This paper, from Mount Hood Community College (MHCC) in Oregon, describes the complex process of preparing an educational master plan. The paper reflects on how this process involved a number of consultants and a very active strategic planning council within the institution. It discusses three approaches to master planning: (1) not preparing a formal plan, but rather responding to needs and opportunities as they arrive; (2) severely limiting stakeholder involvement by having a plan prepared primarily by a single individual; and (3) designing and executing a comprehensive and exhaustive participatory process, which is the technique MHCC used with much success. Initially, the College employed several outside firms to assist with analyses, held a community forum, conducted an employer survey, and forged partnerships with local businesses. Based on input from various campus units and the community, the president's Strategic Planning Council developed a set of priorities, which were reviewed and acted on by the board. The strength of this participatory process is that it is inclusive, both internally and with regard to the external community. It also behooves the College to secure support for the master plan at the earliest stages of the process. Weaknesses of this approach include potential pitfalls in coordination. In 2001, when a new president joined the College, the master plan was ready to be finalized, and a local bond measure to fund the facilities component was in preparation. (Contains 20 references.)
From Academic Vision to Physical Manifestation

DRAFT 2-11-02

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From Academic Vision to Physical Manifestation

ABSTRACT

This community college-based case study describes and analyzes how a new mission and vision adopted by the college trustees was translated into a facility master plan. The new mission and vision is designed to serve the needs of the community and facilitate economic development, especially in the areas of health occupations, biotechnology and information/engineering technology. The facility master plan reflects the physical manifestation of the mission/vision with flexibility to meet future changes.

INTRODUCTION

Mt. Hood Community College (MHCC) has recently completed a comprehensive master planning effort. This effort has involved large segments of the campus community, industry, government, and district citizens who ultimately are voters on issues of concern to MHCC (Paulien, Clark and Walleri, 2000). This paper describes this complex process that involved a number of consultants and a very active strategic planning council within the institution. This study should be helpful to other campuses in considering more inclusive master planning processes at their institutions.

A major political challenge in preparing a master plan is managing the conflict over needs and priorities among stakeholders in the context of limited resources. In the case of a community college, these conflicts can have an external dimension because of the various segments of the community served and their particular needs. Typically, presidents and boards of trustees prefer to avoid such conflicts. Thus, one approach to master planning is simply not to prepare a formal plan, but rather respond to needs and opportunities as they arrive. Of course, such an approach has significant drawbacks, including the potential inability to anticipate and prepare for enrollment growth, changes in teaching and learning practices, and technological innovations among others. In addition, state and/or accreditation requirements may mandate that such plans be prepared.

A second major approach to master planning is to severely limit stakeholder involvement by having the plan prepared primarily by a single individual. The president and/or a designee, commonly with an outside consultant, would prepare the plan. In addition to conflict avoidance, this approach can produce a plan in a relatively short period of time. The disadvantages are similar to the first approach. Critical information and opportunities may be missed. If the resulting plan cannot be "sold" to stakeholders, adoption and funding for the plan could be delayed. In any case, without the support of key internal and external stakeholders, implementation is likely to fall short of the vision.
Buildings might get built, but what goes on in the buildings might be a far cry from what was originally intended.

A third approach is to design and carry out a comprehensive and exhaustive participatory process. Such an approach is likely to be lengthy and to stimulate a re-examination of institutional purpose. It is likely to lead to the identification of conflicting needs and priorities. Such an approach does not eliminate the need for a person or group to ultimately prioritize competing interests and projects. However, if successfully executed, a participatory approach can build the support among stakeholders needed for realization of the plan. This study traces the conduct of a participatory process, and examines the outcomes with particular focus on the relationship between the mission and vision contained in the academic plan and its physical manifestation in the form of a facility plan.

SETTING

The suburban communities (East of Portland, Oregon) served by Mt. Hood Community College (MHCC) have and will continue to undergo significant change and growth. The area is undergoing the transformation from a “bedroom” suburb of Portland to an urban community dominated by the technology industry (LSI Logic). Based on the East County area (MHCC district plus contiguous area), an estimated population of 477,000 in 2000 is projected to increase to over 565,000 by 2010 and over 630,000 in 2020. Enrollment has increased by over a quarter in the last five years and now stands at nearly 10,000 FTE and over 30,000 annual unduplicated headcount. An enrollment forecast indicates that MHCC will increase by about 3,000 annual FTE over the next ten years. The recent recession has hit Oregon particularly hard with the state’s unemployment rate the highest in the country. State revenue is down requiring reductions in current operating support for the community colleges among other state-funded programs. However, the long-term trends for the East County area point to continued population growth and economic development.

Oregon community colleges are autonomous districts governed by seven-member locally elected boards. There is a Commissioner for community colleges at the state level who reports to the Governor and State Board of Education (which also oversees the K12 system). Due to a series of voter approve initiatives; local property taxes have been severely restricted, with the majority of funding now coming directly from the State. Distribution of State funds is through an FTE funding formula, which has come under increasing stress due to lack of State funding keeping pace with community college enrollment growth.

The State of Oregon has traditionally not funded capital construction for the community colleges. Funding for facility construction must be secured through a local bond measure approved by the voters of the district. The last master planning effort had occurred in 1993-94, but focused almost exclusively on facilities and lacked a coherent educational and programming element. A local bond measure was submitted to the voters in 1995 to fund the facility master plan but was defeated by a wide margin. With
this defeat it has been some twenty years since the college has been able to pass a local bond measure.

When a new president arrived in 1996, a Strategic Planning Council had already been in place for many years. An advisory group to the president, the Council did not actually produce any plans, but rather focused on development of the planning process and monitoring its implementation. Development and implementation of the plan was an administrative responsibility.

One of the general recommendations from a 1997 accreditation review was that the college should devote greater attention to long-range development and strategic vision. In response, the president asked the Planning Council to develop a process for creation of an institutional master plan, including education vision and facility requirements. Beginning in fall 1998 then, shepherding the master planning process became a key focus of the Council’s work.

MASTER PLAN PROCESS

To assist with this effort several firms were engaged to provide needed expertise. The Metro Data Resource Center (Portland metropolitan regional government responsible for land use planning among others) completed an analysis of population and demographic information for the MHCC service area, including projections through 2020.

Charles McIntyre developed the enrollment-forecasting model. The resulting model is based on multiple regression analysis using historical MHCC data on enrollment, tuition and fees, and budget expenditures among others, and local demographic and economic data and projections (including results from Metro study described above). The variables influencing MHCC enrollment, in order of importance, are budget expenditures, policy (outreach and growth orientation), tuition and fees, unemployment rate, population, and Portland State University tuition and fees. In the model the key determinant of future enrollment is the economic forecast for Portland and Oregon. The logic is that continued economic expansion will ensure adequate state funding which, in turn, will allow MHCC budget to expand to accommodate enrollment demand (state funding accounts for the majority of college revenues and is based on FTE enrollment). A positive economic forecast indicates an enrollment growth of about 3,000 FTE between 1998-99 and 2010-2011. A significant economic downturn with resulting budgetary constraints indicates relatively stable enrollment over the next ten years with no significant growth. The actual modeling software was included in the contract, thus, MHCC retains the ability to run alternative scenarios and update the model as needed.

Paulien & Associates was engaged to assist the college with design and implementation of the process described in this document. Dan Paulien and Anne Clark visited MHCC to meet with the college management team and Planning Council. They
reviewed the key items needed in developing a sound education master plan, and continued to facilitate the process through completion of the academic plan. Paulien also facilitated two all-day planning forums, one for the campus and one for community leaders meeting with key campus constituents.

BOORA Architects were engaged to assist with development of the facility master plan. The result of their work is described below.

The following outline places the master plan in context and highlights milestones in its development.

1997-98
- Current six college goals identified (MHCC Board review)
- Full-Scope Accreditation Review

1998-99
- Accreditation Progress Report
- Planning Council designs master plan process
- Population and Demographic Change Projections
- Enrollment Simulation and Planning Model
- Planning Council publishes, Guidelines for College/Community Involvement in Development of Master Plan
- Planning Council members visit each MHCC division and department to gather input
- College Forum (June 1999)

1999-2000
- East County employer survey and focus groups (summer 1999)
- Accreditation Focus Report and Visit
- Community Forum (October 1999)
- Presentation/feedback sessions at community meetings
  - school district board meetings
  - service organization meetings
  - neighborhood associations
  - hosted breakfast/lunch meetings with community members
- Education Master Plan draft completed (June 2000)
- Facility Master Planning initiated
- MHCC Board of Education review

2000-2001
- Continuation of community outreach
- College Forum (November 2000)
- Facility Master Plan draft completed (April 2001)
- Review by MHCC Board of Education
- Master Plan completed (December 2001)
MHCC Board establishes priorities and proposed bond measure

In its design of the master planning process, the Planning Council took special care to emphasize and facilitate both internal and external community participation. In April 1999, the Planning Council published, *Guidelines for College/Community Involvement in Development of Educational and Facility Master Plans for Mt. Hood Community College*. Based on examples of local governmental and other college planning efforts, this document became the basis for a participatory planning process.

During May 1999, Planning Council members met with each division and department of the college to review the master plan process and facilitate initial input to the educational master plan. To assure consistency, the Director of Research and Planning participated in all of these meetings. This was followed with a College Forum in June 1999 attended by 100 college staff and community members to review the initial input to the educational master plan.

During the summer of 1999, the Research & Planning Office coordinated a survey of and focus groups with employers in the East County area.

In October 1999, a Community Forum was held to gather expectations of the community for the college. Beginning in August 1999 and through the present, presentations were made at meetings of various community organizations by both members of the Planning Council and the President’s Council.

In Fall 2000 – Council members again visited the college divisions and departments to gather feedback on the draft education plan and identify priority facility needs. Another College Forum was held in November to review the master plan with specific focus on college purpose and mission.

Academic planning is a re-iterative process with interim steps and benchmarks in reaching institutional goals. Evaluating progress toward goals is helping MHCC answer the questions: Are we on the right track? What results do we see? What have we learned?

Another major aspect of the master planning process has been to form local partnerships. Through partnerships with other community organizations, the college can enhance its service delivery and at the same time build the community support that will be needed to realize the goals and objectives of the master plan. Examples of the partnerships in place or under development include:

- Center for Advanced Learning – a collaborative effort of three local school districts, the college is assisting in the development of the curriculum and articulation with college programs.
- Troutdale property – a two acre site with 65,000 sq. ft. facility currently being acquired by the college following being declared surplus by the US Army Corps of Engineers. Educational use of the facility is currently being
assessed as part of the master plan, including potential participation of the local K12 districts.

- Gateway Re-Development Project is an initiative by the Portland Development Commission. The Gateway district is located at a major freeway interchange and regional transportation hub (light rail and bus). Portland State University and MHCC have been invited to participate with the expectation of locating a higher education center as part of the development effort.

Based on input from the various campus units and the community, the President's Council developed a set of priorities, which were reviewed and acted on by the College Board. In addition, community surveys were conducted to determine level of support for a potential local bond measure. Finally, a bond measure will be submitted to the voters in May and/or November 2002. The extensive effort to seek and incorporate community input into the process will greatly enhance the chances of gaining voter approval and being able to implement the master plan. In an all-staff Institutional Effectiveness survey conducted in May 2000, 57% of the respondents agreed with the statement: "Faculty and staff have been given the opportunity to participate in developing the college's Master Plan." This is the highest degree of agreement on any of the participatory items included in the survey.

The strengths of this process are that it is inclusive, both internally and with regard to the external community. Since realization of the master plan will undoubtedly require passage of a local bond measure, it is imperative that support for the master plan be secured at the earliest stages of the process. Weaknesses of this approach include the sheer challenge in coordinating the process. Issues arising within the process can become prolonged and difficult to resolve on a consensus basis. The College has integrated what was first separate facility planning and educational planning concepts into a comprehensive master planning effort, so that the final results will provide all the relevant information needed by the college to proceed.

Much of this took place in a time when there was significant labor strife and a faculty and/or staff strike was considered probable (Becker and Walleri, 2001). The parties continued to work amicably on the planning process, even while the tensions of these labor disputes were very evident. Individuals wearing buttons saying 'I'm working without a contract' participated in a very positive way in the planning efforts. This was not the case with other initiatives and there are several possible explanations for why the master planning effort was not disrupted. One contributing factor was the pressure to respond to the ongoing accreditation review. This was not a sufficient condition however, since several other activities designed to respond to accreditation mandates were suspended during 1998-99. A second factor was that the Planning Council and resulting planning process was viewed as neutral ground. Planning is an institutional exercise, and although certainly it effects specific units, the core value underlying the work of the Planning Council is to serve that interests of the institution as a whole.
Contributing to this positive effort in the face of divisiveness and institutional conflict was the community outreach effort and use of outside consultants. That is, the college faculty and staff tend to be on their “best behavior” when community members and others from the outside are participating and/or observing. MHCC is the only public post-secondary presence in the East County area and was created by and is sustained by the community. Thus, regardless of internal differences, the college community tends to leave these differences behind when interacting with the external community.

By the time that the college's fifth president, Dr. Robert Silverman, arrived in April 2001, the internal climate of the college had improved significantly. Dr. Silverman began his tenure with particular focus on finalizing the master plan and preparing for a local bond measure to fund the facilities component.

ACADEMIC PLAN

“Knowledge for Success” is the theme driving the development and implementation of MHCC 2010, institutional master plan. Whether building community within the classroom, within and across college departments, or with external partners, the key to achieving this mission is building strong partnerships with other organizations within East County and beyond.

The values underlying the master plan are integrity, respect, innovation and service (IRIS). By living these values, we can create a college community that cannot only achieve its goals but can also be a professionally and personally rewarding environment for teaching and learning.
MISSION, VISION AND COLLEGE GOALS

Goal #1: Knowledge-Based Workforce

Mission: Mt. Hood Community College affords all people a knowledge-based education, giving them the ability to make life choices; adapt to change; build strong communities; contribute to and derive benefit from the new economy; and become part of a skilled workforce.

Goal #2: Access & Diversity

Vision: The College is dedicated to:

- Student learning as the most important outcome.
- Being a comprehensive community college with initiatives in information, engineering, bio-medical and biological technologies.
- Seamless transfer opportunities to colleges, universities and careers.
- Continued, directly applicable, learning at all stages of career and life.
- Striving to meet learning needs when and where students prefer.
- Providing learner support.

Goal #3: Requirements of Economic Development

Goal #4: Transitions

Goal #5: Student Success

IMPLICATIONS

The master plan charts the course for realizing this vision, both in the educational programming and facility requirements. The gaps between the vision and current reality have been identified and strategies developed to close the gaps. Major implications of the education master planning effort include the following.
Based on the enrollment forecast model, MHCC FTE enrollment is expected to grow by over 3,000 by 2010. Since MHCC is at near capacity in facility utilization, additional facilities will be needed to accommodate expected growth.

Organizational collaboration will be even more prominent in the future teaching and learning environment. This will include joint planning and programming with K12, four-year colleges and universities, business and industry, local government, and workforce development agencies among others. An example of this collaboration is the Center for Advanced Learning (CAL), a joint use facility being developed by the local school districts, business and industry and MHCC. The Center is scheduled to open in 2003 and provide a minimum of 500 students from four local high schools with programs in Information Technology, Medical/Health Careers, and Pre-Engineering/Manufacturing. Another example is the University Center to be established at MHCC in partnership with four-year colleges and universities. This Center will provide an opportunity for local residents to pursue upper division and graduate course work without having to leave the East County area. Shared use and support for facilities will be required with creative financing and administrative systems to facilitate a flexible and distributed system of instruction throughout the college service area.

Technology-enhanced learning is a theme across almost every area of instruction and support services. Existing college facilities were not originally designed with the information age in mind. A strategic information technology plan has been completed as part of the master planning process and will need to be incorporated into future operational planning. Technology planning will also need to be integrated with future development of the MHCC Library. A new library and computer center are being planned as part of the University Center.

“Learning-centered” instruction is another major theme across the instructional areas expressed in numerous ways. This includes “individualized” learning, which interconnects with the emphasis on technology. Other expressions include “small group study” and “learning communities”. Facility design needs to adjust to new pedagogical approaches. Although the need for large lecture classrooms will continue, the number of such rooms needed in the future will be relatively fewer and will be utilized differently than in the past.

The future economic growth and development of East County is contingent on a great deal on the provision of a skilled workforce. A critical shortage of skilled labor currently exists in the health area, especially Nursing. An area of future need will be in biotechnology, which spans across multiple industries. Meeting these needs will require both educational program development and new facilities.

Central to the service plan is the “Ash Mountain” project, which involves a redesign of student services. The goal of the redesign is to offer MHCC
student services that are easily accessible, convenient, efficient and affordable. Although an interim solution is currently being implemented, final development of this project requires implementation of the facilities master plan.

The next steps in educational planning involve organizing results of the master plan around college goals and annual priorities. These goals and priorities will then be translated into operational plans and budgeting procedures to ensure that we make steady progress in realizing our mission and vision.

FACILITY PLAN

(BOORA Architects, Inc., Portland, Oregon, John Meadows, Principal, with Facilities Needs Analysis by Chuck McIntyre, Director, Computer Aided Planning, Sacramento, California)

The Facility Plan is a physical representation of the Education Plan. It is based on capacity and condition of existing facilities, future demand, the gap between demand and supply, and strategies and projects to close the gap.

The facilities design goals are as follows.

- Improve campus visibility
- Create mixed-use development opportunities
- Centrally locate University Center (library and computer center)
- Easy access to Student Services Center
- Improve security and access from parking
- Identify potential streetcar line
- Create vibrant and active-breaks through the berm

The facility planning effort was focused around the following items.

- Facility improvements – protect the community investment in the college
- Remodel and upgrade outdated and dysfunctional existing facilities
- Facility expansion to accommodate current and future programs and population

A facility improvement needs analysis identified the following areas:

- Reconfigure and resize classrooms
- Improve access to information technology campus wide
- Relieve overcrowded support spaces
- Provide for interactive, multi-media learning environment
- Improve safety, seismic, energy efficiency, and access (ADA)

Expansion needs were identified as follows.
Provide state-of-the-art facilities to meet the demand for health occupation and biotechnology workers

Through partnership with universities, provide a University Center so that local residents can obtain upper division coursework and degrees without having to leave the East County area.

Table 1 offers a summary of overall additional space needs based on enrollment forecast, current capacity and the gap between the two.

<table>
<thead>
<tr>
<th></th>
<th>Existing</th>
<th>Add by 2005</th>
<th>Add by 2010</th>
<th>Total in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maywood</td>
<td>37,000</td>
<td>4,500</td>
<td>4,800</td>
<td>46,300</td>
</tr>
<tr>
<td>Gresham</td>
<td>605,084</td>
<td>158,600</td>
<td>104,900</td>
<td>868,584</td>
</tr>
<tr>
<td>Total ASF</td>
<td>642,084</td>
<td>163,100</td>
<td>109,700</td>
<td>914,884</td>
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</tbody>
</table>

2/3 of existing space in need refurbishment

<table>
<thead>
<tr>
<th></th>
<th>Total FTE</th>
<th>FTE/Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total FTE</td>
<td>9,168</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>11,500</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In summary, the major projects envisioned for the near future are as follows.

- Renovation and remodeling
- One-Stop Student Services Center
- University Center (with library and computer center)
- Health Occupations and Biotechnology building
- Mixed Use space based on public/private partnership (revenue stream to support operational costs of new space).

The total cost estimate for the master plan are summarized in Figure 2.
Table 2. Capital Outlay Cost Estimates (in $ millions)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Maywood Campus</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Plans, Drawings, Fees</td>
<td>$0.2</td>
<td>$0.2</td>
<td>$0.2</td>
</tr>
<tr>
<td>Construction</td>
<td>0.8</td>
<td>0.9</td>
<td>1.0</td>
</tr>
<tr>
<td>Equipment</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>$1.1</td>
<td>$1.2</td>
<td>$1.3</td>
</tr>
<tr>
<td><strong>Gresham Campus</strong></td>
<td></td>
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</tr>
<tr>
<td>Plans, Drawings, Fees</td>
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<td>$6.2</td>
<td>$0.0</td>
</tr>
<tr>
<td>Construction</td>
<td>28.7</td>
<td>19.0</td>
<td>13.3</td>
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<tr>
<td>Equipment</td>
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<td>2.7</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>REMODEL, NEW USE</strong></td>
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<td>0.0</td>
</tr>
<tr>
<td><strong>Remodel, Upgrade</strong></td>
<td>12.0</td>
<td>12.0</td>
<td>12.0</td>
</tr>
<tr>
<td><strong>Other</strong></td>
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<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td>$61.6</td>
<td>$40.0</td>
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<tr>
<td><strong>Grand Total</strong></td>
<td>$62.7</td>
<td>$41.2</td>
<td>$28.8</td>
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</table>

Based on identified priorities and results from community survey focusing on the dollar amount voters were likely to support, the president and Board of Education adopted the following proposed local bond measure proposal.

- Facility improvements: $25,790,000
- University Center: 27,000,000
- Allied Health/Biotechnology Building: 15,610,000

Grand Total: $68,400,000

For graphical representation of facility master plan and proposed expansions see PowerPoint presentation or see the following Web address:
http://www.mhcc.cc.or.us/ci/allabout/research/institutional_master_plan/main.htm

CONCLUSION

Regardless of what the future holds, the master plan will provide a framework for the college and board to set priorities, make decisions and chart the college’s direction. If resources are available, the master plan will provide a blueprint for needed instructional, service and facility requirements. If funding falls short, the master plan provides a rich source of information and analysis to help guide balancing the many demands upon the college and allocating scarce resources.
REFERENCES

Additional information on the MHCC master planning process and results can be found at http://www.mhcc.cc.or.us/ci/allabout/research/institutional_master_plan/main.htm.

Probably the single most comprehensive resource on master planning is the Society for College and University Planning (SCUP). The Web site for SCUP is http://www.scup.org. Here you find links to master plans from colleges and universities across the nation and other resources. Under books you will find such works as Planning for Student Services: Best Practices for the 21st Century, edited by Martha Martha Beede and Darlene Burnett; Planning for Master Planning by John R. Reeve and Marion B. Smith; Transforming Higher Education: A Vision for Learning in the 21st Century by Michael G. Dolence and Donald M. Norris; and Doing Academic Planning: Effective Tools for Decision Making, edited by Brian P. Nedwek. At the SCUP Web site, there are also links to many other relevant resources.

Additional references:


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