
FACILITIES MASTER PLAN



EAST CAMPUS



WEST CAMPUS



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1 Cover Letter and Preface



October 31, 2007



Architecture

San Jose
Bakersfield
San Luis Obispo

YOSEMITE COMMUNITY COLLEGE DISTRICT
2201 Blue Gum Avenue
Modesto, CA 95358

Attention: Dr. Roe Darnell, Chancellor
Dr. Rich Rose, President - MJC

Subject: Facilities Master Plan - Modesto Junior College

We are submitting the final Facilities Master Plan for approval by your Board of Trustees, following a one-month review and comment period of the circulated draft documents.

This Plan incorporates the needs, criteria and priorities, as well as broad scope, budget and schedule for your Measure E Bond Program. It reflects the interactive planning efforts of Board, administration, staff, students, consultants and the community over the last seven (7) months.

This document is intended to serve four (4) primary purposes:

1. Provide the framework for decision-making for implementation of the Measure E Bond Program's overall scope, budget and priorities.
2. Set the agenda and direction for projects funded under Measure E, so as to move ahead rapidly with final design and construction and avoid further inflation erosion of limited Bond dollars.
3. Provide concepts, guidelines and standards for the utilities infrastructure, disabilities access and individual building projects for short- and long-term planning.
4. Provide, together with the Educational Master Plan and the Program Management Plan, the process and guidelines for project decision-making for the current and future facilities at Modesto Junior College.

We appreciate the challenges and opportunities afforded us in working with your dedicated staff and consultants through this very open and inclusive process. We feel confident this "living document" will serve the college well as Modesto Junior College moves into the Measure E Bond Program Implementation Phase and beyond.

Sincerely,

A handwritten signature in blue ink that reads 'D.R. CARTNAL'.

David R. Cartnal, FAIA
President/CEO

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1.1 PREFACE

A. MASTER PLAN – INTRODUCTION

The Master Plan is, by definition, the comprehensive planning document that identifies, organizes, plans and records the capital-outlay Facilities Plan to bring the campus into alignment with educational, fiscal and student services of the College.

It sets forth needs, goals and concepts to accomplish stated objectives, matching implementation-actions with available resources and appropriate project sequencing.

When executed properly, it is sufficiently general to allow for change over time, yet specific enough to define realistic projects/scopes/budgets/schedules. It works within the college's shared governance and administrative policies and practices, seeking equitable outcomes for the many identified facilities needs.

Invariably, there are never enough monies, time or opportunities to meet every identified need/goal/desire. The Master Plan, however, should provide a fair, prudent, predictable process for the improvement of facilities, including support infrastructure, to enhance learning opportunities for students and a professional teaching and working environment for staff.

B. BACKGROUND CONTEXT

Established in 1921, Modesto Junior College, known locally as MJC, is one of the first community colleges established in the State of California. It is one of two (2) colleges in the Yosemite Community College District.

It is located in the central San Joaquin Valley in the City of Modesto, between Merced and Stockton, off major arterial Highway 99.

MJC enrolls approximately 20,000 students, who live primarily in the Stanislaus County area.

The College currently maintains three (3) sites – East and West Campuses, located approximately 2.5 miles apart on the east and west sides of Highway 99, and the Beckwith Ranch (satellite agricultural uses). For convenience of reference, the term "College" in this report refers to MJC, comprising all three sites.

The East Campus (original site) is situated on approximately 54 acres, surrounded by residential (north and east) and commercial/industrial (south and west). The campus fronts on College Avenue, between Stoddard and Coldwell Avenues. The Great Valley Museum, a community based learning-exhibit facility, which has strong ties to MJC's Science Community, is located at the southeast corner of the site on its own parcel of land.

The West Campus, sited on approximately 167 acres, fronts on Blue Gum Avenue, off Carpenter Road.

1.2 MJC & DISTRICT MISSION

A. MODESTO JUNIOR COLLEGE MISSION

Modesto Junior College has a mission of student centered learning and success. MJC is committed to serving its diverse and multi-cultural community through the provision of high quality general, vocational and transfer educational programs and through the offering of activities designed to improve the quality of life for citizens of the Yosemite Community College District.

MJC offers comprehensive educational and support programs enabling students to realize personal as well as academic potential. Particular attention is given to groups and individuals with special needs.

Modesto Junior College is committed to meeting student needs by:

- Recognizing students as individuals requiring responsive, diverse and flexible educational, career preparation, personal development and life-long learning opportunities.
- Providing excellence in instruction and support services.
- Creating an intellectually and culturally stimulating atmosphere for students, staff and community.
- Advancing the College's role in the economic development and quality of life in the community.
- Continuing personal and professional development for all employees.

B. DISTRICT VISION – 2010

STUDENT SUCCESS

The colleges of the Yosemite Community College District are the colleges of first choice for our community residents and are recognized for their flexible, superior services that promote student success by providing access to learning in an accommodating and responsive environment.

EDUCATIONAL PROGRAMS AND SERVICES

The Yosemite Community College District provides comprehensive, exemplary educational programs and services which respond to the individual learning needs of its students and the collective economic and cultural needs of its diverse communities.

CAMPUS CLIMATE

The Yosemite Community College District is dedicated to tolerance and mutual respect that is reflected in its inclusiveness of all students and staff, high morale, teamwork, and representative governance.

QUALITY STAFF

The Yosemite Community College District provides a positive work environment that is successful in attracting and retaining highly professional and diverse staff.

TECHNOLOGY

The Yosemite Community College District uses state-of-the art technology and technological support to provide students with innovative instruction and staff with high quality training and an efficient work environment.

COMMUNITY LEADERSHIP

The Yosemite Community College District promotes civic responsibility and involvement of its students and staff, contributes to the cultural and social vitality of its service area, and provides leadership to its communities.

PARTNERSHIPS

The Yosemite Community College District seeks and nurtures partnerships with educational, governmental, business, industry, and non-profit agencies to the benefit of our students and our communities.

INSTITUTIONAL EFFECTIVENESS

The Yosemite Community College District uses its participatory environment to integrate needs assessment, program review, systematic planning, and outcomes measurement that lead to an effective institution.

FACILITIES

The Yosemite Community College District is committed to the development and maintenance of functional, accessible and safe facilities and grounds that are aesthetically pleasing and in harmony with the environment.

FISCAL RESOURCES

The Yosemite Community College District optimizes its resources through creative and prudent fiscal management providing a stable, flexible funding base.

C. DISTRICT CORE VALUES

LEARNING

We value learning as a lifelong process and strive to adopt and be responsive to new challenges and opportunities.

STEWARDSHIP

We value and hold ourselves accountable for the efficient and effective use of the human, physical and fiscal resources entrusted to us.

1.3 INTRODUCTION

- The Facilities Master Plan (FMP) for Modesto Junior College, when used in concert with the Educational Master Plan (EMP) and the Program Management Plan (PMP), will define the College's physical needs associated with its strategic growth and direction.
- The Facilities Master Plan provides the planning direction over the next 20-, 30- and 40-year periods. It reflects the chosen land/site uses, facilities, zoning, circulation elements (vehicle and pedestrian) and aesthetic character to improve learning and work environments.
- It is about more than just building placement and utilization. It should, as new buildings are designed and existing buildings are modernized and reconfigured, lead to a safer, more open and accessible learning setting that functions smoothly and promotes lively exchange between students, faculty, staff and community.
- It is critical to understand that a Master Plan is a **process**, not just a "document" which recommends and records decision-making. The FMP is based upon numerous variables, needs and programmatic issues. It reflects who MJC is, as well as what and where it needs to go with its physical facilities.
- The Master Plan is the result of extensive collaboration with Board, administration, faculty, staff, students and community, together with Kitchell-CEM and BFGC Staff.
- One of the biggest challenges was to address the development of one comprehensive College split between two primary sites 2.5 miles apart. Each existing campus has different context, architecture and program needs, yet both sites have certain common needs of administration, student services and support. Each campus needs to be honored, respected for its uniqueness and allowed to mature, as further growth and development occurs.
- Like most institutions, the facilities needs are always greater than resources available. The objective is to build upon existing, time-worn facilities so as to reconfigure and extend their useable life, while judiciously placing new or augmented facilities with the long-range development view in mind.
- The FMP involves zoning reorganization, functional modifications and aesthetic improvements with the clear understanding that each campus gets rebuilt one project at a time.
- Proper building orientation, arrangement of outdoor and between-building spaces, and landscape elements can make the campus attractive to students and staff, provide outdoor learning and social opportunities and deliver relief from the Central Valley climate, as well as minimizing energy consumption.

1.4 THE PLANNING TEAM

COLLEGE:

MODESTO JUNIOR COLLEGE

Dr. Rich Rose, President
Dr. Brenda Robert, Vice President of Instruction
Dr. Bob Nadell, Vice President of Student Services

FACILITIES MASTER PLAN COMMITTEE

Brenda Robert
Michael Strangio
Paul Cripe
Michael Sundquist
Martha Robles
Sandra Vanwey
Sherri Suarez
Maria Quijalvo (ASMJC)
Tim Nesmith
Judy Lanchester

David Cartnal, FAIA
Mark Newton

COLLEGE COUNCIL

Mark Anglin	Rich Rose
Jillian Daly	Jim Sahlman
Curtis Martin	Dave Shrock
Bob Nadell	Brian Sinclair
Becky Plaza	Maria Quijalvo (ASMJC)
Kathie Ratto	David Baggett (consultant to the Board)
Brenda Robert	

PLANNING:

BFGC ARCHITECTS PLANNERS

David R. Cartnal, FAIA, Principal Planner
Dean Tatsuno, AIA, Principal Architect
Patricia Lock, AIA, Planner

PROGRAM:

KITCHELL, CEM

Mark Newton, Area Manager
Matt Kennedy, Project Manager

CONSULTANTS:

EDUCATIONAL PLANNING

Dr. Grace Mitchell, Principal Planner

ALFA TECH CAMBRIDGE (Mechanical/Electrical/Technology)
Reza Zare, Principal

C2G/CIVILCONSULTANTS GROUP, INC.
Todd Creamer, Principal

DISABILITY ACCESS CONSULTANTS (Accessibility)
Barbara Thorpe, Principal
Michael Boga, Specialist



2 Executive Overview



2.1 EXECUTIVE SUMMARY

- A. The Facilities Master Plan began with the primary focus of deploying resources from a local bond election (Measure E) passed November 2004. It required the updating of MJC's Educational Master Plan, since educational programs rightfully drive facilities decisions.
- B. The College currently has a space-inventory that will serve many additional students, according to State Chancellor's Office "standards"; however, having the right sized and properly configured spaces is the bigger challenge: the answer to "What goes where?" Compounding the issues of circulation (between sites and within each site) are issues of student services and support, and the general campus aesthetic and "feel" that create a positive learning environment.
- C. The FMP seeks to reorganize both East and West Campuses, improve instructional relationships and interactivities between disciplines, while providing some common unifying elements (i.e. signage, landscape and materials) that promote a connectedness to MJC students, faculty and staff, regardless of the campus they occupy on a primary basis.
- D. The Plan establishes new building locations, while respecting existing structures and allowing growth potential around existing and new building areas. It reinforces positive open-spaces, such as the quadrangles on each campus, but breaks the scale into more pedestrian-friendly zones by using landscape, plazas, signage and shade structures to scale large, undefined areas into more intimate clusters and niches.
- E. The FMP creates a recognizable "front door" to each campus and delineates pedestrian entryways through a series of gateway arches. These help define campus edge boundaries, while providing orientation and direction to the campus core.
- F. Design standards/guidelines are included for campus accessories, ranging from light fixtures to signage and recyclable containers to bike racks and transit shelters to benches.
- G. The Master Plan provides frameworks for good project decision-making without presuming to dictate single solutions that are best resolved with immediate project stakeholders and their respective "Design Teams."
- H. A consistency is recommended for street-naming and parking/walkways lighting to appropriate directional way-finding and signing, allowing for the practice of individual building naming. Sign placement enables the campus newcomer or community guest, as well as regular users, to find needed services in an efficient manner.
- I. Circulation hierarchies have been addressed to reflect the sequence and progression from:
 - 1. Community-at-large to vehicular campus entrance
 - 2. Campus entry to access roads
 - 3. Access road to multiple parking opportunities
 - 4. Parking lots to pedestrian gateways
 - 5. Gateways to campus core

- J. Care has been given to zoning of different levels of vehicle needs: from emergency to service vehicles; from public transit to private car; from school bus to pedestrian and bicycle.

2.2 MASTER PLAN ORGANIZATION

- A. **Volume One** contains the BODY of the Plan. It includes:
 - 1. Plan Overview, Participants and Summary
 - 2. Vision, Guidelines, Strategies and Process
 - 3. Projects Definition, Budget and Sequence
 - 4. Key Planning Issues and Constraints
 - 5. Campus Design Issues and Recommendations
 - 6. Graphic Phasing Diagrams (Increments One, Two and Three)
 - 7. Technology Standards for Classrooms and Labs
- B. **Volume Two** supplies guideline information for those charged with implementing the specific projects that emanate from the Master Plan, including:
 - 1. Utility Assessments and Infrastructure Plans
 - 2. State Guidelines and Planning Standards
 - 3. Sustainable Design Guidelines
 - 4. Facilities Committee Workplan
 - 5. Stakeholder Issues and Feedback (process)
- C. **Volume Three** contains the (ADA) Accessibility Survey and recommendations for East Campus (e.g., site and buildings potentially affected by Measure-E).
- D. **Volume Four** contains the (ADA) Accessibility Survey and recommendations for West Campus (e.g., site and buildings potentially affected by Measure-E).

2.3 MASTER PLAN PROJECTS SUMMARY

INCREMENT ONE (Measure-E Bond) of the FMP provides the following facilities: (Note: Projects are listed in the sequential priority recommended for each campus. Precise timelines will be established by District and CM as part of the Implementation Plan.)

- A. **East Campus:**
 - 1. Major remodel and significant additions to the existing 1959 auditorium. This will provide a fresh face to the approach corner of the campus, while greatly improving the functional aspects of a student and community-used facility.
Project Budget: \$19,617,000
 - 2. Parking additions will be provided in two phases to the East Campus. The first will bring much needed parking on line as quickly as possible through property acquisition and consolidation of existing lots. At the end of Increment One, a re-evaluation of parking needs will be completed and a structure will be built on the corner of Tully Road and Stoddard Avenue if deemed necessary.
Project Budget: \$11,965,000

3. Founders Hall, which houses over 50% of the College's general instruction load, is scheduled for a significant upgrade and modernization. It will receive HVAC upgrades, lighting, current technology and a general finishes updates (e.g., flooring, painting, signage)
Project Budget: \$12,000,000
4. Student Services will be consolidated into a new two-story building to the West Side of the Morris Building, while reorganizing the West Side of the existing ground-floor thereof. This will improve the seamless flow of services to students in a single location.
Project Budget: \$16,000,000
5. The existing science building complex will undergo a major conversion and transformation into a High-Tech Center, once the New Science and Community Center is constructed on the West Campus (Ref: Priority Sequence #3, West). This will house computer science, computer graphics, electronics and related support spaces as well as some general science classrooms and general education classrooms.
Project Budget: \$16,000,000
6. The existing Library/LRC has an application submitted to the State for funding approval, since it has eligibility. The current Library needs to be expanded and a significant remodel performed on the existing building to reconfigure the entire footprint, including new technology infusion.
Project Budget: \$6,145,145 (District's match allocation)
7. An Allowance has been made for Interim (Swing-Space) housing for portions of Founders Hall remodel.
Project Budget: \$1,000,000

B. West Campus:

1. A new, two-story Allied Health Building will provide state-of-the-art facilities for an impacted program that has resulted from excellent community-hospital partnerships for the nursing program. Once completed, it will free up second-floor space in the John Muir Hall for future general instructional and related office space.
Project Budget: \$25,822,000
2. Agricultural facilities, consisting of modular student-living units, a relocated beef facility and construction of a new Pavilion, will supplement the existing Ag facilities on both campuses. This is the first step in relocating all agriculture activities to West Campus (Ref: Increment Two Plan).
Project Budget: \$24,800,000
3. A new, multi-level Science Community Center, including the relocated Great Valley Museum into all new facilities, will be situated to enclose and define the large Quad between Sierra and Yosemite Halls at the South end, forming a new science courtyard with Allied Health.
Project Budget: \$70,000,000

4. An allowance has been made to extend new utility infrastructure from existing utility-spine locations up to 5' outside individual new building pads.
(Note: Individual project budgets include utility extensions from building to 5' perimeter connection.) Due to the age of the existing utilities (many dating back to 1949-era), it is possible that some age/condition failures may occur during the 8- to 10- year Measure-E construction. If this were to occur, it would require a reallocation of resources from state or local sources, accordingly.

Project Budget Allowance: \$5,000,000

5. There is a partial Loop Road extension proposed on West Campus to permit access to Ag Pavilion and improve traffic circulation to a site that will become increasingly busy, as new construction occurs.

Project Budget Allowance: \$5,000,000

6. Construct a new Softball Complex, including fencing, dugouts, bleachers, scoreboard and press box in the area where future athletic facilities will be located (Ref: Increments Two and Three).

Project Budget: \$786,300

C. Outreach Sites:

1. Acquire land and provide infrastructure for Westside Outreach Site

Project Budget: \$5,037,370

2. Acquire land for future Turlock Outreach Site

Project Budget: \$937,185

CHALLENGES

The collective responses to the facilities challenges for MJC require the following:

- A. Increased utilization and efficiencies of existing facilities/spaces/resources. Existing facilities are under-scheduled/utilized which must be improved over time.
- B. Improved coordination between East/West campuses to minimize space and program duplication, while minimizing vehicular traffic and parking issues.
- C. Shared facilities with business, community, other departmental, educational and public agencies... to serve a common constituency.
- D. Increased use of electronic and communications technology that increases service-delivery and enhances teaching/learning in the instructional spaces: classrooms, labs, library-media centers, presentation and vocational/technical and support spaces.
- E. Effective and efficient student support services that are centralized, well organized, and attractive.
- F. Inter-connectivity of "campus" to other off-campus sites to avoid duplication of available services (e.g., interactive communications, distance-learning and shared resources that promote qualitative learning).

- G. Built-in flexibility to meet current and foreseeable future needs.
- H. Preparation for changes that cannot yet be forecast, but are predicted to occur in an ever-increasing and faster rate of change.

SUMMARY

In summary, the challenges are often daunting and the resources limited to allow ideal facilities solutions. Effective use of limited public resources requires all stakeholders to become good stewards of existing capital-outlay investments, as well as prudent planners, decision-makers and occupants of all planned facilities.

This Facilities Master Plan suggests the District monitor activities and decisions along the implementation-path, in order to fulfill the following adopted goals:

- A. Effective use of public funds (state and local) with appropriate oversight and accountability.
- B. Collaborative decision-making that includes opportunities for input from stakeholders at various levels.
- C. Responsive communications with community, stakeholders and governing agencies.
- D. Compliance with applicable codes, regulations and adopted policies/procedures.
- E. Reliance upon educational program-plans in shaping of instructional spaces/environments/tools.
- F. On-going planning and decision-making process that is consistent and equitable across the college community.
- G. Professionalism in conduct, communications and relationships at all levels, as hard decisions are made.



3 The Planning Framework



PLANNING FRAMEWORK

3.1 PROGRAM MISSION

To align with the College's Educational Master Plan, the Facilities Master Plan is intended to use MJC's resources to create high quality facilities and learning environments that enable the College to fulfill the objectives of its adopted Mission Statement, Goals and Strategic Plan.

3.2 PLANNING GUIDELINES

Purpose

The PURPOSE of this Master Plan is to reflect the Facilities decisions, resulting from the Educational Master Plan, and to guide participants in the planning and facilities delivery process. It should be viewed as a "living document" that will be periodically updated and amended as needs change.

3.3 MASTER PLAN OBJECTIVES

- A. Reorganize East and West Campus to balance "Critical Mass" efficiencies and educational effectiveness, while enhancing student access and opportunities.
- B. Maximize space utilization, while improving physical environment, operational efficiencies and program effectiveness.
- C. Exercise wise stewardship of limited resources, optimizing land, buildings and energy consumption, as well as state and local funds.
- D. Minimize duplication of spaces and reconfigure under-utilized and over-sized spaces.
- E. Convert improperly-sized spaces to better serve and optimize instructional program needs, sizes and related space adjacencies (Refer to California State Chancellor's Office Standards – Volume Two, Sections 2 & 3 of this Report).
- F. Improve flexibility and sharing of instructional and related support spaces, while promoting interactive collegiality.
- G. Enhance state funding eligibility, so as to optimize local resources.
- H. Minimize program disruption by carefully addressing issues of construction safety, noise, swing-space, traffic, and parking.
- I. Adhere to District policies, budgets, standards and guidelines throughout the entire facilities delivery process.
- J. Maintain credibility and strengthen relationships with all stakeholders and the local community.

3.4 PLANNING PROCESS

- A. A series of Measure-E Committee planning meetings were held from May 2006 through September 2006. Present were representatives from District, Administration, Facilities, Faculty, Classified, Students, BFGC Architects Planners and Kitchell.
- B. Measure-E Committee meetings were suspended with the arrival of the new College President, Dr. Rich Rose, and his commissioning of an updated Educational Master Plan (EMP), led by Dr. Grace Mitchell. The EMP was completed and submitted to the Board of Trustees in February, 2007, forming the basis for the resumption of the Facilities Planning efforts.
- C. Dr. Rose reorganized the planning process by appointing a new Facilities Master Plan Committee (8 members) to represent all sectors of the College community. This Committee worked in close collaboration with the College Council, beginning March 1, 2007, and concluding their final recommendations May 22, 2007.
- D. Issues discussed included key elements of this Plan, including:
 - 1. Accessibility (ADA) compliance
 - 2. Infrastructure needs and capacity
 - 3. Bond scope, budgets, schedules and priorities
 - 4. Campus reorganization concept-options
- E. Following the distribution of the Draft Facilities Concept Plans, two (2) public forums[”] were held on March 16th and May 24th, 2007, to present, explain and seek broad feedback for the College’s diverse stakeholders: faculty, staff, students and community. Copies of the Draft Master Plans were sent to each Campus and posted on the College website. Copies of all input received is included (Refer to Volume 2, Appendices).
- F. Following the public review and comment periods, the Planning Team (BFGC, Kitchell and Committee Representatives) developed possible options (9 total). Planning team prepared and reviewed possible budgets for solutions to defined needs. Interactive planning meetings with Team and users produced a final set of Master Plan recommendations and budgets for each project identified in Measure-E.
- G. Results of Final Draft Recommendations were reviewed with President Rose, Chancellor Hodges and the Board Facilities Subcommittee, prior to finalization.
- H. A final meeting of the FMP Committee and the College Council was held with Dr. Rose and the Planning Team June 4, 2007, to present the final FMP Project Priorities and Budgets.
- I. The Draft Master Plan was submitted to the Yosemite Community College District August 8, 2007, for review and comment, with final adoption scheduled for December, 2007, after review and input by all stakeholders.

3.5 REVIEW OF EXISTING DISTRICT INFORMATION

Documentation reviewed, in the preparation of this Master Plan, included:

- A. MJC Educational Master Plan (EMP) – 2006/2007
Prepared by Dr. Grace Mitchell
- B. Modesto Junior College District – Program Management Plan (February 15, 2006;
Revised February 23, 2006)
- C. Five-year Construction Plan – FUSION Website Data
Prepared by District Facilities Staff
- D. District's Long-Range Strategic Plan (2007-2013)
- E. Existing Site, Utility and Building Plans – East and West Campuses
- F. Measure-E Ballot Language – November, 2004
- G. MJC Technology Plan – February, 2007
- H. Demographic projections and previous Educational Master Plan (2003-2004)

3.6 PROJECTS SEQUENCING
INCREMENT ONE (MEASURE-E FUNDED)

A. EAST CAMPUS:	<u>Project Budget</u>	<u>Priority Sequence</u>
1. Auditorium – Addition/Remodel (PMP #17)*	\$ 19,617,000	1
2. Parking Structure – New (PMP #2)	\$ 11,965,000	2
3. Founders Hall – Remodel (PMP #8)	\$ 12,000,000	3
4. Student Services – Addition/Remodel (PMP #13&14)	\$ 16,000,000	4
5. High-Tech Center – Remodel (PMP #22)	\$ 16,000,000	5
6. Library/LRC – Remodel (PMP #23); (State Match)	\$ 6,145,145	6
7. Interim Housing	<u>\$ 1,000,000</u>	As Needed
East – Subtotal	<u>\$ 82,727,145</u>	
B. WEST CAMPUS:		
1. Allied Health – New (PMP #16)	\$ 25,822,000	1
2. Ag Facilities – New (PMP #15)	\$ 24,800,000	2
a. Living Units		
b. Animal Facility		
c. Pavilion		
3. Science and GVM – New (PMP #11 & 27)	\$ 70,000,000	3
4. Utilities and Infrastructure – Extension	\$ 5,000,000	4
5. Loop Road – Extension	\$ 5,000,000	5
6. Softball Complex (PMP #28)	<u>\$ 786,300</u>	6
West – Subtotal	<u>\$131,408,300</u>	
C. OUTREACH SITES:		
1. Westside – Land and Infrastructure (PMP#32)	\$ 5,037,370	1
2. Turlock – Land (PMP #31)	<u>\$ 937,185</u>	2
Outreach – Subtotal	<u>\$ 5,974,555</u>	
<u>TOTAL INCREMENT ONE:</u>	<u>\$220,110,000</u>	

* PMP = Program Management Plan Project Number

INCREMENT TWO (FUNDING UNSECURED)

Projects designated under this phase have not been specified as to precise timeline, since there is currently no secured funding, state or local, to accomplish these projects. It will require a subsequent local bond or a combination of state and local bonds to realize these objectives. They are listed here so as to record the prioritization thinking of the FMP Committee and the Planning Team at this time. It is suggested that priorities be revisited at the time additional funding opportunities are identified, to reaffirm priorities in light of growth and/or demographic changes.

		<u>Priority Sequence</u>
A. EAST CAMPUS:		
1.	Remove Electronics, Journalism & Ag classroom buildings from MJC "Space Inventory" – to improve cap load ratios. Move Ag Instruction to West Campus	1
2.	Add Library/LRC – Addition (PMP #23), subject to timing of state funding	2
3.	Student Center – Remodel	3
4.	Replace oldest portions of utility infrastructure	4
5.	Replace two (2) drive-through/parking alleys with pedestrian walkways and landscaping; install three (3) new "Gateway" arches to designate campus entries	5
6.	Relocate athletic stadium and baseball fields to West Campus	6
7.	Modernize existing gym and lockers at East Campus	7
B. WEST CAMPUS:		
1.	Remodel 2 nd Floor of John Muir Hall in instructional space, based upon needs assessment at that time; expand Community Education spaces	1
2.	Ag instructional classrooms, labs, greenhouse & storage bldgs – New	2
3.	Agri-Science Center – New (Private Funding)	3
4.	Vo-Tech Addition, to accommodate Program Growth	4
5.	Replace outdated utility infrastructure	5
6.	Construct new athletic fields, courts, and stadium, when relocated from East campus	6
7.	Expand surface parking, Loop Road extension (to Blue Gum) and install "Gateway" Arch to Main (South) entry	7
8.	Control Services Transportation/Receiving – New (including service yard)	8
9.	Replace Child-Care Portables – New	9
10.	Construct new fieldhouse at West Campus	10
C. OUTREACH SITES:		

Initial, permanent facilities for West Side Outreach Site when student population reaches 500 FTES (Full Time Equivalent Students)

INCREMENT THREE (FUNDING UNIDENTIFIED)

Projects designated under this phase have not been specified as to precise timeline, since there is currently no identified funding to accomplish these projects. Increment Three will require a subsequent local bond or a combination of state and local bonds to realize these objectives, they are listed here to record the prioritization thinking of the FMP Committee and the Planning Team at this time. It is suggested that priorities be revisited at the time additional funding opportunities are identified, to reaffirm priorities in light of growth and/or demographic changes.

A. EAST CAMPUS:		<u>Priority Sequence</u>
1.	Educational Multi-Use Center – New, replaces Founders Hall	1
2.	Replace outdated Music Building with new building; modernize Art Building and projects yard	2
3.	Demolish Community Education Building and relocate functions to West Campus	3
4.	Expand parking, as required	4
5.	Modernize existing buildings, as required, to accommodate changes in program, technology and/or instructional delivery	5

B. WEST CAMPUS:		
1.	2-story addition to Ansel Adams Building	1
2.	Relocate Community Education facilities	2
3.	Modernize existing buildings, as required, to accommodate changes in program, technology and/or instructional delivery	3

C. OUTREACH SITES:

Construct facilities for Turlock Outreach Site when student population reaches 500 FTES



4 Key Planning Issues



KEY PLANNING ISSUES

4.1 PLANNING ISSUES - GENERAL

One of the challenges of creating a meaningful and responsible Master Plan is the need to integrate many different types of information and issues from a variety of sources, perspectives, and priorities.

Issues highlighted in this Master Plan include, but are not necessarily limited to:

1. Existing campus capacity and space utilization
2. Campus utility infrastructure and capacities
3. Safety and Security
4. Accessibility (ADA compliance)
5. Campus identity and Way-finding
6. Energy management & sustainability
7. The learning environment and technological support
8. District Standards
9. Future Expansion & Innovation Potential

Dealing with Campus “capacity” is one of the considerations of the Master Plan process. How does the campus provide for future expansion? The College is overbuilt (by state standards), given current utilization-rates. Scheduling is a major factor in underutilization. **A 5-day instructional week, together with evening and weekend offerings, should be implemented.**

There are significant building code issues that need to be addressed as part of the campus infrastructure and building modernization program. These issues fall into the “MUST DO” category for upgrade consideration, as a condition of state (DSA) approval. If a boiler system or power system fails, safety may be compromised.

The campus is required, by law, to be accessible to persons with disabilities. Barriers to accessibility have been identified and should be remediated. (Refer to Accessibility Surveys bound in a separate Volumes Three and Volume Four).

Other issues are necessarily less urgent, such as “sustainable design” features. Sustainable design, including energy efficiency, is a goal. It is socially responsible and also cost-effective over the life of campus buildings, which require added thermal insulation, new HVAC Systems and EMS controls.

“Campus Identity” is a term comprising these questions: How does the campus cohere? How do members of the academic community view their campus? Do they feel that they are in a unique place? Are they proud of their campus? Or, do they feel a lack of respect, evidenced by outdated facilities and inadequate maintenance? This report acknowledges the many positive features about the MJC Campuses, but also makes recommendations for specific improvements.

The “smart classroom” and general use of computer and networking technology in the classroom are leading-edge educational delivery tools. Technology, as a tool, should be leveraged to improve educational effectiveness.

Finally, future expansion potential is discussed. A Master Plan is a living document that should be under the process of periodic review. Student populations may fluctuate; educational needs and delivery methods may change; and new or different facilities may be needed. This report identifies locations on campus for possible new buildings with areas for expansion of existing buildings. Recommendations should be considered “flexible” and not mandatory, as needs evolve over time.

4.2 CAPACITY AND SPACE UTILIZATION ISSUES

“Capacity” is a term that is used by college facilities planners to understand how much physical space a given academic program requires.

We have included (for reference) an important document written by Merle Cannon, our consultant, entitled “Guidelines for Facility Planning – Improving Capacity to Load Ratios” (See Volume Two)

The District’s Five-Year Construction Plan, submitted annually to the state, indicates capacity-to-load ratios for lecture, lab and office. Current allowable space inventory exceeds current enrollment. The College does have eligibility for library space.

Note: The State measures space-utilization Monday thru Friday from 8:00 a.m. to 10:00 p.m. as the expected standard. The California Community College Chancellor’s Office (CCCCO) uses this information to determine which colleges it will fund for expansion and/or remodel throughout the state. Funding is a competitive process.

Given the current situation, MJC would not be eligible for expansion money from the state without improving overall space-utilization and capacity-to-load ratios.

This report makes recommendations for concepts that may be employed during renovations and remodel of facilities to improve the capacity-to-load ratios, thereby improving state funding eligibility.

An obvious approach would be to increase enrollment, measured in FTES (full-time equivalent students).

Other strategies include:

1. Reconfiguring classrooms to be more consistent with the scheduled sizes of the class sections to be served (i.e. match population-loading with appropriate space sizes). It can be achieved by having small, medium and large lecture rooms available for multidiscipline uses.
2. Employing a multi-use philosophy in the development of space that allows for “peak load” lecture instruction.
3. Creating breakout lecture areas, within large vocational labs, rather than creating separate lecture rooms.
4. Employing the policy of general-use classrooms that are less department-specific.
5. Removing or reducing outdated or ineffective space-use from the inventory.

6. Use the designation of “meeting rooms” rather than “conference rooms.”
7. Improve the net-to-gross building ratios for proposed new construction, as well as reconfigure existing space during remodel projects.
8. Adopt a policy of shared and mixed discipline usage of computer labs.

Items 4 and 8 (above) involve the academic culture of the College and require departments to be willing to share space with each other, for the benefit of the College as a whole.

4.3 CAMPUS INFRASTRUCTURE

Much of the original East Campus was constructed in the 1960's and 1970's and has operated continually, largely without significant renovation.

As such, the buildings and campus utilities are approximately 40 years old and are in need of significant attention—both repair and modernization. Campus maintenance has done a credible job of repair/preservation, given the limited funds available, to date. Much of the East Campus system is outdated and has limited life-span. Most of the West Campus infrastructure is 1949 vintage and is beyond its useful life, requiring significant replacement.

BFGC Architects Planners, with its consultants, has prepared a Site Utilities Conceptual Design Narrative. This report (See Volume Two) identifies specific concerns associated with mechanical and electrical systems at the College. In as much as monies are insufficient to replace needed systems under Measure-E, it should become a top priority from next funding sources. Be aware that system failures could accelerate the need for major replacement, which could impact Measure-E budget allocation.

A. General Overview

1. Create dedicated water distribution systems for potable water, fire suppression and irrigation at East and West campuses. Implement 'gray-water' landscape irrigation as soon as practical.
2. Replace or repair failing drainage system at East; extend system at West.
3. Increase electrical capacity on each campus to allow needed power/signal/communications/technology (main service and distribution), as well as added air conditioning loads for modernized projects. A new 12KV distribution system should be phased in at West Campus.
4. Install new sanitary sewer systems for East and West campuses.
5. Adequately air-condition spaces in existing buildings, including Founders Hall, addressing utilization, comfort, health and ventilation issues.
6. Thermally insulate new and existing buildings to meet current energy code requirements. Wasted energy resources will continue to impact operational costs in the absence of proper “building envelope.”

B. Proposed Strategy

1. Due to obsolescence, or near obsolescence of many existing infrastructure systems, it is recommended that main services be replaced and /or upgraded as soon as funding can be secured.
2. Existing services should remain operational, while new services are being installed in parallel.
3. Adequate infrastructure should be extended to new building-pad locations, as new construction demands.
4. Proper zoning and isolation valves should be provided to facilitate repairs with the expansion and modernization projects.

4.4 SAFETY

Illumination at night should be adequate. When power outages occur during evening sessions, there should be adequate lighting to safely evacuate students and staff from Labs/Classrooms to parking areas.

Code-blue (emergency) telephone boxes, located strategically around the campus, should be available as campuses build out.

Adequate night-lighting levels, in both the parking lots and on the campuses walkway systems, should be maintained, including those of exterior building-mounted fixtures.

A. Strategies

1. Extend the site lighting along major pedestrian pathways.
2. Extend the lighting in the parking lots and pathways thereto.
3. Install emergency phone system/stations, as appropriate.

4.5 ACCESSIBLE DESIGN ISSUES

The Americans with Disabilities Act was introduced in 1992 as Civil Rights legislation. MJC is situated on two essentially flat sites. Older buildings need appropriate upgrades as they are being remodeled, as a condition of Division of State Architect (DSA) permitting.

A study was done by Disability Access Consultant, titled "Accessibility Surveys" (see Volume Three and Volume Four). A team of experts spent several days on the two campuses surveying sites and buildings. They produced a report that identifies access issues on the sites, as well as proposed remedies.

California State Building Code requires that renovation projects bring buildings and paths-of-travel into full access compliance in most cases, as a condition of DSA permitting.

A. Example issues identified in selected areas:

1. Site walks and ramps are not in compliance in some areas.
2. Door widths are too narrow and not in compliance.
3. Door pulls and thresholds are non-compliant.
4. Toilet rooms are non-compliant.
5. Counter heights are non-compliant.
6. Assisted listening stations are needed in assembly or meeting spaces.
7. Signage is non-compliant.

A public posting and review process should be followed to allow the MJC Community the ability to comment on accessibility issues and proposed remedies.

4.6 CALIFORNIA ENVIRONMENTAL QUALITY ACT ISSUES

The California Environment Quality Act (CEQA) was introduced in 1970 with the intent that all significant construction projects be reviewed for potential negative impacts on the environment.

A. Issues that could be considered impacts include:

1. Pollution
2. Disturbance of endangered species habitat
3. Disturbance of cultural, historical or archaeological artifacts
4. Traffic impacts
5. Sound impact

B. Most interior remodel projects can be classified "Categorically Exempt."

4.7 SUSTAINABLE DESIGN ISSUES

Issues concerning energy efficiency, building and operating facilities in a way that is responsible to the planet have been grouped together under the term Sustainable Design. Sustainable design improves building performance and efficiency and also protects the health of its occupants.

MJC has endorsed responsible and environmentally sensitive design, construction, and operation of its facilities.

Successful sustainable design can be defined as comprising a balance between environmental and cost considerations, while also meeting the functional requirements of the facility.

A. Sustainable design addresses the following principles:

1. Site Selection (New Outreach Sites)
2. Energy Efficiency
3. Materials Selection
4. Water Conservation
5. Indoor Environmental Quality
6. Operations and Maintenance

The United States Green Building Council (USGBC) is the widely recognized leader in the area of qualifying the sustainable characteristics of building projects. To this end, the USGBC has produced a standard known as 'LEED' (Leadership in Energy and Environmental Design). This document is essentially a checklist and grading scale.

The 'LEED' system contains a checklist (See Volume Two, Section 4) which can be used as a way to explore potential sustainable design strategies.

It is proposed that for each project as a part of the design process, a review of the 'LEED' checklist with the District should be included and decisions may be made as to the extent of concepts to be implemented.

4.8 CAMPUS IDENTITY AND WAY-FINDING

The sense of identity, of being a unique place, is important to every college campus.

Areas for improvement that have been identified include the lack of a strong "front door" to each campus, including 'entry' signage, for both pedestrians and vehicles. New Gateway Arches are planned for Increment Two.

The student entrances to the East campus from the parking lots are not well resolved. At present, there is no real architectural treatment of these entry points. New pedestrian gateways are proposed under Increment Two.

Unified systems of exterior lighting, signage, and landscape furniture should be introduced to strengthen the overall identity of the campus, while helping to tie East to West campus.

New features, such as entry gateway structures, should be designed in a character that reinforces the existing architectural character of the campus buildings, with East (more traditional) being unique in character from West (more contemporary). Refer to Volume One, Section 5, page 5.13 for character concept diagrams of Entry Arches.

4.9 KEY CONCEPTS

I. Life Cycles

Life cycle cost assessments should be employed in the design of all Measure-E projects.

Buildings are physical structures that have much longer usable life spans than the technologies they contain.

It is common for computer hardware to be replaced every two to four years to keep pace with technology advancements. Furniture systems also advance and may need to be replaced in existing, older facilities to improve functionality. As such, spaces need to remain flexible, adaptable and reconfigurable.

II. Learning Styles

Modern educational theory recognizes that students tend to retain knowledge better through active involvement. Static lecture formats are usually less effective than group and other interactive learning models.

The educational environment needs to support varied learning styles, including individual, small, medium and large groups.

III. Teaching Technologies

The adoption of tools such as course management systems and the potential availability of wireless access to classrooms and labs continues to change practices in the classroom.

These tools are allowing faculty and students to discover new and potentially better ways to communicate and interact with educational programs. At a basic level, faculty are uploading course information to the internet, generating, e.g., discussion groups and message streams. This practice will probably increase with time, as will distance-learning activities.

IV. People Are at Different Levels

It should be recognized that the MJC educational community is diverse. Few are at the same level in utilizing technology. Some are embracing it; others are actively resisting. Technology, as a tool, appears to be an important direction for the learning community to embrace, as it reflects what is occurring in the world-at-large.

Many students are more comfortable with technology than their instructors are. Therefore, training and support systems are critical to the success of program delivery for both the instructor and student.

V. Establishment of Learning Principles

(To be generated by MJC Instructional Community)

VI. Identification of Institutional Context

MJC, like other institutions, has an existing culture. At the same time, change is necessary to meet the needs of today's students and to prepare them to compete in a global economy. In general, a culture of outreach, recruitment and retention can help serve the College's growth objectives.

The question is: How much change is MJC willing to accept? It cannot be so preoccupied with process that its end-product suffers. It should meet students where they are and supportively take them where they need to be. It is recognized there may be some innovations for which the institution is not ready or, does not have the budget to support. It can, however, begin to re-shape the "institutional will" and begin to plan shaping its own destiny as it moves forward in the 21st century.

VII. Flexibility

Educational buildings are expected to undergo change during their life-cycle. Given funding sources for public educational facilities, the opportunity to renovate does not occur frequently,

which makes it paramount that the buildings be designed to meet functional requirements and operate optimally from day one.

This issue also correlates with the identified concern about capacity/load ratios and space utilization.

There is a need for classrooms and laboratories, in particular more expensive "smart-classrooms", to be shared easily across departmental disciplines.

The academic community needs to embrace and promote a shared-resources concept. In fact, sharing space has the potential to promote a greater sense of community and multidisciplinary communication as a positive value for MJC and its students.

4.10 GENERAL DESIGN PHILOSOPHY

MJC appears to be committed to achieving excellence in the design and construction of its facilities, so that buildings and grounds are inspiring and attractive to users, not just functionally sound.

The College recognizes that its image is very much reflected in the character of its facilities, including the indoor and outdoor campus landscape environment.

Cost effectiveness is a key concern, without sacrificing aesthetics. The capital investment in buildings should honor the community's willingness to invest in and maintain its support.

4.11 OPERATIONS AND MAINTENANCE

Building systems need to be designed taking into consideration the effort involved in operating, extending and maintaining them. It is acknowledged that maintenance budgets are, and will continue to be, quite limited in California's dynamic economy.

4.12 FUTURE EXPANSION CONSIDERATIONS

MJC's Master Plan addresses the immediate needs of Measure-E (Increment One of the Plan), but also looks to the future for the next 50 to 75 years. As the City of Modesto and County of Stanislaus grow and develop, MJC needs to be strategically positioned to meet the post-secondary needs of the community, whether students' interests are university transfer, vocational/career, career skill building, redirection, or life-long learning for a growing body of active retirees.

Increment One, in general, is seen as a 10-year plan.

Increment Two, although purposely not constrained by a set timeline, may be viewed as a 20-30 year plan.

Increment Three is intended to forecast the planning direction for the long-term future (i.e., beyond 30 years).



5 Campus Design Issues



CAMPUS DESIGN ISSUES

5.1 PLANNING FOUNDATION

- I. Exceptional campus architecture, landscaping, building placement and open space arrangements are appealing to potential students and visitors. Selection of an institution for higher learning is often strongly based upon the 'feel' and appearance of the campus. The image of the College as a community college standard-bearer, as a place where it is worthwhile to invest in the academic experience, can be enhanced through conscious building and landscape design.

East and West Campus are Modesto Junior College's most valuable physical assets and an important part of its heritage. A number of elements provide the College with a safe, accessible, enjoyable, and sustainable environment. These elements include: building design and material; the careful arrangement of buildings and the spaces between them; the appropriate choice and placement of trees and plants; the composition of walks, pathways, plazas, lighting and signage; the appropriate location of access drives, parking lots and service areas; the logical and orderly layout of utility services and how the campus interfaces with the surrounding Central Valley and the City of Modesto. All function together as elements of the Campus. Their thoughtful development and management provide the college with a safe, accessible, enjoyable and sustainable environment that encourages social interaction and exchange of ideas, respects the historical perspective in the quest for knowledge, and creates a strong sense of place and identity, with a visual image that instills pride and supports and enhances the goals of the College and its community.

In addition to specific recommendations, included in this Master Plan, it is recommended that the following steps be taken to safeguard the enhanced future development of Modesto Junior College:

- A. Approve this Master Plan as an official working document to ensure its effectiveness;
- B. Establish a Facilities Master Plan Review Committee to periodically review and update the Master Plan, and to evaluate proposed campus projects;
- C. Work with the City of Modesto to encourage recommended improvements to areas outside of MJC properties, especially in regard to adjoining streets and neighborhoods; and
- D. Develop an effective college-wide graphics system to complement Signage Plan recommendations.

II. Signage and Way-finding

The two Campuses currently lack a cohesive or consistent signage system. There is no identifiable brand or overriding graphic image that contributes to a successful way-finding system tying East to West Campus as one comprehensive College.

The campuses lack a discernible hierarchy of paving materials that could help to unify the campuses and promote a successful way-finding program for newcomers and students.

5.2 DESIGN RECOMMENDATIONS

I. Motor Vehicles

- A. Vehicular circulation should be accommodated in a safe and efficient manner, but should be considered subsidiary to pedestrian and bicycle movement. As a rule, campus streets should be planted with deciduous canopy trees that will provide foliage at a height of fifteen to forty feet above the ground, while allowing a clear view under the branches. The species should be consistent along any given street.
- B. Pedestrian/cyclist crosswalks should be clearly marked with striped paint or special pavement and should include curb cuts as required by ADA. Crossings should be sited for safety as well as function and design integrity.
- C. Private vehicles should have limited access to the central campus along the Loop Road. The limited vehicular access systems are managed through an arrangement of removable traffic controls, which allow for extended access for fire and other emergency service vehicles into the campus core.
- D. The Loop Road of the campus should be used as the primary route of circulation for automobiles, service vehicles, buses and emergency vehicles. This street provides an organized framework of circulation that is easy to comprehend. The Loop Road should provide direct linkages to college parking lots.

II. Bicycles and Motorcycles

Presently, cycling is not a prevalent transportation mode to or from campus. This is understandable, considering the locations of the campus and lack of bike lanes on nearby roads. On-campus bicycling support facilities, such as safe and secure bicycle parking, are also limited.

- A. Student support for on-campus biking has been expressed. Cycle parking should be provided in lighted areas throughout campus. Consolidated bike parking should be planned for areas where demand is highest; this should alleviate clutter and congestion around building entrances.
- B. Bicycle travel routes should be clearly identified. Widening of future walks or lane designation in vehicle pathways can help reduce bicycle-versus-pedestrian conflicts. Care should be taken in avoiding cross-traffic conflicts, especially in vehicle parking and exit locations.
- C. Bike parking should be located in convenient proximity to desired destinations and out of prominent sight lines.
- D. For the most part, bike racks should be situated at the edges of campus spaces and movement corridors. Low hedges and canopy trees, where possible, can provide screening and shading. Uniformity in the selection of bicycle parking racks is recommended (Refer to Diagram 5-A, page 5.6 for bike racks).

III. Transit

The campus is served by public transportation. A public bus route circulates through the campus with stops at several points. An extensive network of transit buses, which serve the regional area surrounding the campus, supplements private vehicular traffic and College shuttles. Public transportation and shuttle (intra-campus) modes should be encouraged as cost-effective and environmentally friendly solutions. Transit must, however, be seamless, predictable and convenient (Refer to Diagram 5-B, page 5.7 for transit shelters).

IV. Service

- A. Service access is provided by the major surface street routes through both East and West Campuses, combined with the use of Loop Road and additional access points within the campuses. While the campuses have extensive service needs, ranging from small maintenance trucks to large delivery vans, the current arrangement is problematic where pedestrian use and service access needs overlap in confined areas. Not only do these vehicles pose a hazard to pedestrians and the disabled community, particularly on busy routes, they also damage paving and the landscape. Campuses rarely have resources to repair pavement damage.
- B. Appropriate access for maintenance and waste disposal pickup should be identified, to ensure that their operations can be conducted efficiently and safely. Where heavy equipment is normally used, the associated pavement should be designed accordingly to support it without damage to the pavement. All mechanical equipment and service areas should be disguised with walls that are integral with the architecture or dense plantings that are consistent with the overall landscape treatment.

V. Emergency Vehicle Circulation

Emergency vehicles, such as police, ambulance and fire, need to have access to all campus buildings, parking lots and athletic facilities. The major considerations are to ensure that the routes have clear access for trucks with wide turning circles and that pavement is designed to withstand the weight of heavy trucks.

VI. Parking and Accessibility

Parking lots are located at the perimeter of the campus, which, for the most part, minimizes conflicts with pedestrians entering or leaving the central part of the campus. Although this is positive planning, it creates additional aesthetic concerns related to campus image and identity, where all one views is expanses of pavement and cars when arriving at the campus. Since these parking lots are devoid of vegetation, the expanse of asphalt appears magnified. Where surface parking does exist within the campus core, the following guidelines are recommended:

- A. Multiple entrance/exit outlets to larger lots should be provided to minimize stacking on adjacent streets, as traffic generally arrives and departs in large clusters.
- B. Parking lots should be carefully landscaped to ensure that the natural landscape and architecture dominate views. Entrances should be clearly marked and signed.
- C. The internal area within surface parking areas should incorporate landscaped islands or divider islands; trees and shrubs should minimize views of parked cars.

- D. One canopy tree per 20 surface spaces is recommended, in general.
- E. Parking areas should provide a sufficient number of spaces for the disabled and be easily accessed, as mandated by ADA guidelines.

VII. Site Lighting

- A. **Pole-Mounted Light Standards:** (Refer to Diagram 5-C, page 5.8)
Light fixtures on poles, located throughout the site, should be consistent in design. It is clear that existing lighting has been installed at different times. They are spaced such that the areas furthest away from the lights, or at midpoint between two lights, are quite dark, averaging less than 0.5 foot-candles. The minimum average illumination level for these areas is one foot-candle, with reduction variations limited to 0.7 or 0.8 foot-candles in the darker areas.
- B. **Building-Mounted Lights:** (Refer to Diagram 5-D, page 5.9)
On buildings the fixture types vary. Often, trees are located near buildings, causing these building-mounted lights to be easily blocked by trees. This results in dark areas surrounding the buildings. At entrances to buildings, the minimum average illumination level should be 5 foot-candles.
- C. **Parking Lot Lighting:** (Refer to Diagram 5-E, page 5.10)
Parking lot lighting is adequate in many instances. The minimum average illumination level for these areas should be one foot-candle, with variations limited to 0.2 or 0.3 foot-candles in the darker areas.

VIII. Signage

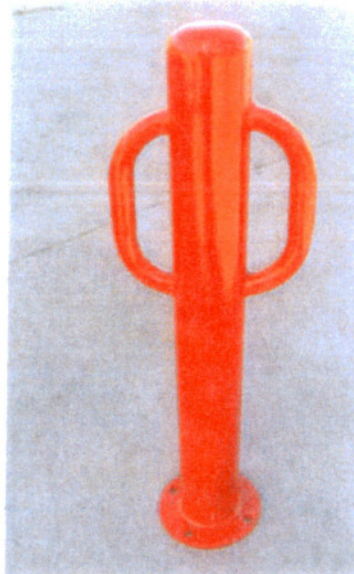
The proposed MJC Campus Sign Program organizes the multitude of exterior informational, directional, and regulatory signs on campus. The system is made up of diverse elements, allowing variation of expression and is hierarchical to provide clarity within the campus environment. The way-finding system is designed to be universally understandable for first-time visitors, students, faculty, alumni and community members (Refer to Diagrams 5-G & 5-H, pages 5.11-12).

- A. Signage should reinforce the pedestrian emphasis of the campus, communicate information effectively and project a clear, organized and welcoming impression of the College. A full range of sign types has been suggested. A hierarchy of scale and importance should be reflected in these signs. Signage should be selected with recognition of the architectural vernacular and materials palette of the campus. Vehicular, pedestrian, directional, identification and informational signs should reflect standardized graphic format, size, proportion and color in order to create a basic vocabulary for campus-wide signs, marking them as instantly recognizable and understandable. Directional signs should be at a scale appropriate to passing motorists. Signage should also be considered to accommodate the needs of the handicapped and visually impaired. Braille signs are needed both outside and inside buildings, per ADA guidelines. The quality and materials of the College's signs convey information about the institution. Over time, the types and numbers of signs on campus have multiplied to meet changing needs. As a result, installations are of uneven character and quality. The recommendation is to unify both campuses with common signage.

- B. A comprehensive sign system will provide a sequence of information to campus visitors in a unified way. The sign system design package addresses the design and management of the sign system and sign placement. In addition, the following recommendations are offered on design and placement:
1. All proposed sign placements should be reviewed by the Director of Facilities and Campus Safety Officer.
 2. Adopt a standard building identification sign that reflects the policies and institutional qualities of the College.
 3. Use directional signs to guide visitors to public venues.
 4. Address educational and interpretive opportunities through explanation of the significance of landmark campus architecture (e.g., Library or Mary Stuart Rogers Center).
 5. Mount traffic signs at consistent heights and distance from curbs to establish a consistency for viewers.
 6. Locate signs to minimize the visual impact of the view corridors of campus building and landscapes.
 7. Locate freestanding signs off walk edges and outside of pedestrian plazas, preferably in landscape areas.
 8. Mount signs in planting beds or visible areas associated with each main building entry point(s).
 9. Mount signs into a concrete base in lawn areas to ease in the maintenance at the base of the sign.
- C. The Campus Sign Program identifies three primary signage types for the campus way-finding system:
1. Informational Signage:
This type of signage is the first major introduction to the campus. It includes identification information such as street and path names, building identification, and campus directory maps. This category can also include helpful information such as safety/protection tips, listing of facility hours, emergency phone numbers, and/or current events. Digital signs should be limited.
 2. Directional Signage:
This type of signage directs visitors from surrounding areas to facilities on the campus, parking, and campus bus locations. It includes directional signage within the campus environment.
 3. Regulatory Signage:
This category of signage includes public and permit parking information, accessibility signage, and all standard campus regulatory signs (fire-lane, stop, right-turn only, speed-limit, etc.).
- D. It is recommended that one uniform sign design establish typestyle, size, color, mounting height and placement consistent for both East and West Campus. For now, we recommend building from the typestyle, color and graphics system used on the West Campus as a basis for standardization, given the investment in sign system on that campus (Refer to Diagrams 5-J and 5-K, page 5.13).



BBD04-SF-P, surface flange bronze



red and ready for four fastener



BBD04-IG-P, black



BBD04-IG-G, galvanized

DIAGRAM 5-A
Bicycle Racks
www.bikeparking.com



DIAGRAM 5-B
Transit Shelters
www.landscapeforms.com

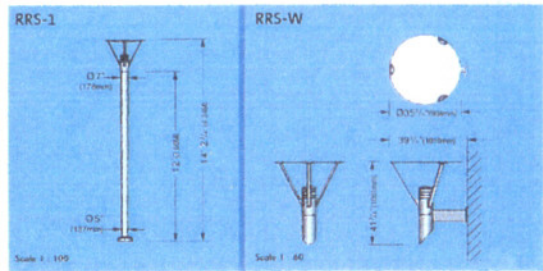


DIAGRAM 5-C
Pole-Mounted Lighting

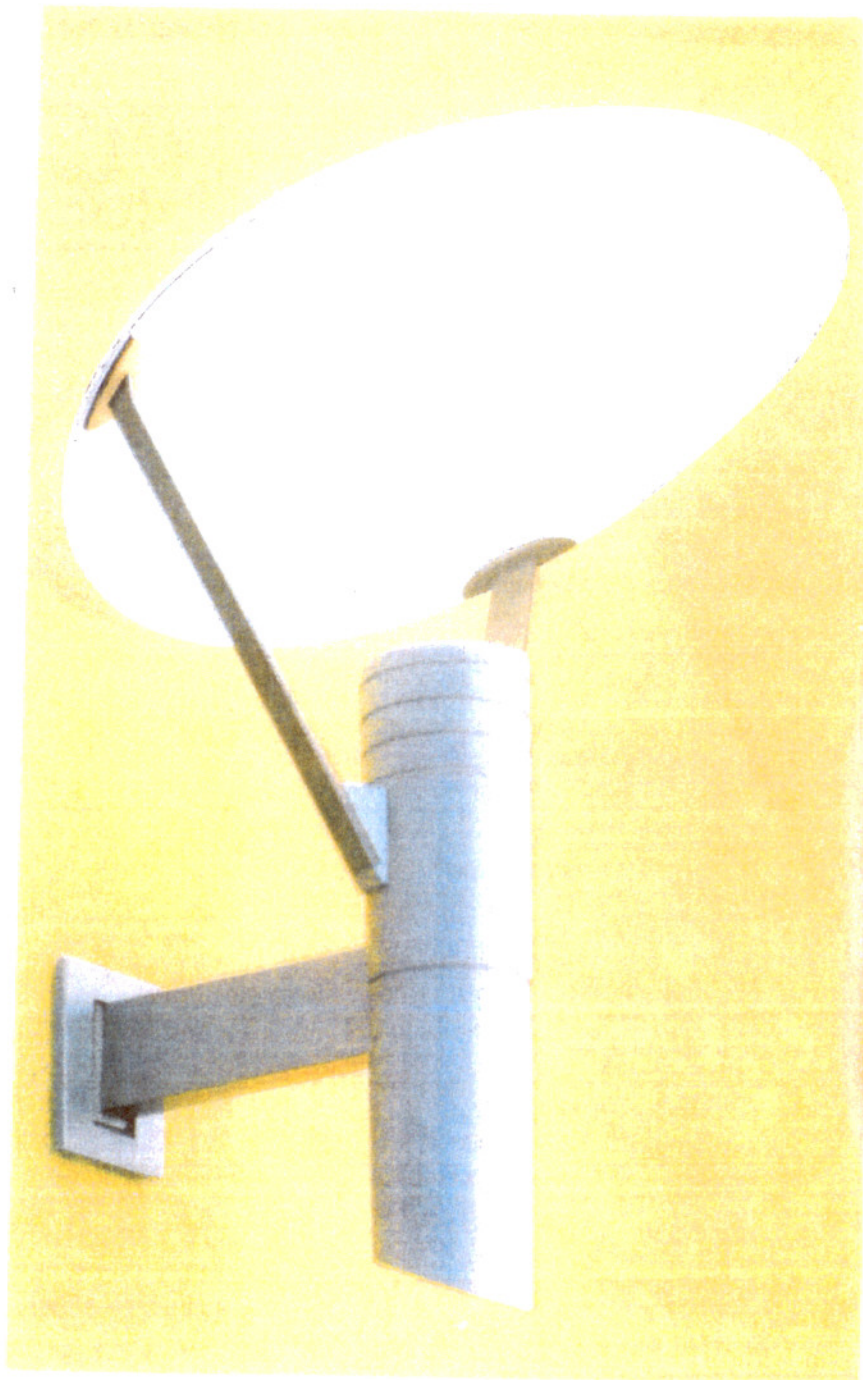


DIAGRAM 5-D
Building-Mounted Lighting

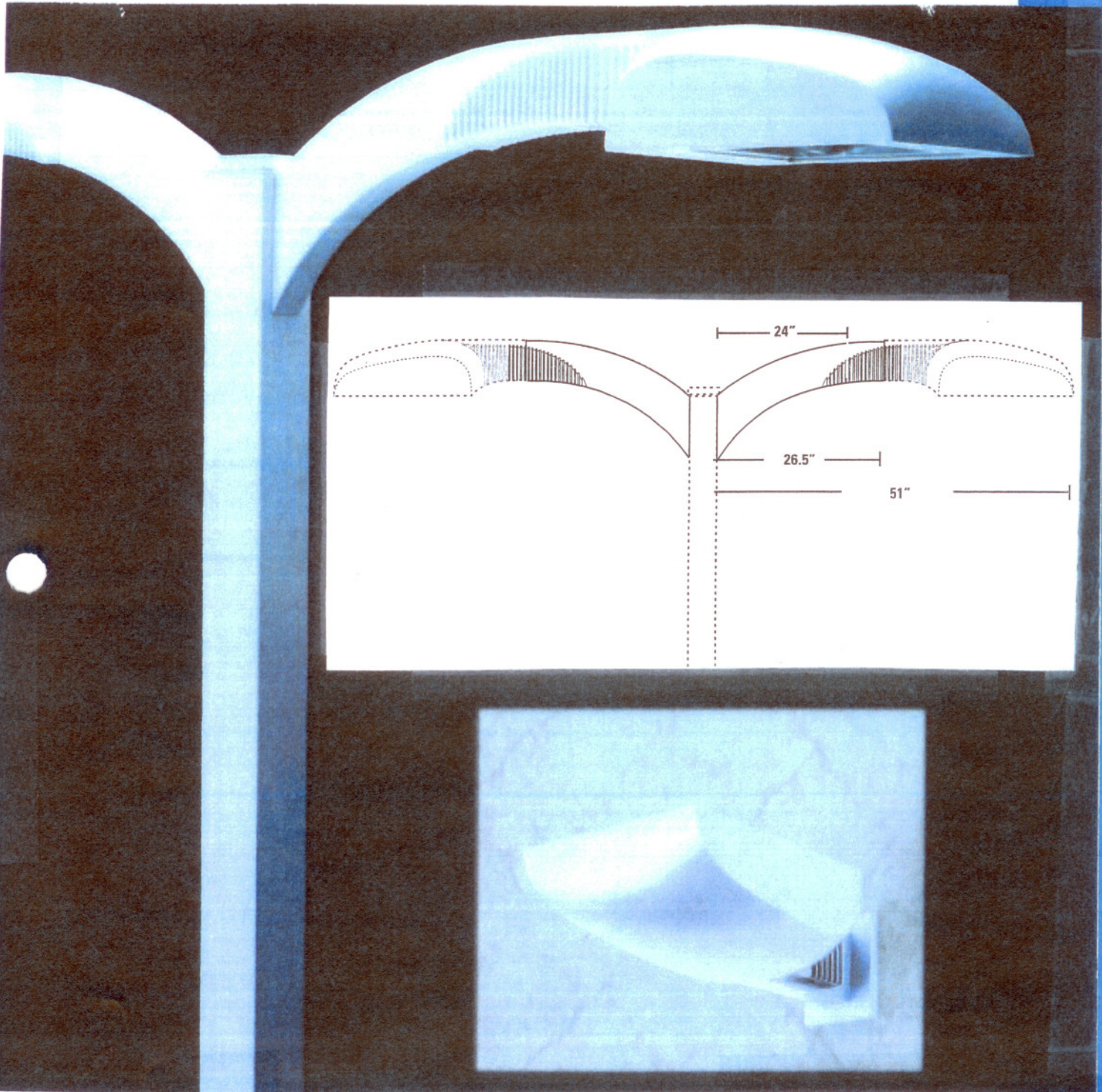
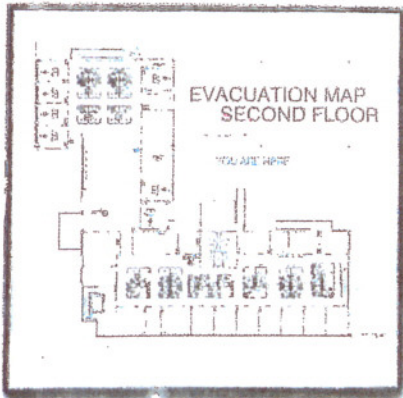
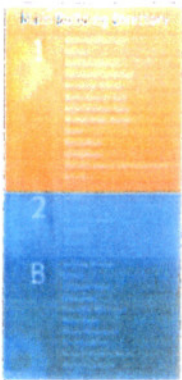
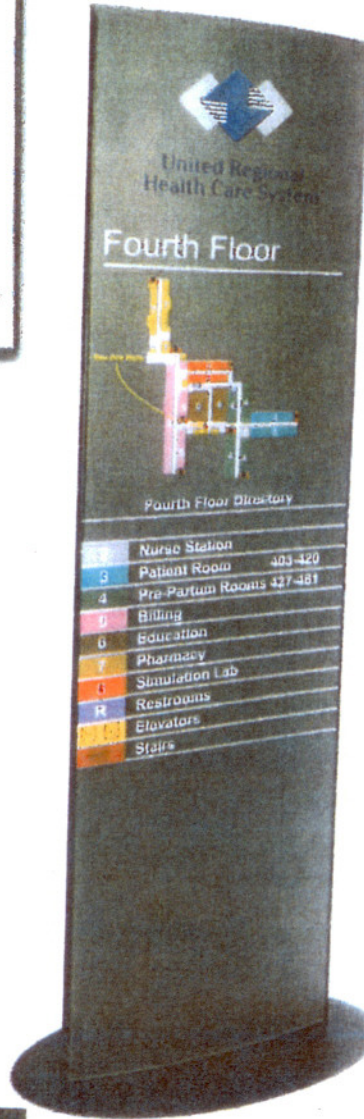
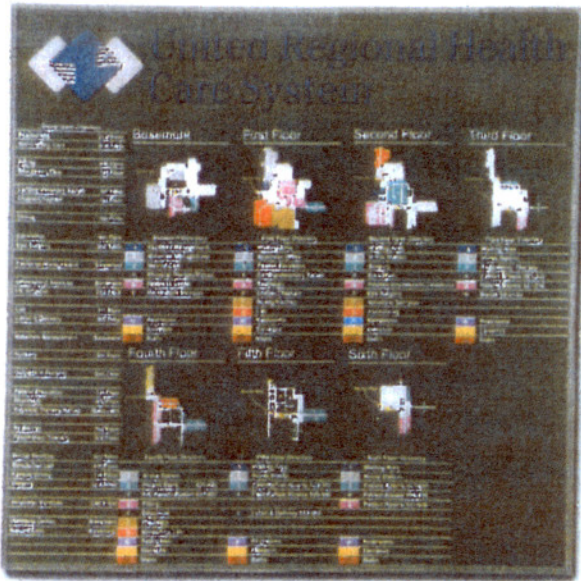


DIAGRAM 5-E
Parking Lighting



PANEL DIRECTORY



TOWER DIRECTORY



Directional Signage

DIAGRAM 5-G
Signage



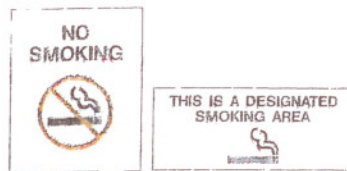
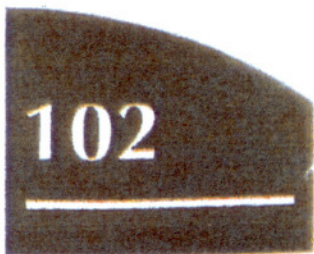
12" Diameter Circle = Women's



12" Equilateral Triangle = Men's



Regulatory Signage



Informational Signage



DIAGRAM 5-H
Signage



PEDESTRIAN GATEWAY

EAST AND WEST CAMPUSES



CAMPUS GATEWAY ARCH

EAST AND WEST CAMPUSES



DIAGRAM 5-J and 5-K
Entry Identifiers

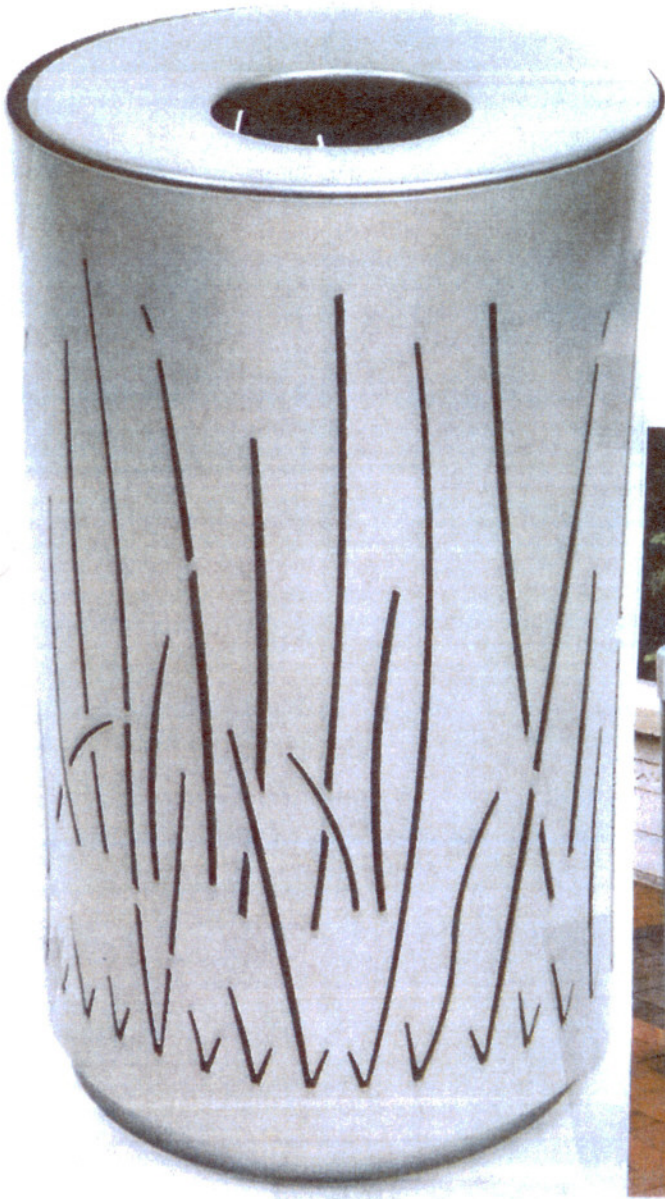


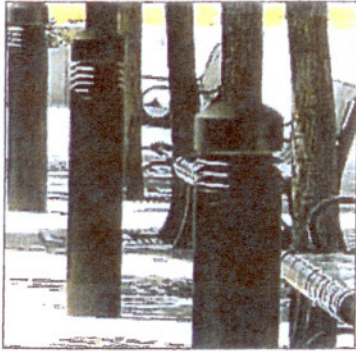
DIAGRAM 5-L and 5-M
Waste Receptacles
www.landscapeforms.com



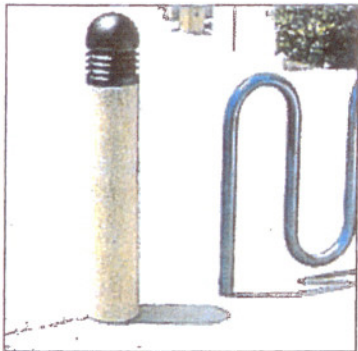
DIAGRAM 5-N

Benches

www.landscapeforms.com



**BRM826 Bevel Top School
Bollard**



**BRM823 Dome Top Louver
Bollard with Concrete Base**



Fascia Forms



**Bollard 10
BR163 with Concrete Base**

DIAGRAM 5-P
Bollard Lights
www.sitelighting.com

5.3 OPEN SPACE AND LANDSCAPE ELEMENT

I. Open Spaces

Open space (the negative spaces between buildings) should be well defined. These spaces should be flexible to allow for an unlimited number of uses by individuals and large assemblies. The aforementioned park-like settings should be protected and preserved.

Every effort should be made to encourage and preserve diversity of use in both types of these visually important spaces. These spaces can be perceived both as unique places and as unifying elements, uniting the campus into a contiguous unit.

Between open spaces are connection spaces that should be emphasized through landscaping and building-massing to better link, both visually and functionally, various parts of the campus. Covered or trellised walkways should be added to West Campus to provide sun-shading and introduce pedestrian-scale to the large open spaces between buildings.

II. Gathering Places

Because plazas, courtyards, and terraces are the places where students are most likely to congregate, these spaces can provide opportunities for more highly detailed social design solutions. Walls, steps, lighting, seating and paving are the dominant elements within these spaces, and their expression should compliment the existing architecture in materials, form, and composition. Provision for Wi-Fi should be available in these spaces for technology use and to encourage outdoor, interactive learning to occur.

Clear visibility should be maintained at the ground plane, site lines into the space from adjacent building and areas should be preserved, and traffic patterns should avoid dead-end or isolated zones. The goal is to enrich the gathering spaces of the College. The expansion of the nature and number of gathering places reinforces the campus core as a landscape for learning, teaching, interdisciplinary exchange, and reflection. This will serve to enrich the learning process by allowing diverse contact among students and faculty to promote the free exchange of ideas. These gathering places should be distributed throughout the College and organized along lines of circulation. They should be diverse in character and function. Functions might include instruction, performance, reflection, retreat, gathering, or play.

A. Plazas

Plazas – large, social gathering areas on campus – should be located adjacent to major pedestrian routes. They serve as outdoor ‘rooms’ for studying, places of interaction, contemplation, and eating. Plazas may be active or passive in character. Plazas should be sited near building entries and are typically defined by the surrounding architecture.

B. Building Entrances

Primary building entrances are important campus features, serving as the forecourt and providing the transition from exterior to interior space. They may contain a rich use of paving materials in selected patterns.

III. Edges and Entries

Creating boundaries and entries to the College that successfully signal arrival and a “sense of place” is important to perceptions of a strong campus identity. Streets, building facades, lighting, landmarks, signature buildings, and plant materials all help to define gateways within the campus as well as between it and the adjoining community. A hierarchical system of entrances and edges helps people understand the landscape, navigate through it in comfort, and remember it. The current boundaries of and entry points to the East Campus are poorly defined. Reconsideration and reconfiguration will be required to clarify boundaries or edges and to make strong, definable entryways to the campus.

A. Major Entries

Major entries are the most significant, highly visible entryways to campus. These points of entry serve students and faculty and provide vehicular circulation routes. These entrances are also the most likely to serve visitors and off-campus commuters. For predominantly vehicular entries, an arch structure is proposed as a Major Entry and Entry Identifier (Refer to Diagram 5-J and 5-K, page 5.13). The arch should be of sufficient height to provide instant recognition from within a vehicle as an indication of arrival at a major entryway. The design of the structure is to be in context with the Collegiate Modernist architectural style found on campus. These arches denote a permanent ‘front door’ to each campus and become part of the lasting symbolism of the College.

B. Edge Treatment

An important component in overall campus beautification will be the unification and identification of campus edges or boundaries and their interfaces with the surrounding Modesto community.

1. Beautify major entry points.
2. Design and construct identifying structures and improvements at key entry points.
3. Improve definition of campus edges through the use of trees, bollards and lighting (Refer to Diagrams 5-C, 5-L, 5-M and 5-P, pages 5.8, 5.14 and 5.16).

IV. Special Places and Priority Landscapes

While it is the intent of this Master Plan to enhance the quality of all indoor and outdoor spaces on campus, some spaces are deserving of special attention due to their unique characteristics, their historical significance, and/or their importance to the image of the College. These spaces represent the identity of the institution and, as such, should be treated with the highest level of care and maintenance. Historically, the campus lands have been developed in piecemeal fashion. This has been caused by past funding policy that makes it difficult, if not impossible, to acquire funds for landscape projects. As such, few site areas or “landscapes” have been designed and constructed in a holistic way, but are a collection of often disjointed developments peripheral to buildings. The quality of the campus landscape is vital to the institution and the quality of life on Campus.

- A. **East Campus** is defined by its Main Quad, between the Morris Building and the Library/Student Center. This Quad should be protected primarily as a landscape-preserve with seating, lighting, and a new, informal walkway pattern.
- B. **West Campus** will develop a prominent Quad, between Yosemite and Sierra Halls and the MSR Student Center, on the east end, and the proposed New Science Community Center at the west end. A new trellis structure is proposed to provide a link between Yosemite and Sierra Halls, while humanizing student gathering opportunities between buildings, and providing shelter from the harsh weather elements.

5.4 LANDSCAPE DESIGN ISSUES

The identity or “feel” of any campus is determined by more than its buildings. It is the landscape, plazas, walkways, passages, softscape, water-features, shading, outdoor spatial organization and sense of shelter or shading that make a site in the Central Valley habitable. These offer:

- A. Circulation – pedestrian passages to/from and between buildings
- B. Social spaces – niches, shelters, covers, assembly and recreation
- C. Aesthetics – materials, vistas, view-corridors, lighting, topography; colors and textures, scale and proportion

Seven broad goals and actions are suggested to preserve, renew and extend the existing campus landscape character.

5.5 LANDSCAPE GOALS

I. Goal #1: Improve Campus Landscape Character

- A. **Minimize the Impact of Vehicles on Campus Core.**
 - 1. Modify internal parking to improve appearance (tree planting and screening) and pedestrian access.
 - 2. Screen parking lots from streets and pedestrian corridors (with regard for safety), so as to buffer neighborhoods and visual impacts.
 - 3. Minimize areas of potential conflict between pedestrians and vehicles.
 - 4. Define campus edge for clarity.
 - 5. Provide appropriate treatment for street at campus edge.
 - 6. Coordinate with City of Modesto or County of Stanislaus to improve streetscape of adjoining and feeder streets.

B. Landscape Character Goals

Provide and maintain sustainable, quality landscapes that enhance the use of campus open space. Each campus needs a high quality landscape that depends on good comprehensive design and high quality materials. Maximizing campus resources and establishing consistently high environmental quality landscape are important in planning for this goal. The character and form of the campus provide useful outdoor spaces that accommodate individual, educational, social and recreational activities.

C. Landscape Character Policies

1. Incorporate the principles of sustainable design in the design, construction and maintenance of projects.
2. Site and design new or renovated open spaces to consider climatic and other environmental factors, encouraging extended use of the campus environment.
3. Ensure site furnishings are well designed, durable and relate to the landscape types of the campus environs.
4. Provide paving upgrades, plant and irrigation renewal, bike parking, public art, way-finding, and lighting (Refer to Diagrams 5-A through 5-P, pages 5.6 – 5.16).

II. GOAL #2: MAXIMIZE UNIVERSAL ASSESSIBILITY

- A. Provide universal ADA-compliant access to all campus areas.
- B. Clearly identify accessible path routes.
- C. Provide sufficient accessible site furnishings.
- D. **Accessibility and Parking Goals**

The provision and maintenance of a welcoming, safe and accessible campus environment are essential to the College's functioning. The campus landscape is the site of constant movement and with increasing traffic at gateways, plazas, pathways and roads there is an increased need for safe and clear pedestrian conditions. The College should provide safe and accessible paths of travel to and from buildings and parking areas for its disabled community across the challenging, but ever-improving campus landscape.

III. GOAL #3: ENHANCE CAMPUS SAFETY

- A. Increase illumination of campus walkways, streets and parking lots.
- B. Provide sufficient emergency call boxes (visible and convenient).
- C. Provide clear visibility under trees and between buildings.
- D. **Lighting and Safety Goals**

Provide and maintain a well-lit, clearly signed and safe campus environment. The campus landscape is the site of most unsupervised interaction between acquaintances and strangers. These interactions need to be well lit and designed for student and staff safety. The College must be rigorous in providing safe and clearly defined paths of travel for its student and staff community across the campus landscape.

1. Plan, design and manage routes within the central campus for sufficient lighting.
2. Provide clear way-finding signs towards destinations and emergency support throughout campus.

3. Integrate universal lighting standards along all paths, considering tree coverage and landscape growth.
4. Provide sufficient illumination in all campus parking lots.
5. Clearly mark parking spaces for disabled persons as needed in parking areas throughout the campus.

IV. GOAL #4: ENHANCE THE CAMPUS IMAGE WITH LANDSCAPE PLANTING

- A. Promote low-maintenance landscape diversity throughout each campus.
- B. Establish design guidelines for future landscape and related site improvements.
- C. Establish policies and protocols for rehabilitation, protection and preservation of existing site amenities and features.
- D. **Landscape Goals**

Provide stewardship to enhance the distinctive natural and physical attributes of the campus. Mature specimen trees are the principal natural attributes of the East Campus landscape. The tree canopy contributes character, stability and dignity to the campus, shaping the spatial order and reducing the mass of buildings.

V. GOAL #5: FULFILL COMMUNITY AND EDUCATIONAL MISSION

- A. Create outdoor spaces that encourage learning and community interaction.
- B. Provide site amenities that aid in the comfort of users.
- C. Create microenvironments that encourage use by providing shade, protection from wind and noise, isolation from distraction and visual clutter.
- D. **Community and Educational Mission Goals**

Develop the campus landscape in support of the educational mission of the College. Many attributes of the campus landscape support the teaching and community service mission of the College. Provide places of academic and social interaction, outdoor classroom space and places to study. The diversity of the landscape planting contributes visually, educationally and ecologically to the value of the campus. Finally, the views and beauty of the campus should serve as an inspiration to the entire community.

1. Within new capital projects for campus renovation and accessibility, include the development of outdoor spaces that are conducive to creative interaction.
2. Define a program of spaces for interaction, and a sequence for implementation.
3. Promote outdoor teaching opportunities to support diversity in the campus environment.

E. Connecting Campus and Community

1. Consider campus gateways, edges and pathway connections to define the campus as a destination.
 - a. Locate campus gateways and edges and identify their individual relationship to the greater community.
 - b. Identify the corridors where a transition occurs as one enters or leaves the campus.
2. Consider view corridors into and out of campus. Provide for and encourage visual focus on major campus landmarks as viewed from the community and other parts of campus.
3. Encourage ease of way-finding to campus and its gateways from the community.
 - a. Announce the College by accentuating the contrasting campus landscape with the adjacent neighborhood.
 - b. Utilize signage, plant material, pavements, lighting and furniture to further articulate individual campus gateways.
4. Identify and enhance bicycle routes to connect campus to community.
5. Develop a hierarchy of vehicular and pedestrian pathways.

VI. GOAL #6: CREATE A VISITOR-FRIENDLY CAMPUS**A. Welcoming Campus Image Goals**

Develop the campus image of buildings in a park-like setting. The appearance of the landscape reflects on the image of the College. The landscape and open space of each campus are the common element that ties the architecture together, provides visual clarity, orients visitors and creates a sense of community. As the student population increases, the value of the open space increases in importance throughout the campus. An important aspect of improving the campus image is to implement a program of fundraising and investment for the landscape system, as an extension of Modesto's rich agricultural heritage.

- B. Define pedestrian and vehicular gateways and entries to campus.
- C. Develop a consistent palette of site amenities for the campus.
- D. Enhance major campus sight lines and focal points.

VII. GOAL #7: CONSERVE AND ENHANCE NATURAL AND MAN-MADE RESOURCES

A. Evaluate the extent and condition of campus "forest"

1. Within the East Campus study area, conduct a field survey of "significant," "landmark," historical and dedicated trees that contribute to the value of the campus environment, regardless of size.
2. Determine the geographic location of the surveyed trees; identify their genus and species and size in diameter.

B. Preserve significant natural and man-made features

1. Endeavor to protect the "heritage" trees on East Campus by restricting any construction within proximity of these groupings that will adversely affect their health.
2. Protect other significant plants through establishment of the necessary specifications and standards for review of development projects.

C. Insure the sustainability of proposed plant materials and appropriateness of varieties to environment.

1. Determine plant types present in given locales and their appropriateness relative to their native habitat, soil conditions and microclimate.
2. Establish plant associations and characteristics to be encouraged through normal maintenance and planting operations for given sub-areas relative to their appropriateness to that local environment and their sustainability in difficult campus settings.
3. Encourage high quality, long-lived, predominantly indigenous, low-maintenance plants for future use.

D. Many policy issues remain undefined as they affect the landscape and the overall aesthetics of the campus. A few of these policy issues that could be addressed are:

1. Maintenance staffing/funding challenges at an expanding physical plant.
2. Lack of a coordinated review process of development projects for input relative to their impact on the existing campus landscape.
3. Definition of a site improvement project versus a maintenance project.
4. Levels of site development appropriate for "short-term" landscapes on sites of undefined final disposition or those awaiting some scheduled development, particularly at the West Campus.
5. A coordinated horticulture system for the preservation and enhancement of the specimen trees of the campus.
6. Need for a coordinated approval process of all sign placements, including information, directional and traffic signs.



6 Recommended Educational Program and Space Standards



RECOMMENDED EDUCATIONAL PROGRAM AND SPACE STANDARDS
CLASSROOM STANDARDS

Small Classroom (35 pupils) @ 20 sf/pp = 700 SF
 Medium Classroom (50 pupils) @ 17 sf/pp = 850 SF
 Large Classroom (70 pupils) @ 15 sf/pp = 1,050 SF
 Note: State Standards = 15ASF/station

LABORATORY STANDARDS

TAXONOMY	SUBJECT GROUP	ASF/100 WSCH	ASF per STATION
0100	Agriculture and Nature Resources	492	115
0115	Agricultural & Forestry Power/Machinery	856	200
0200	Architecture and Environmental Design	257	60
0400	Biological Sciences	235	55
0500	Business and Management	128	30
0600	Communications	214	50
0700	Computer and Information Science	171	40
0800	Education	321	75
0936	Printing and Lithography	342	80
0937	Tool and Machine	385	90
0945	Mechanical Technology	556	130
0947	Diesel Technology	856	200
0948	Automotive Technology	856	200
0950	Aeronautical and Aviation Technology	749	175
0952	Construction Crafts/Trades Technology	749	175
0954	Chemical Technology	556	130
0956	Industrial Technology	285	90
All other 900s	(Engineering)	321	75
1000	Fine and Applied arts	257	60
1100	Foreign Language	150	35
1200	Health Services	214	50
1300	Consumer Education/Home Economics	257	60
1400	Law	150	35
1500	Humanities	150	35
1700	Mathematics	150	35
1800	Military Studies	214	50
1900	Physical Sciences	257	60
2000	Psychology	150	35
2100	Public Affairs and Service	214	50
2200	Social Sciences	150	35
3000	Commercial Services	214	50
4900	Interdisciplinary	257	60

Reference: California Code of Regulations, Title 5, Section 57028

PLANNING for INDIVIDUAL OFFICE SPACES

There are no adopted State standards related to the size of individual offices. Districts find it necessary to develop "local" office space standards to assure consistency while working within the aggregate allocation of space allowed by the state. An example of such a set of standards shows how much space is deemed appropriate for the type of occupant. It is important to emphasize that each district is and should be free to develop the standards that fit its local circumstances

OFFICE STANDARDS FOR PLANNING PURPOSES

<u>Occupant</u>	<u>Net Assignable Square Feet</u>
Chancellor-Superintendent	330
President	280
Vice Chancellor	250
Vice President	200
Deans/Directors	150
Supervisors/Assistants to...	120
Confidential	110
Professional/Technical	100
Faculty/Counselor	90
Counselor	100
Administrative Secretary/Division Secretary	100
Secretary/Clerk	75
Part-Time Faculty/Student Assistant	60
Conference Rooms (5-10 persons)	<200
Conference Rooms (15-20 persons)	<450

Note: Some offices may necessarily deviate from the standard where special equipment, storage or reception areas are required as part of the space.



7 Master Plans



FACILITIES MASTER PLAN



7.1 Existing Conditions



Master Plan

I. EXISTING CONDITIONS – EAST CAMPUS

- No real front door or Community “Presence.”
- Site is constrained (80 acres vs. 100 acres minimum) and land-locked, preventing expansion.
- 60% of instructional traffic concentrated in one building (Founders Hall).
- Lack of adequate parking for concentrated student/faculty population.
- Drive-through/parking (off College Avenue) splits campus pedestrian core.
- Student Services are fragmented.
- Major educational buildings fall along N/S spine.

II. EXISTING CONDITIONS – WEST CAMPUS

- Lack of “Critical Mass” – Does not yet have a real campus “feel.”
- Ample land to develop buildings and parking.
- Core has recent buildings – code compliant/longevity/accessibility.
- Buildings are under-utilized; need some technology upgrades.
- Campus is zoned into core and perimeter (Ag and Open Space) which facilitates expansion/new development.
- EMP recommends establishing a Science-Community Center, which could link Allied Health/Science/Math/Engineering, including GVM and Planetarium.
- Opportunities for College/Community interface and partnerships with centralized Ag, Community Education, Child Development, Career-Skills/Tech Labs and Athletics/Health/Wellness programs.

III. EAST CAMPUS – REORGANIZE AND MODERNIZE

- **Arts**
 - Centralize performing and fine arts
 - Create community link with performing arts (joint-use)
- **Founders Hall**
 - Modernize existing 2-story building to reconfigure classroom and office spaces, per state standards
 - Replace HVAC systems with new, energy-efficient systems; add improved thermal insulation (walls & roof/ceiling)
 - Extend technology to all teaching spaces
 - Replace lighting with improved energy-efficient and improved lighting-levels
 - Upgrade and freshen up finishes (flooring/painting)
- **High-Tech Center**
 - Consolidate computer science, computer graphics and electronics, once new Science Community Center is constructed and occupied on West Campus
 - Renovate existing Science Complex into High-Tech Center
 - Reserve space in existing Science for general science classrooms, as program dictates
 - Remove excess classroom and lab space in current Electronics Building from campus space inventory, with High-Tech consolidation
 - Create new exterior High-Tech image to former Science Complex as part of renovation project
- **Parking**
 - Add new multi-level parking garage (see Site Plan)
 - Improve existing parking lot signage and lighting
 - Expand surface parking to lot now occupied by GVM, once new Science Community Center occupied on West Campus
 - Add additional parking through property acquisitions adjacent to college.
- **Student Services**
 - Consolidate College's student services into a new building on the west side of existing Administration Building
 - Remodel ground floor (west side) of existing Administration Building concurrent with One-Stop Center and reorganize space assignments in Administration Building
 - Designate 30-min parking spaces at present south (staff) parking street (between Auditorium and Administration) for student services users; final number TBD
- **Signage and Landscape**
 - Identify each building with consistent naming signs on exterior (i.e. Memorial Naming Program)
 - Add ADA accessibility signs as each building is remodeled/modernized
 - Add site safety lighting and signage for consistent way-finding, including directories and directional signs.
 - Include a landscape element with each building project that enhances the overall campus quality. Consider private fundraising efforts to improve site environs, including site furniture, artwork and landscape specimen-trees.

IV. WEST CAMPUS – DEVELOP COMMUNITY BASED LEARNING CENTER

- Agriculture
 - Centralize all facilities on West Campus
 - Extend partnerships with farming community
 - Develop future outreach programs
- Allied Health
 - Develop a Community Education Center for Health
 - Relate to Science programs
- Science
 - Develop a Science Community Center
 - Include Great Valley Museum (GVM)
 - Plan for Planetarium and Observatory
 - Plan for Greenhouse and Garden areas
- Community Education
 - Relocate facilities to West Campus
 - Expand partnering opportunities
 - Serve and support college and local community
- Physical Education, Health and Athletics
 - Develop Health and Wellness Center
 - Develop Field-House and indoor workout/training facility
 - Relocate athletic fields (Stadium/Softball/Baseball)
 - Conform to Equitable and Accessible Facilities (Title IX and ADA) requirements
- Language and Service Programs
 - Improve access and opportunities for ESL Programs
 - Consider allying lower-level classes with Adult Education
 - Offer programs in non-traditional time (Access)



8 Minimum Technology Standards for Classrooms and Laboratories



Cabling Infrastructure Standards

The cabling infrastructure connects the work area location to the communications equipment. It is recommended that the District establish standards that adopt the highest quality/capability cabling infrastructure available so that both current and future capabilities can be maximized. Provide a cabling infrastructure that provides 15- to 20-year warranties so as to delay reinvestment as long as possible. The current technology available to support this plan is a cabling infrastructure installation of category 6 cabling.

Classroom and Laboratory Layout Considerations

The layout of the classroom is critical in making it functional for the teacher and the students. Since classrooms will continue to be used for traditional instruction, the front center of the room needs to accommodate whiteboards, chalk boards, screens, open space for displays and experiments, and physical space for the instructor. There needs to be adequate space to use the whiteboard while images are shown on the screen. A 25-foot deep room with 25 seats needs 9 feet in front; a 35-foot deep room with 70 seats needs 11 feet in front, and a 45-foot room with 180 seats needs 15 feet in front.

As technology components are expected to be added to the classroom, the addition of a lectern/media cabinet should be added to house and consolidate the components. The location of the lectern should be planned as the termination point for power and network access and should be placed at the right or left of the room so that it is not in the way of the instructor as s/he moves around or in the way of the images on the screen or the board. The arrangement is similar to slide presentation, where the speaker is at the podium on one side of the room and faces the audience while the visuals are shown on a screen in the center of the room. The instructor can control the images from the lectern or through the use of a wireless mouse and keyboard. The lectern should be of a simple design that allows the instructor to plug in his/her laptop to power, network and projection.

Lighting should be designed so that it is parallel to the front of the room to allow for some control for four lighting zones: (1) Back row; (2) Center seating area; (3) Front presentation area; and (4) Lectern lights. Controlled light is necessary for readability on the board when used with computer materials projected on the screen. Prevent ambient room light and glare from washing out images on screens through the use of parabolic louvers. During projection, room light should be bright (30-40 candles) for student interaction, not just dim for note taking. When lights in the student zone of the classroom are turned on, no more than 3-5 foot candles of ambient room light should fall on the screen. This requirement tends to preclude indirect lighting.

Reduce ambient sound rather than trying to overcome the noise with microphones. Acoustical treatment should address concerns of reverberation time and ambient noise. Ideally, classrooms should have reverberation times in the range of 0.4 – 0.6 seconds and noise levels should not exceed NC 25 to 30. Quiet ventilation, electronic fluorescent light ballasts. Add generous sound absorbing material to minimize the need for voice amplification in standard size classrooms. When an

instructor does need sound reinforcement in a classroom, a microphone and amplifier can be added to the lectern. Mount speakers for computer, CD and television sound in the ceiling near the front of the room. Ceiling mounting helps contain the sound in the room. In large lecture halls ceiling speakers around the room and an amplifier are necessary for voice, CD, TV and computer sound. A wall mounted panel or a control panel on the podium should contain all the controls that the instructor needs to switch between technology components such as the VCR, DVD, or projector and to adjust the room lighting.

Screen sizes for each of the classrooms should be based on room depth and seating capacity. In larger rooms, consider multiple smaller screens or add one or two screens on either side of the one center screen. Sometimes a classroom will lend itself to an additional corner screen at a 40 degree angle. Be sure to plan for screen size changes in the future as newer technologies are becoming more standard. Screens today are slightly rectangular in a 3 units high x 4 units wide ratio. A new 30% wider proportion of 3 x 5.3 for DVD and HDTV will need to be accommodated in the future.

The college must develop a standard for video display monitors for use when projecting computer, DVD, VCR and other video sources. Some choices are TV monitors, flat screens, or data projectors.

A minimum standard for communication outlets must be developed. The following is an example of the mixture and variety of communications outlets the college should consider: Classrooms should have a minimum of 10 communications outlets per room. Various multifunction communications outlets configurations must be designed and conveniently placed as follows:

Minimum of two data jacks per usable wall

Minimum of one data jack on any counter space

Minimum of one voice jack placed in the front of the classroom

Minimum of one data jack placed in the ceiling for a wireless access point

Minimum of one AV outlet in the ceiling for projection equipment

Minimum of one Coax outlet in the front of the classroom for TV monitors

Minimum on one AV outlet in the back of the classroom for future use

A 110 Power Outlet must be located within 12 inches of each communications outlet

Note: Not all outlets need be provisioned, but pathways and blank outlets must be available for future use if needed.

Wireless Network Access

Attract and retain students by providing them with increased flexibility to access campus technologies and the public Internet through wireless access and the use of personal-owned laptops. Design and deploy a wireless solution for students and staff that allow unrestricted access to public resources and securely limits and restricts access to District technology-related services to those with the proper access rights.

Optional and Add-On Classroom Technology

Classroom technology must be as simple, friendly and non-intimidating as possible. Installations must serve the faculty well, yet remain affordable. Develop a “plug-in” approach to the design so that technology components may be added as necessary without having to rework the infrastructure already in place. Enable faculty, outside of class, to prepare text, charts, graphs, and complete desktop presentations and to practice the presentation as often as necessary. Faculty need to be confident that instructional presentations will work in the classroom without assistance and with minimum set up. Rather than outfitting each classroom and each full-time faculty member with a desktop computer, purchase laptops for full-time faculty members and a loaner pool of laptops for those part-time or adjunct faculty members who need one. Most instructors would feel more secure if they could plug in their own laptop and know that everything has been prepared in advance and will work. This would also reduce the number of desktops that would be needed for each physical classroom and each faculty member. The faculty member’s laptop can also be used during a lecture to see what is being displayed to the class without the teacher turning around to look at the large screen. A lectern that can double as a media cabinet should be situated to the side of the screen and would contain a port to plug in the laptop and cabling for power, network access and projection.

- Commercial Building Telecommunications Cabling Standard
- Commercial Building Standard for Telecommunications Pathway and Spaces
- Administration Standard for the Telecommunications Infrastructure of Commercial Buildings
- Commercial Building Grounding and Bonding Requirements for Telecommunications
- Customer-Owned Outside Plant Telecommunications Cabling Standard