

2010 Facility Condition Report

September 15, 2010

EXECUTIVE SUMMARY

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Scope and Methodology of Report

The purpose of the Facility Condition Report (FCR) is to assess and document the condition of the City's General Fund building inventory so that capital funds can best be utilized to enhance and retain the value of this City asset. The report provides a measurable indicator of facility condition tracked over time. The Facility Condition Report also provides a benchmark to evaluate the effectiveness of the City's preservation investments over time.

The 2010 Facility Condition Report (FCR) details the condition of 112 General Fund buildings, with an area of 947,563 square feet and a 2010 replacement value of \$331 million (the valuation excludes site remediation and land acquisition costs, but includes some site development such as fire station sites). This is a net increase of 51,985 SF of building area and an increase of \$111 million in replacement value compared to the 2004 inventory which totaled 895,578 SF with a value of just over \$220 million (in '04 dollars).

Previous Assessment Process

The 2010 Facility Condition Report represents a departure from previous versions of the FCR. The 1995, 1997, 2001, and 2004 reports were based on detailed, systematic inspections of each facility during which observed deficiencies were recorded along with a priority ranking and any other data needed to complete the audit process. An estimated cost was then developed for the correction of each deficiency. This methodology was considered industry standard practice when it was first implemented by Facility Management fifteen years ago, but has since proven to have several significant drawbacks.

First, the previous assessment process required a team of auditors to visually inspect every inch of every facility in the inventory approximately every four years. This was an expensive, time-consuming process that was rather inefficient considering that, on average, only about 10-15% of any given facility was actually deficient. The other 90% was good for at least another four years but the entire GF building inventory was inspected every four years regardless.

This building audit process was also inefficient because it allowed assessment of only those parts of the building that could be visually observed or otherwise assessed by means requiring access to building components or systems. In reality, much of a building's exterior envelope, along with significant portions of its mechanical and electrical systems, is not accessible for assessment and can be subject to sudden failure due to unseen conditions.

Perhaps the biggest drawback of the previous FCR process was that it only captured a "snapshot" of a building's condition at the time of inspection. The data generally did not provide an indication of future performance or expected failure other than what could be observed or tested at the time of the building condition assessment. As a result, the data was more and more outdated the further away from the original assessment date and provided less and less accurate information for where scarce capital dollars should be directed for maximum effectiveness.

Current Assessment Process

Current best practice utilizes a *predictive* method of building condition assessment wherein a database is constructed utilizing detailed information about a building's age and capital renewal history to build a predictive model identifying those building components or systems most likely to need renewal both now and in the future. Facility Management now uses a facility condition assessment software tool developed by Parsons Facility Assessment Group called *Condition Management Estimation Technology* or COMET for short.

The first step in this assessment process is to build the information database in COMET for each General Fund facility by entering information on every system within each building or site including date of installation, quantity, and cost per unit quantity. The model is built on information from two nationally recognized sources for specific data: Building Owners and Managers Association (BOMA) standards to assign life expectancy for all building systems; and RS Means cost estimating data as the source for all repair and replacement costs.

This process creates a cost model for each facility or site with life-cycle information on each system that predicts where deficiencies are most likely to occur and the estimated cost of correction before an assessor even visits a site. The assessor can then focus the assessment on those systems and components most likely to be deficient. If a system or component is in need of renewal, no changes to the database are needed. If the system or component still has serviceable life remaining, the assessor can adjust the database to extend the life expectancy of that building element as appropriate and it no longer appears as a deficiency.

Predictive condition assessments have proven to be about 90-95% accurate making this form of assessment extremely valuable for capital planning. On-site assessments are still necessary to confirm the accuracy of the data used to build the model, to reveal wear-and-tear that has accelerated the renewal schedule for certain systems or components, and to verify whether building elements identified by the model as deficiencies are actually in need of renewal. But the predictive model makes facility assessment much faster and more efficient, and provides a powerful analytical tool for establishing appropriate levels of capital funding, forecasting future deficiencies for more effective capital planning, and saving money over time by better protecting the City's building assets.

Funding Categories for Capital Projects

The Facility Management Division works with the Facility Board to allocate funding between these Council-approved funding categories to address facility management goals. The definitions have been established through a City Council review and approval process. Preservation and maintenance deficiencies, except for park facilities, are addressed in the Facility Condition Report. The reporting program assigns deficiencies to four preservation and maintenance funding categories. Two other funding categories—General Site and Facility Improvements, and ADA Renovations—address other facility requirements not required to meet preservation and maintenance deficiencies.

HEALTH, SAFETY AND WELFARE – items are included in the FCR

Preserve and maintain the health, safety and welfare of users of City facilities, including asbestos abatement, air quality and building safety programs designed to protect the public and employees.

PRIMARY BUILDING SYSTEMS – items are included in the FCR

Preserve, maintain, and rehabilitate the exterior systems of City buildings, such as foundations, sub/superstructure, floors, exterior closure and roofing.

SECONDARY BUILDING SYSTEMS – items are included in the FCR

Preserve and maintain interior building features such as partitions and doors, walls, floors, ceilings and all related finishes.

SERVICE SYSTEMS – items are included in the FCR

Preserve and maintain building service systems, including elevators, mechanical systems (plumbing, heating cooling), needed to maintain reasonable service levels. Program includes electrical systems necessary for lighting, equipment and computers.

PARK SITE RENOVATIONS & REHABILITATION – items are not included in the FCR

Preserve and maintain special site-specific features, such as recreational facility parking lots and drives, irrigation systems, drainage systems, bike path preservation, outdoor lighting systems, and park furnishing and equipment.

GENERAL SITE AND FACILITY IMPROVEMENTS– items are not included in the FCR

Modify and/or add to existing facilities to meet operational, safety and cost efficiency goals. Primary goal is to address changing program function/needs and/or to improve service delivery. Does not include acquisition or construction of new sites.

ADA RENOVATIONS– items are not included in the FCR

ADA projects based on ADA Transition Plan recommended by the Human Rights Commission.

Definitions of Facility Condition Report Terms

Current Replacement Value (CRV): The current replacement value is arrived at by estimating the total cost of replacing a facility, building or structure to facilitate the current usage. It includes costs for project administration, code upgrades, design, bidding, and contracting as well as construction costs, but not the cost of land.

Routine Preservation and Maintenance (Preventative Maintenance): Buildings, like road, sewer or storm water systems, are in a constant state of deterioration. Buildings are made up of components such as roofs, walls, doors, windows, floors, electrical and mechanical systems that have finite life spans. Routine preservation and maintenance projects are activities planned to assure the life span of a building's components and to replace these components at the end of their useful life span. The average annual rate of this type of deterioration is estimated to be between 2% and 4% of the Current Replacement Value of the facility.

Examples of non-General Fund buildings excluded from this report include the complex at the Eugene-Springfield Water Pollution Control Facility, the Eugene Airport buildings, the Public Works Maintenance and Transportation facilities and City-owned parking garages. The condition assessment procedure completed for the General Fund buildings could also be applied to these buildings which would allow consistent reporting on the entire

Deferred Maintenance Backlog: Deferred preservation and maintenance occurs when routine preservation and maintenance projects are postponed, usually due to a lack of funds, to a future funding cycle. Often, these conditions continue to be postponed for years. The estimated cost to correct an accumulation of several years of deferred preservation and maintenance items is called the Deferred Maintenance Backlog.

Existing Maintenance Deficiencies: Existing Maintenance Deficiencies are the sum total of all Current observed routine preservation and maintenance items and Deferred Maintenance Backlog items, which exist and require correction within one year of the audit. They do not include other types of work such as adaptation, additions or new construction.

Facility Condition Index (FCI): The ratio of the total Cost of Existing Maintenance Deficiencies to the Current Replacement Value. The Facility Condition Index indicates the percentage a facility has deteriorated from its Current Replacement Value.

$$\text{Facility Condition Index (FCI)} = \frac{\text{Total Preservation and maintenance Deficiencies}}{\text{Current Replacement Value}}$$

The FCI provides a valid indication of the relative condition of a single facility or group of facilities. The higher the Facility Condition Index, the worse the condition of the facility.

Example FCI Calculation

To better understand this rating system it may be useful to use an example of a building type such as a house:

Assumed: A 30-year-old house estimated to cost \$100,000 to rebuild in today's market and to today's codes (CRV=\$100,000). A detailed, structured inspection of the house is conducted and determines the following:

1. The cedar shake roof is leaking into the attic in several locations and shakes are curled, rotten and broken. The roof must be replaced right away at a cost of \$5,500.
2. Carpenter ants and dry-rot are active in the crawl space and have damaged several areas. The cost to repair the damage and treat for ants is \$3,500.
3. The paint protecting the cedar siding of the house has peeled and is allowing weathering and degradation of the siding. The house must be repainted at a cost of \$2,500.
4. The front door has delaminated and must be replaced at a cost of \$300.
5. All the floor coverings in the house are completely worn out and must be replaced at a cost of \$5,200.
6. The 30 year-old oil-fired furnace has become dangerous and must be replaced with a gas furnace at a cost of \$3,000.

To calculate the Facility Condition Index (FCI) for the house we need to total the Cost of Existing Deficiencies. Therefore the theoretical house has deteriorated 20% from its current replacement value.