



East Carolina University

Comprehensive Facilities Master Plan

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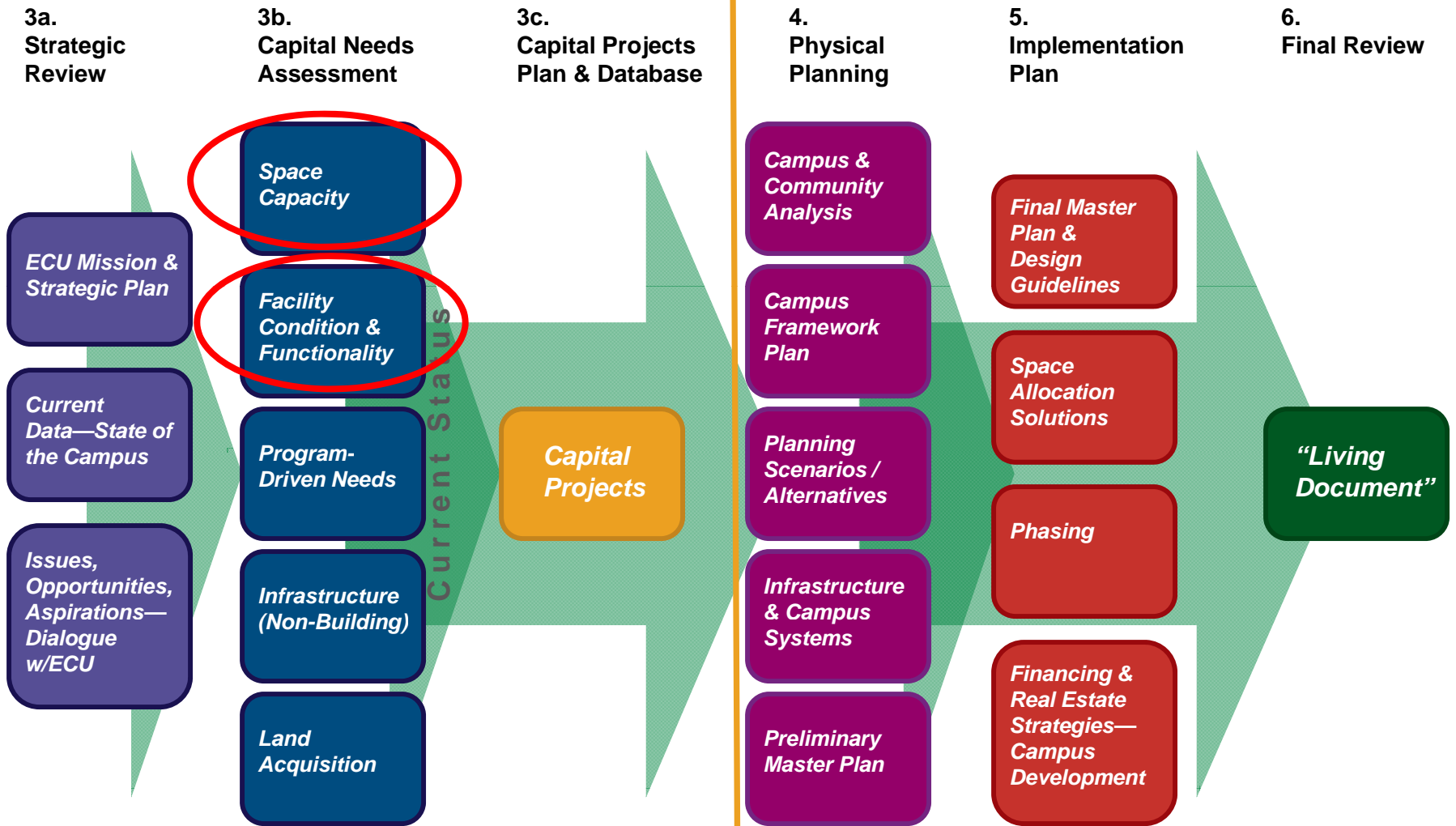
Protection Engineering Group

ISES

Building Functionality Assessment

**Methodology
Preliminary Findings
and
Issues for Discussion**

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Process

Condition Audit— Definition

- Evaluate condition of building “systems”
 - Exteriors
 - Interior Finishes
 - HVAC
 - Plumbing
 - Site
 - Etc.
- Engineering orientation—technical
- 3 Broad Categories:
 - Deferred Maintenance
 - Capital Renewal
 - Plant Adaption

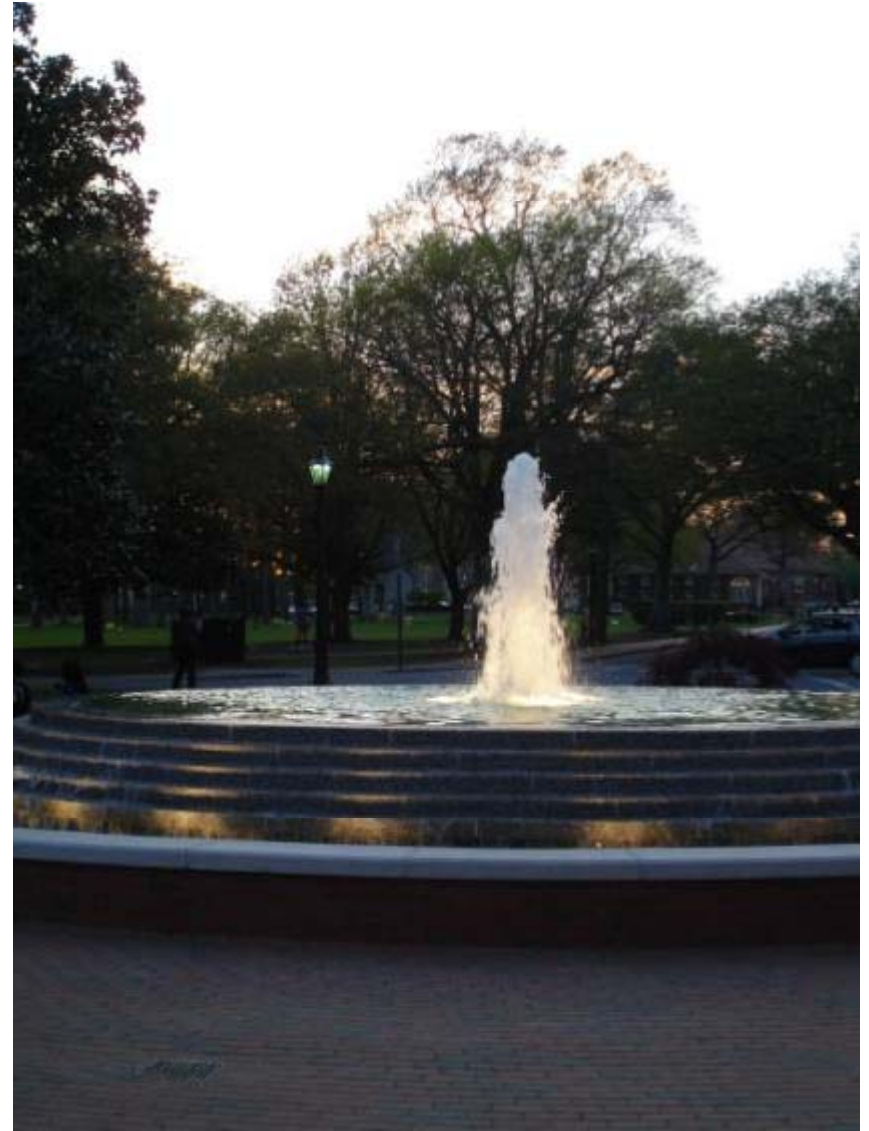


Functionality Assessment –
Definition

*How well does the existing **facility (space)** meet contemporary and future functionality needs for the program(s) it is supposed to serve?*

Or

*What would be the requirements to upgrade and modernize the **facility (space)** to be plausibly equivalent to the functionality of a new facility of the same type, if built today?*



Integration of Findings from Condition Audit and Functionality Assessment

- **Condition Deficiencies.** The maintenance and repair condition of the building and the state of its compliance with code requirements—usually including existing or deferred condition deficiencies and future capital renewal requirements
- **Quality, Adequacy, Suitability, or Functionality Deficiencies.** The quality of the building environment/spaces and its functional capability to support present and future functions properly.

There is some overlap—requires coordination of findings.



Functionality Assessment – Methodology

- *Field Evaluations* of buildings against a set of pre-established *Space Functionality Criteria* that express functional performance features of space, by space types
- Information about functionality and program needs from *User Group Interviews*.
- Develop functionality corrections and estimate costs
- Coordinate findings with Condition Audit
- THEN—integrate these findings with the Space Capacity Needs to produce *building solutions*



Functionality Assessment—Scope of EKA's Assignment

Same buildings as ISES Condition Deficiency study, except:

- Buildings less than 10 years old
- Buildings that have been comprehensively renovated/modernized within the last 10 years
- Residential, student support/activities, and athletics facilities (Brailsford and Dunlavey)
- Minor structures (less than 10,000 GSF)

But, nearly all buildings represented in User Group Interviews



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Sample Space Quality Criteria – Office Facilities

APPENDIX TABLE I-B OFFICE FACILITIES FICM CODES 310/315/350/355		
Space Characteristic	Space Functionality Criteria	Evaluation Notes
1. Functional Adequacy	The space configuration, size and arrangement of workstations satisfy requirements for individual work tasks. Suitable space shall be available for faculty-student or supervisor-employee privacy in the vicinity of individual office/work space. Space for group meetings shall be adequate for the nature of meetings and typical numbers of participants.	<input type="checkbox"/> Spacious <input type="checkbox"/> Adequate <input type="checkbox"/> Small <input type="checkbox"/> Furnishings adequate <input type="checkbox"/> Furnishings not adequate
2. Room Finishes	Floors shall be covered in an appropriate, easily cleaned material that will permit the room to be maintained in a neat and orderly condition. Walls, ceilings, and workstation partitions shall be finished in appropriate, easily cleaned materials. Color schemes and finish materials shall present a pleasing work environment.	<input type="checkbox"/> Renovated within past 5 years <input type="checkbox"/> Upgrade within 5 years <input type="checkbox"/> Poor (e.g. worn, obsolete)
3. Acoustics and Sound Control	Floor covering, wall surface, and ceiling materials shall have appropriate sound absorption and reflective qualities. Insulation against outside noise shall be provided sufficient to provide a work environment free of distracting noise levels.	<input type="checkbox"/> Excellent / Appropriate <input type="checkbox"/> Adequate <input type="checkbox"/> Poor
4. Climate Control	Heating and cooling systems, together with adequate control systems, shall be installed that will permit the maintenance of a comfortable work environment at all seasons of the year.	<input type="checkbox"/> Good <input type="checkbox"/> Limited control <input type="checkbox"/> Inadequate control
5. Lighting	The installed lighting system shall provide an adequate quality and level of lighting for the work environment, and shall be provided with controls to vary or adjust the lighting level as required for specific tasks.	<input type="checkbox"/> Good <input type="checkbox"/> Adequate <input type="checkbox"/> Poor
6. Electrical Service	Adequate electrical capacity and outlets shall be provided to permit the unrestricted employment of office equipment.	<input type="checkbox"/> Good <input type="checkbox"/> Limited <input type="checkbox"/> Poor
7. Information Technology	All office spaces shall have appropriate connectivity to campus data networks and the Internet.	<input type="checkbox"/> Good <input type="checkbox"/> Adequate <input type="checkbox"/> Poor List type of services eg:- WIFI, wall jack, etc.
8. Storage Space	An adequate amount of storage space for equipment and files appropriate to the function shall be provided.	<input type="checkbox"/> Good <input type="checkbox"/> Adequate <input type="checkbox"/> Insufficient

User Group interview Protocol

Building User Group Interviews

Interview Group: _____ Interviewer(s): _____ Date: _____

Introduced purpose of these interviews

Asked participants to explain users in the buildings

Questions:

1. Longevity in Location and Flexibility About Location
2. Future Program Changes—Planned or Likely
3. Evaluation of Existing Space Characteristics (Suitability, Adequacy, Functionality)
 - Best characteristics of your space?
 - Least positive characteristics of your space?
4. Wrap—Up—What needs to be changed?

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Status of Work

- Walk-through assessments done
- User group interviews done
- Findings report is drafted for each building

Next Steps

- Make preliminary cost estimates (SG)
- Integrate findings with Condition Audit findings and modify project statements (EKA, ISES, SG)
- Major next step for the team is to consider building changes in context of Capacity Needs and new Program-Driven building ideas (ENTIRE TEAM)



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Two Big General Issues Identified— For Discussion Today

- Facilities Inequity is a Reality
 - Wide range of building functionality from very new and wonderful space to space that is tired, obsolete, and requiring complete modernization
 - Disadvantages certain programs; favors others
- Location is a Major Functionality Question
 - Many ECU colleges/schools and departments are operating in multiple locations—symptomatic of:
 - Rapid growth of ECU has created the obvious necessity to “make space” for things annually (or more often)
 - Absence of a strong, implemented Master Plan
 - The perennial shortage of capital dollars to keep up with both growth and aging facilities



- Additional Issues—Main Campus:
 - Not enough large classrooms (anywhere or in total)
 - More “smart classrooms”
 - Performing Arts Center?—resolution will make big impact on several Main Campus buildings
 - Need orderly comprehensive scheme for all the “science and technology” programs and buildings
 - Need re-use plans and sensitive modernization of ECU’s oldest “heritage” buildings
- Additional Issues--Health Sciences
 - Complete reconceptualization, reconfiguration, re-sizing, and redesigning of instructional space—for multidisciplinary, inter-professional teaching
 - Different concept / configuration for offices (e.g. suites)
 - Research labs—not necessarily co-located with offices and classrooms
 - May require master plan to completely rethink the locations and uses of all the main buildings—in addition to some new buildings

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Discussion

- Questions about the approach?
- Questions about specific buildings?
- Discussion of the "BIG ISSUES" for:
 - Capital Projects Plan
 - Master Plan

