



Hospitality Facilities Management and Design

Second Edition

David M. Stipanuk

HOSPITALITY FACILITIES MANAGEMENT and DESIGN

Second Edition

David M. Stipanuk



EDUCATIONAL INSTITUTE
American Hotel & Lodging Association

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Preface

HOSPITALITY FACILITIES regularly call for managerial attention. Modifications are needed due to (among other things) various levels of facility obsolescence, the Americans with Disabilities Act, and the growth of governmental and corporate requirements for additional safety and security. Remodeling to meet these needs and stay competitive in today's increasingly competitive markets requires managers who understand the basic elements of facility management, design, and renovation. And, of course, new facilities will continue to spring up as entrepreneurs seek to develop new concepts and chains seek to expand.

Hospitality facilities are complex and unique in many ways. Creating and managing them requires special knowledge, skills, and dedication. In *Hospitality Facilities Management and Design*, Second Edition, we provide an introduction to the key issues involved in the management and design of hospitality facilities, illustrated with examples drawn from the industry itself. Owners and operators of hospitality facilities should benefit from the coverage of key areas of interest and concern to them. After reading this book, managers and management students should be much better prepared to deal with facilities-related questions and problems as they arise (and they will arise!).

The text is divided into four parts and two appendixes. Part I presents a look at the nature of hospitality facilities and an overview of the issues involved in managing maintenance needs. The discussion of emerging issues in waste management and environmental legislation highlights the changing responsibilities involved in facilities management.

Part II continues with chapters devoted to each of the primary facility systems—safety and security, water and wastewater, electrical, HVAC, lighting, laundry, telecommunications, and food service. In this era when cost control and extending equipment and building life through better maintenance are more important than ever, these chapters provide much-needed information.

Part III examines important aspects of the building itself and its grounds and parking areas. Roofs, exterior walls, foundations, drainage systems, parking lots and garages, and landscaping are among the topics discussed.

Part IV presents the basics of lodging and food service design and renovation, preparing the reader for the challenges involved in creating new facilities or renovating existing ones. The design chapters introduce key terms, criteria, and methods employed in the design of lodging and food service facilities. Readers with a design orientation should find these discussions especially stimulating. Those more interested in operations will see how the design process unfolds and should be able to more effectively influence this process to help create a product that "works."

The text concludes with two appendixes not directly referenced in the chapters. Although this text is designed for current and future hospitality managers rather than engineers, we have included Appendix 1 on engineering principles for

those readers who want a better basic understanding of the more technical elements of the engineering and maintenance world. Also, recognizing that managers should be aware of those elements that influence the air quality and temperature conditioning they provide their guests and employees, we have included a discussion in Appendix 2 on the factors that can work toward increasing a building's air quality and therefore guest and staff comfort.

Acknowledgments

This second edition of *Hospitality Facilities Management and Design* has provided an opportunity to introduce a number of changes. A new facilities overview chapter summarizes the types of building systems found in hospitality facilities and some of the key characteristics of them. Integration of environmental issues (energy management, solid waste management, and more) into a single chapter (Chapter 4) provides a framework that is more in keeping with the global approach to these topics. To provide a more international approach, data, exhibits, and terminology have been selected that better portray facilities in a global context. We hope the many purchasers of this text worldwide will find it easier to use. The adoption of the first edition by hospitality programs in so many countries around the world was heartening.

One feature that has been added at the end of every chapter is a listing of Internet sites pertinent to the chapter. The lists have been kept short intentionally, with the knowledge that the sites listed will often have their own lists of recommended or relevant sites. Readers are encouraged to find these and refer to them.

Input for revisions to this text was solicited from a wide array of sources. Members of the Engineering and Environment Committee of the American Hotel & Lodging Association should be recognized for their individual contributions as well as for the general support provided by the committee. Those making particularly substantial contributions include: Val Lehr of Lehr Associates, August Cranen of Manhattan East Suites Hotels, Chad Callahan of Marriott International, April Berkol of Starwood Hotels & Resorts, Jerry LaChapelle of Harrah's, and John Salmen of Universal Design. Ed Golden of Outrigger Hotels & Resorts took the excellent telecommunications chapter contributed to the first edition by Byrne Blumenstein of MCI and updated it. In addition, those providing products and services to the industry who have helped with this edition should be thanked as well. Fred Hoth of Phillips Lighting, Susan Kary of Kary Project Management (formerly with Marriott), along with others have assisted in a variety of ways.

I'm also deeply appreciative of the chapter contributions by Richard Penner and Jan deRoos, School of Hotel Administration at Cornell, and Carolyn Lambert, Pennsylvania State University. Their chapters make valuable enhancements to the text and broaden its content. Comments and suggestions from my colleagues Stephani Robson and Mike Redlin are also acknowledged. The general support provided by the resources and environment of the School of Hotel Administration at Cornell University has also been a major help in this revision. I must also recognize my former student and now co-instructor in Cornell's Professional Development Program, Richard Manzolina of Hilton Hotels—he is keeping his former hotel

professor a bit more aware of what is happening in the real world of hospitality facilities. Conversations with other industry professionals such as Claire Kevill of Marriott Corporation and educators such as Nancy Scanlon of New York University have also been useful in preparing the text. Guest lecturers from Marriott and Hyatt who have addressed students at Cornell over the years have left their mark on the book's content, providing many useful ideas and observations during their visits.

The contributions to this text by the late Harold Roffmann are acknowledged as well. His insights, incorporated in the chapter dealing with "the outer envelope," are of great value for hospitality managers, not least because the building's structure and its exterior facilities have a great influence on the first impressions formed by guests.

In closing, we must acknowledge the contributions of the industry advisory and review committee for this text. The committee set us on our course and we hope we have not strayed too far from it. Special thanks go to Craig Flickinger, Regional Director of Engineering, Radisson Plaza Hotel, Southfield, Michigan. The editors at the Educational Institute have served the readers well with their quest for clarity and quality. Their development of the key terms for each chapter, the preparation of review questions, and their thoroughness in general are much appreciated.

Finally, our students (past and present) are acknowledged. They have contributed to the book's development in several ways and their comments and input are valued. We hope *Hospitality Facilities Management and Design*, Second Edition, will help them in their academic pursuits and assist them in their careers.

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Ithaca, New York

About the Author

David M. Stipanuk, a registered Professional Engineer, has been a member of the Property Asset Management faculty of the School of Hotel Administration at Cornell University since 1983. His teaching responsibilities include courses in sustainable development, facilities management, hospitality risk management, and hotel development and construction. He is also an active participant in the school's Executive Education Program, offering coursework in Property Operations and Maintenance in the program each year.

Professor Stipanuk's service to the university community includes membership on transportation services committees and on the faculty senate. He has also served for many years as the de facto department chair for Property Asset Management and for three years as the faculty coordinator of Cornell's General Manager and Advanced Management programs.

Professor Stipanuk is the author or co-author of three textbooks published by the Educational Institute of the American Hotel & Lodging Association: *Managing Hospitality Engineering Systems* (with Michael H. Redlin), *Hospitality Facilities Management and Design*, Second Edition, and *Security and Loss Prevention Management*, Second Edition (with Raymond C. Ellis, Jr.). Professor Stipanuk provides training to lodging corporations on engineering certification programs offered by the Educational Institute. He has also published articles on environmental issues for the lodging industry and on workplace-safety benchmarking for travel and tourism. Most recently, he helped to prepare AH&LA's *Energy Management and Conservation Guide*.

He is a member of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the Executive Engineers and Environmental Officers Committee of AH&LA. He has also been involved with the Environmental Concerns Task Force of the White House Conference on Travel and Tourism, the Pan American Health Organization, and the Caribbean Hotel Association in developing environmental audit criteria for hotels.

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Part I

Introduction

Chapter 1 Outline

The Role of Facilities in the Hospitality Industry
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 The Costs of Development and Construction
 The Costs of Operation
 The Costs of Renovation and Modernization
The Impact of Facility Design on Facility Management
 Components and Layout
 Materials, Methods, and Types of Construction
 Equipment Systems
Management's Responsibilities
 Management Contracts and Franchise Agreements
Responsibilities of the Facilities Department
Facilities Managers in Lodging Operations

Competencies

1. Identify a number of important roles played by hospitality facilities. (pp. 4-6)
2. Explain why construction costs vary by facility type and why proper construction practices provide long-term benefits. (pp. 6-7)
3. Identify the two primary categories of facility operating costs, the components of each category, and various factors that affect those costs. (pp. 7-12)
4. Explain the purpose and limitations of the reserve for replacement. (pp. 12, 21)
5. Describe how facility components, layout, materials, methods and types of construction, and systems affect facility management. (pp. 12-17)
6. Identify several equipment concerns that affect maintenance needs. (pp. 14-17)
7. State management's responsibilities with regard to facility management. (pp. 18-19)
8. Outline typical maintenance requirements found in management contracts and franchise agreements. (pp. 19-21)
9. Summarize the basic responsibilities of the facilities department and the facilities manager. (pp. 22-26)