



- INTRODUCTION
- HISTORY
- PRINCIPLES
- CONTENT
- APPROACH
- TRENDS
- SUCCESS

Campus Master Planning

# MASTER PLANNING

SAN DIEGO, CA  
FEBRUARY, 2020



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# WHY DO WE DO IT?

Growth/Decline in Enrollments  
Qualitative Issues/Renewals  
Improve the Environment  
Students Not Prepared  
Success of the Programs  
Community  
Prepare Successors  
Legacy (Person/Event/Place)  
Mandated by Others



and the list goes on.....

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# CAMPUS DEVELOPMENT OVER TIME



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### GROWTH OVER THE YEARS

- One Building
- Initial Growth
- Fire/Rebuild
- Land Grants
- Wars
- Sports
- 60's Explosion
- Lost Legacy
- Confusion/Investment
- Information Age



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### WHERE ARE WE TODAY?

**20,400,000 Enrolled (2017 NCES)**

- 62% Full Time
- 38% Part Time
- 28% Private
- 72% Public
- 85% Undergraduate
- 15% Graduate
- 56% Female
- 44% Male



**4,625 Degree Granting Institutions** (down from 4,724)

- 63% Four Year
- 67% Private
- 34% Public
- 37% Two Year
- 40% Private
- 60% Public

**9,424 Institutions of Higher Education**

Wyoming 17  
California 1,246

**7,100 Total Institutions** (US Department of Education)

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### LARGEST UNIVERSITY LANDS

Berry College	27,000	Rome, GA
US Air Force Academy	18,455	Colorado Springs, CO
US Military Academy	16,080	West Point, NY
University of the South	13,000	Sewanee, TN
Penn State University	11,000	University Park, PA
Stanford University	8,180	Palo Alto, CA
Liberty University	7,000	Lynchburg, VA
Michigan State University	5,239	East Lansing, MI
Texas A&M University	5,115	College Station, TX
Tuskegee University	5,000	Tuskegee, AL



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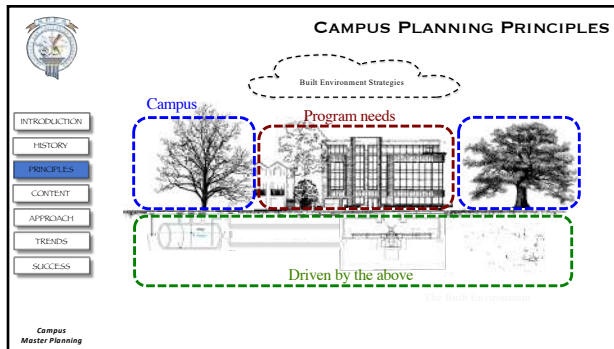
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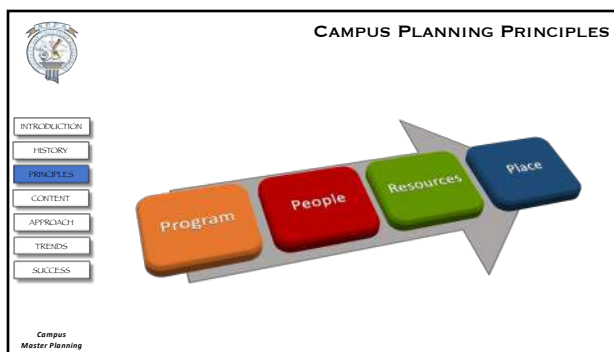
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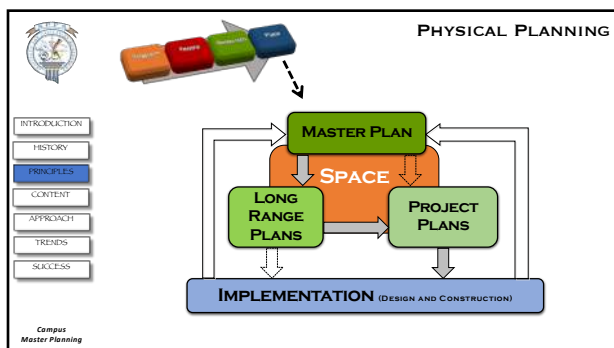
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### PHYSICAL PLANNING – MASTER PLANS

INTRODUCTION

HISTORY

PRINCIPLES

CONTENT

APPROACH

TRENDS

SUCCESS

- Vision/Road Map
- Drives All Other Plans
- Looks Beyond “Window”
- Goals and Objectives
- Design Principles
- The “Foundation”
- Never Implement From Here



**IS A PROCESS, NOT A DOCUMENT!**

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### PHYSICAL PLANNING – LONG RANGE PLANS

INTRODUCTION

HISTORY

PRINCIPLES

CONTENT

APPROACH

TRENDS

SUCCESS

- Parking
- Circulation
- Landscape
- Bikeway
- Architecture/Design Guidelines
- Space Plans
- Land Acquisitions
- Facility Audit/Bldg. Revitalization



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### PHYSICAL PLANNING – IMPLEMENTATION

INTRODUCTION

HISTORY

PRINCIPLES

CONTENT

APPROACH

TRENDS

SUCCESS

- Budget Requests/Funding Plans
- Life Cycle Ownership
- Funding Plans
- Design
- Construction
- Operate and Maintain



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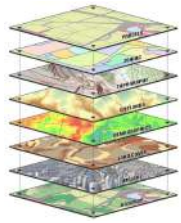
- INTRODUCTION
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## WHAT IS IN A MASTER PLAN?

TOPOGRAPHY  
OPEN SPACE  
LAND USE /ACQUISITION  
VISTAS AND VIEWPLANES  
EDGES AND GATEWAYS  
PATHWAYS  
PARKING  
ART DISPLAY  
CAMPUS LANDSCAPE AND VEGETATION  
WAYFINDING  
BUILDING CONDITIONS  
BUILDING USE/NEW BUILDINGS  
ARCHITECTURE  
HISTORIC CONTEXT  
UTILITY DISTRIBUTION AND PRODUCTION

**AND THE LIST GOES ON.....**



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## GOALS ON OBJECTIVES

- Accommodate Programs
- Pedestrian Oriented
- Sense of Community
- Safe and Secure
- Reduce Travel Sequence
- Improve Land Use
- Collegiate Atmosphere
- Links With Community
- Student Centered
- Improve Identity
- Improve Planning Processes



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## DESIGN PRINCIPLES

- Create distinctive physical image
- Enrich the experience for all
- Maximize value of physical assets
- Provide facilities to support programs
- Implement plan in a timely manner
- Develop strong foundation
- Complete pedestrian ways
- Increase density
- Introduce more gathering places
- Historic preservation
- Connect multi-modal transportation
- Redistribute parking
- Develop landscape guidelines
- Turn attention away or toward buildings
- Improve campus edges



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INTRODUCTION

HISTORY

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APPROACH

TRENDS

SUCCESS

**FOUNDATION/Framework**



**Must Exist**

**Base to all Urban Design Decisions**

**Perpetual Existence**

**Can NOT be Compromised**

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INTRODUCTION

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APPROACH

TRENDS

SUCCESS

**LAND USE**

**Academic Areas**

**Student Services**

**Parking**

**Residential**

**Others**

**Recreation, Athletics and Open Space**

**Service and Maintenance**



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INTRODUCTION

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TRENDS

SUCCESS

**OPEN SPACE**

**Quadrangles/Lawns**

**Walkways**

**Athletic/Recreational Fields**

**Plazas(hardscapes)**

**Surface Parking Lots**

**Streets/Service Routes**

**Campus Edges/ Gateways**

**Fields/Parks**

**Lakes/Ponds/Rivers**

**Conversation Spaces**

**Gardens/Arboretums**

**Paths**

**Vistas**

**Other**



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## CIRCULATION

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**Vehicular**

Public Service

Commercial

**Mass Transit**

Bus

Train/Light Rail/Subway

Shuttles

**Golf Carts**

**Bicycles**

**Pedestrian**

**Mobility Impaired**

**Specific Paths**

Historic Walks

Walk of Fame

Art

Recreation/Public




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## BIKEWAYS

- INTRODUCTION
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**Types of Routes**

Paths

Lanes

Routes

**Dismount Zones**

**Connectivity w/ Community**

Signage

Rules and Regulations

**Parking**

Racks

Lockers

Locations

In Buildings



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## PARKING

- INTRODUCTION
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**Faculty, Staff, Students**

**Public**

**Mobility Impaired**

**Service Vehicles**

**Commercial Vehicles**

**Bicycles**

**Mass Transit**




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**ACCESSIBILITY**

Mobility Impaired  
 Dimensions  
 Audio Impaired  
 Visually Impaired  
 Sensory Clues  
 Other Issues  
 Relationship to the  
 Americans with  
 Disabilities Act (ADA)  
 Universal Accessibility





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**LANDSCAPE**

Scale of Open Space  
 Layering  
 Vegetation  
 Site Furniture  
 Signage  
 Wayfinding  
 Art  
 Lighting  
 Architectural Décor  
 Landmarks  
 Slacking?????




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**EDGES AND GATEWAYS**

Link to Community  
 Identity/Image  
 Gateways  
 Access Points  
 Varying Circulation  
 Systems  
 Informal/Formal

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### SITE FURNISHINGS

Usable  
Consistency  
Help Architecture  
Durability/Vandalism  
Low Maintenance  
Attractiveness  
Cost



Trash Receptacles  
Smoking Urns  
Dumpsters and Compactors  
Waste Sites




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### ART IN PUBLIC PLACES



Gardens  
Wayfinding  
Space Definition/  
Interest  
Education  
Maintenance  
Funding  
Repair  
Vandalism



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### SIGNAGE AND WAYFINDING



Destination Hierarchy  
freeway to destination  
Special Events  
kiosks, billboards, posters  
Lighting  
Signs  
Security/Comfort  
Sense of Place  
Architectural Icons  
Landscape Features  
Vistas




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## ARCHITECTURE

Buildout/Massing  
Landmarks  
Design Guidelines  
Signature Buildings  
Pallet of Materials  
As Urban Design Tool  
Space Planning

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## UTILITY INFRASTRUCTURE

Chilled Water  
Compressed Air  
Electric  
Power  
Lighting  
Natural Gas  
Sanitary Sewer  
Steam  
Storm Sewer  
Telecommunications  
Copper  
Fiber  
Wireless  
Water  
Irrigation  
Potable

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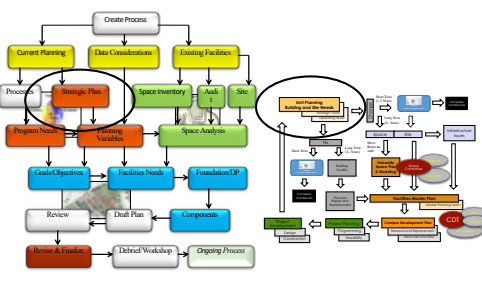
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## BASIC APPROACH



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### WHAT DRIVES THE PLAN?

<b>People</b> Students Faculty Staff Visitors <b>Teaching/Research</b> Methodologies <b>Business Procedures</b> Technology Environment Student Life	<b>Mission, Goals, and Objectives</b> <b>Funding/Resources</b> <b>Politics</b> <b>Community</b> <b>Facility Conditions</b>	<p style="color: red; font-weight: bold;">What side of the bed your boss woke up on!</p> <p>Now who do you think the expert is?</p>
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### CHANGING PARADIGMS



Sir Ken Robinson  
Out of Our Minds: Learning to be Creative

<http://www.youtube.com/watch?v=zDZFcDGpL4U>

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### THE DATA RICH CAMPUS

**Business Intelligence**  
**Data Warehouses**  
**Linking Data Sets**  
**GIS Systems**



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The diagram illustrates the 'Master Plan Musts' as a central concept. At the top, a circular logo features a globe with a compass rose and the text 'CAMPUS MASTER PLANNING'. Below this, a vertical stack of six rectangular boxes contains the following text from top to bottom: 'INTRODUCTION', 'HISTORY', 'PRINCIPLES', 'CONTENT', 'APPROACH', and 'TRENDS'. The bottom-most box, labeled 'SUCCESS', is highlighted in green. To the right of this stack, the text 'THE MASTER PLAN MUST' is written in a large, bold, serif font. Below this title, two columns of text list the 'musts' of a master plan. The left column lists: 'Have Campus Involvement', 'Have a Good Design or Scheme', 'Appeal to All', 'Be Understandable', 'Be Timeliness', 'Be Flexibility', 'Be Fundability', and 'Have Little Conflicts'. The right column lists: 'Be Dynamic vs. Static', 'Be Comprehensive', 'Be Integrated', 'Have Community Buy-in', 'Have State/Board/Trustees Buy-in', 'Be Programmatically Driven', 'Be Politically Acceptable', and 'Ownership, Achievable, and Continuous Process'.

**THE MASTER PLAN MUST**

**Have Campus Involvement**  
**Have a Good Design or Scheme**  
**Appeal to All**  
**Be Understandable**  
**Be Timeliness**  
**Be Flexibility**  
**Be Fundability**  
**Have Little Conflicts**

**Be Dynamic vs. Static**  
**Be Comprehensive**  
**Be Integrated**  
**Have Community Buy-in**  
**Have State/Board/Trustees Buy-in**  
**Be Programmatically Driven**  
**Be Politically Acceptable**  
**Ownership, Achievable, and Continuous Process**

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# TIME

INTRODUCTION

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SUCCESS



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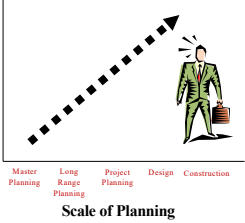


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### CONSULTANTS

**Use of Outside Consultants**



Master Planning   Long Range Planning   Project Planning   Design   Construction

**Scale of Planning**

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### MEETINGS AND SPECIAL APPROACHES



**The good, the bad, and the ugly!**

**80% Rule**

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### ORGANIZATION OF THE PLANNING

**Reference Information**

- Program Information
- Enrollment Plans
- Site Data
- Space Model
- Building Data





**Campus Maps and Plan**

- Goals and Objectives
- Design Principles
- The Foundation
- Illustrative Plan
- Physical Components

**Advantage of Web Based System**

- Mapping Attributes (GIS)
- Data Linkages
- Reduced Costs
- Real Time Information/Updates
- Improved Access and Ownership
- Varying Stages of Complexity
- Accountability
- Modeling





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INTRODUCTION  
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### VARYING PLANNING WINDOWS



Academic



Facilities

**We Must Realize The Tail Wags the Dog**

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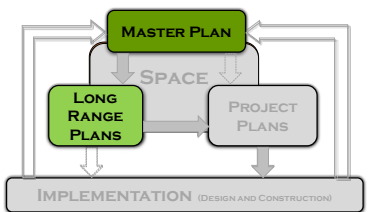
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INTRODUCTION  
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SUCCESS

### THANK YOU



MASTER PLAN

LONG RANGE PLANS

PROJECT PLANS

IMPLEMENTATION (DESIGN AND CONSTRUCTION)

SPACE

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Credit(s) earned on completion of this course will be reported to American Institute of Architects (AIA) Continuing Education Session (CES) for AIA members.

Certificates of Completion for both AIA members and non-AIA members are available upon request.

This course is registered with AIA CES for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product.

Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

**AIA**  
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Education  
Provider

## Course Description

Review the concepts of institutional and strategic planning and its importance in guiding the future development of the campus. Examine how institutional and academic initiatives interact with facilities planning. Learn about the principle and fundamentals of campus master planning and how to develop, implement, and modify a master plan. Discuss the pros and cons of planning “in house” as opposed to hiring “outside consultants”. Discuss the importance of preparing a long range institutional plan – its relationship to the Academic Plan, and related planning for the development of utilities, infrastructure, and supporting facilities (i.e., housing, parking and transportation, recreation). The focus of the course is on general principles of campus planning with an emphasis on the practical application of the planning process.

**AIA**  
Continuing  
Education  
Provider

## Learning Objectives

- Learning Objective 1:  
Review the concepts of strategic planning.
- Learning Objective 2:  
Discuss the pros and cons of in-house planning as opposed to hiring consultants.
- Learning Objective 3:  
Learn practical applications of the planning process.
- Learning Objective 4:  
Discuss the importance of preparing a long range institutional plan.

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This concludes The American  
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Education Systems Course

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