



Building Conditions Assessment

Following are detailed reports on three buildings:

- Fine Arts Center
- Life Science Building/Annex
- Physical Sciences Building

These three buildings house eight of the nine departments for which Level Two Programming was developed. They are the focus of the Space Allocation Strategy for the Campus Master Plan.

All three of these buildings are in need of major renovation. All three have a long list of deferred maintenance items, and are generally characterized by their outmoded facilities, outdated furniture and equipment, poor mechanical systems, and crowded conditions.

Portions of the Fine Arts (Glass Wing) and Life Science (Annex) Buildings are inefficient and in such poor condition that they should be demolished. The Art Department is not a good fit with Music and Theater in Fine Arts and should be relocated, at the very least to a totally separate new wing of the building.

Neither the Life Science nor Physical Sciences Building is appropriate for departments with heavy mechanical-electrical-plumbing system requirements (Biological Sciences and Chemistry, in particular); the cost to renovate them for such uses is prohibitive. It is better that such departments move into new space designed specifically for their purpose; the Life Science and Physical Sciences Buildings can be utilized for less system-intense departments, such as Art, Geology/Geography, Math, Physics and Psychology.

Although the immediate focus for renovation is on these three buildings, a number of other academic, student service and residential buildings are in need of major upgrade and renovation.

Introduction

The purpose of this analysis is to evaluate the functional and physical adequacy of facilities on campus and to classify each campus structure into one of the following condition categories:

Building Conditions Assessment

(S) Satisfactory

(A) Remodel A - Building is currently adequate; the facility requires restoration to present acceptable standards without major room use changes, alterations, or modernization. The approximate cost of Remodel A is not greater than 25% of the estimated replacement cost of the building.

(B) Remodel B Major updating and/or modernization of the building is required. The approximate cost of Remodel B is greater than 25%, but not greater than 50% of the estimated replacement cost of the building.

(C) Remodel C - Major remodeling of the building is required. The approximate cost of Remodel C is greater than 50% of the replacement cost of the building.

(U) Unsatisfactory - Building should be demolished or abandoned because of unsafe or structurally unsound conditions, regardless of the need for the space or the availability of funds for a replacement.

(C) Remodel C - Major remodeling of the building is required. The approximate cost of Remodel C is greater than 50% of the replacement cost of the building.

(U) Unsatisfactory - Building should be demolished or abandoned because of unsafe or structurally unsound conditions, regardless of the need for the space or the availability of funds for a replacement.



Building Conditions Assessment

Procedures

The Facility Analysis Form is designed for both Physical and Functional Analysis.

Physical Analysis

The physical analysis of the facility is a detailed evaluation of the following seventeen components:

1.0 Primary Structure

- 1.1 Foundation System 13 points
- 1.2 Column & Exterior Wall System 13 points
- 1.3 Floor System 07 points
- 1.4 Roof System 07 points

2.0 Secondary Structure

- 2.1 Ceiling System 03 points
- 2.2 Interior Walls & Partitions 03 points
- 2.3 Window System 02 points
- 2.4 Door System 01 point

3.0 Service Systems

- 3.1 Cooling 10 points
- 3.2 Heating 10 points
- 3.3 Plumbing 05 points
- 3.4 Electrical 08 points
- 3.5 Conveying 01 point

4.0 Functional Standards

- 4.1 Assignable Space 04 points
- 4.2 Adaptability 04 points
- 4.3 Suitability 04 points

5.0 Safety Standards 05 points

TOTAL 100 points

Building Conditions Assessment

Each of the above components have designated point values based upon the ease or difficulty and cost of correcting the component factor. The maximum total points per facility is 100, and the number of assigned points ranges from one point for Conveying to 13 points for Foundation System and for Column and Exterior Wall System.

The detailed forms were standardized so that the following information was provided for each component:

System Type

descriptive information of the component. Example: for the Foundation System component, foundation materials is identified (steel, concrete, wood, other, combination) as well as type of foundation (spread, mat, pile/caisson).

System Evaluation

various sub-components within a system are evaluated. Example: for the Foundation System component, the facility is evaluated on the basis of five criteria: cracked walls, foundation settlement, foundation deterioration, design load and exposed finish.

Comment

Space is provided for comments concerning nature of the problems and how they might be corrected.

Numerical Evaluation

The following categories are used for the numerical evaluation.

Categories	Condition Value Multiplier
(S) Satisfactory	1
(A) Remodeling A	Requires restoration, cost not more than 25% of total replacement 0.8 (+-0.1)
(B) Remodeling B	Requires major modernization, cost between 25 and 50% of total replacement 0.5 (+-0.1)
(C) Remodeling C	Requires major remodeling, cost greater than 50% of total replacement 0.2 (+- 0.1)
(U) Unsatisfactory	system is totally unsafe or structurally unsound and cannot be remodeled – demolish 0

If the Foundation System, for example, was classified as “Remodeling A,” then the Condition Value Multiplier would be 0.8 (\pm 0.1). A less severe problem for this category would require a 0.8 + 1 (i.e., 0.9) Condition Value Multiplier; a more severe problem would require a 0.8 - 1 (i.e., 0.7) Condition Value Multiplier.



Building Conditions Assessment

Component Rating

The point value of the component was multiplied by the Condition Value Multiplier to determine component rating. Example: if the Foundation System component of a facility was classified “Remodeling A - severe”, the point value (13) would be multiplied by the Condition Value Multiplier (0.7) to obtain the component rating ($13 \times 0.7 = 9.1$).

The overall facility rating is determined by totaling the 17 individual component ratings, and assigning the facility to a category as follows:

Facility Rating	Total Component Points
(S) Satisfactory	95-100
(A) Remodeling A	75-94
(B) Remodeling B	55-74
(C) Remodeling C	35-54
(U) Unsatisfactory	0-34

Functional Analysis

Prior to obtaining a final facility rating, consideration is given to functional analysis - positive or negative - of the facility (see Facility Analysis Sections 6.1 and 6.2). In some cases, a building may be classified in the Demolition category; however, because of historic or aesthetic values, it may be preferable to remodel the facility. Conversely, a facility may fall within a remodel category, and yet the facility may require demolition because of conflicts with the campus plan for land use.

General Guidelines

Some general guidelines are used in the evaluation of these facility components:

- Cooling systems. For Academic Facilities and Student Residences, the component rating is “Unsatisfactory” (0 points) if there is no permanent or total cooling system.
- Heating System. If the heating and cooling systems are of the 2-pipe variety, the component rating is “Remodel B” (5 points).
- Conveying. For student housing, conveying systems for all buildings is not considered a necessity.



Campus Master Plan

Building Conditions Assessment