

Duggar

CHECKING AND COORDINATING ARCH
AND ENGINEERING WORKING DRAWING



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JOHN FREDERICK DUGGAR III

Architect • Atlanta, Georgia

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AND
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*Dedicated to my family
and to friends in the
architectural and
engineering professions.*

PREFACE

The checking and coordinating of architectural and engineering drawings is one of the most exacting and crucial tasks in an architectural office. Drawings which are poorly checked and coordinated can be a source of many problems, not only during the production of the drawings, but even more so during the bidding and construction phases of a project. These problems can be serious and costly, which makes it imperative for the drawings to be checked and coordinated very carefully.

This book presents a system of graphic techniques for checking and coordinating architectural and engineering drawings which, if carefully applied, can virtually eliminate errors, omissions, mistakes, and duplications. The graphic techniques provide positive assurance that no item on the drawings will be missed in the checking, and that each item will be coordinated with all divisions of the work to which it might relate.

In addition, the techniques described in this book provide a unique system for communicating with the various persons involved in a project. Techniques for getting questions answered and for getting revisions made are based on graphic methods which make the necessary communications precise and efficient, minimizing the risk of any misunderstanding.

The chapters which follow describe how the various techniques used in this system are applied, and will further discuss the advantages of the system.

The ability to check and coordinate drawings depends on experience and natural ability. This book uses the pronouns *he* and *his*, not because of any bias, but due to the demands of the language. Use of *he/she* and *his/hers* was felt to be awkward and distracting. Other expedients can lead to language which is imprecise or confusing, which is obviously not acceptable when new or complicated technical procedures are being described.

Improving the ability to check and coordinate drawings is the primary purpose of this book; any impediment to achieving that purpose would not serve the best interests of anyone. Thus it is hoped that all who use the book will realize why certain usages have been retained.

John Frederick Duggar III

ABOUT THE AUTHOR

John Frederick Duggar III, a former instructor in Reinforced Concrete Design and in Design of Steel Buildings, has worked in both small and large architectural offices, from which he has gained broad experience in all phases of architectural practice. Several years of responsibility for the final checking and coordinating of architectural and engineering drawings showed Mr. Duggar the need for more systematic techniques in that area. This book is the result of the development of these more precise techniques. Mr. Duggar received his Bachelor of Architecture degree from Alabama Polytechnic Institute (now Auburn University), and maintains a practice in Atlanta, Georgia.

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1 | INTRODUCTION

1-1 GRAPHIC CHECKING SYSTEM

A basic concept of this system of checking is the utilization of a variety of techniques which provide a complete graphic record of the status of the checking at all times. This graphic record means that the checker does not have to rely on his memory as to what has been checked, what has not been checked, what his comments and questions were, what additional details might have been needed, what sketches he made regarding various items, what questions he asked other people, and what their responses were. In addition, the graphic record is kept in a logical and accessible manner which contributes in many ways to the usefulness and efficiency of the checking system. Also, using this system, the checker employs techniques which enable him to communicate with others graphically, yet retain a full record of his communications (his marks on check-prints, comments, sketches, questions, etc.). This means that further checking can continue while revisions resulting from earlier checking are being made.

Some of the graphic techniques described below allow the checker to check incomplete sheets or incomplete sets of drawings, and to check additional work later without having to go back and recheck all of the earlier drawings. Furthermore, the checker may selectively check important items first and leave lesser items for later checking. He may also check any desired sheet in any division of the work, which aids in the efficient utilization of the personnel making the revisions. These graphic techniques and their use in