



INTRODUCTION

The investigations into the collapse of the mezzanine level walkways of the Kansas City Hyatt Hotel in 1981 uncovered the critical relationship between steel frame design drawings and structural steel shop drawings. Since then many architects/engineers and agencies have taken the point of view that structural steel shop drawings and reinforcing steel placing drawings are the same in nature, scope, and purpose. This correlation is not true.

The *ASCE Manual*¹, "*Quality in the Constructed Project*", has clarified the difference between the two types of detail drawings. In Chapter 16 of the ASCE Manual, the two types of detail drawings are called "Shop Drawings for Structural Components" and "Placing Drawings for Concrete Reinforcing Steel".

This report explains the primary function of -a rebar placing drawing, defines the qualifications of a rebar detailer, describes how a placing drawing is produced, and clarifies the responsibility of a fabricator of reinforcing steel.

Q1: Who is a "DETAILER", and what does that person do?

A: A detailer is usually an employee or subcontractor of a fabricator. A detailer uses design information shown on the design drawings and project specifications to "detail" or list all the reinforcing steel items required for a particular portion of the structure. These individual rebar items are then listed, or scheduled, or shown by plan or section on a detail/placing drawing.

Q2: What design information is required by building codes?

A: The ACI 318 Building Code² states in Chapter 1, Section 1.2.1, the general requirements governing the design. Specifically, with regard to reinforcing bars, the Code states (in part) that the design drawings shall show* size and location of all structural elements and reinforcement"; "anchorage length and location and length of lap splices"; and "type and location of welded splices and mechanical connections of reinforcement".

Q3: Why is it necessary "TO DETAIL" design information?

A: Design information normally will be specific with regard to the dimensions of structural members and systems, the quantity or spacing of reinforcing bars, and bar sizes, but general as to bar lengths and bar configurations. This general or typical information is not specific enough to be able to cut to length, fabricate, ship, and place (install) reinforcing bars directly from the design drawings. Hence, the requirement that detail/placing drawings be furnished.

Q4: What are the qualifications of a rebar detailer?

A: As a minimum, a person with a high school education, with good mathematical and visual skills would qualify for training as a rebar detailer. Any additional education in computer sciences, drafting or engineering

would enhance the qualifications.

Q5: How are rebar detailers trained?

A: Detailers are trained by attending a vocational technical school, by using the CRSI Detailer Training Program³ with the guidance of a fabricator's staff, by "hands-on" training under the supervision of an experienced rebar detailer, or by a combination of all three methods.

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