

## Set Accurate Objectives

In most reconstruction projects, very little time is devoted to evaluation. This means that roofs may be replaced unnecessarily. StructureTec's program is designed to provide adequate time for evaluation in order to ascertain which roofs need to be replaced, which roofs need to be restored, which roofs need to be repaired, and which roofs need only routine maintenance. This method proves that excellence in planning helps lead to the overall quality of projects.



*Example of a condition photo:*

*Splits and fractures in the baseflashings allowed direct moisture ingress into the roof system.*

## The Process

This process begins by having an accurate, objective standard by which roofs are judged. StructureTec's Roof Condition Index (RCI) rates a roof depending on the distress occurring within the roof system. Each rating has its own individual definition and description, making it easy for facility managers to understand the condition of their roofs. These ratings also supply a time frame within which the roof will require replacement, restoration, repairs, or maintenance.

## The Evaluation

At the beginning of the evaluation, buildings are divided by roof area. Areas are sectioned by parapet walls, expansion joints, etc. Each area is treated individually as a separate roof.

Roof types and surface types are denoted. The surface condition is also recorded. Membrane information and conditions are then recorded. This overall inspection of the membrane is also used to ensure proper application/installation, integrity, slope, and drainage. Drain placement and type are recorded.

**Devoting adequate time to evaluation helps eliminate unnecessary roof expenses by developing accurate recommendations.**

### Basic components of condition evaluation

- Overall inspection of membrane to ensure proper construction and integrity
- Examine all parapet walls, flashings, counterflashings, and copings
- Examine all perimeter edge details to ensure that the fastening and reinforcement is properly accomplished
- Inspect all rooftop equipment, projections, vents, and HVAC units
- Inspect all drain assemblies to ensure that all are sealed and functioning properly

■ The deliverables produced during this phase include a report with recommendations and budgets, roof schematics showing deficiencies, and condition photos of each roof area. ■

Roof-top equipment, projections, vents, and HVAC units are noted with their conditions and recorded on a schematic. Perimeter edges, copings, base flashings, and counterflashings are examined, as well as area dividers, to determine the overall existing integrity of these components. Wall conditions are noted at the roof line.

On non-warranted roofs, core cuts are taken to determine insulation information. This includes whether the insulation is wet or dry. Deck material and basic condition are also determined at this time. Roof manufacturers and contractors are recorded. Warranty information is tracked, including start and end dates.

## BENEFITS

Implemented to fit the client's needs

Reduces cost of remediation for facilities management

Develops a permanent record of data

Forecasts facilities maintenance budgets

Locates problems in their earlier stages in order to solve them before major capital expenditures are required

Provides an accurate foundation for future roof asset management

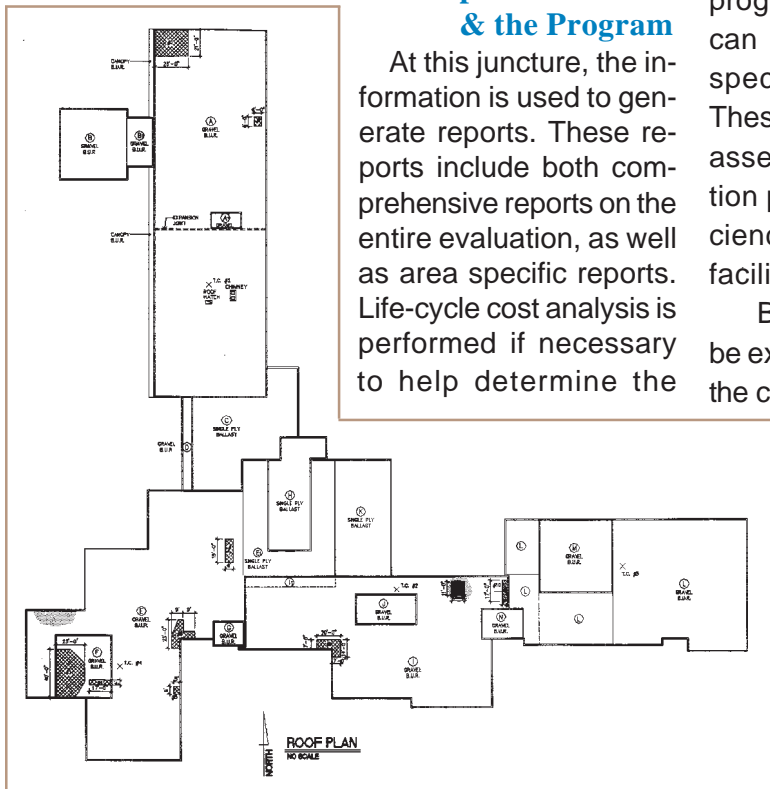
## The Reports & the Program

At this juncture, the information is used to generate reports. These reports include both comprehensive reports on the entire evaluation, as well as area specific reports. Life-cycle cost analysis is performed if necessary to help determine the

proper recommendations. These recommendations are then used to establish prioritized budgets for replacement, restoration, repair, and maintenance.

This information is developed into a five-year program for forecasting and planning. The program can be customized for the client if there are any special time lines or areas of special concern. These reports also provide information on estimated asset value, roof age, and warranty status. Condition photos and detailed schematics showing deficiencies are then added to the report to enable the facility manager to have a complete package.

By using this information, the facility manager can be extremely effective in planning and executing all of the company's roofing projects on a prioritized basis. ■



Example of schematic showing roof deficiencies.

## ROOF CONDITION INDEX RATING SYSTEM

100	Excellent
85	Very Good
70	Good
50	Fair
30	Poor
15	Very Poor
0	Failed

Total Building Envelope Management Solution<sup>SM</sup>

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