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Happy New Year!

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Mission
To serve Construction Estimators by providing Education, Fellowship & Opportunity for Professional Development

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Happy New Year!

January brings with it a time of new beginnings. The weather may be cold and bitter for many people, but it is a time of renewal and establishing those New Year’s resolutions. I bet we have all set our sights on exciting new goals and had the best intentions of sticking to the task of doing what it took to meet those goals. How many times have we gotten discouraged or given up because something happened along the way. What do you think causes the majority of resolutions to fall short of the mark? I believe one reason is we are hesitant to fully commit 100%. I have been told by many wise individuals that we make the time for those things we truly desire and have a passion for.

As our Society has nearly reached the midway point of our 2015 - 2016 fiscal year, our Board needs to reaffirm its commitment to the changes and decisions that will need to be made during the upcoming near future. To reaffirm the need for our organization and to re-brand ourselves as the go-to source for all things “Estimating”, we must begin looking outside the ordinary day-to-day way things have been operating. This will take a commitment of the entire membership as well. It is time for all of us to make sure we are considering what is best for the entire organization and how our place in the industry looks in the future.

Each of us has a responsibility for membership and growth, but for us to be successful at that task, we need to have a unified voice that expresses a message that the industry needs and wants to hear. We must consider how we are reaching the multiple generations of workers in the industry today. Although many things stay constant, the means of getting a message out to others changes as fast as technology. A strategic and definitive plan of moving more into the realm of social media is necessary to have a voice that is heard by many. It is time to quit treating it as a foreign language and look at ways we can all learn and utilize it more effectively.

It is time to assess your passion for this society of yours. The commitment that will be required for us to succeed and propel ourselves into a position of having an authoritative voice in the estimating profession dictates us embracing a passion beyond anything else. We all have our own personal story and it is that journey which brings the personal connectivity. We need to learn to tell that story in a way that attracts others. Our brand and story should make people want to know more about us. When people become inquisitive about us, doors of opportunity open that can lead to increase not only in numbers but in the potential to increase our influence on the estimating profession. Most of us love what we do, so why not tell others "why" we love it.

January is a month when our technical committees meet. They will be reassessing their commitment and passion as they work on the goals they set back at the first part of our fiscal year. This year those committees have moved their meeting to the telephone conference method. They are always looking at ways to be more productive and be financially frugal with expenditures. This is accomplished by more regular short meetings instead of requiring extensive travel and time away from work and family.

As we celebrate a New Year, let’s all reaffirm our passion and commitment to do what it takes to be successful. This will mean being open-minded and open to change. Until next month! ☝️

God Bless!

Doyle T. Phillips, FCPE

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<th>FEATURE</th>
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By: Jenna Swiecki, CPE  
San Diego chapter #4

Jenna Swiecki, CPE was born and raised in central Illinois. She earned a B.S. in General Engineering, with a secondary concentration in Construction, from the University of Illinois at Urbana-Champaign. During summer breaks from college, she worked as a quality control technician testing concrete on a major highway reconstruction project.

After graduation, Jenna moved to Chicago, Illinois, to work as a Project Engineer, and later a Project Manager, for Novak Construction. During her tenure at Novak, she built Costco Wholesale warehouses and gas stations throughout the East Coast and Midwest, and was involved with various hospital upgrades and assisted-living facility renovations.

At the end of 2014, after stepping away from construction for three years to raise two small children, Jenna relocated to San Diego, California, to work as a Cost Manager for the Healthcare Division at Cumming Corporation, an international project management and cost consulting firm.

SECTION 1 - INTRODUCTION
This paper will discuss how to estimate the cost of fire damper upgrades within a hospital, which requires much more consideration than a simple quantity takeoff multiplied by standard unit rates. The primary focus will include the architectural and HVAC elements. Fire suppression, fire alarm, and electrical aspects of fire life safety upgrades will not be discussed in any detail in order to maintain brevity and clarity.

Master Format 2014
Main CSI Division
- Division 01 - General Requirements

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Fire dampers are a mechanical component installed within an HVAC duct at the point where the duct penetrates a fire-rated assembly. In the event of a fire or smoke alarm, the damper will infill the duct opening. A fire damper typically consists of an accordion-style, metal curtain or rotating metal blades, equal in size and shape to the duct in which it is installed. Dampers are categorized as "dynamic" or "static". Dynamic dampers utilize a motorized or spring-loaded curtain, capable of fully deploying despite resistance from forced air within the duct. Static dampers rely on gravity to pull the curtain into place. They may only be used within ductwork serving a unit that will automatically be shut down when a fire alarm or smoke detector is activated.

Round dampers utilize a butterfly valve that is normally held parallel to the flow of air, but will rotate perpendicularly to cut off air flow when activated. Each damper uses a fusible link that restrains the curtain or blade until it reaches a specified temperature. Upon reaching the design temperature, the link will fail; the curtain will deploy, closing off the duct and completing the fire-rated assembly. This link can also be manually disengaged to facilitate testing and inspections. Each damper is manufactured with a unique serial number, or control number, which should be recorded for governmental reporting and inspection records. The primary types of rated dampers include smoke, combination fire/smoke, motorized, and modulating fire dampers rated for one-, two-, three-, or four-hours. The dampers can be installed within the plane of a floor or wall, or just outside of the plane given adequate provisions. Regardless of the type of damper, the primary components of a complete assembly will include:

1. Fire/Smoke Damper with Fusible Link (not pictured)
2. Retaining Angles - attached to the damper sleeve in order to hold the damper securely within the fire-rated assembly
3. Access panels - these allow access to the damper mechanism for testing, inspections, and maintenance.
4. Breakaway Connection - allow the ductwork to disengage from the damper sleeve. This will prevent a fire-rated assembly from being pulled down by collapsing ductwork.
5. Sleeve - an extension of the damper assembly to facilitate connections without jeopardizing the function of the damper.
6. Duct Insulation - where applicable, duct insulation should extend to the partition.

Fire dampers must be inspected periodically for proper operation. Current NFPA codes will dictate the frequency of testing required based on the building classification. Aside from the predictable life-cycle issues related to the damper mechanisms, hospitals may elect to, and/or be required to, audit the complete installation of each damper, often due to building occupancy changes or other fire life safety upgrades. For a number of reasons, incorrect or inadequate fire-rated assemblies can slip by unnoticed for years. The primary reason these errors go unnoticed is the concealed nature of ductwork; but also a simple lack of awareness from facilities engineers and contractors alike. Due to the complex code requirements surrounding these assemblies, they are often misunderstood.

In order to facilitate inspections, the damper should be clearly labeled with all information as required by the authority having jurisdiction. This labeling will typically be mounted on the nearest ductwork facing the wall or ceiling access panel. The architectural access panel frame should also be discreetly yet clearly marked with the damper identification number as assigned by the facility or architect of record.
SECTION TWO - TYPES AND METHODS OF MEASUREMENT

Quantity surveys typically include a count of each (EA), measurement of length in linear feet (LF), and measurement of area in square feet (SF). Typical derived units of measure include weight, in pounds (LBS) or tons (TN), and volume, in cubic feet or cubic yards (CF or CY). Square foot measurements are also often derived from linear foot measurements. Early-level estimates will use a measure of the overall gross square foot (GSF) area of work to assign allowances for undefined work items.

<table>
<thead>
<tr>
<th>TYPICAL UNITS OF MEASURE</th>
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<tbody>
<tr>
<td>Each (EA)</td>
</tr>
<tr>
<td>Fire Damper</td>
</tr>
<tr>
<td>Breakaway Connection</td>
</tr>
<tr>
<td>Access Panels (Arch.)</td>
</tr>
<tr>
<td>Access Panels (Duct)</td>
</tr>
</tbody>
</table>

Items such as drywall and metal studs, that go hand-in-hand, can often be derived from the same takeoff. For example, the linear foot of new wall will be taken off directly from the plans. To calculate the metal studs, the linear foot of wall will be multiplied by the height of the studs. For a typical partition with drywall on both sides, the drywall can be calculated using the same linear footage multiplied by two times the installed height of drywall. Using MasterFormat, it is assumed that elements such as fasteners, taping, and finishing the drywall are included within the unit cost and do not need to be taken off individually.

For renovation work, the estimator will determine what unique elements will be present before establishing the takeoff conditions. For instance, if there will be many completely...
new damper locations, there is no need to take off each component of a new damper individually. It will be understood that the total count of dampers of a given size will be used to derive quantities for breakaway connections, access panels (in-duct), retaining angles, etc. Furthermore, any individual takeoffs for items such as "New Access Panel (In Duct)" will imply it is for installation at an existing damper that was missing an access panel, and will be counted in addition to the previously derived quantity.

Infection and dust control measures are considered under general requirements and include items such as: temporary barricades and containment cubes, air scrubbers and HEPA filters, negative air pressure monitors, coveralls, and walk-off mats. While these may be covered in the estimate as a gross square foot or percentage of overall project cost (typically based on Owner preference), it is important to have a back-up estimate of these items. This will ensure that the unit rate applied to the established metric is adequately capturing the potential cost exposure.

SECTION 3 - SPECIFIC FACTORS - Effects on Takeoff and Pricing

As with any renovation project, there are many factors to consider when establishing quantities and unit rates.

Existing Conditions

To begin evaluating the existing conditions, it will be important to survey the type and function of the rooms that will be affected by construction activities. Certain rooms within a hospital may require additional manpower, specialized tools, or more stringent infection control measures. For example, work done within an active mental health ward will have special requirements. Tools will need to be concealed and constantly monitored by a support person while the journeyman completes repairs. Access panels will require a specialized screw driver to operate. If work is to be done in occupied rooms, the timing will need to be scheduled around the room's availability, which is often difficult to predict. Work within operating suites requires equipment to be wrapped for containment and all workers to wear coveralls and shoe and hair covers. These considerations will reduce productivity and may require premium rates.

Bid Documents & Facility Familiarity

Based on the drawings presented for estimating, it may be evident that the facility has kept accurate as-built drawings on file, in which case, the allowances for unforeseen conditions may be reduced. However, if the drawings have no redlines and are considerably outdated, they will likely require a significant allowance for unforeseen conditions. The estimator's familiarity with a given facility may also help to provide a comfort-level with reduced contingencies. When making assumptions, the notes section of the estimate should carefully explain what factors have been considered to facilitate full understanding of the estimate. It is important to thoroughly evaluate the full extent of work required at each damper location. While most locations may require cursory upgrades, some may require specialized UL-listed1 repairs. These will take time to document and may require specialized materials.

Schedule

It is important to review the anticipated schedule with the Owner prior to finalizing the estimate. A more detailed schedule may be required to determine if shift-work can be considered based on any applicable union agreements. When work is dependent on many real-time factors, such as waiting for hospital staff to facilitate access, a fast schedule may result in even greater inefficiencies if a crew is waiting for access to a ward. The proposal should be thoroughly evaluated for feasibility, to establish accurate prices and expectations from all parties. The function of the affected HVAC system can also impact the schedule and create other expenses. For instance, clearance would need to be obtained before working on exhaust systems for isolation rooms or IV preparation exhaust hoods. Some hoods also require decontamination if they are shut down for any reason, so it is important to clarify with the owner how those expenses will be handled up-front.

Documentation Requirements

Before estimating the cost of a project, it is important to understand what documentation will be required for inspections and certifications. Some government agencies require significant documentation including original signatures, records for each damper installed, and UL listing documentation for each fire-rated assembly within the building. It is helpful to be familiar with the inspectors having jurisdiction, so that the documentation can be tailored to their preferences and primary areas of focus. Proper documentation can fast-track the inspection process and avoid costly delays associated with re-inspections. General conditions should accurately reflect the amount of office work required to prepare quality documents.

Test and Balance

Another factor that should be clarified is the test and balance inspection of the existing system. A discussion should be had with the owner before submitting an estimate to determine the last time the building HVAC system had been evaluated. It is preferred to run a full test and balance on any system prior to beginning work, to ensure that the existing system is working properly. This will preclude the contractor from being wrongly held liable for test and balance issues at the end of the project. However, if work is limited and does not involve any HVAC units, it should be reasonable to agree with the owner that test and balance...
Small Quantities vs. Large Quantities
As a general rule of thumb in construction, small quantities are more expensive than large quantities. Economy of scale can be achieved through bulk-purchasing and some assemblies can be prefabricated in a shop versus in the field. In a remodel, the concentration of work can also dictate the savings or premium applied to quantities in the estimate. For instance, the upgrade of five dampers that can be accessed from one or two rooms will cost less to install than five spread throughout the entire floor of a hospital. Cost per unit for the same five would also be driven down if another 50 were being installed, since the time spent gaining familiarity with the building and staff will be distributed over a much larger scope.

Geographic and Fiscal Market Factors
As is the case with any construction work, and business in general, it is important to consider the current and future market conditions when establishing unit rates. Availability of manpower and lead times for material can contribute significantly to increased project costs and delayed schedules. These can be accounted for in the short-term within unit rates, or with the inclusion of Escalation as a percentage of total construction cost for long-term projects.

Seasonal Effect on Work
Since most, if not all, work for this scope will take place in conditioned space, typical seasonal factors will not play a significant role. Areas with poor winter conditions may see a slight drop in pricing during, as more resources become available during the seasonal slow-down. For compact schedules, it will be important to consider the number of holidays that fall within a calendar-day schedule, as the winter holiday season can have a significant impact.

SECTION 4 - LABOR, MATERIAL, EQUIPMENT, INDIRECT COST AND MARKUPS

Mark-Up:
In a basic estimate utilizing CSI MasterFormat, the owner will be presented with a document that includes a list of quantities and unit rates to support the estimated cost. For simplicity, the unit rates will be a fully-loaded value, meaning it includes everything, outside of General Conditions, required in order to get that particular work item from the factory to the installed finished product. The primary factors in establishing a viable unit rate are: labor, material, equipment, indirect costs, and mark-up.

Labor Rates:
Labor rates are typically established by a company for each level of billable employees (e.g. laborer vs. journeyman). These rates are calculated to include the full cost of the employee’s take-home pay, taxes, workman’s compensation, social security, Medicare, and benefits, which include things like health insurance, holiday pay and paid time off. These are typically reviewed annually to accommodate inflation, tax changes, etc. In unionized areas, this will be revisited after union contract agreements are reached to accommodate any wage increases and/or working arrangement stipulations. Depending on the provisions of the contract, labor is typically factored at a straight-time (regular business hours) rate, while premium time rates for night-work or shift-work are included as an add-alternate unit rate or percentage increase of the construction cost.

Material Rates:
Material rates are established using historical data and current market trends. Lead time should be considered and expediting fees included in the unit rates if the material is on the critical path of a fast-tracked schedule. Material rates should include all facets of cost to get the material into the journeyman’s hands. This can include sales tax (unless the project is tax exempt), shop drawings, design fees, mounting hardware, freight to job site, storage on-site, and punch list work. For items that have inherent waste factors, such as metal studs and drywall, the established unit rates should cover the expense of anticipated waste.

Equipment Rates:
For equipment that is owned by the company, the initial cost, maintenance costs, and depreciation will be evaluated to determine the rate to be charged for a given work item. For non-standard equipment, or equipment that will be rented, a quote should be obtained and the cost of the rental (including delivery to site, fuel, etc.) should be distributed among the work items that will utilize that piece of equipment.

Indirect Costs:
Indirect costs should also be factored into the installed unit rate. Indirect costs include all miscellaneous items required for a complete installation that are not directly covered under General Conditions. These typically consist of things like small tools, consumable goods like nails and screws, plan update and review, clean-up, and contractor permits (excluding Building Permits, which are typically paid directly by the owner).

Mark-up:
Unit rates for lower-tier subcontracts should be inclusive of their complete contract value, including mark-up. The General Contractor’s mark-up should be carried “below the line” as a percentage of the total cost of construction. In the absence of adequate historical data for a given work item, or as a check-number, there are numerous places to find standard unit rates for almost every work item imaginable. RS Means is a primary source for published unit pricing, accessed with a paid subscription. Some
government entities also publish a unit price book that can be used to check the validity of determined unit rates, although these are primarily focused on site work pertaining to the Department of Transportation. When in doubt, the supplier of the material in question should be contacted for current pricing and expected labor productivity rates.

SECTION 5 - SPECIAL RISK CONSIDERATIONS

While construction activities within any occupied building can pose hazards, work to the HVAC system of an active hospital is arguably one of the most perilous. Building occupants often have compromised immune systems, making them highly susceptible to infection from dust and debris created during construction activities. Contractors must be conscious of the risks at all times, as failure to properly ensure negative air pressure could result in the loss of a life. This constant onus of safety will typically results in lower productivity, coupled with costly safety equipment. Once construction is complete, the importance of properly installed fire dampers is paramount. In the event of a fire within a hospital, the integrity of the fire-rated partitions can mean life or death for immobilized patients.

SECTION 6 - RATIOS AND ANALYSIS - METRICS AND REVIEW FOR PROPER QA/QC:

Ideally, some historical data will be available for comparison of the estimate at hand. A simple cost per square foot comparison may be a helpful benchmark, provided the previous projects are based on a similar building use and size. However, a more accurate benchmark would be a typical cost per type of damper. For example, the historical cost of a 'new static damper installed in an existing shaft wall', or a 'new damper installed in an existing floor plate' could be compared to the 'unit cost per location' from a similar breakdown of the current estimate.

Another approach to validating the current estimate would be to step back and consider the overall project using basic manpower logic. The estimator will need to consider the schedule that has been agreed upon and the staffing that will be required to meet that schedule. Instead of pricing the job using unit rates that have been loaded with labor, the pricing could be re-evaluated for straight material cost with labor considered separately. The black and white takeoff should provide a reliable quantity for material pricing. The next step would be to consider how many journeyman (and laborers, etc.) will be assigned to the project and for how long. The estimator will consider if the lump sum of the construction costs is enough to cover: the full salary of the journeymen for the full duration, the rental or depreciation of containment carts, walk-off mats, and HEPA filters, and the base material for the job. On projects of this nature, it is likely that there will be significant unproductive time, so it is important to consider the overall schedule to ensure the decreased productivity has been accounted for in the unit rates.

SECTION 7 - MISCELLANEOUS PERTINENT INFORMATION:

Depending on the method of project delivery, such as lump sum, time and materials, or guaranteed maximum prices, unit rates and allowances may need to be adjusted. The discussion above generally relates to a lump sum contract. However, if the project will be done on a time and materials basis, the labor rates will not need to be loaded for inefficiencies because unproductive time will be billable. This delivery method can be beneficial for short projects on a fast schedule because the owner is incentivized to fully cooperate in order to facilitate quick and easy access to areas of work, since waiting time will be included on the ticketed work.

SECTION 8 - SAMPLE DRAWINGS, SCHEDULES AND SECTIONS:

The following are a few examples of relevant documents that are often encountered in the course of estimating fire damper upgrades within a hospital.
**CERTIFICATION**

(Figure 2): A sample typical fire damper detail from a hospital project in the state of California.

(Figure 3): A sample construction note that outlines scope and special considerations for fire life safety during construction activities.
**PROJECT CODE SUMMARY**

### Minimum Fire-Resistance Requirements:

**FIRE-RESISTIVE RATING REQUIREMENTS FOR BUILDING ELEMENTS: 
[PER CBC TABLE 601](#)**

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**FIRE-RESISTENCE RATING FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE [X]: 
[PER CBC TABLE 602](#)**

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<td>2 HOURS</td>
<td>1 HOURS</td>
<td>1 HOURS</td>
<td></td>
</tr>
<tr>
<td>5 FT &lt; X &lt; 10 FT</td>
<td>1 HOURS</td>
<td>1 HOURS</td>
<td>1 HOURS</td>
<td>1 HOURS</td>
<td></td>
</tr>
<tr>
<td>10 FT &lt; X &lt; 30 FT</td>
<td>0 HOURS</td>
<td>2 HOURS</td>
<td>1 HOURS</td>
<td>1 HOURS</td>
<td></td>
</tr>
<tr>
<td>X &gt; 30 FT</td>
<td>0 HOURS</td>
<td>0 HOURS</td>
<td>0 HOURS</td>
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### Additional Fire-Resistive Ratings:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>CODE SECTION</th>
<th>RATING (HR)</th>
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</thead>
<tbody>
<tr>
<td>SHAFT ENCLOSURES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOUR STORIES OR MORE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESS THAN FOUR STORIES:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXIT ENCLOSURES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOUR STORIES OR MORE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESS THAN FOUR STORIES:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXIT PASSAGeways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOISTWAY ENCLOSURES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELEVATOR MACHINE ROOMS</td>
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</tr>
<tr>
<td>CORRIDORS [CBC TABLE 1018.1]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCCUPANCY: I-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCC LOAD SERVED: &gt;6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RATING (HR): 1</td>
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</tbody>
</table>

**OPENING FIRE PROTECTION ASSEMBLIES, RATING AND MARKINGS TO BE PER [PER CBC TABLE 716.5](#)**

---

*Figure 4:* Fire & Life Safety Remodel Flow Chart from the Office of Statewide Health Planning and Development, Facilities Development Division (OSHPD) CAN 2-102.6. (Coleman P., Revised 2013)

*Figure 5:* This sample summary outlines the various code requirements within a given facility.
(Figure 6): A sample single-line fire alarm diagram

SECTION 9 - SAMPLE TAKEOFF AND PRICING:

(Figure 7): A sample construction document with takeoff performed in On-Screen Takeoff
(Figure 8): The corresponding takeoff summary from On-Screen Takeoff for the scope of work in Figure 7, above.
<table>
<thead>
<tr>
<th>Div.</th>
<th>Code</th>
<th>Component Description</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>$</th>
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<td>1</td>
<td>01 00 00</td>
<td>GENERAL REQUIREMENTS</td>
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<td></td>
<td>01 00 00</td>
<td>General Requirements</td>
<td>4.0%</td>
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<td>$844</td>
<td></td>
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<tr>
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<td>01 00 00</td>
<td>Construction Phasing</td>
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<td>$21,108</td>
<td>$1,266</td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 30 00</td>
<td>Administrative Requirements</td>
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<td>$1,055</td>
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<td></td>
<td>01 50 00</td>
<td>Temporary Facilities And Controls</td>
<td>3.0%</td>
<td>$21,108</td>
<td>$633</td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 54 00</td>
<td>Construction Aids</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 54 16</td>
<td>Temporary Hoists or after-hours labor for stocking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>TOTAL GENERAL REQUIREMENTS</strong></td>
<td></td>
<td></td>
<td>$3,799</td>
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</tr>
<tr>
<td>2</td>
<td>02 00 00</td>
<td>EXISTING CONDITIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 40 00</td>
<td>Demolition And Structure Moving</td>
<td></td>
<td></td>
<td>$254</td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 41 00</td>
<td>Demolition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 41 13</td>
<td>Selective Demolition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 41 13</td>
<td>Remove existing sealants</td>
<td>9 LF</td>
<td>$6.11</td>
<td>$53</td>
<td></td>
</tr>
<tr>
<td></td>
<td>02 41 13</td>
<td>Remove existing partition.shaft wall</td>
<td>146 SF</td>
<td>$1.38</td>
<td>$201</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>TOTAL EXISTING CONDITIONS</strong></td>
<td></td>
<td></td>
<td>$254</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>07 00 00</td>
<td>THERMAL and MOISTURE PROTECTION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>07 80 00</td>
<td>Fire and Smoke Protection</td>
<td></td>
<td></td>
<td>$2,899</td>
<td></td>
</tr>
<tr>
<td></td>
<td>07 81 00</td>
<td>Applied Fireproofing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>07 81 16</td>
<td>Cementious Fireproofing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>07 81 16</td>
<td>Fireproofing patching</td>
<td>438 SF</td>
<td>$1.25</td>
<td>$548</td>
<td></td>
</tr>
<tr>
<td></td>
<td>07 84 00</td>
<td>Firestopping</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>07 84 13</td>
<td>Penetration Firestopping</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>07 84 13</td>
<td>Premium for 1-hour rated partitions</td>
<td>146 LF</td>
<td>$7.80</td>
<td>$1,139</td>
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<tr>
<td></td>
<td>07 84 43</td>
<td>Fire-Resistant Joint Sealants, premium</td>
<td>146 LF</td>
<td>$8.30</td>
<td>$1,212</td>
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<tr>
<td></td>
<td></td>
<td><strong>TOTAL THERMAL and MOISTURE PROTECTION</strong></td>
<td></td>
<td></td>
<td>$2,899</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>08 00 00</td>
<td>OPENINGS</td>
<td></td>
<td></td>
<td>$173</td>
<td></td>
</tr>
<tr>
<td></td>
<td>08 30 00</td>
<td>Specialty Doors and Frames</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>08 31 00</td>
<td>Access Doors And Panels</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>08 31 16</td>
<td>Access Panels And Frames</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>08 31 16</td>
<td>Ceiling access panels, 24&quot; x 24&quot;, supply</td>
<td>1 EA</td>
<td>$69.26</td>
<td>$69</td>
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</tr>
<tr>
<td></td>
<td>08 31 16</td>
<td>Ceiling access panels, 24&quot; x 24&quot;, install</td>
<td>1 EA</td>
<td>$103.90</td>
<td>$104</td>
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</tr>
<tr>
<td></td>
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<td></td>
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<tr>
<td>9</td>
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<td>FINISHES</td>
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</tr>
<tr>
<td></td>
<td>09 20 00</td>
<td>Plaster And Gypsum Board</td>
<td></td>
<td></td>
<td>$2,920</td>
<td></td>
</tr>
<tr>
<td></td>
<td>09 22 00</td>
<td>Supports For Plaster And Gypsum Board</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09 22 16</td>
<td>Interior Wall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09 22 16</td>
<td>Steel stud framing, 20 ga - 3 5/8&quot; @ 16&quot; o.c.</td>
<td>43 SF</td>
<td>$10.53</td>
<td>$453</td>
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<tr>
<td></td>
<td>09 22 16</td>
<td>Steel stud framing, 20 ga - 4&quot; CH studs @ 24&quot; o.c.</td>
<td>103 SF</td>
<td>$14.43</td>
<td>$1,486</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>TOTAL FINISHES</strong></td>
<td></td>
<td></td>
<td>$2,920</td>
<td></td>
</tr>
</tbody>
</table>
CERTIFICATION

(Figure 9): A sample estimate using the quantities taken from Figure 7 and 8 above

Certain items, such as architectural access panels, will not be shown on the drawings, as their layout is left to the contractor’s discretion. These items are generally estimated using a historically established ratio of count per gross square foot of work area. It is important to consider the actual number and layout of these items to ensure that the GSF quantity will be adequate but not overly conservative. In this instance, a typical ratio of 1 access panel per 250 SF of control area holds true. As a check-number, this work comes to $77.40/SF, or $7,353 per new damper, which is in-line with historical data for a similar scope of work.
SECTION 10 - GLOSSARY:

1. **UL Listing**: Stands for Underwriters Laboratories. A consultant that certifies the safety of consumer products.

2. **Below the Line**: This is a term to separate the work items above the subtotal "cost of work" from the "below the line" additions such as General Conditions, Fee, Insurance, and Subguard Insurance, which encompass the "direct cost of construction". Furthermore, the "soft costs" of a project would include the direct costs plus other intangibles such as building permits, architectural fees and engineering fees.

3. **Check-number**: Comparative pricing for the same or similar scope of work to verify the validity of an estimate.

SECTION 11 - REFERENCES:


SECTION 12 - COPYRIGHT RELEASE:

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Is Your Bid Only An Estimate?

By: George Hedley

You know what contractors really hate? It's when they negotiate an easy project to build with a great repeat customer. Then after the job is completed, they haven't made any money. The customer trusted them, didn't question their costs, and then awarded the job to their company at a fair price. Seven months later, they find out their estimator didn't have enough money in the bid to cover all the labor, materials, or equipment to do the work required by the plans and specifications. This is a contractor's worst nightmare! All the time, effort, and energy invested building a loyal customer relationship enabled the contractor to negotiate the project. And now, it's wasted!

When this happens to contractors, the boss goes and asks the estimator 'what happened?' He blames it on the project manager, or the superintendent, or the subcontractors, or the suppliers, or the weather, or the engineer, or the City, or bad plans, or his bad childhood! So, what do you do? You can't fire him. You need to continue bidding lots of work to keep the pipeline full. Now what?

What’s your estimator’s #1 priority?

When I speak at construction conventions, I get many different answers to this question. They include:
- Bid lots of jobs
- Get lots of profitable work
- Get everything covered
- Be competitive
- Know what things cost
- Make a profit

I want accuracy!

As a general contractor, my estimator's top priority must be to calculate accurate job costs. I don't want our bid to be an estimate of what it might cost plus or minus a percent or two or ten. Accuracy is the key. The only variable on any bid should be the overhead and profit mark-up. Excellent estimators know what things cost. Their bid estimates versus final actual job costs don't vary more than one or two percent. They look at past estimates and compare them to the final actual results to see how they did, and then make adjustments for their next bid. They're in constant contact with field superintendents, foremen, erectors, installers, and crews to review how they should arrive at estimated costs on future and potential projects. They continually review labor, material, equipment, subcontractor, and supplier costs to insure they know every possibility for differences in jobs they bid. Use this checklist to improve your estimating accuracy:

Accurate Estimating Checklist

1. Accurate Time Cards - Excellent estimators know accurate estimating starts with accurate information from the field foreman and crews who actually do the work. Step one is to insist your timecard is divided into the cost codes you want to estimate with and keep track of. Then, it's the estimator's responsibility to insure field workers and foreman are filling out timecards correctly. Regularly meet with job foreman or field superintendents to make sure the work time shown is accurate and for the work done in each task's cost code category. This will insure accurate job history to refer to on the next bid.

2. Accurate Labor Burden Rate - Do you know how your labor burden rate is calculated? Is it accurate or an approximation of what your accounting department thinks it should be? An accurate labor
burden rate is essential for accurate estimating. If your rate is padded, your bids will be too expensive, and if it's not complete you'll bid too cheap. Each employee has a different burden rate based on their age, dependents, or tenure at the company. Review all of your field employee's burden rates for accuracy, and be sure to include accurate: taxes, worker's compensation insurance, medical, liability insurance, vacation, union dues, safety training, small tools, overtime, and downtime.

3. Accurate Crew Bid Rate - Excellent estimators use different crew rates to bid different projects based on what or who the job needs. A crew on a difficult job needs more experienced workers, while a larger simple project can use less trained crew members. Figure different crew sizes and make-ups to determine your accurate man-hour crew bid rate. I like to calculate bid rates for 2 man, 3 man, 5 man and 10 man crews. You'll find your bid rate varies considerably for different field crews and teams so be sure to use the right one for each specific job.

4. Accurate Equipment Rates - Excellent estimators know what equipment really costs. Calculate the cost for each piece of equipment your company owns from pickup trucks to compressors, welders, cranes, backhoes, forklifts, or scissor lifts. Total the initial purchase price for each piece of equipment plus interest cost, maintenance, gas, and insurance over the life of the equipment. Divide this total lifetime equipment ownership cost of by the expected number of billable hours you will be able to job charge over the life of the equipment to arrive at your accurate equipment cost per hour. Then add your overhead and profit markup for an accurate bid rate.

5. Accurate General Conditions - Many poor estimators don't verify what their general conditions really cost on projects. They too often guess at the cost of job start-up, mobilization, move-on and move-off, project management, supervision, temporary facilities, utilities, cleanup, and job close-out. Or they use a percentage of the total job cost to estimate the general conditions budget for a bid. Neither of these methods are accurate. Often unit prices used are outdated, inaccurate, not updated, or don't match reality in the field. For example, when is the last time you looked at a temporary toilet invoice? It varies by the number of services per month plus the delivery fee. I find on a typical eight month project, our general conditions can vary from $10,000 to $25,000 per month. Accurate estimating must include a review of what general conditions actually cost utilizing input from the field.

6. Accurate Overhead - Your company overhead is a fixed amount of money to be spent for the year to run your business, and is not a percentage of job costs or sales. Excellent estimators know what it costs to keep their company open without any jobs under construction - this is your fixed general and administrative expenses or overhead costs. Starting with your total annual overhead cost, divide it by your total projected annual job costs for every job you will build (not sales volume). This percentage will equal the actual overhead recovery markup you need to use to recover all of your overhead expenses for the year. For example: $800,000 projected total annual overhead / $5,000,000 projected annual job costs = 16.0% overhead markup for overhead recovery. Don’t get trapped into thinking you can use an industry average such as 15% or 20% to cover your overhead costs unless you want to go broke fast. Know you actual and accurate overhead markup you need to break even at the end of the year.

7. Accurate Profit Mark-Up - Profit is a fixed amount of money you want to earn by the end of the year. Start every year by deciding how much pre-tax net profit you want to make over the next year. A good rule of thumb for contractors is to aim at a net profit mark of 40% to 50% return on your total annual overhead budget. For example, if your annual overhead is $800,000, a good net profit target is 50% of your overhead = $400,000 net profit. To determine the profit markup required to hit your goal, divide your total annual projected costs by your annual profit goal to determine the profit markup you need to use. For example: if your annual net profit goal is $400,000, divide it by your projected total annual job cost projection of $5,000,000. ($400,000 / $5,000,000) = 8.0% required profit markup to hit your goals.

To complete the calculation, now add your total annual job costs to your overhead to your net profit goal. This will give you equal total sales required to achieve your financial targets. For example: $5,000,000 job costs + $800,000 overhead + $400,000 profit = $6,200,000 in annual sales. Now ask yourself if you can hit $6,200,000 in sales at a markup rate of 16% for overhead plus 8% for net profit (total overhead and profit markup of 24%)? In this example, look at the markup rates. If you can't achieve 24.0% overhead and profit markup in your market, your only solution is to adjust your volume up or your profit markup down (not your overhead!) until you hit your $400,000 profit target. Or lower your profit goal to less than what you want! To help you get started with improving your bottom-line, email GH@HardhatPresentations.com to get your copy of 'Profit 101 For Contractors!'

Want to make lots of money? Make you bid more than a 'guestimate' of what it might cost. Be ACCURATE! Make each estimate an exact prediction of what it will take to build every project.

ABOUT THE AUTHOR
George Hedley works with contractors to build profitable growing companies. He is a professional construction business coach, popular speaker and best-selling author of "Get Your Construction Business To Grow & Profit!" available at his online bookstore at www.HardhatPresentations.com.

To sign-up for his free e-newsletter, be part of a BIZCOACH program, or get a discount coupon for online classes at www.HardhatBizSchool.com, e-mail GH@HardhatPresentations.com

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Website: www.hardhatpresentations.com

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We mourn the passing of long-time member, past National President, and the first Estimator of the Year, Michael G. Segina, CPE.

Mr. Segina’s membership with ASPE began January 1964. He was elected National President of ASPE serving 1972-1973. In 1974, Mr. Segina was honored by his peers as the first “Estimator of the Year” award. At the beginning of 2015, Mr. Segina celebrated his 100th birthday at his residence in Las Vegas, NV. His dedication to ASPE and the construction industry will be missed by all.

Below is a copy of Mr. Segina’s acceptance message when awarded the Estimator of the Year Award in 1974.

“My fellow estimators:

The one thought that occurs to me at this time, when I have been honored by fellowmen is the progress that has been made on a national level by the participating Chapters across the nation. The ESTIMATOR is no longer a clerk - he is a professional.

I extend my sincere thanks to one and all for this honor, and I assure you that I will accept it with all the pride and dignity the honor deserves. My sincere hope is that I have set a precedent for all future aspirants to exceed my efforts.

In order to preserve the principles of this Society we must put aside minor difference and pull together as a team. Our goal should be ten thousand members or more. This is not impossible. There are thousands of professional estimators in all construction categories that are key men in their firms - they will be heard from if we maintain our level of professionalism. But they will only be heard from if we all work together, by taking part in all Chapter activities, by contributing our Individual efforts to every phase of our development, and by recognizing the value of our contribution to the construction Industry. IF WE RECOGNIZE IT, THE INDUSTRY WILL BE FORCED TO RECOGNIZE IT.”

Michael G. Segina

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It is with regret that I advise you of a change in the staff at the Society Business Office. Tanya Graham will be leaving our ASPE effective the end of December to pursue other opportunities. Tanya started officially with us when the office was opened in Nashville in August, 2004, and has been an invaluable asset to this Society.

Tanya first began in this office as the Membership Coordinator and her first task was to get the database, which at that time was DOS based, converted to the Windows format. Nothing has ever slowed down when a new task came along, so she dove in and made contacts with the database supplier and soon had a new database up and running in a Windows format. At that time she then began working with setting up the applicants for the online educational courses offered by ASPE and I soon found that she could convince them to take multiple courses over a period of time, rather than a single class and revenue with the classes began to increase.

In 2008 when the Certification Coordinator left, she was asked if she would consider moving into the Certification Coordinator position rather than membership coordinator. As always, Tanya was willing and immediately began to research how the program worked and, most importantly, how to begin to grow it and advance it. The CPE’s in this Society and those who are non-member CPE’s, certainly understand how knowledgeable and resourceful Tanya is and has been to our certification program.

In addition to her work on the certification program process, she has been extremely involved in working with obtaining exhibitors and advertisers for our Annual Meeting & Estimators Summit each year. And, when our publications employee left, she once again stepped up and began to learn the software necessary for producing the Estimating Today and eventually the Annual Guide.

Tanya has never said “no” to taking on any task she has been asked to do and will be greatly missed, not only as an employee, but as a friend and colleague.

Wishing Each of You the Very Best in the New Year,
## NEW MEMBERS

<table>
<thead>
<tr>
<th>Member</th>
<th>Chpt. Name</th>
<th>Chpt. Number</th>
<th>Member Company</th>
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<tr>
<td>Edwin Enriquez</td>
<td>Golden Gate</td>
<td>2</td>
<td>Vortex Marine Construction, Inc.</td>
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<tr>
<td>Lisa Bacon</td>
<td>Denver</td>
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<td>Sturgeon Electric</td>
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<td>Justin Pollard</td>
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<td>Murphy Company</td>
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<td>Cody Jack</td>
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<td>SDB Inc.</td>
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<td>James Cicalo</td>
<td>New York</td>
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<td>FSI Architecture, PC</td>
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<tr>
<td>Joseph Theis</td>
<td>Sacramento</td>
<td>11</td>
<td>Mark III Construction</td>
</tr>
<tr>
<td>Rickey Molina</td>
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<tr>
<td>Bob Amos</td>
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<td>Mark Three Construction, Inc.</td>
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<tr>
<td>Brian Piersall</td>
<td>Yankee</td>
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<td>Main Enterprises</td>
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<td>Michael Lozier</td>
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<td>SSOE GROUP</td>
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<td>Ted Kalriess</td>
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<td>KCM Inc.</td>
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<td>Jim Crist</td>
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<td>Kwanzaa Spears</td>
<td>Arkansas</td>
<td>33</td>
<td>UALR Dept. of Construction Management and Civil and Construction Engineering</td>
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<tr>
<td>David Greenwood</td>
<td>Arkansas</td>
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<td>N/A</td>
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<td>Andrew Baxter</td>
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<td>Garver</td>
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<td>Mario Geraci</td>
<td>Southwestern Ohio</td>
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<td>Conger Construction Group</td>
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<td>Oscar Lara</td>
<td>Rio Grande</td>
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<td>Oscar Lara Electric</td>
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<tr>
<td>Bryan Garvey</td>
<td>Dallas/Ft. Worth</td>
<td>43</td>
<td>Corbet Design Build</td>
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<td>Pete Anderson</td>
<td>Puget Sound</td>
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<td>Compass General Construction</td>
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<td>Christopher Dencklau</td>
<td>Roadrunner</td>
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<td>Kurt Hamilton</td>
<td>Columbia-Pacific</td>
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<td>Craig Welburn</td>
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<td>Lee Templin, P.E.</td>
<td>Western Michigan</td>
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<td>Ferris State University</td>
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<td>Don Murphy</td>
<td>Brew City</td>
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<td>Jeff Giddings</td>
<td>Northwest MAL</td>
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<td>Radix Construction, Inc.</td>
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<td>Egwunatum Samuel</td>
<td>Southwest MAL</td>
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<td>Delta State Polytechnic, Ozoro</td>
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<td>Justin Wills</td>
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It’s Your ASPE.

Upcoming Items:

- *Annual Guide* to arrive via U.S. Mail - Look for it coming soon to your mailbox.
- January 10, 2016 - Deadline for enrollment application to the Certification Program
- February 1, 2016 - Deadline for submitting National Nomination Form for Board of Trustees

REMEMBER: All forms and Applications are available on the web site, http://www.aspenational.org. See what you can learn by exploring the web site today!
Upcoming Chapter Meetings

ARIZONA
Arizona Ch. 6
Where: Doubletree Suites Phoenix Sky Harbor - 320 44th St., Phoenix
Date: 2nd Tues. of the Month (except Jul & Dec)
Time: 5:30 pm Social Hour • 6:30pm Dinner • 7pm Meeting
Contact: Paula Daly 602.266.1496 • pdaly@haydonbc.com
www.aspe-chapter6.org

Old Pueblo Ch. 53
Where: TBD
Date: TBD
Time: TBD

ARKANSAS
Arkansas Ch. 33
Where: American Pie Pizza
Date: TBD
Time: 12:00 Noon
Contact: Chris Sublett, CPE • 501.666.4300 •
csusublett@edison.com
NW Arkansas #79
Where: Varies • www.aspechapter79.org
Date: 3rd Fri. of month
Time: TBD
Contact: Thom Thibodeau • 479.270.0130
Thomthibodeau@cox.net

CALIFORNIA
Los Angeles Ch. 1
Where: The Barclay Restaurant, 1400 Huntington Dr., South Pasadena, CA 91030
Subject to change visit: www.laestimator.org
Date: 4th Wednesday of month (expect Nov/Dec)
Time: 6:00PM Social, 7:00PM Dinner • 8:00PM Program
Contact: Scott Hubbard • 818.956.0533
scott@hubbardconstruction.com

Golden Gate Ch. 2
Where: AIA East Bay, 1405 Clay Street, Oakland, CA
Date: Check with Chapter Contact below
Time: Check with Chapter Contact Below
Contact: Melissa Giordano • 510.735.6444
www.aspegolden gate.org or melissa.giordano@vanir.com

Orange County Ch. 3
Where: Ayers Hotel, 325 Bristol St., Costa Mesa, CA
Date: 2nd Wednesday of the Month (except Aug)
Time: 5:30 Social, 6:00 Dinner • 6:45 Program
Contact: Tom Smithson • 949.427.2751
www.aspechapter3.org

San Diego Ch. 4
Where: TBD
Date: 3rd Tues. of Month
Time: 5pm Social • 6pm Dinner • 7pm Program
Contact: Michael Meyers, CPE 658.373.3716
michael.meyers@bestinteriors.net
www.aspechapters4.org

Sacramento Ch. 11
Where: Rancho Cordova City Hall
Date: 2nd Friday of every month (excluding June, July, August)
Time: 11:30 AM-1:00 PM Lunch Provided
Contact: Corey Coleman • 916.262.2800 •
colomenc@hookconstruction.com
www.aspechapter11.org

District of Columbia
Greater DC Ch. 23
Where: TBD
Date: 3rd Thursday of month
Time: 6pm Program
Contact: Gregory Saul • 757.218.1433
Greg@jacksone.com

Florida
Tampa Bay Ch. 48
Where: Bistro-Tuscan, International Plaza, 2223 N. West Shore Blvd. Tampa
Date: 3rd Thurs. every month
Time: 5:45pm Social • 6:30pm Dinner • 7:15pm Program
Contact: David Lenz • 813.714.6935
tampabayestimating@yahoo.com
www.aspetampabay.com

Gold Coast Ch. 49
Where: Holiday Inn, 2065 Sheridan St. Hollywood, FL 33020
Date: 3rd Wed. of month
Time: 6:00pm Social Hour • 6:45 Dinner & Program
Contact: Stacey Miller, 954.509.3777
smiller@bismail.com

Inland Empire Ch. 68
Where: Lonestar Steakhouse, 18601 Dexter Ave., Lake Elsinore, CA
Date: 3rd Tuesday of Month
Time: 5:30 Social • 6:30pm Dinner • 7:15 pm Program
Contact: Larry Hendrick • 760.310.9207
Fred@hendricks.com

IRVING CH.
Where: TBD
Date: TBD
Time: TBD
Contact: Danny Chadwick • 407.739.8912 •
dchadwick@bellsouth.net or
chadwickc@cdmsmith.com

ILLINOIS
Chicago Ch. 7
Where: Barbados, 131 Butterfield Rd., Downers Grove, IL 60515
Date: 3rd Thurs. of Month (excluding June, July, August and December)
Time: 5:30 pm Social • 6:15 pm Dinner • 7pm Program
Contact: Marvin Fitzwater, CPE 630.678.0808 •
mfitzwater@csdiverence.com
www.aspechicago.org

INDIANA
Central Indiana Ch. 59
Where: Varies each month
Date: 3rd Thurs. of Month
Time: 5:30 Social • 6:30 Dinner Program
Contact: Jeremy Adkins, CPE 314.462.9363 •
jadkins@theaddinggroup.net

Old Fort Ch. 65
Where: TBD • www.aspechapter65.org
Date: TBD - see website
Time: TBD - see website
Contact: Chad David • 260.490.7449
cdavid@aeiegandconstruction.com

IOWA
Quad Cities Ch. 71
Where: TBD
Date: 4th Tuesday of the Month (September - May)
Time: 5:00pm Social • 6:00pm Dinner • 7pm Program
Contact: Jeff Kaczynski • 653.359.4543
jkaczynski@generalconstructors.com
www.aspequadcities.org

Greater Des Moines Ch. 73
Where: Third Thursday of Month
Date: 3rd Thursday of month
Time: 5:00 Social • 6:00 pm Dinner • 7pm Program
www.iowaspe73.org

Kansas Ch. 107
Where: TBD
Date: TBD
Time: TBD
Contact: Checklist

LOUISIANA
New Orleans Ch. 9
Where: Voodoo BBQ & Grill, Seven
Avenue, Metairie, LA
Date: 2nd Wednesday of Month
Time: 5:30 Social • 6:30 Dinner / Program
Contact: Christine Barnett 504.915.0647 •
bharrett@bellsouth.net

MAINE
Maine Ch. 37
Where: Woodard & Curran* (verify)
Date: 1st Wed. in Oct., Dec, Feb, Apr & June
Time: 6pm Social Hour • 6:30pm Dinner • 7:15pm
*Program Varies
Contact: John Brockington • 207.774.2756
ext.3251 • jbrockington@woodardcurran.com
www.aspemainel.com

MARYLAND
Baltimore Ch. 21
Where: Varies
Date: 2nd Thurs. of month
Time: 5:30 pm Social • 6:30 Dinner & Program
Contact: Shana Carroll 410.458.0289
shana.m.carroll@gmail.com

MASSACHUSETTS
Boston, Ch. 25
Where: Courtyard Marriott Cambridge, 77 Memorial Drive, Cambridge, MA
Date: Third Wednesday of the Month
Time: 5:30pm Social • 6:30pm Dinner • 7:00 Program
Contact: Gail Callisti • 617.394.6291 •
gcallisti@broadbrothers.com
www.aspeboston.org

MICHIGAN
Detroit Ch. 17
Where: Varies
Date: 2nd Thursday of each month
Time: 5:30 PM Social • 6:00 PM Program
Contact: Patrick Todd • 313.437.2773
patrick.todd@aspel7.org
www.aspe17.org

Western Michigan Ch. 70
Where: TBD
Date: 1st Thurs. of Month
Time: 7am
Contact: Brent Balkema • 616.881.6252
bbalkema@brooktonconstruction.com

MINNESOTA
Viking Ch. 39
Where: Varies
Date: 3rd Thurs. of month
Time: 5:30 Social • 6:30 Dinner & Program
Contact: Rich Schwarzinger • 763.287.5156 •
rich.schwarzinger@mortenson.com

MISSISSIPPI
Magnolia Ch. 81
Info not submitted
Upcoming Chapter Meetings

**MISSOURI**

**St. Louis Metro Ch. 19**
Where: TBD month-to-month
Date: 4th Thursday of Month
Time: 5:30PM Social, 6:00PM Dinner/Program
Contact: Jerry Dorhauer, Sr. • 314.446.4719 • jdk@schneiderelec.com
www.stlouis-aspe.org

**Heartland Ch. 32**
Where: TBD month-to-month
Date: 3rd Wed. Of Month (Sept. - May)
Time: 5:30pm Social • 6:30 pm Dinner
Contact: Greg Wienenberg • 616.206.0736 • gwenberg@mccowngordon.com
www.aspe32.org

**NEBRASKA**

**Great Plains Ch. 35**
Where: DJ's Dugout, 636 N. 114th St., Omaha, NE
Date: 2nd Weds of the month
Time: 11:30am Lunch • 11:45PM Program
Contact: Jerry Onk • 402.341.9121
onkJ@heartlandscenic.com
https://sites.google.com/site/aspe35

**NEVADA**

**Reno Ch. 12**
Where: TBD
Date: TBD (Tuesdays Monthly)
Time: TBD
Contact: Neil DeMent • 775.219.7143
nde@rtreno.com
www.aspe12.org

**Las Vegas Ch. 72**
Where: Desert Pines Golf Course
Date: 2nd Thurs. of each month
Time: 5:30pm Social • 6pm Dinner • 6:30pm Program
Contact: Terry Barnes • 702.492.5335 • tbarnes@grandcanyoninc.com

**NEW JERSEY**

**Garden State Ch. 26**
Where: Lifbrett Restaurant, 554 Nassau St., Orange, NJ 07050
Date: 4th Tuesday of Month; Contact to verify
Time: 5 pm Social • 7pm Dinner
Contact: Jeff Sonholzi • 570.856.8760 • csmarr@bj.com

**NEW MEXICO**

**Roadrunner Ch. 47**
Where: Fiesta's - 4400 Carlisle NE, Albuquerque
Date: 1st Wed of month
Time: 5:30pm Social • 6pm Dinner • 6:30pm Program
Contact: Michael Rocco • 505.975.6999
rocco@auinc.net
www.aspechapter47.com

**NEW YORK**

**New York City Ch. 10**
Where: TBD
Date: TBD
Time: TBD
Contact: Peter Wellstood • 914.665.0083
imagineering@benigon.net
Empire State Ch. 42
Where: Athos Restaurant, 1814 Western Ave., Albany, NY
Date: 1st Thursday of Month every other month beginning in April.
Time: 6:00 Social • 7PM Dinner/Program
Contact: James Madison • 914.755.8994
jmadison@jamscontracting.com
Western NY Ch. 77
Where: Panera Bread, 1501 Howard Rd, Rochester, NY
Date: Second Thursday of the Month
Time: 8:30AM - 9:30 AM
Quarterly Meetings: Verify with Chapter Contact
Contact: Benjamin Nodine • 585.270.5772 • ben.nodine@wegmans.com

**OHIO**

Buckeye Ch. 27
Contact: Tim Mescher • 614.754.8349
tmescher@thomas-marker.com
Northeastern OH Ch. 28
Info not submitted
Southwestern OH Ch. 38
Where: Embassy Suites Hotel - 4854 Lake Forest Drive, Blue Ash, Ohio
Date: 3rd Thurs. of the Month
Time: 5:30pm Social • 6pm Dinner • 6:30PM Program
Contact: Chris McCarthy • 513.255.3088
chris.mccarthy@bins集团.com
www.aspe-cincinnati.org

**OKLAHOMA**

Landrun-Oklahoma City Ch. 80
Where: Ingrid’s Kitchen
Date: 1st Wed. Of each month
Time: 11:30am - 1:00pm
Contact: John Smartt, CPE • 405.254.1050
smartt@manhattanconstruction.com
www.aspeokc.org

**OREGON**

Columbia-Pacific Ch. 54
Where: University Place - 310 SW Lincoln St, Portland
Date: 3rd Tues. of month (except Dec & Jan.)
Time: 5:30pm Social • 6:30 pm Dinner & Program
Contact: Curt Kolar, CPE 503.862.8840
kolar@timel.org

**PENNSYLVANIA**

Greater Lehigh Valley Ch. 41
Where: Notices will be emailed
Date: TBD
Time: TBD
Contact: James G. Hanna, CPE
484.357.6468 • jgh@dhuy.com

Three Rivers - Pittsburgh Ch. 44
Info not submitted
Philadelphia Ch. 61
Where: See Chapter Website for details.
Date: 3rd Wed. of month
Time: 5:30pm Social • 6:30pm Dinner/Program (see website for topic and time)
Contact: Lyndel Williams • aspe61.Philadelphia@gmail.com
www.aspe61.org
Central PA Ch. 76
Where: TBD
Date: 2nd Wed. of Month
Time: 6pm Social • 6:30pm Dinner & 7:00pm Program
Contact: Daniel Dennis • 717.735.6010
dd@jsgconstruction.com

**TENNESSEE**

Middle Tennessee Ch. 34
Where: Adventure 3rd Center, 800 Fort Negley Blvd, Nashville, TN 37203
Time: 11am Social • 11:30am Lunch • 12pm Program
Contact: Ricky Sanford • 615.206.6811
ricky.sanford@rogersgroupinc.com
www.aspenashvilletn.com

**TEXAS**

Houston Ch. 18
Where: Spaghetti Western’s, 1608 N. Shepard, Houston, TX 77007
Date: 2nd Monday of Month
Time: 6 pm
Contact: Dennis Pyland • 303.888-9668
Dennis.pyland@gmail.com
www.aspe-houston.org

Rio Grande Ch. 40
Where: Famous Dave’s, 1135 Airways Blvd., El Paso, TX • 915.843.8400
Date: 1st Thurs. of Month
Time: 5:30 pm Board Meeting • 6:00 pm General Meeting (dinner paid for by individual)
Contact: Rodolfo Barba • 915.877.3333 ext 167
rodofo@barba1@gmail.com
www.aspechapter40.org

**UTAH**

Salt Lake City Ch. 51
Where: Mountainlands Area Plan Room
Date: Third Thursday of Month
Time: Varies - Call for info.
Contact: John Shampton • 801.280.1311
john@wspanel.com
www.aspe51.org

**VIRGINIA**

Richmond Ch. 82
Where: Baskervi ll Architects - 101 15th St., Richmond
Date: 4th Weds. Of Month in Spring & Fall
Time: 5pm Social • 5:30pm Dinner • 6pm Program
Contact: Mike Gray • 804.371.7545
michael.gray@ds.joanville.gov
www.aspe-richtmond.org

**WASHINGTON**

Puget Sound Ch. 45
Where: Hale’s Ales, 4301 Leary Way NW, Seattle, WA
Date: 3rd Tues. of Month
Time: 5:30pm Social • 6pm Dinner • 6pm Program
Contact: Mike Booth, CPE • 206.793.8504 • electricbooth@msn.com
www.aspepugetsound.org

**WISCONSIN**

Brew City Ch. 78
Where: Charcoal Grill - 15375 West Greenfield Ave., New Berlin
Date: 2nd Tues. of Month (Sept.- May)
Time: 5:30pm Social • 6pm Dinner & Program
Contact: Deanne Goodlaxson, CPE
608.836.2985 • dgoodlaxson@casgroupinc.com

All Chapter Meetings are on a monthly basis unless otherwise noted.
If you do not see a Chapter Meeting listing in your state/area call 615.316.9200.
Chapter Presidents should contact the SBO with any updates as needed.

08272015
Fun.
Fellowship.
Education.

City of Tampa

July 13-16, 2016