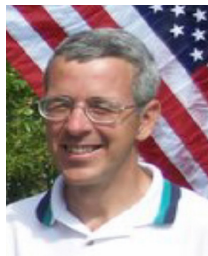




# THE LIBERTY BELL

## PRESIDENT'S MESSAGE

At our January Chapter meeting, Bill Aldrich provided both ASPE members as well as the National Association of Women in Construction (NAWIC) with a wonderful presentation on Turner Construction's latest addition to the Philadelphia skyline -The Circa Center. What a great turnout! The room was almost evenly divided between our membership and our guests. As estimators, we've been stereotyped as conservative and introverted. So much for stereotypes. The dinner tables were mixed and the conversation was lively. I want to thank our group for being great hosts and especially Bill for his very informative presentation. Bill, I noticed many Turner associates in attendance. Any possible new members???.



Speaking of membership, as of February 1<sup>st</sup>, we have added 6 full members and 1 student member to our Chapter ranks for the year. With the programs slated for the next several months, I'm sure everyone has a work colleague who'd be interested in attending one of our Chapter meetings. If you know of anyone interested in becoming an ASPE member but feel uncomfortable approaching them, drop a line to either Lee Hartwig (membership chairman) or myself. We'll be happy to make contact and give the person a rundown of the reasons for becoming an ASPE member.

For February, Jim Watko, senior estimator at Allen Myers, will discuss sitework estimating. Jim is a former President and Board member of our Chapter as well as our unofficial Chapter historian. Personally, I've known Jim for 25 years from when he and I were young hotshot engineers at Stone & Webster (of course, one of us is still young...). Jim's knowledge of sitework estimating, particularly in Delaware Valley, is

immense, having spent time with smaller sitework contractors as well as Tony DePaul & Sons, PKF MarkIII, and his current stint with Myers. If you are looking to broaden your horizons in the area of sitework estimating, I suggest you come to our meeting on the 22<sup>nd</sup>.

### Several reminders:

In April, we will hold a membership drive/open house meeting in lieu of our usual dinner/speaker format. To put it plainly, Chapter #61 membership has been decreasing the past several years and the Board feels it's time to try something new. If any companies are interested in sponsoring this event, speak to Lee Hartwig - Membership Chairman.

Kelly Sigman, our Education Chairman, has set the dates of April 21<sup>st</sup> and 22<sup>nd</sup> for our annual Estimating Seminar. Topics to be presented include: Sitework Estimating (Jim Watko),

Electrical Estimating (Sid Numerof), Mechanical Estimating (John Stewart), Construction Scheduling (Don Logan), and Concrete Estimating (John Donch). Attached is a flyer for you to print and distribute to your construction colleagues. As an added bonus, we will waive the seminar fee for anyone who joins ASPE! Remember, the success of this project is in every member's hands.

And, last but not least, it's not too early to begin thinking about our upcoming Chapter elections. The nomination process begins in March, with elections in May. If you have any interest in serving as an officer or director, please contact our past president, Don Logan to.

**Go Liberty Chapter!**

### Inside this issue:

Technical Paper	2
Officers/Board of Directors	4
It's time to sharpen those estimating skills!	6
Important Notice	7
Calendar of Events	8
ASPE Program Schedule	9
Classifieds/New Member Updates	10

## MEETING AT A GLANCE

**DATE:** Wednesday Feb. 22, 2006  
**TIME:** 6:30 PM

**SPEAKER:** Jim Watko

**Sitework Estimating**

**LOCATION:** Double Tree Restaurant  
Plymouth Meeting, PA

**COST:** \$35 MEMBERS  
\$40 NON MEMBERS

**RSVP:** [windowman@verizon.net](mailto>windowman@verizon.net)

**RESERVE TODAY!**



## HOW TO ESTIMATE THE COST OF METAL ROOFING ON A MANSARD

Thomas Rowland, E

The mansard condition to be used for this paper will be one similar to the type of metal roof found along the front of a small retail shopping center. For the purposes of this paper, a cee-lock, standing seam type metal roof will be discussed.

The first step in estimating the cost of the metal roof is to complete the material take-off portion of the estimate by each piece count. The piece counts are quantified first in the estimating process as they are used to estimate the labor portion of the estimate. Since the thirty pound felt would be installed first, this is the first item to be estimated. The 30 lb. felt paper is estimated by determining the square footage of your metal roof area. The area of our roof is sixteen feet (16') by one hundred sixty-two feet (162') which equals 2,592 square feet. To determine the final quantity of 30 lb. felt paper; a waste factor of five percent (5%) is added to the roof area. Simply multiply the roof area by 1.05, which is the decimal form to add five percent (5%). You must now divide this area by two hundred (200) square feet. Two hundred (200) square feet is the number of square feet in a roll of 30 lb. felt paper. This calculation will determine the number of rolls of 30 lb. felt paper required for this estimate.

The next step would be to determine the number of metal standing seam roof panels required for this estimate. You will need to determine the length of the slope of the roof from the metal cap down to the metal eave. This is sometimes referred to as the vertical dimension and will be used in this paper when describing the roofing system. You will also need to determine the width of the roof from one end of the building to the other. This is sometimes referred to as the horizontal dimension and will be used in this paper when describing the roofing system. The above mentioned roof dimensions will be needed to calculate the number of metal roofing panels required. The metal roofing panels we are using for the purposes of this metal roofing estimate come in twenty foot (20') lengths and sixteen and a half inch (16 1/2") widths. The vertical dimension of our roof is only sixteen feet (16'), so therefore only one (1) metal roofing panel will be required to cover the vertical dimension of the roof. To determine the quantity of metal roof panels needed, divide the horizontal dimension of the roof by 1.345". This is the decimal form of sixteen and a half inches (16 1/2"). The horizontal dimension is one hundred sixty-two feet (162'). Therefore, simply divide the horizontal dimension of one hundred sixty two feet (162') by 1.345 to determine number of metal roofing panels required. If the vertical dimension of your roof exceeds the length of the manufacturer's panel, you will need to add pieces of metal roofing panels to your quantity of metal roofing panels to cover the actual vertical dimension of your roof. Depending on the vertical dimension of your roof, the pieces of metal roofing panels cut from full pieces may be used to cover another vertical dimension in conjunction with a full metal roofing panel. Special attention to the vertical dimension is critical in determining the number of metal roofing panels.

Next, the quantity of the metal eave flashing needs to be determined as well as the metal cap flashing, the metal closure pieces, the metal closure channels and the metal drip edge. The metal eave flashing is installed along the bottom edge of the metal roofing panels. The quantity of metal eave flashing is determined by dividing the horizontal dimension by twenty feet (20') since this is the length the metal eave flashing is manufactured. Due to the manufactured length of each piece of metal eave flashing, the quantity of metal eave flashing needs to be rounded up to the next even twenty feet (20') length to determine the final quantity of metal eave flashing pieces. The metal cap flashing is installed along the top edge of the metal roofing panels. The quantity of metal cap flashing is determined by dividing the horizontal dimension by twenty feet (20') since this is the length the metal cap flashing is manufactured. Due to the manufactured length of each piece of metal cap flashing, the quantity of metal cap flashing also needs to be rounded up to the next even twenty feet (20') length to determine the final quantity of metal cap flashing pieces. The metal closure pieces are installed underneath the cap flashing, on top of each metal roof panel and between each standing seam. The quantity of metal closure pieces is determined by dividing the horizontal dimension of one hundred sixty two

(162) feet by 1.345. This is the decimal form of sixteen and a half inches (16 1/2"). This quantity of metal closure pieces needs to be rounded up to the next whole number. The metal closure channels and metal drip edge pieces are installed along the ends of the roof or the vertical dimension of the metal roof panels. Since the metal closure channel and metal drip edge pieces also come in lengths of twenty feet (20'), simply divide the vertical dimension of the roof by twenty (20) feet and then multiply by two (2) for each piece. Depending on the vertical dimension of your roof, the pieces of metal closure channels and metal drip edge cut from full pieces may be used to cover another vertical dimension in conjunction with a full length of metal closure channel and metal drip edge. Special attention to the vertical dimension is critical to determining the number of metal closure channels and metal drip edge pieces.

The metal "hold down" clips are installed along one (1) edge of each metal roof panel. The other edge of the metal roof panel locks on to previously installed metal roof panel without any type of fastener. The quantity of metal "hold down" clips are determined by the recommendation of the manufacturer and/or project engineer. For the purposes of this paper, the metal "hold down" clips will be installed every two feet (2') on center, making sure there is a metal "hold down" clip within six inches (6") from each end of each metal roofing panel. To determine the quantity of metal "hold down" clips, divide the vertical dimension by two (2) and then add two (2) to this number. You must then multiply this number by the number of metal roofing panels. This calculation will give you the quantity of metal "hold down" clips required.

The final part of the material take-off portion, of the metal roof estimate, is to determine the quantity of fasteners. For the purposes of this paper, #10 x 1.25" zinc plated screws will be installed every twelve inches (12") on center for the metal eave flashing, the metal cap flashing, the metal closure channels and metal drip edge. Two (2) screws will be installed on every metal "hold down" clip. The quantity of screws can be determined by multiplying the horizontal dimension by two (2) and then dividing that quantity by one (1); multiplying the vertical dimension by two (2) and then dividing that quantity by one (1); and also multiplying the number of "hold down" clips by two (2). Add the number of screws from the horizontal dimension calculation, the vertical dimension calculation and the metal "hold down" clip calculation together. Usually a waste factor of five percent (5%) is added to the fastener quantity. Take the quantity of fasteners and multiply it by 1.05, which is the decimal form for adding five percent (5%), to determine the total number of fasteners required.

With the material portion of the metal roof estimate now complete you can begin to estimate the labor portion of the estimate. The labor portion of the metal roof estimate is also done by the piece count method. Labor to install each component of the metal roofing system is determined by daily output or labor productivity of the metal roofing work force. Labor productivity can be determined by reviewing a variety of cost books. While this may be an acceptable way of estimating to some people this is usually not as accurate as actual labor productivity reports. If you are fortunate enough to observe a metal roofing crew at work and you are able to keep a log of their daily output; this will help in future estimates. Reviewing the labor productivity reports of your own metal roofing crews and applying them to future estimates is probably the most accurate way of estimating metal roof work. Labor in the field as well as shop labor needs to be considered especially if you decide to precut your material to length in your shop.

Once you have determined how long it should take to install each piece of material, add up the time assigned for each piece to determine a total amount of labor hours. Once you have determined the number of labor hours, divide this quantity by eight (8) hours. This calculation will tell you the number of labor days to complete the work. With the number of labor days determined, you can check this quantity against other similar projects or pricing information sources.

Finally, add your material costs and your labor costs together. Apply your Company's overhead costs and fee to that total to determine your final estimated project cost.

## 2005 - 2006 OFFICERS

OFFICE	NAME	PHONE	E-MAIL
PRESIDENT	RON TRAWINSKI, CPE	610-266-1700	trawinski@nni.com
1ST VICE PRESIDENT	MIKE SMITH	215-464-2800	mikes@megaconstruction.net
2ND VICE PRESIDENT	ROB ROBINSON	610-668-0950	rrobinso@lfdiscoll.com
3RD VICE PRESIDENT	KARLA WURSTHORN	610-649-0400	kwursthorn@tnward.com
SECRETARY	TOM ROWLAND, CPE	215-672-8247	trowland@carrollcontractors.com
TREASURER	JOE CLEARINK	215-635-0771	jjinc@aol.com

## 2005 - 2006 BOARD OF DIRECTORS

DIRECTOR	NAME	PHONE	E-MAIL
DIRECTOR	TERRY MCGEEHAN, CPE	267-470-1000	terrance.mcgeehan@skanskausa.com
DIRECTOR	JOHN STEWART, CPE	610-660-4948	jstewart@keatingnet.com
DIRECTOR	SID NUMEROF, CPE	215-968-0698	the.sid@verizon.net
DIRECTOR	MICHAEL LESE	610-941-5500	Mlese@msn.com
DIRECTOR	LEE HARTWIG	610-399-5201	windowman@verizon.net
DIRECTOR	SUSAN MARTIN	215-343-5423	smartin@constructionsupport.com
DIRECTOR	KELLY SIGMAN	610-626-1317	k.sigman@att.net
DIRECTOR	MARGARET JONES	215-849-7030	margaretlois@msn.com
DIRECTOR	DON LOGAN, CPE	610-941-5500	donald.logan@shoemakerco.com

### BOARD MEMBERS AND CHAIR PERSONS

Certification	Dennis Gleason
Continuing Certification	Dennis Gleason
Education	Kelly Sigman
Program	Mike Smith
Finance	Joe Clearkin
Public Relations	Karla Wursthorn
Archives	Rob Robinson
Awards	Don Logan
By Laws	Mike Lese
Calling	Lee Hartwig
Nominations	Don Logan
Membership	Karla Wursthorn
Publications	Rob Robinson



# CHAPTER WEBSITE

Karla Wursthorn continues to update the website. It serves as an advertising tool for our chapter as well as a convenient reference to our membership on various topics of interest including a calendar of events, certification information, an archive for the monthly newsletter and various helpful links. It has helped recruit new members by providing information about "who we are" as an organization and information on how to become a member. As you will see our Annual Estimating Academy is advertised on the website. Additional areas being developed include a place to post technical papers written by our members, an employment opportunities page and a picture gallery. If you have any articles, employment requests or photos please send them in electronic format to Karla Wursthorn at [kwursthorn@tnward.com](mailto:kwursthorn@tnward.com). Great job Karla, keep up the hard work! You can access our website through a link on the National website ([www.ASPENational.org](http://www.ASPENational.org)).



## CHAPTER #61 CERTIFICATION UPDATE

*Certification Chairman Dennis Gleason, CPE is pleased to announce the following:*

*Margaret Jones and Susan Martin recently sat for their GEK exams and are awaiting the results.*

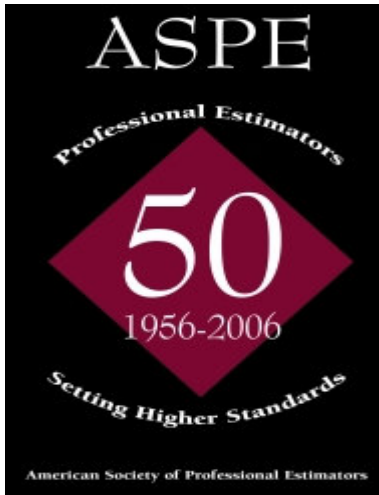
*In addition, Susan Martin has sat for her DST exam while Margaret is assembling 100 questions to satisfy her DST requirements.*

*Our newest CPE candidates, Karla Wursthorn and Richard Krause, have completed their Certification Workshop requirement and will begin writing their Technical Papers for a May '06 submission.*

**WE WISH ALL CANDIDATES THE BEST OF LUCK!!**



# IT'S TIME TO SHARPEN THOSE ESTIMATING SKILLS!



## ASPE Mission Statement:

The American Society of Professional Estimators serves construction estimators by providing education, fellowship, and opportunity for professional development.



## By Attending The Spring Estimating Seminar

April 21<sup>st</sup> and April 22<sup>nd</sup>, 2006

Sponsored by:

THE **AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS**  
**LIBERTY CHAPTER # 61, PHILADELPHIA**

**Presented by:** Experienced estimators and industry pros with extensive teaching experience. Come join us for a unique learning experience guaranteed to improve your estimating skills and advance your career.

**Who should attend?** Estimators, Architects, Engineers, Construction Managers, General Contractors, Sub/Specialty Contractors, Facilities Managers, Project Managers and Students. **Each of the courses packs a wealth of information in a one day class format.**

**Location:** Montgomery County Fire Academy, 1175 Conshohocken Road, Conshohocken, PA. 19428.

### Programs and Schedule Dates

General information and registration, please visit our website at:

[www.philadelphiachapter61.aspenational.org](http://www.philadelphiachapter61.aspenational.org)

**Friday**  
**(choice of one topic):**  
**9:00 AM– 4:00 PM**

- Electrical Estimating
- Mechanical Estimating
- Concrete Estimating\*

**Saturday**  
**(choice of one topic):**  
**9:00 AM– 4:00 PM**

- Electrical Estimating
- Scheduling
- Sitework\*

**COSTS: (Includes Handouts, Continental Breakfast, Lunch, and a Certificate of Completion)**

	Members	Non Members
1 Day	\$90.00	\$220.00
2 Day	\$120.00	\$290.00

**(Note: Seminar Fee Waived For Anyone Who Joins ASPE!)**

**AIA Continuing Education Units:**

**Each Course has been approved for 6.0 CEU's.**

**\*Note: C.E.U. approval pending**

**For Further Information:** Contact Kelly Sigman @ 484-494-8883

Sponsored by: ASPE Chapter 61, PO Box 1331 Bryn Mawr, PA 19010-7331

# IMPORTANT NOTICE

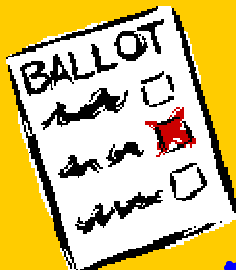
ATTENTION LIBERTY CHAPTER #61:

Two of our members will be running for National Chapter Office this Spring.

John Stewart, CPE (current 1<sup>st</sup> VP) – will be running for National President

Mike Lese (former National Treasurer) – will be running for National 3<sup>rd</sup> Vice-President

John and Mike would love to discuss with you their views on critical matters affecting our Society. Make a point of talking to them at an upcoming Chapter Meeting.



And

**DON'T FORGET TO VOTE!!**

# February 2006

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

- Chapter Board Meeting  
Wednesday, February 22 - 5:30 PM

- General Membership Meeting  
Wednesday, February 22 - 6:30 PM

**DOUBLE TREE HOTEL / RESTAURANT**  
Plymouth Meeting, Pa.

**PROGRAM:**  
Jim Watko  
Sitework Estimating

Once again, Chapter #61 members are involved in the academics world. The following members are teaching Fall courses for the GBCA:

Terry McGeehan — Principals of Estimating

Don Logan — Construction Scheduling

John Stewart — Mechanical Estimating

In addition, Dean Sherwin continues to teach Cost Estimating I & II @ Philadelphia Community College



# ASPE PHILADELPHIA CHAPTER #61

## "PROGRAM SCHEDULE"

### 2005–2006

<u>DATE</u>	<u>TOPIC</u>
August 24, 2005	Ethics & Convention Update
September 28, 2005	Change Orders
October 19, 2005	CSI Code Format Change
November 16, 2005	The St. James Apartment Complex
December 21, 2005	Holiday Social
January 25, 2006	Joint Meeting NAWIC / Cira Center
February 22, 2006	Site Work Estimating
March 15, 2006	Joint Meeting AACE / Best Engineering Project of Delaware Valley
April 26, 2006	Open House / Membership Drive
May 24, 2006	Masonry Estimating
June 28, 2006	Awards Banquet



*"The deepest principle in human nature is the craving to be appreciated. Make a point to tell someone that you appreciate them!"*

*- Anonymous*

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ON THIS PAGE



**\$35**

#### ASPE GOLF SHIRTS

##### GOLF SHIRTS

- Navy Blue & WHITE
- Embroidered ASPE 2004 Logo
- 100% cotton

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dlogan@rmsco.com

Order your ASPE golf shirt today. The golf shirts come in S - M - L and XL. The golf shirts include the new ASPE 2005 Liberty Bell logo.



**GOLF SHIRTS**

#### CLASSIFIED ADS ARE BACK!

Remember the good old days, when classified ads were free? Well those days are over. Since our newsletter is growing, we are now offering CLASSIFIED advertisements here at the rate of \$25 for 50 words (for members) and \$50 for non-members. This is the perfect way to get the word out about your products or services. If you are interested in advertising contact the newsletter editor, Rob Robinson at [RRobinson7777@aol.com](mailto:RRobinson7777@aol.com).

#### CONSTRUCTION ESTIMATOR:

Due to continued growth, we are hiring additional experienced estimators for water and wastewater competitive bids from \$500,000 to \$15,000,000. Excellent salary and benefits commensurate with experience. Send resume to: Steve Boyce at C&T Associates, Inc., 1000 Hagey Road, Harleysville, PA 18964; fax to: 215-721-1010; or e-mail to: [ctsjboyce@aol.com](mailto:ctsjboyce@aol.com)

#### NEW MEMBERSHIP DRIVE

Please welcome (2) new Members:

Kevin Hennigan  
(student member)  
108 Kaiser Drive  
Downingtown, PA 19335  
610-942-0274  
e-mail: [KLHENNY@Comcast.net](mailto:KLHENNY@Comcast.net)

David McCloskey, Jr.  
McCloskey Mechanical Contractors  
710 Laurel Road  
Lindenwold, NJ 08021  
H: 609 818-9921  
W: 856-784-5080  
F: 856-784-8283  
e-mail: none