UC Merced
Integrated Planning to Expand a Campus

Dan Feitelberg, Vice Chancellor for Planning and Budget
Abigail Rider, Assistant Vice Chancellor, Real Estate
Veronica Mendez, Assistant Vice Chancellor, Planning and Budget
Richard Cummings, Principal Planner
Irwin Band, Principal Planner
Gary Lowe, Principal Analyst

UC Budget and Planning Retreat
Wednesday, September 24, 2014
UCLA Lake Arrowhead Conference Center
University of California, Merced
Newest campus in UC System

University of California, Berkeley
First Graduating Class, 1873

University of California, Merced
First Graduating Class, 2009

Context

The San Joaquin Valley

- **4 million people today**
  9% of California’s Population

- **9.4 million people by 2050**
  19% of California’s population

- Driven by birth rates and immigration

- California’s fastest growing region

Source: Demographic Research Unit, California Department of Finance. State and County Population Projections by County, by Race/Ethnicity and by Major Age Groups, 2010-2060.
Regional Vicinity

Five miles from Downtown Merced

Sources: Google Maps, County of Merced, California High Speed Rail Authority

Map Source: ESRI
University of California, Merced
A Higher Education Success Story

62% of undergraduates are the first in their families to attend a four-year university

Top Regions of Origin for UC Merced Undergraduates

- 27% San Francisco Bay Area
- 34% Los Angeles Basin
- 37% Central Valley

Sources: UC Merced Institutional Planning and Analysis (2013)
UC Merced is the fastest growing campus. UC Merced’s role is to provide the system with the space, curriculum and faculty necessary to meet the system’s obligation to provide affordable access to every eligible Californian.

UC Merced Enrollment:
875 Student FTE
2013: Student 6195 FTE
67.5% annual percentage growth rate
The Enrollment Challenge
Strong Demand, Limited Space

Source: UC Merced Long Range Enrollment Plan
Purpose of the 2020 Project
Ensuring Access and Affordability for the System

17,400 Applications received for 1,600 undergraduate spots for 2014-15 year
UC Merced’s Growth Challenge
Academic Success of First Generation Students is tied to on-campus housing

- More than 60% of UC Merced undergraduates are first generation students
- First-generation students have a higher probability of graduating if they live on campus, at a minimum, in the first year

Current Situation
- Students are tripled in double rooms
- Only 29% of undergraduates live on campus

Goal
Increase on-campus housing to at least house first-year undergraduates

Source: UC Merced Institutional Research and Decision Support; UC Merced Housing
UC Merced’s Growth Challenge
Infrastructure from first phase is at its limits

The campus needs to expand horizontally and vertically
UC Merced’s Growth Challenge
Parking is at capacity

Parking lots occupy developable land
To build another building in the first phase footprint, campus would have to sacrifice existing (insufficient) parking facilities

Parking is inadequate
Students are illegally parking across the street from the campus on private land and crossing a major county road to reach campus
Planning for UC Merced’s growth
2009 Long Range Development Plan

- UC Merced’s original Long Range Development Plan (“LRDP”) envisioned phased growth
- Original Phase 2: 10,000 students on a 355 acre site

Source: UC Merced Physical and Environmental Planning
Planning for UC Merced’s growth
2013 Long Range Development Amendment

- Financial crisis caused California to terminate capital support to UC

Updated Goals

- Reduced developed area for next phase of campus based on new economic reality

- Recruit faculty with strong research credentials to provide an excellent education to UC Merced students and cement UC Merced’s standing as a UC research university

Source: 2013 UC Merced Long Range Development Plan Amendment
2013 LRDP Amendment defined the site
219 acres, Owned by Regents and EIR approved
2020 Project Launched in 2013
A thoughtful, system supported initiative

Expert Panel provided recommendations in 2012

2020 Project Executive Leadership Team

UC President
Janet Napolitano

UC Merced
Chancellor
Dorothy Leland

UCOP CFO
Nathan Brostrom

2020 Project
2020 Project Core Objective

A mixed-use, collaborative and sustainable campus to accommodate 10,000 students
2020 Project Program is under development
Mixed Use and Aligned with Enrollment Plan

Request for Qualifications (RFQ) Released in April 2014
Six submissions received July 28, 2014

Request for Proposals (RFP)

- ST Quarter Draft Release
- Selection Fall 2015

- Recreation/Athletics
- Infrastructure
- Housing
- Research Space
- Teaching Space
- Student Services
- Parking
- Dining

Up to 1.85 MGSF
Long Range Enrollment Plan (LREP)
A tool to project faculty, student and administrative growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Undergraduate FTE</th>
<th>Graduate FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-14</td>
<td>5726</td>
<td>375</td>
</tr>
<tr>
<td>2014-15</td>
<td>5659</td>
<td>475</td>
</tr>
<tr>
<td>2015-16</td>
<td>5877</td>
<td>568</td>
</tr>
<tr>
<td>2016-17</td>
<td>6291</td>
<td>659</td>
</tr>
<tr>
<td>2017-18</td>
<td>6733</td>
<td>747</td>
</tr>
<tr>
<td>2018-19</td>
<td>7356</td>
<td>847</td>
</tr>
<tr>
<td>2019-20</td>
<td>8071</td>
<td>937</td>
</tr>
<tr>
<td>2020-21</td>
<td>8662</td>
<td>1034</td>
</tr>
</tbody>
</table>

Challenges during Process

Stakeholder Coordination
Getting everyone at the table during summer timeframe

Competing Goals
- (e.g. Chancellor’s 10% Goal for Graduate Students vs. UCOP Target of 12%)

Enrollment Projection Uncertainty
LREP Process occurred during earliest stages of 2020 Project

Source: LREP, Fall FTE
Space Planning and Program

CPEC used as a proxy

CPEC was used as a proxy to develop an overall space requirement

- **But**, CPEC is more than 25 years old, and does not necessarily reflect current actual space allocations on UC campuses

- Laboratories and mixed use space have evolved greatly since CPEC was created
Overview of our Process
Classroom Space and Teaching Labs

Student Classification
- By School
- By Discipline
- By Program

Mode of Instruction
- Classroom Space
- Teaching Labs
Space Planning and Program
An undergraduate example: Classroom and Teaching Labs

- Undergraduate
  - School of Natural Sciences
    - Categorized by Discipline
      - Categorized by Program
        - Space by Mode of Instruction (i.e. Lecture or Teaching Lab)
  - School of Engineering
    - Categorized by Discipline
      - Categorized by Program
        - Space by Mode of Instruction (i.e. Lecture or Teaching Lab)
  - School of Social Sciences, Humanities and Arts
    - Categorized by Discipline
      - Categorized by Program
        - Space by Mode of Instruction (i.e. Lecture or Teaching Lab)
Space Planning and Program
Research Space and Office Space

Research Space
- Ladder Rank Faculty
- Graduate Students
- Postdoc Fellows

By School
By Discipline
By Program

Research Space

Office Space
- Ladder Rank Faculty
- Teaching Assistants
- Postdoc Fellows
- Research Assistants

By School
By Discipline
By Program

Office Space
Space Planning and Program Summary

Projected Academic Space Allowance in ASF

- Classroom Space
- Teaching Labs
- Research Space
- Office Space

Existing Academic Space in ASF

- Classroom Space
- Teaching Labs
- Research Space
- Office Space

Projected 2020 Academic Space Need

= Projected 2020 Academic Space Need
Space based on Stakeholder Requests
2020 Project Program still being refined

<table>
<thead>
<tr>
<th>Category</th>
<th>GSF Estimate as of April 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Space</td>
<td>802,000</td>
</tr>
<tr>
<td>Housing and Dining</td>
<td>639,500</td>
</tr>
<tr>
<td>Academic Support</td>
<td>242,000</td>
</tr>
<tr>
<td>Recreation and Athletics</td>
<td>160,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,843,500 GSF</strong></td>
</tr>
</tbody>
</table>

Source: UCM 2020 RFQ
The Challenge
How to fund UC Merced’s growth
The Funding Challenge
Decline in State Support and Bond Ratings

The traditional funding method of general obligation bonds plus state funds is almost completely eliminated.

The UC system’s general revenue bond rating was recently downgraded from Aa1 to Aa2.

- AAA
- Aa1
- Aa2
- Aa3

A large increase in debt could put further pressure on UC’s bond rating.

Source: Moody’s Investors Service, March 2014
The 2020 Project and the Public-Private Partnership Structure
Post-2008 Public Sector Capacity to issue bonds for large infrastructure projects severely curtailed

As a result, the Public Sector is partnering with multinational private sector developers for these projects

Potential Partnership Benefits

Private Sector Efficiency and Innovation

Large Developers can bring equity and credit capacity to the transaction

Large Developers Can bring world-class experts to the project
Public-Private Partnership Pioneers
Transportation Infrastructure

Goethels Bridge Replacement
New York/New Jersey
Opens 2018

Presidio Parkway
San Francisco, California
Opens 2016

Elizabeth River Tunnels
Portsmouth, Virginia
Opens 2016
The newest application of P3
Social Infrastructure

George Deukmejian Courthouse
Long Beach, California
Opened 2013
Public-Private Partnerships

Multiple types exist

Types of “P3s”

Degree of Private Sector Risk

Degree of Private Sector Involvement
Potential Structure
Design, Build, Finance Operate, Maintain ("DBFOM") Contract

• Long term relationship between University and private sector partner

• Based on agreed upon performance standards

• Tied to "availability" and "milestone" payments

• Buildings are solely owned by University at end of contract term
Traditional Structure vs. P3 Structure

P3 uses a Performance Based Contract

Inputs in a Traditional Procurement

“Cooling to the building must be provided by Carrier Model “XYZ” heat pump with a cooling capacity of “ZZ” tons.”

Outputs in a Public-Private Partnership Procurement

“The temperature of the occupied portions of the building shall not be lower than 68 degrees Fahrenheit and not higher than 72 degrees Fahrenheit, 97% of the time that the building is open to occupants.”

72 degrees Fahrenheit
Acceptable Output Range
68 degrees Fahrenheit
P3 Availability Payment Structure
Step 1: UC Promises to Pay

1. UC Merced Milestone Payments (Made upon delivery)
2. UC Merced Availability Payments ("Promise to pay")
3. Special Purpose Entity ("SPE") ("the Concessionaire")

Funds:
- State General Funds
- Project Housing Income
- Project Parking Income
- Other Project Income
- Other Campus Income

Equity:
- Developer
- Equity Partners
- Lenders

Finance:
- Construction Financing/Permanent Financing
- Pledge of Availability Payments
- Finance Proceeds

Buildings:
- UC Merced

Milestone Payments:
- Made upon delivery
- Made during operational phase
P3 Availability Payment Structure

Step 2: SPE uses promise to secure financing

Special Purpose Entity ("SPE")
("the Concessionaire")

UC Merced Milestone Payments
Made upon delivery

UC Merced Availability Payments ("Promise to pay")
Made during operational phase

State General Funds
Project Housing Income
Project Parking Income
Other Project Income
Other Campus Income

Lenders
Equity
Developer Equity Partners

Finance Proceeds
Pledge of Availability Payments

Construction Financing/Permanent Financing

Buildings to UC Merced
SPE operates and maintains UC Merced 2020 Project Buildings for term of agreement

Milestone Payments Made upon delivery
Made during operational phase
P3 Availability Payment Structure
Step 3: SPE Delivers Buildings to UC

- UC Merced Milestone Payments
  - Made upon delivery

- UC Merced Availability Payments ("Promise to pay")
  - Made during operational phase

- Special Purpose Entity ("SPE") ("the Concessionaire")
  - Pledge of Availability Payments

- Construction Financing/Permanent Financing
  - Finance Proceeds

- Lenders

- Equity

- Developer Equity Partners

- State General Funds
- Project Housing Income
- Project Parking Income
- Other Project Income
- Other Campus Income

Buildings to UC Merced
P3 Availability Payment Structure

Step 4: SPE operates and maintains buildings

SPE operates and maintains UC Merced 2020 Project Buildings for term of agreement.
Who's involved
2020 Project Advisory Team

- JLL: Real Estate
- AECOM: Infrastructure
- SCB: Design and Program
- NOSSAMAN LLP: Legal
- EY: Financial Advisor
The Process

Request For Qualifications followed by Request for Proposals

Request for Qualifications (RFQ)
Released in April 2014
Submissions received July 28, 2014

Request for Proposals (RFP)
1ST Quarter 2015 Release

Selection
Fourth Quarter 2015

Regents Approval

National and international marketing effort conducted to identify teams with expertise in:

- Finance
- Master Planning
- Architecture
- Construction Management

Proposers Selected
Fourth Quarter 2014

Chosen by Chancellor and UCOP CFO based on review of proposals
A multi-asset model for large scale public university development

**Keys to Success**

<table>
<thead>
<tr>
<th>1. Nurture Institutional Support</th>
<th>2. Identify a Capable Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Work with <strong>campus stakeholders</strong> to develop program</td>
<td>• <strong>Track record</strong> of delivering resilient, high quality facilities</td>
</tr>
<tr>
<td>• <strong>Collaborate</strong> with UCOP</td>
<td>• A record of developing <strong>creative financial structures</strong> for complex, public projects</td>
</tr>
<tr>
<td>• Hire <strong>experienced advisors</strong></td>
<td>• <strong>Financial and operational depth</strong> to develop and deliver complex, public projects</td>
</tr>
<tr>
<td></td>
<td>• Experience developing <strong>collaborative, mixed-use residential and academic environments</strong></td>
</tr>
</tbody>
</table>
http://2020project.ucmerced.edu

Dan Feitelberg, Vice Chancellor for Planning and Budget
dfeitelberg2@ucmerced.edu

Abigail Rider, Assistant Vice Chancellor, Real Estate
arider@ucmerced.edu

Richard Cummings, Principal Planner
rcummings2@ucmerced.edu

Gary Lowe, Principal Analyst

Veronica Mendez, Assistant Vice Chancellor, Planning and Budget
vmendez7@ucmerced.edu

Irwin Band, Principal Planner
iband@ucmerced.edu
UC Merced’s Second Phase

The 2020 Project

Building California’s Next Great Public Research University