

General Description:

- **Location:**
Holland, Michigan
- **Profile:**
Manufacturing Complex
- **Project:**
DATA MANAGEMENT SERVICES
Roof Evaluation & *StructureScan*

Services Provided:

- Roof Evaluation
- *StructureScan* Survey
- DMS Implementation
- Development of Five-Year Long-Range Program

Challenge:

- Size and number of facilities and extensive projections
- Special access needed in certain areas of the complex
- Areas of decking displaying structural degradation

Solution:

- Used multiple crews to perform evaluation
- Dedicated coordination between CDR and StructureTec crews
- Took precautionary measures to prevent problems

CDR - Pigments & Dispersions

Holland Complex

CDR - Pigments & Dispersions, a major dye manufacturer in Southwest Michigan, wanted to have a better understanding of their roofing assets. CDR purchased the multiple facility complex from a major Fortune 500 company. CDR had previously hired StructureTec to

specialized equipment was used for the data acquisition. This technology allowed StructureTec to enter the data directly into the DMS program from the field. Another challenge StructureTec faced was in attaining access into certain areas of the complex because of the manufacturing processes and the chemicals used.

Special coordination had to be implemented in order for StructureTec crews to access all of the roofs. During the beginning stages of the evaluation, StructureTec detected that there were some facilities and some areas of decking where structural degradation had occurred. Special care and caution had to be utilized during the



Overview of a portion of the complex.

manage roof replacement projects for some failed roofs. After successfully completing these projects, CDR wanted to be able to plan ahead for their roof maintenance and major capital replacements. StructureTec was contracted to establish a Data Management Services (DMS) program for managing these assets. The magnitude of the facilities, the number of facilities, and the extensive projections posed a challenge. Multiple crews were utilized to perform the evaluation. Also, spe-

cialized equipment was used for the data acquisition. This technology allowed StructureTec to enter the data directly into the DMS program from the field. Another challenge StructureTec faced was in attaining access into certain areas of the complex because of the manufacturing processes and the chemicals used. Special coordination had to be implemented in order for StructureTec crews to access all of the roofs. During the beginning stages of the evaluation, StructureTec detected that there were some facilities and some areas of decking where structural degradation had occurred. Special care and caution had to be utilized during the

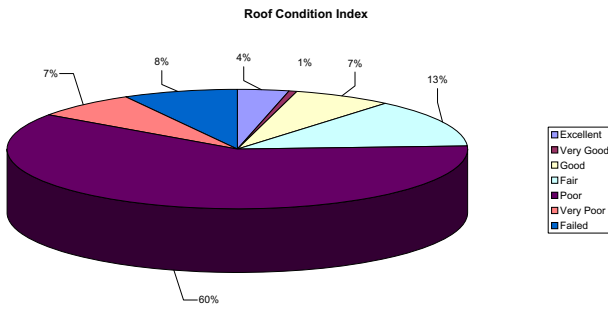


StructureTec had previously helped CDR install new roofs which were inventoried during the evaluation.



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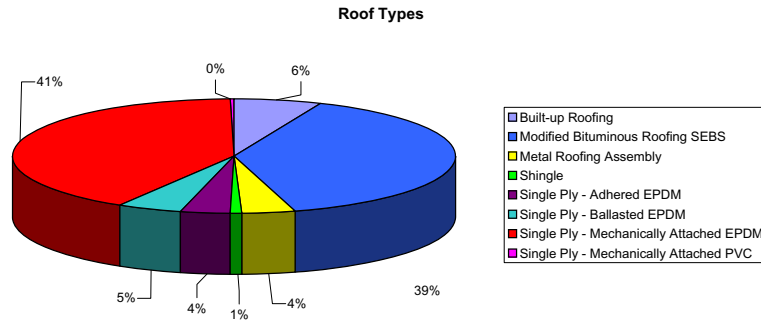


DMS report showing the percentage of the complex displaying different Roof Condition Index ratings.

number of roofs. Again, multiple crews were used to maximize the square footage scanned each night so that the information gathered could be integrated with the rest of the evaluation. Detailed information on each roof area was then used to develop a five-year, long-range prioritized plan for managing the facility roofs. The DMS program was then implemented on CDR's IT system. A paper copy of the final report was also supplied to CDR so that the results could be easily shown to management. In conclusion, with the prioritized years' budgets for maintenance, repair, and replacement, CDR had a clear understanding of their roofing assets and could confidently plan ahead their capital expenses, ensuring the maximum return on investment. ■



Massive square footage and extensive rooftop equipment posed a challenge during the evaluation.



DMS report showing percentages of different roof types.



An infrared StructureScan survey was performed to determine areas of wet insulation.

FEATURES	BENEFITS
Delineates integrity of each specific roof area	Able to prioritize roof replacement
Develop a roof condition index rating	Establish budgets for future work
Prioritization which encompasses all roofs	Inventory of all facility assets
Delineates which roofs need to be replaced and which need to be maintained	Able to allocate their resources properly, maximizing the return on investment
StructureScan Survey of roof systems	Able to identify substrata conditions