AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS

Certification Program Guide

AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS
NATIONAL CERTIFICATION BOARD
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Certification Program Guide
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INTRODUCTION TO THE CERTIFICATION PROGRAM

Professional evaluation through Certification is one of the many ways the American Society of Professional Estimators endeavors to promote the profession and benefit the construction industry.

The founders of the Society sought to include estimators of all types of construction in the membership of ASPE: residential, heavy, general, specialty trade and conceptual. This array of highly skilled professionals was the "melting pot" envisioned by the Charter Members of the American Society of Professional Estimators when they organized in 1956.

With such diversity of backgrounds, the development of programs for both education and certification of professional estimators has been a demanding and rewarding process. For all the varied disciplines or levels of detail, the fundamental principles of construction cost estimating remain universally applicable. Beyond these fundamentals, however, lay the realms of varied disciplines, which make construction estimating one of the most unique, challenging, and fulfilling professions an individual may pursue.

During the early years of the Society's existence, long-range programs were formulated to encourage university-level instruction in construction estimating, not only for the novice student, but for the experienced estimator as well. A system for evaluating the proficiency of estimators seeking certification was also envisioned.

ASPE Certification is the highest form of professional recognition an individual estimator can receive and is being sought by more construction estimators every year. Through its Certification Program, the American Society of Professional Estimators recognizes the estimating proficiency and ethical awareness of the Certified Professional Estimator (CPE).

The Certification Board with the help of Chapter Certification Committees and Regional Governors administers the Certification Program.

ASPE Certification may be defined as an educational process, which entails mandatory workshop attendance, submission of an acceptable Professional Evaluation Application and technical paper, successful completion of written examinations and participation in the Continuing Certification Program. Each CPE Candidate must earn an affirmative appraisal based on proven ability and practical experience in the profession.

The Society's efforts in the area of Certification became reality in August 1976 when the National Certification Committee met in Denver, Colorado, to evaluate the first phase of the Certification Program. The results were most gratifying. The Committee found a nucleus of competent estimators in nearly all of the construction disciplines. These professionals became the initial peer group against which applicants were measured. The peer group's expertise has since been drawn upon to establish a comprehensive examination system.

Today each estimator seeking certification must meet certain requirements before being permitted to take the written examinations. Occasionally, experienced estimators will request certification without examination. This is not permitted under the Society's program rules. Requiring each candidate to take the examinations ensures the integrity of the Society's program.

Once recognized as a CPE, you will be expected to keep abreast of current trends and improved practices in the construction industry. Your conformance with this requirement is measured under the provisions of the Continuing Certification Program. CPEs subject to certification renewal must document active participation in the areas of ASPE service: professional, educational and creative contributions to construction estimating. Among the elements of continuing certification are review of technical papers, and the contribution of questions and problems to the Certification Test Data Bank.

As a CPE, you may be requested to volunteer your expertise in advancing the art and science of estimating. Examples of volunteer contributions:

1. **The proctoring of exams in your region.**
2. **The reading and grading of technical papers.**
3. **"Beta" testing of new DST exams in your area of expertise.**

These examples and other actions contributing to the CPE process can be used in the 30 point accumulation that is required by the Continuing Certification process.

CERTIFICATION PROGRAM SCHEDULE

CERTIFICATION PROGRAM PROCESS

CPE enters the Continuing Certification Program
Successful Certified Professional Estimators are now enrolled into the Continuing Certification Program. Retain the Certification Program Guide for future reference and refer to the Continuing Certification Program section within this guide for information and time schedules.

Refer to Stamp & Seal Program for CPEs

NOTES:
A. Candidates who do not fulfill the requirements of certification within the scheduled period are removed from the program. Any candidate who is removed from the program and who seeks certification must apply as a new candidate and pay all applicable fees. If the candidate reapplies at the *next available* certification cycle, any successfully completed portion(s) of the certification program will be carried forward.

B. Your Certification Representative may be your Chapter President or Chapter Certification Chair. Contact your Chapter to verify who conducts Certification for your chapter. If the applicant is a Member-at Large, your Certification Representative will be your Regional Certification Board Member. All correspondence will be with the Board Member except where directed to the Society Business Office.

C. If a candidate wishes to apply for an exception to any requirements of the Certification Program, the candidate must submit the request in writing to the Certification Board within the current cycle for Certification or Continuing Certification. On receipt of the request, the Certification Board will review the request and advise the candidate accordingly. Any requests for appeal are to be directed to the Certification Board for review. All decisions of the Certification Board are final.

QUESTIONS AND ANSWERS

What are the basic prerequisites for applying to the ASPE professional evaluation process?

At the time of the Certification Workshop you must have a minimum of five (5) years construction estimating experience in the specific discipline for which you seek certification. **This is not negotiable. There will be no exceptions.**

How do I apply for Certification?

Contact your Chapter Certification Chair, your Regional Governor, Regional Certification Board or Member or the Society Business Office. Request the Certification Workshop Registration Form. After you complete and submit the form, you will receive the Certification Program Guide containing the Application for Professional Evaluation.

Is there a cut-off date for submitting the Application for Professional Evaluation?

Yes. The program is divided into two cycles. Refer to the matrix schedule for complete information on completion dates for each step of the program.

Is Workshop attendance required?

Yes. It is mandatory that all Certification Candidates attend the Certification Workshop.

What costs are associated with Certification?

You will be advised of current fees when you receive the Certification Workshop Registration Form. The type and number of examinations for which the candidate has applied will determine certification fees. Applicants who successfully complete the Certification process will be subject to a Continuing Certification application fee (every three 3 years). Applicants should be prepared to purchase any of the recommended texts/study materials that would most beneficially complement their current libraries.

What does the Certification process entail?

Certification involves three major elements: a Technical Paper, the General Estimating Knowledge (GEK) Exam consisting of 4 hours of questions, and the Discipline Specific Test (DST) consisting of 8 hours of questions and problems. If your specific discipline is not available when the GEK examination is taken, you are required to write 100 Discipline Specific questions and 2 problems with 50 questions each. All problems must be “mini” estimates.

How will I be informed of my acceptance into the Certification Program?

The Society Business Office (SBO) will notify you in writing of your acceptance. Approved applicants for examination will be assigned a number designation to ensure confidentiality throughout the balance of the certification process. Technical paper topics will also be assigned at that time.

When are examinations given?

Proctored examinations must be taken in the time frame outlined in the Certification schedule. The applicant shall work with the local Chapter Certification Chairperson and/or the Regional CPE Board member to arrange for a CPE to proctor the exams. The exams are also scheduled during the ASPE Convention.

Where are examinations administered?

Each chapter will inform its candidates of the examination location. Members-at-Large will travel to the most convenient chapter examination site to complete testing. Extenuating circumstances will be considered on an individual basis, however, MALs residing outside of the United States will be expected to return to the United States for examination.

Why is the Technical Paper required?

The Technical Paper is critical to the continuing education of ASPE members. This paper demonstrates that the candidate can communicate and express their estimating knowledge and capabilities. It also serves as an additional way to measure your experience in your chosen profession. It is an import part of why our certification Program has achieved the recognition of governmental agencies and other professional industry organizations.

Why can't I predetermine a topic for my Technical Paper?

As a candidate, you are requested to submit three specific topics in your area of expertise so that the Certification Board can equitably assign topics to all applicants. One of the topics or one closely related will be assigned.

What may I bring to the examination?

You are allowed to furnish your own calculator and writing instruments. Other items related to test day would be thoroughly covered at the mandatory Workshop. No computers or programmable calculators are allowed.

What requirements must be successfully completed in order to become a Certified Professional Estimator?

It is necessary to complete the mandatory Certification Workshop on-line, pass the Application for Professional Evaluation review, pass the Technical Paper requirements, pass the GEK exam and pass the DST requirements concerning your discipline, to receive the designation of Certified Professional Estimator.

How will I be notified of the test results?

The Certification Board will grade the exams and inform you in writing of your PASS/FAIL status.

What happens if I fail the examination(s)?

A FAIL status on the General Estimating Knowledge (GEK) exam requires that you retake the GEK

Exam on the next testing date. A FAIL status on the Discipline Specific Test (DST) requires that you retake the DST Exam on the next testing date. A second FAIL status on either the GEK or DST results in termination from the Certification Program. You may reapply at the next testing cycle.

Will I receive proof of Certification by the Society?

You will receive a certificate attesting to your compliance with the requirements of the Certification Program. The certificate is issued with the date of your successful examination. Your membership status will be upgraded to Certified Professional Estimator (CPE).

How long is the Certification valid?

The Certification is valid for a period of three (3) years from the first August 1 following the date you receive notification of your CPE. The expiration date is indicated on the certificate. Certification may be renewed every three years by satisfactory completion of the Continuing Certification Program. After 15 years as a CPE and an ASPE member in good standing, candidates may apply for the status of "Lifetime CPE".

What are the rewards of becoming a Certified Professional Estimator?

As a Certified Professional Estimator (CPE), you will receive the professional recognition of your peers and all of the rights, privileges and responsibilities incumbent upon a professional.

What happens if I fail to submit a Technical Paper by the deadline?

Candidates who fail to submit a Technical Paper by the deadline will be given a chance to explain, in writing, the reason for the failure to meet the requirement. The explaination must be submitted to the National CPE Board. The Board will review each applicants request for an extension and vote as to the approval or denial of the request. The Board's decesion is final.

Should an extension be denied the applicant will be allowed to re-entered the process at the next cycle. However, all fees, except for the workshop fees, must be re-paid.

THE TECHNICAL PAPER

Technical Papers are critical to the continuing education of members of the American Society of Professional Estimators. They provide opportunities for the enhancement and expression of estimating information.

The creation of an acceptable Technical Paper is one of the requirements for becoming a Certified Professional Estimator (CPE). The Technical Paper serves to complement the question/answer and problem solving elements of the examination process. It provides the Society with an additional way to measure the applicant's knowledge, capabilities, experience in the specific discipline, and the ability to communicate that knowledge.

Within the question/answer and problem solving elements of the exam, the creator of the test materials provides a formal structure for the examinee. The Technical Paper gives the responsibility for total development to the candidate. All who have had to compose written communications are aware of the creative thought process involved, and the organizational and

technical skills required. These same processes and skills were utilized to create any written composition, from the elementary level book report, to the postgraduate thesis. The Society is also aware of the high value placed on the ability to communicate ideas, opinions, methods and information in writing. These communication skills are essential for illustrating our worth in the profession of construction estimating.

The Technical Paper furnishes the opportunity to exercise the applicant's writing abilities and memorializes areas of the construction estimating expertise through organized, coherent documentation.

PROCESS

The Technical Paper, comprised of at least 2,500 words, must explain in detail the estimating process for the approved topic. See the sample paper in this section. The paper must conform to the spirit of ASPE's Code of Ethics and shall be an original product, composed specifically for the purpose of attaining certification.

Information should flow in an organized manner. When writing the paper, choose words and terms that are clear and concise. Appropriate, charts, tables, and graphs should be included for effective illustration. Outside assistance to ensure the use of correct sentence structure, proper grammar and spelling is encouraged. The candidate is also encouraged to enlist someone to read the technical paper for content review and to make sure it makes sense to others.

TERMINOLOGY

Define terms used in the composition of the paper to assist reader understanding. Keep in mind that the persons responsible for evaluating the text may be located in different geographic areas and may not be totally familiar with your regional terminology. Develop a formal glossary when warranted.

REFERENCES

All non-original materials must be properly referenced using a commonly accepted method of notation. Consult a public librarian for knowledgeable assistance in this area. Documentation of releases required by copyrights must be included with your transmittal package.

SUBMITTAL PROCEDURES

Submit one (1) original unbound copy and three (3) unbound photocopies of the Technical Paper. DO NOT BIND THE PAPER. Along with the paper copies, submit one (1) 3.5" computer disk copy, or (1) CD copy, of the technical paper in a format compatible with Word. The paper must be received at the Society Business Office prior to the date listed in the Certification Program Schedule. Submit the Technical Paper via certified mail or another signed delivery service. Submittals received after the specified date will be returned without action. Accepted submittals become property of the American Society of Professional Estimators. Retain an original copy of the Technical Paper for the purpose of completing revisions in the event the paper fails to meet acceptance.

REVIEW PROCEDURES

The Certification Board oversees the review and evaluation process. A judgement of *"acceptable for purpose of certification"* is mandatory to satisfy this element of the program.

Format Review

Each paper is reviewed for compliance with the format elements established by the Format Review Guidelines. Authors who do not comply with the Format Guidelines are advised with a copy of the Deficient Format Review Evaluation. Candidates are instructed to resubmit revised Technical Papers prior to the date listed in the Certification Program Schedule.

Content Review

The Society Business Office distributes a copy of each paper to be reviewed by two (2) certified members.

The candidate must earn a minimum of 18 points per the Content Criteria Evaluation Worksheet from two (2) reviewers to determine the paper "*acceptable for purpose of certification*." If one reviewer deems the paper acceptable, but the other does not, a third reviewer will grade the paper as the “tie-breaker”.

An award of less than 18 points from any of the two reviewers shall constitute a judgment of "*deficient for the purpose of Certification*." Candidates will be advised of their status with a copy of the Content Criteria Evaluation Worksheet.

Resubmitted technical papers must be received by the Society Business Office in accordance with the schedule. Untimely responses or second deficient judgments constitute termination for the current Certification Cycle.

Second Content Review

The reviewer(s), who judged the paper to be deficient, carry out the second content review. If two reviewers judged the paper to be deficient, both must deem the paper acceptable during the second review. If one reviewer judged the paper to be “deficient” and one judged it “acceptable”, only the “deficient” reviewer has to determine the paper as acceptable during the second review. Thus the paper will be acceptable for the purpose of certification.

REQUIRED ELEMENTS

Title Page

The Title Page must contain only the following elements:

1. Title of Technical Paper
2. Name of Author

3. Date Written

Society Ownership Page
The Society Ownership Page shall contain the following elements:

1. Society Ownership Statement
   It MUST include the following statement, as written, and provide the applicant's name (in typewritten characters), signature and date:

"I hereby acknowledge that the contents of this Technical Paper belong to the Society, which is free to publish or otherwise make such use of all or portions of the Paper as it sees fit. If applicable, I have designated by the use of 1/4" wide black tape on the right margin opposite the text or reference materials, those portions that are considered proprietary, and not available for the Society's use or publication. I have obtained and attached all documentation of releases required by copyright laws for all non-original materials incorporated or referenced in this Paper."

Author Page
In approximately 100 words, write an autobiographical sketch on a separate, non-numbered page presenting the applicant's qualification to the Certification Board. The Author Page will be removed from the paper prior to review distribution to insure author confidentiality. **DO NOT use your name or the name of your employer in the remaining elements of the Technical Paper.**

The Title Page, Society Ownership Page and Author Page will be removed from the paper prior to review distribution to insure author confidentiality.

Cover Page
The Cover Page must contain only the following elements:

1. Title of Technical Paper
2. Candidate Number (assigned to the applicant by the Certification Board)
3. Date Written (month and year of composition)

Number the pages concurrently in the lower center of each page starting with the cover page as page 1 and continuing through the balance of the pages. The Cover Page remains with the paper throughout the entire review process.

Table of Contents
Provide a Table of Contents, which lists major headings and page numbers.

Body
A Technical Paper must address the following:

1. Introduction
   a. Main CSI Division
   b. Specific Sub-Division: Code and Name
   c. Brief description of subject matter

2. Types and Methods of Measurements

3. Specific factors to consider that may affect things like take-off and pricing such as quantities vs. large quantities, geographic location, and seasonal effect on work

4. Overview of labor, material, equipment, indirect costs and approach to mark-ups (in depth details of these can be found in a variety of estimating books on the market)

5. Special risk considerations

6. Ratios and analysis (present analysis tools used to test final bid; give examples)

7. Miscellaneous pertinent information

8. Sample sketch

9. Sample take-off and pricing sheets (should be a "mini-estimate")

10. Copy of letter indicating approved topic

RECOMMENDATIONS

1. Avoid the composition of an entire policy and procedures manual and topics that are too broad in nature.

2. Be specific.

3. Based on certain criteria or assumptions, present alternative ways to estimate the same item relative to newly discovered facts or relationships.

4. Address the cost impact of laws, safety requirements, government regulations, etc., on the type of construction work you estimate. Show examples.

5. Share techniques for tracking historical cost data and other practices that have improved your professional capacities as an estimator. Identify "tell" items in estimate.

6. Avoid reference to product brands, specific companies, organizations and persons unless they are considered an industry standard.

7. Do not provide labor productivity rates, unless used in examples and pricing estimate sheets; instead, instruct means to developing them.

8. Do not try to write a book.

9. Think of your topic in terms of what would be covered in a CHAPTER of a book.

10. Use charts and graphs to illustrate a new trend in your discipline.

11. Present thoughts on one or two procedures, which have improved your accuracy in the preparation of cost estimates.

12. Illustrate how you develop an assembly or group of line items for use in preparing conceptual estimates for projects. Stick with one or two assemblies to avoid being too general. Comparison of the same assembly under different conditions and variables can also be quite interesting.

13. Remember that your Technical Paper MUST explain "HOW TO ESTIMATE THE COST OF….."

14. Include a sketch.

FORMAT REVIEW GUIDELINES

1. Title Page (Title, Author, Date)
2. Society Ownership Page (Signature & Date)
3. Author Page (100 words)
4. Cover Page (Title, Candidate #, Date)
5. Table of Contents
6. Introduction
    a. Main CSI Division
    b. Specific Sub-Division (Code and Name)
    c. Brief Description of Subject Matter
7. Types and Methods of Measurements
8. Specific factors that need to be considered that may affect things like take-off and pricing
    a. Small quantities vs. large quantities
    b. Geographic location
    c. Seasonal effect on work
9. Overview of labor, material, equipment, indirect costs, approach and mark-ups
10. Special risk considerations
11. Ratios and analysis (tools used to test final bid)
12. Miscellaneous pertinent information
13. Sample Sketch
14. Sample Take-off and Pricing Sheet
15. Terminology/Glossary (if required)
16. References (non-original material)
17. Copyright releases (non-original material)
18. Copy of Approved Topic Letter

Submit your Technical Paper according to the following:

19. 2,500 words minimum in items 6 through 12 above
20. Printed - double spaced and single sided
21. Pages numbered consecutively (bottom center of pages)
22. Proprietary portions noted
23. One (1) original - unbound
24. Three (3) copies - unbound
25. One (1) 3.5" computer disk, or One (1) CD (Word Format)

FORMAT REVIEW EVALUATION WORKSHEET

Candidate: _____ I.D. #_____

Paper Title: _____

_____

	Approved	Deficiency
1. Title Page (Title, Author, Date)	_____	_____
2. Society Ownership Page (Signature & Date)	_____	_____
3. Author Page (100 Words)	_____	_____
4. Cover Page (Title, Candidate #, Date)	_____	_____
5. Table of Contents	_____	_____
6. Introduction	_____	_____
a. Main CSI Division	_____	_____
b. Specific Sub-Division (Code & Name)	_____	_____
c. Brief Description of Subject Matter	_____	_____
7. Sample Sketch	_____	_____
8. Sample Take-off and Pricing Sheet	_____	_____
9. Terminology/Glossary (if required)	_____	_____
10. References (if required)	_____	_____
11. Copyright releases (non-original material)	_____	_____
12. Copy of Approved Topic Letter	_____	_____
13. 2,500 words minimum	_____	_____
14. Printed - single-sided, double-spaced	_____	_____
15. Pages numbered consecutively (bottom cntr.)	_____	_____
16. Proprietary portions noted	_____	_____
17. One (1) original - unbound	_____	_____
18. Three (3) copies - unbound	_____	_____
19. One (1) 3.5" computer disk (Word Format) or One (1) CD (Word Format)	_____	_____

Reviewer: _____ Date: _____

CONTENT CRITERIA - TECHNICAL PAPER EVALUATION WORKSHEET

Candidate ID#: _____

Essay Title: _____

Review for paper content:

Based upon a minimum of two readings, it is my opinion that this paper deserves the following rating based on the CONTENT criteria listed below:

CRITERIA	UNACCEPT.	POOR	ACCEPTABLE	GOOD	EXCELLENT
1. Knowledge of Estimating	1	2	3	4	5
2. Demonstration of Estimating Experience	1	2	3	4	5
3. Composition, Spelling, Grammar and Style	1	2	3	4	5
4. Coverage of Important Elements	1	2	3	4	5
5. Cohesiveness and Continuity	1	2	3	4	5
6. Overall Technical Merit	1	2	3	4	5
Subtotal of Points					

Thus, _____ total points of the possible 30 points have been earned. (A minimum of 18 points is required to accept this paper for purposes of granting Certification to the candidate.)

Reviewer Comments:

_____

_____

_____

Reviewer:_____Date: _____Phone: _____

NOTE: Please return a copy of this sheet to a Certification Board Representative or the SBO and keep a copy for your records.

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FORWARD TO: ❑Standards Board ❑Editor of the "*Estimating Today*"

HOW TO ESTIMATE THE COST
OF A GRADE BEAM FOUNDATION

RANDY CLARAHAN

DATE WRITTEN: MAY OF 1995

HOW TO ESTIMATE THE COST
OF A GRADE BEAM FOUNDATION
SPECIFICATION SECTION 03100- 03200 - 03300
CONCRETE FORMWORK, REINFORCING, AND PLACEMENT

SOCIETY OWNERSHIP STATEMENT

"I hereby acknowledge that the contents of this Technical Paper belong to the Society which is free to publish or otherwise make such use of all portions of the Paper as it sees fit. If applicable, I have designated by the use of 1/4" wide black tape on the right margin opposite the text of reference materials, those portions that are considered proprietary, and not available for the Society's use or publication. I have obtained and attached all documentation of releases required by copyright laws for all non-original materials incorporated or referenced in the Paper."

_____
Randy C. Clarahan

Date: May 30, 1995

HOW TO ESTIMATE THE COST
OF A GRADE BEAM FOUNDATION
CANDIDATE NO. 1195022
DATE WRITTEN: MAY OF 1995

AUTHOR PAGE

The author is Randy Clarahan, Chief Estimator with Russell Construction Company, Inc., a general contractor in the Quad Cities area of Iowa.

He has been with Russell Construction Company since January of 1987, when he began as an estimator / project manager. In 1992, he became Chief Estimator. His duties include the supervision and training of three other estimators, and the development of estimating systems and databases. He has worked in residential construction in the Dallas, Texas market, as well as the heavy highway industry in both Dallas, TX and Des Moines, IA. for McAninch Corporation.

He earned a BS in Construction Engineering from Iowa State University in 1981.

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    - Effect of geographic location
    - Seasonal effect on the work
4) Overview of labor, equipment, material, and indirect costs
5) Special risk consideration
6) Ratios and analysis - tools to test final bid.
7) Miscellaneous pertinent information
8) Sample sketch
9) Sample take -off and pricing sheets
10) Glossary
11) References

NOTE: The candidate shall not use any part of the contents of the following example in their paper. Points will be deducted if the contents are used.

INTRODUCTION

This paper will give the reader an understanding of a method of estimating a concrete grade beam foundation system.

Shallow grade beams constructed, as a part of a floor slab system will not be addressed in this paper. Although technically a grade beam, this particular type is better suited as part of a discussion with floor slab construction.

Main CSI Division - Division Three (3) "Concrete"

Subdivisions -Section 03100 "Concrete Formwork"

Section 03200 "Concrete Reinforcing"

Section 03300 "Concrete Placement"

BRIEF DESCRIPTION

A grade beam is a reinforced concrete member spanning between a concrete column footing, pier or caisson. It can be constructed at or below "grade" and typically will act as the exterior support for the exterior wall of a building. Grade beams are most common when the building design or soil conditions require major structural building supports taken up by individually placed elements with a grade beam spanning between these supports.

TYPE OF MEASUREMENT USED

The grade beam estimate is broken up into the three major headings as listed above. Each of these specific sections requires different methods of mensuration.

Concrete formwork is best measured using square foot of contact area. (SFCA)

This method best represents the actual forming of the beam and materials required. The cost of formed concrete-in -place is always a function of the area of forms or square feet of contact area required. Per cubic yard of concrete, an 8" foundation wall will require 50% more form material, form labor, stripping, and waterproofing than a 12" wall. This demonstrates the error many make in estimating formed concrete-in place by the cubic yard, without proper consideration of the wall thickness.

The reinforcing of the grade beam is best measured in pounds or tons of reinforcing steel required.

The placement of the concrete is best measured in cubic yards of concrete placed. Although the top of the grade beam may require a finish, the most important factor is the actual placement method.

FACTORS EFFECTING TAKE-OFF AND PRICING

Effect of small quantities vs. large quantities.

On smaller projects, the number of uses of your formwork will be reduced relative to a larger project, if jobsite formwork is utilized. Due to a typical learning curve, productivity is usually lower on smaller projects, thus increasing the overall cost of the grade beam in place.

Effect of Geographical Location

A grade beam in the colder northern climates must extend below the frost depth. This extra depth of the grade beam will result in added reinforcing bars in the bottom of the beam to carry the weight of itself.

Seasonal effect of the Work

The main factors effecting work relative to seasonal changes:

- Protecting the existing soils from freezing during the winter months. This can be accomplished with the use of cold weather blankets, bedding materials such as straw or hay.
- Reduced productivity due to inclimate conditions from cold, heat, rain, and wind. These factors are not always evident and defined during the bidding process, however, accurate historical job productivity data will assist the estimator in anticipating these factors and making adjustments in the estimate.
- The price of the ready mix concrete will be effected by the time of the year in colder climates. The plants commonly will have additional charges for heating the aggregates and water prior to batching the concrete. If extreme cold is anticipated, (and if allowed by the designing structural engineer) calcium chloride accelerators may be added to prevent the

concrete from freezing and enhance the setting time. The average impact of these will vary but may range from $2.50 - $5.00 per cubic yard delivered.

OVERVIEW OF LABOR, MATERIAL, EQUIPMENT, INDIRECT COSTS

The following examples will demonstrate a takeoff and pricing method for a grade beam foundation system. Many firms today have sophisticated computer software that aids them in the quantity take off procedures for a project. This may also include a digitizer board to complete most quantity takeoffs in a fraction of the time with greater accuracy.

For the purposes of demonstration, I will complete the quantity and pricing sheets by hand to better demonstrate the method being used.

The estimate should be organized in the major categories or classifications. This allows the estimator to properly evaluate risk in each of the components of the estimate. These classes are usually reserved for labor, material, equipment, subcontractor, and other.

GRADE BEAM FORMING

The first requirement will be to decide on the forming method to be used. Consideration of alternate methods of forming systems allows the estimator to evaluate the conditions specific and unique to the job, and select the method that best applies. The main categories of forming systems are;

- Job site built forms
- Modular steel or steel with ply faced forms
- Earthen banked forming system.

Following are two (2) sample estimates for grade beam foundations.

Sample #1 is a grade beam system that will utilize modular steel-framed plywood modular forms.

Sample #2 will demonstrate the use of plywood forming systems built on the jobsite. The type of plyforms varies greatly depending on the number of uses required from the form. If 4-6 uses are required a BB grade plywood can be used. If 10 - 12 uses are required a MDO plywood should be used. If 15- 20 uses are required, an HDO plyform should be used.

Both estimates will utilize a sample plan of a typical building with reinforced concrete piers 25'0" on center with a 48" frost depth grade beam around the building perimeter. (See sketch #1)

Step one will be to determine the quantity of formwork required to complete the grade beam foundation. This is done by taking the overall length of the foundation system multiplied by the depth of the formwork. This is then multiplied by two for each side. This will give us the square foot of contact area (SFCA). We must add to this quantity the ends of the forms to close off the grade beam. The number of pours must also be taken into consideration at this stage. At each segmented pour, a bulkhead must be placed at the end of the grade beam. Typically, 100 lf of grade beam is poured at any given time, depending on the depth, width, and other jobsite conditions. The other features dealing with formwork for grade beams include the estimating of blockouts, and ledgers. These features can be estimated by square foot or lineal feet.

The forming hardware must be considered at this time. The form ties that hold the formwork together, along with the clamps, nails, and miscellaneous bracing that will be required. In the examples following, standard snap ties will be utilized for our forming systems. The last item under formwork is actually the last feature of the entire process. This is the stripping, oiling, and handling the forms after they are removed from the beam. Keep in mind the replacement cost, or the depreciation cost for modular forming systems must be included in each estimate. This will offset the eventual costs of replacing or refacing the forming system.

GRADE BEAM REINFORCING

Reinforcing steel is taken off in lineal feet and by type. This is then converted to weight, usually CWT or tons. It is a good idea to keep the various size of reinforcing separate during the quantity takeoff. This will aid in ordering the materials at a later dated. It is also important because larger diameter re-bar will have better productivity rates per ton than the smaller diameter bars.

Keep in mind when performing the reinforcing takeoffs, that the lap requirements will adjust your actual take off up. If not specified, a lap of 30 times the bar diameter is typical for grade beam construction.

CONCRETE PLACEMENT

The method of concrete placement will depend on the access to the form grade beam. Placement be by any of the following methods:

◊ Wheel barrow

◊ Conveyor

◊ Direct chute

◊ Pump

◊ End loader

◊ Crane and bucket.

The method chosen above will have an effect on the in place cost from another factor in estimating the grade beam foundation costs. - concrete yield.

It is accepted that the quantity of concrete purchased will rarely match the amount of concrete

estimated. Variations in the grade upon which the grade beam rests will have a significant impact on the amount of concrete overage experienced. Special consideration should be given to the grade beam base. It may require a "mud sill" be placed to achieve a workable surface to form the grade beam. The cost of this mudsill must be weighed with the potential of overages in the more expensive grade beam concrete.

When placing the concrete into the grade beam form, care should be taken to reduce the "shock loading" of the concrete hitting the sides of the forms. This can be achieved by using a "tremmie". This is used to confine concrete until it reaches the bottom of the concrete form or the level of the preceding lift. The tremmie will also keep the concrete mix from segregating and should be used whenever placing concrete that could "free fall" a distance of more than four feet.

This segregation will often times cause the voids or honeycombs in the concrete due to the large aggregate within the concrete mix hitting the reinforcing steel of the grade beam and shaking the cement / sand coating off.[1]

When referring to the method of placement, the equipment costs must be estimated in the overall cost of the grade beam. The type of equipment and placement methods will be unique to that specific project.

The price of the ready mix concrete material may be priced with or without tax.

Many venders will include tax on the materials but not on the transportation of the ready mix.

Mark ups on the estimated costs for a concrete grade beam will be reflected in a risk analysis for the particular project. It may be advantageous to subcontract out the grade beam on any particular project. This will reduce the overall exposure of possible over runs on the project.

This is due to the fact that the labor portion of any estimate will have the greatest possibility for overruns.

Another consideration when subcontracting out this portion of the project is that your are giving up your potential for rewards through beating the estimated costs. If accurate cost histories are kept and utilize, the estimate should reflect the average anticipated cost to complete the work. It is fair to assume that with everything equal, the contractor should beat the average as many times as he is beaten.

SPECIAL RISK CONSIDERATIONS

Exposure to a wide variety of jobsite conditions during the construction of concrete grade beams increases the risk of estimating vs. actual cost variations. Although many of these elements cannot be controlled, they may be anticipated by the estimator and factored in to the final estimated cost. Some of these factors include:

⇒ Time of the year

⇒ Project scheduling and phasing as it relates to other trades.

⇒ Availability of experienced labor or those who have worked together previously.

⇒ Introduction of a new process that will influence the learning curve.

⇒ Unusual soil conditions that may decrease productivity.

RATIOS AND ANALYSIS

The following graph represents relationships between the different elements that make up an estimate for grade beam foundations. These charts are only guidelines to use in evaluating the

[1] Walker's Building Estimator's Reference Book - 24th Edition

final costs of the grade beam foundation assembly. Creating an accurate database of historical cost for any phase of construction will prove to be invaluable. This historical information will help in the preliminary phases of conceptual estimating, but it can not replace the detailed estimate of the actual system specified for your project.

Figure 1 below shows the relationship of costs for a typical grade beam foundation

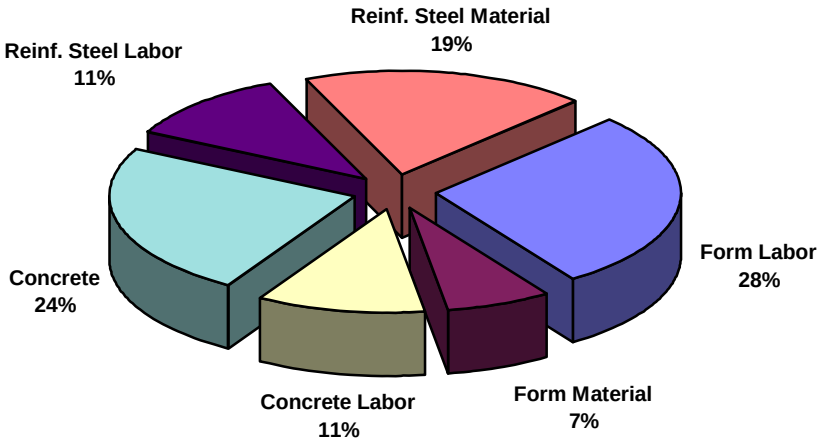


Figure 1[2]
Historical tracking and cost controls are essential to any good estimating system.

Most contractors utilize one of the following methods of establishing direct labor productivity (unit cost) standards.

Method #1. *Use of contractor's observed experience; the firm or the estimator attempts to keep observed labor productivity noted from past projects "in his head" - often time referred to as seat-of-pants estimating.*

[2] Means Estimating Handbook

This contractor or estimator will be doomed to repeat errors in estimating again and again. They will not respond to the variety of factors that make each job unique, but will "average" the cost mentally to come up with an estimate.

Method #2 *Use of widely circulated cost books for looking up "average labor productivity and cost". - For example; Means, Dodge, Walkers etc..*

This method will not accurately reflect the capabilities of your own workforce. It will also not take into consideration of the different phases and learning curves a project function may go through.

Method #3 *Development of recorded past project labor productivity on a work item basis using forms or a computer database system. This is done by recording labor hours to work items on a time card and recording the work in place on a day's basis. This develops an estimating database via the "accounting process".*[3]

The following table demonstrates the use of historical data. This data can be grouped by project type or crew type. It is also very useful to track the forming method used and the time of the year the project is taking place. Each of these factors will have an impact on the productivity rates.

[3] Construction Estimating by James J. Adrian

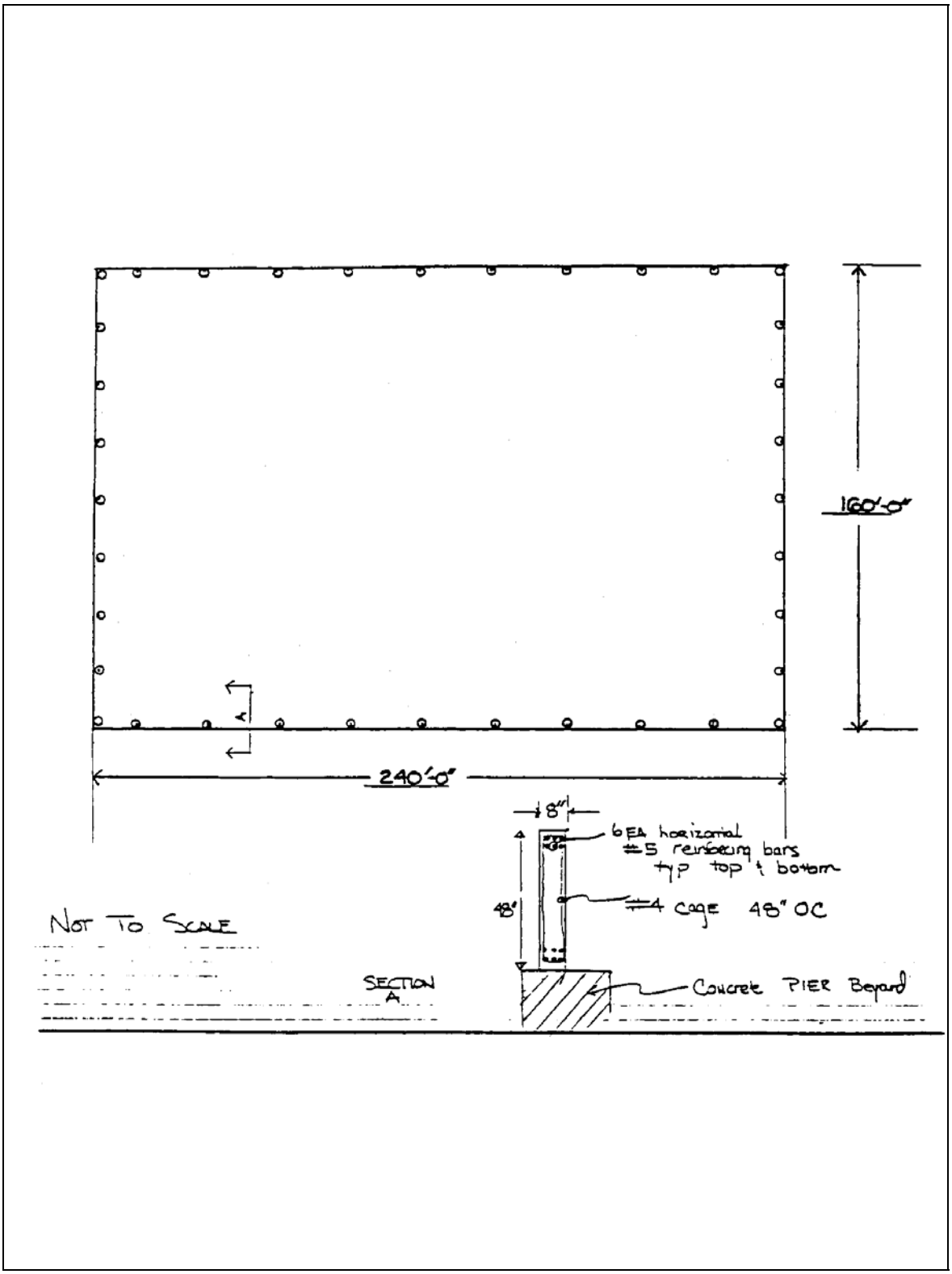
PRODUCTIVITY TRACKING
GRADE BEAM FOUNDATION
FORMING PRODUCTIVITY -
MODULAR SYSTEM

PROJECT NUMBER	PROJECT TYPE	SFCA	MAN-HOURS	MH / SFCA	SFCA / MH	WEIGHTED AVERAGE
1	New - School	10,000.00	750	0.075	13.33	13.33
2	Addition -	4,500.00	550	0.122	8.18	11.15
3	New - Warehouse	14,000.00	820	0.059	17.07	13.44
4	New - Office	7,500.00	705	0.094	10.64	12.74

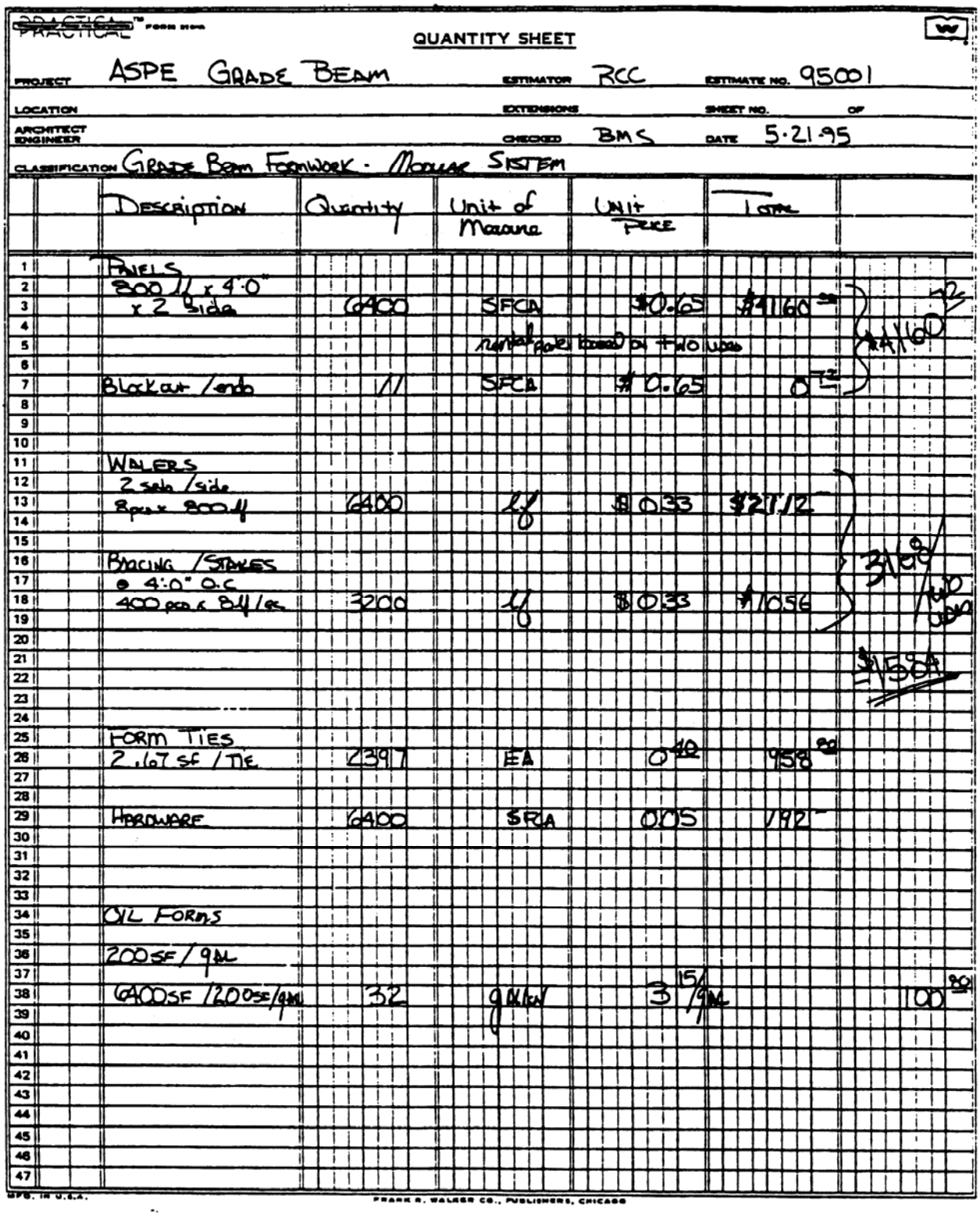
MISCELLANEOUS PERTINENT INFORMATION

There are an infinite variety of methods to estimate and construct concrete grade beam foundations. Developing a standard method of takeoff and estimating that is tailored to your specific company profile and resources is critical. The time investment in evaluating the project requirements and special jobsite conditions may make the difference between a successful and accurate estimate or a project bust.

SKETCH ONE


160'-0"
A
240'-0"
8"
6 EA horizontal
#5 reinforcing bars
typ top & bottom
48"
#4 cage 48" OC
NOT TO SCALE
SECTION
A
Concrete PIER Beyond

SAMPLE TAKE OFF SHEET



QUANTITY SHEET

PROJECT: ASPE GRADE BEAM — ESTIMATOR: RCC — ESTIMATE NO. 95001

LOCATION — EXTENSIONS — SHEET NO. — OF

ARCHITECT ENGINEER — CHECKED: BMS — DATE: 5-21-95

CLASSIFICATION: GRADE BEAM FORMWORK - MODULAR SYSTEM

	Description	Quantity	Unit of Measure	Unit Price	Total
1	PANELS				
2	800 lf x 4'-0"				
3	x 2 Sides	6400	SFCA	$0.65	$4160.00
4					
5			rental rate based on two uses		$2080.00
6					
7	Blockout / ends	11	SFCA	$0.65	07.15
8					
9					
10					
11	WALERS				
12	2 sets / side				
13	8 pcs x 800 lf	6400	lf	$0.33	$2112.00
14					
15					
16	BRACING / STAKES				
17	@ 4'-0" O.C.				
18	400 pcs x 8 lf/pc	3200	lf	$0.33	$1056.00
19					
20					
21					
22					
23					
24					
25	FORM TIES				
26	2.67 sf / TIE	2397	EA	0.40	958.80
27					
28					
29	HARDWARE	6400	SFCA	0.03	192.00
30					
31					
32					
33					
34	OIL FORMS				
35					
36	200 SF / GAL				
37					
38	6400 SF / 200 SF/GAL	32	GALS	3.15/GAL	100.80
39					
40					
41					
42					
43					
44					
45					
46					
47					

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SAMPLE TAKE OFF SHEET

PRACTICAL™ FORM NO.

QUANTITY SHEET

PROJECT: ASPE Grade Beam | ESTIMATOR: RCC | ESTIMATE NO. 95001

LOCATION | EXTENSIONS | SHEET NO. | OF

ARCHITECT ENGINEER | CHECKED: BMS | DATE: 5-21-95

CLASSIFICATION: FORMWORK - JOBSITE BUILT

Description	Quantity	Unit of Measure	Unit Price $	Total $	
Studs - 2x4					
12" OC x 800'0"					
x 2 sides	1600	lf	$0.33	532.80	
Corners / Ends	32	lf	0.33	10.56	
Sheathing (3/4")					
B-B					
800 lf x 2 x 4'0	6400	SFCA	$0.65	4160.–	
ends	11	SFCA	0.65	7.15	
plates - one each side	1600	lf	$0.33	532.80	
Walers					
2 sets / side					
8 pcs x 800 lf	6400	lf	$0.33	$2112.–	
Bracing / Stakes					
@ 4'0" O.C.					
400 pcs x 8 lf/ea	3200	lf	$0.33	$1056.–	
SUBTOTAL				$8411.31	$8411.31
		* Assume two uses = $4205.66			
Form Ties					
@ 24" OC @ Walers	2400	EA	0.40	960.–	
Hardware	6400	SFCA	0.03	192	
SUBTOTAL				$1152	$1152

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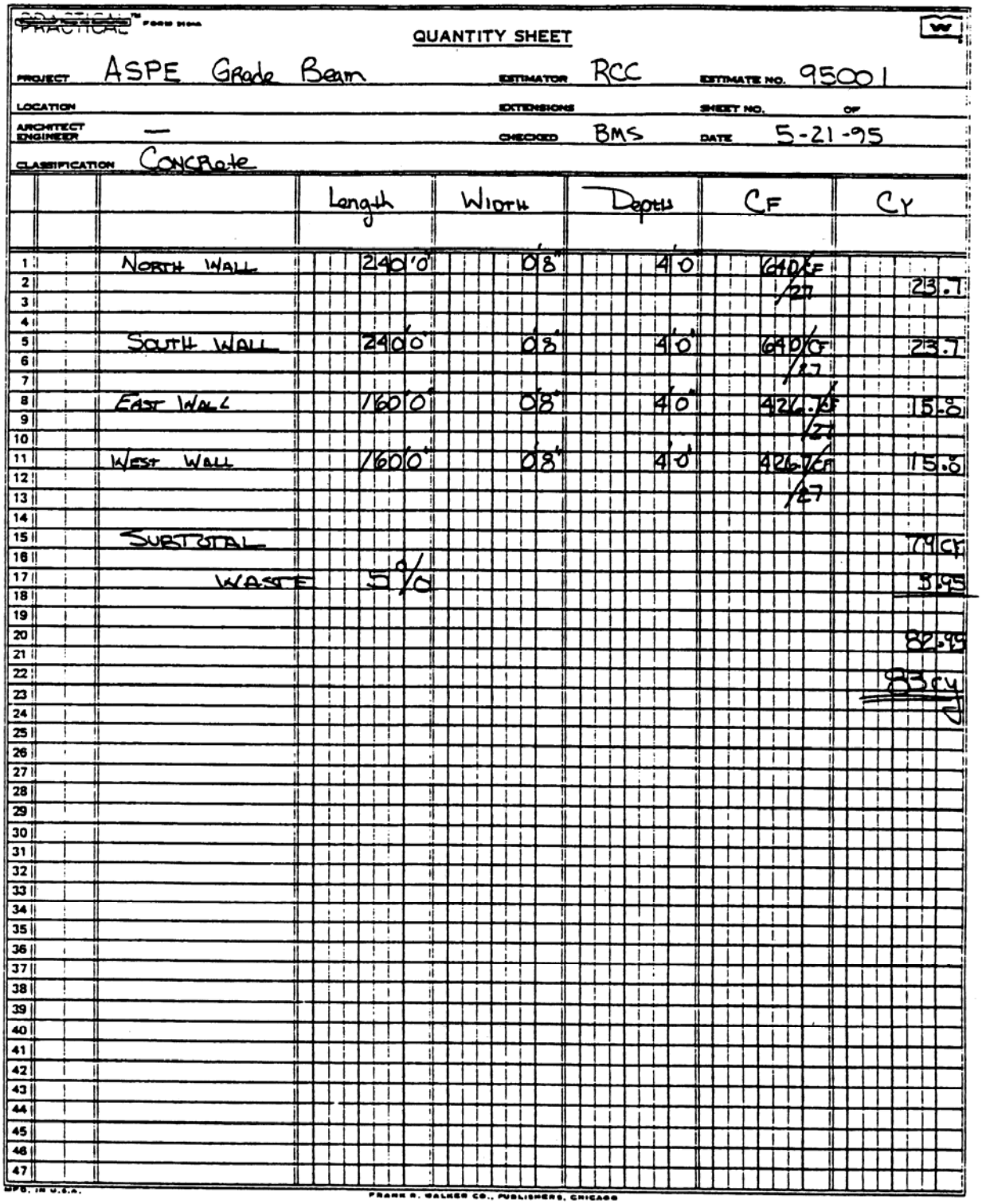
SAMPLE TAKE OFF SHEET



QUANTITY SHEET

PROJECT: ASPE Grade Beam | ESTIMATOR: RCC | ESTIMATE NO.: 95001

LOCATION | EXTENSIONS | SHEET NO. | OF

ARCHITECT ENGINEER: — | CHECKED: BMS | DATE: 5-21-95

CLASSIFICATION: Concrete

		Length	Width	Depth	C.F	C.Y
1	North Wall	240'0"	0'8"	4'0"	640 C.F /27	23.7
5	South Wall	240'0"	0'8"	4'0"	640 C.F /27	23.7
8	East Wall	160'0"	0'8"	4'0"	426.6 C.F /27	15.8
11	West Wall	160'0"	0'8"	4'0"	426.6 C.F /27	15.8
15	Subtotal					79 C.Y
17	Waste	5%				3.95
						82.95
						83 C.Y

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SAMPLE TAKE OFF SHEET

PRACTICAL™ FORM

QUANTITY SHEET

PROJECT: ASPE GRADE BEAM — ESTIMATOR: RCC — ESTIMATE NO. 95001

LOCATION: — EXTENSIONS: — SHEET NO. — OF

ARCHITECT ENGINEER: — CHECKED: BMS — DATE: 5-21-95

CLASSIFICATION: Steel - Reinforcing — P= 800 l.f.

Line	Description	Quantity	Bar Size	lbs/L.f	lbs.
1	HORIZONTAL				
2					
3	12 EA x 800 lf	9600 lf	#5	1.043	10013*
4					
5	Overlap				
6	30 bar diameter				
7	x 5/8" = 18.75"				
8	- assume 20'-0" Bar				
9	= 40 pcs x 18.75"				
10	= 62.5 lf / Bar Run				
11	x 12 Ea	750 lf	#5	1.043	782.25
12					
13					
14					
15	Looped / Cages				
16					
17	8 lf / EA @				
18	4'-0" O.C.				
19	= 202 ea	1616 lf	#4	0.667	1077.4
20					
21					
22					
23	SUB TOTAL				11872.65 lbs
24					
25		SITE WASTE @ 2%			237.45
26					
27					12,110.10 lbs
28					
29					
30					(12,110. lbs)
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
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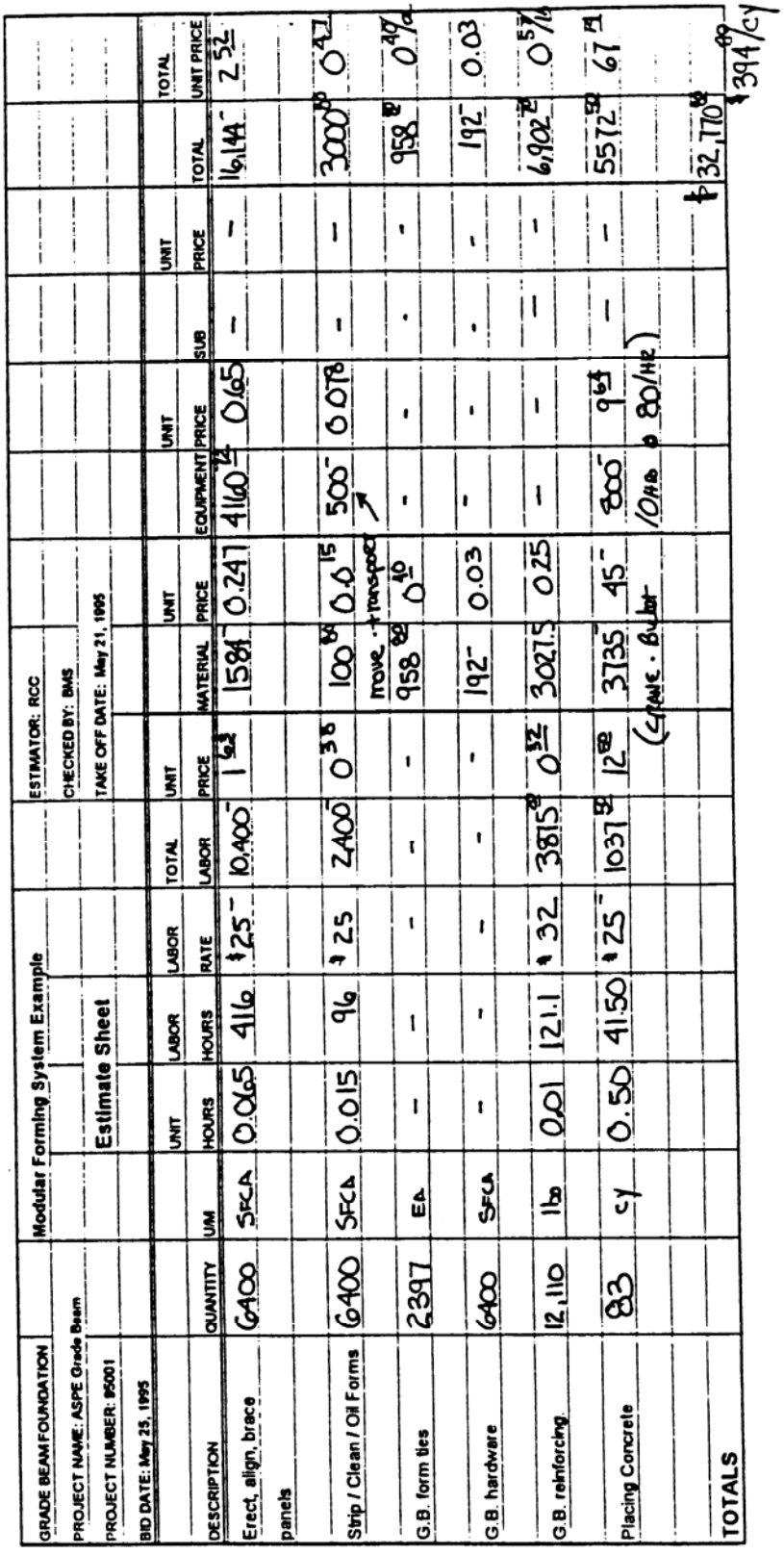
SAMPLE PRICING SHEET NO. 1



GRADE BEAM FOUNDATION — Modular Forming System Example — ESTIMATOR: RCC

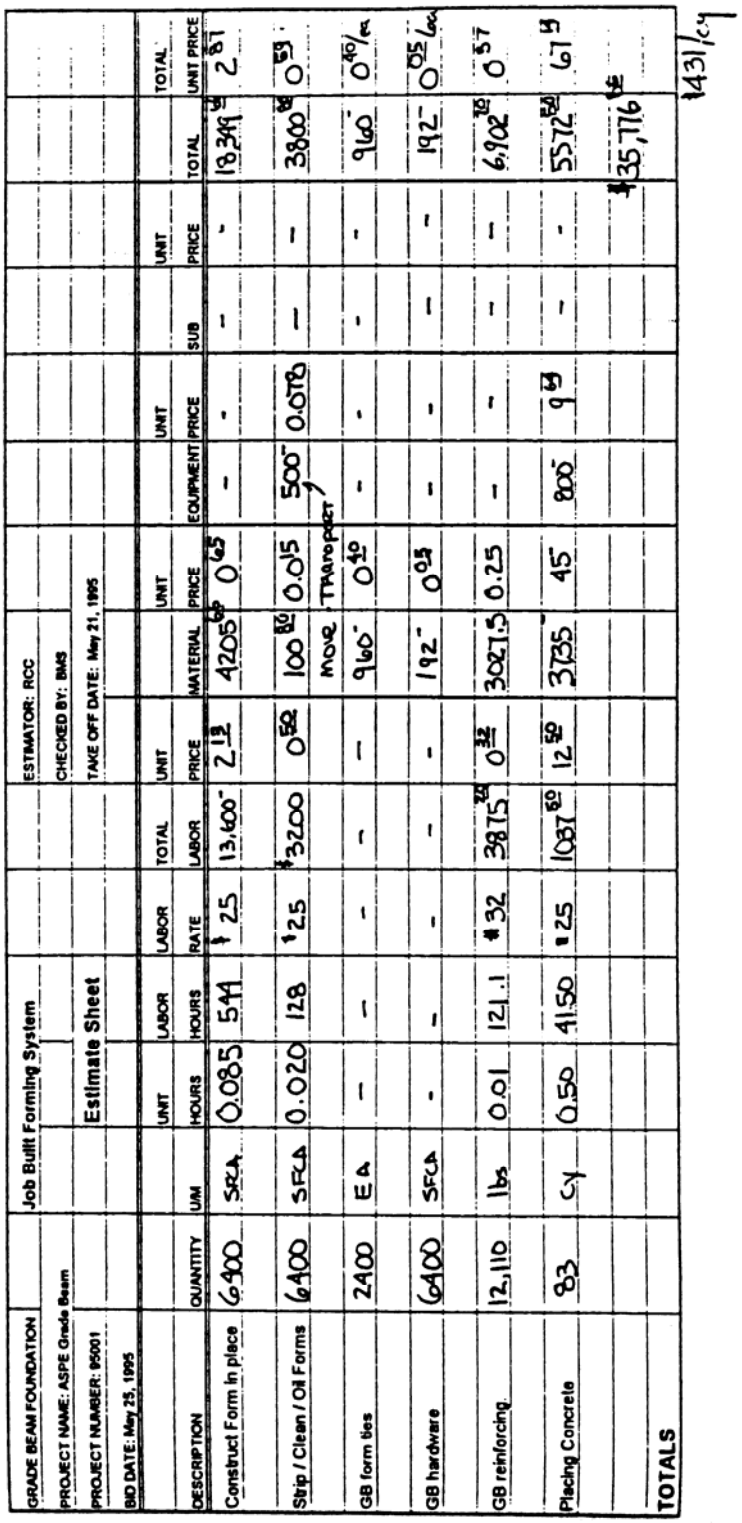
PROJECT NAME: ASPE Grade Beam — CHECKED BY: BMS

PROJECT NUMBER: #5001 — Estimate Sheet — TAKE OFF DATE: May 21, 1995

BID DATE: May 25, 1995

DESCRIPTION	QUANTITY	U/M	UNIT HOURS	LABOR HOURS	LABOR RATE	TOTAL LABOR	UNIT PRICE	MATERIAL	UNIT PRICE	EQUIPMENT	UNIT PRICE	SUB	UNIT PRICE	TOTAL	TOTAL UNIT PRICE
Erect, align, brace	6400	SFCA	0.065	416	$25⁻	10,400⁻	1.63	1581⁻	0.247	4160⁻	0.65	—	—	16,141⁻	2.52
panels															
Strip / Clean / Oil Forms	6400	SFCA	0.015	96	$25	2400⁻	0.38	100⁸⁸	0.015	500⁻	0.078	—	—	3000⁸⁸	0.47
								move + transport							
G.B. form ties	2397	EA	—	—	—	—	—	958⁸⁸	0.40	—	—	—	—	958⁸⁸	0.40
G.B. hardware	6400	SFCA	—	—	—	—	—	192⁻	0.03	—	—	—	—	192⁻	0.03
G.B. reinforcing	12,110	lb	0.01	121.1	$32	3815⁸⁸	0.32	3027.5	0.25	—	—	—	—	6,902⁸⁸	0.57
Placing Concrete	83	cy	0.50	41.50	$25⁻	1037⁵⁰	12⁰⁰	3735⁻	45⁻	800⁻	9.64	—	—	5572⁵⁰	67.14
								(Crane · Bucket		10 Hrs @ 80/Hr)					
TOTALS														$32,170⁸⁸	$394/cy

SAMPLE PRICING SHEET NO. 2



GRADE BEAM FOUNDATION — Job Built Forming System — ESTIMATOR: RCC

PROJECT NAME: ASPE Grade Beam — CHECKED BY: BMS

PROJECT NUMBER: 95001 — Estimate Sheet — TAKE OFF DATE: May 21, 1995

BID DATE: May 25, 1995

DESCRIPTION	QUANTITY	U/M	UNIT HOURS	LABOR HOURS	LABOR RATE	TOTAL LABOR	UNIT PRICE	MATERIAL	UNIT PRICE	EQUIPMENT	UNIT PRICE	SUB	UNIT PRICE	TOTAL	TOTAL UNIT PRICE
Construct Form In place	6400	SFCA	0.085	544	$ 25	13,600	2.12	4205	0.65	-	-	-	-	18,349	2.87
Strip / Clean / Oil Forms	6400	SFCA	0.020	128	$25	$3200	0.50	100	0.015	500	0.078	—	—	3800	0.59
								move	transport						
GB form ties	2400	EA	—	—	—	—	—	960	0.40	-	-	-	-	960	0.40/ea
GB hardware	6400	SFCA	-	-	-	-	-	192	0.03	-	-	—	-	192	0.03/ea
GB reinforcing	12,110	lbs	0.01	121.1	$32	3875	0.32	3027.5	0.25	-	-	-	-	6,902	0.57
Placing Concrete	83	CY	0.50	41.50	$25	1037	12.50	3735	45	800	9.63	-	-	5572	67.13
TOTALS														$35,716	

1431/cy

GLOSSARY

SFCA - The square foot of contact area, used to measure concrete formwork.

tremmie - A flexible enclosed chute in the shape of an elephant's trunk.

Used to confine concrete until it reaches the bottom of the concrete form or the level of the preceding lift.

yield - The percentage difference between the actual quantity consumed on a project and that estimated or shown on the drawings.

REFERENCES

Construction Estimating by James J. Adrian

Means Estimating Handbook

Walker's Building Estimator's Reference Book - 24th Edition

GENERAL ESTIMATING KNOWLEDGE EXAMINATION

Preparation for the General Estimating Knowledge Exam is mandatory, since most Estimators will not be intimately familiar with all the topics addressed. The bibliography, which follows, should be reviewed thoroughly. The applicant should establish milestones to assist in proper study, so that steady progress is made during the preparation period. It is not wise to delay the process until the last moment, because of the volume of material and its depth.

The Standard Estimating Practice (SEP) Manual, under continuing development by the American Society of Professional Estimators, is the foundation upon which the Certification Testing Program is constructed. Much of the material included in the exam is taken from this manual. It is recommended that the applicant be thoroughly versed in its contents. A GEK Study Guide is also available (for purchase) from the Society Business Office.

The candidate will be given **four (4) hours** to complete the GEK examination. No scheduled breaks will be included in this time period. No substantive questions of the proctor will be allowed. If the candidate finds an ambiguous or incomplete question, he will state his concerns on the Comment Sheet. The candidate should work his way through the examination as quickly as possible, answering all questions he knows before returning to questions about which he may be unsure. There are no trick questions on the examination; however, the questions must be read carefully. A hasty interpretation may be costly.

The examination consists of approximately 500 multiple choice, true/false, matching questions and a number of problems. Correct responses will be tallied, with the passing mark being 70% correct of the total number of possible answers. Examinations will not be returned, and scores will not be published. The candidate will be informed of the pass/fail status only. If the candidate fails, he must successfully retake the examination. Arrangement of a test date and location is the responsibility of the applicant. The SBO must be notified of the proctor so that the test can be sent to the proctor in time. Failing to schedule the re-take of the exam within the next cycle's schedule will result in termination from the program.

A sample test consisting of typical questions is provided to each applicant at the end of this section.

SUGGESTED GEK BIBLIOGRAPHY

The following text materials may be useful in preparing for the GEK examination.

1. Standard Estimating Practice, The American Society of Professional Estimators, 2525 Perimeter Place Drive, Ste. 103, Nashville, TN 37214

2. General Estimating Knowledge (GEK) Study Guide, The American Society of Professional Estimators, 2525 Perimeter Place Drive, Ste. 103, Nashville, TN 37214

3. "General Conditions of the Contract for Construction", (AIA #201, latest edition), The American Institute of Architects (available at any AIA chapter).

4. Construction Dictionary, National Association of Women in Construction, Greater Phoenix, Arizona Chapter #98, PO Box 6142, Phoenix, AZ, 85005.

5. The Building Estimator's reference book, Frank R. Walker Co.,

6. Construction Contracting, John Wiley and Sons

7. Construction Project Management, John Wiley and Sons

8. Construction Law in Contractor's Language, McGraw-Hill Companies,

9. Means Scheduling Manual, RS Means

10. The Use of CPM in Construction, Associated General Contractors of America (contact any local AGC office).

11. Bidding for the General Contractor, RS Means

12. Estimating for the General Contractor, RS Means

This list is not exhaustive, and, except for the ASPE manual of Standard Estimating Practice and the GEK Study Guide, no endorsement of these publications is intended.

GEK EXAMINATION TOPICS

General Estimating Knowledge questions and problems are drawn from the following categories of fundamental topics. The applicant may familiarize himself with the subject matter by studying the suggested GEK Bibliography.

1.0 FUNDAMENTAL TOPICS

1.01 Business Management
1.02 Mathematics
1.03 Units of Measurement
1.04 Blueprint Reading
1.05 Specifications - Division 1-16
1.06 Bid Documents
1.07 Ethics
1.08 Computer Applications
1.09 Reference Manuals
1.10 Definitions
1.11 Miscellaneous
1.12 Construction Law

2.0 ESTIMATING PROCEDURES & COST CONTROL

2.01 Scheduling
2.02 Bonds
2.03 Types of Estimates
2.04 Site Conditions
2.05 Bid Day Procedures
2.06 Pricing Labor, Material, & Equipment
2.07 Subcontractors
2.08 Buyout
2.09 Estimate Format
2.10 Quantity Survey
2.11 Bid Strategy
2.12 Value Engineering
2.13 Conflicts in Bid Documents
2.14 Errors
2.15 Insurance and Taxes
2.16 Permits and Fees
2.17 Profit
2.18 Risk Analysis
2.19 Inclusions/Exclusions
2.20 Developing Cost Codes
2.21 Historical Costs
2.22 Unknowns
2.23 Contingencies
2.24 Discounting
2.25 Not used
2.26 Change Orders
2.27 Design/Build
2.28 Turnkey
2.29 Conceptual Estimating

3.0 PROJECT MANAGEMENT

3.01 Contracts
3.02 Subcontractor Selection, Performance, & Financial Condition
3.03 Cash Flow Management
3.04 Not used
3.05 Submittals
3.06 Project Close Out
3.07 Procurement
3.08 Pay Estimates
3.09 Claims
3.10 Arbitration
3.11 Labor Relations
3.12 Supervision
3.13 Manpower
3.14 Equipment
3.15 Architect/Engineers
3.16 Construction Management
3.17 Safety

4.0 OTHER AREAS OF INTEREST

4.01 Appraisers and Financial Institutions
4.02 Not Used
4.03 Not Used
4.04 Suppliers/Distributors/Manufacturer

GENERAL ESTIMATING KNOWLEDGE (GEK)
SAMPLE TEST

1. T F Working capital required for a business is never proportional to sales volume.

2. T F The "accrual basis of accounting" is a system of record keeping which recognizes income and expenses as they are incurred and as they relate to specific periods of time.

3. T F The income and expense statement shows the results of operations for a given period; the balance sheet shows the financial condition at a given time.

4. T F Assets plus liabilities equals net worth.

5. T F When a project is completed and the cost of the project is close to the cost given in the estimate the estimator may assume that all phases of the project went well.

6. T F Where the owner acts as his own contractor, the subcontractors are considered to be original contractors for purposes of the lien laws.

7. As the volume of sales decreases, the need for working capital usually:
   A. Decreases
   B. Increases
   C. Remains the same
   D. Doubles

8. A contractor is bidding a job for which he has estimated his total direct cost (field cost) to be $15,500. He knows his overhead percentage is 21% of direct cost (based on current expense statements and experience) and he wants to make a net profit of 8% of total cost on this project. What must the bid for this project be (to nearest $10)?
   A. $19,990
   B. $20,260
   C. $20,550

9. Give the formula for converting cubic feet to cubic yards.
   A. CF/9
   B. SF/9
   C. CF/27
   D. CF x 27

10. Calculate the number of gallons required to apply a 10-mil thick liquid coating to 937 square feet of nonporous material. Assume one gallon will cover 400 square feet, 2 mil thick. Round to the nearest gallon. _____

11. Calculate to the nearest thousandths of an hour (0.000) required for the installation of an item if the installation time is 16 minutes. _____

12. Calculate the cost per square foot (to the nearest cent) of material applied 1.5" thick if the material weighs 68 lbs. per cubic foot and cost $283.00 per ton. _____

13. Calculate the lineal foot cost (to the nearest cent) of material that has a weight of 1.502 lbs. per lineal foot, using a waste factor of 15%, and cost of $512.50 per ton.
_____

The following five questions are based on the following contract information:

"FBNFIRM" was awarded a subcontract by "SIU Contracting" in the amount of $175,000.00. This amount is broken down into three different buildings on the same site. The percentage for each building is as follows:

Building No.	Percentage
1	35%
2	40%
3	25%

Retention is held by "SIU Contracting" based on the following schedule:

* work in place - 10% retention
* stored material - 20% retention
* after the project is 75% complete for "FBNFIRM", retention is reduced to a total of 5% for work in place.

Note: The answers you calculate in this portion of the exam may be required in the solution of other questions in this portion of the exam.

14. "FBN" has a labor/material ratio of 45/55. Based on this information the material costs for Buildings 1, 2, and 3 are:

    A. Building #1 material costs are $61,250.00
    Building #2 material costs are $70,000.00
    Building #3 material costs are $43,750.00

    B. Building #1 material costs are $33,687.50
    Building #2 material costs are $38,500.00
    Building #3 material costs are $24,062.50

    C. Building #1 material costs are $27,562.50
    Building #2 material costs are $31,500.00
    Building #3 material costs are $19,687.50

    D. None of the above.

15. During the first month “FBN” had all of the material on site and properly stored for Building #1. How much retention was held by “SIU” for this month?

A. $5,512.50

B. $3,367.85

C. $6,737.50

D. $12,250.00

16. During the second month no work was done by “FBN”. However, a change order was issued to “FBN” in the amount of $5,000.00 to install owner furnished equipment in Building #2. The revised contract amount is now $180,000.00 and the revised building labor breakdown is now:

A. Building #1 labor costs are $27,562.50
Building #2 labor costs are $36,500.00
Building #3 labor costs are $19,687.50

B. Building #1 labor costs are $27,562.50
Building #2 labor costs are $31,500.00
Building #3 labor costs are $19,687.50

C. Building #1 labor costs are $61,250.00
Building #2 labor costs are $70,000.00
Building #3 labor costs are $48,750.00

D. None of the above.

17. In “Architectural Scale”

A. If 1/4" equals 1'-0 what does 1/8" equal?

1. 4"
2. 6"
3. 4-1/2"
4. 3"

B. If 3/8" equals 1'-0 what does 1/4" equal?

1. 6"
2. 8"
3. 18"
4. 14'

C. If 1/2" equals 1'-0" what does 2" equal?

1. 3'-0"
2. 4'-0"
3. 1'-6"
4. 3'-6"

D. If 1" equals 1'-0" what does 1/4" equal?

1. 3"
2. 4"
3. 4'
4. 2'

E. If 1-1/2" equals 1'-0" what does 1/4" equal?

1. 2"
2. 4"
3. 6"
4. 6-1/2"

18. T F Plumbing and electrical drawings are diagrammatic only.

19. T F The work of a specialty contractor or sub-contractor may be shown or specified in any part of the drawings and specifications.

20. T F It is the general contractor's responsibility to advise subcontractors that a addenda have been issued.

21. Elements of the contract documents, per AIA Form A201 General Conditions of the Contract for Construction, include (choose at least four):

A. Agreement

B. General & Supplementary Conditions

C. Drawings

D. Specifications

E. Addenda

F. Modifications including change orders and field orders.

22. Contractor's duties, defined by AIA Form A201, "General Conditions of the Contract for Construction," include (choose at least three):

A. Being responsible for design errors of A/E

B. Direct supervision of the work with full-time superintendent

C. Securing and paying for building permit

D. Checking plans and specs for code compliance

E. Preparation of schedule

F. Jobsite safety

23. T F Procedures for settlement of damages, liens, assignments, and disputes are a part of the general conditions or supplementary general conditions.

24. T F Value engineering always reduces the cost of a project.

25. T F Conflicts in bid documents should be ignored during the bidding process.

26. If a conflict in bid documents is discovered during bid stage, the estimator should:
    A. Notify the architect immediately.
    B. Wait until the contract is signed before “discovering” the conflict.
    C. Wait until the affected work is to be performed before “discovering” it.
    D. All of the above.
    E. None of the above.

27. Errors in bid preparation, which may be acceptable by an owner or his agent for bid withdrawal without penalty, include errors in:
    A. Addition
    B. Line item extension (multiplication)
    C. Line item omission
    D. All of the above
    E. None of the above

28. Which of the following types of insurance are normally carried by the project owner during construction of the project?
    A. Workmen’s Compensation and Fire Insurance
    B. Fire and Theft Insurance
    C. Theft and Workmen’s Compensation Insurance

29. T F Workers’ Compensation, Employer’s Liability, Fire, Extended Coverage, Vandalism, Comprehensive General Liability, and Malicious Mischief are types of insurance required for all bid proposals.

30. In most states, Workers’ Compensation & General Liability must be carried by:
    A. General Contractor
    B. Subcontractor
    C. Sub-subcontractor
    D. All of the above
    E. None of the above

31. T F In most states, a construction contract, to be legally valid, must be in writing.

32. Given the following data from a historical cost report:

Total Units in place:	100
Total journeymen hours expended:	7
Total apprentice hours expended:	3

What is the productivity rate achieved?

A. .1 MH/Unit

B. 10 Unit/MH

C. .01 MH/Unit

D. .07 MH/Unit

E. .03 MH/Unit

33. T F The specific requirements for record document submittal are indicated in the project specifications.

34. T F Method of Interim and Final Progress payments for the project are stipulated in the General or Special Conditions of the Job Specifications.

GENERAL ESTIMATING KNOWLEDGE EXAM
SAMPLE TEST ANSWER SHEET

1. False
2. True
3. True
4. False
5. False
6. False
7. A
8. B
9. C
10. 12 Gallons
11. 0.267 Hours
12. $1.20
13. $0.44
14. B
15. C
16. A
17. A.2
B.2
C.2
D.1
E.1
C.2
18. False
19. True
20. False
21. A, B, C, D, E
22. B, E, F
23. True
24. False
25. False
26. A
27. D
28. B
29. False
30. D
31. False
32. A
33. True
34. True

INSTRUCTIONS FOR THE EXAMINEE - READ FULLY BEFORE STARTING EXAM

1. Obtain your test materials from the Proctor.
2. Confirm that you have received a complete set of test materials.
3. Speak to no one other than the Proctor once the test materials have been distributed.
4. Do not question the Proctor about exam subject matter; the ability of the examinee to read and follow instructions is part of the examination. **DO NOT WRITE IN GEK EXAM BOOK.**
5. Use a #2 pencil to record your answers. Print your name on each answer sheet. Enter your Candidate Number in the spaces marked "Identification No." on each answer sheet. **Fill in the scanner dots for your Candidate Number ONLY.**
6. Be aware that the Comment Sheet is an important means of assisting the Certification Board in evaluating and improving the clarity and appropriateness of exam materials. Be sure to include your Candidate Number on the Comment Sheet and transmittal envelope.
   A. Keep the Comment Sheet at hand during the test period and identify any problem item by their category numbers, as they become evident.
   B. Write a brief note describing your concern.
   C. **The value of your comments may be factored into your final score.**
7. The Examinee shall:
   A. Leave the examination area only with the Proctor's permission.
   B. Furnish writing instruments and pocket calculator.
   C. Use only those forms and blank sheets provided by Proctor. **DO NOT WRITE IN GEK EXAM BOOK. (You May Write In DST Problem Book)**
   D. Do not remove any test-related materials from the examination area.
   E. Obey Proctor's instructions.
8. At the completion of the test period, the following is to be included in your transmittal envelope: A. Answer Sheets
   B. Work Sheets
   C. Comment Sheet
   D. Examinee Instruction Sheet (signed & dated)
9. **SIGN YOUR NAME ACROSS THE SEAL OF THE ENVELOPE. DO NOT SEAL EXAM BOOK IN THE ENVELOPE**. **(Except the DST Problem Book)**

AN EXAMINEE VIOLATING ANY OF THE INSTRUCTIONS FORFEITS THE RIGHT TO AN EXAMINATION REVIEW.

The examinee agrees to accept the grade and the decision of the Certification Board as final. Examination Papers will be retained by the Board and will not be discussed with the examinee.

I HEREBY CERTIFY THAT I HAVE READ THE ABOVE INSTRUCTIONS AND AGREE TO ABIDE BY THEM.

Signed: _____Date: _____

Print Name: _____ Candidate # _____

INSTRUCTIONS FOR PROCTORS ADMINISTERING
The General Estimating Knowledge (GEK) Exam and Discipline Specific (DST) Test

1. It is important that the Proctor provides a quiet testing room with adequate lighting and air conditioning and comfortable exam chairs or desks; interruptions by outside sources or persons must be prevented, so candidates are not distracted. Proctors must provide #2 pencils for examinees.

2. Upon receipt of the testing materials from the Business Office, open the sealed envelope containing the exam packets; verify that the count matches the number stated on the transmittal. Contact the Business Office regarding any discrepancy.

3. Prior to commencing the exam, remind candidates to read all instructions thoroughly and to follow them judiciously. Review the exam grading procedures with the candidates.

4. Prior to commencing the exam(s), have the candidates print their name and Candidate Number on each answer sheet. Enter the Candidate Number in the spaces marked "Identification No.". Have the candidates fill in the corresponding scanner dots below the Candidate Number. They are not required to fill in the scanner dots for any other information....**ONLY THEIR CANDIDATE NUMBER**.

5. Distribute the exam packets to candidates and establish when the testing period will end. It is the sole responsibility of the Proctor to begin and end the testing period on time, and to maintain the time limit.

6. The Proctor must advise the candidate that the test will be graded by an optical scanner and that a #2 pencil must be used to mark the answer sheets. Any changes must be completely erased to prevent an inaccurate answer being recorded. Individual answer sheets are enclosed for each section of the test. For example: GEK Test Answer Sheet "Part A" is for questions A-1 through A-190. The "Part B" Answer Sheet is for questions B-1 through B-229 and so on. The same applies for the DST Exams.

7. The General Estimating Knowledge (GEK) Exam will be four (4) hours in duration. The Discipline Specific (DST) Test will be eight (8) hours of Questions and Problems. The candidate may choose to take a coffee or rest room break; however, the candidate must complete the exam within the time allocated.

8. No questions shall be asked by the examinees regarding test criteria. If an obvious printing error has been made on a question, the Proctor may review and announce the correction to all candidates. Proctors must make a written report on any error and announce corrections to the Certification Board when they return the completed exams.

Page 2 (Instructions for Proctor)

9. Advise examinees of the importance of their comments. Refer to and read "Instructions for Examinees", Item 6 - A, B, and C.

10. When the exam period is over, each candidate should place the following into the transmittal envelope, included in the exam packet:
    A. Answer Sheets
    B. Work Sheets
    C. Comment Sheet
    D. Examinee Instruction Sheet (signed & dated)
    and return it to the Proctor.

    THE CANDIDATE AND THE PROCTOR MUST SIGN THEIR NAMES ACROSS THE SEAL OF THE ENVELOPE. DO NOT PUT EXAM BOOK IN INDIVIDUAL ENVELOPE (Except the DST Problem Book). Because the candidate may take apart the DST Problem Book, be sure the candidate has returned all pages, even problems that were not completed.

11. After the exam has been completed, gather all exam envelopes and books, repackage them securely. Return them to the Business Office using the enclosed return label on the first business day following the exam. Send to the Business Office with a signature-required delivery service.

12. Please return all exam packets promptly; The Certification Board may have to delay exam results for your Chapter's candidates if not given sufficient time to grade the exams.

13. The Chapter Certification Chair must provide written explanation of any known reason for candidates not taking the exam as scheduled.

14. Proctors for the Certification Exam must be CPE's. An alternate Proctor should be selected and scheduled to substitute for the original Proctor in an emergency situation.

15. Chapters are responsible for all expenses incurred in performing their duties at the chapter level and will not be reimbursed by ASPE. These expenses may be recovered by each Chapter, at their discretion, from applicants upon registration for the mandatory Certification Workshop.

Thank you for assisting ASPE and your local membership by protecting these examinations

DISCIPLINE SPECIFIC TEST (DST)

The General Estimating Knowledge (GEK) examination, first given in May 1988, tests areas common to practitioners of construction estimating regardless of discipline. Recognizing the importance of also evaluating the estimator's proficiency in his own trade or specialty, the Board of Trustees directed the Certification Board to prepare discipline specific testing materials for inclusion into the examination process. In order to accomplish this task, the Certification Board assigned Section leaders to oversee development of testing materials for the sixteen (16) major CSI divisions. The Discipline Specific Test consists of eight (8) hours of questions and problems. Taken together with GEK, this test becomes the comprehensive examination originally envisioned by the Certification Board.

The problem portions of the tests are, in effect, "mini-estimates". You are given plans and specifications, along with other relevant data, asked to perform a quantity survey, and to price the survey.

If there is not currently a completed test in a candidate's discipline, the candidate must write and submit 100 Questions and 2 Problems with 50 responses each, for their discipline.

The following Discipline Specific Tests are completed:

General Building Construction – Covers all aspects of general contracting
Questions cover CSI Sections 1 - 14, with some emphasis on Divisions 15 and 16.

Electrical – *Division 16*
Questions and Problems cover all aspects of Division 16.

Mechanical - HVAC/Piping -Section
Questions and Problems cover all aspects of Mechanical Piping Systems.

Mechanical - HVAC/Sheetmetal – Section
Questions and Problems cover all aspects of Mechanical Air Distribution Systems.

Concrete –Section 03300
Questions and Problems cover all aspects of concrete construction.

Drywall Systems – Section 09250
Questions and Problems cover all aspects gypsum wall board systems and metal stud framing.

Painting –Section 09900
Questions and Problems cover all aspects of painting, water repellents and wall covernings.

Plumbing –Section
Questions and problems cover all aspects of Division 15400.

Masonry – *(To be implemented November 2010)*
Questions and Problems cover all aspects of Division 04000.

Roofing – Section

Questions and Problems cover all aspects of roofing including, but not limited to, shingles, tile, single ply systems.

Earthwork – Section *02300*
Questions and Problems cover all aspects of the following: 02310 Grading, 02315 Excavation and Fill, 02330 Embankment and Fill, 02335 Sub grade and Roadbed, 02340 Soil Stabilization.

Structural Steel—Section 05100
Questions and Problems cover all aspects of fabrication and erection of structural steel framing systems.

The following is a list of Discipline Specific Tests that are under development. You will be required to take the exam if it is available.

Bases, Ballasts, Pavements and Appurtenances
Questions and Problems cover all aspects of the following: 002740 Flexible Pavement, 022770 Curbs and Gutters, 02775 Sidewalks

Fire Protection/Sprinklers
Questions and Problems cover all aspects of Division 15300

Piped Utilities/Underground Utilities
Questions and Problems cover all aspects of Division 02600 and 02700

DST QUESTIONS AND PROBLEMS GUIDELINES

If the DST Exam is not available for the specific discipline of the candidate, the candidate is required to fulfill the discipline specific evaluation requirement by submitting a minimum of one hundred (100) discipline specific questions and a minimum of two (2) discipline specific problems, with fifty (50) questions each. Problems are to be "mini" estimates. The questions and problems are to meet the guidelines established for DST questions and problems as follows in this section.

If the DST Exam is offered for the specific discipline of the candidate, the candidate is required to take the DST Exam, and is not permitted to submit DST Questions and Problems. Review the section on Discipline Specific Test Developments contained in this guide to view the Exams that are available during this Certification Cycle.

The DST question and problem portion of the Certification Process is helping the Society to develop new DST Exams for use by future CPE candidates. Many of the questions and problems that are submitted will be formatted for use in these exams. The candidate should recognize when preparing the questions and problems that he is helping the Society attain the goals established for the Certification Program, and can take pride in the accomplishments for helping to meet these goals.

PROCESS

The candidate shall submit all of the questions and problems in the discipline that the candidate is seeking for DST Certification. The following is a list of the DST Classifications available for receiving DST Certification by submitting DST questions and problems:

02450 Foundation and Load Bearing Elements
Driven Piles, Bored Piles, Caissons, Foundation Walls, Anchors and Instrumentation and Monitoring

02500 Piped Utilities/Underground Utilities
Questions and Problems cover all aspects of Division 02500 and 02600

02700 Bases, Ballasts, Pavements and Appurtenances
Bound Base Courses, Unbound Base Courses and Ballasts, Aggregate Surfacing, Flexible Pavement, Rigid Pavement, Cement Concrete Shoulders, Paving Specialties, Curbs and Gutters, Sidewalks, Unit Pavers, Flexible Pavement Coating and Micro-Surfacing, Athletic and Recreations Surfaces and Porous Pavement.

02900 Planting (Landscaping)
Transplanting, Plant Preparation, Lawns and Grasses, Exterior Plants, Plant Maintenance and Planting Accessories.

06000 Woods and Plastics
Rough carpentry, wood framing, sheathing, wood decking, heavy timber construction, wood-metal systems, glued laminated construction, wood trusses, prefabricated structural wood, finish carpentry, millwork, cabinets, plastic laminate, paneling, wood treatment, architectural woodwork, casework, wood siding and trim.

07600 Flashing and Sheet Metal
Preformed roof and wall panels, composite building panels, cladding and siding, sheet metal roofing, and sheet metal flashing.

08000 Doors
Metal doors and frames, wood and plastic doors and frames, finish hardware, weather-stripping and seals.

08400 Entrances and Storefronts
Aluminum entrances and storefronts, automatic entrances, revolving entrances, metal windows, special windows, glazing, glazed curtain walls.

09300 Flooring, Tile and Terrazzo
Ceramic tile, quarry tile, paver tile, cement terrazzo, precast terrazzo, wood flooring, resilient flooring, resilient base and accessories, fluid-applied flooring, carpet, carpet tile, wall carpet, special flooring systems, floor treatment.

13900 Fire Suppression
Wet-pipe sprinkler systems, dry-pipe sprinkler systems, pre-action sprinkler systems, deluge sprinkler systems, foam-extinguishing systems, dry chemical extinguishing systems, standpipe and hose systems.

14000 Conveying Systems
Dumbwaiters, elevators, moving stairs and walks, lifts, material handling systems, hoists and cranes, turntables, scaffolding systems, transportation systems.

15200 Process Piping

If the candidate wishes to submit DST questions and problems for a discipline that is not identified in this listing, the candidate shall submit a request, in writing, to the Society Business Office prior to beginning preparation of these. The Certification Board will review the request and will contact the candidate to advise the decision of the Board concerning the request.

NOTE: Candidate shall submit the discipline sections as identified in the Construction Specification Institute (CSI).

TERMINOLOGY

The candidate must understand that composition; spelling and grammar used in writing the questions and problems will be an important factor in considering pass or fail. Geographical or regional terms and practices should not be used, nor should trade or manufacturers' names be used, unless considered an industry standard. Use generic terms when describing specific products (i.e., E.I.F.S. instead of Dryvit). Keep in mind that persons responsible for evaluating the text or taking the exam that uses the text may be located in different geographic areas and may not be familiar with the candidate's regional terminology or trade practices. Outside assistance to ensure the use of correct sentence structure, proper grammar and spelling is encouraged.

It is extremely important for the candidate to double check all of the calculations used in arriving at the answers to the problems. The plans and sketches submitted along with the questions should be clear and complete. It is imperative that all necessary dimensions are given and are correct. If the drawings can be done in a CAD type format then converted into a pdf file, all the better. If the problems have errors in them, they will be returned for correction.

REFERENCES

The candidate is required to provide nationally recognized references for each question submitted. Regional trade practices are not to be used. The candidate must use a minimum of three (3) different reference manuals to complete all of the questions.

SUBMITTAL PROCEDURES

The DST questions and problems must be submitted to the Society Business Office prior to the date as listed in the Certification Program Schedule section of this guide.

Submit one (1) original unbound copy and three (3) unbound photocopies of the DST questions and problems. Along with the paper copies, submit one (1) 3.5" computer disk copy, or one (1) CD copy, of the questions and problems, in a format compatible with Word. The candidate must submit these via certified mail or another signed delivery service. The candidate must retain a copy of the questions and problems for the purpose of completing revisions in the event the questions and problems fail to meet acceptance.

DST questions and problems submitted after the scheduled date shall be held without action until the date listed in the schedule for revised DST questions and problems re-submittal. This means the submitted questions and problems would only receive one opportunity to pass, and would miss the opportunity to resubmit the questions and problems if found not acceptable for the purpose of certification.

If the candidate fails to submit the DST questions and problems, the candidate may continue in the certification process by entering the next cycle. Any of the certification requirements that have been met would not need to be repeated. If the candidate does not enter into the next cycle, the certification process has ended. The candidate may reapply for Certification during another cycle; and all requirements would need to be completed, whether previously approved or not, including a new Application for Professional Evaluation and fee.

REVIEW PROCEDURES

The Certification Board is responsible for overseeing the review and evaluation process. A judgment of *"acceptable for the purpose of certification"* is mandatory to satisfy this element of the program.

DST questions and problems will be reviewed and verified by CPEs knowledgeable in the discipline being submitted. The examiners shall be verifying that the submitted questions and problems meet the guidelines established; spelling, grammar, professional appearance, composition, verifiable references, and required elements stated in this section.

The Certification Board shall notify the candidate by the date indicated in the Certification Program Schedule that this portion of the process has been completed and accepted, if the submitted DST questions and problems meet the guidelines and are accepted for the purpose of certification.

If the submitted DST questions and problems do not meet the guidelines for acceptance, the Certification Board shall notify the candidate of the deficiencies for revision and re-submittal by the date as stated in the Certification Program Schedule section of this guide.

Revised DST questions and problems shall be resubmitted to the Society Business Office in the same format and quantity as originally submitted. The date required for re-submittal shall be prior to the date as stated in the Certification Program Schedule. The resubmitted questions and problems shall be re-evaluated by the original examiner and must receive an "acceptable for the purpose of certification" rating.

The candidate shall be notified if the resubmitted questions and problems have passed or failed by the date indicated in the Program Schedule. If passing, the candidate will be notified that this portion of the certification requirements has been completed. If deficient, the candidate may continue the certification process during the next cycle. Any of the certification requirements that have been met would not need to be repeated. If the candidate does not enter into the next cycle, the certification process has ended. The candidate may reapply for Certification during another cycle; and all requirements would need to be completed, whether previously approved or not, including a new Application for Professional Evaluation and fee.

It is necessary for the candidate to pass all requirements of the Certification Program before the candidate will receive the designation of Certified Professional Estimator.

REQUIRED ELEMENTS

Title Page
The Title Page shall contain only the following elements:

1. DISCIPLINE SPECIFIC TEST QUESTIONS AND PROBLEMS
2. The CSI designation and title of the discipline being submitted.
3. Name of the author.
4. Candidate number.
5. Date written (month and year).

Society Ownership Page
The Society Ownership Page shall contain only the following elements:

1. Society Ownership Statement.
   The candidate MUST include the following statement, providing their name in typewritten characters, signature and date:

"I hereby acknowledge that the contents of these questions and problems belong to the Society which is free to publish or otherwise make such use of all or portions as it sees fit."

The Title Page and Society Ownership Page will be removed from the questions and problems prior to review to insure the author's confidentiality.

Cover Page
The Cover Page shall contain only the following elements:

1. DISCIPLINE SPECIFIC TEST QUESTIONS AND PROBLEMS
2. The CSI designation and title of the discipline being submitted.
3. Candidate number.
5. Date written (month and year).

The candidate shall number the pages consecutively in the lower center of each page starting with the cover page as page 1 and continuing through the balance of the pages. The Cover Page shall remain with the paper through the review process.

Reference Page
The Reference Page shall give the complete title of the reference materials used to write the questions; the author of each manual; the publisher; the edition number; and year published (See the Exam Bibliographies for examples of this).

The candidate may use reference numbers in front of each manual on the Reference Page and indicate this number at the answer reference. This will save the candidate from having to type the name of the reference at each answer.

Questions Format
A minimum of one hundred (100) verifiable questions must be submitted. A minimum of fifty (50) questions must be in true/false format, of which twenty-five (25) will have a true answer and twenty-five (25) will have a false answer. A minimum of fifty (50) must be multiple-choice format, with a minimum of three (3) answer choices and a maximum of five (5) answer choices per

question. The correct answer must vary in location among the answer choices available (i.e., all the correct answers cannot be choice "a."). Each multiple-choice question may only have one (1) correct answer per question.

Begin by numbering each question (1, 2, 3...) in the left margin at the beginning of the question. Provide the true/false questions first, followed by the multiple-choice questions.

State the question in the body of the paper followed by the answer choices. For True/False questions, the answer choices should read: True False. For Multiple Choice Questions, the answer choices should read:

a. _____
b. _____
c. _____
d. _____
e. _____

Note: The blank lines indicated above are representing the answer choices as furnished by the candidate, not that the candidate is to leave blank lines.

In the right margin of the page, place the answer to the question followed by the reference manual, the page number, section number and/or paragraph from which the information was obtained.

For further assistance and clarification on the DST question format, see the sample DST question page provided in this section, and review the GEK sample test provided in this guide.

Problems Format

The problems vary from the question format as stated above, as the problems relate specifically to calculating quantities, production rates, unit prices and costs for completing an estimate based on the information provided with the problem. Problems must be in an estimate format (labor, equipment, materials, etc.)

A minimum of two (2) problems must be submitted. Each problem must contain a minimum of fifty (50) multiple-choice quantity, cost, and production rate calculation questions. Problems should be “mini” estimates.

Each problem shall be provided with a drawing or drawings of the work, details as required to calculate the work, and an information page covering general information. Information such as general notes, assumptions, factors, schedules, allowances, material and equipment costs, wage and labor burden costs, production rates, sales tax rates, and so on, as necessitated to calculate the correct answer.

NOTE: Do not use the same “plan” for each problem. A different “plan” is required for each problem.

Number each problem at the top left corner of the page by designating:

(insert discipline) PROBLEM 1

Continue with this designation on each additional problem (2, 3, 4, etc.).

Begin numbering the questions for each problem in the left margin starting with 1 and continuing numerically until reaching the next problem. Repeat this process for the next problem, starting with the first question as number 1.

Below the question, give the answer choices in multiple-choice format. Each question must have a minimum of three (3) choices to a maximum of five (5) choices.

In the right margin, give the correct answer to the question, followed by the calculation used to achieve the correct answer.

RECOMMENDATIONS

Make the questions and problems specific to the discipline and less general in regards to other trades.

Do not repeatedly use the same questions with slight modifications to them. Make the questions and problems challenging.

Avoid the use of geographic, regional or trade practices. Be more specific based on nationally accepted standards and methods.

The use of manufacturers and trade names is discouraged unless it is an industry standard.
Example - "Caterpillar Equipment" is a standard for earthwork, worldwide.

Check the composition, spelling and grammar used to write questions and problems. Be sure that others will be able to understand the information being presented, and that assumptions would not have to be made.

All of the information is required to be accurate and correctly calculate. The correct answer must be provided in the question or problem information. If charts, schedules, graph, etc., from published documents are needed to calculate the correct answer, this information must be provided in the question or problem.

Provide answers to questions, which are clear and concise. Make sure there is only one correct answer provided. Avoid conflicting statements or "trick" questions.

For problems, provide complete calculations to the answers so that the person evaluating these can easily understand them.

It is advisable to submit more questions and problems than the minimum requirements in the event some of the submitted questions and problems are not accepted.

Outside assistance to ensure the use of correct sentence structure, proper grammar and spelling is encouraged. Many software programs now offer spell checking, grammar checking and Thesaurus tools for review of papers. Utilize others within your discipline to help review and critique the questions and problems. If they can understand your points, then others should also be able to understand.

SAMPLES

Sample questions and problem have been provided to help the candidate understand the format and composition expected for submission. The candidate should review and utilize these as guides when formatting their own questions and problems, but should make sure to include the requirements as listed.

DISCIPLINE SPECIFIC TEST QUESTIONS AND PROBLEMS
15300 - FIRE PROTECTION
JOHN DOE
#1194000
NOVEMBER 1994

PLEASE NOTE: This is not a complete sample.

SOCIETY OWNERSHIP STATEMENT

"I hereby acknowledge that the contents of these questions and problems belong to the Society which is free to publish or otherwise make such use of all or portions as it sees fit."

_____

John Doe

November 5, 1994

DISCIPLINE SPECIFIC TEST QUESTIONS AND PROBLEMS
15300 - FIRE PROTECTION
#1194000
NOVEMBER 1994

REFERENCES FOR QUESTIONS AND PROBLEMS

NFPA Pamphlet #12	1989 Edition
NFPA Pamphlet #13	1994 Edition
NFPA Pamphlet #13R	1989 Edition
NFPA Pamphlet #14	1993 Edition
NFPA Pamphlet #20	1993 Edition
NFPA Pamphlet #22	1993 Edition
NFPA Pamphlet #231	1987 Edition
NFPA Pamphlet #231C	1991 Edition

1. The distance between a hanger and the centerline of an upright sprinkler shall not be less than 4 inches.

   True False

   Answer: False
   Ref: NFPA #13 4-6.2.3.2

2. A fire department connection may be connected to the suction side of a fire pump.

   True False

   Answer: False
   Ref: NFPA #13 4-7.2.3.5

3. A listed check valve shall be installed in each fire department connection.

   True False

   Answer: True
   Ref: NFPA #13 4-7.2.4.1

4. On which type of system is a test connection not required?

   a. Wet Pipe System
   b. Dry Pipe System
   c. Grid System
   d. Deluge System
   e. None of the above

   Answer: d
   Ref: NFPA #13 4-7.4.5

5. The minimum area of sprinkle operation when a system is hydraulically calculated is _____.

   a. 1,000 sq. ft.
   b. 1,500 sq. ft.
   c. 2,000 sq. ft.
   d. 2,500 sq. ft.
   e. None of the above

   Answer: b
   Ref: NFPA #13 Fig. 5-2.3

03000 CONCRETE PROBLEM 1

GENERAL

Footings are formed. Measurement quantity is square foot of contact area. Top of footing is to be float finished. Top of wall is to be trowel finished. Keyway shall be measured in lineal feet.
Lap factor for mesh and vapor barrier is 10%.
Stone subbase shrinkage factor is 20%. Conversion rate is 1.5 ton/cubic yard.
Sales tax on materials is 5.5%.
Concrete strength requirements, 3,000-psi footings and walls.
4,000 psi slabs on grade.
Concrete waste factors:
Footings 10% Walls 5% Slabs on grade 7.5%

WAGE RATES

Carpenter	$15.50/hour	Labor Burden	28%
Laborer	$10.25/hour	Labor Burden	25%
Cement Finisher	$13.75/hour	Labor Burden	25%
Iron Worker	$17.25/hour	Labor Burden	35%

MATERIAL COSTS (excluding sales tax)

3,000 psi Concrete	$50.00/cy	Keyway	$0.40/lf
4,000 psi Concrete	$55.00/cy	Stone	$9.00/ton
Footing Forms	$.50/sf	1/2" Exp. Jnt.	$0.15/lf
Wall Forms	$0.45/sf	Vapor Barrier	$0.02/sf
Point & Patch	$0.05/sf	Mesh	$0.06/sf
Protect & Cure	$0.02/sf	Rebar	$475.00/ton

EQUIPMENT

Crane for placing concrete	$110.00/hour, including operator
Wall pour rate	35 cy/hour
Slab pour rate	55 cy/hour
Trowel machine for slab	$0.02/sf
Loader	$85.00/hour, including operator
Compactor	$0.05/sf

PRODUCTIVITY FACTORS (based on eight hour days)

Description	Crew	Productivity
Form Footings	2 carp/1 laborer	320 sf/crew day
Form Walls	2 carp/1 laborer	350 sf/crew day
Place Concrete Footings	1 laborer	2 cy/hour
Place Concrete Walls	1 laborer	1.5 cy/hour
Place Concrete Slabs	1 laborer	2.4 cy/hour
Float Finish Footing	1 finisher	500 sf/day
Trowel Finish Wall	1 finisher	120 sf/day
Trowel Finish Slabs	1 finisher	650 sf/day
Point & Patch Wall	1 finisher	1,200 sf/day
Protect & Cure	1 laborer	5,000 sf/day
Keyway	1 carpenter	40 lf/hour
Expansion Joint	1 carpenter	200 lf/day
Stone Subbase	2 laborers	40 cy/crew day
Vapor Barrier	1 laborer	450 sf/day
Mesh	1 iron worker	2 hour/csf
Rebar	1 iron worker	200 lbs./hour

NOTES: Add labor burden to wage rates and sales tax to material costs.

03000 CONCRETE **PROBLEM 1**

Answer/Calculations:

1. The quantity of footing formwork is:

   A. 635 sf
   B. 280 sf
   C. 240 sf
   D. 536 sf
   E. 365 sf

D. 536 sf

Outside: (94+94+54+54) x 1' = 296 sf
Inside: (80+80+40+40) x 1' = 240 sf
536 sf

2. The hours/units for footing formwork is:

   A. 1.5 hr/unit
   B. .5 hr/unit
   C. .05 hr/unit
   D. .75 hr/unit
   E. .075 hr/unit

E. .075 hour/unit

(2 carp + 1 laborer) x 8 hrs./day = 24 hours
24 hours/320 sf = .075 hr/unit

3. The number of man-hours required to form footings is:

   A. 40.2 hours
   B. 47.6 hours
   C. 18.3 hours
   D. 30.4 hours

A. 40.2 hours

536 sf x .075 (hr/sf) = 40.2 hours

4. The quantity of concrete required for the footing is:

   A. 59.6 cy
   B. 95.2 cy
   C. 76.4 cy
   D. 48.8 cy
   E. 20.9 cy

C. 76.4 cy

(94+94+40+40) x 7' x 1 = 1,876 cf
1,876 / 27 = 69.5 cy
69.5 x 1.10 (waste) = 76.4 cy

5. The hours required to place the footing concrete is:

   A. 44.5 hours
   B. 38.2 hours
   C. 16.4 hours
   D. 30.6 hours
   E. 54.5 hours

B. 38.2 hours

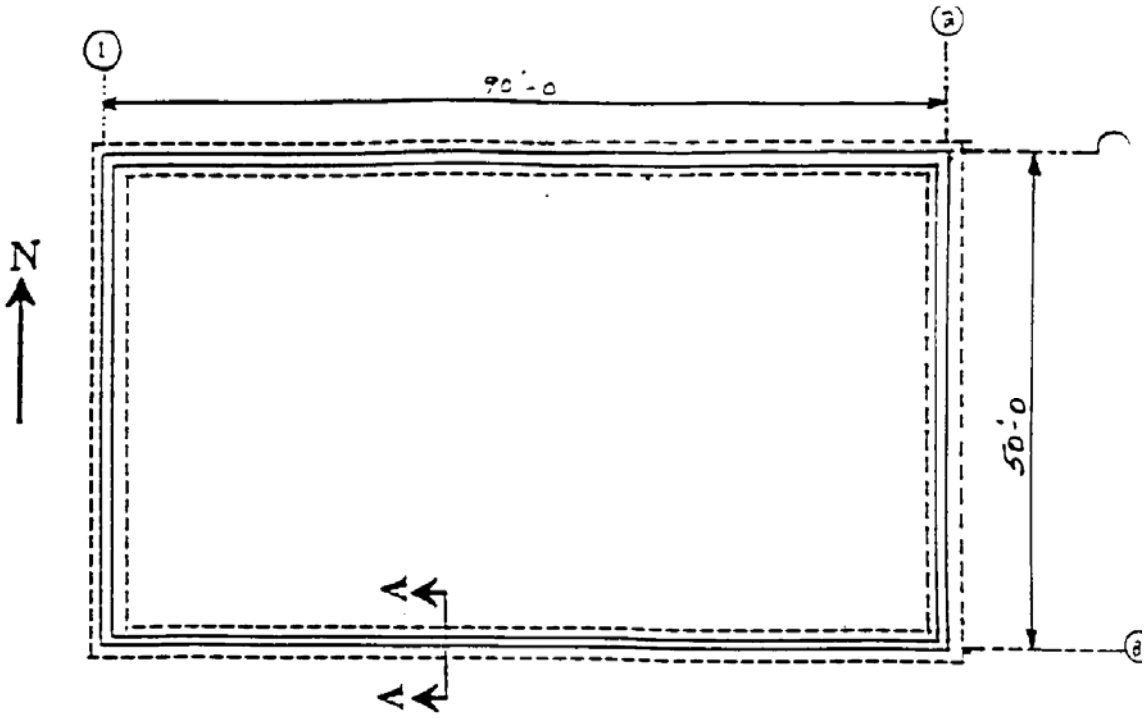
6.4 cy / 2 (cy/hr) x 1 laborer = 38.2 hours

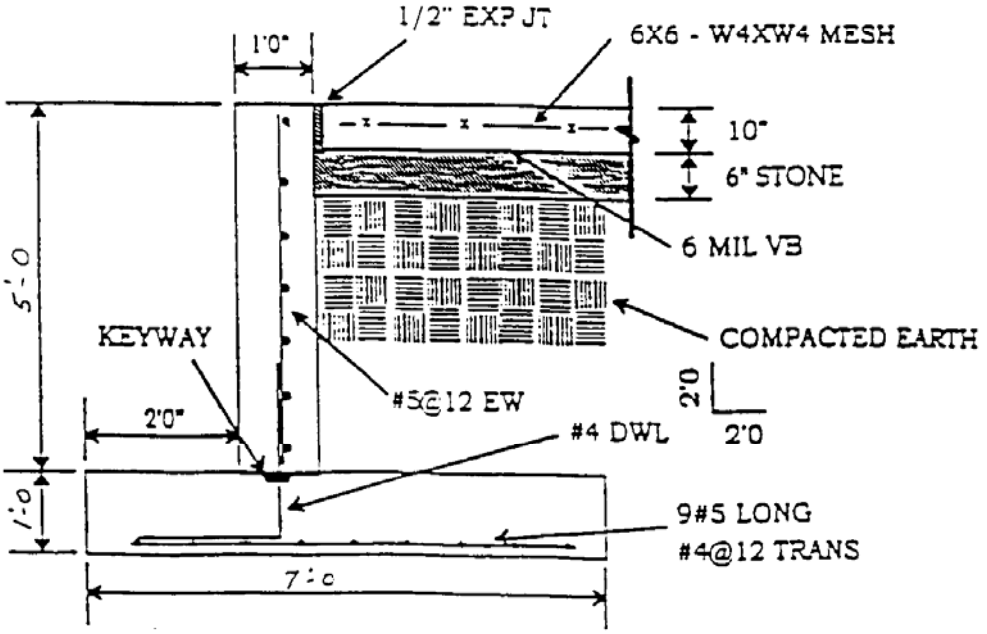
6. The material unit cost for footing concrete is:

A. $58.03
B. $62.50
C. $52.75
D. $50.28
E. $55.30

C. $52.75

$50.00/cy x 5/5% (sales tax) = $2.75
$50.00 + 2.75 = $52.75





SECTION A-A

NOTE: DRAWING NOT TO SCALE

CONTINUING CERTIFICATION PROGRAM

The construction industry changes continually and the Professional Estimator must be aware of these changes and be able to evaluate their impact upon his trade.

As the title "Certified Professional Estimator" (CPE) comes into increased use, the architect/owner is becoming increasingly aware of the importance of the CPE designation. We, as a Society, must show the industry and the public that the construction estimator is a highly trained professional who is responsible for the very survival of the company for which he works, the method by which the Society has chosen to do this is the Certification program.

This program alone, however, is not enough. As "CPE" is a meaningful professional title, we must be able to show other industry professionals that the CPE is an educated and motivated person who maintains his level of knowledge through continued education and interaction with other people in the industry. The method by which the Society has chosen to do this is the Continuing Certification Program.

The Continuing Certification Program also encourages our members to remain active in the Society and the construction industry. ASPE's strength comes from its active members. To have a stronger voice in the future of the construction industry, we must have a large, active membership. Encouraging our members to become CPEs and having a program, which rewards them for participating in the Society's activities, can help achieve these goals.

Eligibility

The member must have been previously certified and have maintained his/her membership in the Society with all dues and fees paid for the three years prior to submitting his/her Continuing Certification Application. Non-members must also participate in this program as it pertains to accruing points for continuing education and other professional activities.

Continuing Certification Procedure

The CPE will complete a Continuing Certification Application, and submit the application to the Society Business Office as explained in the application.

Implementation

Each current participating CPE must apply for their certification renewal every three years. Any CPE subject to this program will have three years, from the first August 1 after issuance of their Certificate, to accumulate the 30 points required for continuing certification.

POINTS MUST BE EARNED FROM AT LEAST THREE (3) OF THE SCHEDULED LEVELS.

The applicant is responsible for accumulating all documentation for the point total and transmitting it to the Society Business Office. Accumulate verifications annually to avoid problems resulting from changing administrations. It is the responsibility of the CPE to obtain a guarantee of delivery. It is recommended that the documentation be sent with a return receipt requested to the Society Business Office.

Requirements for Continuing Certification may be modified from time to time. These modifications may include additional categories and requirements. The Continuing Certification applicant, however, will be granted points based upon the point schedule in effect at the beginning of the applicant's Continuing Certification term.

CONTINUING CERTIFICATION PROCEDURES

Your first cycle and first year (Year 1) in the Continuing Certification Program begins August 1 following notification of obtaining your CPE status. Your certificate states that your CPE status will terminate July 31 of Year 4. The *accumulation of points* begins August 1 of Year 1 and ends three years later on July 31 of Year 3. This period runs concurrently with the ASPE fiscal year for record keeping purposes.

The Business Office will notify you before July 31 of Year 3 that your Certification will expire on July 31 of Year 4. The Continuing Certification application and the processing fee shall be submitted to the Society Business Office prior to October 1 of Year 4.

The Continuing Certification Applicant is solely responsible for obtaining all signatures and documentation supporting the application. Your Continuing Certification application should first be submitted to your Chapter Certification Chair for review. Then the completed application must be submitted to the Society Business Office (SBO) along with the appropriate fee. The SBO will verify the application is complete and send it to your regional representative on the National Certification Board for review. You will be notified by February 1 of Year 4 of any deficiencies or its' acceptance. You will have until July 1 of Year 4 to correct any deficiencies. A new certificate will be issued prior to the expiration date and will cover the next three years. (July 31 of Year 7)

The second cycle would actually begin with the *accumulation of points* in Year 4. The *accumulation of points* begins August 1 of year 4 and ends three years later on July 31 of Year 6.

All terms and conditions of Continuing Certification, as listed above, will apply to each successive three-year cycle.

LIFETIME CPE STATUS: **(Not Available To Non-Members)**

After submitting renewals for four consecutive Continuing Certification cycles, CPEs may apply for Lifetime Status. The necessary criteria, as set forth by the Certification Board, is as follows:

A Certified Professional Estimator (CPE) may apply for the status of Lifetime CPE after having been certified for at least fifteen (15) consecutive years AND a continuous member in good standing.

An application for Lifetime CPE Status and the appropriate fee must be forwarded on to the Society Business Office (SBO) for verification. The Application will then be submitted to the National Certification Board for its approval.

A Lifetime CPE must continue to remain a member in good standing in the Society in order to maintain the status of Lifetime CPE.

NOTE: *Only* those CPEs in the Continuing Certification Program are eligible for the Lifetime CPE Status.

MANUAL OF STANDARD ESTIMATING PRACTICE (SEP)

A fundamental effort in organizing a professional Society must be defining standards of practice and ethics expected of those seeking membership and participation in the Society.

For many years, the American Society of Professional Estimators has been the best-kept secret in the construction industry. We are now dedicated to reversing that perception.

ASPE is an educational society comprised of construction estimators dedicated to improving the skills of Estimators and the quality of estimating. Our members represent a broad cross section of the construction industry as employees and owners of construction organizations. Many of our estimators and their companies are also members of other organizations.

The single most important element that governs the degree of success of a construction organization is its ability to prepare and submit fully detailed and accurate estimates for the completion of work on specific projects. The professional estimator, utilizing acquired skills, and employing the professional ethics and Standard Estimating Practice of the Society, is the key to the successful fulfillment of this vital element of the industry.

An ASPE primary goal is to define and publish estimating practices that, when properly employed, will produce reliable estimates in a uniformly recognizable manner. The Standard Estimating Practices are developed and written by the Standards Board of ASPE and members of that Society. They are written in the language of estimators to provide not only basic and fundamental guidance for estimators, but also to define industry recognized Standards that are the basis for the Certification of the experienced estimators as Certified Professional Estimators.

PURPOSE

Standard Estimating Practice is not intended as just another material and man-hour reference book. It is a “how-to” manual to be employed as a powerful learning tool for the novice Estimator and an invaluable guide for the experienced Estimator.

Standards, both published and proposed, are set forth in a professional, well-written manner; the how-to that is fundamental is not developed to the ultimate level desired.

Truly representative Standards must have contributions from members of a broad cross-section of the nation. Those areas of the country, which have not participated in development of Standards, may be depriving industry recognition of legitimate practices peculiar to that specific region.

The Sixth Edition Standard Estimating Practice published in 2004 contains the initial development of practices common to all disciplines and discipline specific practices.

This manual was also developed as an educational tool to be used in the training of new estimators, and to provide a foundation for future ASPE publications on estimating.

Additional Standards development and the review and upgrading of existing Society Standards are a continuing responsibility of ASPE.

The Standards Manual is the foundation upon which the certification-testing program is constructed. Much of the material, which has been or will be included on the exam, is taken from

this manual. It is recommended that the applicant be thoroughly versed in its contents.

Contact the Society Business Office to order your copy of the SEP manual, or on-line at www.aspenational.com.

APPENDIXES

A Member Certification Workshop Registration Form

B Member Application for Professional Evaluation

C Member Discipline Specific Test (DST) Intention Form

D Member Continuing Certification Application

E CPE Stamp and Seal Program

F Lifetime CPE Application

G GEK Study Guide Order Form

H Standard Estimating Practice (SEP) Manual Order Form

I Estimating Forms

Appendix A

Member
Certification Workshop Registration Form

MEMBER CERTIFICATION WORKSHOP REGISTRATION FORM

American Society of Professional Estimators

NAME: _____

COMPANY NAME:_____

COMPANY ADDRESS:_____

_____

WORK PHONE:_(____)_____ HOME PHONE: _(____)_____

EMAIL:_____

CHAPTER NAME:_____ CHAPTER NUMBER: _____

MAL: _____ REGION:_____

SIGNATURE:_____ DATE:_____

Signature of Registrant

CONSTRUCTION ESTIMATING DISCIPLINE NUMBER(S)

Primary:_____ Description:_____ Years Experience: _____

*Registrant must submit Workshop Registration Form to the Chapter Certification Chair or Society Representative no later than **October 1st**. Registration must be signed by Chapter President, Chapter Certification Chair, Regional Certification Board Member or Regional Governor in order to be processed. On-line applicants submit directly to the SBO, without signatures.*

$75.00 Fee for Workshop taken at the Chapter; **$125.00** Fee for the On-line Workshop (On-line cost includes the GEK Study Guide), all fees are in US currency and are Non-refundable.

Fee Enclosed:_____ CHECK #_____

Make checks payable to ASPE and mail to the Administrative Office at:
2525 Perimeter Place Drive – Suite 103, Nashville, Tennessee 37214

❑ VISA ❑ MASTERCARD ❑ AMERICAN EXPRESS

Card #_____ EXP. DATE: _____

CV2 # _____(Last 3 digits on back of card) Billing Street Address: _____

Billing Zip Code: _____

The cost for the Certification General Estimating Knowledge (GEK) Exam and Discipline Specific (DST) Test is an additional Two Hundred Seventy Five Dollars **($275.00).** Additional Fees may be assessed by each Chapter.

SIGNATURE:_____ DATE:_____

Signature of Society Representative

Society Representative must submit Workshop Registration Form to Business Office no later than October 15th.

Appendix B

Member
Application for Professional Evaluation

American Society of Professional Estimators

MEMBER
APPLICATION FOR PROFESSIONAL EVALUATION

CONFIDENTIAL

Name ..... Chapter No. .....
Date Received ..... Application No. .....
Payment Received ..... Renewal Date .....
Member Status ..... Discipline No. .....

Professional Evaluation Application Instructions

READ instructions carefully before completing this application. If additional space is required, type your information on a blank white sheet of paper and attach it to the back of your application. Note the attachments at the section header - label additional information accordingly. **BE PREPARED TO SUBMIT YOUR COMPLETED APPLICATION AND FEE TO A SOCIETY REPRESENTATIVE NO LATER THAN DECEMBER 15th.**

COVER PAGE: Leave bottom section blank for use by Society Business Office.

SECTIONS 1-3: Fill in appropriate information. Abbreviations for Street, Avenue, Boulevard and states are acceptable. Check preferred mailing address.

SECTION 4: Use Page 10, of this form to determine your Primary Discipline number and description. If you are a General Construction Estimator, use Discipline 1.4. The enclosed discipline list is not complete. Refer to the Master Format contained in the Standard Estimating Practice Manual for those disciplines not listed. All applicants must have a minimum of five (5) years Construction Estimating experience in their primary discipline as of application date.

SECTION 5: Attach appropriate application fee as indicated. This includes both the GEK and DST Fees.

SECTION 6: Check the Certification Cycle you wish to participate in. You are responsible for following the guidelines of the particular cycle you have chosen. Check the appropriate DST Exam.

SECTION 7: A-E: Follow the note in parenthesis and insert the appropriate letter. Insert the appropriate letter for your principal job function with your present employer. Check the highest academic level and degree attained. Start with your present position and account for your construction estimating employment history. Give in sequence and detail for each employer. Dates of employment, name, location and phone number for the company, name and title of your immediate supervisor, your job title and job description. The Estimating Experience Breakdown is important and must be filled out with care. Indicate, percentages (%), time spent on one or more of the construction estimating or related job functions.

SECTION 8: Technical Paper Topic Request Form must be filled out completely. Be sure to include the requested titles as well as a 25-word synopsis for each. The Certification Board will notify you of your topic assignment. Your Technical Paper Title must begin with ***"How to Estimate the Cost of…"***

SECTION 9: You are required to sign and date the attestment, confirming that all information presented is factual. This information will be verified by the Chapter Representative.

SECTION 10: The on-line workshop is mandatory.

SECTION 11: Your Society Representative, your Chapter Certification Chair, Chapter President, Regional Governor or Regional Certification Board Member must review and verify the completeness, conformity and veracity of your application.

SECTION 12: Eligibility for Examination is completed and verified by the Certification Board.

AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS

1. NAME AND DATE OF BIRTH

_____

Last Name First Name Middle Initial Date of Birth

Preferred Mailing Address ❑ **HOME** ❑ **BUSINESS**

2. HOME ADDRESS

_____

Number and Street

_____

City State Country Zip Code

_____

E-mail Address Area Code and Telephone Number

3. PRESENT EMPLOYER & BUSINESS ADDRESS

_____

Company Name

_____

Number and Street

_____

City State Country Zip Code

_____

E-mail Address Area Code and Telephone Number

4. CONSTRUCTION ESTIMATING DISCIPLINE NUMBER(S)

Primary: _____ Description _____ Years Experience _____

Mark appropriate box indicating the fulfillment of your DST requirements:

❑ 1.4 General Construction	❑ 02300 Earthwork	❑ 07000 Roofing
❑ 03000 Concrete	❑ 04000 Masonry	❑ 15400 Plumbing
❑ 09200 Drywall Systems	❑ 09900 Painting	❑ 16000 Electrical
❑ 15180 HVAC/Piping	❑ 15800 HVAC/Sheetmetal	❑ 05150 Structural Steel

❑ Submit 100 DST Questions & 2 Problems _____

5. APPLICATION FEE - Payable in U.S. Funds (Non-refundable). **<u>These Fees are in ADDITION to the Certification Workshop Fee</u>**

MEMBER - GEK and Primary DST - $275.00 Additional DST - $75.00 per discipline

Amount Enclosed $_____ ❑ Business Check ❑ Personal Check ❑ Money Order

Credit Card Payment **Check one** ❑ Visa ❑ MasterCard ❑ AMEX

Card No._____ Exp. Date _____ CV2 #:_____

(3 digit code on back of card)

Name Printed On Card _____ Signature_____

Billing Street Address: _____ Billing Zip Code:_____

6. CERTIFICATION CYCLE Check one

❑ **March** ❑ **September**

7. PERSONAL AND EMPLOYMENT HISTORY (Insert Letter in Each Space)

A. Current Job Title _____

A. President	E. Principal Engineer	I. Quantity Surveyor	M. Section Head
B. Vice President	F. Chief Engineer	J. Project Engineer	N. Group Leader
C. V. P. of Engineering	G. Senior Estimator	K. Project Manager	O. Consultant
D. Chief Estimator	H. Estimator	L. Department Manager	Other: (explain)

B. Current Principle Job Function _____

A. General & Corporate Management	E. Plan Takeoff	I. Estimate Evaluation/Management
B. Design & Development Engineering	F. Complete Estimating	J. Conceptual Estimating
C. Engineering Services	G. Field Job Management	K. Value Engineering/Management
D. Cost Evaluation/Budgeting	H. Purchasing & Procurement	L. Other _____

C. Educational Background (Check Highest Academic Level and Degree Attained)

A. ____ Grade School	D. ____ University	1. ____ Diploma	4. ____ Master
B. ____ High School	E. ____ Trade School	2. ____ Associate	5. ____ Doctorate
C. ____ Junior College	F. ____ Extended Studies	3. ____ Bachelor	6. ____ Certificate

D. Employment History

NOTE: Start with your present employer and account for your past estimating experience. Prove more than 5 years estimating experience in your specific discipline as of application date.

1. From _____/_____/_____ To _____/_____/_____

Company _____ Phone No._____

Address _____

Supervisor _____ Position _____

Job Title: _____

Job Description: _____

_____

To be completed by Society Representative

Verified By_____ Information - ❑ Acceptable ❑ Not Acceptable

Date _____/_____/_____ Person Contacted_____

2. From _____/_____/_____ **To** _____/_____/_____

Company _____ Phone No._____

Address _____

Supervisor _____ Position _____

Job Title: _____

Job Description: _____

_____

To be completed by Society Representative

Verified By_____ Information - ❑ Acceptable ❑ Not Acceptable

Date _____/_____/_____ Person Contacted_____

3. From _____/_____/_____ **To** _____/_____/_____

Company _____ Phone No._____

Address _____

Supervisor _____ Position _____

Job Title: _____

Job Description: _____

_____

To be completed by Society Representative

Verified By_____ Information - ❑ Acceptable ❑ Not Acceptable

Date _____/_____/_____ Person Contacted_____

4. From _____/_____/_____ **To** _____/_____/_____

Company _____ Phone No._____

Address _____

Supervisor _____ Position _____

Job Title: _____

Job Description: _____

_____

To be completed by Society Representative

Verified By_____ Information - ❑ Acceptable ❑ Not Acceptable

Date _____/_____/_____ Person Contacted_____

E. ESTIMATING EXPERIENCE BREAKDOWN

Define the percentage of time spent on one or more of the estimating or related job functions listed below. Provide information for each employer listed in section 7D.

	7D 1	7D 2	7D 3	7D 4
A. Quantity Takeoff				
B. Labor Application (man hours)				
C. Material Pricing and Extension				
D. Unit Application				
E. Specifications				
F. Conceptual				
G. Subcontractor/Vendor Pricing				
H. Estimate Review				
I. Project Management				
J. Other (explain below)				
TOTALS (must equal 100%)				

8. TECHNICAL PAPER TOPIC REQUEST

TECHNICAL PAPER REQUEST FORM

Applicant Name_____

Preferred Address_____

City, State, Zip_____

Date _____ Daytime Telephone_____

CHOOSE TOPICS WITHIN YOUR PRIMARY DISCIPLINE ONLY

Your Technical Paper title must begin with, ***"How to Estimate the Cost of…"***

Paper Title - 1st Preference: _____

25 Word Synopsis: _____

_____

_____

_____

_____

Paper Title - 2nd Preference: _____

25 Word Synopsis: _____

_____

_____

_____

_____

Paper Title - 3rd Preference: _____

25 Word Synopsis: _____

_____

_____

_____

_____

9. ATTESTMENT

I affirm that the statements in this application are true and correct to the best of my knowledge. I agree to be governed by the rules and regulations of the Society and all the requirements of the Continuing Certification Program.

Applicants Signature _____Date_____/_____/_____

10. CONFIRMATION OF WORKSHOP ATTENDANCE

I hereby confirm the applicant's mandatory workshop attendance on _____/_____/_____

(date of workshop)

Workshop Leader (print) _____ Date _____/_____/_____

Signature _____

11. VERIFICATION

- ❑ **BY CHAPTER CERTIFICATION CHAIR**
- ❑ **BY CHAPTER PRESIDENT**
- ❑ **BY REGIONAL CERTIFICATION BOARD MEMBER**
- ❑ **BY REGIONAL GOVERNOR**

I hereby verify that I have reviewed this application; that it is complete and fully conforms to the requirements of the Certification Program. The information herein presented is true to the best of my knowledge.

_____

Print Last Name Print First Name Middle Initial

_____

Number and Street Area Code & Telephone Number

_____

City State Zip Code

Signature _____ Date _____/_____/_____

12. ELIGIBILITY FOR EXAMINATION BY CERTIFICATION BOARD

1. ❑ Approved ❑ Disapproved

By (print)_____ Date_____

Signature _____

2. ❑ Approved ❑ Disapproved

By (print)_____ Date_____

Signature _____

3. ❑ Approved ❑ Disapproved

By (print)_____ Date_____

Signature _____

MAJOR CONSENSUS

❑ Approved ❑ Disapproved

By (print)_____ Date_____

Signature _____

Approved Technical Paper Topic # _____Title_____

CSI Master Format Summary

1.4 General Construction Estimating

Introductory Information

00001 Project Title Page
00005 Certifications Page
00007 Seals Page
00010 Table of Contents
00015 List of Drawings
00020 List of Schedules

Bidding Requirements

00100 Bid Solicitation
00200 Instructions to Bidders
00300 Information Available to Bidders
00400 Bid Forms and Supplements
00490 Bidding Addenda

Contracting Requirements

00500 Agreement
00600 Bonds and Certificates
00700 General Conditions
00800 Supplementary Conditions

Facilities and Spaces

Systems and Assemblies

Construction Products and Activities

Division 1 - General Requirements

01100 Summary
01200 Price and Payment Procedures
01300 Administrative Requirements
01400 Quality Requirements
01500 Temporary Facilities and Controls
01600 Product Requirements
01700 Execution Requirements
01800 Facility Operation
01900 Facility Decommissioning

Division 2 - Site Construction

02050 Basic Site Materials and Methods
02100 Site Remediation
02200 Site Preparation
02300 Earthwork
02400 Tunneling, Boring & Jacking
02450 Foundation & Load Bearing Elements
02500 Utility Service
02600 Drainage and Containment
02700 Bases, Ballast, Pavement & Appurtenances
02800 Site Improvements & Amenities
02900 Planting
02950 Site Restoration & Rehabilitation

Division 3 – Concrete

03050 Concrete Materials & Methods
03100 Concrete Forms & Accessories
03200 Concrete Reinforcement
03300 Cast-In-Place Concrete
03400 Precast Concrete
03500 Cementitious Decks & Underlayment
03600 Grout
03700 Mass Concrete
03900 Concrete Restoration & Cleaning

Division 4 – Masonry

04050 Basic Masonry Materials & Methods
04200 Masonry Units
04400 Stone
04500 Refractories
04600 Corrosion-Resistant Masonry
04700 Simulated Masonry
04800 Masonry Assemblies
04900 Masonry Restoration & Cleaning

Division 5 – Metals

05050 Basic Metal Materials & Methods
05100 Structural Metal Framing
05200 Metal Joists
05300 Metal Deck
05400 Cold Formed Metal Framing
05500 Metal Fabrications
05600 Hydraulic Fabrications
05650 Railroad Track & Accessories
05700 Ornamental Metal
05800 Expansion Control
05900 Metal Restoration & Cleaning

Division 6 – Wood & Plastics

06050 Basic Wood & Plastic Materials & Methods
06100 Rough Carpentry
06200 Finish Carpentry
06400 Architectural Woodwork
06600 Plastic Fabrications

06900 Wood & Plastic Restoration & Cleaning

Division 7 – Thermal & Moisture Protection

07050 Basic Thermal & Moisture Protection Materials & Methods
07100 Dampproofing & Waterproofing
07200 Thermal Protection
07300 Shingles, Roof Tiles & Roof Covering
07400 Roofing & Siding Panels
07500 Membrane Roofing
07600 Flashing and Sheet Metal
07700 Roof Specialties/Accessories
07800 Fire & Smoke Detection
07900 Joint Sealers

Division 8 – Doors & Windows

08050 Basic Door & Window Materials & Methods
08100 Metal Doors and Frames
08200 Wood and Plastic Doors
08300 Specialty Doors
08400 Entrances and Storefronts
08500 Windows
08600 Skylight
08700 Hardware
08800 Glazing
08900 Glazed Curtain Wall

Division 9 – Finishes

09050 Basic Finish Material & Methods
09100 Metal Support Assemblies
09200 Plaster and Gypsum Board
09300 Tile
09400 Terrazzo
09500 Ceilings
09600 Flooring
09700 Wall Finishes
09800 Acoustical Treatment
09900 Paints and Coatings

Division 10 – Specialties

10100 Visual Display Boards
10150 Compartments and Cubicles
10200 Louvers and Vents
10240 Grilles and Screens
10250 Service Walls
10260 Wall and Corner Guards
10270 Access Flooring
10290 Pest Control
10300 Fireplaces and Stoves
10340 Manufactured Exterior Specialties
10350 Flagpoles
10400 Identification Devices
10500 Lockers
10520 Fire Protection Specialties
10530 Protective Covers
10550 Postal Specialties
10600 Partitions
10670 Storage Shelving
10700 Exterior Protection
10800 Toilet, Bath, and Laundry Accessories
10880 Scales
10900 Wardrobe and Closet Specialties

Division 11 - Equipment

11010 Maintenance Equipment
11020 Security and Vault Equipment
11030 Teller and Service Equipment
11040 Ecclesiastical Equipment
11050 Library Equipment
11060 Theater and Stage Equipment
11070 Instrumental Equipment
11080 Registration Equipment
11090 Checkroom Equipment
11100 Mercantile Equipment
11110 Commercial Laundry & Dry Cleaning Equipment
11120 Vending Equipment
11130 Audio-Visual Equipment
11140 Vehicle Service Equipment
11150 Parking Control Equipment
11160 Loading Dock Equipment
11170 Solid Waste Handling Equipment
11190 Detention Equipment
11200 Water Supply & Treatment Equipment
11280 Hydraulic Gates and Valves
11300 Fluid Waste Treatment & Disposal Equipment
11400 Food Service Equipment
11450 Residential Equipment
11460 Unit Kitchen
11470 Darkroom Equipment
11480 Athletic, Recreational, & Therapeutic Equipment
11500 Industrial and Process Equipment
11600 Laboratory Equipment
11650 Planetarium Equipment
11660 Observatory Equipment
11700 Medical Equipment
11780 Mortuary Equipment
11850 Navigation Equipment
11870 Agricultural Equipment
11900 Exhibit Equipment

Division 12 - Furnishings

12050 Fabrics
12100 Art
12300 Manufactured Casework
12400 Furnishings and Accessories
12500 Furniture
12600 Multiple Seating
12700 Systems Furniture
12800 Interior Plants and Planters
12900 Furnishings Restoration and Repair

Division 13 – Special Construction

13010 Air Supported Structures
13020 Building Modules
13030 Special Purpose Rooms
13080 Sound, Vibration, Seismic Control
13090 Radiation Protection
13100 Lightning Protection
13120 Pre-Engineered Structures
13150 Swimming Pools
13160 Aquariums
13165 Aquatic Park Facilities
13170 Tubs and Pools
13175 Ice Rinks
13185 Kennels and Animal Shelters
13190 Site-Constructed Incinerators
13200 Storage Tanks
13220 Filter Underdrains and Media
13230 Digester Covers and Appurtenances
13240 Oxygenation System
13260 Sludge Conditioning Systems
13280 Hazardous Material Remediation
13400 Measurement and Control Instrumentation
13550 Transportation Control Instrumentation
13600 Solar and Wind Energy Systems
13700 Security Access and Surveillance
13800 Building Automation and Control
13900 Fire Suppression

Division 14 – Conveying Systems

14100 Dumbwaiters
14200 Elevators
14300 Escalators and Moving Walks
14500 Material Handling

14600 Hoists and Cranes
14700 Turntables
14800 Scaffolding
14900 Transportation

Division 15 - Mechanical

15050 Basic Mechanical Materials and Methods
15100 Building Services Piping
15200 Process Piping
15300 Fire Protection Piping
15400 Plumbing Fixtures and Equipment
15500 Heat-Generation Equipment
15600 Refrigeration Equipment
15700 Heating, Ventilating, and Air Conditioning Equipment
15800 Air Distribution
15900 HVAC Instrumentation and Controls
15950 Testing, Adjusting and Balancing

Division 16 - Electrical

16050 Basic Electrical Materials and Methods
16100 Wiring Methods
16200 Electrical Power
16300 Transmission and Distribution
16400 Low-Voltage Distribution
16500 Lighting
16700 Communications
16800 Sound and Video

Appendix C

Member
Discipline Specific Intention Form

DST INTENTION FORM

American Society of Professional Estimators

NAME_____

COMPANY NAME:_____

COMPANY ADDRESS:_____

_____

WORK PHONE:_____HOME PHONE:_____

E-MAIL ADDRESS:_____

CHAPTER NAME:_____CHAPTER NUMBER:_____

MAL:_____REGION:_____

CERTIFICATION #_____

I_____ INTEND TO:

❑ Write 100 Questions and 2 Problems in:

CSI Number _____

CSI Description_____

❑ Take the Discipline Specific Test (Check the appropriate test)

❑ 1.4 General Construction
❑ 16000 Electrical
❑ 03000 Concrete
❑ 15180 Mechanical HVAC Piping
❑ 15800 Mechanical HVAC Sheetmetal
❑ 09200 Drywall Systems
❑ 09900 Painting
❑ 15400 Plumbing
❑ 04000 Masonry
❑ 07000 Roofing
❑ 02300 Earthwork
❑ 05100 Structural Steel

I understand that the above requirement is due upon my next Continuing Certification

SIGNATURE:_____ DATE_____

CPE Signature

$75.00 (US) (Non-Refundable) Fee Enclosed _____ CHECK # _____

Make checks payable to ASPE and mail to the Business Office at:
2525 Perimeter Place, Suite - 103 -- Nashville, Tennessee 37214

❑ VISA ❑ MASTERCARD ❑AMERICAN EXPRESS

Card #_____ EXP. DATE: _____ CV2#:_____

(Last 3 digit code on back of card)

Billing Street Address: _____ Billing Zip Code:_____

Appendix D

Member
Continuing Certification Application

American Society of Professional Estimators

MEMBER
CONTINUING CERTIFICATION APPLICATION

CONFIDENTIAL

Name _____ Chapter No. _____
Date Received _____ Certificate No. _____
Payment Received _____ Renewal Date _____
Member Status _____

Continuing Certification Application Instruction

READ instructions carefully before completing this application. If additional space is required, type your information on a blank white sheet of paper and attach it to the back of your application. Note the attachments at the section header - label additional information accordingly. **Do not forget to attach ALL back-up pertaining to your point claims.**

COVER PAGE: Leave bottom section blank for use by the Society Business Office.

SECTIONS 1-3: Fill in appropriate information. Abbreviations for Street, Avenue, Boulevard, and states are acceptable. Check preferred mailing address.

SECTION 4: If you are a General Construction Estimator, use Discipline 1.4. Refer to the Master Format contained in the Standard Estimating Practice Manual for the correct discipline. Fill in your Certificate number and Date of Issue and Expiration Date.

SECTION 5: Fill in payment information. Enclose appropriate Continuing Certification fee as indicated.

SECTION 6: Complete the Continuing Certification Point Schedule (sections A-I). Be sure to attach the appropriate signatures and back up justifying your points.

A. A total of 30 points must be earned from at least three (3) of the ten- (10) levels.
B. Please note verification requirements for each category.

Each level will have a subtotal. Total all level subtotals - Levels A-I on page 9.

SECTION 7: Attestment shall be signed and dated by the applicant. Forward all information to the Society Business Office with the appropriate back-up and continuing certification fee.

SECTION 8: Reserved for comments by the Certification Board.

CONTINUING CERTIFICATION PROCEDURES

1. Continuing Certification Applicants must complete the application in strict compliance with the instructions and forward to the Society Business Office prior to the expiration date of their Certificate.

3. The Society Business Office records and verifies the following:
    a. Date received
    b. Payment received
    c. Certification Number
    d. Renewal Date
    e. Membership Status
    f. Conformance with Instructions
    g. Completeness of Documentation List and Attachments

4. The Society Business Office forwards processed application to Regional Certification Board Member for review.

5. Your Regional Certification Board Member reviews application and forwards it to the Society Business Office with recommendation for action. Application is kept on file at SBO.

6. The Society Business Office forwards new Certificate to Chapter Certification Chair to be presented at Chapter meeting. MALs will receive their certificate directly.

AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS

Continuing Certification Application – Member – Chapter_____

1. NAME AND DATE OF BIRTH

_____

Last Name First Name Middle Initial Date of Birth

Preferred Mailing Address ❑ **HOME** ❑ **BUSINESS**

2. HOME ADDRESS

_____

Number and Street

_____

City State Country Zip Code

_____

E-Mail Address Area Code and Telephone Number

3. BUSINESS ADDRESS

_____

Company Name

_____

Number and Street

_____

City State Country Zip Code

_____

E-Mail Address Area Code and Telephone Number

4. CERTIFICATION NUMBER AND DATE OF ISSUE

_____

Certification Number Date of Issue CSI Discipline Cert. Expiration

5. APPLICATION FEE

Continuing Certification Fee - $75.00 Payable in U.S. Funds (Non-refundable)

Amount Enclosed $_____ ❑ Business Check ❑ Personal Check ❑ Money Order

Credit Card Payment **Check one:** ❑ Visa ❑ MasterCard ❑ AMEX

Card No._____ Exp. Date _____ CV2 #_____

(Last 3 digit code on back of card)

Name Printed On Card _____ Signature_____

Billing Street Address: _____ Billing Zip Code:_____

6. CONTINUING CERTIFICATION POINT SCHEDULE

A. NATIONAL LEVEL					
Description	**Possible Points**	**Year 1**	**Year 2**	**Year 3**	**Total Points**
1. Trustees	**5/yr**				
2. Committee or Tech. Board Chair	**5/yr**				
a. Subcommittee Chairman	**5/yr**				
b. Committee Member	**3/yr**				
3. Convention Registrant	**5/yr**				
a. Voting Delegate	**2/yr**				
4. Convention Activities a. Attend all Committee Workshops	**1/yr**				
b. Attend all Education Seminars	**1/yr**				
c. Present Seminar	**2/yr**				
d. Present Committee Workshop	**1/yr**				
5. General Activities a. Contribute Time & Effort for National Interest	**3/yr MAX**				
b. Article for "Estimating Today	**5/yr MAX**				
c. Proctor for EP2 Exam (3 points per exam date)	**3/yr MAX**				
d. Proctored GEK Exam (3 points per exam date)	**3/yr MAX**				
e. Proctored DST Exam (3 points per exam date)	**3/yr MAX**				
f. Conduct Certification Workshop	**1/yr MAX**				
POINTS CLAIMED					
Verified by Society Business Office (SBO) *Signature:* *Date:*					
Points Approved By National Certification Board Member *Initials:* *Date:*					

B. SOCIETY COMMITTEE & TECHNICAL BOARD LEVEL					
Description	**Possible Points**	**Year 1**	**Year 2**	**Year 3**	**Total Points**
6. Committee Support Activities a. Contribute to SEP Manual	**10/yr MAX**				
b. Edit portions of Sep Manual	**5 per edit**				
c. Technical Paper Content Review * 2 points per Technical Paper Review	**2/Paper**				
d. DST Questions & Problems Review (100 questions & 2 problems) * 10 points for 100 questions and 2 problems	**10/set**				
e. Write DST Questions and Problems * 15 points for each DST Problem/Questions after approval by the Certification Board	**15/yr**				
POINTS CLAIMED					
Reviewed and Approved by Standards Board Chair (6a. & b.) *Signature:* *Date:*					
Reviewed and Approved By Certification Board Chair (6c., d., & e.) *Signature:* *Date:*					
C. REGIONAL LEVEL					
7. Regional Activities a. Attend Regional Meeting	**3/mtg.**				
b. Organize Regional Meeting	**5/mtg.**				
c. Attend all Activities	**1/mtg.**				
d. Present Seminar	**2/yr. MAX**				
e. Present Committee Workshop	**2/yr. MAX**				
POINTS CLAIMED					
Reviewed by Regional Governor *Signature:* *Date:*					
Points Approved By National Certification Board Member *Initials:* *Date:*					

D. CHAPTER LEVEL					
Description	**Possible Points**	**Year 1**	**Year 2**	**Year 3**	**Total Points**
8. Officer or Director	**5/yr**				
9. Committee Chairman	**4/yr.**				
10. Committee Member	**2/yr.**				
Monthly Meetings (75% meetings per)	**3/yr.**				
12. Article for Newsletter	**3/yr. MAX**				
13. Contribute Time and Effort to Chapter Activities	**2/yr. MAX**				
14. Pro-Tem President	**2/yr.**				
15. Charter Member (one time)	**10**				
POINTS CLAIMED					
Reviewed by Chapter Officer *Signature:* *Date:*					
Points Approved By National Certification Board Member *Initials:* *Date:*					

E. EDUCATIONAL LEVEL					
Description	**Possible Points**	**Year 1**	**Year 2**	**Year 3**	**Total Points**
16. Teach Estimating Class	**2/cl hr**				
Reviewed by Department Head/Dean *Signature:* *Date:*					
Points Approved By National Certification Board Member *Initials:* *Date:*					
17. Guest Lecturer Estimating Class	**2/cl hr.**				
Reviewed by Instructor *Signature:* *Date:*					
Points Approved By National Certification Board Member *Initials:* *Date:*					
In order to claim the points listed below, attach the appropriate documentation.					
18. Speaker Construction Seminar	**2/ cl hr.**				
19. Attend Estimating Courses	**2/cl hr**				
20. Attend Construction Seminar	**2/cl hr**				
POINTS CLAIMED					
Reviewed and Approved by National Certification Board Member *Signature:* *Date:*					
F. PROFESSIONAL LEVEL					
21. Manager of Estimating	**4/yr**				
22. Chief Estimator	**3/yr**				
23. Estimator	**2/yr**				
24. Self-Employed Estimator	**5/yr**				
POINTS CLAIMED* ***ONLY ONE CATEGORY CAN BE CLAIMED IN ANY YEAR**					
No verification is required for these points since you attest to the corrections of the points claimed at the end of this application. (Only one category can be claimed per year.)					
Points Approved By National Certification Board Member *Initials:* *Date:*					

G. PUBLICATIONS LEVEL					
Description	**Points Possible**	**Year 1**	**Year 2**	**Year 3**	**Total Points**
25. Published an Estimating Book	**25/book**				
26. Published a Technical Paper in the Estimator	**5/paper**				
In order to claim the points listed above, enclose the appropriate documentation.					
POINTS CLAIMED					
Reviewed by National Certification Board Member *Signature:* *Date:*					
Points Approved By National Certification Board Member *Initials:* *Date:*					

H. INDUSTRY LEVEL					
Description	**Points Possible**	**Year 1**	**Year 2**	**Year 3**	**Total Points**
27. Contribute Time & Effort to other Construction Associations* **** Candidate to provide documentation from other associations.***	**2/yr MAX**				
Verified by ASPE Member *Signature:* *Date:*					
Reviewed and Approved by National Certification Board Member *Signature:* *Date:*					

I. PROFESSIONAL REGISTRATION					
Description	**Point Possible**	**Year 1**	**Year 2**	**Year 3**	**Total Points**
28. Professional License or Registration	**4/yr**				
Submit a copy of your Professional License or Registration					
Verified by Business Office *Registration/License Attached* ❑ *Yes* ❑ *No* *Signature:*					
Points Approved by National Certification Board Member *Signature:* *Date:*					

POINT TOTALS	
LEVEL	**POINTS**
Level A	
Level B	
Level C	
Level D	
Level E	
Level F	
Level G	
Level H	
Level I	
TOTAL POINTS	

7. ATTESTMENT

I certify that the statements in this application are correct and I agree to be governed by the rules and regulations of the Certification Program and the Society.

Applicants Signature:_____Date:_____

8. APPROVAL

Continuing Certification Granted ❑ YES ❑ NO

Recommended by Regional Certification Board Member

Signature:_____Date:_____

Region:_____

Comments:_____

_____

_____

Appendix E

CPE
STAMP & SEAL PROGRAM

American Society of
Professional Estimators **CERTIFICATION BOARD**

2525 Perimeter Place Drive, Ste. 103, Nashville, TN 37214 (615) 316-9200 ▪ Fax: (615) 316-9800

CPE Stamp and Seal Program

Dear Stamp and Seal Candidate:

Thank you for requesting a copy of ASPE CPE Stamp and Seal Program. Your active involvement in this program will benefit many sectors of ASPE: Marketing, Education, and the national organization. Only Society members may apply for the Stamp and Seal.

One of the requirements of obtaining the Stamp and/or Seal is participating in a self-administered workshop on the proper uses and restrictions of the stamp in our industry and the responsibilities of the candidate requesting the stamp. At the end of this packet is an acknowledgment page to be signed and returned with the application indicating you have read the enclosed material. No stamp or seal will be issued without your application and signed acknowledgement.

Please do not hesitate to contact the Society Business Office with any questions you may have.

Regards,
The National Certification Board

INTRODUCTION TO THE CERTIFICATION PROGRAM

Professional evaluation through Certification is one of the many ways the American Society of Professional Estimators endeavors to promote the profession and benefit the construction industry.

The founders of the Society sought to include estimators of all types of construction in the membership of ASPE: residential, heavy, general, specialty trade and conceptual. This array of highly skilled professionals was the "melting pot" envisioned by the Charter Members of the American Society of Professional Estimators when they organized in 1956.

With such diversity of backgrounds, the development of programs for both education and certification of professional estimators has been a demanding and rewarding process. For all the varied disciplines or levels of detail, the fundamental principles of construction cost estimating remain universally applicable. Beyond these fundamentals, however, lie the realms of varied disciplines, which make construction estimating one of the most unique, challenging, and fulfilling professions an individual may pursue.

During the early years of the Society's existence, long-range programs were formulated to encourage university-level instruction in construction estimating, not only for the novice student, but for the experienced estimator as well. A system for evaluating the proficiency of estimators seeking certification was also envisioned.

ASPE Certification is the highest form of professional recognition an individual estimator can receive and is being sought by more construction estimators every year. Through it's Certification Program, the American Society of Professional Estimators recognizes the estimating proficiency and ethical awareness of the Certified Professional Estimator (CPE).

The Certification Board with the help of Chapter Certification Committees and Regional Governors administers the Certification Program.

ASPE Certification may be defined as an educational process, which entails mandatory workshop attendance, submission of an acceptable Professional Evaluation Application and technical paper, successful completion of written examinations and participation in the Continuing Certification Program. Each CPE Candidate must earn an affirmative appraisal based on proven ability and practical experience in the profession.

The Society's efforts in the area of Certification became reality in August 1976 when the National Certification Committee met in Denver, Colorado, to evaluate the first phase of the Certification Program. The results were most gratifying. The Committee found a nucleus of competent estimators in nearly all of the construction disciplines. These professionals became the initial peer group against which applicants were measured. The peer group's expertise has since been drawn upon to establish a comprehensive examination system.

Today each estimator seeking certification must meet certain requirements before being permitted to take the written examinations. Occasionally, experienced estimators will request certification without examination. This is not permitted under the Society's program rules. Requiring each candidate to take the examinations ensures the integrity of the Society's program.

Once recognized as a CPE, you will be expected to keep abreast of current trends and improved practices in the construction industry. Your conformance with this requirement is measured under the provisions of the Continuing Certification Program. CPEs subject to recertification must document active participation in the areas of ASPE service: professional, educational and creative contributions to construction estimating. Among the elements of continuing certification are review of technical papers, and the contribution of questions and problems to the Certification Test Data Bank. As a CPE, you may be requested to volunteer your expertise in advancing the art and science of estimating. For example, you may contribute new material for the Standard Estimating Practice manual (SEP). You could also present a Certification Workshop or proctor an examination. Or you may be called upon by the Education Board to develop programs to improve the quality of estimating instruction for students at colleges and universities.

HISTORY OF ASPE'S CERTIFICATION PROGRAM

Although the founders of ASPE and the first six chapters had previously discussed the concept of certification, it was not until 1974 that the Society embarked on this program. The first National Director was appointed, and he assigned responsibilities for developing tests in the various CSI disciplines. In addition, the National Board accepted a preliminary format for testing.

In 1975, the Society explored seeking outside help in the area of test development. Several firms, including Educational Testing Service (ETS) in Princeton, New Jersey, were contacted to submit proposals and fee schedules. During the year, a series of meetings were held to review examination procedures, test questions, and testing agency presentations. After considering the economic impact of hiring a consultant, the Society decided to involve all chapters to implement the exam process. The National Board approved ETS's recommendation to establish a peer group that would not undergo the planned testing procedure. This core group would create a staff to administer the evaluation of other candidates for certification. The final accomplishment of that year was the first draft of the Certification application.

1976 was a banner year for ASPE. The Society formed the Code of Ethics to supplement certification, introduced standards and rewrote the national bylaws to encompass the program. In May, the National Board officially adopted the tenants of certification including the Certification application, the Code of Ethics, and certified members of the Executive Committee as the initial peer group. Applications were then distributed to the entire membership. Over 300 Professional Evaluation Applications were processed in August, and 233 individuals were accepted for certification in 11 of the 16 CSI divisions.

The Long-Range Planning Task Force comprised of past National Presidents, asked the Society to develop a "generic" test in February 1984. This exam would be available to all members regardless of their specialty and/or the existence of a discipline test. In the ensuing four years, the Certification Test Development Committee authored, critiqued, and administered the first General Estimating Knowledge Exam in May 1988. In addition, the Society drew up plans for Continuing Certification to keep estimators abreast of new advances in their profession and to ensure continued educational and Society involvement.

Dedicated members have served in various capacities over the years to keep certification in the forefront as one of the six fundamental purposes of our organization. The program's future course will continue to be charted by a desire for excellence, to indicate the Society's level of professionalism in the industry, and to focus on the improvement of each estimator's skills.

CONTINUING CERTIFICATION PROGRAM

The construction industry changes continually and the Professional Estimator must be aware of these changes and be able to evaluate their impact upon his trade.

The title "Certified Professional Estimator" (CPE) is coming into increased use. The architect/owner is increasingly aware of the importance of the CPE designation. We, as a Society, must show the industry and the public that the construction estimator is a highly trained professional who is responsible for the very survival of the company for which he works. The method by which the Society has chosen to do this is the Certification program.

This program alone, however, is not enough. As "CPE" is a meaningful professional title, we must be able to show other industry professionals that the CPE is an educated and motivated person who maintains his level of knowledge through continued education and interaction with other people in the industry. The method by which the Society has chosen to do this is the Continuing Certification Program.

The Continuing Certification Program also encourages our members to remain active in the Society and the construction industry. ASPE's strength comes from its active, members. To have a stronger voice in the future of the construction industry, we must have a large, active membership. Encouraging our members to become CPE' s and having a program, which rewards them for participating in the Society's activities, can help achieve these goals.

Eligibility

The member must have been previously certified and have maintained his membership in the Society with all dues and fees paid for the three years prior to submitting his/her Continuing Certification Application. Non-members must also participate in the Continuing Certification Program.

Continuing Certification Procedure

The CPE will complete a Continuing Certification Application, and submit the application to the Society Business Office as explained in the application.

Implementation

Each current participating CPE must apply for renewal of certification every three years. All members who become subject to this program will have three years from the issue date of their Certificate to accumulate the 30 points required for continuing certification.

POINTS MUST BE EARNED FROM AT LEAST THREE (3) OF THE SCHEDULED LEVELS.

The applicant is responsible for accumulating all documentation for the point total and transmitting it to the Society Business Office. Accumulate verifications annually to avoid problems resulting from changing administrations. It is the responsibility of the CPE to obtain a guarantee of delivery. It is recommended that the documentation be sent with a return receipt requested to the Society Business Office.

Requirements for Continuing Certification may be modified from time to time. These modifications may include additional categories and requirements. The Continuing Certification applicant, however, will be granted points based upon the point schedule in effect at the beginning of the applicant's Continuing Certification term.

CONTINUING CERTIFICATION PROCEDURES

Your first cycle and first year (Year 1) in the Continuing Certification Program begins August 1 following notification of obtaining your CPE status. Your certificate states that your CPE status will terminate July 31 of Year 4. The *accumulation of points* begins August 1 of Year 1 and ends three years later on July 31 of Year 3. This period runs concurrently with the ASPE fiscal year for record keeping purposes.

The Business Office will notify you before July 31 of Year 3 that your Certification will expire on July 31 of Year 4. The Continuing Certification application and the processing fee shall be submitted to the Society Business Office prior to October 1 of Year 4.

The Continuing Certification Applicant is solely responsible for obtaining all signatures and documentation supporting the application. Your Continuing Certification application should first be submitted to your Chapter Certification Chair for review. Then the completed application must be submitted to the Society Business Office (SBO) along with the appropriate fee. The SBO will verify the application is complete and send it to your regional representative on the National Certification Board for review. You will be notified by February 1 of Year 4 of any deficiencies or its' acceptance. You will have until July 1 of Year 4 to correct any deficiencies. A new certificate will be issued prior to the expiration date and will cover the next three years. (July 31 of Year 7)

The second cycle would actually begin with the *accumulation of points* in Year 4. The *accumulation of points* begins August 1 of year 4 and ends three years later on July 31 of Year 6.

All terms and conditions of Continuing Certification, as listed above, will apply to each successive three-year cycle.

LIFETIME CPE STATUS: (Not Available To Non-Members)

After submitting renewals for four consecutive Continuing Certification cycles, CPEs may apply for Lifetime Status. The necessary criteria, as set forth by the Certification Board, is as follows:

A Certified Professional Estimator (CPE) may apply for the status of Lifetime CPE after having been certified for at least fifteen (15) consecutive years AND a continuous member in good standing.

An application for Lifetime CPE Status and the appropriate fee must be forwarded on to the Society Business Office (SBO) for verification. The Application will then be submitted to the National Certification Board for its approval.

A Lifetime CPE must continue to remain a member in good standing in the Society in order to maintain the status of Lifetime CPE.

NOTE: *Only* those CPEs in the Continuing Certification Program are eligible for the Lifetime CPE Status.

CODE OF PROFESSIONAL PRACTICE OF THE AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS

1. GOVERNS CPE'S AND THEIR SUBORDINATES

This Code sets forth certain standards for the intended purpose of governing the professional practice of all individuals who have accepted the credentials of a Certified Professional Estimator (CPE), are ASPE members in good standing, and intend to utilize the Stamp and/or Seal as issued by ASPE. ASPE knows of no reason why it should not be entitled to claim exclusive authority to bestow the CPE credentials upon qualified individuals, and ASPE shall vigorously pursue all reasonable means to preserve its right to establish and publish this and related standards both now and in the future. Therefore, all who represent themselves as a CPE to their clients or employers by using the Stamp and/or Seal shall adhere to this Code. Those who do not wish to give their consent nor be so governed shall not be granted the use of the Stamp and/or Seal issued by the Society until such time as they are willing to comply. In addition, it shall be the responsibility of a CPE to insure that the acts of employees or staff under their responsible supervision conform to the professional standards contained herein, or such acts may subject the supervising CPE to a professional review and possible loss of credentials. [Use of the words "he, him, his, etc." in this Code, shall be interpreted as signifying both genders. The terms "client" and "employer" shall be considered interchangeable for the purpose of interpreting this Code.]

2. STANDARD ESTIMATING PRACTICE (SEP)

All CPEs requesting the Stamp and/or Seal should be familiar with ASPE's publication, Standard Estimating Practice (SEP). SEP should be a part of your reference library. It clearly defines the Society's vision of proper estimating techniques, formats, etc. Part One, Section One, Basic Standards, Part One, Section Two, Levels of the Estimate, and Part One, Section Three, Scope of the Estimate, are included with this workshop. Please review carefully.

3. CODE OF ETHICS

All members of ASPE are bound to abide by the Society's Code of Ethics, which serves as a general reference for an estimator's professional conduct. A complete copy can be located in Part Four of Standard Estimating Practice. This Code of Professional Practice reinforces the Code of Ethics, and the principle that professional skills alone are not sufficient to demonstrate professionalism. Consequently, violations of the standards of professional conduct as presented in the Code of Ethics and this Code of Professional Practice could subject a CPE to disciplinary action and possible loss of the right to continued use of the professional credentials granted by the Society.

4. ETHICAL CONDUCT

A CPE shall treat all fellow CPEs, and all members of allied professions, with fairness and respect and shall not commit any malicious act, or make any false or unjust accusation, which shall directly or indirectly injure another's personal or professional reputation. This does not relieve a CPE of the moral obligation to expose illegal or unethical conduct in a manner appropriate for the offense.

5. REVIEW OF ANOTHER'S WORK

Whenever a client or an employer asks a CPE to review or comment on the work performed by another, extreme care shall be taken in order to render a proper opinion. Casual and improperly researched conclusions are not within the realm of professional conduct to be expected of a CPE.

If appropriate, the reviewing CPE shall discuss the issues of import with the other person whose work is being reviewed prior to releasing a written report or expressing an oral opinion. This paragraph places no restriction on the preparation of a completely independent estimate or work product which a client or employer may choose to use as the basis for their own comparison.

6. PROFESSIONAL QUALIFICATIONS

No CPE shall misrepresent their professional qualifications or attempt to practice beyond the limits of their field of expertise. If called upon to do so, a CPE shall identify the Construction Estimating Discipline(s) (CEDs) in which they can demonstrate that they have acquired sufficient experience to be qualified to practice. Those CPEs that have expertise in several fields other than the ones in which they were initially certified, shall be permitted to enlarge their practice to include the additional disciplines, provided they have conducted sufficient research and study of the unique aspects of the new field to enable them to render sound judgment in their practice.

7. DEFINING THE SCOPE OF SERVICES

It shall be the responsibility of a CPE to maintain effective communication with each client or employer, with regard to the scope of services to be rendered, including the level of detail required, the form of the work product, and the date, or approximate date, by which the defined services will be completed. A sample contract for professional estimating services between estimator and client is enclosed with this workshop. It is from the Standard Estimating Practice Manual, Part One. During the course of a time and expenses engagement, at the earliest moment that a CPE has reason to believe that the scope of services originally agreed upon will be insufficient to produce the desired results in a professional manner, or that any estimate of hours involved in performing an assignment will be inadequate, the client or employer should be advised. A CPE shall pursue all reasonable means to mitigate expenses by periodically seeking clarification of the client's or employer's expectations regarding the continuation of the work and by advising the client or employer of the remaining level of effort necessary to complete a given assignment in a professional manner.

8. CONFLICTS OF INTEREST

No CPE shall:

A. Accept an engagement or assignment that may result in the compromising of professional ethics, or the minimum standards of excellence recommended by the Society.
B. Accept an engagement or assignment to perform work for more than one client on any particular project without the consent of all parties concerned.
C. Accept an engagement or assignment to perform professional services or render a professional opinion on a project or issue in dispute, if the CPE has had access to information which may prejudice the work or opinion, or constitute a conflict of interest detrimental to the client, unless such circumstances and relevant facts have been properly disclosed in writing and accepted by the client.
D. Incorporate the work of another CPE, contractor, or client, into a professional work product without proper reference, or the express permission of the party or parties that performed the original work.

9. FINANCIAL INTERESTS

A CPE shall not accept an engagement or assignment for a client if there is a possibility the professional services to be performed may involve dealings with an organization in which the

CPE, another client, or the CPE's employer has a significant financial interest, without having disclosed such interest to the client prior to performing any services.

10. REMUNERATION FOR PROFESSIONAL WORK

A CPE may be remunerated for his professional work by means of hourly professional fees, by payment of a lump sum fee for a specific scope of service, by payment of a bonus or other compensation on the basis of performance or valuable contribution to the successful completion of a construction project, or by compensation paid by his employer. No CPE shall testify as an expert witness in a case where compensation for professional services is based on a percentage of the judgment or settlement amount. A CPE shall be permitted to render professional services in exchange for an ownership interest in a project provided no other conflicts of interest exist.

11. INFLUENCE OF OTHERS

No CPE shall seek or accept any commission or other valuable consideration for the purpose of improperly influencing the decision of others.

12. SOLICITATION OF WORK

No CPE shall obtain or attempt to obtain professional work by offering or paying monetary or other valuable consideration to any person or persons involved in the process of selecting a CPE for an assignment, or by any other improper means. Referral service commissions are permissible provided they do not violate any laws governing such transactions.

13. COMPARISONS

No CPE shall obtain or attempt to obtain professional work by making an unfounded comparison with another with regard to the speed, efficiency, or competency of the other person to perform the work. A CPE may provide verbal or written details of the services believed to be required in the performance of an engagement and may make comparisons with the approaches to the accomplishment of the work proposed by another, provided such comparisons are not slanderous nor detrimental to the public reputation of the other person's professional practice.

14. ACCURACY OF QUANTITIES AND PRICES

Guarantees of the accuracy of the quantities, or prices used in the preparation of a professional estimate shall be given at the discretion of the responsible CPE. A CPE may choose to limit the representation of the accuracy of the services performed by indicating that they have been or will be performed in accordance with "generally accepted professional estimating practices." Such representation shall not be interpreted as a guarantee of accuracy, but rather as an assurance that a reasonable amount of care has been, or will be exercised in the preparation of the estimate work product. This is because many factors can be involved in the professional interpretation of the scope of the construction work being quantified or priced, and because various methods and techniques for surveying or deriving estimate quantities have varying degrees of accuracy associated with them. Therefore, a CPE's obligations under this Code relative to the adequacy or accuracy of a professional estimate shall be based on a determination of what is reasonable under the circumstances of the engagement. Essentially, a CPE shall make every reasonable effort to include all items shown in the related project documents, and

shall price all items utilizing appropriate quotations and published or authorized proprietary reference sources as tempered by experience and professional judgment.

15. PROFESSIONAL ESTIMATING PRACTICES

Whenever a CPE utilizes the phrase "prepared in accordance with generally accepted professional estimating practices," this shall be interpreted to mean that the CPE has utilized a systematic method of surveying the quantities, has applied prices to each estimate line item, and has summarized the major divisions of work in a format suitable for the level of detail agreed upon by the client and CPE. As the volume of technical material, either published or recognized by the Society increases, specific elements of the estimating process will become more standardized and commonly understood. Presently, there are a number of books and estimating standards, which set forth various estimating systems and methods. A CPE who employs one or more of these published systems may utilize the phrase "prepared in accordance with generally accepted professional estimating practices" in the manner, described in paragraph 18, below.

16. CONFIDENTIAL INFORMATION

No CPE shall divulge without authority, or use improperly, any information received in the course of any assignment or engagement.

17. ADVERTISEMENTS AND PROMOTION

A CPE in professional practice may advertise and promote his professional services provided such marketing efforts do not detract from the dignity of the profession, and that they do not violate any other provision of this Code

18. PROFESSIONAL WORK PRODUCTS IDENTIFIED

Reports, estimates, and other documents emanating from a CPE's professional practice, should be identified as the work of that practice. A cover letter or a narrative on the estimate scope, bound within a report is one of the optional methods of advising the reader of the type of report or estimate, which has been prepared. It also provides the opportunity to state that the estimate has been "prepared in accordance with generally accepted professional estimating practices." This type of letter or narrative may also be used to advise the reader of any professional reservations or limitations on the scope or completeness of the work product. Documents prepared for or in association with other consultants should show the names of both or all CPEs, individuals, and firms as appropriate.

19. USE OF THE STAMP AND/OR SEAL

RECOMMENDED USES:

1. The Certified Professional Estimator shall use the personalized Stamp and/or Seal to mark completed estimates that they have fully prepared within their task or discipline.

2. The Certified Professional Estimator shall clearly identify the level of the estimate he is preparing prior to placing his stamp or seal on the finished product.

3. The Stamp and/or Seal shall be used only on items referring to estimating. They shall not be used on a report that does not reflect or affect an estimate.

4. The use of the Stamp and/or Seal on an estimate prepared by others indicates the CPE using the stamp or seal has fully reviewed the estimate and concurs with the contents therein.

20. PROFESSIONAL REVIEW

Cases involving charges of unprofessional conduct against a CPE, whether specially defined by this Code or not, shall be dealt with as the circumstances dictate by an impartial panel of no fewer than three (3) Certified Members, one to be appointed by the CPE under review, one to be appointed by the President of the Society, and the third to be selected by the other two. The CPE under review shall be entitled to the rights of "due process" including, but not limited to, the rights to hear all the evidence, cross-examination, et cetera. The decision of the panel shall be written, and shall state the basis for action. The decision may be appealed to the National Board of Trustees, which shall not review any new evidence in the matter, but shall determine whether appropriate procedures were followed and whether the matter warrants another hearing by the same or a new panel of Certified Members. Should the CPE under review disagree with the final decision, the matter shall be submitted to binding arbitration in accordance with the rules of the American Arbitration Association.

Contributors

The enclosed material was extracted from the following:

Robert C. Pratt, FCPE - Code of Professional Practice - 1985 Convention Draft

Standard Estimating Practice - 6th Edition, Published 2004

Certification Program Guide - November 2005 Edition

We thank the following for their review and comment:

Charles Munroe, CPE
Joseph P. Majewski, FCPE
Paulette R. Rutlen, CPE
Bruce M. Morris, CPE
Don L. Short, II, FCPE
William H. Spradlin, FCPE
Francis J. Pelland, Esq., former Legal Council

ACKNOWLEDGEMENT

I _____ have read the enclosed material and do agree to abide by the information provided herein as relating to the use of the CPE Stamp and/or Seal.

_____

Signature

_____

Certification Number

Application for Certified Professional Estimator Stamp and/or Seal

Name: _____

Company Name: _____

Preferred Mailing Address: _____

_____

E-mail Address _____

Certification Number: _____

Expiration Date: (if applicable)_____

Member in Good Standing of Chapter: _____

(Select one)		Renewal
Application Fee & Seal	$195.00	$ 95.00
Application Fee & Stamp	$185.00	$ 95.00
Application Fee with both Seal & Stamp	$220.00	$120.00
Total Amount Submitted	$_____	$_____

Check ONE: Business Check Personal Check Money Order
Make checks payable to: American Society Of Professional Estimators

Credit Card Payment **Check ONE:** Visa MasterCard AMEX

Card No._____ Exp. Date _____ CV2#_____
(Last 3 digit code on back of card)

Name Printed on Card _____Signature_____

Billing Street Address_____ Billing Zip Code: _____

The following User's Agreement is provided, in duplicate, and will be kept on file at the Society Business Office (SBO). Please sign where indicated and return one (1) copy with the completed application and funds. Please allow 4 to 6 weeks for delivery.

The stamp will be issued with an expiration date of three years, corresponding to the qualified applicants certification renewal dates. The Stamp and Seal will not be offered to non-members.

Please mail completed application and agreement to:

ASPE
2525 Perimeter Place Drive, Suite 103
Nashville, TN 37214
Phone – 615-316-9200 Fax – 615-316-9800
www.aspenational.org.

CERTIFICATION STAMP USER AGREEMENT

(Send this copy to the SBO)

In consideration of being issued the official Certified Professional Estimator stamp by the American Society of Professional Estimators, the undersigned hereby agrees as follows:

(1) The stamp will be used solely by the undersigned to reflect his or her personal certification that the estimate to which the stamp is affixed has been prepared or thoroughly reviewed by the undersigned.

(2) Use of the stamp by anyone other than the undersigned, duplication of the stamp by the undersigned or any other use of the stamp inconsistent with the terms of this Agreement will be cause for immediate recall of the stamp by the Society, the forfeiture of any further use thereof by the undersigned and the loss of the undersigned's security deposit.

(3) The stamp is issued for a term of three (3) years and must be surrendered to the Society thereafter. If the undersigned fails to obtain or meet the requirements of the continuing certification program, the stamp will not be re-issued.

(4) In the event the undersigned commits any violation in the use of the stamp as described above will also be cause for termination of his or her membership and discipline from the Society.

(5) All renewals will be subject to the rules in place at the time of re-application.

The Society gives no assurances and makes no representations as to the quality of any estimate to which the stamp may be affixed.

_____ _____

Applicant's Signature **Date**

Subscribed and Sworn before me this _____ day of _____, 20___.

_____ My Commission Expires: _____

Notary Signature

For SBO Use Only:

Candidate Name & Chapter: _____

Approved–CertificationBoard: _____

Name & Title

Stamp Issue Date: _____

Expiration Date: _____

Certification No.: _____

CERTIFICATION STAMP USER AGREEMENT

(Keep this copy for your records)

In consideration of being issued the official Certified Professional Estimator stamp by the American Society of Professional Estimators, the undersigned hereby agrees as follows:

(1) The stamp will be used solely by the undersigned to reflect his or her personal certification that the estimate to which the stamp is affixed has been prepared or thoroughly reviewed by the undersigned.

(2) Use of the stamp by anyone other than the undersigned, duplication of the stamp by the undersigned or any other use of the stamp inconsistent with the terms of this Agreement will be cause for immediate recall of the stamp by the Society, the forfeiture of any further use thereof by the undersigned and the loss of the undersigned's security deposit.

(3) The stamp is issued for a term of three (3) years and must be surrendered to the Society thereafter. If the undersigned fails to obtain or meet the requirements of the continuing certification program, the stamp will not be re-issued.

(4) In the event the undersigned commits any violation in the use of the stamp as described above will also be cause for termination of his or her membership and discipline from the Society.

(5) All renewals will be subject to the rules in place at the time of re-application.

The Society gives no assurances and makes no representations as to the quality of any estimate to which the stamp may be affixed.

_____ _____

Applicant's Signature **Date**

Subscribed and Sworn before me this ____ day of _____, 20___.

_____My Commission Expires: _____

Notary Signature

For SBO Use Only:

Candidate Name & Chapter: _____

Approved–Certification Board: _____

Name & Title

Stamp Issue Date: _____

Expiration Date: _____

Certification No.: _____

Appendix F

LIFETIME CPE APPLICATION

LIFETIME CPE APPLICATION FORM

AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS

****

1. NAME

_____

Last Name First Name Middle Initial

Preferred Mailing Address ❑ **HOME** ❑ **BUSINESS**

2. HOME ADDRESS

_____

Number and Street Area Code and Phone Number

_____

City State Country Zip Code

3. BUSINESS ADDRESS

_____

Company Name

_____

Number and Street Area Code and Phone Number

_____

City State Country Zip Code

4. CERTIFICATION NUMBER AND DATE OF ISSUE

_____

Certification Number Date of Issue CSI Discipline Cert. Expiration

5. SBO VERIFICATION: _____YES _____NO

_____

APPROVED BY: NATIONAL CERTIFICATION BOARD

6. APPLICATION FEE: One-Time CPE Lifetime Application Fee - $400.00 (Non-refundable)

Make Checks Payable to: American Society of Professional Estimators, 2525 Perimeter Place Drive, Suite 103, Nashville, TN 37214

Amount Enclosed $_____ ❑ Business Check ❑ Personal Check ❑ Money Order

Credit Card Payment **Check one:** ❑ Visa ❑ MasterCard ❑ AMEX

Card No._____ Exp. Date _____ CV2# _____

(Last 3 digits of code on back of card)

Name Printed On Card _____ Signature_____

Billing Street Address: _____ Billing Zip Code: _____

Appendix G

GEK
STUDY GUIDE ORDER FORM

GEK STUDY GUIDE
ORDER YOUR COPY NOW!!
for only $49.00

The Certification Board is pleased to offer a Study Guide for the General Estimating Knowledge (GEK) Exam. This study guide will be especially useful to chapters who want to offer a study group to certification candidates. Included in the study guide is: an outline of topics covered in the GEK exam, copies of the AIA documents covered in the exam, examples of General and Supplementary Conditions, CSI Classifications, sample specifications, abbreviations and symbols and portions of the 6th Edition ASPE Standard Estimating Practice (SEP) Manual. The GEK Study Guide is available to chapters as well as candidates for $49.00.

The Certification Board would like to acknowledge the Quad Cities Chapter 71 who developed this study guide and were willing to share it with the Certification Board and the Society. The Guide was revised and approved by the National Certification Board in 2007.

Study Guides will not be processed without payment and completed reservation form. No invoices will be sent. Make checks payable to American Society of Professional Estimators. This price includes shipping in the 50 United States only. ASPE reserves the right to change future publication prices without notice. Please allow 1 to 2 weeks for delivery.

AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS
2525 Perimeter Place Drive, Suite #103, Nashville, Tennessee 37214
Telephone (615) 316-9200 Fax (615) 316-9800

YES - Send my GEK Study Guide immediately!!

******Your order will be shipped UPS, a street address is necessary for processing******

Name_____

Company_____

Preferred Address_____

City _____State _____ Zip Code _____

Phone: Work _____ Home _____ E-Mail_____

Type of Payment: (Circle One): Check Credit Card Money Order
Credit Card Payment: (***Circle One)*** ***Mastercard Visa American Express***

Credit Card Number:_____ Expiration Date:_____ CV2#_____
(Last 3 digits of code on back of card)

Name on Card:_____ Signature:_____

Billing Street Address:_____ Billing Zip Code: _____

Appendix H

STANDARD ESTIMATING PRACTICE (SEP) MANUAL

ORDER FORM

SEP is good for your Business

ASPE's Standard Estimating Practice Manual
6th Edition

The American Society of Professional Estimators' new Sixth Edition of Standard Estimating Practice is available to individuals or groups who have an interest in a "how-to" reference manual on the practice of estimating construction projects. This reference volume includes basic information applicable to all aspects of the practice of estimating and also includes specific information on a wide variety of specialty estimates arranged in a CSI format. The 6th Edition of ASPE's Standard Estimating Practice manual will make a great addition to your estimating library as a ready reference or teaching aid.

$79 ASPE Members $89 Non-members

(plus shipping)

YES – Send my 6th Edition Standard Estimating Practice Manual

Name_____

Company_____ Telephone #_____

Preferred Address_____

City_____ State_____ Zip Code_____

****** A Street Address is Required for Shipping**** (NO P.O. Boxes)**

Quantity_____

Type of Payment: (Circle One) ***Check*** ***Credit Card*** ***Money Order***

Credit Card Number_____ Expiration Date_____

CV2 Code: _____(Last 3 digits of code on back of card)

Name on Card_____ Signature_____

Billing Street Address:_____ Billing Zip code:_____

Manuals will not be processed without payment and completed order form. No invoices will be sent. Add $5.00 shipping, per manual. ***Make checks payable to: American Society of Professional Estimators.*** *ASPE reserves the right to change future publication prices without notice. Please allow 4 to 6 weeks for delivery.*

AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS
2525 Perimeter Place Drive, Suite 103 ● Nashville, TN 37214
Phone: (615) 316-9200 ● Fax: (615) 316-9800 ● 888-378-6283

6th Edition
Standard Estimating Practice

PART ONE -
PRACTICE COMMON TO ALL DISCIPLINES
Basic Standards
Levels of the Estimate
Scope of Estimate
Estimating Procedures, General
Project Evaluation - Constructor
Project Evaluation - Value Engineering (VE)
Bid Documents/Procurement
Checklists/Special Forms
Specification Review
Plan Review
Quantity Survey
Pricing/Summaries
Bid Day Procedures
Presentation
Post-Bid Procedures -
Estimating Change Orders, Cost of Opportunity?
Handling Federal Claims and Change Orders
Legal Considerations in Construction

PART TWO -
PRACTICE COMMON TO SPECIFIC DISCIPLINES
Discipline Specific Estimating Procedures

Division 1
General Requirements

Division 2
02260 – Excavation Support and Protection – Soil Nailing for Bank Stabilization
02310 – Grading
02315 – Excavation and Fill – Trenching
02465 – Bored Piles – Drilled Caissons
02465 – Bored Piles – Auger Cast Grout Piles
02530 – Sanitary Sewerage
02750 – Rigid Pavement
02770 – Concrete Curb and Gutters
02775 – Sidewalks

Division 3
03050 – Basic Concrete Materials and Methods
03100 – Concrete Forms and Accessories
03200 – Reinforcing Steel
03300 – Cast-in-Place Concrete
03410 – Plant-Precast Structural Concrete
03470 – Tilt-up Precast Concrete

Division 4
04050 – Basic Masonry Materials and Methods
04060 – Masonry Mortar
04090 – Masonry Accessories
04210 – Clay Masonry Units - Masonry
04220 – Reinforced Unit Masonry Assemblies

Division 5
05120 – Structural Steel

Division 6
06100 – Rough Carpentry
06170 – Prefabricated Structural Wood
06200 – Finished Carpentry
06410 – Custom Cabinets

Division 7
07100 – Dampproofing and Waterproofing
07190 – Water Repellents
07240 – Exterior Insulation and Finish Systems
07500 – Membrane Roofing
07590 – Roof Maintenance and Repairs
07920 – Joint Sealants

Division 8
08100 – Metal Doors and Frames
08710 – Door Hardware

Division 9
09250 – Gypsum Board
09510 – Acoustical Ceilings
09720 – Wall Covering
09900 – Paints and Coatings
09970 – Coatings for Steel

Division 10
10800 – Toilet, Bath, and Laundry Accessories

Division 13
13280 – Hazardous Material Remediation

The Anatomy of Mechanical Estimate

PART THREE -
PROFESSIONAL ESTIMATING SERVICE GUIDELINES

PART FOUR -
ETHICS

PART FIVE -
REFERENCE SOURCES

Appendix I

Estimating Forms

Account Summary

Company Name _____ Estimator _____ Date _____
Project _____ Pricing _____ Date _____
Address _____ Extended _____ Date _____
System/Work Area _____ Estimate # _____ Summary _____ Date _____
CSI Section _____ Bid Date _____ Verified _____ Date _____

Account	Item or Description	Material		Labor		Burden		Equip	Sub	Total
		Cost	Hours	Hours	Cost	X %	Cost	Cost	Cost	
Total Labor Burden This Page										
Total Labor Hours This Page										
Total Direct Costs This Page										

Estimate Detail

Company Name _____
Project _____
Address _____
System/Work Area _____ Estimate # _____
CSI Section _____ Bid Date _____

Estimator _____ Date _____
Pricing _____ Date _____
Extended _____ Date _____
Summary _____ Date _____
Verified _____ Date _____

Item or Description			Material		Labor				Equipment		Sub		Total
	Quantity	Unit	Unit $	Cost	Hr/Unit	Hours	Unit $	Cost	Unit $	Cost	Unit $	Cost	
Total Man Hours This Page													
Total Direct Costs This Page													

Final Summary Cut & Add Sheet

Company Name _____ Estimator _____ Date _____
Project _____ Pricing _____ Date _____
Address _____ Extended _____ Date _____
System/Work Area _____ Estimate # _____ Summary _____ Date _____
CSI Section _____ Bid Date _____ Verified _____ Date _____

Increase		Decrease	
Total Increase This Page		Total Decrease This Page	
Total Adjustment [+] [-] _____			

Final Summary

Company Name _____
Project _____
Address _____
System/Work Area _____ Estimate # _____
CSI Section _____ Bid Date _____

Estimator _____ Date _____
Pricing _____ Date _____
Extended _____ Date _____
Summary _____ Date _____
Verified _____ Date _____

Labor Hour Summary

Cut & Add Summary		
	Increase	Decrease
Total Increase		
Total Decrease		
Total Adjustment [+] [-] = _____		

				Total
Direct Cost				
Cut & Add Adjustment [+] [-]				
Other Costs				
Adjusted Direct Cost Total				
Overhead as	% or	$		
Profit as	% or	$		
Fixed Fee as	% or	$		
Sales Tax as	% or	$		
Per. Bond as	% or	$		
Escalation as	% or	$		
Contingency as	% or	$		
Total Estimated Contract Cost = _____				
Indirect Costs				
Total Estimated Project Cost = _____				