Master Plan
To Capital Master Planning
Capital Master Planning Process

Step 1

Links UNM Mission, Vision, Values & Strategies to:

1. Academic Plans
2. Facilities Needs Assessments
3. Strategic Facilities Plans
4. Capital Projects Plan
Step 1

The Master Plan
What is a master plan?
Why is it important?
What is the basic MP process.
What are the key elements of this Master Plan Update?
How do I get my project on the 5 year Capital Outlay list?
Planning?
Deliverables
Master Plan: what it is and what it isn’t

- UNM’s Master Plan Update is a framework for the physical development of the campus.

- It is a roadmap or guide but does not make decisions about any project.
  - Projects must go through a process of development, using this to guide location, justifications, adjacencies, footprint, access, parking…

- It is based upon President Schmidly’s Goals and Strategies.

- The MP has a 10-20 year planning horizon.

- To read the full document, go to http://iss.unm.edu/PCD/university-planning/master-planning/index.html.
MASTER PLANNING PROCESS

- Institutional Mission and Role
- Master Planning Process
- Strategic
  - Market and Enrollment Analysis
  - Academic & Signature Program(s)
  - Financial Analysis/Feasibility
- Functional
  - Functional and Utilization Analysis
  - Facility Program: Functional Space Site Technical
  - Alternatives and Evaluation
- Physical
  - Existing/Future Campus and Community Analysis
  - Existing/Future Building and Infrastructure Systems Analysis
  - Development Potential
- Data Gathering/Outreach
  - Analysis/Synthesis
  - Develop Alternatives

Plan Document
- Existing Conditions
- Facilities Priorities
- Development Opportunities
- Implementation

*Adapted from Reeve/Smith, APPA, 1995*
UNM Master Plan
Overview
MISSION

The Mission of the University of New Mexico is to serve as New Mexico’s flagship institution of higher learning through demonstrated and growing excellence in teaching, research, patient care, and community engagement.
The task…..

Update the 1996 UNM Master Plan

- Create a unified campus…connectivity
- Accommodate growth and change…
- 10-20 year planning horizon…
- Capital improvement strategy…
- Roadmap for implementation…
UNM at a Glance:

• 2008 Campus enrollment: 25,820

• FTE Students: 20,582

• Total Employees: UNM/HSC/UNMH 14,289

• Student Employees: Main 3,913  
  HSC 894

• Approximately 10.8 million square feet of building space for UNM/HSC/UNMH

• 13,261 parking spaces

• 769 acres total: North, Main and South campuses

• CNM 12,000 students/1,000 faculty/staff
Principles to Keep
From 1996 Master Plan

- Preserve historic buildings
- Design environmentally appropriate landscapes
- Reduce the amount of surface parking and replace it with some structured and remote parking
- Develop strategies to reduce the number of automobile trips.
- Maintain open space structure and pedestrian campus features
What are the Drivers of the MP Update?

- AAU eligibility as the first minority/majority University in the U.S.
- AAUCP Climate Change Initiative…
- UNM to be Carbon Neutral by 2030
- Transportation…Global Warming…VMT
- Rio Rancho…CNM 2+2…Mesa del Sol
- Growth of UNMH and HSC…
- In-fill…Densification…Modernization
- Connectivity…
What’s happening that will impact the UNM MP Update?

- Regional Growth
- Climate Change
- Urban Form
- Sustainability
- Constrained Resources
Regional Growth

U.S. passed the 300 million mark in 9/06

U.S. population growth is about 3 million per year

There will be 400 million Americans in 2043

420 million by mid-century

Mega Mountain Regions
Source: Brookings Institute
Enrollment Trends

67% of incoming Freshman are from Santa Fe, Bernalillo, Sandoval & Valencia Counties

88% of incoming Freshman are from New Mexico

+ 600,000 Projected Metro area population increase 2010-2035
UNM Growth Projections

Dean’s “Quality” Estimate

Total Headcount

Undergraduate

1996 2008 2012 2018

15K 20K 25K 30K 35K

22K
The iGeneration
1990-present
The Internet Generation
UNM Rio Rancho
207 Acres

UNM Mesa del Sol
444 Acres

UNM/HSC/UNMH
769 Acres

Expanded UNM...
UNM has changed...

Spent over $1.1 billion on capital projects in the past 7 years
Even though we’ve invested $1.1B on our campus, the work completed only represents a fraction of the need on our campus.

The HED’s 3DI Facility Condition Assessment confirmed this fact.

<table>
<thead>
<tr>
<th>Bldg #</th>
<th>Name</th>
<th>Yr Built</th>
<th>3Di - FCI</th>
<th>PPD Facilities Bld Quality Eval</th>
<th>Overall</th>
<th>Yrs Service Since Renovation</th>
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<tbody>
<tr>
<td>48</td>
<td>Dane Smith</td>
<td>1997</td>
<td>n.a.</td>
<td>![Green] Clrm / Lab Quality</td>
<td>![Green] Overall</td>
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<td>67</td>
<td>COE Clsrm</td>
<td>1963</td>
<td>77%</td>
<td>![Red] IT Infra</td>
<td>![Red] Overall</td>
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<td>81</td>
<td>Humanities</td>
<td>1974</td>
<td>53%</td>
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<td>![Yellow] Overall</td>
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<td>104</td>
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<td>1920</td>
<td>84%</td>
<td>![Red] IT Infra</td>
<td>![Red] Overall</td>
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- Systems reliability and performance does not meet current need.
- Systems partially meets current needs.
- Systems fully meets current needs and codes.
Main Campus
Engineering, Architecture, Anthropology
Redondo Housing, SUB Addition/Remodel
Popejoy, Mitchell Hall, Dane Smith

North Campus
Health Education Center, Richardson Pavilion,
Domenici Hall, Cancer Center, UNMH
Renovations and additions

South Campus
Football Stadium Additions, Pit Renovations,
Track expansion,
Baseball Field Improvements
Student Success Center
7 Year History of Total Capital Funding

- State funded over $300 million in capital projects since 2002
- UNM successfully leveraged funding
- Rising construction costs challenge funding model
- Must increase density of academic campus due to lack of available land = larger buildings
- Larger buildings = more efficiency but also more cost

### 7 year History of Total Capital Funding 2002-2009

<table>
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<tr>
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<th>Total Project Cost</th>
<th>Institutional / Local Revenue Funds</th>
<th>State Funds</th>
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<tr>
<td>Total</td>
<td>$1,156,314,961</td>
<td>$849,452,849</td>
<td>$306,921,912</td>
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<tr>
<td>Funding Percentage</td>
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<td>73.46%</td>
<td>26.54%</td>
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*Note: Graph showing project costs per square foot.*
Main Campus:
- Average I&G gsf/student FTE of 285 gsf/FTE
- UNM Main Campus is slightly higher than NMSU (230 gsf/FTE) and substantially lower than NM Tech (611 gsf/FTE)
- UNM statewide is slightly above the average of all institutions (244 gsf/FTE)
- UNM compared to the peer institutions and to the AAU peer institutions is about average.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution</th>
<th>gsf/FTE</th>
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<tbody>
<tr>
<td>1</td>
<td>NM Military Institute</td>
<td>703</td>
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<tr>
<td>2</td>
<td>NM Tech</td>
<td>611</td>
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<td>3</td>
<td>Luna</td>
<td>344</td>
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<td>4</td>
<td>Northern NM</td>
<td>307</td>
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<td>5</td>
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<td>6</td>
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<td>7</td>
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<td>8</td>
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<td>9</td>
<td>NMHU</td>
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<td>10</td>
<td>UNM Los Alamos</td>
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<tr>
<td>11</td>
<td>average of 25</td>
<td>244</td>
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<td>12</td>
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<tr>
<td>16</td>
<td>NMSU - Grants</td>
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<td>17</td>
<td>San Juan College</td>
<td>180</td>
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<tr>
<td>18</td>
<td>UNM Gallup</td>
<td>179</td>
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<tr>
<td>19</td>
<td>Mesalands</td>
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<tr>
<td>20</td>
<td>NMSU- Carlsbad</td>
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<td>21</td>
<td>UNM-Valencia</td>
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<tr>
<td>22</td>
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<tr>
<td>23</td>
<td>CNM</td>
<td>112</td>
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<tr>
<td>24</td>
<td>NMSU-Dona Ana</td>
<td>94</td>
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<tr>
<td>25</td>
<td>ENMU-Ruidoso</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>UNM - Taos</td>
<td>66</td>
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</table>

<table>
<thead>
<tr>
<th>Research</th>
<th>Institution</th>
<th>gsf/fte</th>
<th>Average Cat</th>
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<td></td>
<td>UNM</td>
<td>285</td>
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<tr>
<td></td>
<td>NMSU</td>
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</tr>
<tr>
<td></td>
<td>average</td>
<td>375</td>
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Complex Urban In-Fill Development

A city within a city of 50,000 + people…

Traffic Impacts
Parking encroachment into adjacent neighborhoods

Congestion

Infrastructure issues

Noise/Pollution

Development of Vacant Land

Low Density/Historic Neighborhoods adjacent to intense activity centers
Existing conditions create challenges

The available land in the academic core is limited. Opportunities for physical growth exists in higher utilization, renovation and strategic infill. Existing buildings do not support innovative approaches to teaching and learning.
Strategies...

- 24/7...live...work...learn...play...
- Connectivity...north...south...central...
- In-fill campus development...Main Campus
- Facility replacement and renewal...
- Traffic, transit and transportation...regional approach (UNM/HSC/UNMH/CNM/COA/MRCOG)
- Commercial development for additional revenues...
Overall goals of the MP Update

• Reduce the use of the SOV…partner with other Public entities to enhance bicycle and transit connections…

• Increase the capacity of the Health Sciences Center to serve the needs of our growing state…

• Integrate sustainability into all aspects of the campus

• Maintain unique character and sense of place that is UNM…

• Increase UNM’s role as a primary contributor to the economic health of New Mexico as a top tier University Research Institution
North Campus
3.58 Million sf
269 Acres

Central Campus
5.1 Million sf
211 Acres
2200 housing units
3800 core parking spaces

South Campus
1.4 Million sf
289 Acres
9500 parking spaces
Sustainability

- Design/built to a minimum of LEED Silver Standards and 50% energy goals
- Green Screen for Buildings
- UNM pledges campuses’ greenhouse gas emissions will become carbon neutral.
- Member Association for the Advancement of Sustainability in Higher Education
- UNM’s sustainability grade increased to a “B” this year from a “C” in last year’s report.
- UNM Cuts Energy Usage 14.2%
- Cost Avoided Utility Spending by $2.9 Million
- Carbon Emission Reductions Equal to 2,440 Cars

“While we meet the needs of the present, we must always be mindful about not compromising the well-being of future generations.”

UNM President Schmidly

Sustainability is one of the university’s core values
Main Campus
Master Plan
Capital Master Planning Process

Step 2

Links UNM Mission, Vision, Values & Strategies to:

1. Academic Plans
2. Facilities Needs Assessments
3. Strategic Facilities Plans
4. Capital Projects Plan
Strategic Facilities Planning

Step 2

rolling out UNM Master Plan

- PCD and the Provost’s Office work with each UNM Academic College to develop their long term capital needs
  - Assures that they meet academic goals
  - Prioritizes needs
  - Maximizes assets and contains costs
What is a Capital Strategic Facilities Plan?

- It is a method of identifying, budgeting, documenting, justifying, and prioritizing built environment needs.
- It is an approach using developed standards and resources that will assist in the SUCCESSFUL implementation of capital projects and programs.

- The Process includes:
  - Identification of both short and long term goals
  - Academic 10 year plan space and facilities implications
  - Comprehensive facility and space evaluations
  - Master Plan integration & implementation
  - Identification of program space and facilities needs
  - Development options to meet need
  - Cost estimates
  - Funding and resource plan
  - Timeline for capital projects
  - Add to 10 year capital plan
  - Implementation
Strategic Facilities Planning &
The Capital Plan

• Provides a 5 to 10 year Long Range Capital Plan for the department.
• Proposes equipment and facility upgrades to best support instructional needs.
• Enhances extra-curricular facilities to serve needs of the educational community.
• Invests financial resources prudently and protect prior investments
• Develops a process and protocol that ensures continuous facilities improvement preparation for strategic growth.
• Pursues agreement and approval of a single Plan between ALL stakeholders.
Strategic Facilities Planning Steps

Setting project goals

• Links Academic Plan goals to facilities needs for student success

Needs Assessment

• Incorporating a Departments Academic Plan evaluates:
  • Enrollment/Demographic projections
  • Reviews instructional programs
• Analyze current site and facilities assessments and evaluations
  • Building conditions
  • Learning environments
  • Optimizes space utilization
• Identify future needs

Identify & Explore Development Strategies

• Identify alternative solutions
• Feasibility assessment – testing the alternative solutions
• Prioritizes needs
Document Strategic Facilities Plan
(a blue print for appropriate development)

• Capital projects defined and prioritized
  • Justified to meet UNM goals
  • Address Master Plan objectives
  • Detailed project plans for long term need
  • Preparation of project cost estimates

**Implementation strategies**

• Defined next steps
• Development of project sequencing and schedules

**Plan finalization**

• UNM approval process and distribution
Strategic Facilities Plan Deliverables

Initial Results of Facility Evaluations
✓ Comprehensive list of identified projects
✓ Preliminary Estimate of Costs
✓ Consolidated and Projects Costs

Strategic Plan Document Development
✓ Development of detailed project definitions
✓ Identify initial prioritizations
✓ Preparation of master schedules and budgets
✓ Coordination of meetings with key stakeholders
✓ Revisions and updates based on review meetings
✓ Approval by administrators and Board members
The Facilities Plan is included in the Comprehensive UNM Capital Plan

- Evaluated yearly
- Prioritized with full campus needs
- Periodically updated to reflect facility developments
- Supplies succinct capital funding request information
Capital Master Planning Process

Step 3

Links UNM Mission, Vision, Values & Strategies to:

- Academic Plans
- Facilities Needs Assessments
- Strategic Facilities Plans
- Capital Projects Plan
Comprehensive Capital Plan

Step 3
rolling out
UNM Master Plan

- PCD, Health Sciences Center and the Provost’s Office work with each UNM Academic College, UNM Administration and University Services to develop their long term capital needs
  - Defines capital needs
  - Prioritizes capital needs
  - Maximizes assets and contains costs
Maximize use of existing space

Improve what we have

Prepare for the future through use of technology to support learning

Coordinate IT infrastructure with utility infrastructure planning

Tie campus development with strategic vision
Project Identification & Scope Delineations

- Develop detailed project descriptions
- Assess current condition or campus need
- Recommend action required
- Calculate quantitative measurements
Project Priorities

✔ Develop project justification
  • Health and Safety
  • Instructional requirements
  • Functional needs (Education Specifications)
  • Building Code requirements

✔ Identify priority level
  • Short term, high level priorities within 1 year
  • Medium level priorities within 4 years
  • Long term, low level priorities within 5 years or beyond
Preparation of Project Budgets

✔ Develop comprehensive project budgets
  • Use quantitative measurements

✔ Plan for all (hard and soft) project costs

✔ Anticipate project implementation year
  • Account for economic conditions
Integrate Project Schedules

✅ Apply available funds

✅ Forecast project durations

✅ Identify priority level

- Short term, high level priorities within 1 year
- Medium level priorities within 4 years
- Long term, low level priorities within 5 years or more
Complete individual project worksheets

- Probable cost estimates / budgets
- Verification of economic (escalation/inflation) factors
- Scheduled durations for each phase of each project including design, bidding, construction and completion
- Projected Fiscal Year in which that project will be initiated
- Document projected funding source(s)
- Initial project prioritization
Develop plan summary sheets

✓ Master Summary
✓ Consolidated Summary
✓ Summary by priorities
✓ Summary by Fiscal Years
✓ Summary by sites (Program level)
✓ Summary by Funding Source(s)
✓ Summary by types of projects
✓ Summary by specialty type projects/major projects list
✓ Potential funding pamphlet information
✓ Comprehensive 10 Year Capital Plan

• Itemized list of facility conditions
• Identification of projects with budgets
• Prioritization of required projects
• Plan of capital projects
• Maximizes the use of funds to improve the physical learning environment and experience
Planning & Campus Development
Space Management
Assures Accurate State Funding

• PCD, Office of Space Management
  • Works with Higher Education Department
    • Maximize UNM funding
    • Maximizes assets and contains costs
    • Optimizes space utilization to meet campus needs
Space Management

Responsibilities include:

• Space management throughout campus

• All space surveys, BR&R space calculations, and space allocation support.

• Implementing a new system, FAMIS, to increase the utilization and availability of space and building data to the users.
Space Inventory

- FAMIS is the database of record for all of UNM’s 11+ million square feet of facility data and drawings

- FAMIS produces the BR&R report of eligible I&G space which directly ties to formula funding dollars from the State

- FAMIS provides all space data for the F&A report which directly ties to UNM’s Indirect Cost rate proposal

- FAMIS allows UNM to benchmark with the rest of Higher Education institutions
FAMIS is an Oracle database. This database holds all of the facilities data for all UNM buildings.

FAMISCAD is a program developed by ACAD-Plus that creates a direct link between AutoCAD drawings and FAMIS, thus creating a bi-directional link between our AutoCAD building floor plans, and the FAMIS database.

AutoCAD is the computer aided drafting software that we use to maintain and update the building floor plans of record.
FAMIS Components

Self-Service – Space Survey

FAMISCAD – Graphical Reports

Self-Service – Visual Map

Discoverer – Standardized Reports
Functions and Benefits of FAMIS

- Provides complete management of space occupancy and functional usage.

- Associate functional use of space to location, organization, or individual.

- Create customized graphic reports by hatching, coloring, and/or annotating.

- Access facilities space data right from your desktop.
FAMIS Self-Service

- Visual Map Tab

Overview of map area

Search results display, showing data for room selected.

Legend showing data associated with color hatching.

Drop down menus to navigate through site, building, floor and themes.

“Search” and “Filter By” functions.

Room labels that appear on screen can be changed.

Tool boxes let you work in the map area.
Contact Planning and Campus Development

- Let us help you with your space needs
- Develop your short and long term capital projects plan
- Provide valuable information and services
  - Famis space data
  - Campus maps
  - Master Plan updates
  - Space plans

277-9290