Basic Construction Management
The Superintendent's Job
Fourth Edition
by Leon Rodgers

Preface

This is the fourth edition of *Basic Construction Management: The Superintendent's Job.* The book has enjoyed great success and has been one of NAHB's best-selling titles. When the first edition was written in 1981 the world of construction was a very different place. The manuscript was typed five different times on a state-of-the-art IBM Electric typewriter which cost more than a modern computer. Personal computers were unheard of, cellular phones had not been invented, construction scheduling was just in its infancy, Total Quality Management was a Japanese phenomenon, and construction management was largely "by the seat of your pants." We were just beginning to apply business management principles to residential construction projects. Sounds like the dark ages, doesn't it? But that was just a few years ago.

Much has happened in the past eighteen years. Most residential builders have computerized their operations to a great extent. Home buyers have become a lot more sophisticated and demand a lot more than they ever have in the past. Management of construction projects has become a lot more complex. Cost control and analysis of cost overruns and variances are now standard practices. Formal safety programs have become more common. Computerized scheduling is becoming widely accepted. Total Quality Management has been successfully implemented in many companies. Thanks to the educational efforts of the NAHB's Home Builders Institute, industry consultants, and builders who have continued to share ideas with other builders and educators in college construction management programs, today's builders are more highly educated and better prepared. But the competition is a lot tougher. Those who have survived in this industry have done so through better management and the application of some very basic principles.

Residential building today is an exciting and challenging business, one in which the construction superintendent plays a large and important role. Many demands are placed on today's superintendents. Construction typically includes greater customization of standard designs. Designs are more innovative and complex, resulting in more complex construction. Materials and methods are continually changing.

Superintendents now use computers on a daily basis for cost control, scheduling, and overall project management. Sometimes it seems as if the industry expects superintendents to be supermen and superwoman.

This edition of *Basic Construction Management: The Superintendent's Job* addresses these issues and discusses the latest developments in the management of home building operations. Special attention has been given to computerized scheduling and reporting systems, and to the importance of well-developed systems and systems management.
The feeling that comes from successfully organizing people, materials, and equipment to create a beautiful and functional home can be quite special. When you pass a home that you helped to build years earlier, you probably find it difficult not to look at it with at least a small sense of pride and think, "I built that!" This pride is at the heart of true success in the construction business. The truly successful are often not those who are wealthy or brilliant, but those who are genuinely good at what they do and who take pleasure in it.

Most people who are good at what they do apply simple rules and goals to their tasks. This book attempts to present such simple rules, targeted at maintaining your budget, complying with your schedule, and establishing quality control, leading to maximum profits—and an irreplaceable feeling of total success—in the long term.

Introduction

Hiring and Training Superintendents

Hiring the right people may be the single most important thing an employer does to promote business success. With remote production sites and a tremendous number of trade contractors, suppliers, inspectors, owners, and other people coming and going from each site, having the right people in place as superintendents certainly is critical to the success of a home building company. Providing timely and practical training for the new hires (and ongoing training for company veterans) may well be the builder's second most important contribution. Accordingly, this introductory chapter has been written for the builder (or hiring managers in larger building companies). Superintendents will also find the material of interest, however, as a thumbnail guide to the hiring process from the other side of the table—and as another way of looking at the superintendent's job.

Hiring a New Superintendent

Builders generally hire a new superintendent for one of two reasons: 1) the current superintendent has either left or is leaving the company, or 2) the company is growing and a new superintendent is needed to manage the additional work. In either case, depending on circumstances, the builder likely feels considerable pressure to find and hire someone quickly. Rushing a hiring decision is almost always a mistake, however. To make an effective hire, the builder must be prepared when a vacancy—or growth opportunity—arises.

The Hiring Process

Bob Whitten's excellent publication, How to Hire and Supervise Subcontractors, published by NAHB's Home Builder Press, provides detailed advice to guide you in making hiring decisions and following up with jobsite supervision of trade contractors. (For more information on this and other helpful publications, see Additional Resources at the back of this book.) The sections that follow summarize principles that can make the hiring process go more smoothly.

Don't Wait Too Long to Start. Amazingly, many builders wait until the very last minute before deciding to hire somebody. As a result, that is exactly what they get—some body.
The decision to hire should normally be made a minimum of three months before the new superintendent is really needed. Under the best of circumstances it takes at least three months to locate, interview, check references, re-interview, hire, and initially train a new superintendent.

A company may be faced with replacing a superintendent who quits with little or no notice. Even though you are in a tight situation, resist the urge to panic and hire the first vaguely qualified person you run across. The future of your company depends on the quality of your hiring decisions. Get the work done however you can while you are interviewing candidates for the position.

Network. In the hiring process "who you know, not what you know" definitely makes the difference. Whether as a job-seeker, a hiring manager, or an employer, you will be about twice as successful searching within a network of people you know than by advertising or contacting people off the street. Talk to your employees, trade contractors, suppliers, other builders or superintendents, remodelers, bookkeepers, people at church, friends, relatives-anyone you trust who may know of qualified people looking for work. Spread the word. Ask your current employees to keep an eye open. Develop a list of potential superintendents and update the list periodically to keep it current.

Look for College Graduates. Consider recent graduates from your local college or university. A number of very good construction management programs around the country annually graduate a ready pool of job candidates. Construction management graduates often are a little older and more mature than the typical college graduate, and they may already have several years of experience in construction. In addition, most construction management programs require an internship experience before graduation. Hiring interns offers your company a great opportunity to evaluate potential candidates for future positions at a relatively low cost.

The best time to recruit college graduates is in October for December graduates and in February for May or June graduates. The manager of student chapters for the NAHB can provide you a list of colleges and universities that have construction management programs. The NAHB also holds a job fair in conjunction with its annual International Builders' Show and Convention. Hundreds of top students from throughout the nation attend the job fair and are available for interviews.

Some interns and college graduates have minimal construction experience, but they are computer literate and well educated. If your company has the resources and the time to train relatively inexperienced graduates, they can become valuable additions to your company. If your new hire must take on immediate, full construction management responsibility, you must carefully interview the candidates to determine their expertise.

Analyze Your Needs Before Interviewing. Develop or review your written superintendent's job description. Most builders find creating written position descriptions to be a very insightful experience. The exercise helps them solidify what they are looking for in their employees. Because written job descriptions can be such an effective tool, the Business Management Committee of NAHB has published a compilation of position descriptions for virtually every position in a construction company (see Additional
Consider the current and future needs of the company. Look at the career path for the new hire. How would each candidate likely fit in the organization over time? Look for candidates whose skills and personalities will complement those of your current employees. For example, if you already have people who are very good at building homes but are not good at customer relations, look for candidates with very strong interpersonal skills.

**Use Applications to Develop a Candidate List.** If you do not have an employee application form, develop one. You can obtain generic employee application forms at any good office supply store. Adapt the generic forms to your specific needs. Make sure that the form asks candidates to supply pertinent information, including a list of references. If possible, obtain a resume' from each applicant.

**Rank the Applications.** Once you have the applications and resumes in hand, read them carefully. Highlight the items that are most outstanding about each candidate and also any items about which you would like to know more. Then rank the applications from the most likely prospect to the least desirable. Discard all applications from candidates who are definitely unqualified.

**Prepare a List of Questions.** Before conducting any initial interviews, prepare a written list of questions you would like answered by each candidate. Use the same questions with all candidates; consistency is important.

When preparing the questions, you must decide what is important for you to know about each candidate. Consider asking open-ended questions, such as, "Can you give me an example in your previous employment when you were required to (name a specific task related to the position)?" Follow-up questions also are helpful, such as, "How did you react or handle the situation?" Pursue information that helps you discern how the candidate would perform in your work environment.

Don't rely only on first impressions, or how you personally feel about the candidate. An individual may be a great conversationalist but a poor organizer or a pushover as a superintendent. Ask questions that require the candidate to relate real-life experiences. For example, you could ask, "Can you give me an example of a time when you were required to hold the line with a trade contractor, and describe how you handled the situation?"

Asking job candidates to relate actual experiences from previous employment situations generally yields better results than does asking how they would respond to hypothetical situations. When relating actual experiences, candidates find it harder to guess what the interviewer is seeking. They must instead think of situations and relate what actually happened.

Other useful questions to ask include, "What is your greatest weakness?" "If you were hiring you for this position, what would be your greatest concern?" "What is your greatest strength?" or, "What do you have to offer in this position that no one else does?"

You might also ask why the candidate is considering a change in employment or why the
person is interested in the position at your company.

**Don't Do All of the Talking.** Inexperienced interviewers typically ask whatever question comes to mind and often spend the majority of the time talking instead of listening. After the interview they wish they had asked different or additional important questions. Research on interviewing techniques indicates that the most successful interviewers talk relatively little. An effective interviewer listens at least two-thirds of the time. Focus on asking a lot of leading or open-ended questions and then let the candidate express himself or herself.

**Take Notes.** Immediately after the interview take some time to jot down your reactions. Even if you have another interview scheduled immediately afterward, take the time to record your impressions. The few notes you jot down may be the most accurate information you will have. Do not take more notes during the interview than is absolutely necessary. Excessive note-taking may put the candidate on the defensive. Even a strong candidate may then become preoccupied with worrying about what they said or did wrong and wonder how they are doing.

**Consider Using a Personality or Job Compatibility Profile.** Many companies have found personality profiles and job compatibility profiles to be valuable screening tools. Such profiles can pinpoint with great accuracy the personality characteristics of a candidate. For example, if you need a superintendent who is organized and can work well under pressure without becoming frazzled, a personality profile can help you identify people who have strong skills handling stressful situations.

Personality and job compatibility profiles also provide a great deal of information that can be discussed in a second interview. You can simply ask the candidate to confirm whether and how the outstanding positive or negative characteristics indicated by the profile match the candidate's self-perceptions.

**Check References.** You are likely to obtain the best information about a candidate from people who know the candidate well. It is amazing how many people skip the important step of checking references, even though former employers can be excellent sources of information. The candidate will often supply a list of references. Expect these references to provide glowing remarks about the candidate. Ask such references hard and direct questions, and ask them for the names of other people who know the candidate well. Alternatively, ask for the names of two people who worked with the candidate at his or her last indicated place of employment.

In today's legal environment many people are reluctant to answer questions about job candidates. If you wish to obtain information beyond verification of salary or dates of employment, you must use patience and tact and develop trust with the reference before asking any tough questions.

**Don't Settle for just One.** Don't settle for just one candidate or one interview. Above all, don't make an offer at the first interview. To ensure a complete assessment it is a good practice to interview each candidate several times in different settings. If your first interviews were held on a college campus (for example, at a job fair or as part of a
recruiting day), bring the promising candidates to your operation for second interviews. Let the candidates see the environment in which they may be working. Give each candidate adequate time to ask you questions in the follow-up interviews. It is just as important for the candidate to feel good about you and your company as it is for you to find the right person for the job, and the candidates' questions of you may be as revealing as their answers to your questions.

Spend some time showing the candidate your operation. Explain how the position fits into your company. Introduce the candidate to the key players, especially those he or she would likely interact with most frequently. If possible, give the candidate time alone with those key players. Get the reaction of the key players concerning their interviews with the candidate. If the immediate supervisor is not doing the hiring directly, make sure the supervisor has the opportunity for an in-depth interview with the candidate. Spend as much time with the candidate in as many different ways as possible before making an offer. Remember, this person will make a long-lasting impact on your company's bottom line. You may want to involve two or more staff people in follow-up interviews. It is often easier to concentrate on the candidate when more than one person is doing the talking.

**Re-rank the Candidates.** Review your most important needs in hiring a new superintendent and then compare each candidate to the requirements. After the follow-up interviews rank the candidates. Note the strengths and weaknesses of each. Discuss the candidates with other managers and employees who were involved with interviewing.

**Make a Final Decision.** When you have weighed all of the data and searched your own feelings as well as the feelings of those directly involved, make a final decision. Consensus decision-making is an important part of the process. Discuss openly the feelings of all concerned and then see if you can come to a consensus as to who should be hired.

**Make the Offer.** When you have made your final decision, prepare an offer for the best candidate. If you have done your homework you will have researched the market in your area and determined the competitive salaries or wages for superintendents. Determine the current salary and benefits requirements of the candidate as much as possible. Compare the candidate's requirements with what you are willing to offer. Prepare the offer including base salary (wage) and fringe benefits such as vehicle allowances, vacation, insurance coverage, sick leave, and so forth. Be prepared to answer any questions regarding the offer or benefits. When you make the offer, discuss the future career path and possibilities with the candidate; but in doing so, make it clear that their future career path is dependent on performance, market conditions, and the company's needs. Have the essential elements of the offer prepared in writing so the candidate can see them. Give the candidate a reasonable but limited time to think it over.

**Train. Train. Train.** Every employee deserves the opportunity to be properly trained. After making a hire, many employers forget the next--"and perhaps most important-step: training. Often superintendents are hired "in the heat of the battle." You need them to hit the ground running immediately. But this is not likely to happen, so do not fool yourself or destroy an otherwise good employee. It does no good to spend a great deal of time and
effort finding and hiring the right people only to burn them out in the first few weeks. Too-high expectations can cause new employees to become so frustrated that they quit.

Develop a good training program that presents the requirements of the job in a logical and controlled manner, without the pressure of ongoing problems and difficult situations. Teach new hires the way things should be done at your company. Teach them effective habits and practices. Often an employee will come to the job with some bad habits from a previous employer. Show him or her the right way to do things. Provide a good mentor for them. Supervisors or a well-qualified fellow superintendent will be invaluable in training the new superintendent. Develop a checklist of things the new employee needs to learn. Then develop exercises or opportunities the new employee can use in order to master them. As the new employee masters each item, check it off the list.

**Have Fun.** This may sound trivial, but it is very important. Have fun with the process. Finding and hiring new employees can be both very challenging and a rewarding experience. A lot depends on how you approach the task. The future of your company depends on the way you hire new superintendents. If you do it well, it can be one of the most exciting things you do.

**Training a New Superintendent**

The superintendent is one of the most important people in the entire organization. As new superintendents are hired, it is often critical to get them up and running quickly. Most builders simply have the new superintendents ride around with a veteran superintendent for a few days, then assign them a few homes to build. The number of homes steadily increases until the superintendent has a full load. Many new superintendents soon find themselves overwhelmed and burning out. A well-developed training program can give the superintendent a head start and allow him or her to come up to speed before being exposed to all of the pressures and problems associated with a full load of houses.

Many superintendents are hired with considerable experience working for other builders. The last thing you want is for them to bring bad habits learned in their previous employment into your organization. Every company has a "corporate culture" that needs to be learned; it is necessary to teach even experienced superintendents your company's policies and procedures. Training gives the new superintendents an opportunity to become familiar with your operating procedures and can help new hires fit in better and avoid mistakes.

One of the most important things that needs to take place in the training process is to introduce your new superintendent to the trade contractors and suppliers with whom he or she will be working. The most important responsibility of a superintendent may be to train trade contractors. To do this properly, superintendents must be properly trained themselves.

**Training Process**

The first step in developing a training program is to identify the various tasks for which a superintendent is responsible. In most construction companies the best way to develop a superintendent training program is to brainstorm together and come up with a tentative
list of duties, or tasks, then refine the list until you are satisfied that it adequately describes the job of a superintendent. The tasks may already be gathered in a written job description (see Figure 1.1). Once the superintendent's job description has been defined, you are ready to outline the training required to bring specific individuals up to speed.

A four-step training process is ideal for new superintendents:

1. Observation: The new hire directly observes the trainer performing the operation or task (for example, a lot inspection or a homeowner walk-through).

2. Minor Participation: The new hire participates, with a minor role in performing the operation or task.

3. Major Participation. The new hire performs the operation or task, with the trainer present as a backup.

4. Evaluation: The new hire performs the operation or task, with the trainer present as an observer. The trainer evaluates the performance and completes a report to be placed in the training file.

**Program Development and Implementation.** Based on the job description, develop an outline listing the training requirements for a superintendent (Figure 1). Look at each task or group of tasks on the job description. Define the training required for each task. Assemble all of the documents, forms, and systems that a superintendent uses in the performance of his or her responsibilities. Describe the use of each document, form, or system and the role various parties play—especially that of the superintendent. Describe the interaction and communication needed for each task.

Develop activities and assignments to complement and evaluate the training. Quizzes can be used to evaluate comprehension of reading materials such as contracts or specifications. Exercises to strengthen superintendents' skills in given areas such as communication, negotiation, dealing with difficult customers, recruiting trade contractors, and so forth may involve role-playing or other practice. Assigned interviews with important people such as the company president, head of accounting, and customer service also facilitate learning about the corporate culture. Provide time to work in other areas of the company, for example, customer service, estimating, or bookkeeping to facilitate cross-training and better internal communication.

Assemble the rough draft of the training program into a prototype manual. Evaluate the materials and critique the results so far. Edit the manual and its contents to make sure it flows smoothly. Fine-tune the rough draft. Have a veteran superintendent review it and make comments.

Develop training aids that can be used in implementing the program. Overheads, exercises, narratives, and other training aids help maintain interest and add other dimensions to the training process.

**Ongoing Training.** Superintendents require continual training. Even veteran superintendents need to be reminded of their responsibilities. Many companies bring their
superintendents together on a monthly basis for a day of training. Some of the topics suitable for an ongoing training program include the following:

- Following company procedures
- Completing paperwork and reports accurately and in a timely manner
- Safety training
- Training trade contractors
- Other topics as needed

**Figure 1: A Superintendent Training Program**

A manual used in a construction superintendent training program might include the following sections and topics:

**Introduction**
Program introduction
Resource List
Proficiency list (a checklist of all of the training requirements for superintendents)

**Company Organization**
Company history
Mission statement
Organization chart
Production organization chart
Area map (a map of the area where the superintendent is expected to work; primarily a tool used by scattered-site builders)
Organization assignment (an assignment, normally involving a series of interviews, developed to familiarize the new superintendent with the members of the organization)

**Role of the Superintendent**
Section introduction
Job descriptions for all production personnel
Vehicle use and maintenance policy statement (outlining the use and care of company vehicles and reimbursement policies for use of personal vehicles)
Tools and equipment list
Dress code
Cellular phone use policies (including suggestions for minimizing the high cost of cellular phones)

**Sales**
Sates and marketing overview
Contract(s)/purchase agreements) (an overview of the contracts or real estate purchase agreement(s) used by the company)
"By owner" agreement (a review of company policy regarding work performed directly by the homeowner such as landscaping and paint)
Project file (a review of all documentation that makes up the project file)
Company plans and specifications (an exercise in reading and interpreting plans and specification)
Homeowner package (a review of the various documents the homeowner signs and an exercise to help the superintendent understand the purposes and procedures relating to each document)
Sates assignment (an exercise to help the superintendent understand what customers go through from the time they first make contact with the builder or visit the sates center until the home is actually started)

Site Meeting
Site meeting definition (a meeting at which the superintendent lays out the house with the home- owner(s), establishes the grade, and locates the various utilities)
Site meeting checklist (items to be covered at the site meeting)
Site meeting assignment (initially, observation of a site meeting in which the new superintendent participates to a minor extent; later, the new superintendent takes full charge of a site meeting under the supervision of the trainer)

Preconstruction Meeting
Preconstruction meeting (a conference at which the superintendent outlines the sequence of activities that will take place during the construction process and describes the responsibilities of the homeowner, builder and others during the process)
Preconstruction meeting checklist (items to be covered in the preconstruction meeting)

Estimating and Purchasing
Estimating and purchasing training (a review of the estimating and purchasing process, including all documentation)
Estimate review checklist (items the superintendent reviews on the completed estimate to make sure nothing important was missed)
Supplier and trade contractor list (an annotated list of trade contractors and suppliers currently working with the building company)
Setup procedure for new suppliers or trade contractors (a review of the process for establishing a relation- ship with a new vendor or trade contractor)
Quote sheets and price lists for suppliers and trade contractors (a review of the pricing structure used with the various trade contractors and suppliers)

Scheduling
Section introduction (an introduction to scheduling systems and techniques used by the company)
Updating schedules (a review of scheduling updating procedures used by the company)
Scheduling training (exercises to teach scheduling to the new superintendent)

Construction
Section introduction (a review of the construction processes and procedures used by the company)
Communication (an overview of the need for effective, two-way communication between the superintendent and all parties involved in the construction process, including drafting
personnel, estimating personnel, homeowners, and others)
Communication assignments (an exercise or assignment to help the superintendent learn to apply better communication styles)
Production manual (a manual containing the construction procedures and standards of the company; for a model, see NAHB's Production Manual Template)
Quiz (a quiz to evaluate the superintendent's understanding of the items and information included in the production manual)

**Quality Control Checklists**
Checklists (trade-specific lists developed as tools to assist superintendents in evaluating the quality of work performed by trade contractors)
Quality control assignments (a series of inspections to be performed at the various levels by the new superintendent)

**Managing Trade Contractors**
Trade contractor agreement (a review of the subcontract agreements used by the company)
Workers' compensation (a review of requirements and certificates required by the company)
Keys to working with trade contractors (an overview of management principles as applied to relationships with trade contractors)

**Health and Safety**
Safety and health training (OSHA and safety and health training)
Quiz (a quiz to evaluate the superintendent's understanding of OSHA and safety and health requirements)
HazCom and MSDS training
Safety inspection assignments (the new superintendent participates in, then performs jobsite safety inspections)

**Corporate**
Additional training
Drafting training
Accounting and job cost training

**Customer Service**
Limited warranty exercise (a review of the documentation with an exercise to help the superintendent understand the warranty used by the company)
Customer service training
Customer service exercises (the superintendent works with customer service personnel on warranty calls to reinforce the importance of quality control and scope of Liability)