr>
<tr>
<td>• English</td>
<td>The first, second, and third internships require that the student is in the school for two full days each week. For the first and second internships, they begin with a full week in the classroom developing relationships with students, observing classroom procedures, and interacting with small groups of students.</td>
</tr>
<tr>
<td>• Mathematics</td>
<td>During the third internship, the students spend the first week in the classroom. After that, two days per week are spent in the classroom. Students are responsible for developing lesson plans, co-teaching and assist the cooperating teacher with student assessment and diagnosis.</td>
</tr>
<tr>
<td>• Science</td>
<td>During the fourth and final internship, the student is in the same classroom as in their third internship, but are there four days per week. Their responsibilities have increased and they must teach solo at the end of the internship.</td>
</tr>
<tr>
<td>• Social Studies</td>
<td>During the internships, connections are made to the university classes through performance-based learning assignments. For example, while they take the literacy methods and assessment course, they are required to perform a number of instructional strategies with small and whole groups of students.</td>
</tr>
<tr>
<td>• Foreign Language</td>
<td>In the math methods course, students are required to do pre- and post-testing to determine student learning styles, and identify mathematics proficiency. The post-test measures whether goals are accomplished and modifies instructional plan to better meet student and educational goals.</td>
</tr>
<tr>
<td>Special Education</td>
<td>Students have access to a site coordinator at all times. These site coordinators’ role is to mentor teacher candidates and be a liaison to the university. Since they are on-site, they advise students and provide support as needed. A site professor is on-site one day per week in the sixteen partner schools to consult with the student, observe the student as they teach, and discuss issues with the site coordinator. They also serve as consultants to the school as necessary in a true professional development school model.</td>
</tr>
<tr>
<td>Special Education/Elementary</td>
<td>For example, a site professor might provide professional development to teachers in the school on new methods in literacy or math instruction, in the CDE model content standards. They serve on governance boards and assist schools in developing CDE/district-required school improvement plans.</td>
</tr>
<tr>
<td>Special Education/Secondary</td>
<td>They could consult on especially difficult student learning problems and can assist teachers in implementing new practices.</td>
</tr>
</tbody>
</table>

**Strengths:**

A defined curriculum, learning expectations, and assessment of professional knowledge and skills characterize the professional knowledge courses.
Weaknesses:

Candidates who have deficiencies in content knowledge need to complete the courses early in the degree program (e.g., in the first semester). Because student enrolls post-baccalaureate students, they are charged graduate tuition for the undergraduate content courses. Most students enroll at other institutions because they must pay graduate level tuition at UCD for undergraduate prerequisites. To minimize the tuition burden and enhance student quality, UCD should consider requiring students to complete these courses prior to enrolling in the professional knowledge courses or enroll through the extended studies program.
Statutory Performance Measure:

d. Each candidate completes a minimum of 800 hours of field experience that relates to predetermined learning standards.

General Comments:

(1) A review was completed of the field experience requirements for each licensure area as they related to pre-determined learning standards. Syllabi provided the basis for analysis of student experiences which specifically define how that is to occur. Sample formats were available with the direct alignment to content standards. Preparation of students for the field experiences was completed for student transitions within the programs.

In each licensure area consistency was evident for the program as a whole. Hours were clearly defined, predetermined learning standards were identified and lessons taught and the faculty follow through into the classroom was evident in the discussions with the students and faculty. Students are prepared on-campus prior to the experience with identifiable goals transferred to the classroom setting. Elementary teacher candidates have four internships in a single partner school, spending an entire school year as a junior member of the staff of the school working across grade levels. Secondary teacher candidates have four internships in two partner schools—one in middle school and one high school. Special education teacher candidates seeking dual licensure spend half of their internships in special education and half in general education at the elementary or secondary and then another internship in special education. The first three internships are a full week in length, followed by two days a week for a minimum of seven more weeks. The fourth internship is a minimum of forty days in length.

The elementary and secondary teacher candidates in the program are all assigned to partner schools where they receive direct support from three people: a clinical teacher, the site coordinator and the site professor. The site coordinator is a master teacher who is released form normal teaching duties full time to provide leadership in the partner school functions, including teacher preparation. S/he works directly with all of the teacher candidates within the building providing consistency in application of performance-based assessments and determining group and individual supports for teacher candidates.

Most special education teacher candidates complete their internships in partner schools in the ISEP program (a grant program in which candidates work in schools twenty-five hours per week with a special education team). In each of these situations candidates receive supervision from a clinical teacher, site coordinator or district coordinator. School operation determines staff involvement.
Field experiences in the UC-D program focus on identifiable goals and assignments tied to performance based standards, assessments demonstrate how the teacher candidates deliver instruction, adapt to content standards, assess student progress and change methodology to respond to student needs.

(3) In meetings, observations and discussions with K 12 faculty and administrators at each licensure level, it is evident that positive role models are present for student teachers and students within the field experience components. However, criteria for selecting cooperating and supervising teachers and maintaining the quality for student field experiences and student teaching although informally followed were not documented in as rigorous format.

**Sources of Evidence:**

- Meetings with current and past students
- Meetings with university faculty and administrators
- Meetings with K-12 faculty and administrators
- Review of “new” syllabi

<table>
<thead>
<tr>
<th>Teacher Education Authorization</th>
<th>Frequency</th>
<th>Scope</th>
<th>Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Education</td>
<td>856 Hours</td>
<td>All programs include four</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>internships sequenced to</td>
<td></td>
</tr>
<tr>
<td>Internship: 152 Hours</td>
<td></td>
<td>allow the student to progress in</td>
<td></td>
</tr>
<tr>
<td>Internship2 152 Hours</td>
<td></td>
<td>responsibilities from early</td>
<td></td>
</tr>
<tr>
<td>Internship3 200 Hours</td>
<td></td>
<td>observation and tutoring to having</td>
<td></td>
</tr>
<tr>
<td>Internship: 352 Hours</td>
<td></td>
<td>primary responsibility for a</td>
<td></td>
</tr>
</tbody>
</table>

Elementary licensure students spend a year in a partner school operating as a junior staff member working across several grade levels. The level of responsibility increases in each of the four internships. Candidates begin their first internship by observing students and assisting in one-on-one instruction. They progress to developing lesson plans and co-teaching units to student assessment and diagnosis. Finally, they are responsible for an entire classroom and assist in development of learning objectives, teaching lessons, measuring progress and adapting instruction. They are responsible for communication with parents and working with students in preparing for the CSAP exam.
| Secondary                                      | The secondary candidate is assigned to a partner school and receives the same type of direct support as the elementary candidate does. A clinical teacher, the site coordinator and the site professor are responsible for teaching and mentoring the teacher candidate. The secondary candidate works in one middle school and one high school. The progression of responsibility is the same as the elementary candidate, starting with observation and tutoring and progressing to having primary responsibility for a classroom of students. |
| All programs include four internships sequenced to allow the student to progress in responsibilities from early observation and tutoring to having primary responsibility for a classroom. Develop lessons; direct experience. | The special education and dual licensure sequence of professional studies maintains the same range of responsibilities. The special education student is assigned twenty-five hours a week in a partner school. The candidates seeking dual licensure spend half of the internship in special education and half in general education at the elementary or secondary level. |
Strengths:

Collaboration between the faculty and administration of UCD teacher education and the K–12 faculty and administration of the partner schools is exceptionally strong. The partner school development and the continuous involvement of specific teacher education faculty is impressive.

Weaknesses:

Faculty coordinators appear overworked and involvement at this intense level runs the danger of burnout.

Recommendations

This is a common characteristic among partner school faculty. The review team encourages CCODE to brainstorm possible ways to include and train other university faculty.
Statutory Performance Measure:

e. Demonstrate the skills required for licensure as specified by the State Board.

General Comments:

(1) A curriculum review of each degree program by CCHE/CDE Review Team was completed to ensure that the curriculum provides sufficient preparation in the professional content standards with the students and faculty.

LITERACY - The literacy component of the elementary program is well defined. Program revision included the development of a specific course for literacy rather than literacy included within the prior integrated methods course. Students demonstrate knowledge of literacy model content standards, accomplishments of children in grades one through six, and the application of strategies, methodologies and “best practices.” This component of the elementary program was a collaborative accomplishment by the faculty within elementary education. Assessment of student proficiency is identified within course syllabi and materials.

Review of the literacy course for secondary education met the standards as prescribed. Mathematics literacy was also included within the conceptualization, development and application. Elementary and secondary literacy defined a research base with “best practices”. Application of the literacy component to all field experiences was expected and prescribed.

MATHEMATICS AND MATH LITERACY – As indicated above mathematics literacy is included within each literacy course. The university has addressed mathematics in the pre-assessment applied to the content areas.

CONTENT STANDARDS AND ASSESSMENT - Review of the professional knowledge and application of content standards in each licensure area at the University of Colorado at Denver provided a defined process for determining proficiency in this area. Review of materials presented for analysis verified development of assessment and content standards knowledge throughout each program area.

CONTENT - In each area of professional knowledge content, the depth of the knowledge base was evident through review of student records. Since the program is post-baccalaureate, prior program review is a requirement for admission. If needed, leveling courses are mandated after review by the appropriate academic department. Student completion of leveling courses is mandatory for admission and continuation.

CLASSROOM AND INSTRUCTIONAL MANAGEMENT - On site review and discussions with students and faculty and administrators of the participating schools provided a clear understanding that these areas were appropriately met via university preparation and the concomitant work within the school setting.
INDIVIDUALIZED INSTRUCTION – The knowledge and application of the assessment components within each licensure area supports the individualization of instruction. Assessments throughout the program development are in alignment with the performance based standards.

In addition, the dual licensure option within the elementary and secondary programs increases the relevancy and successful application to adapt instruction for student success.

TECHNOLOGY – Technology is addressed as an application within the majority of courses within the licensure areas. Infusion of technology within courses by faculty within the college classroom and expectations of students in course assignments was consistently evident. Completed faculty and student work defined the expectation levels.

EDUCATIONAL GOVERNANCE – IPTE 5130, which is a required course within each program area, is designed to provide the legal and ethical contexts of school operation.

Sources of Evidence:

Verification of the aforementioned areas of strength and breadth of understanding of the curriculum to successfully teach in the Colorado standards based classroom was determined by the review of student materials, syllabi, individual meetings with current and past students, faculty and the K-12 classroom teachers and administrators. As indicated above, considerable review occurred to verify each of the above.

Strengths:

Evident throughout the review of plans, portfolios and meetings with classroom teachers and administrators, the University of Colorado at Denver has been working toward the preparation of students to meet the Colorado professional content standards.

A review of the coursework prior to student teaching defines school law preparation that pertains to the classroom. IPTE 5130, Democratic Schooling: Issues of Laws and Ethics, provides the base for school law and ethical behaviors.

Weaknesses:

The development of an Inventory of Standards Assessment is under construction.
Statutory Performance Measure:

f. Comprehensive assessment of candidate’s knowledge of subject matter.

General Comments:

The team examined the assessment of subject matter in two settings – content knowledge documented in admission records and the ability to apply the knowledge in the K-12 classroom. The information provided in the binders was supplemented with faculty interviews. Professional knowledge was directly addressed within the coursework and performance based assignments with student work samples serving as an integral component of the assessment plan inventory.

Sources of Evidence:

Verification of the aforementioned was evidenced through meetings with current and past students, university faculty and administrators and K-12 faculty and administrators, university class visitations, and review of “new” syllabi.

Strengths:

(1) The teacher education candidate received a comprehensive and formative assessment in the field, resulting from collaboration between the teacher education faculty and the members of the partner school. The assessment design includes:

- Embedded assessments in Elementary Ed, Early Childhood, Special Ed, and Secondary Education teaching skills and professional knowledge
- A student work sample approach that spans the entire program from admission to completion shows potential for evaluating value-added
- Sequential and consistent field experience assessments

(8) UCD students have a 99% pass rate on the PLACE exam. This documents the quality of secondary content knowledge. As noted in other reviews, the PLACE content exam in Elementary Education measures pedagogy rather than content knowledge.

(9) A review of the field experience and student teaching components of the elementary licensure program defines how the teacher meets the knowledge of content during the field experiences. Training for the application and evaluation of the assessment components of performance based assessment is needed for all site coordinators, principals and clinical teachers to assure consistency and accuracy of assessment.

(10) Math knowledge is tested during MATH 3040. This course is taken during the student’s first semester in the program. There are four tests: (1) Quantitative fluency including fractions, decimals and percents, (2) the nature of mathematics (i.e.,
patterns and basic algebra, (3) measurement and geometry using performance measures, and (4) probability and data analysis.

Weaknesses:

The assessment of math knowledge occurs late in the degree program.

The program does not require students to pass the PLACE exam prior to the field experience. In some cases the students are paid for teaching in the classroom prior to demonstrating mastery of content knowledge.

<table>
<thead>
<tr>
<th>Teacher Education Authorization</th>
<th>Content of Major</th>
<th>Professional Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>Assessed through a combination of admission transcript analysis and testing.</td>
<td>Professional Knowledge is tested through:</td>
</tr>
<tr>
<td>Secondary</td>
<td>The PLACE exam is required before licensure certification.</td>
<td>• Embedded course assessments</td>
</tr>
<tr>
<td>Special Education</td>
<td>Mathematics content is tested in required courses.</td>
<td>• Field experience assessments</td>
</tr>
<tr>
<td>Dual Licensure</td>
<td>Writing and oral communication skills are assessed during the admission process.</td>
<td>• Teacher work samples</td>
</tr>
</tbody>
</table>

The most critical assessment is the way UCD faculty and site faculty assess students in the field and guide them in developing teaching skills. The student teaching assessment involves all three key faculty: the site coordinator, the site faculty and the clinical teacher. Given the day per week the site faculty is at the school and the daily involvement of the clinical teacher and the site coordinator, the teacher candidate receives immediate feedback as they learn to teach, assess, diagnose and communicate learning.
TOPIC: POLICY DELETIONS

PREPARED BY: SHARON M. SAMSON

I. SUMMARY

The Academic and Student Affairs staff annually reviews existing policies to improve the academic policies’ effectiveness, minimize policy duplication, and reduce unnecessary bureaucracy for the state institutions. In the process of reviewing policies for web publication, the staff identified two policies for deletion. In both instances, other initiatives have supplanted the policy.

The Commission adopted the Policy and General Procedures for the Development of Accountability Programs by State-Supported Institutions of Higher Education in 1985 in response to legislation (C.R.S. 23-13-101). In 1996, Article 13 was struck and replaced by the performance indicators in the “Higher Education Quality Assurance Act.” CCHE’s Accountability Policy became moot with that action. Deletion of the Accountability Programs does not impact the state system of higher education at the state or institutional level.

The Commission adopted its Advanced Placement Examination Reimbursement Policy in 1996, responding to special policy funding dollars appropriated during that session. When the JBC discontinued the policy funding line item, CCHE staff substituted state merit dollars to continue the reimbursement program. In 2000, Colorado, in collaboration with nine western states, applied for and received federal dollars to fund advanced placement test fees. Colorado Department of Education administers the federal grant so CCHE’s existing AP policy is unnecessary and inappropriate. The terms of the federal grant prohibit the state from funding of advanced placement fees (i.e., double funding). From the student perspective, new AP program broadens the group of eligible students who are able to benefit (all test takers who qualify under the needs test) rather than just the students who received credit for AP/IB scores at Colorado’s state institutions. Students who plan to attend private and out-of-state schools will receive the same support as students attending Colorado state-supported schools.

II. STAFF RECOMMENDATION

TOPIC: REPORT ON LOW DEMAND PROGRAMS

PREPARED BY: SHARON M. SAMSON

I. SUMMARY

In February 2001 agenda the Commission notified the governing boards that they needed to take action on several low performing degree programs by April 2001, including Adams State College’s (ASC) Physics BS, Metropolitan State College of Denver’s (Metro) African American Studies BA, University of Colorado at Boulder’s (UCB) Communication MA, and Western State College’s (WSC) Physics BA.

Following the February Commission meeting, the governing boards notified CCHE of the status of their low-demand programs. In summary, ASC and WSC attempted to combine their Physics degree programs through on-line delivery. Although the on-line portion was successful, the combined degree program did not generate sufficient demand to pursue developed of a coordinated degree program. The Trustees discontinued ASC’s Physics degree and placed WSC’s Physics degree on its exempt list. Metro merged Spanish into Modern Languages, reducing their low demand program list to three exempt programs and African American Studies. In addition, two governing boards filed requests for an extension. This agenda item presents a request for a three-year extension filed by the Trustees for the State Colleges on behalf of Metro for African-American Studies and a second one-year extension filed by the Regents on behalf of UCB for the MA in Communications. Neither institution may protect the degree program under CCHE’s exemption policy.

The staff recommends that the Commission approve the State Trustees’ request on behalf of Metropolitan State College of Denver for a three-year extension for African American Studies. The staff recommends that the Commission deny UCB’s request for a second one-year extension for the Communication M.A. degree program.

II. BACKGROUND

CCHE policy empowers governing boards to intervene and take action on low demand degree programs. To support the governing boards, CCHE staff provided data on low demand degree programs in February. The February agenda item gives public notice of degree programs that need action. The Commission expects each governing board to take the appropriate action prior to April 1. In February, the Commission received the data on low-demand degree programs, i.e.; those that failed to meet the minimum graduation benchmarks as defined in policy.

In 2001, the low demand review identified six degree programs that are operating below the benchmarks. CCHE policy defines a low demand undergraduate degree as a degree...
program that fails to graduate at least 10 students in the current year or a total of 20 students in the past three years. The benchmark for masters’ degree programs is three graduates per year or a total of five in the past three years. The doctoral program benchmark is one graduate per year or a total of three in the past three years. Each institution may exempt up to five undergraduate degree programs that are central to the institution’s role and mission (Attachment A).

The public notice also encouraged governing boards of large institutions (i.e., those with undergraduate FTE enrollment greater than 5,000) to make decisions in the context of moving toward three exemptions. In the context of this policy, the large institutions include Colorado State University (CSU), Metro, UCB, and the University of Northern Colorado (UNC). Currently, UCB, UNC and CSU have exempted four and Metro has three exempt degree programs. All governing boards pledged to voluntarily move to three exemptions for these institutions.

III. STAFF ANALYSIS

The Trustees for the State Colleges filed a three-year extension request on behalf of Metro for African-American Studies. The University of Colorado Regents filed a request to extend UCB’s current one-year extension for the MA in Communications. Both programs were identified as low-demand programs in 1997.

Each request for an extension is analyzed separately. The relevant years for low-demand program status are bold text. The 2001 projections were provided by the institution for context.

METROPOLITAN STATE COLLEGE OF DENVER – AFRICAN AMERICAN STUDIES

In 2000 the Commission modified its policy to allow Metro to exempt its African American Studies degree. The former exemption criterion required at least one graduate in the current year. The current exemption criterion requires at least three graduates in the past three years. The policy action responded to Metro’s appeal in April 2000 that it would have exempted African American Studies but the degree program had not graduated any students in the most recent year. Metro’s African American Studies degree program graduated a total of three students in fiscal years 1997, 1998, and 1999, making it eligible for exempt status under the new policy. As a result, the Trustees for the State Colleges designated African American Studies as one of Metro’s five exemptions in 2000. However, in 2001, the degree became ineligible since only two students graduated in the past three years. The program lacked sufficient graduates for continued exemption status.
In compliance with CCHE policy, the governing board initiated the necessary steps to discontinue this degree and offer only a minor in African American Studies. However, at the February Trustees meeting, a community delegation pledged their assistance to increase the enrollment and graduation numbers in the African American Studies degree program. After listening to the testimony and confirming Metro’s intent to support this degree program, the Trustees voted to support a three-year extension to allow time for the community-institution partnership to implement its plan for revitalizing the degree program. The State College system will brief the Commission on its implementation strategy to support increased student demand and Metro will provide supporting data on the resources allocated for the degree program at the April Commission meeting. CCHE requested data on resources and efforts that Metro has committed to the African American Studies program since the program went into review and the amounts designated for 2001-02.

CCHE staff recommend approving the governing board’s request for a three-year extension, with the understanding that the (1) Metro will provide the requested data before the April Commission meeting; and (2) the third year of the extension is contingent upon Metro’s degree program demonstrating reasonable progress in enrolling and graduating a sufficient number of students. The Commission will continue to monitor the African American Studies program annually. The staff recommendation is based on the following:

1) The governing board and the institution are playing a proactive role regarding this degree program.
2) Community involvement is now part of the intervention strategy. This was not present in 2000.
3) Metro’s African American degree program is one of two undergraduate degrees in this area of study and the only one in the Metro area.

UNIVERSITY OF COLORADO AT BOULDER – COMMUNICATIONS MA

In April 2000, the Regents of the University of Colorado, on behalf of the University of Colorado at Boulder, filed an appeal for a one-year extension for UCB’s Communication M.A. degree. The CU Regents requested the extension because (1) its projections indicated that the Communication M.A. degree would graduate 3 students. (2) At the end of the one-year extension (April 2001), it would be possible to determine if sufficient interest exists to justify continuing the degree program at the masters’ level. One student graduated in 2000. The institution stated that it would voluntarily discontinue the program if its graduation numbers did not justify student demand.
On March 16, 2001, the Regents approved a request for a second one-year extension for the masters’ degree in Communication, believing that it may graduate three students in 2001. This is the only graduate program in the State that fails the low demand benchmark.

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<tr>
<td>Degrees Granted</td>
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<td>2</td>
<td>1</td>
<td>0</td>
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</table>

CCHE staff do not recommend approving the governing board’s request for a three-year extension for the following reasons:

1. The governing board was notified that Communications degree program did not meet the criteria in 1997. Most degree programs have had three years to intervene or take the appropriate action regarding low demand. With the one-year extension, UCB’s Communications degree program has had four years to reach the benchmark.
2. The institution did not provide information on new actions or commitments that were not available in April 2000.
3. UCB’s student enrollment numbers, as reported to CCHE, do not indicate a long-term change in the Communication M.A. degree program graduation patterns. There are no indicators to suggest that the Communication M.A. degree will be able to sustain three graduates per year or five in a three-year period. In comparison, the other three M.A. Communication degree programs offered in Colorado enroll approximately 25 graduate students (UCCS, UCD) to 35 graduate students (UNC) per year.

III. STAFF RECOMMENDATION

That the Commission approve MSCD’s request for a three-year extension for the African American Studies degree program with the understanding that the (1) Metro will provide the requested data before the April Commission meeting; and (2) the third year of the extension is contingent upon Metro’s degree program demonstrating reasonable progress in enrolling and graduating a sufficient number of students.

That the Commission deny UCB’s request for a second one-year extension for the M.A. degree in Communications.
STATUTORY AUTHORITY

C.R.S. 23-1-107 (2) reads:

a) The commission shall establish, after consultation with the governing boards of institutions, policies and criteria for the discontinuance of academic or vocational programs. The commission shall direct the respective governing boards of institutions, including the board of regents of the university of Colorado, to discontinue an academic or vocational degree program area, as program area is defined in commission policies.

b) The governing board of a state-supported institution of higher education directed to discontinue an academic or vocational degree program area pursuant to this subsection (2) shall have not more than four years to discontinue graduate and baccalaureate programs and not more than two years to discontinue associate programs following the commission's directive to phase out said program area.

c) If the commission directs the governing board of an institution to discontinue an academic or vocational degree program area, and the governing board refuses to do so, the commission may require such governing board to remit to the general fund any moneys appropriated for such program area.

d) Each governing board of the state-supported institutions of higher education shall submit to the commission a plan describing the procedures and schedule for periodic program reviews and evaluation of each academic program at each institution consistent with the role and mission of each institution. The information to be provided to the commission shall include, but shall not be limited to, the procedures for using internal and external evaluators, the sequence of such reviews, and the anticipated use of the evaluations.

e) Prior to the discontinuance of a program, the governing boards of state institutions of higher education are directed, subject to commission approval, to develop appropriate early retirement, professional retraining, and other programs to assist faculty members who may be displaced as a result of discontinued programs.

f) The commission shall assure that each institution has an orderly process for the phase-out of the programs.
Overview of Governing Board 2000 and 2001 Decisions Pertaining to Low-Enrollment Degree Programs.

**Table 1: 2001 Status Report on Low-Demand Degree Programs**

<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>EXEMPTED PROGRAMS</th>
<th>2001 STATUS</th>
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<tr>
<td>Adams State College</td>
<td>Chemistry (BA/BS)</td>
<td>No change to exemptions</td>
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<tr>
<td></td>
<td>Music (BA)</td>
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<td></td>
<td>Spanish (BA)</td>
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<td></td>
<td>Speech-Theatre (BA)</td>
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<td></td>
<td><strong>CLOSED PHYSICS</strong></td>
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<td>Colorado School of Mines</td>
<td>Geophysical Engineering (PE)</td>
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</tr>
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<td></td>
<td>Geological Engineering (PE)</td>
<td>Chemistry BS</td>
</tr>
<tr>
<td>Colorado State University</td>
<td>Bio-Agricultural Science (BS)</td>
<td>No change to exemptions</td>
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<tr>
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<td>Bio-resource/Agricultural Engineering (BS)</td>
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<td>Engineering Science (BS)</td>
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<td>Fort Lewis College</td>
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<td>Philosophy (BA)</td>
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<td>Physics (BA)</td>
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<td>Southwest Studies (BA)</td>
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<td>Metropolitan State College of Denver</td>
<td>African American Studies (BA)</td>
<td><strong>REQUEST FOR THREE-YEAR EXTENSION</strong></td>
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<td>Surveying and Mapping (BS)</td>
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<td>Chicano Studies (BA)</td>
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<td>Physics (BA/BS)</td>
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<td>University of Colorado at Colorado Springs</td>
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<td>Merged with Mathematics –</td>
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<td>Physics (BS)</td>
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<td>Spanish (BA)</td>
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<td>Additional programs below benchmarks</td>
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<td>Allied Health Economics</td>
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<td>University of Colorado at Denver</td>
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<td>University of Northern Colorado</td>
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<td>Mexican American Studies (BA)</td>
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<td>University of Southern Colorado</td>
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TOPIC: PROPOSED CHANGES TO CAPITAL ASSETS POLICY CONCERNING RENOVATION OF FACILITIES

PREPARED BY: JEANNE ADKINS AND LAUREEN FERRIS

I. SUMMARY

The program plan review process outlined in the Commission’s policies lends itself well to assessment of new capital construction. However, its relevance to renovation of – particularly extensive renovation and remodeling – existing facilities is less workable. Cost overruns are more likely for these projects than other types of capital projects. Unexpected construction problems crop up for these projects more frequently. To address the issue, staff has evaluated current practice and statute in an effort to determine whether renovation projects should proceed in a different manner.

II. BACKGROUND

Commission policy has treated both new construction and old construction similarly in terms of program plan requirements. The requirements within Policy E that apply to new construction are not applicable to major renovation and remodeling projects.

For example, policy requires an assessment of academic program growth that is quite extensive for both renovations and new construction now. While easily justified when examining whether new space should be constructed, the renovation of existing space assessment is more difficult. Asking the institution to spend resources in this arena is unproductive when the real reason for forwarding the program plan has less to do with academic program growth than with the obsolescence of the building itself and a need to upgrade the building systems – an ultimate need for every building in a campus inventory.

A second issue – but no less important in staff’s view – is the need to have an accurate assessment of costs that is more realistic than past program plan cost estimates for renovation projects. Past practice indicates initial estimating on these projects is far less accurate than for new construction and that cost overruns – sometimes significant – are not the exception.

III. STAFF ANALYSIS

Renovation and remodeling projects often involve working with the existing exterior of a building. However, frequently the renovation does not just include mechanical system replacement. Technology adaptations for classroom use are just one area where renovations in recent years have become more complex. Adapting old mechanical systems to new technology system needs has resulted in significant costs on some projects.
Another factor contributing to cost overruns in staff’s view is the timing of building assessments and third-party reviews of the projects.

While it may be appropriate to wait until a program plan is actually in design stage for a third-party review on a new project, that delay on a renovation project can cost valuable time and result in necessary changes that add to the bottom line cost of the overall project. Accurate condition assessments, including core sampling if relevant, are crucial to renovation decision-making for both the Commission and the General Assembly.

In discussing several past examples where these issues have resulted in significant cost overruns – a UCCS project in the current year, a UNC project just being completed, for example – staff believes a separate process for program plan reviews on renovation projects would actually benefit the institutions and provide the institution, governing board, the Commission and the General Assembly with more accurate information about these projects.

In some cases, for example, the institution, governing board and Commission might choose not to forward a renovation project because the economics of the project are not justified. Instead, demolition and a new building might be more appropriate. Or, if that decision is not economically appropriate, the decision may be to do minor work to extend the life of the facility before a major project is undertaken. Current procedures make realistic assessment of the cost of the projects difficult.

Discussions have resulted in a proposal for a new policy in this area that would involve the following changes to the program plan process for proposed renovations. First, a building assessment is mandatory in staff’s view for any renovation estimated to cost more than $500,000. The greater the extent of the renovation proposed, the more important the upfront building assessment is in the evaluation of the project. Without that information staff contend that too many unknowns exist for the Commission to assess whether the project is justified financially.

At a meeting mid-March, institutional representatives objected to the additional costs they perceive the more complete facility condition review will entail. Several institutions suggested a threshold for size – based on the value of the building and the proportionate cost of the renovation project. There is some validity in picking a threshold above which all renovation projects must include an upfront building condition assessment. However, that threshold should not be set too high. Staff has inserted language in the policy but has not recommended a threshold figure pending commission discussion of this issue and options.

Cost estimates on renovation of the facility are simply guesses until the building assessment provides the actual information for the architecture and design team to determine what structural changes are necessary. Depending on the age of the building, lack of a thorough upfront assessment can result in failure to build in sufficient resources to mitigate hazardous materials. Unknown site and foundation issues can add to the cost. Finally, the true ability to actually accomplish the desired renovation – particularly if the facility is a historic structure – cannot accurately be determined without this assessment.
Staff believes the institution should invest resources not in a program plan as it would for
a new building where it assesses and programs new space, but rather in an in-depth
building condition assessment. That will require a similar financial investment, but
targeting this investment in this manner should result in better, more accurate information
to determine whether the project should proceed. It should also limit significant project
cost overruns.

Several institutions prefer the program plan approach to the concept paper. However,
staff continues to believe the substitution of the concept paper – which can be prepared
by internal staff eliminating hiring an external contractor – is a more efficient option for
most renovation projects. The exception is those renovations that anticipate changing all
or the majority of uses within a facility. In effect, the institutions would exchange the
investment in expansive program plan requirements for these types of projects

These changes will require the institution to have a clear idea of what must be
incorporated in its renovation to meet programming needs as it requests the assessment
and prepares it for submission.

Two other objections have been voiced by institutions:

1. The requirement that for renovation projects the same consulting
architect/engineering firms provide the initial assessment and carry through on the
ultimate project, and
2. The requirement for independent third-party reviews.

Both are issues staff believes strongly should not be eliminated from the policy for
several reasons. First, the statutory rationale for program plans is to provide the
legislature with a clear blueprint of what the institution intends to construct or renovate
and how that facility will be used. It is not designed to paint a pretty picture to gain
funding and then determine the details of form and function. Legislative history
documents more than one final building project that does not resemble the initial project
outlined in the program plan.

This is particularly true, however, when examining renovation projects. Clearly in
looking at original program plans, a different concept was presented than the second
architect developed. That devalues the initial investment. It also eliminates the first firm’s
accountability for its cost estimates. Finally, it makes the program plan merely window-
dressing to get the funds. The project is then designed to the funding available rather than
to the need outlined.

As for the independence of third-party reviews, the objections come from Mines, the CU
system and the State Board of Agriculture. All three entities use employees to conduct
the third-party assessments. All other institutions provide independent third-party
reviews.
Staff contend the statutory intent is clearly independence of the reviews. An independent review is designed to assess the validity of the assumptions initially made, determine whether the cost estimating is reasonable and to assess whether the initial program developer was diligent in completing the plans. It is to serve as a check and balance. As long as it is required by statute, staff believes these assessments should be completed by an independent firm/individual who serves as the external check.

The statutory requirement for the reviews is found in 24-30-1303 (1)(r). It reads in part: “Promulgate rules for independent third-party review of facility program plans, schematic design, design development and construction documents to assure compliance with appropriate building codes, approved construction standards, and the appropriations and to assure the review of cost estimates prior to authorization of the calling of bids . . .” The statute anticipates these checks and balances several times in the construction/design process.

The majority of changes to the policy attached are located in section 4.

IV. **STAFF RECOMMENDATION**

That the Commission adopt the policy changes proposed in Capital Assets Policy Part E at its April 2001 meeting.
STATUTORY AUTHORITY

By statute, the commission must review and approve all facilities program plans for each institution. C.R.S. 23-1-106 (3) and (5) read:

(3) The commission shall review and approve master planning and program planning for all capital construction projects of institutions of higher education on state-owned or state-controlled land, regardless of the source of funds, and no capital project shall commence except in accordance with an approved master plan, program plan and physical plan.

(5) The commission shall approve plans for any capital construction project at any institution, including a community college, regardless of the source of funds; except that the commission need not approve plans for any capital construction project at a local district college or area vocational school. The commission may except from the requirements for program and physical planning any project which will require less than five hundred thousand dollars of state moneys.
SECTION III

PART E GUIDELINES FOR FACILITIES PROGRAM PLANNING

1.00 General Provisions and Policies

1.01 State-Level Capital Construction Decision-Making
The CCHE Instruction Manual for Higher Education Facilities Program Planning and Budgeting distinguishes two major phases of state-level decision-making.

A. A Facilities Program Planning Review Phase to determine the appropriateness, necessity, and sufficiency of the project with respect to institution programs, applicable State policies, plans and standards, and consideration of alternative actions and timetables.

B. A Construction Budget Priorities Review Phase to determine the relative urgency and impact of state investments with respect to state-wide higher education system priorities.

1.02 Capital Construction Program Documents and Decision-Making
The Long Appropriation Act capital construction headnote policies define the scope and content of the planning documents required for facility appropriations.

A. Master Plans analyze institution-wide programs, RELATING ACADEMIC PROGRAMS WITH facilities REQUIREMENTS AND TECHNOLOGY OBJECTIVES IN CONJUNCTION WITH, the effectiveness of institution-wide space utilization, and the match between academic program and necessary physical facilities (based on objective standards), and recommend at least a five-year projection of capital construction needs.

B. Program Plans for specific improvement projects analyze the amounts, types, and relative locations of space required AND/OR FACILITY SYSTEM UPGRADES OR REPLACEMENT for current and projected programs (as determined by accepted State space standards), and define program and cost elements.

C. Physical Plans include architectural and engineering services that detail the development stages of the project INCLUDING DIAGRAMMATIC SKETCHES INDICATING VERTICAL AND HORIZONTAL SPATIAL RELATIONSHIPS.

College and university campus facility master plans and facility program plans are reviewed and approved by CCHE, with the technical assistance of the State Buildings Program on matters of construction standards compliance, appropriation compliance, and operating/life-cycle cost studies, INCLUDING TIMING AND FUNDING SOURCES FOR FUTURE CONTROLLED MAINTENANCE REQUIREMENTS.
1.03 General Policy and Capital Construction Decision-Making
Evaluations of Facility Program Plans should be addressed at two levels of decision-making:

A. Governing Boards
   - Conformity with institution master plan and academic AND TECHNOLOGY program plans;
   - Evidence of relevant educational program benefits;
   - Assurances that operating and capital costs are appropriate to educational programming and sources and methods of financing;
   - Consistency with Campus 5-year capital improvements program schedule.

B. Commission on Higher Education
   - Consistency with CCHE State Master Plan -- role and mission; academic, FACILITY, AND TECHNOLOGY planning goals; state higher education policy;
   - Consistency with campus facilities master plan and academic master plans;
   - Consistency of space utilization with CCHE guidelines, campus physical master plan space allocations;
   - Alternative facilities solutions and life-cycle costs as required by CCHE;
   - Appropriateness of source of funds, cost estimate methods, financing implications for life-cycle of construction as required, operations, and maintenance at projected enrollment increments.

Governing boards shall provide documentation with facility program plans to assure the Commission that academic and facilities programming decisions, operating and capital budgeting decisions, and alternative sources of financing have been evaluated at the highest policy levels.

1.04 General Procedures for Capital Construction Program Planning
Facility program plans are the core element of the capital construction decision-making process. They provide full disclosure of specific planned actions, a longer-range context of operating and capital budget decisions, and a schedule for implementation of the space requirements of educational programs. They are derived from the institution's long-range facilities master plan projections of needs and provide a broad range of specific policy, program, facility, and financing information for approving and implementing a specific capital construction decision.

Each institution of postsecondary education supported in whole or in part by state funds will prepare a specific facility program plan for each of the major projects for which financing
will be sought in the ensuing fiscal year, regardless of the source of funds. The Commission may exempt from the statutory requirements of program planning and physical planning specified categories of capital construction in which no project will require more than $500,000 of state funds. Facilities to be financed through the Colorado Postsecondary Educational Facilities Authority must be approved by the Commission and the General Assembly.

Facility program plans must be approved if the projects are to be recommended by CCHE for funding in the ensuing fiscal years. Establishing funding priorities is, however, a separate process from approval of facility program plans.

1.05 Energy Conservation and Controlled Maintenance Projects
Colorado statute does not define energy conservation measures and controlled maintenance purposes as within the scope of capital construction projects that shall be reviewed and approved by CCHE. Proposals for Controlled Maintenance and Energy Conservation measures will be submitted directly to the State Buildings Program.

1.06 Unimplemented Facility Program Plans
Corresponding with a 1982 Commission policy requiring periodic review of facility program plans that are unfunded after the long bill is adopted, the Commission asks that the following conditions be met before program plans are resubmitted for consideration in the next funding cycle:

A. The campus facility staff must submit an executive summary demonstrating the plan meets the following criteria:

- The plan’s space use assumptions have not changed, incorporating information on completed new construction and renovation since the original submission;
- The plan’s education and enrollment assumptions remain valid, reflecting any changes from the previous year in enrollment and degree or program offerings;
- That capital costs remain valid and that any unusual construction issues resulting from the delay have been addressed;
- That new code requirements will be met and that cost estimates are appropriately adjusted to reflect any changes.

B. The governing board has re-evaluated the project and indicated it will retain its original priority or that it has been reprioritized.

\[\text{Footnotes:}
\begin{align*}
1\text{23-1-106(5), C.R.S., as amended} \\
2\text{23-15-107(3); 23-15-115(1)(b), C.R.S.} \\
3\text{24-30-13-1(1), C.R.S.}
\end{align*}\]
If the project remains unfunded three years after its original submission, the governing board will be asked to withdraw the plan and to re-evaluate the project.

2.00 Facility Program Planning -- Document Preparation Guidelines
The CCHE guidelines for the preparation of facility program plans have been coordinated with revisions to the State Buildings Program guidelines for facility program planning by non-higher education agencies. These coordinated revisions emphasize the integration of master plan policies, educational programming and capital facility decisions.

CCHE guidelines address the following categories of capital asset decisions:

- the remodeling/renovation of functionally obsolete space;
- the expansion of an existing facility or construction of all new facilities, or acquisition of real property;
- major instructional or scientific equipment purchases, defined as capital construction, pursuant to statute;
- utilities and site improvements;
- rental of off-campus space for any purpose.

2.01 Application of the Guidelines

The program planning guidelines provide a "point of departure" for judgments about the appropriate scope and content of information needed for a capital investment decision.

Formats provided are guidelines to assist in the preparation and presentation of planning data important to the state-level review and approval of facility program plans. The information upon which the facility program plan and budget decision is based directly affects:

- capital investment funding priorities (CCHE, Governor, Legislature);
- appropriations (long bill); and
- architectural/engineering design and construction (State Buildings Program).

State statutes direct the consistency of architectural/engineering plans with CCHE approved facility program plans.

2.02 Acquisition of Real Property
Acquisition or utilization of real property that is conditional upon or requires expenditure of state-controlled funds or federal funds is subject to the approval of the Commission. The application of the guidelines is as follows:

- **Financial Analysis (For Self-Funded, Revenue Bonded, Long-Range Lease Financed Projects or Real Property Acquisition)**

  [Note: If the project is a Cash Funds financed facility or is financed through the Colorado Postsecondary Educational Facilities Authority, a financial analysis is necessary, pursuant to CCHE Policies for Self-Funded Capital Construction (Section III, Part Q).]

- **Lease-Purchase Acquisition of Real Property**

  [Note: Lease-purchase agreements to acquire real property from state appropriated moneys, or funds donated for that acquisition purpose, are subject to legislative authorization by a separate bill enacted by the General Assembly (24-82-102, C.R.S.).]

### 2.03 Exemptions

The Commission may exempt from the statutory requirements of program planning and physical planning any capital construction project that will require less than $500,000 of state moneys. The campus Chief Executive Officer or designee should submit a Request for Exemption and a Capital Construction Budget to the governing board staff and to CCHE staff. The Request for Exemption shall specify the educational program nature and scope of the proposed project, the relationship to the institutional master plan, and the facilities to be altered or constructed. If the project is a part of a phased project to be completed in future years or if it complements or completes an earlier project, the total scope of the project should be identified.

### 3.00 Facility Program Plan for Capital Construction Projects

#### 3.01 Policy Requirements

All colleges, universities, and other agencies in the Department of Higher Education shall prepare facility program plans as required by CCHE Policies III - Capital Assets, Part E.

Projects or facilities requiring program plans include:

- facilities to be financed using any state capital construction funds, excepting projects defined solely as controlled maintenance and/or energy conservation projects;

- facilities financed through the Colorado Postsecondary Educational Facilities Authority;

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423-1-106(8), C.R.S.

523-1-106(5), C.R.S., as amended.
facilities financed by student fees, auxiliary funds, cash funds, research revolving funds, gifts, grants, bequests, or any other sources of funds; and

acquisition or utilization of real property by lease, lease-purchase, or rental that is conditional upon or requires expenditures of state controlled, federal funds, or other funds identified in 2.02 above.

### 4.00 Description of Program Plan Format Requirements

**Preface and Summary**

1. Brief abstract of scope, justification, relation to institutional master plan, future considerations, project cost and schedule, suitable for use as an executive summary.

2. Describe process used to develop the facility program plan. Describe the management decisions made by the institution and the governing board that assure the plan is appropriate to current institutional mission and sources of financing.

### 4.01 Program Information - NEW PROJECTS

1. **Description of STANDARD Program PLAN – NEW BUILDINGS, FACILITIES**
   A concise statement describing the educational program related to this Facility Program Plan, including educational program objectives and accreditation standards.

2. **History, Role and Mission, Unique Program(s)**
   A short statement of the educational program history and the relationship to the approved role and mission, and to unique degree programs.

3. **Program Needs and Trends**
   Describe annualized five-year history and campus enrollment projections causing the qualitative and quantitative needs for construction or acquisition of this space. (Appendix: CCHE Table C-2a Enrollment Trends). Emerging and changing enrollment composition and educational requirements should be analyzed and long-range resource requirements developed. Establish a general schedule for accommodating changing conditions.

4. **Relation to Academic or Institutional Strategic Plans**
   Show relationship of this program to institutional academic plan(s) or strategic plan(s).
5. **Relation to Other Programs or Agencies**
   Show the relationship of this program to any applicable federal, state, and/or community program(s)/plan(s).

6. **Existing Programmatic/Operational Deficiencies**
   Describe the programmatic or operational deficiencies that justify the need for this project. This should be coordinated with the enrollment trends. The discussion should establish the relationship of specific educational and facilities space management issues, by organizational unit, to be resolved by the program plan.

7. **Program Alternatives**
   Summarize the findings of the program analyses of alternative teaching modalities, class section size, educational technology, new equipment, off-campus resident instruction and other program delivery factors affecting educational program life-cycle operating costs and space programming for this capital investment decision. Evaluate the educational program delivery alternatives in terms of such factors as cost, quality, and results. Estimate the relative life of the educational program before additional capital investments are likely to be needed.

4.01.01 **Facilities Needs**

1. **Total Space Requirements**
   Establish existing and five-year space planning assumptions and program size data from curriculum and student load projections and station utilization rates. Space requested should be justified, by category, based on the applicable CCHE guidelines. Should the program planning indicate a need for modified utilization criteria, appropriate justification should be provided. This analysis should show the total impact of net space utilization, campus-wide.

   If the project is only a part of a phased larger project to be completed in future years, or if it complements or completes an earlier project, the ensuing total scope of the project must be fully disclosed.

   After detailed space planning has been completed, summaries of space requirements, by program and by space category, should be included in the program plan (Appendix: CCHE Table C-1a Plan Summary, Total Space Requirements and Table C-1b, Summary, New Space Growth). If significant deviations from the Facilities Master Plan occur as a result of this study, the Facilities Master Plan may need revision and reapproval; consult with CCHE.

   Provide conceptual floor plan and bubble-diagrams illustrating the interaction and working relationships between and among the different spaces. Summarize the organization of the proposed new spaces by
functional areas, spaces shared by different organizational units, and spaces that will be used exclusively by specific organizational units. It is recognized that program plans are early conceptual solutions to the problems described in the plan. In that context, the gross square footage in the final design may be within 5 percent of the gross square footage in the program plan.

2. Unique or Special Features
Describe any unique or special facility features required to accommodate the program. Identify the criteria used to justify these needs.

Describe any facility operational problems, code, or health/life safety deficiencies, which must be addressed at this time.

Sufficient explanation must be given to provide a clear understanding of the necessity (or desirability) of the code and accessibility issues, special features, environmental controls, and security requirements.

4. Site Requirements
Summarize the pedestrian/vehicular access, topography, soils condition, surface and subsurface drainage, vegetation, and utility system requirements that impact the cost or design of the project. This information may be summarized from the Long-Range Facilities Master Plan.

5. Equipment Requirements
Briefly summarize the fixed and movable equipment to be relocated, replaced and purchased for occupancy of the new facility. List each new movable equipment item having a unit cost in excess of $50,000. Movable equipment items, which are desirable, but not essential to current program accreditation, shall be so identified.

6. Acquisition of Real Property
Lease-purchase agreements to acquire real property from state appropriated moneys, or funds donated for that acquisition purpose, are subject to legislative authorization by a separate bill enacted by the General Assembly (24-82-102, C.R.S.).

7. Existing Facilities
If the project includes expansion or remodeling of an existing facility, include diagrammatic floor plans of the facility (Appendix: CCHF Condition Survey Guideline for Existing Buildings/Renovation of Facilities or facility audit summary). Provide a description of the general condition of
8. Previous Improvements

If the project includes expansion or remodeling of an existing facility, describe major prior capital construction and controlled maintenance improvements.

Indicate which controlled maintenance projects are included within the scope of this capital improvements project. (Appendix: CCHE Schedule C Building Cost Record)

4.01.02 Project Description

1. A statement of the intended facility improvements resulting from implementation of the Facility Program Plan, stated in terms of specific CCHE space utilization criteria and applicable codes and standards.

Develop scope of work statements for the physical systems and physical environment requirements to accommodate the program(s), including meeting all applicable standards and codes.

2. INCLUDE diagrammatic plans or sketches may be used to help describe the proposed project.

3. Project Cost Estimate

Show the estimated cost for this project, consistent with the OSPB Budget Procedures. Indicate the methods used to determine cost estimates. Document the cost estimating data source for material and labor costs.

Identify the type and estimated costs of any new and replacement movable equipment needed to operate the program(s) upon completion of this project. Identify the educational program cost effects of delaying the real property acquisition or facility construction time beyond the period considered for initial occupancy.

Identify any changes in operating budget needs resulting from the capital improvement project. Disclose the revenue sources and amounts to annually fund the changes in facility operating costs.

4. Life-Cycle Cost Analyses (when required by CCHE)

Include analyses of life-cycle owning and operating costs for all relevant alternatives considered. The analyses shall be performed according to the methods included in ASTM E917-89, Standard Practice for Measuring Life-
Cycle Costs of Buildings and Building Systems. Include all costs for each alternative, not just cost differentials. Show all interest rates, unit costs, terms, capital repair cycles, etc., in sufficient detail to clearly show all assumptions.

5. Financial Analysis
Describe source(s) of funds including capital construction appropriations, cash funds, bond proceeds, gifts or bequests, or lease/purchase arrangements.

For projects that are self-funded, revenue bonded, lease purchased, or lease financed, provide a financial analysis, including interest rates, length of term(s), repayment schedule(s), and source(s) of repayment funds. The analysis also shall include a discussion of the institution's debt structure and the impact of this project on that structure.

If the project is a Cash Funds financed facility or financed through the Colorado Postsecondary Educational Facilities Authority, a financial analysis is necessary, pursuant to CCHE Policies for Self-Funded Capital Construction (Section III, Part Q).

If the project includes receipt of gifts and bequests of money or property which directly or indirectly involves significant ongoing expenditures (23-5-112 C.R.S.), an endowment sufficient to fund such expenses may be required; consult with CCHE for approval of an exception.

Financial documentation should conform to the budget instructions issued for the funding year. It is recognized that program plans are early conceptual solutions to the problems described in the plan. In that context, the final cost estimate after completion of construction documents may be within 10 percent of the cost estimate in the program plan.

At the time the program plan is submitted for funding, all capital construction budget request documents must be completed. See the annual instruction for capital construction budget requests.

6. Project Schedule
Identify the project's relation to or dependence upon other current or future master plan designated capital improvement projects.

Identify the relative urgency for funding the project. Describe the consequences of delayed spending authorization and provide documentation as applicable. This should include a risk management analysis, if applicable.
Estimate the schedule to complete the physical planning, bidding construction, and equipment phases for occupancy. Describe the construction management process that impacts project phasing.

4.01.03 Relation to the Master Plan/Other Projects
Describe the relation of the project to the Facilities Master Plan, academic use zones, space inventory, and space projections. References should be made to the pertinent portions of the master plan. Describe any programmatic elements or space allocations that are at variance with the current Facilities Master Plan.

Describe the appropriateness, necessity, and sufficiency of the implementation of this project on the achievement of specific Institutional Master Plan policy objectives.

Describe how this project relates with other current or previous five-year capital investments in the same programmatic area. Describe how this project fits into the five and/or ten-year capital project projections.

If the educational program to be accommodated is now in a facility proposed to be vacated, briefly discuss plans for that facility and any resultant series of relocations. The proposed reuses or new uses of each facility affected by the educational program should be summarized, including the relationship of such uses to the Facilities Master Plan. When programming an initial portion of a new facility, the basic phasing concept should be explained here. Additionally, provide a conceptual cost estimate for the subsequent series of relocations or proposed reuses.

4.01.04 Facilities Alternatives
Summarize alternate facilities solutions considered, including (as appropriate) lease/rent, real property acquisition, construction, and relocation, with cost analysis conclusions, indicating the best use of institutional or community shared resources. Operating costs, as well as space efficiency, should be considered. Explain contingency plans for operating the program in the event that capital construction funds are not approved.

Construction of a new facility in excess of 20,000 gross square feet should include costs analyses of phased construction, including assumptions about projected cost increases.

4.01.05 Appendices
Other supporting data should be included in the appendix. A map should be included to indicate the locations of the project.
1. Append such supporting documents, as appropriate, to establish approvals from other federal, state, or community agencies having jurisdiction over any aspects of the project. Examples may include hazardous waste management, hazardous emissions, ditch company easements, zoning authorities, etc.

2. Master Space Scheduling Guidelines, Policies, and Procedures (Complete this section if significant additional classroom space will result from construction).

3. Room Utilization Addendum
   This section should detail room scheduling and station utilization rates, by course, as they relate to the facility being programmed. Data showing room sizes, weekly room contact hours, hourly room use, average section sizes, and percent of station use should be appended.

4. Life-Cycle Owning and Operating Cost Analyses
   This section should include the detailed life-cycle cost analyses for all alternatives considered for the project if required by CCHE.

5. Library Projects
   For projects exceeding $650,000, additional information is required for the expansion, construction, or the remodeling/renovation of functionally obsolete library space. (Reference CCHE Library Space Planning Tables L-1 through L-9 for analysis format and content.

6. Independent Third-Party Review
   Include the report from the independent third-party review required by CRS 24-30-1303(1)(r). This review MUST be completed before final governing board approvals of the program plan.

7. Student Demographics (may not be required for projects under $2,000,000 if described in Section 2)
   - Enrollment Trends for campus and institution
   - Class/Lab Information

4.02 **PROGRAM INFORMATION – RENOVATION, REMODEL PROJECTS**
   Institutions renovating or remodeling existing facilities should provide a concept paper briefly outlining its project goal to the Commission. No program plan is required for these projects.

4.03 **CONCEPT PAPER FOR BUILDING RENOVATIONS**
   A concept paper should include the following summary information:
   1. An outline of the academic program using the facility;
   2. Whether renovation encompasses exterior-interior space additions;
3. WHETHER ANY ACADEMIC PROGRAM EXPANSION OR NEW USES ARE CONTEMPLATED;
4. WHETHER OFFICE/SERVICE SPACES ARE FOR SPECIFIC PROGRAM OR GENERAL USES;
5. AN ASSESSMENT OF THREE ALTERNATIVES AVAILABLE TO ADDRESS THE NEED;
6. WHETHER THE EXISTING MASTER PLAN CONTEMPLATES THE PROJECT AND WHICH PLAN NEEDS ARE MET;
7. THE FACILITY AUDIT ON RECORD WITH THE OFFICE OF STATE BUILDINGS INDICATING THE FACILITIES CONDITION INDEX OF THE BUILDING(S);
8. A LIST OF CONTROLLED MAINTENANCE PROJECTS OF RECORD WITH STATE BUILDINGS DIVISION FOR THE FACILITY, INCLUDING CURRENT FUTURE CONTROLLED MAINTENANCE PRIORITIES THAT WILL BE INCORPORATED WITHIN THE PROJECT. THE ASSESSMENT SHOULD INCLUDE THE DOLLARS SAVED IN FUTURE MAINTENANCE AS A RESULT OF PROJECT APPROVAL;
9. FUNCTIONAL AREAS IMPACTED BY ANY PROPOSED REMODEL, RENOVATION OR DEMOLITION AND AN ASSESSMENT OF WHETHER RELOCATION COSTS WILL BE NEEDED FOR EXISTING OCCUPANTS;
10. IF PROJECT ANTICIPATES TOTAL RE-SURFACING OF AN HISTORIC BUILDING OR RESTORATION, SUBMIT A SUMMARY OF PROPOSED BUILDING MATERIALS;
11. A PRELIMINARY INVENTORY LIST OF PLANNED SPACES, AND A BASIC DESCRIPTION OF TECHNOLOGIES.

4.04 BUILDING CONDITION SURVEY

WHEN AN INSTITUTION CONTEMPLATES RENOVATING ___ PERCENT OF AN EXISTING FACILITY OR MORE, A BUILDING CONDITION SURVEY MUST BE INCORPORATED WITHIN THE PROJECT REVIEW AND SUBMITTED WITH EITHER THE PROGRAM PLAN OR THE CONCEPT PAPER.

1. DESCRIPTION OF BUILDING CONDITION

PRIOR TO THE APPROVAL OF ANY RENOVATION, REMODEL PROJECT, THE INSTITUTION SHALL SUBMIT AN EXISTING CONDITION SURVEY ASSESSMENT COMPLETED BY A QUALIFIED THIRD-PARTY ARCHITECT OR ENGINEER NOT DIRECTLY EMPLOYED OR RELATED TO THE INSTITUTION FOR ANY EXISTING BUILDING(S) AFFECTED.

2. EXISTING CONDITION SURVEY ASSESSMENT

THE EXISTING CONDITION SURVEY SHOULD ASSESS THE FOLLOWING ISSUES:

A. OVERALL SITE SURVEY: ADDRESS ANY EXISTING HISTORIC SITE ELEMENTS. LIST ANY SITE CONDITIONS THAT CONTRIBUTE TO THE EXISTING STABILITY OF THE BUILDING THAT MIGHT AFFECT THE PROPOSED BUILDING ADDITION.

B. BUILDING ENVELOPE: ASSESS THE CONDITION AND POSSIBLE RESTORATION NECESSARY FOR EXTERIOR WALLS, WINDOWS, DOORS, ROOFING, WATERPROOFING SYSTEM AND FOUNDATIONS.
C. STRUCTURAL SYSTEM: DISCOVERY SHOULD DOCUMENT THE EXISTING STRUCTURE. IF HISTORIC CONSTRUCTION DOCUMENTS ARE UNAVAILABLE, AN ENGINEER SHALL REVIEW THE EXISTING STRUCTURE AND ESTIMATE LOADING CONDITIONS AND THE APPROPRIATENESS FOR THE PLANNED USES FROM A CODE STANDPOINT. IF THE EXISTING STRUCTURAL SYSTEM IS NOT VIABLE, THE BEST METHOD FOR AN ACCEPTABLE STRUCTURAL SYSTEM SHOULD BE PROVIDED. REVIEW ALL EXISTING INTERIOR STRUCTURAL ELEMENTS – FLOOR/ROOF SYSTEMS, BEARING WALLS, FOUNDATIONS AND VERTICAL SUPPORT SYSTEMS.

D. BUILDING SYSTEMS: AN ENGINEER SHALL EVALUATE EXISTING SYSTEMS – MECHANICAL, ELECTRICAL, PLUMBING, FIRE ALARM AND ANY EXISTING TECHNOLOGY – TO ASSESS THE NEED FOR FULL OR PARTIAL REPLACEMENT.

4. FINANCIAL REPORT
   IN CONJUNCTION WITH THE CONCEPT PAPER, THE INSTITUTION SHOULD SUBMIT A PRELIMINARY PROJECT COST ESTIMATE THAT INCORPORATES ITS REQUEST FOR THE TOTAL PROJECT BASED ON THE THIRD-PARTY ASSESSMENTS OF THE BUILDING CONDITION AND ITS ESTIMATED ARCHITECTURAL AND ENGINEERING COSTS. INCLUDE PROJECTED SOURCES OF FINANCING – INCLUDING FUND-RAISING POTENTIAL, GRANTS AND/OR GIFTS ALREADY COMMITTED. ALSO NOTE ANY POTENTIAL HISTORIC PRESERVATIONS FUNDS AND/OR WHY SUCH FUNDING HAS OR HAS NOT BEEN INCLUDED.

5. CONTINUITY OF PROJECT CONSULTANTS
   CONSULTANTS SELECTED FOR THIS INITIAL PHASE SHOULD BE CONSISTENT THROUGHOUT THE PROJECT CONTINGENT UPON A POSITIVE PERFORMANCE EVALUATION BY THE INSTITUTION AT THE END OF THE PHASE 1 PROCESS. THE CONCEPT OF CONTINUITY IS IMPORTANT TO ALLEVIATE DUPLICATION, CREATE MORE OWNERSHIP IN THE PRELIMINARY ASSESSMENT PROCESS, AND REDUCE THE POTENTIAL FOR ADDED COSTS RESULTING FROM DIFFERENT PROJECT VISIONS FROM ONE PHASE TO ANOTHER. IF THE INSTITUTION CHOOSES NOT TO FOLLOW THIS PROCEDURE, AN EXPLANATION SHOULD ACCOMPANY THE CONCEPT PAPER.

6. APPROVAL FOR ARCHITECTURAL AND ENGINEERING FUNDING REQUEST
   FOLLOWING SUBMISSION OF THE INFORMATION IN LIEU OF PROGRAM PLANNING, THE COMMISSION MAY CHOOSE TO FORWARD THE INSTITUTIONAL REQUEST TO THE GENERAL ASSEMBLY AND THE OFFICE OF STATE PLANNING AND BUDGET RECOMMENDING FUNDING OF UP TO ___% OF TOTAL ESTIMATED ARCHITECTURAL AND ENGINEERING FEES TO COMPLETE THE SCHEMATIC DESIGN PHASE OF THE PROJECT. APPROVAL OF THIS PHASE DOES NOT CONSTITUTE FINAL PROJECT APPROVAL BY THE COMMISSION.

7. FINAL PROJECT APPROVAL
   FOLLOWING COMPLETION OF SCHEMATIC DESIGN, THE COMMISSION WILL REVIEW THE BUILDING EFFICIENCIES AND PROGRAMMING ELEMENTS PROPOSED AS WELL AS
THE ESTIMATED COSTS FOR COMPLETING THE PROPOSED RENOVATION/REMODEL OR ADDITION. THE COMMISSION WILL THEN DETERMINE WHETHER TO FORWARD THE PROJECT FOR COMPLETION OF THE DESIGN PHASE AND CONSTRUCTION.

Note: No changes in the remainder of this policy are proposed with the exception of renumbering should the above changes be approved, so the remainder of the policy is not printed.
I. SUMMARY

Commission staff is forwarding these policy changes to Section III, Part D, Guidelines for Long-Range Facilities/Infrastructure Master Planning, and the proposed Technology Master Plan policy addition to the Commission for discussion and action in April. An initial draft of the policy was provided in March.

II. BACKGROUND

The intent of the policy changes was listed in a memorandum given to all representatives at the January 29, 2001, Capital Construction Advisory Committee meeting. Institutional representatives were asked at the meeting to review the master planning guideline and recommend other ways the guideline can be revised to make the resulting facilities master plans more useful to the institutions and to CCHE.

A subsequent meeting to review a second draft of the policy was Thursday, March 22, with the majority of institutions and governing boards represented. A review of the changes in the policy was conducted and a number of suggestions for language changes and questions on ultimate implementation were discussed.

While the master planning guidelines were being revised, CCHE staff also integrated additional references on Information Technology strategic decision-making. Those policy additions generally are reflected beginning with Section 34.00 of the revised policy.

III. STAFF ANALYSIS

The suggested revisions in the master plan policy are intended to accomplish the following objectives:

- Better integrate facilities master planning with academic and information technology decision-making;
- Better integrate facilities master planning with governing board system planning and decision-making;
- Remove all references to enrollment maximums at institutions due to statutory changes;

- Require an institution to draw conclusions from the institutional data it compiles that will guide facilities master planning;

- Emphasize the need to improve space utilization before new buildings are planned;

- Encourage institutions to better maintain and update existing buildings and make them more functional before building new ones when it makes economic sense;

- Remove outdated references, such as those concerning comparative costs for building multilevel and ground parking lots in 1973;

- Elimination of tables and mandatory references to modeling, allowing institutions to use the most effective modeling for their respective size; making the tables optional and available at an institution’s request, and

- Elimination of mandatory staff conferences and preliminary staff approval of segments of the master plan, since the Commission, not staff is statutorily responsible for review and approval.

The revisions are being proposed as a result of staff review of several master plans since 1999. Staff discovered that the master plan documents resulting from the current guidelines failed to indicate the conclusions institutions drew from the compilation of institutional data. The plans also failed to show how facilities plans responded to annual academic updates and information technology planning. In addition, the plans seldom made any reference to how the facilities planning implemented goals and priorities of the governing boards.

Viewed in one way, the Guidelines for Long-Range Facilities/Infrastructure Master Planning can be seen as advocating construction of new facilities over better utilization and updating of existing facilities. The revisions attempt to correct this by emphasizing better utilization of existing buildings and continued upkeep and updating of existing facilities (when it makes economic sense) before recommending new facilities.

This does not foreclose new construction, but places decision-making on new construction within the broader context of governing board academic objectives and institutional objectives. It balances the need to address new program needs with the state’s interest in protecting its existing facility investments.

Other changes are to update the guideline itself, which was last revised in 1987. Therefore, outdated references to the relative costs, circa 1973, of building surface parking lots versus multilevel parking structures were removed, as well as references to
maximum enrollments at each institution. Maximum enrollments were removed from statute some time ago.

The building inventory sections of the policy have been retained for the time being. However, the Capital Development Committee has directed CCHE and the State Buildings Division to create a working database of all state facilities – regardless of funding source – that will include higher education facilities. CCHE staff has been discussing this issue for more than a year with Larry Friedberg, who heads the State Buildings Division.

Staff believes creation of an electronic database that is used by both agencies is the ultimate goal. Both agencies now have access to the building condition database for all state-funded buildings. Adding the non-general-funded facilities and auxiliary facilities to the database make it a useful tool for CCHE both to review program plans as they are submitted and master plans.

When the database is completed, the sections requiring a building inventory in the master plan should be deleted and, instead, a reference to the database should be incorporated. However, until that task is completed, there is a need for the inventory to be incorporated within master plans to understand the full scope of an institution’s physical facilities and its total operation and maintenance obligations, regardless of the funding source.

IV. STAFF RECOMMENDATION

That the Commission adopt the policy changes in Capital Assets Policy, Section III, Part D as outlined in Attachment A.
Appendix A

STATUTORY AUTHORITY

The statutory authority for the Commission action in this area is located in 23-1-106 (3) and (4) which read:

(3) The commission shall review and approve master planning and program planning for all capital construction projects of institutions of higher education on state-owned or state-controlled land, regardless of the source of funds, and no capital project shall commence except in accordance with an approved master plan, program plan and physical plan.

(4) The commission shall ensure conformity of facilities master planning with approved educational master plans and facility program plans with approved facilities master plans.
PART D  GUIDELINES FOR LONG-RANGE FACILITIES/INFRASTRUCTURE MASTER PLANNING

1.00 Scope of a Long-Range Facilities/INFRASTRUCTURE Master Plan

If a long range facilities master plan is to be a really useful document, it must be prepared in adequate depth to assure its validity and understandability. Anything less runs the grave risk of having been based upon insufficient knowledge, hasty or decisions, and of being so general in nature that incomplete information is presented. Shallow planning is hardly appropriate when one considers the magnitude of tax dollars to be spent on the planning and construction of educational facilities, in the rather immediate future.

THE VALIDITY OF A PLANNING DOCUMENT IS DEPENDENT ON THE INTEGRATION OF AN INSTITUTION’S ACADEMIC, FACILITY, INFRASTRUCTURE AND INFORMATION TECHNOLOGY GOALS. INFORMATION INCORPORATED SHOULD BE UP-TO-DATE AND REFLECT AN ASSESSMENT OF A GOVERNING BOARD’S VISION FOR A PARTICULAR INSTITUTION.

TITLE 23-1-106 (3) DIRECTS THE COMMISSION TO “REVIEW AND APPROVE MASTER PLANNING AND PROGRAM PLANNING FOR ALL CAPITAL CONSTRUCTION PROJECTS OF INSTITUTIONS OF HIGHER EDUCATION” AND TO ENSURE THAT THE FACILITIES MASTER PLAN (23-1-106 (4) C.R.S.) CONFORMS TO “APPROVED EDUCATIONAL MASTER PLANS.” ANY FACILITIES/INFRASTRUCTURE PLAN MUST BE DRIVEN IN LARGE PART BY THE ACADEMIC COURSE SET FOR A PARTICULAR INSTITUTION AND THEREFORE MUST INCORPORATE THOSE ACADEMIC GOALS.

The following outline presents the basic contents of a comprehensive long-range facilities master plan. Such a plan is divided into two distinct sections -- INSTITUTIONAL DATA and the FACILITIES/INFRASTRUCTURE master PLAN. Since educational facilities exist to serve educational need, it is logical that much data about the institution MUST be assembled prior to BEGINNING TO planNING INFRASTRUCTURE AND FACILITIES for the campus and facilities to be placed on it.

I. Institutional Data

A. General
   1. Role
   2. History
   3. Relationships
a. state system for higher education
b. community or service area
c. GOVERNING BOARD

B. Service Area
1. Geographic
   a. boundaries
   b. characteristics
2. History
3. Population—present and projected
   a. size
   b. racial characteristics
   c. socio-economic characteristics
4. Economic basis
5. Climate (temperature ranges, precipitation, etc.)
6. Transportation systems
7. Education
   a. Need—ROLE AND MISSION, STUDENTS’ SERVICE NEEDS
   b. Systems existing (PUBLIC AND PRIVATE)
   c. ACADEMIC PLAN AND ITS IMPLICATIONS FOR FACILITY PLANNING

D. ASSESSMENT OF STRATEGIC ACADEMIC VISION WITHIN INSTITUTIONAL ROLE AND MISSION

8. DESCRIPTION OF SATELLITE* CAMPUSES
   a. Enrollment—FTE and Headcount
   b. Programs Offered
   c. Locations
   *SATELLITE CAMPUSES ARE THOSE OTHER THAN THE MAIN CAMPUS.

C. Policies
1. Admissions
2. Academic program
   a. general content
   b. degrees
   e. organizational structure (colleges, divisions, schools, department, etc.)
3. Calendar Structure (quarters, semesters, etc.)
4. Community programs
5. Ancillary programs
6. Housing
7. Student services
8. Automobile use and storage
9. Athletics
10. CLASS AND LABORATORY SCHEDULING
11. MAINTENANCE OF EXISTING FACILITIES
12. Other

D. Enrollment Size and Distribution Data (Current, AND Phased Growth, Maximum)
   1. Basic enrollment
   2. Enrollment distribution by organizational unit (GENERALLY COLLEGE UNIT)
   3. Enrollment distribution by local residence—STUDENT RESIDENCE DEMOGRAPHIC DATA
   4. IMPACT OF DISTANCE EDUCATION ON ENROLLMENT

E. Faculty and Staff Size and Distribution Data (Current—6-YEAR Growth, Maximum)
   1. By functional area
   2. By organizational unit

F. Curriculum and Student Load Projections for First PLAN LIFE phase
   1. Student-credit projections by organizational unit
   2. Contact-hour projections by organizational unit and course

G. Building Space Projections by Functional Use Classification and PHASED Enrollment to Maximum
   1. Resident Instruction
      a. Classroom and classroom service space
      b. Instructional laboratories and service space
      c. Physical education facilities and service space
      d. Other teaching facilities and service space
      e. Instructional faculty offices and related secretarial, clerical, and office service space
      f. Other instructional space
   2. Organized activities related to instruction
   3. Research
      a. Research faculty offices and related secretarial, clerical and office service space
      b. Other research space
   4. Extension and Public Service
      a. Office space
      b. Other extension and public service space
   5. Library
6. Administration and General
   a. Office space
   b. Other administration and general space
7. Physical plant service
8. Auxiliary enterprises
9. Non-institutional agencies

H. Outdoor Site Facilities Projections by Functional Use Classification and Enrollment Phase to Maximum
1. Physical education/ACADEMIC
2. Recreation
3. Intercollegiate athletics
4. Physical plant
5. Automobile parking
6. Other

I. Inventory of Existing Facilities
1. Campus site
   a. location
      1) in service area
      2) in community
   b. environs
      1) land use, zoning
      2) access via transportation networks
      3) visual
   c. boundaries (IF SPECIFIC SERVICE AREA DEFINED)
   d. number OF acres
   e. topography
   f. subsurface soils conditions
   g. building locations
   h. circulation systems
   i. utility systems (INCLUDING TECHNOLOGY INFRASTRUCTURE)
   j. landscaping or natural plant growth
   k. sign systems

I.J. Outdoor site facilities by functional use classification OUTLINED ABOVE
   1) physical education
   2) recreation
   3) intercollegiate athletics
   4) physical plant
   5) automobile parking
   6) other

1Generally not required when planning new institutions.
2. Building data by functional use classification
   a. diagrammatic floor plan
   b. exterior photograph
   c. physical inventory list, including brief description, age of building and state buildings condition index
   d. space inventory by functional use classification, room type, and organizational unit

J. INFORMATION TECHNOLOGY INFRASTRUCTURE SUMMAR Y AND ITS IMPACT ON FACILITY NEEDS, INCLUDING INCORPORATION OF DISTANCE LEARNING AND AN ASSESSMENT OF ITS IMPACT ON INFRASTRUCTURE AND FACILITY NEEDS.

K. Recommended Use or Removal of Existing Facilities by Enrollment Phase to Maximum.

L. Recommended Construction of New RENOVATION OF Facilities by Enrollment Phase to Maximum.

M. Recommended Construction of New Facilities by Enrollment Phase to Maximum.

N. CONCLUSIONS ABOUT THE DIRECTION OF FACILITIES PLANNING BASED ON THE INSTITUTIONAL DATA SUBMITTED.

II. Facilities Master Plan

A. Planning Concepts
   1. Ideal functional diagrams
      a. nature and relationships of land zones
      b. functional relationships within land-use zones
      c. utilizing the topography
      d. utilizing the subsurface soils conditions
      e. flexibility for growth
   2. Land coverage decisions
      a. building density (height and land coverage) with building zones
      b. parking facilities
         1) surface
         2) structures

B. Campus Plans and Supporting Data by Enrollment Phase to Maximum
   1. Land perimeter
2. Land use
3. Circulation systems and Vehicle Storage
4. Utility systems, INCLUDING TECHNOLOGY INFRASTRUCTURE
5. Building location
6. Topography
7. Landscape concept
8. Facility staging plan

C. Facilities Construction and RENOVATION Time Schedule

D. Facilities Construction and RENOVATION Economic Studies and PROJECT COST ESTIMATES Overall Estimates of Costs

E. Summary
   A ROLLING FIVE-YEAR PROJECTION OF CAPITAL IMPROVEMENT PROJECTS IS REQUIRED BY 23-1-1-6 (6), WHICH REQUIRES EACH GOVERNING BOARD TO SUBMIT A UNIFIED LIST THAT INCLUDES ALL CAPITAL PROJECTS ANTICIPATED, REGARDLESS OF FUNDING SOURCE, THE ESTIMATED COST, FUNDING SOURCE(S), SCHEDULE FOR COMPLETION AND THE GOVERNING BOARD PRIORITY FOR EACH PROJECT LISTED.

III. Appendix

2.00 Publication of a Long-Range Facilities, INFRASTRUCTURE Master-Plan

Since each of the institutions of higher education IS STATUTORILY REQUIRED TO COMPLETE BOTH A FACILITY AND ACADEMIC MASTER PLAN (23-106 (4) C.R.S.) will ultimately possess completed long-range facilities master plans, the format of the final PLAN printed pages should be standardized generally using THESE GUIDELINES. the outline presented on pages D-1 through D-4, including the lettered and numbered prefixes.

It is suggested that final reports consist of two basic types of volumes:

The FINAL REPORT should be developed for rather wide distribution. It should contain all the basic master plan data including summary tables taken from the WORKING PAPERS. This book should be considered a presentation document and should be designed and printed in a well-organized and usable manner. It should identify REFERENCE in the preface all volumes INFORMATION constituting the WORKING PAPERS.

The WORKING PAPERS should be published in one or more volumes PROVIDED ELECTRONICALLY IF POSSIBLE as the supporting documentation OR
APPENDICES TO in the FINAL REPORT. These papers will be made up of the detailed computations and tables primarily related to the following:

- Student-credit production
- Contact-hour computations
- New building space computations
- Inventory of existing facilities

The WORKING PAPERS are intended for limited distribution at the institution and among the approval agencies. (WHERE POSSIBLE ELECTRONIC TRANSMISSION OF THIS DATA IS PREFERRED AND MAY BE TRANSMITTED VIA WRITABLE CD-ROM) They need not be designed and printed at the higher quality level of the FINAL REPORT. Each volume of the WORKING PAPERS should identify in the preface the FINAL REPORT of which it is a part.

Use and storage of the published documents would be enhanced if they were 8 1/2" X 11" in size, bound in three ring binders. It is suggested that the be bound with Plastic bindings and that volumes be bound with "Acco" type fasteners. Bindings will permit insertion or removal of pages, if necessary, as the campus plan is modified due to its dynamic nature.

3.00 Approvals of a Long-Range Facilities, INFRASTRUCTURE Master Plans

During the preparation of the long-range facilities master plan ELEMENTS, informal review and approval sessions are AVAILABLE WITH STAFF AT THE REQUEST OF THE INSTITUTION TO REVIEW ANY PLAN ELEMENT. suggested. These reviews should be made by the CCHE staff on the basis of draft material. Reviews should be as follows:

--- Review 1.
--- A. General Information
---   1. General Role Identification
---   2. Admission Policies
---   3. General Academic Program Descriptions and Objectives

--- B. Enrollment Size Determination
---   1. Phases
---   2. Maximum (OPTIMUM)

--- Review 2.
--- A. Student & Facility Projections and Policies
---   1. Enrollment Distribution (and Summaries)
---   2. Faculty & Staff Distribution (and Summaries)
---   3. Curriculum and Student Load Projections
C. Review 3. Space Need Determination

D. Review 4. Space Need/Space Available Match

E. Review 5. Physical Facilities Master Plan

These information actions reviews will permit planning to be coordinated between the institutional governing board and the commission and will assist in FINAL REVIEW OF THE STRATEGIC ACADEMIC, FACILITY AND TECHNOLOGY DECISION-MAKING THAT SERVE AS THE FOUNDATION OF THE PLAN. The avoidance of wasted effort since each planning stage may proceed with relative assurance of having a sound and acceptable basis.

The final published document must have the following formal approvals IN THIS ORDER BEFORE prior to becoming official:

- Institution
- Governing Board*
- Commission on Higher Education

FORMAL APPROVAL OF THE FACILITY MASTER PLAN WILL NOT BE SCHEDULED BEFORE THE COMMISSION UNTIL THE PLAN HAS BEEN APPROVED AT BOTH THE INSTITUTIONAL AND GOVERNING BOARD LEVELS, ALTHOUGH A PLAN MAY BE SUBMITTED PENDING THOSE APPROVALS SO STAFF REVIEW MAY BEGIN.

*The district community colleges must obtain the approval of the State Board of Community Colleges and Occupational Education.

4.00 Periodic Updating of a Long-Range Facilities Master Plan

A long-range facilities master plan must be developed as a FLEXIBLE framework for campus growth. Its concept must recognize the dynamic nature of education. As enrollments grow OR DECLINE and/or as academic programs CHANGE OR become more comprehensive to serve NEW STUDENT NEEDS the increasing complexity of our society, it is inevitable that campus facilities must NEEDS WILL change. The long-range master plan must be capable of meeting these changing circumstances. Thus, EVERY SIX YEARS at appropriate intervals, the long-range plan for each campus must be UPDATED re-evaluated and revised in order to KEEP IT CURRENT maintain it in a current status. Minor changes that are necessary between major revisions might MAY be accommodated through amendment. Each revision or amendment must receive the approval of the ENTITIES bodies enumerated above.
5.00 Relation to Statewide Plan

The institutional master plan should relate to and be compatible with the Colorado Statewide Master Plan for Postsecondary Education. If the institution should desire to deviate in any way from provisions contained in the state plan, concurrence should be obtained from the Commission at an early point in the institutional master planning effort.

6.00 Institutional Data

"A long range facilities master plan should "be started at the beginning." It is necessary for an institution to undergo a complete analysis of ASSESS its present and future mission, programs, and goals prior to making any attempt to master plan its physical facilities. CREATE A FACILITY AND INFRASTRUCTURE PLAN THAT INCORPORATES TECHNOLOGY NEEDS. After all, the Facilities AND INFRASTRUCTURE must serve the program NEEDS of the institution. How can they be properly designed before that program is clearly identified? Thus, it is necessary to generate much institutional data at the BEGINNING OF THE PLANNING PROCESS very outset. The general scope of that data is described in a previous section of these guidelines. In following sections, specific table and schedules will be presented to assist in the preparation and presentation of institutional data. As the full range of planning activities is carried out, revisions in these data no doubt will be made. Comprehensive planning should be an interactive process and no data should be prepared which cannot be changed after further analytical work in other areas is carried out. GATHERING INSTITUTIONAL DATA IS NOT SUFFICIENT. CONCLUSIONS ABOUT THE INSTITUTIONAL DATA SHOULD BE INCORPORATED. THESE CONCLUSIONS WILL GUIDE THE OTHER MAJOR PLAN ELEMENTS.

7.00 Tables

Much of the institutional data are to be compiled and presented in a series of tables WITHIN THE WORKING PAPERS SEGMENT OF THE PLAN. INSTITUTIONS ARE ENCOURAGED TO INCORPORATE ALL RELATED INFORMATION CONCERNING ORGANIZATIONAL UNIT PLANNING IN AN ELECTRONIC APPENDIX. EXAMPLES OF THESE TABLES ARE AVAILABLE ON REQUEST, OR AN INSTITUTION MAY CHOOSE ITS OWN MODEL, PROVIDING THE MODELING ASSUMPTIONS AS PART OF ITS SUBMISSION. The suggested format of each table is established in these guidelines. It should be noted that the sequence of these tables relates to the outline scope of a long-range facilities plan established on Pages D-1 through D-4 of the guidelines. Data contained in each table must be coordinated with data in all other tables so the entire long-range plan will "track from beginning to end." Obviously, data will not necessarily be generated in the specific order of presentation of the tables. Thus, it will be necessary in some instances to prepare tables appearing well into the study in order to complete earlier tables. As an example, it will be necessary to establish the
full curriculum by organizational unit including assignment of credit values prior to completing Table B2-c which deals with distribution of the total enrollment (FTE) among the organizational units of the institution.

8.00 Planning Criteria

Presented in PART Section F are detailed planning criteria to be utilized in the planning process. These criteria are not all together complete and, in some instances, might not exactly "fit" all institutions. They should be adhered to rather literally at the site selection and master planning phases (to the extent of their coverage). Adequate opportunity exists at the program planning phase for refinement and, if necessary, justification of deviation from the guidelines.

9.00 Campus Population

Campus population -- along with educational programs and institutional policies -- is a powerful force in the generation of the form of campus facilities growth. The base population of a campus is the sum of the number of students, faculty, staff, and visitors. This section of the guidelines is directed toward projecting the elements of campus population.

10.00 ACADEMIC PLANNING & INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGY IS A POWERFUL FORCE AS INSTITUTIONS DEVELOP ON-LINE COURSES AND DEGREE PROGRAMS AS WELL AS INTEGRATION OF TECHNOLOGY IN MORE TRADITIONAL INSTRUCTIONAL COURSES.

STATE-SUPPORTED INSTITUTIONS SUBMIT ANNUAL UPDATES OF ACADEMIC INITIATIVES TO CCHE (POLICY I-0-1). EACH FACILITY/INFRASTRUCTURE MASTER PLAN SHOULD THEREFORE INCORPORATE THE ACADEMIC UPDATE AND AN ASSESSMENT OF HOW ITS DISTANCE LEARNING OBJECTIVES IMPACT THE FACILITY/INFRASTRUCTURE MASTER PLANNING.

IN SOME INSTANCES, INFORMATION TECHNOLOGY DECISIONS MAY REDUCE THE NEED FOR NEW PHYSICAL FACILITIES BECAUSE OF THE POTENTIAL FOR STUDENTS TO ACCESS CLASSES VIA THE INTERNET OR OTHER DISTANCE EDUCATION MEDIA. LINKAGES AMONG ACADEMIC, INFORMATION TECHNOLOGY, AND FACILITY PLANNING SHOULD BE THOROUGHLY DISCUSSED IN THE MASTER PLANS. AS ACADEMIC UPDATES AND INFORMATION TECHNOLOGY STRATEGIC DECISIONS ARE REVISED AND APPROVED, THE UPDATES WILL BE INCLUDED IN THE MOST CURRENT FACILITIES/INFRASTRUCTURE MASTER PLAN.
11.00 Enrollment

Maximum enrollments have been established for each institution of higher education in Colorado. These figures are contained in Part F of these guidelines. Master plans should be directed toward the ultimate accommodation of these enrollment maximums.

Some institutions are relatively close to achievement of their enrollment maximums. Most, however, look toward many years of growth before reaching this target. For the growing institutions, it is necessary to project enrollment at several phases between the present and the time when maximum enrollment is attained. It is suggested that THE FIRST ENROLLMENT PROJECTION INTERVAL OF THE facilities master plan, PHASE 1, should outline the expected enrollment over the three years following THE YEAR OF THE MASTER PLANNING STUDY. THE succeeding intervals, PHASE 2, should be the next three years. THE ENROLLMENT PROJECTION SHOULD TAKE INTO ACCOUNT selected on the basis of appropriate enrollment levels beyond the first five years, the particular levels to be selected after evaluation of such factors as (a) the size of the institution, AND (b) the expected rapidity of growth of the institution, AND (C) THE IMPACT OF DISTANCE EDUCATION. For those institutions that expect to experience a very slow growth, the selection of specific phases should be primarily a function of time (in this case, it is suggested there be three phases—out five years, out ten years, and maximum). Those institutions which expect a more rapid growth should establish specific phases on the basis of enrollment growth primarily, with increments of 2,000 students for institutions with a maximum enrollment under 10,000, 3,000 for institutions with a maximum enrollment of 10,000 to 14,999, and 4,000 for institutions with a maximum enrollment of 15,000 or more.

SAMPLE TABLES OR MODELS ARE AVAILABLE ON REQUEST. Tables B2-a through B2-d presented on the following pages should be adequate to provide needed enrollment data.

12.00 Faculty and Staff

Tables B2-e and B2-f should be used to INSTITUTIONS SHOULD present summary data on faculty and staff projections. These basic tables should be supplemented with more detailed tables together with appropriate descriptive material that will explain the INSTITUTION'S exact methodology employed in making the projections. The planner will find it helpful to consult the most recent budget recommendations of the CCHE for guidance in making projections. The CCHE budget recommendations contain a great many statistics on college and university staffing which are useful for planning purposes AND MAY BE...
USEFUL FOR BASE INFORMATION. SAMPLE DATA TABLES ARE AVAILABLE ON REQUEST.

**TABLE B2-a ENROLLMENT SUMMARY**

<table>
<thead>
<tr>
<th>Maximum Term Enrollment Category</th>
<th>Present-Year</th>
<th>Phase 1 Year</th>
<th>Phase 2 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headcount:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Headcount</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-Time Equivalent:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evening:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Full-Time Equivalent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**

a. Maximum Term Enrollment is usually the fall student enrollment due to normal attrition during the academic year. If other than fall figures are used, provide backup data.

b. Phase 1 enrollment is normally the projection of enrollment for five THREE years after the year indicated as "present". Phase 2 adds the selected increment of students to Phase 1, and so on until "maximum" enrollment is reached.

c. Maximum enrollments for the several institutions may be found in Part F.
TABLE B2-b HEADCOUNT ENROLLMENT BY ORGANIZATIONAL UNIT AND GEOGRAPHIC ORIGIN
(Associate Degree Level, Baccalaureate Level, Master's Level, Doctoral Level)

<table>
<thead>
<tr>
<th>Organizational Unit</th>
<th>Present</th>
<th>Phase-1</th>
<th>Phase-2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In-State</td>
<td>Out-of State</td>
<td>Total</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTES:

a. Data presented in this table should be on the basis of the major field of study of students.

b. One table should be prepared for each degree level offered by the institution.
### TABLE B2-c  FTE ENROLLMENT BY ORGANIZATIONAL UNIT (PRESENT AND PHASED. AND MAXIMUM)

<table>
<thead>
<tr>
<th>Organizational Unit</th>
<th>FTE Students</th>
<th>Student Credit Hour Production</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Non-Credit</td>
</tr>
<tr>
<td></td>
<td>Day</td>
<td>Eve</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Totals</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**

a. Organizational unit denotes college, division, school, department, etc. The organizational units presented here should be carried through the departmental level, except in those instances when a college, division, or school is not departmentalized.

b. Data on this table must track with data on Table B2-a. For example, the total of column M on Table B2-b divided by 15 should be the same as lower division day FTE students shown on Table B2-a.

c. Combine Beginning Graduate and Advanced Graduate in the Graduate columns.

d. FTE students equal student credit production divided by 15 in each category (See Section D2).

e. This table must be developed for each enrollment phase indicated in Table B2-a.
### TABLE B2-d—HEADCOUNT ENROLLMENT DISTRIBUTION BY LOCAL RESIDENCE*

<table>
<thead>
<tr>
<th>Maximum Term</th>
<th>Enrollment Category</th>
<th>Present Year</th>
<th>Phase 1</th>
<th>Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Head Count Distribution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single Men:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>College Housing®</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commuting®</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
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<td></td>
<td>Day</td>
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<tr>
<td></td>
<td>Evening</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single Women:</td>
<td></td>
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<tr>
<td></td>
<td>College Housing®</td>
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<td></td>
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<tr>
<td></td>
<td>Commuting®</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
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<td></td>
<td>Day</td>
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<tr>
<td></td>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Married Students:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One Student Per Family:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>College Housing®</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commuting®</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
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<td></td>
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<td></td>
<td>Day</td>
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<tr>
<td></td>
<td>Evening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two Students Per Family:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>College Housing®</td>
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<td></td>
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<tr>
<td></td>
<td>Commuting®</td>
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<td>Total</td>
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<td>Evening</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total Head Count</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**

a. Data in this table must track with data in Table B2-a. This table must be developed for each enrollment phase indicated in Table B2-a.

b. "College Housing" describes those students residing in on-campus housing facilities.

c. "Commuting" describes those students residing in off-campus housing.

d. The total of day and evening students should equal the total of college-housed and commuting students.

e. The count here should be the total number of students. Thus, if the count here is 200, this figure will be interpreted to mean that 100 housing units will be required to accommodate the students.
### TABLE B2-e—FACULTY AND STAFF BY FUNCTIONAL AREA

<table>
<thead>
<tr>
<th>Staff Category</th>
<th>Present Year</th>
<th>Phase 1 Year</th>
<th>Phase 2 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Day</td>
<td>Eve.</td>
</tr>
<tr>
<td><strong>RESIDENT INSTRUCTION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty and Academic Administrators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Headcount</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Full-Time Equivalent*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Non-Student Support Personnel (HC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RESEARCH</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty and Academic Administrators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Headcount</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Full-Time Equivalent*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Requiring Laboratory Space*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Not requiring Laboratory Space</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Non-Student Support Personnel (HC)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>ORGANIZED ACTIVITIES RELATED TO INSTRUCTION</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Professional Personnel (HC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Non-Student Support Personnel (HC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LIBRARY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Personnel (HC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Non-Student Support Personnel (HC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EXTENSION AND PUBLIC SERVICE</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Professional Personnel (HC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Non-Student Support Personnel (HC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ADMINISTRATION AND GENERAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Personnel (HC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Non-Student Support Personnel (HC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PHYSICAL PLANT OPERATION AND MAINTENANCE</strong></td>
<td></td>
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</tr>
<tr>
<td>Professional Personnel (HC)</td>
<td></td>
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<tr>
<td>— Non-Student Support Personnel (HC)</td>
<td></td>
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</tr>
<tr>
<td><strong>AUXILIARY ENTERPRISES</strong></td>
<td></td>
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</tr>
<tr>
<td>Professional Personnel (HC)</td>
<td></td>
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<tr>
<td>— Non-Student Support Personnel (HC)</td>
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</tr>
<tr>
<td><strong>NON-INSTITUTIONAL AGENCIES (HC)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Notes:**

a. Coordinate with data on Table B2-f.; see student/faculty ratios in Section E.

b. This category should be further sub-divided according to the academic discipline categories shown under "Other Research Space" in Section E.

c. This category should be further sub-divided according to individual organized activity.

d. Only those personnel who are located on campus should be listed here.

e. This category should be further sub-divided according to enterprise; i.e., housing, food service, student union etc.
13.00 Visitors

While definitive projections of the number of visitors who can be expected on a campus are hardly feasible, the matter is of consequence and deserves more than passing consideration. Provisions must be made for routine day-to-day visitors who may be expected at many of the facilities on campus. Obviously, there will be need for automobile parking facilities, information centers, waiting areas, etc., for these people. When special events involving visitors as participants or spectators are held on campus, demand for facility provisions may be rather substantial. Athletics events, performing arts, etc., will all contribute to this area of facility demand.

Certainly, policy decisions regarding elements which relate to campus visitors must be obtained by the campus planner prior to making any attempt to determine the scope of on-campus vehicle circulation and storage facilities, as well as other facilities.

14.00 Building Space Projections--Total

The assignable area in square feet (ASF) of building space needed on a campus may be determined based upon the number of people to occupy the facility and the functions which they undertake while there. Assignable area may then be converted to gross area in square feet (GSF) through the use of appropriate conversion factors (See Part F).

Building space needs for the various structures on a campus at the two growth phases to maximum growth are an essential element of the long-range campus master plan.

15.00 New Campuses

Unless new campuses make use of existing facilities for the purposes of the institution, the projection of building space involves the consideration of new facilities only. In that instance, it is necessary to make use of the data in this section of the guidelines without consideration of the effects of continued use of existing building space.

16.00 Campuses with Existing Facilities

On existing campuses, or new campuses which will make use of some existing buildings, the procedure of determining the construction of new building space and the use of existing building space is a more complex operation. In this instance, the following steps are logical:
A. Building Space Projections

Total building space needs must be projected at the TWO several phases of campus growth. Procedures for making these projections are described in this section of the guidelines.

B. Inventory of Existing Facilities

An inventory must be made describing ALL existing facilities, REGARDLESS OF FUNDING SOURCE, establishing their present use and condition, as well as stating their appropriateness for continued use and life expectancy.

C. Use of Existing Facilities

Prior to recommending construction of new facilities, appropriate steps must be taken to assure the highest possible effective utilization of existing facilities with due consideration of operating costs. Greater utilization of capital resources should not be planned if inordinately high operating inefficiencies result. Utilization through Phase 1 should be PROJECTED IN GREATER DETAIL established on a higher detailed basis. FOR PHASE 2, where as for phases after Phase 1, a more generalized approach should be taken. If it is possible to ascertain that certain facilities will be removed at a point in time beyond Phase 1 development, this information should be incorporated in the plan. RENOVATING AND REMODELING EXISTING FACILITIES SHOULD BE THE PREFERRED OPTION OVER BUILDING NEW FACILITIES WHEN DOING SO IS LESS COSTLY IN THE LONG TERM THAN BUILDING NEW FACILITIES.

D. Construction of New Facilities

After space provided in existing facilities is deducted from total space needs at the TWO several enrollment growth phases, the remainder of space needs MAY must be met through the construction of new buildings. EXTENDING THE HOURS AND DAYS OF WEEK CLASSES AND LABORATORIES ARE TAUGHT SHOULD BE EXPLORED BEFORE NEW INSTRUCTIONAL FACILITIES ARE PROPOSED. SUBSTANTIAL INSTITUTIONAL ATTAINMENT OF CCHE SPACE UTILIZATION GUIDELINES OUTLINED IN PART F SHOULD BE THE GOAL BEFORE NEW FACILITIES ARE PROPOSED. IF CCHE SPACE UTILIZATION GUIDELINES
17.00 Building Space Projection Categories

Space projections shall be grouped into the following categories:

A. Resident Instruction
   1. Classroom and classroom service space
   2. Instructional laboratories and service space
   3. Physical education facilities and service space
   4. Other teaching facilities and service space
   5. Instructional faculty offices and related secretarial, clerical, and office service space
   6. Other instructional space

B. Organized activities related to instruction

C. Research (IF RELEVANT)
   1. Research faculty offices and related secretarial, clerical, and office service space
   2. Other research space

D. Extension and Public Service (WHERE RELEVANT)
   1. Office space
   2. Other extension and public service space

E. Library (INCLUDING RELATED TECHNOLOGY PLANNING)

F. Administration and General
   1. Office space
   2. Other administration and general space

G. Physical plant service

H. Auxiliary enterprises (WHERE RELEVANT)

I. Non-institutional agencies (WHERE RELEVANT)

It is intended that this general listing will cover all facility types on a campus.

Various space standards and criteria relating to the above are presented in Part F. These standards should be followed wherever appropriate and any deviation from them should be justified in the planning documents.
18.00 Instructional Spaces

Projection of needs for instructional spaces at Phase 1 of campus growth (three years from form present), or at PHASE 2 (THREE YEARS LATER) maximum enrollment if final growth will be reached in five years or less, shall be based upon highly detailed data involving specific curriculum content, etc. Space projections of the five THREE-year (Phase 1) data as related to enrollment growth, are adjusted to reflect predictable changes in space utilization as the size of the student body changes.

An estimate of the complete fall term (semester or quarter) curriculum at Phase 1 (or maximum enrollment if final growth will be reached in five years or less) shall be made on forms similar to Table C-7 assigning credit-hour values to each course and estimating COURSE enrollments in each course. The total student-credit-hour production for the institution must develop SHOULD YIELD FTE student numbers THAT which concur with those projected at this enrollment period in Table C-3 and the FTE student numbers in each organizational unit must concur with those shown in Table C-2. In SOME most institutions, day enrollments in relation to day hours available will exceed evening enrollment loads in relation to evening hours available. and, these, facilities needs will be based upon day schedules with the knowledge that evening classes, if any, will have more than adequate space. IN OTHER INSTITUTIONS, --most likely at urban institutions-- evening enrollments may be greater in relation to evening hours available than daytime enrollments are to daytime hours available and may become the basis for the programming of some or all instructional space needs. INSTITUTIONS SHOULD REVIEW THESE ISSUES WITH STAFF AS PLANNING PROCEEDS AND MAKE APPROPRIATE ADJUSTMENTS. If this is the case, adjustments may become necessary in the tables and in utilization standards. These adjustments should be reviewed in depth with CCHE staff at an early point in the planning process.

"Present year" data SHOULD BE PRESENTED IN A SIMILAR WAY FOR COMPARABILITY, as presented on Table B3-a should be presented on a course-by-course basis. The planner may find it helpful to group like-type courses within given organizational units for projection to subsequent phases. Such groupings should then be carried through Tables B3-b and B3-c. Care should be taken to ENSURE that the grouping of courses honors the credit value of courses, the level of courses, the number of room contact hours in classrooms, the number of room contact hours in a given type of laboratory, and the appropriate section size. For example, a "Type 1" history course may be a lower level course with a credit value of three which meets three hours per week in a classroom and which can accommodate 40 students in each section. The typing should be done on
the basis of a consideration of all resource requirements, not just space requirements.

Next, on Table B3-b Credit hours for each course are SHOULD BE converted to contact hours, optimum section sizes are established, the number of sections required are calculated, and the room-contact hours per week are established. (INSTITUTIONS MAY USE SAMPLE CCHE TABLES OR AN ALTERNATIVE.) Some courses require several kinds of spaces (i.e., classroom and laboratory or several classroom size configurations for lecture and subsequent discussion groups, etc.). This is taken into account by the table.

On Table B3-e, Room-contact hours for all sections (transferred from Table B3-b) are converted to the number of rooms required for each room type. Then, using appropriate standards, the size of each room is computed. (SAMPLE TABLES ARE AVAILABLE ON REQUEST.)

As has been pointed up OUT previously, projections of space requirements for Phase 1 development should be made on a MORE detailed basis, whereas a more generalized approach can be taken for purposes of projecting to PHASE 2. subsequent phases of development. It is suggested that Phase 1 projections MAY be used as a basis for calculating average assignable square feet per full-time-equivalent student in various space categories (or similar averages) and the averages then applied to projected FTE students as set forth in Table B2-e. Such generalized projections should be made with some care, however, since certain spaces may be incorporated in Phase 1 planning which will not need to be expanded in direct proportion to expansion of students. For example, a laboratory may be incorporated in Phase 1 planning (and thus in the averages) which will not be fully utilized at that level and which can accommodate additional students beyond Phase 1.

Table B3-c should be prepared on a simulated basis, without reference to existing space. After all space projections have been made as per B3-c, B3-d, and OR similar types of tables which the planner may devise, the projections should be related to existing space.

Table B3-d should be used to INSTITUTIONS SHOULD show projections of faculty and staff office space NEEDS. Data presented in this table should be based on projections of faculty and staff for resident instruction and research as presented in Table B2-e.
19.00 Research Space

Table B3 has been prepared to serve as a guide in projecting research space other than office space for research personnel. Research institutions should provide projections for meeting the needs. Projections should be made for (a) individual work space for faculty/professional research personnel and graduate students engaged in research, including related service space, and (b) space for large-scale specialized equipment and technical services used in supporting research programs.

The institution should outline for the commission the assumptions it makes to calculate research space needs and why it selected those assumptions.

Included in Section F are criteria which can be used in calculating space requirements for individuals engaged in research. These criteria are typical, and should not be followed literally in all cases. They were developed on the basis of a principle that the amount of bench space or work area a person can utilize effectively is a function of the physical limitations that characterize all individuals. Wherever the individual is not the dominant element in the research environment, as is the case in certain engineering research or large animal studies, the development of research space estimates cannot be based on criteria that are oriented towards human characteristics alone.

Space requirements for research facilities needing special purpose not directly related to individual work area requirements should be dealt with separately. The space should be determined by the nature of the facility. Examples would be cyclotrons, wind tunnels, and the like.

20.00 Library Space

Projection of library space needs shall be based upon the institution's library collection goals and service delivery strategies, including relevant technology infrastructure and information technology plans such as digitization or electronic storage options. Describe the existing and proposed functions of the campus library information network and the spatial distribution of campus library services. For decentralized library networks, describe the collection and services available at each branch library. The institution should integrate its technology plans with its information storage and access plan for its library services.
The institution's collection development policy should be compatible with the institution role and mission, academic programs, and research programs. It should also provide resources for state-recognized centers of excellence. The collection development policy should include the following information, as applicable.

A. Library role and mission statement.
B. Clientele to be served, both institution and non-institution.
C. General subject boundaries of the collection.
D. Academic programs and user needs supported (instruction, research, reference, recreation, etc.).
E. Library resource selection priorities
   1) Collection breadth and depth of subject coverage.
   2) Continuing financial support for strong collections.
   3) Forms of materials collected or excluded.
   4) Languages and geographical areas collected or excluded.
   5) Chronological periods collected or excluded.
   6) Other exclusions.
   7) Duplication of materials.
F. National, regional, and local cooperative collection agreements which complement or otherwise impact the institution's collection development policy.

The size of the institution's library collection is based upon the size of the existing collection plus the institution's net annual acquisition rate (See Section F: Space Planning Criteria for Libraries - Collection Size.)

Describe the historical acquisition trends for the past five years. Note any trends in short-term funding and special funding that have affected past acquisitions. Explain how the proposed annual acquisition rate relates to academic program goals and to governing board operating budget goals.

Discuss the de-selection (weeding) policy for the institution including the management of out-dated materials, damaged materials and multiple copies. Describe the institution's policies for reallocating library resources to respond to new programs, discontinued programs, research efforts and relocation of programs to other campuses.

Discuss the institution's access to non-campus collections and computer databases through contracts, library access agreements and inter-library loan agreements. Describe the recent ALL INFORMATION (ACCESS, STORAGE, DELIVERY) technological advancements which will be integrated into the library system.

Describe the types of collection materials that must remain in on-camp use storage and those that may appropriately be stored in off-campus facilities.
Provide a cost/benefit analysis of compact storage and remote storage options including: accessibility, personnel costs, turnaround time, frequency of use, transportation, environmental controls, fire safety, and general suitability.

The percentage of student FTE to be provided with study stations is limited to a maximum of 20 percent for community colleges and 25 percent for four-year colleges and universities. (Specialized libraries such as medical and law libraries are not subject to these maximum percentages.) The percentage of student FTE with study stations must be justified on the basis of:

- Program and/or educational level
- Characteristics of the users (user survey; elements of the survey should be discussed with CCHE staff prior to data collection)
- Residential or commuter campus setting
- Delivery of materials
- Use of materials (use survey)
- Alternative study areas
- Others, as applicable.

Document and justify any need for additional study stations required for faculty or community users and describe the methods used to quantify this need. The percentage of the study stations that must be electronically equipped shall be based upon academic program delivery, campus layout and facility locations. Describe the spatial distribution of study stations around the campus.

______________

Describe the level of services to be provided by library staff. Translate this level of service into an institutional student FTE/library staff FTE ratio. (The ratio should include all staff--administrators, departmental heads, librarians, support staff, student assistants, etc.) This ratio should be used in the projection of future staffing levels.

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Table B3-f, or an adapted version of same, should be used to show projections of library space requirements. Space utilization criteria to be used in master planning for library space are included in Section PART F.

21.00 Other Space

No illustrative tables are being presented at this time for purposes of showing space projections for other areas. However, the planner THE INSTITUTION should systematically develop space projections for each area in addition to those NOT previously covered and should present those projections in appropriate formats similar to those shown in this section. For example, in the area of administrative and general office space, Table
B3-d can be adapted for purposes of showing space projections for each organizational unit.
## TABLE B3-a—ENROLLMENTS & STUDENT CREDITS

<table>
<thead>
<tr>
<th>Organizational Unit</th>
<th>Course Number</th>
<th>Brief Course Description</th>
<th>Course Type</th>
<th>Course Credits</th>
<th>Level of Course (Lower, Upper, etc.)*</th>
<th>Present-Year</th>
<th>Phase 1-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fall Enrollment</td>
<td>Student Credits</td>
</tr>
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</tr>
</tbody>
</table>

*Courses within an organizational unit should be arranged with non-credit or remedial courses first, lower level courses second, etc. Use “N” to designate non-credit, “L” for Lower, “U” for Upper, “G1” for Graduate 1, and “G2” for Graduate 2. Data in columns G through N should be totaled for each level within each organizational unit. These totals should track with data presented on Table B2-c.
### TABLE B3-b—ROOM CONTACT HOURS AND STUDENT CONTACT HOURS BY COURSE*  

**Organizational Unit:**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Day Enrollments at Phase 1</th>
<th>Classroom 1</th>
<th>Instructional Laboratory/Classroom 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Room Contact Hours per Section</td>
<td>Total Student Contact Hours</td>
<td>Section Size</td>
</tr>
<tr>
<td></td>
<td>Min</td>
<td>Opt</td>
<td>Max</td>
</tr>
<tr>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E=CxD</td>
</tr>
</tbody>
</table>

* Courses should be listed on this table in the same order as presented on Table B3-a.  
  ** Enrollments as reported in this column should be the same as enrollments reported in Column J of Table B3-a.  
  *** The section size most desirable for teaching purposes.

**NOTE:** “Classroom 1” and “Classroom 2” designations shown in this table are to make it possible to calculate space requirements when two different classroom settings are required for the same course; e.g., a course which meets one day a week in a large lecture setting and two days a week in a small discussion setting.
<table>
<thead>
<tr>
<th>Room Identification</th>
<th>Room Guidelines</th>
<th>Planned</th>
<th>Schedule of Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sq. Ft. Prime Space</td>
<td>Stations</td>
<td>Service Space</td>
<td>Sq. Ft. Prime Space</td>
</tr>
<tr>
<td>No.</td>
<td>Sq. Ft.</td>
<td>% of Prime Space</td>
<td>No.</td>
</tr>
</tbody>
</table>

A separate table should be prepared for (a) classrooms, (b) instructional laboratories, (c) physical education facilities, and (d) other teaching facilities. If a service area is being planned to serve more than one classroom, lab, or physical education space, the rooms being served should be listed consecutively with the service area being identified with the room it would serve. Any significant deviation from the guidelines contained elsewhere in this publication should be explained and justified in supplementary narrative. Existing spaces should be presented first in this table, with proposed new spaces following.

*Include circulation space within the room.*
<table>
<thead>
<tr>
<th>Staff Category</th>
<th>Present Year</th>
<th>Phase 1</th>
<th>Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number Stations</td>
<td>Sq. Ft. per Station</td>
<td>Number Stations</td>
</tr>
<tr>
<td>State-Funded Instruction:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Vice-President,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dean of College</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department Chairman,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Dean of College</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Requiring Studio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offices (Art/Music)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Faculty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Assistants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secretarial and Clerical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-Total State-Funded</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sponsored Instruction:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Requiring Studio</td>
<td></td>
<td></td>
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<tr>
<td>Offices (Music/Art)</td>
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<td></td>
<td></td>
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<tr>
<td>Other Faculty</td>
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<td></td>
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<tr>
<td>Graduate Assistants</td>
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<tr>
<td>Secretarial and Clerical</td>
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<tr>
<td>Sub-Total State-Funded</td>
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<tr>
<td>Instruction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State-Funded Research:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Requiring Studio</td>
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<td></td>
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<tr>
<td>Offices (Music/Art)</td>
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<tr>
<td>Other Faculty</td>
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<tr>
<td>Graduate Assistants</td>
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<tr>
<td>Secretarial and Clerical</td>
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<tr>
<td>Sub-Total State-Funded</td>
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<td>Instruction</td>
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<tr>
<td>Sponsored Research:</td>
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<tr>
<td>Faculty Requiring Studio</td>
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<tr>
<td>Offices (Music/Art)</td>
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<tr>
<td>Other Faculty</td>
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<td>Graduate Assistants</td>
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<tr>
<td>Secretarial and Clerical</td>
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<tr>
<td>Sub-Total State-Funded</td>
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<tr>
<td>Instruction</td>
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<tr>
<td>Total Office Space</td>
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<tr>
<td>Office Service:</td>
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<td></td>
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<tr>
<td>% of Office Space</td>
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<tr>
<td>Total Sq. Ft.</td>
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<tr>
<td>Conference Rooms</td>
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<tr>
<td>File/Storage Rooms</td>
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<tr>
<td>Other:</td>
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<tr>
<td>Grand Total Offices and Office Service Space</td>
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</tbody>
</table>
### TABLE B3.a PROJECTIONS OF RESEARCH SPACE OTHER THAN OFFICES

<table>
<thead>
<tr>
<th>Stations for Researchers:</th>
<th>Present-Year</th>
<th></th>
<th></th>
<th>Phase-1</th>
<th></th>
<th></th>
<th></th>
<th>Phase-2</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>- Primary Space:</td>
<td></td>
<td></td>
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<td>- State Funded:</td>
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<tr>
<td>- Faculty and Professional</td>
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<tr>
<td>- Graduate Students</td>
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<tr>
<td>- Sub-Total State Funded</td>
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</tr>
<tr>
<td>- Sponsored Research:</td>
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<tr>
<td>- Faculty and Professional</td>
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<td>- Total Primary and Service Space</td>
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</tr>
</tbody>
</table>

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*Included here should be space to house large scale specialized equipment and technical services used in supporting research programs.*
**TABLE B3—PROJECTIONS OF LIBRARY BOOKS AND SPACE**

<table>
<thead>
<tr>
<th>Category</th>
<th>Existing</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Conversion Factor per Volumes, Student or Sq. Ft.</td>
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<tr>
<td><strong>Stack Space</strong></td>
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<tr>
<td>Total Volumes</td>
<td></td>
<td>.10 or .08&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>TOTAL STACK SPACE</strong></td>
<td></td>
<td>--</td>
</tr>
<tr>
<td><strong>Reader Space</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total FTE Students&lt;sup&gt;±&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular Station</td>
<td></td>
<td>6.25 or 5&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Electronic Station</td>
<td></td>
<td>7.50 or 6&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>TOTAL READER SPACE</strong></td>
<td></td>
<td>--</td>
</tr>
<tr>
<td><strong>TOTAL STACK AND READER SPACE</strong></td>
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</tr>
<tr>
<td><strong>Service Space</strong></td>
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<td></td>
</tr>
<tr>
<td>Under 40,000 ASF</td>
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<td>.25&lt;sup&gt;d&lt;/sup&gt;</td>
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<tr>
<td>40,000 ASF or Over</td>
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<td>.19&lt;sup&gt;e&lt;/sup&gt;</td>
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<td><strong>TOTAL SERVICE SPACE</strong></td>
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<td>--</td>
</tr>
<tr>
<td><strong>TOTAL ASF</strong></td>
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<td>--</td>
</tr>
</tbody>
</table>

-<sup>a</sup> 0.10 per ASF per volume for first 300,000 volumes, then 0.08 ASF per volume for larger collections.
-<sup>b</sup> 6.25 for universities and four-year colleges; 5 for community colleges.
-<sup>c</sup> 7.50 for universities and four-year colleges; 6 for community colleges.
-<sup>d</sup> 25% of Total Stack and Reader Space.
-<sup>e</sup> 19% of Total Stack and Reader Space.
22.00 Inventory of Existing Physical Plant

For existing institutions which will continue to occupy part or all of their present facilities or for new institutions INTENDING TO which will convert buildings or other facilities already existing into educational facilities, it is necessary to generate and present a substantial amount of data about the existing physical plant. These data shall — in a single, well-prepared package — present a comprehensive overview of the entire facilities of the institution, including the amount and nature of its land holdings, the surface and subsurface development of its land, and much information about its buildings. It shall include all facilities which now exist and/or for which construction funds have been provided. Any facilities for which physical planning funds have been appropriated should be included to the depth that available information will permit. This will provide the institution an effective and immediately accessible document which reports on physical plant in adequate detail.

The following data are essential elements of the inventory of existing physical plant:

A. Campus Site or Sites

A diagrammatic map showing the boundaries of the institution's service area and the location of the institution's main campus and other land holdings. Identify whether land holdings are owned, leased, rented, etc.

B. Main Campus or Campuses

A diagrammatic map showing the location of the main campus and other major permanent facilities or campuses in the city or community within which the main campus is located (e.g., at CSU, the Main Campus, the Foothills Campus, AND THE SOUTH CAMPUS; at UNC, the three major campus areas). Include rented facilities (with special identification) if it is anticipated that such rental will be on a long-term (FIVE YEARS OR MORE) basis.

C. Environs

Diagrammatic maps and written descriptions of the environs of the main campus or campuses including zoning, land use, access networks, visual characteristics, utility systems, etc.
23.00 Main Campus or Campuses

Detailed campus maps and/or written description of the following:

A. Boundaries and Restrictions

Provide a boundaries map based upon current abstracts of all land holdings. Provide accurate information on all such restrictions as easements, rights-of-way, restrictive conditions imposed upon use of lands (i.e., restrictions imposed upon use of land by the donor of the land, etc.).

B. Topography and Drainage

Provide a topographic map or maps of all campus land holdings which are either already developed or will be considered for development within the time span of this master plan. Normally, topography based upon the aerial photography method will be sufficiently accurate but, in special cases, land surveys may be required. In most instances, the aerial topography method will prove to be the least costly and will generally be adequately accurate for raw land. In many instances, topography obtained for this facilities inventory will also be suitable for use in the physical planning of actual projects. At other times, more accurate data may be necessary. These matters should be discussed and determined for each campus prior to undertaking a topographic survey. At this time, such matters as contour interval will be determined. Any surface drainage problems should be identified and described.

C. Subsurface Soils Conditions

Adequate data must be obtained regarding the ability of subsurface soils conditions of land holdings to accept campus development. This includes the ability of soils to economically support building foundation loads and to be contoured as required. Subsurface water, if any, should be indicated. On raw land, it will probably be necessary to drill an appropriate number of test holes in order to determine subsurface conditions. On developed land, it is likely that investigations and reports already exist and may be used as a basis for a general summary statement.
D. Surface Land Development

Provide a map or maps indicating locations of all surface development including buildings, streets, sidewalks, parking lots, paved courts, fields, general location and type of landscape elements, air or surface utilities, etc. These maps may be combined with topographic maps if desired.

E. Underground Utilities

Provide a map or maps showing size, approximate or actual location, depth, etc., of all underground utilities systems.

24.00 Buildings

A. Key Map

Provide a key map identifying each building by name and the code numbers used in the room inventory.

B. Each Building

For each building shown on the key map, provide the following:

1) **THE FACILITIES CONDITION INDEX.** Exterior photograph of major façade.
2) **A SUMMARY OF THE NUMBER OF ROOMS BY THEIR FUNCTIONAL USE CODE (AS DEFINED BY THE NATIONAL CENTER FOR EDUCATION STATISTICS).** Diagrammatic floor plans at small scale identifying each room at room number, functional use, room type, number of stations, and area as indicated in the room inventory.
3) **A general building description, INCLUDING ITS DESCRIPTION, per Table B4-a** (no sample format provided).
4) **AGE OF THE BUILDING** Space summary per Table B4-b.

25.00 Automobile Parking Facilities

When land-use patterns on almost every campus are examined, it becomes evident that the storage of parked automobiles has rapidly become one of the several major functions which consumes campus land. Actually, the automobile at best takes up more space than that needed for the housing of a single student. In the square footage occupied by twenty automobiles, three hundred students could be given instruction. Thus, the matter of
programming facilities for automobile parking is of considerable importance.

A. Key Map

Provide a key map identifying each automobile parking facility by type (surface lot, structure, or on-street) and capacity, and code number used in the parking facility inventory forms. On relatively simple campuses, this key map may be combined with the key map for buildings.

B. Each Parking Facility

Using Tables B4a through B4e, provide data for each parking facility indicating whether facility is surface parking, parking garage or on-street space and number of parking spots existing.

27.00 Automobile Parking

26.00 Determining Parking Need

Demand for automobile parking facilities is shaped by many influences -- enrollment, policy, physical characteristics of the campus, off-campus provisions, economic considerations, habits of automobile users, availability of mass transit, and a number of other things. These influences will vary broadly from campus to campus.

Generally, parking facilities will be required for students, faculty, staff and visitors. Policy decisions will be required for each category of user.

Analyses of the need (demand) for automobile parking facilities should be based upon information gathered from a series of questions similar to the following:

A. Policy

1. Will limitations be imposed upon the use of automobiles by students, faculty, staff and/or visitors? If so, what will they be?

2. Will parking fees be charged? If so, what will be their approximate amount by classification of user?

2Present policy provides that appropriated state funds will provide for facilities for parking of state-owned vehicles only.
3. Will restrictions be placed upon which parking facility may be used by the several classifications of auto user?

4. Will registration of vehicles be required?

5. Will curb parking be permitted on the campus street network? If so, will parking be regulated?

6. Will curb parking be permitted on the street network surrounding the campus? If so, will parking time be limited?

7. For whom and for what types of on-campus activities or functions will visitor parking facilities be provided? Parking demand by visitors can range from limited need at such visitor used buildings as the administration building, union, library, etc., to vast need at spectator facilities for the performing arts, athletic events, and other such affairs.

B. User Preference and Habits

1. What proportion of the students, faculty, staff and/or visitors presently drive an automobile for or on the campus? Daily or less frequently? If less than daily, how often?

2. How many passengers are there in the car on an average basis?

3. How far is the user in each classification willing to walk from his parked automobile to his destination?

4. Would the user be willing to pay a parking fee? If this fee were to vary depending upon distance between parking facility to destination, would this affect the selection of the location of the facility used?

5. Would the use of mass transit be appealing if the price were considered reasonable? Is mass transit available or likely to be available in the area of the campus?

After adequate data related to policy, user preferences and habits have been generated, the number and kinds of parking spaces required to serve the several user categories may be estimated. Such estimates may be made upon a population served basis or by relationship to land uses. For the first method, determine the present ratios of automobiles to campus population and project that factor (weighted if necessary to reflect changing
circumstances) over the several phases of enrollment growth. For the second method, determine how many vehicles are GENERATED attracted by each type of campus land use. Estimate future land-use requirements and, in turn, future parking loads. Perhaps, the two methods will be used in combination. Actually, conditions at the various campuses in Colorado vary so widely that a specific forecasting procedure will likely have to be developed for each campus.

27.00 Existing Parking Facilities

EXISTING PARKING FACILITIES SHOULD BE INVENTORIED AND EVALUATED FOR CONTINUED SHORT-TERM AND LONG-TERM USE AND DEDUCTED FROM TOTAL DEMAND. On campuses where parking facilities already exist, they must be inventoried and evaluated to determine their suitability for continuing use for short-range or long-range time frames. The facilities which will be used must be deducted from total demand in order to determine the scope of new facilities.

28.00 New Parking Facilities

Having identified quantity of parking spaces for the several user categories, it is necessary to consider the types and location of new parking facilities.

The availability and cost of land will bear heavily upon the type of parking facilities to be constructed. Surface parking lots including paving, curbing, stripes, and lighting may cost only $200.00 or so per space to construct, but they are capable of accommodating only 125 to 140 automobiles per acre. Multi-level parking structures are far more costly to build, say from $2,000.00 to $4,000.00 per parking lot relates to the price of land, but can accommodate more vehicles per acre than surface lots. When land values range over $150,000.00 to $175,000.00 per acre, it becomes economical to construct structured parking. Another criterion for DECIDING WHETHER TO BUILD SURFACE LOTS OR MULTI-LEVEL PARKING STRUCTURES this decision relates to the ability to finance parking facilities without imposing undue FINANCIAL strain on the pocketbook of the users.

On some campuses, a great portion of the auto parking is accommodated at the curbs of that campus street network. Frequently, this is an ugly and dangerous answer to the problem.

Location of parking facilities should be determined in large measure on the basis of the destination of the driver. Other factors which should be considered are campus policy and many aspects of general campus layout.

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In 1973 dollars, not including cost of land.
including the pattern of the street network, building location, location of available open land areas, contour of terrain, etc.

It might well be noted that, in some instance, parking facilities for visitors who are spectators at large public events on campus are sometimes provided on grass field areas used for physical education or as environmental green spaces. Frequently, this practice results in damage to such areas which is costly to repair. A decision to follow this practice should be carefully made.

When land for parking facilities is simply not available on campus, remote parking lots may be workable using a system of shuttle buses to reach the campus destination.

29.00 Student Demand

Calculating the need or demand for parking facilities is difficult. Most methods of measuring demand are so time consuming and complete that they are bypassed in favor of the somewhat arbitrary method of present parking usage on campus and projecting this historical data into the future, weighing it to reflect probable trend changes.

A study of vehicle registration will frequently produce the number of vehicles registered to each category of user (resident students, non-resident students, etc.). The CAR OWNERSHIP RATIO (COR) may be computed for each user classification through the following formula:

\[
\text{COR} = \frac{\text{Total Population (Resident Student)}}{\text{No. of vehicles registered (resident students)}}
\]

The CORs developed for each user classification may be weighed and applied against population projections to compute future student parking demand.

The number of students in class during the maximum class hours of the week is used with the CORs to determine how many student vehicles are on campus during the maximum hour (or time of peak usage). The number of resident student vehicles in the parking lots will probably remain about constant during the week, as will faculty staff requirements. However, non-resident student requirements will vary considerably during the day and this is the reason the peak class hour is used.

An examination of the general trend of car ownership, using the past and present CORs for each category of parkers, will establish appropriate ratios for future years. It is expected that, with car ownership on the rise throughout the nation, and certainly with young people, these ratios will be
no larger than the present CORs found and will probably be smaller. All
future constraints should be taken into account. For instance, it should be
recognized that, if the current administration's policy is not to build new
dormitories and not to restrict enrollment, student enrollment increases will
occur within the non-resident body. Therefore, very little, if any additional
resident student parking will need to be provided. However, under these
circumstances, non-resident student parking may quickly become critical.

30.00  Faculty-Staff Demand

The car ownership ratios for faculty and staff are used in conjunction with
the maximum expected numbers of faculty and staff members on campus at
any one time in order to determine the number of faculty-staff vehicles on
campus. By using historical and current car ownership ratios, projections of
the expected number of vehicles on campus, given the future number of
faculty-staff members, can be made.

31.00  Turn-Over

The actual capacity of campus parking facilities must exceed the number of
vehicles to be accommodated in order to permit turn-over of spaces between
peak load periods ONLY if the peak load periods occur back-to-back. In
other words, if two peak load periods occur back-to-back, it would not be
possible for sufficient parking spaces to be vacated and new vehicles
accommodated within the time period available between classes.
### TABLE—B4 b BUILDING SPACE SUMMARY BY TYPE OF SPACE

<table>
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<tr>
<th>Function or Room Type</th>
<th>Function Code</th>
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<td>—Classroom</td>
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<td>—Classroom Service</td>
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<td>Organized Activities:</td>
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<td>—Classroom</td>
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<tr>
<td>—Classroom Service</td>
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<td>—Etc.</td>
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<td>—Faculty Offices</td>
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<td>—Etc.</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</tbody>
</table>

*Include all assignable and non-assignable room areas.*
### TABLE B4 - c SURFACE PARKING LOT INVENTORY

Note: This questionnaire pertains only to surface parking lots used daily for normal campus activities. Omit special use facilities used only for athletics or other spectator events, etc. A scale diagram of the lot may accompany this form if desired.

1. **KEY NUMBER ON SITE PLAN**

2. **NUMBER OF SPACES PROVIDED**

3. **GENERAL USE DATA**

   a. Is use restricted? Yes ______ No _____

   b. If so, to whom? Students ______
      Faculty ______
      Staff ______
      Visitors ______

   c. Are spaces reserved? Yes ______ No _____

   d. Are control devices used? Yes ______ No _____

   e. If so, what type? Special permits ______
      Parking meters ______
      Cashier ______
      Automatic gates ______
      Other methods ______

   f. Is parking lot related by location or use to a specific building or building group? Yes ______ No _____

   g. If so, state building function (academic, residence hall, etc.) ______

4. **GENERAL FACILITY DATA**

   a. Asphalt or concrete paving Yes ______ No _____

   b. Painted stripes Yes ______ No _____

   c. Concrete or asphalt curbs, bumpers, etc. Yes ______ No _____

   d. Lighting Yes ______ No _____

   e. Describe condition of facility (explain if necessary) Good _____ Fair _____ Poor _____
**TABLE B4-d**  **PARKING STRUCTURE INVENTORY**

Note: This questionnaire pertains only to parking structures used daily for normal campus activities. Omit any special-use facilities used only for athletics or other spectator events, etc. A scale diagram of each floor of this facility must accompany this form.

1. **KEY NUMBER OF AREA ON SITE PLAN**

2. **NUMBER OF SPACES PROVIDED**

3. **GENERAL USE DATA**
   - a. Is use restricted? Yes _____ No _____
   - If so, to whom?
     - Students _____
     - Faculty _____
     - Staff _____
     - Visitors _____
   - b. Are spaces reserved? Yes _____ No _____
   - c. Are control devices used? Yes _____ No _____
   - If so, what type?
     - Special permits _____
     - Parking meters _____
     - Cashier _____
     - Automatic gates _____
     - Other methods _____
     - (Explain)
   - d. Is parking structure related by location or use to a specific building or building group? Yes _____ No _____
   - If so, state building function (academic, residence hall, etc.)

4. **GENERAL FACILITY DATA**
   - Describe scope of facility
   - a. Number of stories, including ground level
   - b. Type of construction Yes _____ No _____
   - (concrete, steel, etc.)
   - e. Is facility above or below grade?
   - d. Is facility lighted? Yes _____ No _____
   - e. Describe condition of facility (explain if necessary) Good _____ Fair _____ Poor _____
TABLE B4-e ON-STREET (CURB) PARKING INVENTORY

Note: This questionnaire pertains only to on-street (curb) parking spaces used daily for normal campus activities. Omit any special-use spaces. Provide a site plan identifying location of curb parking area.

1. **KEY NUMBER OF AREA ON SITE PLAN**

2. **NUMBER OF SPACES PROVIDED**

3. **GENERAL USE DATA**

   a. Is use restricted? Yes ______ No ______

   If so, to whom?
   - Students ______
   - Faculty ______
   - Staff ______
   - Visitors ______

   b. Are spaces reserved? Yes ______ No ______

   c. Are control devices used? Yes ______ No ______

   If so, what type?
   - Special permits ______
   - Parking meters ______
   - Other methods ______
   - (Explain)

   d. Is on-street (curb) parking related by location or use to a specific building or building group? Yes ______ No ______

   If so, state building function (academic, residence hall, etc.)

4. **GENERAL FACILITY DATA**

   Describe scope of parking

   a. Marking of spaces Parallel ______ Diagonal ______

   b. Is street paved? Yes ______ No ______
### TABLE B4f – AUTOMOBILE PARKING FACILITY INVENTORY – SUMMARY

Note: On this form, enter data which have been set forth in detail on Tables B4c, B4d, and B4e.

1. **SURFACE PARKING LOT SPACES**
   - a. Number of unassigned spaces
   - b. Number of assigned spaces
     - Students
     - Faculty
     - Staff
     - Visitors
      - Total
   - e. Total surface parking lot spaces

2. **PARKING STRUCTURE SPACES**
   - a. Number of unassigned spaces
   - b. Number of assigned spaces
     - Students
     - Faculty
     - Staff
     - Visitors
      - Total
   - e. Total parking structure spaces

3. **ON-STREET (CURB) SPACES**
   - a. Number of unassigned spaces
   - b. Number of assigned spaces
     - Students
     - Faculty
     - Staff
     - Visitors
      - Total
   - e. Total on-street (curb) spaces

4. **TOTAL PARKING SPACES**
32.00 Other Surface Development

A. Key Map

Provide a key map identifying significant surface development of campus land for other than buildings or automobile parking facilities. (example: paved courts for physical education, athletics, or recreation; grandstand; grass fields for physical education, athletics, or recreation; etc.) On relatively simple smaller campuses, this key map may be combined with key maps for buildings and parking facilities. Identify each surface development included on the key map with the code number and use described in the inventory.

B. Each Facility

Provide adequate descriptions of each facility including use, size, condition, etc.

33.00 INFORMATION TECHNOLOGY STRATEGIC PLANNING

INFORMATION TECHNOLOGY (IT) CAN HELP INSTITUTIONS REACH EVOLVING GOALS AND DELIVER ACADEMIC, ADMINISTRATIVE, STUDENT, AND INSTITUTIONAL BUSINESS SERVICES; PROVIDE LEARNING AND RESEARCH TOOLS AND RESOURCES FOR STUDENTS AND FACULTY; AND PROVIDE A TECHNOLOGY FOUNDATION TO ENABLE INTELLECTUAL EXPLORATION, DISCOVERY, AND GROWTH.

ACADEMIC AND INSTITUTIONAL GOALS SHOULD DRIVE PRIORITY SETTING AND INVESTMENTS FOR INFORMATION TECHNOLOGY DECISIONS. IN THIS CONTEXT, EVERY HIGHER EDUCATION GOVERNING BOARD AND INSTITUTION SHOULD HAVE MEANINGFUL IT PLANNING PROCESSES IN PLACE. LINKAGES BETWEEN INFORMATION TECHNOLOGY AND ACADEMIC PROGRAM INITIATIVES SHOULD BE INCORPORATED WITHIN THE FRAMEWORK OF THE INSTITUTIONAL FACILITIES/INFRASTRUCTURE PLANNING DOCUMENT.

A. OBJECTIVES

THE OBJECTIVES OF INFORMATION TECHNOLOGY STRATEGIC PLANNING ARE TO ENSURE THAT APPROPRIATE RESOURCES ARE IN PLACE TO SUPPORT THE INSTITUTIONS’ ROLES AND MISSIONS AND THAT STATE, COMMISSION AND SYSTEM
GOALS ARE ACHIEVED. INFORMATION TECHNOLOGY PLANNING ENABLES GOVERNING BOARDS AND INSTITUTIONS TO FORECAST AREAS IN WHICH NEW POLICY OR FUNDING INITIATIVES ARE DESIRABLE.

B. STATUTORY AUTHORITY

23-1-108 C.R.S. PROVIDES GENERAL DUTIES AND POWERS OF THE COMMISSION WITH REGARD TO SYSTEMWIDE PLANNING, SPECIFICALLY, “(A) FOR THE BEST USE OF AVAILABLE RESOURCES,” WHICH IS INTERPRETED TO INCLUDE IT RESOURCES.

23-13-104 C.R.S. PROVIDES STATEWIDE EXPECTATIONS AND GOALS FOR HIGHER EDUCATION, INCLUDING “(1) (D) TECHNOLOGY INTEGRATION TO LOWER THE INSTITUTION’S CAPITAL AND ADMINISTRATIVE COSTS AND IMPROVE THE QUALITY AND DELIVERY OF EDUCATION AND PROVIDE EFFECTIVE STEWARDSHIP OF EXISTING ASSETS, RECOGNIZING THAT ALL TECHNOLOGY CHANGES MAY NOT RESULT IN LOWER COSTS IN THE ACADEMIC ARENA. TO MEET THIS GOAL, EACH INSTITUTION SHALL: (I) INTEGRATE TECHNOLOGY TO REDUCE THE INSTITUTION’S COST PER UNIT OF EDUCATION; (II) INTEGRATE TECHNOLOGY TO IMPROVE THE MARKETABILITY OF GRADUATES IN THE WORKPLACE; (III) IMPROVE STUDENT ACCESS AND CONTINUING EDUCATION THROUGH INCREASED DISTANCE LEARNING; (IV) IMPROVE LEARNING PRODUCTIVITY.”

34.00 GOVERNING BOARD AND INSTITUTIONAL PLANNING

EACH HIGHER EDUCATION GOVERNING BOARD SHALL ENSURE THAT ALL INSTITUTIONS UNDER ITS AUTHORITY HAVE APPROPRIATE AND MEANINGFUL INFORMATION TECHNOLOGY DECISION-MAKING PROCESSES AND THAT GOVERNING BOARD PLANNING PRIORITIES AND CRITERIA, AS APPROPRIATE, ARE USED. SUCH GOVERNING BOARD DECISIONS SHOULD GUIDE INSTITUTIONAL IT DECISIONS FOR ENSURING ADEQUATE AND APPROPRIATE ASSETS (INFRASTRUCTURE, TECHNOLOGY, AND APPLICATIONS) ARE IN PLACE WITH ADEQUATE SUPPORT FOR THEIR EFFECTIVE USE.
A GOVERNING BOARD’S ASSESSMENT OF INFORMATION TECHNOLOGY NEEDS WITHIN ITS SYSTEM AND FOR SPECIFIC INSTITUTIONS SHOULD SERVE AS THE FOUNDATION FOR TECHNOLOGY DECISION-MAKING WITHIN PROGRAM PLANS AND THE INSTITUTIONAL FACILITIES/INFRASTRUCTURE PLAN. THE COMMISSION ENCOURAGES INSTITUTIONAL UPDATES TO IT STRATEGIC PLANS WHEN APPROPRIATE, BUT AN UPDATE MUST BE INCORPORATED IN THE INSTITUTIONAL FACILITY/INFRASTRUCTURE PLAN WHEN IT IS SUBMITTED FOR REVIEW.

IT STRATEGIC PLANS PROVIDE A CONTEXT FOR INDIVIDUAL INITIATIVES AND DO NOT COMPRISE DETAILED COMMITMENTS.

IT STRATEGIC PLANS SHALL INCLUDE HIGH-LEVEL DESCRIPTIONS OF KEY GOALS, STRATEGIES, INITIATIVES, AND RESOURCES REQUIRED. DISTANCE LEARNING OBJECTIVES SHALL BE INCORPORATED. MAJOR INITIATIVES IDENTIFIED IN THE STRATEGIC PLAN FOR INVESTMENT WILL REQUIRE ADDITIONAL DETAILED PLANNING. AN IT STRATEGIC PLAN SHALL PROVIDE INFORMATION THAT IS USEFUL IN UNDERSTANDING THE CONTEXT FOR ANY FUNDING REQUEST TO THE INSTITUTION, GOVERNING BOARD, OR THE STATE.

35.00 EXPECTED ELEMENTS OF AN IT STRATEGIC PLAN

THE ASSESSMENT SHALL PROVIDE THE FOLLOWING INFORMATION:

1. A SUMMARY OF RECENT TECHNOLOGY INITIATIVES AND ACCOMPLISHMENTS
2. A SUMMARY OF THE CURRENT STATUS OF IT OPERATIONS, INITIATIVES, RESOURCES, AND KEY ISSUES
3. A STATEMENT OF MAJOR GOALS AND OBJECTIVES FOR INFORMATION TECHNOLOGY SUPPORT AND INVESTMENTS
4. AN ASSESSMENT OF DISTANCE LEARNING PROGRESS AND FUTURE OBJECTIVES
5. AN ASSESSMENT OF STRATEGIC IT ISSUES AND BARRIERS OR OBSTACLES TO SUCCESSFULLY FULFILLING ACADEMIC OR ADMINISTRATIVE GOALS
6. A DESCRIPTION OF THE PROPOSED STRATEGIES FOR ACHIEVING THE GOALS ALONG WITH A STATEMENT OF RATIONALE
7. A FINANCIAL SUMMARY KEYED TO THE RESOURCES REQUIRED TO IMPLEMENT THE INITIATIVES.

36.00 RELATIONSHIP OF INFORMATION TECHNOLOGY PLANNING TO FACILITY/INFRASTRUCTURE PLANNING

GOVERNING BOARDS MAY CONTINUE TO REQUEST STATE CAPITAL CONSTRUCTION FUNDING THROUGH THE COMMISSION FOR IT PROJECTS WITHIN THE CAPITAL CONSTRUCTION REQUEST PROCESS. SUCH REQUESTS SHALL BE SUBMITTED IN ACCORDANCE WITH CCHE POLICY AND GUIDELINES FOR CAPITAL CONSTRUCTION REQUESTS. ALL CAPITAL FUNDING REQUESTS MUST CITE A CURRENT IT STRATEGIC PLAN.

III. LONG RANGE FACILITIES/INFRASTRUCTURE PLANNING APPENDIX

SUPPORTING DATA FORMATS

Forms III, A through C were adopted in 1982 as part of the CCHE Statewide Postsecondary Education Master Planning Manual.

These facilities data summaries have been moved from CCHE Policy Manual Part B (Institutional Master Planning Guidelines) to Part D (Long Range Facilities Master Planning Guidelines).

FORM III: Facilities Data Summary

PART A: Room Utilization
PART B: Building Inventory
PART C: Construction and Utilization Summary
### FORM III—PART A

**FACILITIES DATA SUMMARY—ROOM UTILIZATION**

**INSTITUTION:** ____________________________

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1. This data should be derived from the most recent available version of the institution's Facilities Inventory (A-1) report.
2. The total represents the sum of columns (2) through (9).
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3. Included as part of Academic Support.
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4. Included as part of Student Services.
5. Included as part of Institutional Support.
## FORM III—PART B

### FACILITIES DATA SUMMARY—BUILDING INVENTORY

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TOPIC: UNIVERSITY OF SOUTHERN COLORADO MASTER PLAN ADDENDUM REVIEW

PREPARED BY: GAIL HOFFMAN AND JEANNE ADKINS

I. SUMMARY

In October 2000 the Commission reviewed the University of Southern Colorado (USC) Master Plan. Several issues concerning the sufficiency of the plan and its conformity to Colorado Commission on Higher Education guidelines were raised at that time. The Commission deferred approval of the USC plan, referring it back to the State Board of Agriculture for its review of the issues raised.

Subsequently, USC submitted an addendum to its Master Plan Submission to CCHE for review.

II. STAFF ANALYSIS

The University of Southern Colorado Master Plan Addendum was submitted to CCHE on January 16, 2001, and responds to issues outlined in several areas. Staff recommends the Commission approve the University of Southern Colorado 2000 Facilities Master Plan with the Addendum.

Below is a summary and analysis of the University of Southern Colorado's response to the six areas for which additional information was requested:

1. USC re-evaluate its enrollment projections in light of the historic enrollment patterns for the institution in the first phase of the plan.

Summary: USC figures supplied in the Addendum show that full-time equivalent (FTE) enrollment has declined every year since the 1992-1993 school year, when enrollment peaked at 4,064, until 1999-00, when FTE enrollment grew 0.8 percent to 3,629 from the previous year. Enrollment has stabilized for 2000-01. USC recalculated its enrollment projections to reflect actual enrollment trends. The projections estimate that student enrollment at USC will grow 0.114 annually, compared to the population increase for the Pueblo area (0.14 annually) or the projected high school graduate increase in Colorado (0.41 annually).
Below are the revised figures, which include undergraduate and graduate students:

**Revised Student Enrollment Projection Summary (Figures in Parentheses are from the Facilities Master Plan)**

<table>
<thead>
<tr>
<th></th>
<th>HEADCOUNT</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of Phase I (2007-08)*</td>
<td>4,311 (4,900)</td>
<td>3,826 (4,340)</td>
</tr>
<tr>
<td>Mid Phase II (2010-11)*</td>
<td>4,566 (5,920)</td>
<td>4,067 (5,260)</td>
</tr>
</tbody>
</table>

*Because of the time lag between the year the master planning work began, in 1998, and submittal of the addendum, as well as CCHE direction to concentrate planning on the next 10 years and reassess its facility needs in light of updated enrollment projections, Phase I and Phase II differ between the master plan and the addendum. In the master plan, the end of Phase I was fall 2005 and the end of Phase II was fall 2017.

As a result of enrollment projection changes, the Addendum changes the timing of three of USC’s four proposed new construction projects: Student Housing, a Languages Building, and Student Services Building. Only the Education Classroom Building is proposed during the 10-year planning period covered in the Facilities Master Plan. The other three new construction projects are deferred until the latter part of Phase II, which is beyond the scope of the Facilities Master Plan. USC’s enrollment has not reached the maximum capacity of the existing buildings, nor will it for some time.

All of the academic planning items contemplated in the Academic Plan (see Item 7 below) could be accommodated in facilities as they exist or will exist once they are renovated as described in the Facilities Master Plan. However, building condition and delivery of state-of-the-art instruction in aging facilities (most built in the 1960s) will continue to be a concern. Many of the buildings on campus have structural and mechanical problems, and do not have the infrastructure necessary for today’s higher education. Many of the structural and mechanical problems are caused by clay and sandy soils. The clay soils expand and the sandy soils contract when wet. This has caused building concrete slabs to crack and buried utility lines to leak. Some of the foundations for the lighter buildings can be stabilized with high-pressure injected grout. A deep drainage system is doing much to reduce soil swelling. With controlled maintenance funds, USC is replacing some of the buried water and steam pipes with lines that are more resistant to corrosion from alkaline soils than the steel pipes. Aging heating, ventilation, and air-conditioning systems will be replaced through the building renovation program outlined in the Facilities Master Plan. Whether enrollment grows faster or slower than projected, many of the buildings will need an infusion of state controlled maintenance and capital construction dollars in the next several years.

Although all of USC classrooms are wired for Internet connectivity and several areas of the campus have been updated to handle broad-bandwidth applications for distance learning and multimedia, most of the campus is still on an old information technology infrastructure that cannot handle multimedia files and bandwidth-intensive applications. Through outside grants and some departmental funds, some of the network infrastructure has been converted to
Gigabit Ethernet and architecture that can support online education and technology-assisted teaching. USC, like many other state institutions of higher education, is also facing the challenge of finding and retaining staff to support the information technology that exists or is planned on campus.

**Analysis:** The enrollment revisions in the Addendum appear to be more realistic in light of recent enrollment trends than those in the Facilities Master Plan. The consequent changes in facility needs are in keeping with the enrollment projection changes. Although the original plan submission incorporates a building condition summary reflecting some of these needs, a timetable for correcting the deficiencies is not proposed within either the master plan or the addendum. Such an outline should be the “next step” for the institution in implementing this planning document from a facilities perspective.

2. **Incorporate the vision of the State Board of Agriculture for the institution within the master plan document and outline its relationship to CSU as the board envisions the partnerships outlined in the plan.**

**Summary:** The State Board of Agriculture has adopted three separate visions for the three institutions under its jurisdiction: Colorado State University, USC, and Fort Lewis College. The three are very different. CSU is a land-grant institution that the Carnegie Foundation classifies in the Doctoral/Research University Extensive category because it awards more than 50 doctoral degrees in at least 15 disciplines a year. Fort Lewis College is a state-supported liberal arts college that awards no graduate degrees and belongs to the Baccalaureate Colleges-Liberal Arts Carnegie Foundation grouping. USC is a polytechnic institution classified in the Master’s Colleges and Universities Carnegie Foundation category because it awards more than 40 master’s degrees across three or more disciplines. Also, role and mission descriptions of each institution in the Colorado Revised Statutes clarify and underscore wide differences among the three institutions. The State Board of Agriculture recognizes the importance of separate institutional missions, and has required their development.

Nearly 10 years ago, the State Board of Agriculture set these seven Strategic Areas of Emphasis for the three institutions to address continually:

1. Improving undergraduate education
2. Improving accountability, productivity, and efficiency
3. Enhancing higher education’s relationship with K-12
4. Research and other scholarly activities
5. Increasing institutional diversity
6. Preparation and training for a post-graduate world
7. Improving integration of technology into the educational process
The State Board of Agriculture focuses on one area each meeting to measure institutional progress toward addressing the priorities. How the institutions respond to these priorities is up to them, but the Board continues to judge the results.

Another way the Board encourages institutional cooperation is through collaborations between CSU and USC. In the past 18 months, CSU and USC presidents, vice presidents, deans, faculty, student affairs staff, and administrative services personnel have undertaken several collaborative projects. These include delivery of CSU graduate degrees on the USC campus with the participation of USC faculty. Student affairs personnel share projects for developing stronger and more educational campus life. Librarians share databases for students and faculty and admissions officers have begun development of common admissions processes. These and other collaborative efforts have resulted in the Board endorsing a name change for USC that would stimulate still further collaboration to the benefit of both institutions and the State.

Analysis: CCHE does not require governing boards to impose their visions from above for institutions in their systems. CCHE’s concern is that the master plan represents the campus’ academic goals and its projection of facility and technology needs to meet those goals. The Facilities Master Plan outlines a number of initiatives USC has taken under the seven areas of emphasis, however, but does not refer directly to them.

3. USC present an assessment of its technology plan and its impact on its facility plans.

Summary: The Academic Plan for USC states that “technology shall be integrated into the educational process to a) improve teaching effectiveness, b) to increase efficiency, and c) to improve student preparation for careers.” The University Technology Plan relates to the Facilities Master Plan in detailing the vision, roles, and future directions for technology to enhance teaching and learning, and to provide access to information. The Technology Plan assumes that all physical areas of the campus should be technology accessible, with individual colleges and departments identifying and pursuing their own academic and business needs. The USC campus has 100 percent of all classrooms wired for Internet and USCnet connectivity. The following table is taken from the addendum, and includes information on the number of classrooms currently equipped for various types of technology according to the Technology Master Plan and projections for next year:

**USC Classrooms Equipped for Technology**

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive Video Distance Education</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Web-Based Distance Education</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td>Multimedia Equipped Classrooms</td>
<td>42</td>
<td>62</td>
</tr>
</tbody>
</table>
The technology enhancements either in place or expected to be by the end of the 2000-2001 school year are for USC’s traditional on-campus students. Computers and other presentation technologies are intended for traditional on-campus courses and are not designed with distance education in mind.

USC already offers many teacher preparation courses via distance education and could increase the number of courses offered in this way. Faculty responsible for USC’s teacher education curriculum believe the methods courses are best conducted where students can participate in direct, personal instruction. Therefore, USC does not expect that distance education will lessen the need for the Education Classroom Building by the last year of the master plan, 2010.

In addition, USC received a Title III grant in 2000 that will be used to implement an Instructional Technology Center. The Center, which will assist faculty with using technology, will survey the campus to determine what types of technology are used in each class and plan future upgrades and enhancements. Also, the Provost developed a comprehensive plan for distance education that the USC Faculty Senate has ratified. In answer to a CCHE question on the Addendum, USC does not expect distance education to affect facility needs. That’s because the majority of students registering for distance education courses are also enrolled in traditional on-campus courses.

Recent developments in educational technology make it possible for an instructor to teach a distance education class from a personal computer in his or her office. A specially equipped classroom is not necessary. USC presented this information in response to a CCHE question on the Addendum:

**USC Distance Education Courses, Academic Year 2000-2001**

<table>
<thead>
<tr>
<th>Term</th>
<th>Number of Courses</th>
<th>Number of Students</th>
<th>Number of Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>23</td>
<td>459</td>
<td>1,315</td>
</tr>
<tr>
<td>Fall</td>
<td>25</td>
<td>630</td>
<td>1,751</td>
</tr>
<tr>
<td>Spring</td>
<td>27</td>
<td>925</td>
<td>2,611</td>
</tr>
</tbody>
</table>

**Analysis:** The emphasis in the Facilities Master Plan is on remodeling existing buildings, not constructing new ones. Information USC has provided CCHE since publication of the Facilities Master Plan indicates the heaviest users of distance education courses are students already enrolled in traditional on-campus courses. This may indicate the distance education option allows students to take courses on line more easily and at more convenient times for them than on campus. However, this does not automatically lead to the assumption that distance education will have no impact on facilities needs.
4. **USC re-evaluate its proposed administrative space needs and reassess the growth of its administrative resources in light of its inability to achieve expected enrollment growth.**

**Summary:** Non-teaching FTE positions at the University of Southern Colorado grew 2 percent from 1989-90 through 1999-2000, according to information CCHE assembled in response to Footnote 61 in the Long Bill. CCHE interpreted its findings to mean administrative positions. USC maintains most of the staff additions have been for student support services, not administration. Additional help in student support services is necessary to boost enrollment, USC states in the Addendum.

In the addendum, USC outlined the following as factors they contend contribute to the increase in the non-teaching FTE:

- Adding staff to positions specifically focused on retention, such as creating a Career Center staffed by a career specialist and a job locator, and assigning new staff members to advising, counseling and student financial aid.

- Creating a Learning Assistance Center to assist those students needing significant academic support. The Learning Assistance Center includes a director, a testing coordinator, a disabilities specialist, and a coordinator of the on-line writing center. USC believes this means of intervention is effective in improving student retention.

- Assigning additional staff to Student Financial Services in order to provide a more comprehensive financial aid packaging and counseling unit. Approximately 85 percent of USC students receive some form of financial assistance. Additional staff members worked on developing a financial aid process to better assist students with their immediate financial concerns and help them with their future financial needs. USC believes this helps both recruit and retain more students.

- Hiring new coaches and a groundskeeper for the Rawlings Field Outdoor Sports Complex due to adding baseball and softball in 1994. The addition of intercollegiate sports responds to concerns of students regarding the lack of activities on campus.

- Adding a network analyst and an administrative assistant in the Provost’s office, which has the primary responsibility of coordinating the enrollment efforts for USC. These are the only positions USC regards as administrative in nature.

Student services being developed for on-line delivery include those associated with the application and registration processes. Decisions still need to be made about providing admissions, suspensions, and grades on-line. On-line student services could potentially reduce the number of front-desk personnel. However, USC believes placing all student services in a centrally located new building should improve the student experience.

**Analysis:** USC’s argument is that most of the new non-teaching positions are for student support services. Providing on-line student support services is among the priorities for the current strategic planning process. Construction of the Student Services Building is outside the scope of this Facilities Master Plan, according to information in the Addendum. The
eventual size of the Student Services Building will be determined much later — after USC has had enough time to assess the impact on facility needs of providing more student services online. Technology-accessed services should continue to be addressed.

5. Given historic performance USC should re-evaluate its graduate/undergraduate projections, its freshmen retention rates and retention projections and its enrollment projections in a 10-year window — not the 20-year window outlined in the two-phase plan — using academic year 99-00 as the base year.

Summary: Information addressing the first question summarizes data that answers this question. USC redid its projections in the Addendum to not extend beyond a 10-year window. However, USC used 1998 as the base year rather than 1999.

Analysis: As stated for the first question, enrollment projection changes made in the Addendum are logical and reasonable.

6. That the institution provide “the next step” of the USC in Transition assessment, providing CCHE with its vision of how it might re-design its curriculum to meet the needs outlined in that intra-institutional assessment.

Summary: A special planning committee wrote USC in Transition in response to a budget restructuring. USC in Transition was included in the USC Facilities Master Plan, but wasn’t intended to be anything more than a short-term plan before a longer-term strategic planning process began in 2000-2001. From USC in Transition, the academic plan, and the current 1996-2001 USC Strategic Plan, these initiatives are either in place or are being implemented:

- Merging of several academic programs into a new college, the College of Education, Engineering, and Professional Studies
- Restructuring of requirements for university majors to comply with the 120-hour maximum credit hour graduation requirement
- Continuing efforts to obtain accreditation for the Hasan School of Business
- A new emphasis area in the Mass Communications major, New Media Studies, responsive to general trends in the industry and profession
- Mass Communications, Business, Art and English faculties have collaborated to create an interdisciplinary minor in Professional Writing

The new University-wide USC 2002-2007 Strategic Planning Committee began work in fall 2000, and has as its principal charge to develop the USC 2002-2007 Strategic Plan between 9/2000 and 8/2001. This committee so far has identified seven priorities for inclusion in the new strategic plan:
1. Increase enrollment in undergraduate and graduate programs — USC will pursue its goal of having 3,821 FTE undergraduate students and 246 FTE graduate students by the end of the strategic planning period.

2. Technology — The Web presence will be improved, and services will be provided to students allowing on-line applications for admission, registration, checking grades, and student account review. The Instructional Technology Center will be established to help faculty make use of technology in the classroom, and USC will continue seeking external funding for information technology.

3. Salary equity for faculty and staff — USC intends to make the salaries of its faculty and staff competitive with that of other institutions.

4. Improve access to educational opportunity — Besides its graduate degrees offered in collaboration with CSU in social work and in educational leadership, the University is committed to its off-site degree programs at regional community colleges.

5. Campus facilities and grounds — Development of the Facilities Master Plan is among the steps the university is taking to improve the condition and appearance of the campus and its buildings.

6. Educational partnerships and outreach — USC will continue with the formation and support of educational partnerships. They include a bachelor’s degree program offered at Trinidad State Junior College, a partnership with Pueblo Community College to form the Center for New Media, and USC’s decision to host Pueblo Community College’s Police Academy on the university campus, as well as the partnership with the local school district in the Educational Alliance of Pueblo.

7. Student Life — USC will continue to provide access to a wide array of facilities, programs, and organizations to extend the collegiate experience beyond the classroom.

USC is considering adding the following academic programs:

- Bachelor’s degrees: Fine Art, Liberal Studies.
- Bachelor minor: Interdisciplinary or multidisciplinary minor in Non-Profit Management.
- Seek certification from the American Chemical Society for Chemistry majors.
- An Environmental Technology option in the Biology major.

Analysis: The Facilities Master Plan is linked with other campus planning efforts, although that linkage wasn’t clearly stated in the Facilities Master Plan. The Addendum also outlines a
variety of ways the university is redirecting its efforts. Given the upgrade at its chemistry and life sciences building and new technology added to those classrooms and laboratories and other available academic space, existing facilities should accommodate any of the proposed program changes outlined above if they are forwarded.

7. Other informational issues (included in a CCHE staff discussion with USC officials after the October 2000 Commission meeting): The partnership with the private sector as it relates to student housing should be described. Provide commentary about USC’s commitment to renovation as an alternative to new construction. Discuss classroom scheduling.

Summary: On student housing, the Facilities Master Plan and the Addendum state that USC operates a traditional residence hall and is a partner in a privately operated apartment complex. USC is not planning to build new student housing facilities during the planning period because of the occupancy figures at both complexes. The traditional residence hall has a capacity of 500 students, but currently houses only 375. The apartment complex has about a 20 percent vacancy rate.

In October 1996, USC entered into a ground lease with a private developer to build student apartments, the first transaction of its type in Colorado. The agreement specified that eight separate two-story buildings with the capacity to house 150 USC students would be constructed. Key provisions of the management agreement were:

- All net profits earned from rentals belong to the developer until the developer receives net income equal to aggregate investment (about $3.8 million), plus a 15 percent rate of return per year, compounded annually. After the obligation is met, 20 percent of net profits will be paid to USC.

- The apartment buildings were constructed at no cost or expense to the university. Any debt, including financing costs, is the responsibility of the developer. If the developer defaults, neither the state nor the university is responsible for the unpaid balance.

- USC has the option to purchase the developer’s leasehold interest at fair market value. The developer may use its leasehold interest as collateral for debt, but cannot affect a lien on the property.

On USC’s commitment to renovation as an alternative to new construction, the Addendum notes that the Chemistry building was renovated last year and the Life Sciences and the Physics/Mathematics buildings (two buildings but one project) are being renovated, with completion and reopening scheduled in 2002. New buildings discussed in the Facilities Master Plan include student housing, an education classroom building, a languages building, and student services building. The only new construction project that will begin at the end of the planning period is the education classroom building. The others have been deferred until the latter half of Phase II (2010-2011), beyond the scope of the Facilities Master Plan.

On classroom scheduling, the Addendum states that USC is offering 43 fewer courses scheduled to begin before 3 p.m. than it did in the fall of 1998, the beginning of the planning
period. Courses scheduled to begin after 3 p.m. have increased 15 percent since fall 1998. The number of courses scheduled to begin in the evening has doubled in the same period. The university offers the master’s in business administration program only during evening and weekend hours. Both existing and proposed CSU/USC collaborative master’s programs are scheduled during the evenings and weekends.

**Analysis:** From the information provided in the Addendum, it appears that USC has been a pioneer among Colorado colleges in finding private-sector partners for building student housing. USC’s emphasis in the Facilities Master Plan on remodeling and renovation is commendable, as is moving back three of the four proposed new construction projects until it appears USC might have the student enrollment to justify them.

From the information provided in the Addendum, it also is evident that USC is taking steps to schedule classrooms at times other than the 9 a.m. to 2 p.m. window to which students objected in questionnaires included in the Facilities Master Plan. Expanding the window builds a potential for increased enrollment and also expands the use of the institution’s existing facilities.

### III. STAFF RECOMMENDATION

That the Commission:

- Grant a six-year approval for the University of Southern Colorado Master Plan as amended by the Addendum submitted January 2001;

- That USC on completion of its strategic plan file an executive summary of the document as an addendum to the plan for future review of program plans submitted during the life-span of the facility planning document; and,

- That USC’s technology planning document incorporate its distance learning objectives and its infrastructure needs as it is updated as an addendum.
I. SUMMARY

This agenda item describes the degree program name changes that the Executive Director has approved during the past month.

Although the Executive Director approves name change requests that are technical, the Commission may raise objections if it perceives that the change is substantive. Name changes that involve substantive changes to the curriculum, a different student population, or broadening of the degree program’s scope require Commission discussion and action. The Executive Director approved the merger request from MSCD and the technical name change for UCD.

Institution: Metropolitan State College of Denver

Current Program Names: Spanish (BA), French (BA), German (BA)

New Program Name: Modern Languages (BA)

Approved by: The Trustees for the State Colleges of Colorado (March 16, 2001)

Rationale: To positively impact low demand programs.

Scope of Proposed Change: The merging the three degree programs has improved the quality of the foreign language offering. The three tracks require students to take four core courses, four courses of advanced French, German, or Spanish, five literature and culture courses, and a senior experience. The redesign occurred concurrently with the redesign of teacher education. In summary, the proposed name change/merger will have a positive impact on Modern Language students by allowing them to complete the degree program in 120 credits and potentially increase the enrollment level.
Proposed Action by Executive Director:

Approve the name change as requested.

Institution: University of Colorado at Denver

Current Program Name: Administration, Supervision, and Curriculum Development (MA) (Ed.S)

New Program Name: Administrative Leadership and Educational Policy Studies (MA) (Ed.S)

Approved by: The University of Colorado Board of Regents (March 16, 2001)

Rationale: To address a trademark infringement complaint.

Scope of Proposed Change:

No change in program graduation requirements, course offerings, or course content. Therefore, proposed name change has no impact on currently enrolled or future students.

Proposed Action by Executive Director:

Approve the name change as requested.
I. SUMMARY

This agenda item presents the concept paper(s) submitted to the Commission during the past month:

*Ph.D. in Neuroscience at the University of Colorado at Boulder*

This report includes a summary of the issues identified by CCHE staff and a copy of the concept paper. No action is required of the Commission at this time, but if the Commission wishes to have additional issues addressed or questions answered in the full proposal, these can be added to those in the staff report.

II. BACKGROUND

Approval by the Commission of a new degree program proposal is a two-stage process. The governing boards submit a concept paper to the Commission that provides an opportunity for the Commission to identify potential state issues prior to developing the full proposal. In contrast, the full proposal includes details about curriculum, financing, capital construction needs, and other implementation details.

**Stage 1: Concept Paper**

Before an institution develops a full proposal, the governing board or its staff shall submit a short concept paper to CCHE that outlines the proposed program goals, the basic design of the program, the market it plans to serve, and the reasons why the program is appropriate for the institution and its role and mission. CCHE policy does not require the governing board to approve the concept paper.

After the Commission staff reviews the concept paper, a staff member meets with representatives of the governing board to discuss issues and concerns related to the proposed degree. The staff presents the issues that need to be addressed in the full degree program proposal. A concept paper may be submitted by the governing board at any time and may be included on any Commission agenda.
Stage 2: Full Degree Proposal

The full proposal for a new degree program reaches the Commission only after undergoing review by, and receiving approval from, the governing board. The request for new degree approval must include:

- A complete degree program proposal as defined by the governing board policy.
- The institution’s responses to the peer review comments.
- Tables of enrollment projections, physical capacity estimates, and projected expense and revenue estimates.
- An analysis by the governing board of the potential quality, capacity, and cost-effectiveness of the proposed degree program.
- The governing board’s response to the issues identified in the Commission’s review of the concept paper.

In addition, graduate degree programs require review by an external consultant. The Commission staff selects and contacts the external consultant; the governing board staff reviews the list of potential reviewers.

Once the governing board approves a proposal, the Commission staff prepares an analysis of the proposal, an institutional profile giving additional context for the institution’s capacity and market demand, and a recommendation based on the statutory criteria.

The Commission only considers degree proposals at its January or June meetings. This provides the Commission an opportunity to examine the proposals in the context of statewide need.
I. SUMMARY

The University of Colorado at Boulder (UCB) has submitted a concept paper for a Doctor in Philosophy (Ph.D.) in Neuroscience. The proposed degree is designed to meet student demand and doctoral-level education and advanced training in neuroscience for graduate students at UCB.

II. BACKGROUND

The concept paper described a graduate degree program “…designed to maximize resources and intellectual efficiency, and is designed to meet the needs of students from a variety of backgrounds.” The general goal of the program is “…to meet student demand and provide high-quality education and advanced-level training in neuroscience for graduate students at the University of Colorado at Boulder.” Four specific goals are:

1. Create a labor pool of students trained in the neurosciences who are qualified for academic and non-academic employment.

2. Meet student demand for training in neuroscience.

3. Create a formal mechanism which increases the exposure of graduate students to the neuroscience techniques and research approaches used both within and outside of the home department of the student’s faculty advisor.

4. Train future researchers who will successfully compete for neuroscience jobs in academia and the private sector.

The concept paper identified thirteen departments with fifty-five faculty that would collaborate and form the nucleus of UCB’s efforts in the degree program. Numerous Colorado companies have identified the importance of having a doctoral degree program in neuroscience at UCB and expressed their willingness to support a program. Student interest from current students is strong.
III. ISSUES TO BE ADDRESSED IN THE PROPOSAL

At the concept phase, the Commission identified state level concerns early in the process so that the institution is fully aware of these concerns, particularly whether the proposed degree program is aligned with the institution’s role and mission, duplicates existing programs, and addresses a bona fide need.

A Ph.D. in Neurosciences is clearly within UCB’s role and mission.

The need for advanced education and training – up to the doctoral level – is documented by the concept paper.

It is less clear that the proposed degree program is so different from the existing Ph.D. in Neurosciences currently offered by the University of Colorado’s Health Sciences Center (UCHSC) that a separate degree program is necessary, especially within the same multi-campus system. The concept paper strives to provide a rationale for the need and sustainability of a separate Ph.D. in Neurosciences at UCB, but no discussion of the possibility of establishing a track within the existing Ph.D. in Neuroscience at UCHSC is presented. The potential within the University of Colorado system for collaboration and resource sharing among its campuses in terms of Ph.D. programs should be explored.

If UCB decides to develop a full proposal, the issue of utilizing the existing Ph.D. in Neuroscience program authority at UCHSC rather than creating a separate Ph.D. in Neurosciences program at UBC should be addressed.