



Construction Administration

FOR ARCHITECTS

| GREG WINKLER AND GARY CHIUMENTO

Construction
Administration for
Architects

About the Authors

GREG WINKLER, AIA, LEED AP, is a principal in Green Lizard Management, a project management firm that provides owner representation and project management services to corporate, developer, and institutional clients. An architect with over 25 years of experience in affordable housing, office buildings, industrial/commercial, and retail construction, he was a contributor to the Southern Solar Energy Center publication *The Passive Solar Design Handbook*.

GARY C. CHIUMENTO, Esq., is the founder of Chiumento McNally LLC, a firm specializing in construction-related law. The firm's clients include architects, engineers, surveyors, construction management companies, and various construction professionals. He has published numerous articles on topics of interest to the design and business community and is a frequent speaker on professional liability issues.

Construction Administration for Architects

Greg Winkler, AIA, LEED AP

Gary C. Chiumento, Esq.



New York Chicago San Francisco Lisbon London Madrid
Mexico City Milan New Delhi San Juan Seoul
Singapore Sydney Toronto

Copyright © 2009 by The McGraw-Hill Companies, Inc. All rights reserved. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

ISBN: 978-0-07-162530-2

MHID: 0-07-162530-5

The material in this eBook also appears in the print version of this title: ISBN: 978-0-07-162231-8, MHID: 0-07-162231-4.

All trademarks are trademarks of their respective owners. Rather than put a trademark symbol after every occurrence of a trademarked name, we use names in an editorial fashion only, and to the benefit of the trademark owner, with no intention of infringement of the trademark. Where such designations appear in this book, they have been printed with initial caps.

McGraw-Hill eBooks are available at special quantity discounts to use as premiums and sales promotions, or for use in corporate training programs. To contact a representative please e-mail us at bulksales@mcgraw-hill.com.

Information contained in this work has been obtained by The McGraw-Hill Companies, Inc. ("McGraw-Hill") from sources believed to be reliable. However, neither McGraw-Hill nor its authors guarantee the accuracy or completeness of any information published herein, and neither McGraw-Hill nor its authors shall be responsible for any errors, omissions, or damages arising out of use of this information. This work is published with the understanding that McGraw-Hill and its authors are supplying information but are not attempting to render engineering or other professional services. If such services are required, the assistance of an appropriate professional should be sought.

TERMS OF USE

This is a copyrighted work and The McGraw-Hill Companies, Inc. ("McGraw-Hill") and its licensors reserve all rights in and to the work. Use of this work is subject to these terms. Except as permitted under the Copyright Act of 1976 and the right to store and retrieve one copy of the work, you may not decompile, disassemble, reverse engineer, reproduce, modify, create derivative works based upon, transmit, distribute, disseminate, sell, publish or sublicense the work or any part of it without McGraw-Hill's prior consent. You may use the work for your own noncommercial and personal use; any other use of the work is strictly prohibited. Your right to use the work may be terminated if you fail to comply with these terms.

THE WORK IS PROVIDED "AS IS." MCGRAW-HILL AND ITS LICENSORS MAKE NO GUARANTEES OR WARRANTIES AS TO THE ACCURACY, ADEQUACY OR COMPLETENESS OF OR RESULTS TO BE OBTAINED FROM USING THE WORK, INCLUDING ANY INFORMATION THAT CAN BE ACCESSED THROUGH THE WORK VIA HYPERLINK OR OTHERWISE, AND EXPRESSLY DISCLAIM ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. McGraw-Hill and its licensors do not warrant or guarantee that the functions contained in the work will meet your requirements or that its operation will be uninterrupted or error free. Neither McGraw-Hill nor its licensors shall be liable to you or anyone else for any inaccuracy, error or omission, regardless of cause, in the work or for any damages resulting therefrom. McGraw-Hill has no responsibility for the content of any information accessed through the work. Under no circumstances shall McGraw-Hill and/or its licensors be liable for any indirect, incidental, special, punitive, consequential or similar damages that result from the use of or inability to use the work, even if any of them has been advised of the possibility of such damages. This limitation of liability shall apply to any claim or cause whatsoever whether such claim or cause arises in contract, tort or otherwise.

To my hard-working and dedicated brothers and sisters in the architectural profession.

Greg Winkler, AIA, LEED AP

To my father, who taught me the value of education and hard work. To my mother, who taught me the value of a dollar. To my wife, whose love and support inspire me daily. To my children, who have come to be my friends. To Frank Vitetta, Alan Hoffman, Michael Minton, Richard Holland, the Becicas, Mitch Franken, Rick Piccolli, Peter Coote, Ben & Beth Kitchen, Jack Bauerle, and Keith Palmer, who taught me the business and who always held up to me a shining example of professionalism.

Gary C. Chiumento, Esq.

This page intentionally left blank

Contents

Preface	xv
Acknowledgments	xvii
CHAPTER 1	
The Construction Process	1
Construction Administration Is Contract Administration	2
Private- versus Public-Sector Construction.....	2
The Agreements	4
The Importance of Written Agreements	4
Types of Agreements.....	5
Homemade Contracts	6
Recommended Owner-Architect Contract Provisions	7
The Triangle	10
Design-Bid-Build (DBB).....	10
Design-Build (DB)	11
The Triangular Relationship	12
Fast-Track Project	14
The Consultant Team	14
Supporting Players	15
The Cast of Characters	16
The Owner.....	16
The Program	17
The Location	18
Legal Support of the Project	18
Administrative Support	19
The Architect/Lead Design Professional.....	20
Technical Consultants	22
Schedulers and Estimators	23

Administrative Support	23
The Contractor.....	23
Contractor Obligations	24
Pricing the Work	25
The Process	26
Design	28
Refine	29
Define.....	30

CHAPTER 2

Agreements and Contracts..... 33

The Owner-Architect Agreement.....	34
Defining Scope.....	34
Risk Reduction Tools.....	35
Indemnification—A Trap for the Unwary	36
Limitation of Liability.....	37
Certifications and Assurances.....	39
Exclusions and Additional Services.....	39
Termination or Suspension of Services	40
Project Schedule.....	41
Construction Contract Administration.....	41
Construction Costs.....	44
Risk Reduction Tools.....	46
Deliverables.....	46
Field Observations	47
Alternate Dispute Resolution	48
The Owner-Contractor Agreement.....	49
Insurances and Indemnities.....	50
Third-Party Relationships	52
Ambiguities and Inconsistencies	53
Specifications, Submittals, and Substitutions.....	54
Timeliness and Scheduling Issues	55
Schedule of Values	57
Communications and Notifications	58

CHAPTER 3

Construction Documents 59

Do Your Research	59
------------------------	----

Risk Reduction Tools	60
The Goals.....	61
Tightening the Construction Documents.....	65
Specification Protection.....	67
General Specification Sections.....	67
The Front-End.....	68
General Conditions.....	69
Supplementary Conditions	70
Bid Strategy.....	71
Drawing Note Protection	71
Covering Project Scope.....	73
Hidden Conditions	74
Difficult Details	75
Coordination Problems	75
Extent of Work.....	78
Repair and Renovation Work.....	78
Intersections and Closures	79
Construction Document Checking.....	81
Credits in the Construction Documents	83
Money in the Bank.....	83
Examples of Hidden Specification Credits.....	85
Constructability Reviews	85
Cost Estimate Preparation.....	88
Sample Disclaimer.....	89
Client Management.....	90

CHAPTER 4

Bidding and Negotiation.....	91
Selecting Contractors	92
The Pre-Bid Conference	95
Bidding Toolkit.....	97
Estimated Quantities.....	98
Estimated Quantities and Unit Prices	99
Allowances.....	101
Add and Deduct Alternates.....	102
Add Alternates.....	102
Deduct Alternates	104
Unit Prices.....	105
Phasing Information	105

Alternate Substitution Bid 106
Detailed Bid Response 108
Questions During Bidding..... 109
Bid Addenda 110
Negotiating the Construction Contract..... 111
Bonds..... 114
Dealing with Labor Unions 115
Bid Exclusions and Conditions 117
Liquidated Damages and Bonus Clauses 120

CHAPTER 5

Under Construction—The Basics 123

Starting the Job 123
Pre-Construction Conference..... 126
Construction Schedule 127
Payment Issues..... 129
Dealing with People 130
 Effective Communication..... 130
 Adversarial Relationships..... 133
Field Representation 136
Electronic Documents 138
Job Site Safety..... 141
Construction Testing and Certification..... 146
Lender and Other Inspectors..... 147
Municipal Code Officials..... 148
 Completeness of Plan Reviews 148
 Certificate of Occupancy Inspections 149

CHAPTER 6

Under Construction—Managing Documents 151

Effective Document Management..... 152
 Techniques of Managing Documents 154
 Timeliness..... 155
Requests for Substitutions 156
 The Alternative Bid Process..... 161
 Fairness Issues 161
 Shopping Ideas 162
 Private Bids Only 162

Full Credit 162

Requests for Information..... 163

 RFI Responses..... 164

 Use the Documents 164

 Acknowledge Discrepancies 165

 Remember the Audience 165

 Means and Methods 166

Submittals..... 167

 Checklist for Submittal Checking..... 169

Applications for Payment..... 170

 Application for Payment Strategies..... 171

CHAPTER 7

Under Construction—Problems and Disputes 177

Disputes..... 177

 Litigation 179

 Arbitration..... 180

 Mediation 180

 Expert Determination..... 181

 Conciliation..... 181

 Large-Project Techniques 182

 Step Negotiation..... 182

 Dispute Review Boards 183

Poor Workmanship 183

Hidden Conditions 186

Changes and Change Order Requests 188

 Is It in the Contract?..... 190

 Risk Reduction Tools..... 191

 Is the Work Necessary?..... 192

 Document the Value of the Work..... 193

 Nuances of Change Order Requests..... 195

 The Half-Hearted Change Order Request..... 195

 The Owner-Initiated Change Order..... 196

 Request versus Reality..... 196

 The Change Order Offset 197

 Defeating the Dubious Change Order Request..... 197

Owner-Furnished Items and Owner’s Own Forces 198

Interpreting the Contract Documents..... 200

CHAPTER 8

Ending Construction.....203

- Contract Closeout..... 203
- Substantial Completion..... 205
- Final Completion 206
- Punchlist 207
- Schedule Claims..... 211
- Defenses Against Claims..... 212
 - Notice Requirements 213
 - Prior Settlement of an Issue 213
 - Exculpatory Clauses 214
 - Breach of Contract 214
 - Abandonment 214
 - Excusable Delay 215
 - Statutes of Limitations 215
 - Liability of Others 215
 - Mitigation 216
 - Misrepresentation 216
- Retainage..... 217
 - Contractor Incentive..... 217
 - Funds to Remedy Defects..... 218
 - Rules of Retainage..... 219
- Liens and Release of Liens..... 221
- Closeout Documents..... 226
- Operation and Maintenance Manuals..... 228
- Owner Systems Training..... 229
- As-Built Documents..... 230
- Final Payment 231

CHAPTER 9

After Construction Ends.....235

- Warranty Work..... 235
- After the Warranty Period..... 237
- Records Retention..... 238
- Risk Reduction Tools 239
- Construction Disputes 240
- Risk Hazard Flags..... 243
- Marketing..... 244

CHAPTER 10

Risk Management.....245

Top Ten Construction Administration Risks to Avoid 245

 Number 10: The Handshake Deal 245

 Number 9: Working for a Friend 247

 Number 8: Not Budgeting Enough for Construction Administration 250

 Number 7: Avoiding Tough Discussions with the Client 251

 Number 6: Ignoring Recurring or Unresolved Project Issues. 251

 Number 5: Ignoring Deadlines on Submittals and RFIs 252

 Number 4: Getting Involved with Means and Methods..... 253

 Number 3: Ignoring Professional Limitations..... 254

 Number 2: Skipping the Subrogation Waiver Clause 255

 Number 1: Designing a Roof for a Multi-family Dwelling 255

Liability Warning Signs..... 258

 No Communication 258

 Not Paying the Bills 259

 Contractor Delays in Maintaining the Schedule 260

 Adversarial Attitude 260

 Slow Approvals on Change Order Requests 261

 Dangerous or Disorganized Work Site 262

 Late Submittals 263

 Excessive Requests for Information 263

 The Revolving Door..... 264

Risk Reduction Toolkit 265

Documentation 268

 Requests for Information 270

 Submittals 271

 Site Observations and Project Meeting Minutes..... 271

 Proposals..... 272

Shared Risk..... 273

 Contractor..... 273

 Construction Manager (CM)..... 274

 Owner 275

GLOSSARY..... 277

INDEX.....295

This page intentionally left blank

Preface

Architecture is a noble profession, but can be a difficult vocation. Despite the pure joy of design and the satisfaction of seeing those ideas come to fruition, the work is demanding. Owners often expect to receive flawless construction documents quickly, and the contractors and their subs scrutinize the drawings and specifications to find gaps and change order opportunities. If the project takes the path where RFIs, change orders, and accusations are flying, the experience is a strain on all parties. When the project climate deteriorates even further into arbitrations, depositions, and lawsuits, it can be draining and discouraging as well. It is no wonder that some architects view their creations with a mix of pride and regret.

For most of the project, the architect and owner work closely to design and document the building. Whether a major corporate headquarters or an undistinguished warehouse, the building represents an important step forward for the owner, and he is relying on the architect's skills to deliver the project within his budget and schedule. During this period, the architect is the leader of the process, and the acknowledged expert on construction matters in the eyes of the owner.

When a contractor is hired, the relationship fundamentally changes. The contractor becomes the construction master and the leader and initiator of everything affecting the project, and the architect moves into a supporting and secondary role.

Most of the difficult times of architectural practice come during construction administration, when the architect is responding to the needs of the contractor and the strength of the documents is tested daily. It is a time when events are being driven by others and the architect may see himself largely in a reactive mode, responding to the winds of issues blowing in from the work site.

This book argues that architects need not feel themselves victims of fate, and can minimize their pain and suffering during construc-

tion administration by better controlling events leading up it, and responding strategically when unforeseen events do occur. It examines construction administration from the architect's perspective: where does risk to the architect originate, and how can we minimize those sources of risk? Risk management is an often overused term, but it has been proven across a number of professions that liability can be controlled through knowledge and planning. Architecture is no different. This book is intended to give the architect the tools to manage his risk during construction administration.

A few notes regarding the tone of this book:

- Without clients there would be no architecture. Owners conceive the initial idea, and architects often personally bond with the owner during the long weeks or months of turning the idea into a tangible, buildable set of documents. We do not diminish the value of such a relationship, but we do argue that at the heart of any project is a business agreement. Even the most agreeable of owners can turn quickly if he comes to believe that the architect has not served his interests well or placed him in financial jeopardy. Where this book may seem to promote a more formal relationship with the owner, that is not our intent. We do, however, argue for a more business-like relationship with the owner.
- Most contractors are honest, hard-working, and more interested in preserving their reputation as quality builders than in hammering the owner for unwarranted change orders. Unfortunately, the less savory variety of contractors are out there, and this book, out of necessity, focuses on the worst attributes of those few.
- We use the masculine gender throughout this book in referring to both architects and contractors. This writing convention is used to avoid the stilted use of *he/she* and *him/her* repetitively. The use of this standard is not intended to minimize the importance of women in any profession, particularly their prominent role in the architectural profession. It is only intended to make the reading a little easier.

Acknowledgments

For his insightful review of the proposal and manuscript, we thank Bob Ignarri, AIA, of Ignarri-Lummis Architects in Cherry Hill, New Jersey.

For his sharp-eyed editorial and stylistic review, we thank Rob Nigro, ace editor and leader of the Whatever's Write Writers' Group in Haddon Heights, New Jersey.

We thank Joy Bramble Oehlkers, Senior Editor, McGraw-Hill Professional, for her proposal critiques and support.

We also appreciate the editorial and graphic talents of the folks at Lone Wolf Enterprises, including Roger and Leona Woodson, Virginia Howe, and Jacquie Wallace.

This page intentionally left blank

1

The Construction Process

A wise old architect once said, “The best buildings are the ones that never get built.” He was wise because he realized an essential truth about architectural practice: the greatest liability threat to an architect occurs during the period when his design is under construction. It is perhaps ironic that this is also the period when the architect has collected approximately three-fourths of his fee for the project and his attentions are focused elsewhere, on marketing or preparing the construction documents for new projects. Some architects view construction administration as a necessary evil, a period of trial they must endure to close out a project and see their creation come to life. They may view the contractor with a range of emotions, from a partner in construction to an evil, money-grubbing entity intent on destroying their reputation and their relationship with their client.

The reality, as with most endeavors, is somewhere in-between. Contractors are largely interested in building a quality structure quickly and profitably and moving on to the next project. Few of them are intent on embarrassing or destroying an architect’s reputation, for one simple reason—it is not good business. They are also not in business to lose money, however. They will look to recoup the cost of work they do not believe is a part of their contract with the owner. Their main line of attack will go directly through the architect to his construction documents. That is why it is essential that architects view construction administration as the most perilous phase of their work, and take steps to minimize the risks that accompany the act of building what they have drawn.