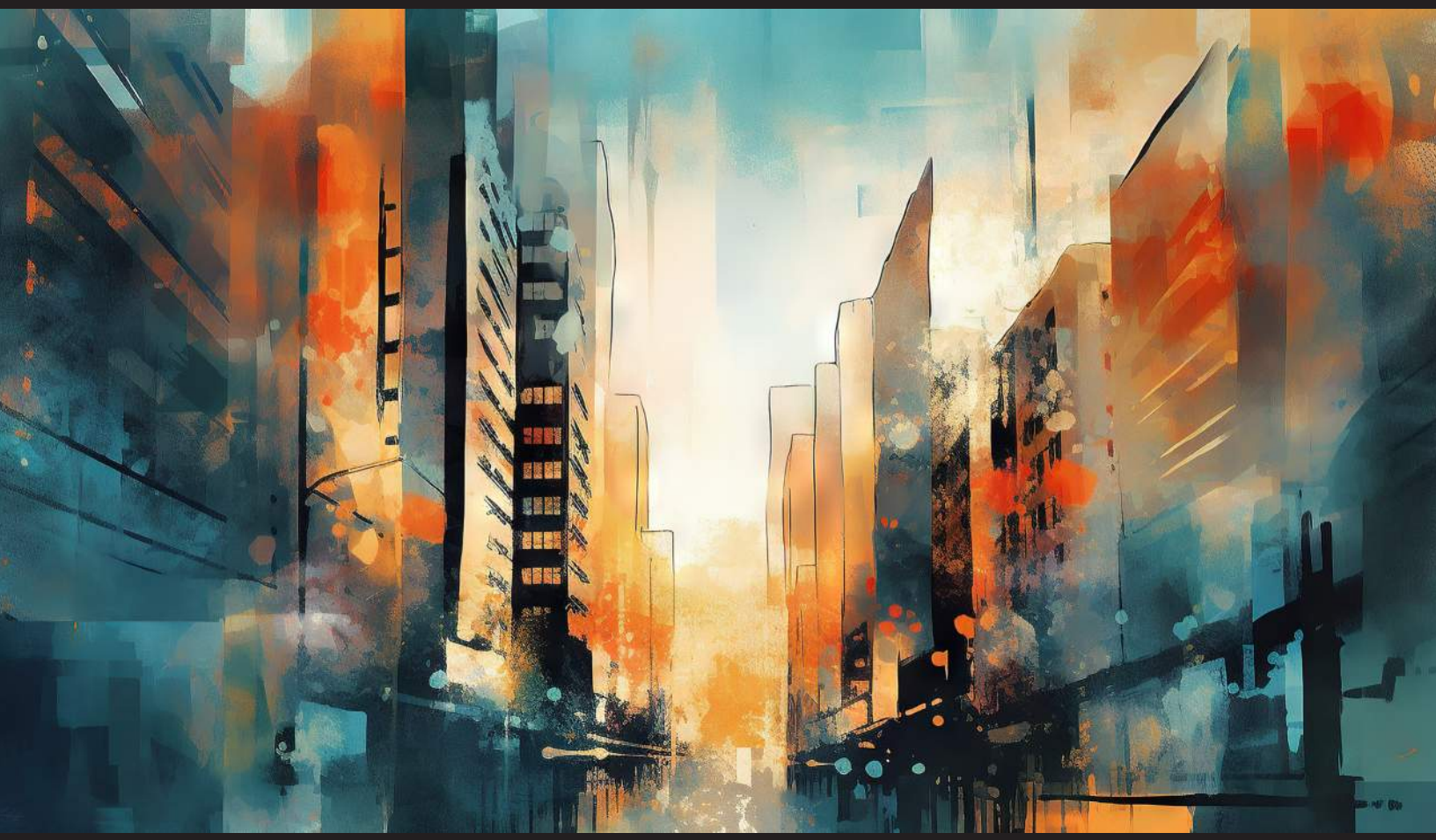
SPRING 2024

AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS

ESTIMATING TODAY



ASPE

Construction Bidding: Vetting and Selecting the Right Projects

Navigating Lumber Price Escalation During and Beyond the COVID Pandemic

How to Estimate the Cost of a Stormwater System

WHAT IS INSIDE

From the President

A fellow construction manager recently asked me why I am so involved in ASPE.

ASPE and volunteering are not solely about giving your time; it is also about giving a piece of yourself to something greater than you. When you choose to volunteer, you become a part of the ASPE community that thrives on the education and certification of future construction estimators.

Think about it, every act of volunteering, no matter how small, ripples out into the world of construction, creating waves of positivity and change in the industry. Volunteering at the chapter level benefits others, as well as benefiting yourself. It is about finding purpose, fulfillment, and a sense of belonging to something important to you and others alike. When you volunteer you connect with people from all walks of life, forging friendships and bonds that can last a lifetime. You learn new estimating skills, gain valuable leadership experience, and discover strengths you never realized you had.

For this reason, I encourage you, my fellow ASPE members, to not wait for change to happen in your chapter; be the change agent. Volunteer your time, your energy, and your thoughts to your local ASPE chapter.

ASPE national is supporting the growth and facilitating volunteerism at the chapter level in the following avenues:

1. Monthly Chapter Leadership Meetings – share what is working at the chapter level.
2. Complimentary access to on-demand webinars and recorded classes for chapter meetings and discussion.
3. Use of the ASPE "Chapter Achievement Awards" criteria to build a stronger chapter and receive national recognition.

Together, we can build a stronger, exceptionally educated ASPE community for ourselves and future estimators.

Mike Alsgaard

Connect at:

maalsgaard@aspenational.org

LEARN . CERTIFY. JOIN

Welcome our October - January New Members

Member	Company	Chapter
Marlo Sierra	Sierra Electric Solutions Inc.	Los Angeles - 1
Brian Navarro	AirLing HVAC Solutions Inc.	Los Angeles - 1
Janet Duenas		Los Angeles - 1
Christina Blanco	3 Sixty-Five Framers	Los Angeles - 1
Cam Giang Huynh	Kemp Bros. Construction Inc.	Los Angeles - 1
Kim Flowers	Morning Star Concrete Construction Inc.	Los Angeles - 1
Juan Rangel	Bloom Works Construction Inc	Los Angeles - 1
Hank Brice	Brice Builders Inc.	Los Angeles - 1
Richard Desmond	Desmond & Wallace Inc.	Golden Gate - 2
Dana Minney		Orange County - 3
Shelly Irvine	Metro Builders and Engineers Group Ltd.	Orange County - 3
Celeste Oliver	Alpha Mechanical	San Diego - 4
Chris Muhlhauser	Muhlhauser Steel	San Diego - 4
Edward Yarc	Martin Bros.	San Diego - 4
Dianna Gonzalez	Martin Bros.	San Diego - 4
Emir Taheri	McCarthy Building Companies Inc.	San Diego - 4
Sreeharsha Sirigibattula	Cumming Management Group	San Diego - 4
Kyle Hanson	H&E Rentals	San Diego - 4
Anibal Marcelo Nunez Freda	Blue Ribbon Concrete Inc.	Denver - 5
Matt Long	Paul Johnson Drywall Gypsum Division	Denver - 5
Mark Baraga	MKA International Inc.	Arizona - 6
Poojith Tatineni	Arizona State University	Arizona - 6
Colin Dylewski	Lloyd Construction Company	Arizona - 6
Luana Vannatta	Best Source Roofing	Arizona - 6
Jeff Klima	CCS International Inc.	Chicago - 7
Efrain Angarita	EAB Construction LLC	New York - 10
Peter Gibson	Consolidated Edison Co.	New York - 10
Dan James	WS Painting & Remodeling LLC	Atlanta - 14
Jose Fernando Magsi	Turner & Townsend	Detroit - 17
Michael Sheofsky	Limbach Company	Detroit - 17
Aaron Smith	Smith Hafeli Inc.	St. Louis Metro - 19
Andrew Mueller	Golterman & Sabo Inc.	St. Louis Metro - 19
Thomas O'Brien	CCS International Inc.	Baltimore - 21
Glenn Wagner	Bechtel Infrastructure	Greater D.C. - 23
Adam Shirazi	CCS International Inc.	Greater D.C. - 23
Elsa Escamilla	Aleman Construction LLC	Greater D.C. - 23
Nate Weeks	Jewett Construction	Boston - 25
Lucinda Arruda		Boston - 25

Welcome our October - January New Members

Member	Company	Chapter
John lyssikatos	Project Control Associates	Garden State - 26
Louis Saldino		Garden State - 26
Timothy Erickson	MMC Contractors National	Heartland - 32
Justin Green	I-Solutions LLC	Heartland - 32
Sydney Lock	Baldwin & Shell Construction	Arkansas - 33
Jacob Ivy	Baldwin & Shell Construction	Arkansas - 33
Nicole Skyles	Por2Serve	Middle Tennessee - 34
Sidonie Sansom		Middle Tennessee - 34
Valerie Paquin-Gould	Consigli	Maine - 37
Matt Worrell	Danis Building Construction Co.	Southwestern Ohio - 38
Jeff Serrer	Chapel Electric	Southwestern Ohio - 38
Colin Heidel	Precision Site Development LLC	Southwestern Ohio - 38
Nathan Locker	Danis Construction	Southwestern Ohio - 38
Rian Meyers	Lithko Contracting	Southwestern Ohio - 38
Lisa David	JE Dunn Construction Co.	Viking - 39
Steven Valenzuela	Beltran Electrical Contractor Inc.	Rio Grande - 40
Debbie Belis	Apic Solutions TX LLC	Rio Grande - 40
Gustavo Ganem	Sun Carpets LLC	Rio Grande - 40
Michael French	Construction Innovation Consultants	Dallas/Ft. Worth - 43
Rajeana Wallace	Holt Construction	Dallas/Ft. Worth - 43
Stephen Decker	Prestige Construction and Development	Dallas/Ft. Worth - 43
Kenneth Burnham		Dallas/Ft. Worth - 43
John Wasierski	GDM Architecture	Puget Sound - 45
David Hudman	ML Crane Group	Roadrunner - 47
Yamaris Ramos	Anser Advisory	Orlando - 50
Justin Leonard	Williams Company	Orlando - 50
Mario Rodriguez	Matel Inc.	Orlando - 50
Ana Palm de Oliveira		Orlando - 50
Joe Mcghee	Williams Company	Orlando - 50
Juan Garcia	PCL Construction Services Inc.	Orlando - 50
Ben Harrison	PCL Construction Services Inc	Orlando - 50
Sai Chandupatla	Anser Advisory	Orlando - 50
Scott Kimpel	Balfour Beatty	Orlando - 50
Thomas Martinez		Great Salt Lake - 51
Zac Tharpe	Harmon Construction Inc.	Central Indiana - 59
Andrew Verdo		Nutmeg - 60
Nicole Harris	Standup Builders	Philadelphia - 61
John Wilhelme	Johnson Controls Fire Protection	Delaware - 75
Samuel Stanitski	Johnson Controls Fire Protection	Delaware - 75

AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS

Register Today !

ASPE's Summit has a long tradition of providing top-tier education for estimating professionals. Originating as a workshop tailored for estimators to refine their skills, Summit has now evolved into a comprehensive conference catering to estimators at all career stages, offering immersive training and seminars led by seasoned estimators, construction experts, software developers, economic consultants, and other industry leaders. Beyond its educational offerings, Summit serves as a networking hub where enduring professional connections are established among like-minded estimators, vendors, and service providers. Building a robust professional network is a fundamental aspect of the Summit's mission.

About Cincinnati

Downtown Cincinnati, OH offers attendees a relaxed and accessible urban experience right from the convenient location of the Summit venue, Hyatt Regency Cincinnati. With a diverse dining scene ranging from trendy eateries to classic comfort food joints, there's something for everyone. Sports fans can check out the Great American Ball Park or Paycor Stadium, while entertainment options abound with theaters, live music venues, and the iconic Fountain Square. Explore museums like the Cincinnati Art Museum or take a scenic stroll along the Ohio Riverfront to soak in the city's rich history and picturesque views.

Agenda Overview

Estimating for Optimal Outcomes

- Estimating Aspects of Public Bidding
- Data Science for Estimating
- Estimating Economics
- Reconciliation in Estimating
- Understanding Legal Precedents in Pricing and Biding Work
- And More!

Pricing

Presale - $1,395 - Through March 31st
Regular - $1,495 - Through June 30th
Late - $1,795 - Through September 3rd
Guest - $275

Register https://bit.ly/3HWHhRt

Learn More

Welcome our October - January New Members

Member	Company	Chapter
Brittany Rodriguez	MODLOGIQ	Central Pennsylvania - 76
Jordan Rhen	Ainsworth USA	Central Pennsylvania - 76
Samuel Ogunseye	Ashton Gray Construction	Landrun/ Ok City - 80
David Talucci	Nabholz Corporation	Landrun/ Ok City - 80
Aaron Miller	Shoemaker Mechanical	Landrun/ Ok City - 80
Tori Aten	JE Dunn Construction	Landrun/ Ok City - 80
Renato Tangaran	CCS International Inc.	Richmond - 82
Toby Grohne	TKG Construction	Northwest MAL - 90
Ethan Buchan	Alliance Industrial Group Inc.	Northwest MAL - 90
Katy Abraham	Construction Cost Management	Southwest MAL - 91
Larry Eldredge	Construction Cost Management	Southwest MAL - 91
Chris Buzz	BuzzBID	Southwest MAL - 91
D. Jarvis Belinne	CCS International Inc.	Southwest MAL - 91
Songsen Chen	University of Texas at Austin	Southwest MAL - 91
Nwabueze Ile		Southwest MAL - 91
Jeff Daigle	John E Green Company	Southwest MAL - 91
Josh Rivera	Computerized Estimating Services	Central Plains MAL - 92
Ian Clutten	Granger Construction	Central Plains MAL - 92
Michael Fringer	NCA of the Carolinas	Southeast MAL - 93
Daniel Owens	Garbutt Construction	Southeast MAL - 93
Molly Messina	Jewett Construction	Northeast MAL - 94

Construction Bidding: Vetting and Selecting the Right Projects

By: Kaiya Barrett | ConstructConnect | Blogs

Bidding time is the season that never ends, and we'd like to help you get more R&R in your schedule. That's research and results, in case you were wondering. Researching before bidding will lead you toward long-term results of meeting project and profit goals.

When bidding on and growing a successful project pipeline, it helps to be selective. As we all know, time is money, and your time should be well spent. Taking every job thrown your way may seem like a smart decision. But when the dust clears, will it make the most sense for your bottom line?

You run the risk of placing your business into a financial hole without streamlining your bid process by collecting and analyzing the market data first. Due diligence on your part will hopefully link up the perfect match for your business and make the profitable jobs start pouring in and the bid process much more manageable.

Bidding the Right Construction Jobs

To know where you're going, you must first understand where you've been. Give your bids a head start to success and take inventory of past projects to see what worked and what fell flat. You can do this by understanding the factors involved in deciding whether to bid or not. Tracking your bid/no bid data will help vet and select the right projects by identifying winning prospects. Do not overthink this part of the process because the questions you must ask yourself are simple.

Is There a "Perfect" Job Selection for My Business?

Reaching for perfection may seem like, well, a reach. But, when selecting the right projects to bid on, client selection is not the place to cut corners. But before you get there, take time to conduct a market analysis.

Factors to Define in Your Analysis:

- Clients - Make a list of the clients you've worked with over the past 12 months and place them in one of two categories: public or private entity.
- Location - Whether you have worked in multiple states or are more local, you can list these however you like. For example, a more local operation will use the city or county.
- Types of Work - This list should fit the scope of work at your business and can be defined as residential, commercial, or both. You can also break it down to list the structure type – school, bridge, apartment, office, etc.

If It Didn't Make Dollars, Does It Make Sense?

Looking back on past projects, was the job profitable once everything was said and done? Make sure you've calculated all fees, including labor, equipment, materials, and any unforeseen expenses.

You'll also want to calculate overhead costs, meaning all your backend support. Those costs include insurance, legal fees, utilities, software, etc. It may be time to change your tune if you're questioning the importance of collecting data and setting profit goals before and after a project is complete.

After all, with the constant increase in building materials and the labor shortage increasing the wages of experienced

workers, looking for ways to improve profitability may be the most crucial step you take in this process.

Were You Project Capable?

Don't let the thought of passing up work get you in over your head when it comes to having the capacity to complete the work. Having the full capability to complete a project goes hand in hand with whether the project will be profitable.

- Do you have the team on-hand to complete the project on schedule?
- Does the scope of work match your team's experience?
- Is the cash flow available to complete the project?

When you're vetting and selecting jobs, consider the future of your business. The credibility of you and your workers is on the line. You may be hungry for work, but is it worth the risk?

Risk Factors

As important as profit and reputation are to your business, knowing and recognizing your ideal clientele carries equal value to your overall process. You can call it client quality control, but identifying risks through research to understand who you're dealing with is essential. Along with looking into project history, you should also review the project's bidding documents, plans, and specifications to identify risks.

Risks to Consider:

- Incomplete Construction Documents - Incomplete plans and documents spell trouble for any project and can stall work before it begins. Look over all plans and contracts and check for anything that doesn't meet legal or safety regulations.
- Unknown Site Conditions - Having full knowledge of the condition of the construction site before work begins has both physical and financial benefits. An unsecure job site could lead to serious injuries to workers or damage to materials and equipment.
- Accelerated Timelines - Proper project vetting and management on your part should avoid this risk, but there is still the possibility of overextending your scope and timeline. This risk puts your reputation and work quality on the line, so make time management a top priority.
- Safety Concerns - You'll want to first and foremost ensure the safety of everyone on the site by double-checking security and any safety procedure oversights. This includes making sure everything on site is up to code and that your workers are well informed of the latest OSHA rules and regulations.

Once you've assessed all the factors, you should be able to make an informed decision about whether to bid or not.

Final Thoughts on Vetting and Selecting Construction Projects to Bid

There's absolutely no shame in pacing yourself when it comes to bidding. Take your time to do the research before responding to ITBs. Companies who enjoy long-term success take the time to weed through factors of capability, profitability, and risk before any boots hit the ground. No process is foolproof, but the sooner you create and document a process, the sooner you can get to work.

Congratulations to October - January New CPEs & AEPs

Member	Company	Chapter
Victorino Supan II, AEP	LA Unified School District	Los Angeles - 1
Ignacio Aguirre, CPE	Tesla Motors Inc.	Golden Gate - 2
Tyler Swanson, CPE	Flint Builders	Sacramento - 11
David Romero, CPE	Kaiser Permanente	Sacramento - 11
Mo Epperson, CPE	Baldwin & Shell	Arkansas - 33
Josh Long, CPE	MKA International Inc.	Southwestern Ohio - 38
Jeff Morser, CPE	Renu Inc.	Dallas/Ft. Worth - 43
Mark Wagner, AEP	U.S. Army Corps of Engineers	Three Rivers - 44
Trevor Farnsley, AEP	CES	Central Indiana - 59
John Tibbetts, CPE	Connecticut Carpentry Corporation	Nutmeg - 60
Gianna Rogari, CPE	Becker & Frondorf	Philadelphia - 61
Simon Knox, CPE	JEM Group	Central Pennsylvania - 76
Seth Madsen, CPE	Kraus-Anderson Construction	Brew City - 78
Tracy Preston, CPE	Apogee Consulting Group	Southeast MAL - 93
Lindsey Blocki, AEP	Crawford Consulting Services Inc.	
Walker Suthers, CPE		

AMERICAN SOCIETY OF PROFESSIONAL ESTIMATORS

ASPE CONSULTANTS LISTING

For ASPE member Estimating Consultants only! Advertise your services locally, regionally, or nationally on the ASPE website. Choose the package that's right for you.

Nationwide Page

- Enhanced listing on national page
- Enhanced listing on one state page
- Company logo (PNG format)
- 75 - word narrative
- Additional state(s) - $25 ea.

$400

Enhanced

- Listing on one state page
- Company logo (PNG format)
- 50 - word narrative
- Additional state(s) - $25 ea.

$150

Standard

- Listing on one state page
- 25 - word narrative
- Additional state(s) - $25 ea.

$50

Looking to hire an Estimating Consultant? Browse our listings: https://bit.ly/46Mmawl

ASPE Industry Awards

Best Estimate

The ASPE Industry Best Estimate Award honors those entries that display the best overall estimate of a proposed project across any sector. Benchmarks can include, but are not limited to, the following.

- Estimate Efficiency
- Estimate Accuracy
- Budget Control
- Material Efficiency
- Revisions
- Client Satisfaction
- Tools and Technology Used

Best Project

The ASPE Industry Best Project Award is given to the entry in its subcategory that displays excellence in all project benchmarks across the entire scope and process of the project submitted.

- Design Build
- Use of Technology
- Technology Solutions
- Client Satisfaction
- Community Involvement

Most Innovative Project

The ASPE Industry Most Innovative Project Award honors those entries that display the most unique and innovative benchmarks across the entire scope and process of the project submitted. Benchmarks can include, but are not limited to, the following.

- Innovative Design Build
- Creative Design Build
- Technology Elements of Project
- Technology Solutions
- Green Innovation
- Community Involvement
- Addressing Environmental or Coding Concerns

All Entries Must Include a Project Narrative

Your narrative must not exceed a maximum of 750 words. The narrative should focus on why the project should be considered the best in its category. This information will also be used for the award presentation should you win an award. Note: The descriptions of each of the required elements are meant to be used as guidelines. You should interpret all criteria based on your own unique project submission and respond accordingly.

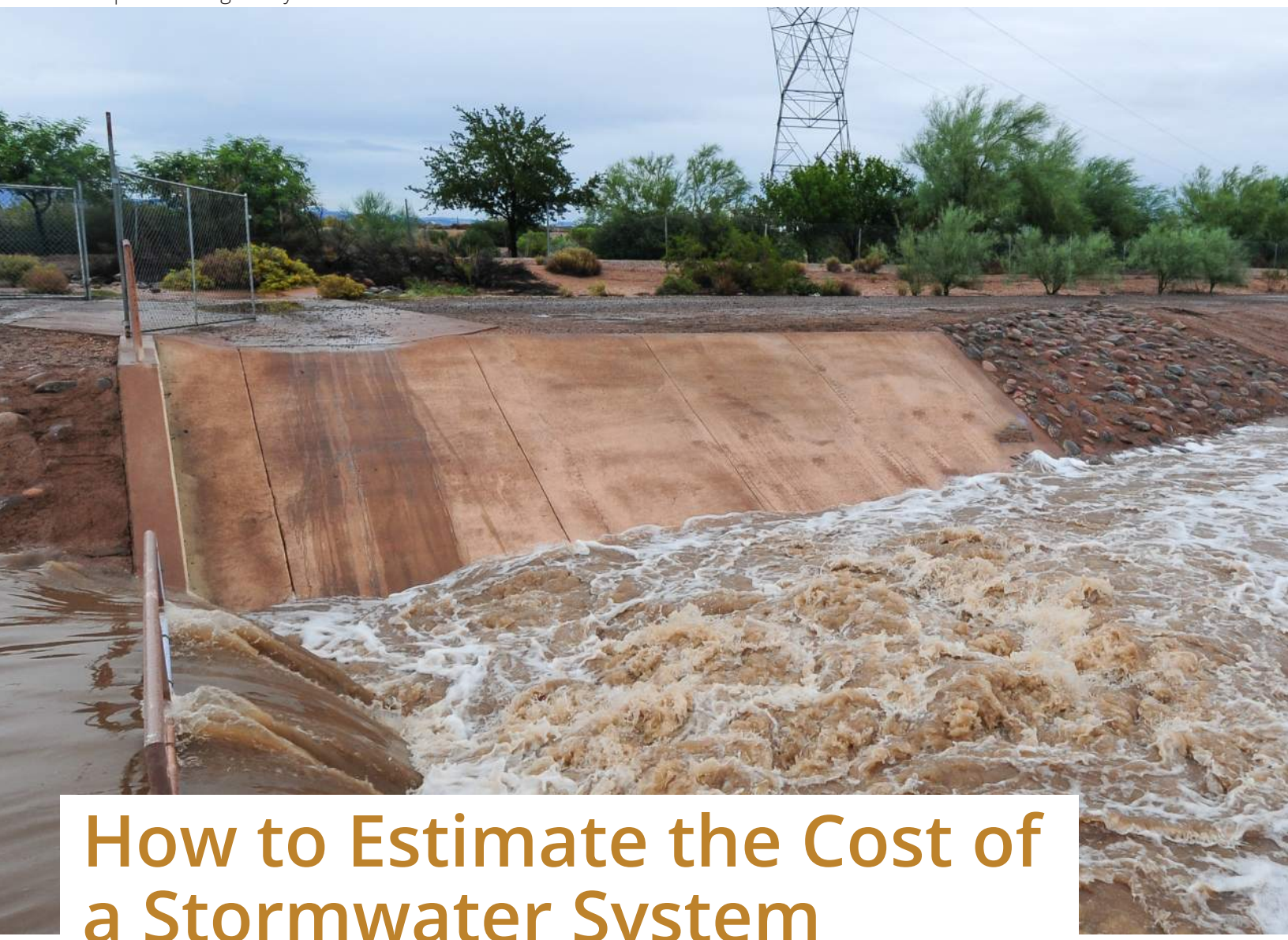
Visual Presentation

While points are not awarded for the visual presentation, the photos may impact your entry in that they help to tell your story. Support your narrative with photos that display the scope and process of the project and any challenges described in the narrative. You may include up to three photos in your project submittal.

Begin Planning Today for 2024 Awards!

Award Applications are Due April 5

www.ASPEnational.org



How to Estimate the Cost of a Stormwater System

Introduction

This paper will describe the process the construction estimator uses to estimate the cost of a stormwater system. It is the intent of the author to take the reader through the step-by-step process necessary to produce an accurate estimate. This paper will describe how to review the plans and specifications, develop the scope of work, perform quantity takeoffs, include all direct and indirect costs, and develop labor productivity rates for each facet of the assembly. The estimate will be developed from the viewpoint of a self-performing general contractor on a public works project. Over the years the stormwater system has evolved from a collection system to a collection and treatment system. New technology and methodology have enabled the civil design professional to reduce the spread of contaminates from developed sites by trapping or containing them onsite. This has added to the complexity of the stormwater system and increased the level of difficulty for the construction estimator.

MasterFormat Information
Division
33 00 00 - Utilities

Subdivision
33 41 00 - Storm Utility Drainage Piping
33 49 00 - Storm Drainage Structures

Brief Description

The estimate will be based on a stormwater system for a small, redeveloped site of approximately two to three acres. The system will consist of multiple catch basins or drain inlets and connecting piping. The building runoff will be introduced to the system through a collection system that will conduct the rainwater into the catch basins from external roof leaders. Prior to the stormwater leaving the site it will pass through a grit and oil separator structure.

Types and Methods of Measurement

Quantity takeoffs in site utility construction measure several components. Excavation, backfill and compaction are measured by the cubic yard (CY). Site utility piping is measured by the linear foot (LF). Pipe fittings are quantified by each (EA). Pipe bedding material is measured by the cubic yard (CY) or by the ton (TN). Site utility structures are typically quantified by the number of structures (EA). In order to quantify the amount of excavation that will be required the construction estimator must understand the three-dimensional requirements of the excavation.

These are the length, width and depth of the excavation. For site utility piping the length dimension can be found by simply measuring the length of the pipe to be installed from the site utility plan indicating the overall stormwater system. The finish depth dimension can be found on the section profiles showing each piping run from structure to structure. The excavation depth will be the finish depth (or invert depth) plus the depth of the specified pipe bedding material. The minimum width dimension will be the diameter of the pipe plus the dimension of the specified pipe bedding material on either side of the pipe. This minimum dimension will be indicated on the standard storm trench detail. The actual excavated width of the trench will be affected by several additional factors including but not limited to the type of soil, overall depth of the trench, required work area, safety requirements and proximity to other structures and utilities.

Excavation for site utility structures is calculated by using the length, width and height of each structure. The length and width can be found on the details plan as a standard size or in a schedule indicating the length and width for each structure. The standard detail will also include the minimum sump requirements of the structure, the minimum thickness of the structure base as well as the minimum bedding requirements for the structure, and the construction estimator will use this information to formulate the overall length, width and depth of the excavation. The overall length and width of the excavation will be affected by the size of the structure, the type of soil encountered, work area required in the excavation, safety requirements and proximity to other structures and utilities. The overall depth of the excavation can be calculated in the following manner. At each structure use the elevation of the lowest invert

About the Author

James Madison, CPE
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A seasoned professional with studies in Engineering/Physics from the School of Engineering at the University of the Pacific and over 35 years of experience, James Madison brings comprehensive knowledge of construction techniques and practices. He has provided estimates for new construction as well as interior/exterior renovations, and brings a solid background and training in construction critical path method scheduling. James is the Chief Estimator for Gilbane's Upstate New York business unit. He is a Certified Professional Estimator and a longstanding American Society of Professional Estimators member. James also serves on the Academic Advisory Committee – Architectural and Construction Technologies at Dutchess Community College and is the former Vice Chairman of the Habitat for Humanity, Ulster County Chapter.

minus the minimum depth of the sump, minus the thickness of the base of the structure, minus the minimum thickness of the bedding material to get the elevation of the bottom of the excavation. Subtract the bottom of excavation elevation from the subbase elevation to calculate the overall depth of the excavation.

The site utility piping is measured by the linear foot from the plan. It can also be measured from the section profile. The construction estimator should organize the quantity takeoff of the piping by both pipe type and pipe size. This will enable the estimator to accurately price the cost of the material and apply waste factors to each different type of piping. It will also allow the estimator to develop the width dimension of the excavation for the piping as illustrated earlier.

Pipe fittings are quantified by each type of fitting and the quantities can be counted from the site utility plan and the section profile plan. Again, the estimator must pay particular attention to both the size and material type for each fitting as they both affect the cost of each fitting.

Site utility structures are quantified by each type and size of structure from the site utility plan and from the section profile plan. The size of each structure is important to note not only for material pricing purposes but also for the weight of each structure. There may be weight lifting limits on the excavation equipment that may require a crane to be used to set the larger structures.

Specific Factors

Small Quantities vs. Large Quantities

Throughout the construction industry labor productivity and material pricing are both directly affected by the quantity of an assembly to be installed and it is the same with a stormwater system. A larger system allows for larger quantities to be potentially purchased and better pricing to be negotiated. It also allows for better productivity as a labor force becomes more efficient the longer it is continuously working on a single task. Larger quantities also produce less waste as a percentage of the overall quantity. Overall this will produce a system with a lower unit cost.

Geographic Location

Several factors associated with the geographic location of the project can affect the direct and indirect costs of a stormwater system. Access to aggregates for bedding and backfill materials can vary widely; disposal sites for spoils may not be readily available; precast plant manufacturers may have to travel long distances for delivery; the abilities of a labor workforce can differ substantially from one region to another; northern locations can have shorter construction seasons due to the intense cold and frozen ground conditions.

Soil conditions can vary widely depending on the geographic location. Poor soil conditions can have a tremendous adverse effect on labor productivity. The estimator must carefully review the geotechnical report and fully understand the soil conditions for the project.

Seasonal Effect on Work

Costs can be substantially different depending on the season or seasons that a stormwater system is installed. Winter or cold weather work tends to slow down both the labor force and equipment, in extreme conditions ground thaw activities may need to be undertaken to proceed with the excavation activities. Summer or hot weather work can also affect the productivity of the labor force as high temperatures may mandate a shorter workday. Spring and autumn may have more moderate temperatures but may also be the season with the heaviest amount of rainfall for that particular location. Dewatering of the excavations may be necessary and could be a detrimental factor to the productivity of the labor force.

Overview Costs

Labor and equipment costs are calculated by the hour. Labor rates are based on the prevailing wage rates for a public works project. Labor and equipment costs in this estimate will be based on an eight hour work day, five day work week, for a total of 40 hours per week.

Description	Quantity	Unit	Unit Cost	Total Cost
Track Mounted Excavator w/Operator	1	hour	$150/hr	$150
Rubber Tire Loader w/Operator	1	hour	$135/hr	$135
Tandem Axle Dump Truck w/Operator	1	hour	$95/hr	$95
Pipe Layers	2	hour	$70/hr	$140
Laborer	1	hour	$65/hr	$65
Trench Box	1	hour	$20/hr	$20
Plate Compactor	1	hour	$25/hr	$25
Tool Truck	1	hour	$20/hr	$20
Supervision	1	hour	$85/hr	$85
Total Hourly Cost				**$735/hr**

Material costs are calculated based on the takeoff quantities plus a waste factor included by the estimator. Material cost quotations are solicited for the pipe and fittings, precast structures, oil and grit separator structures, frames and grates and bedding aggregates. All material cost quotations must be inclusive of FOB to the jobsite or staging area.

In addition to labor, material and equipment costs, some aspects of a stormwater system installation may require subcontractor participation. Depending on the size of the excavation equipment that is utilized on the project the offloading, staging and setting of the oil and grit separator structures may require a crane. The construction estimator must have a specific understanding of the loading and space requirements to analyze if a crane is indeed necessary.

In most cases there will be additional indirect costs to include such as permits, inspections, testing, tap fees, bonding, insurance, taxes, and temporary facilities.

An estimator's approach to markups is typically developed with the company's management. Projects with a larger amount of risk and less competition tend to have a higher markup. Projects with little or no risk and a larger pool of competitors will need to have a significantly lower markup to remain competitive.

Risk Consideration

As previously stated, soil conditions play a large part in the cost of a stormwater system. Poor soil conditions combined with a deep installation can require multiple steps in the excavation or the use of trench boxes/shoring to safely perform the excavation. This can drastically reduce the productivity of a labor crew and increase cost.

Another risk consideration especially on a public works project is the schedule. Do the milestones represented provide for sufficient time for the installation of the system? Will overtime or weekend work be required to meet the schedule? These questions must be answered by the estimator prior to finalizing the estimate.

A final consideration on a public works project is the overall coordination of the project. The number of prime contractors on a project can vary. How well or poorly a project is coordinated can affect the productivity of a labor crew. The estimator must know the overall number of prime contractors and their specific scopes of work and take into account how they affect the installation of the stormwater system.

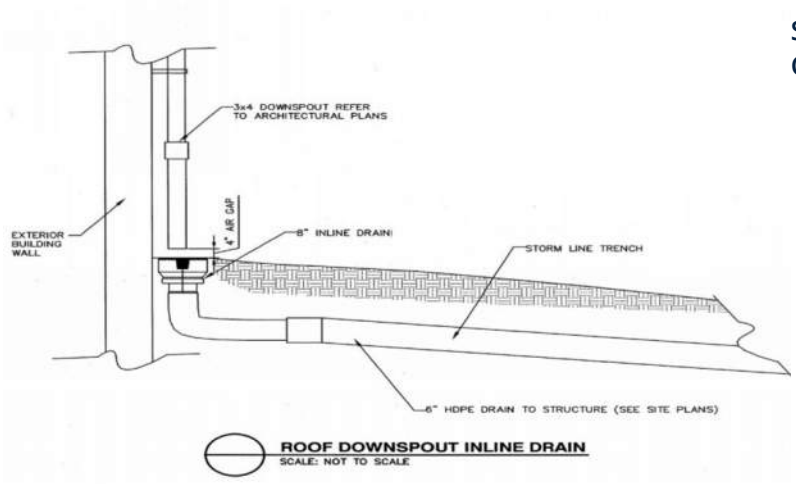
Ratios and Analysis

Historical data for an estimator should be in large supply. Collecting accurate data from the field for use in future estimates should be a top priority for every construction estimator. From this historical data quick ratios or rules of thumb can be developed for each assembly or item in an estimate. Stormwater systems are as unique as the sites they are installed on. However, each element of the system can be analyzed by its unit cost and compared with historical data. These comparisons can confirm the estimator's assumptions and productivity rates or quickly indicate a need for further analysis of the element cost within the system.

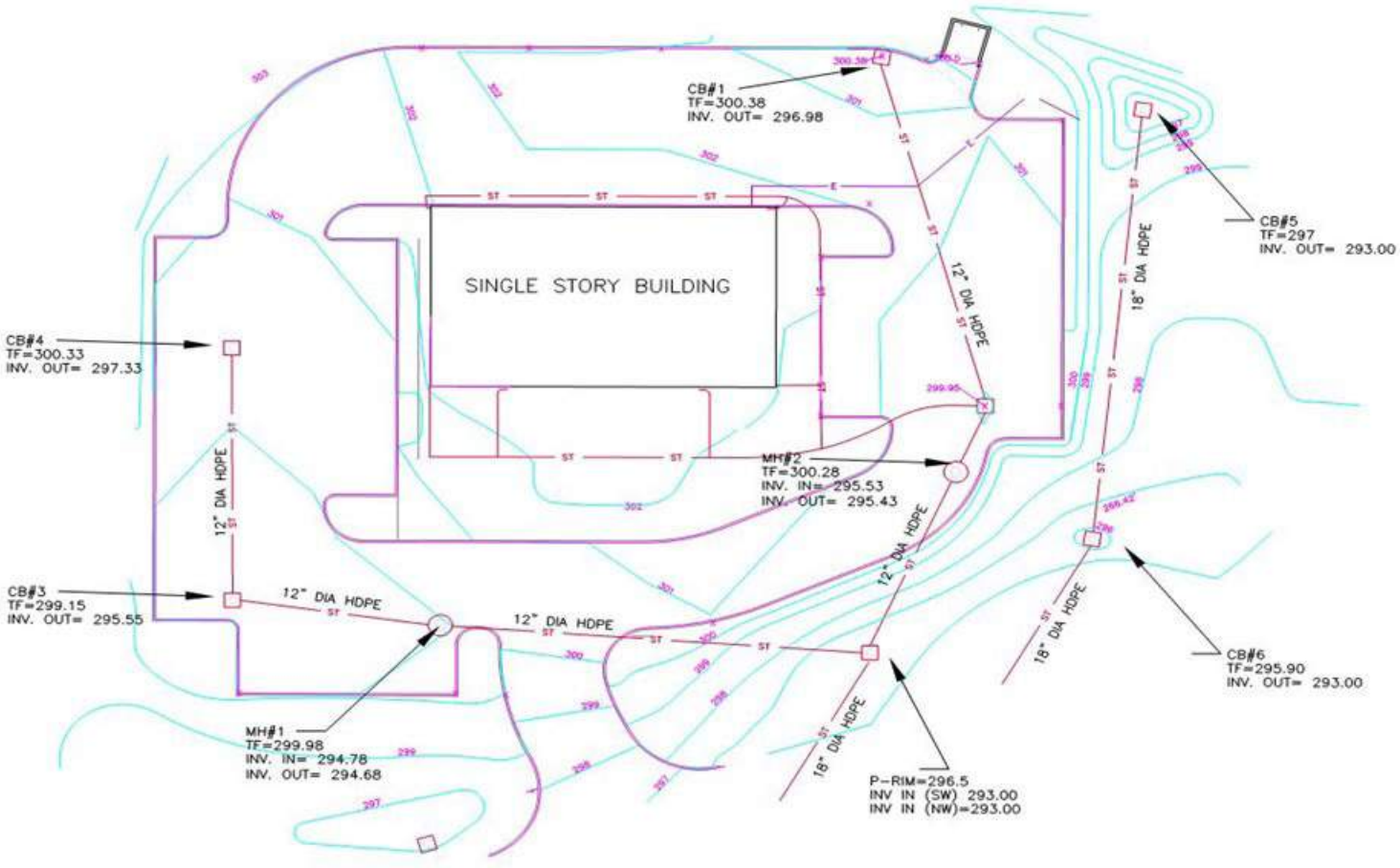
Miscellaneous Pertinent Information

Contract requirements are becoming an ever-expanding portion of the construction costs of a public works project. Some states require that all construction personnel who work on a project have completed a 10-hour OSHA safety course and all superintendents a 30-hour safety course. State and municipality requirements for MBE and WBE participation should also be analyzed. MBE and WBE suppliers and subcontractors are not always readily available depending on location. While not directly affecting cost, these requirements could have an indirect effect and should be incorporated into the final costs by the estimator.

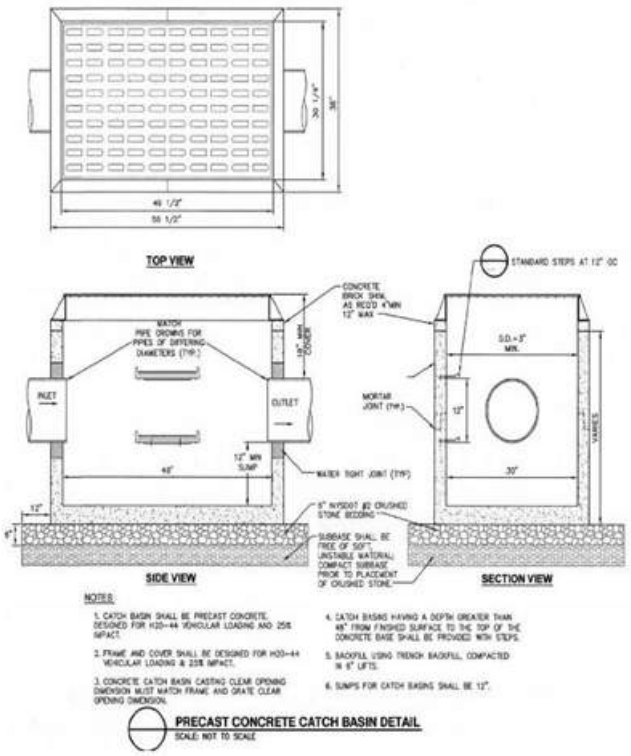
Details and Sample Plans



Sample Plan/Roof Leader Collector Detail Figure 1

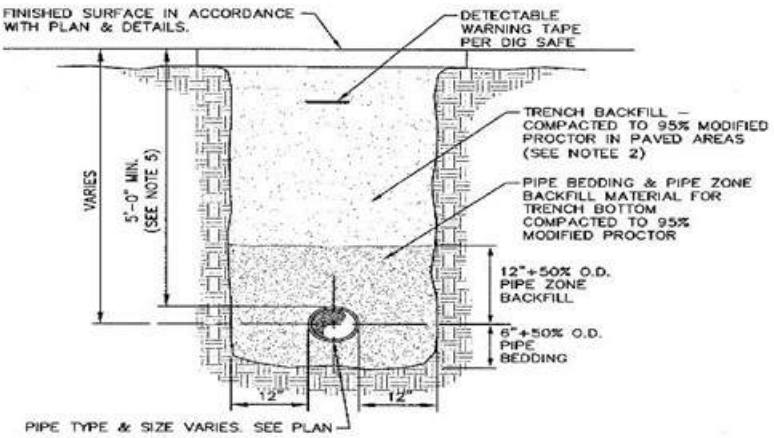


Sample Trench and Catch Basin Detail Figure 2



Sample drawing detail for a precast concrete catch basin. Note that the length and width dimensions are indicated for the structure. The overall depth of the structure will be determined by the lowest invert elevation minus the minimum sump depth.

sample pipe trench detail indicating the minimum requirements for pipe bedding depth, width and cover.



NOTES:

1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0-70%
NO. 200	0-10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
4"	100%
NO. 40	0-70%
NO. 200	0-10%

IN UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER.

3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.

4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

5. 5'-0" MIN COVER SHALL BE APPLIED TO WATER MAIN OR SANITARY SEWER FORCE MAINS ONLY.

PIPE TRENCH DETAIL (TYPICAL)
SCALE: NOT TO SCALE

(Please note that these takeoffs are NOT based on the plans seen in Figure 1 and 2)

Precast Structure Takeoff

Name	Rim Elevation	Low Invert Elev.	Width	Length	Sump
CB 1	640.0	636.0	4.00	6.00	2.00
CB 2	639.5	635.5	4.00	6.00	2.00
CB 3	639.0	635.0	4.00	6.00	2.00
CB 4	638.5	634.0	4.00	6.00	2.00
CB 5	638.0	633.5	4.00	6.00	2.00
MH 1	637.5	633.0	6.00 dia		6.00

Typical catch basin has an 8” thick base set on 6” of ¾” crushed stone.
Sub base elevation will be 1’ lower than rim elevation.
MH 1 is a grit and oil separator 6’ in diameter and a 1’ thick base on 1’ of ¾” crushed stone.

Roof Leader Collector Takeoff

Name	Elevation	Invert Elev.	Size	Depth
RLC 1	641.0	638.5	6”	2.00
RLC 2	641.0	638.5	6”	2.00
RLC 3	641.0	638.5	6”	2.00
RLC 4	641.0	638.5	6”	2.00

Each RLC is composed of a 6” SDR 35 90 degree elbow, 2’ long 6” SDR 35 riser and a 12” square yard drain with a 6” diameter outlet.

Stormwater Piping Takeoff Avg. Depth

From Structure To Structure	Size(inch)	Qty U/M	Type	Depth
RLC 1 TO CB 1	6	64 LIN FT	SDR 35	2.00
RLC 2 TO CB 1	6	62 LIN FT	SDR 35	2.00
RLC 3 TO CB 1	6	68 LIN FT	SDR 35	2.00
RLC 4 TO CB 1	6	60 LIN FT	SDR 35	2.00
CB 1 TO CB 2	12	80 LIN FT	HDPE ADS N-12	3.00
CB 2 TO CB 3	12	84 LIN FT	HDPE ADS N-12	3.00
CB 3 TO CB 4	12	86 LIN FT	HDPE ADS N-12	3.00
CB 4 TO CB 5	18	80 LIN FT	HDPE ADS N-12	3.50
CB 5 TO MH 1	18	50 LIN FT	HDPE ADS N-12	3.50

Total 254 LIN FT 6” SDR 35
Total 250 LIN FT 12” HDPE ADS N-12
Total 130 LIN FT 18” HDPE ADS N-12

Trench Volume Takeoff for 6” Pipe
Assumes 18” wide vertically sided trench
Allows for 6" of over excavation below the pipe for bedding material
Trench width of 18” allows for 6" of bedding material on either side of pipe.

Trench Length	Trench Width	Average Depth	Trench Volume	Trench Volume
254 LF	**1.5 FT**	**2.0 FT**	**762 Cu Ft**	**28.22 Cu Yd**

Trench Volume Takeoff for 12” Pipe
Assumes 36”' wide vertically sided trench
Allows for 6" of over excavation below the pipe for bedding material
Trench width of 18” allows for 9" minimum of bedding material on either side of pipe

Trench Length	Trench Width	Average Depth	Trench Volume	Trench Volume
250 LF	**3.0 FT**	**3.0 FT**	**2250 Cu Ft**	**83.33 Cu Yd**

Trench Volume Takeoff for 18” Pipe
Assumes 36” wide vertically sided trench
Allows for 6" of over excavation below the pipe for bedding material
Trench width of 18” allows for 9" minimum of bedding material on either side of pipe

Trench Length	Trench Width	Average Depth	Trench Volume	Trench Volume
130 LF	3.0 FT	3.0 FT	1170 Cu Ft	43.33 Cu Yd

Pipe Volume Takeoff for Pipe
Area of Pipe Cross Section = Pi (3.14)*radius squared
Volume of Cylinder = Area of Pipe Cross Section * Length

Pipe Size	Pipe Length	Pipe Area	Pipe Volume
6”	254 LF	.19625 SF	49.85 Cu Ft
12”	250 LF	.78500 SF	196.25 Cu Ft
18”	130 LF	1.7660 SF	229.61 Cu Ft

Bedding Material Takeoff for 6” Pipe
Assumes 6" granular bedding, 6" granular pipe cover, and 6" granular bedding on both sides of the pipe.
Total depth of granular backfill is 18"; total width of granular backfill is 18"

Trench Length	Bedding Depth	Bedding Width	Gross Bedding Volume	Pipe Volume	Net Bedding Volume	Net Bedding Volume
254 LF	1.5 FT	1.5 FT	571.5 Cu FT	49.85 Cu FT	521.65 Cu FT	19.32 Cu YD

Bedding Material Takeoff for 12” Pipe
Assumes 6" granular bedding, 6" granular pipe cover, and minimum 9" granular bedding on both sides of the pipe.
Total depth of granular backfill is 24"; total width of granular backfill is 36"

Trench Length	Bedding Depth	Bedding Width	Gross Bedding Volume	Pipe Volume	Net Bedding Volume	Net Bedding Volume
250 LF	2.0 FT	3.0 FT	1500.0 Cu FT	196.25 Cu FT	1303.75 Cu FT	48.29 Cu YD

Bedding Material Takeoff for 18” Pipe
Assumes 6" granular bedding, 6" granular pipe cover, and minimum 9" granular bedding on both sides of the pipe.
Total depth of granular backfill is 30"; total width of granular backfill is 36"

Trench Length	Bedding Depth	Bedding Width	Gross Bedding Volume	Pipe Volume	Net Bedding Volume	Net Bedding Volume
130 LF	2.5 FT	3.0 FT	982.5 Cu FT	229.61 Cu FT	752.89 Cu FT	27.88 Cu YD

Pit Excavation Volume Takeoff for Structures
Assumes Structure Dimensions plus 2' on each side
Allows for 6" of over excavation below the Structure for bedding material
Assumes vertical sides of excavation with trench box for depths over 4’
Assume existing soil is suitable for backfill

Structure Tag	Pit Length	Pit Width	Pit Depth	Pit Volume	Pit Volume
CB 1	10 FT	8 FT	6.17 FT	493.6 Cu Ft	18.28 Cu Yd
CB 2	10 FT	8 FT	6.17 FT	493.6 Cu Ft	18.28 Cu Yd
CB 3	10 FT	8 FT	6.17 FT	493.6 Cu Ft	18.28 Cu Yd
CB 4	10 FT	8 FT	6.67 FT	533.6 Cu Ft	19.76 Cu Yd
CB 5	10 FT	8 FT	6.67 FT	533.6 Cu Ft	19.76 Cu Yd
MH 1	10 FT	10 FT	12.5 FT	1250.0 Cu Ft	46.30 Cu Yd

Cost Estimate for Sample Stormwater System
Assumptions
Production Rate for Pipe Installation 148 LF per Day
634 LIN FT / 155 = 4.09 or 4 Days
Production Rate for Catch Basin/Man Hole Installation 4 crew hour per each
4 hour per each * 6 each = 24 crew hours = 3 Days

SDR Pipe # of 13' lengths per run:
64 LIN FT 5ea
62 LIN FT 5ea
68 LIN FT 6ea
60 LIN FT 5ea
Total Pipe Lengths 21ea at 13' each = 273 LIN FT actual pipe quantity required

HDPE 12" Pipe # of 20' lengths per run:
80 LIN FT 4ea
84 LIN FT 5ea
86 LIN FT 5ea
Total Pipe Lengths 14ea at 20' each = 280 LIN FT actual pipe quantity required

HDPE 18" Pipe # of 20' lengths per run:
80 LIN FT 4ea
50 LIN FT 3ea
Total Pipe Lengths 7ea at 20' each = 140 LIN FT actual pipe quantity required

At each structure - allow 1 Cu Yd ¾" stone base
Subcontractor items are the quoted prices
Material items are suppliers quotes and include FOB but exclude sales tax.

Labor and Equipment
Precast Catch Basin and Manhole Installation

Description	Quantity	Unit	Unit Cost	Total Hours	Total
Track Mounted Excavator w/Operator	1	hour	$150/hr	24	$3600
Rubber Tire Loader w/Operator	1	hour	$135/hr	24	$3240
Tandem Axle Dump Truck w/Operator	1	hour	$95/hr	24	$2280
Pipe Layers	2	hour	$70/hr	24	$1680
Laborer	1	hour	$65/hr	24	$1560
Trench Box	1	hour	$20/hr	24	$ 480
Plate Compactor	1	hour	$25/hr	24	$ 600
Tool Truck	1	hour	$20/hr	24	$ 480
Supervision	1	hour	$85/hr	24	$2040
Piping Installation					
Track Mounted Excavator w/Operator	1	hour	$150/hr	32	$4800
Rubber Tire Loader w/Operator	1	hour	$135/hr	32	$4320
Tandem Axle Dump Truck w/Operator	1	hour	$95/hr	32	$3040
Pipe Layers	2	hour	$70/hr	32	$2240
Laborer	1	hour	$65/hr	32	$2080
Plate Compactor	1	hour	$25/hr	32	$ 800
Tool Truck	1	hour	$20/hr	32	$ 640
Supervision	1	hour	$85/hr	32	$2720
Material					
Catch Basins 4'x6'x6' deep	3	ea	$750		$2250
Catch Basins 4'x6'x6'-6" deep	2	ea	$825		$1650
Catch Basin Grates	5	ea	$315		$1575
Grit and Oil Separator	1	ea	$9500		$9500
6" SDR 35 Pipe	273	lf	$3.00		$ 819

6” SDR 35 90’s	4	ea	$14.00		$ 56
12” square yard drain	4	ea	$38.00		$ 152
12” ADS N12	280	lf	$7.00		$1960
18” ADS N12	140	lf	$10.00		$1400
¾” Crushed Stone Bedding (1.3 ton/cy) Plus 8% waste	144	ton	$18.00		$2592
Subcontractor					
Survey and Layout	1	day	$2500		$2500
Crane & Operator for MH 1 Install	1	day	$3000		$3000
				Sub Total	**$64,054**
Markups					
Overhead and Fee				10%	$6405
Insurance				1%	$ 641
				Sub Total	**$71,100**
Bond				1.5%	$1067
				Grand Total	**$72,167**

Glossary and Acronyms

Prevailing Wage - A prevailing wage is defined as the hourly wage, usual benefits and overtime, paid to the majority of workers, laborers, and mechanics within a particular area. Prevailing wages are established, by the Department of Labor & Industries, for each trade and occupation employed in the performance of public work.*

WBE - Women-owned small business concern means a small business concern- (1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and (2) Whose management and daily business operations are controlled by one or more women. **

MBE - Minority-owned small business concern means a small business concern- (1) That is at least 51 percent owned by one or more minorities; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more minorities; and (2) Whose management and daily business operations are controlled by one or more minorities. ***

Navigating Lumber Price Escalation During and Beyond the COVID Pandemic

The rising cost of lumber is posing problems for the construction sector and creating uncertainty for project owners, builders, and contractors. This article explores the problem of rising lumber prices in the building industry, including its sources and effects. Several construction applications, including structural framing, flooring, roofing, door and window frames, finished carpentry, exterior siding, formwork systems, outdoor projects, and interior finishes, make substantial use of lumber. Despite alternative materials being available, lumber remains widely utilized due to its versatility.

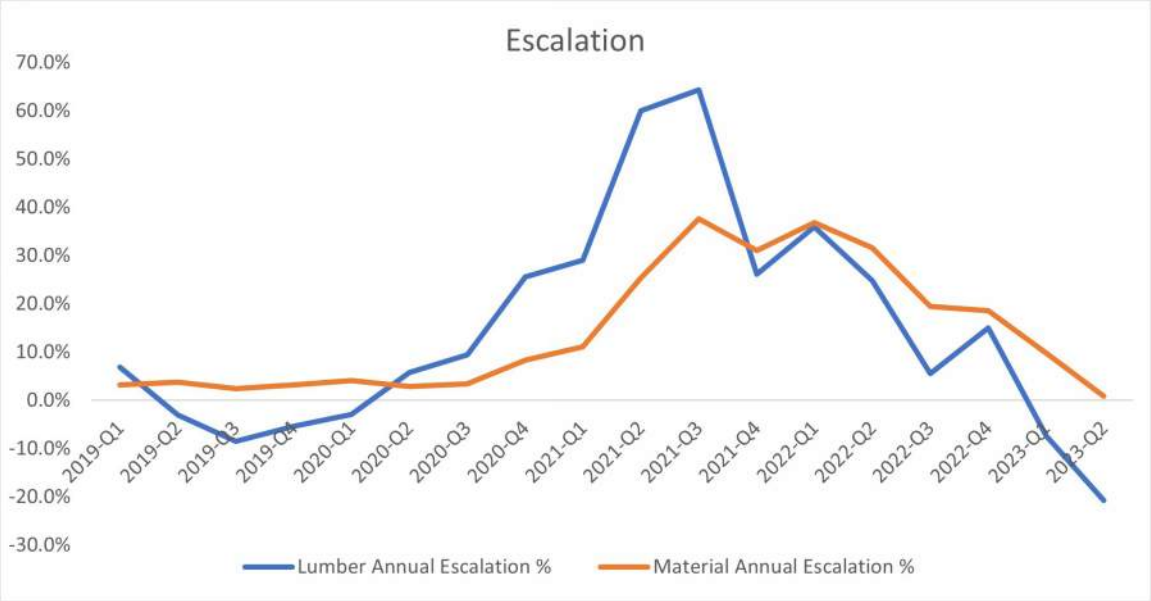
Inflation in construction refers to the overall rise in expenses over time, including labor, materials, and other inputs. It is influenced by things like changes in production costs, changes in market demand, and disruptions in the supply chain. Cost estimating, project bidding, and cash flow management must all take inflationary pressures into account because it has an impact on project budgets and profitability. Inaccurate inflation estimation can result in cost overruns, dwindling profit margins, or other financial problems.

Escalation in construction involves contractual provisions that allow adjustments in the contract price to account for specific cost changes during the construction period. These modifications may be made in response to variables such as labor rates, material costs, fuel prices, or relevant indices. Escalation clauses guarantee a reasonable and reflecting contract price that takes increasing costs into account over the course of the project. They offer a way for project owners and contractors to divide the risk brought on by cost escalations. Conflicts can be reduced and both parties are protected from unforeseen cost rises by changing the contract price when costs increase.

In construction projects, both inflation and escalation must be properly managed. Inflation impacts the entire sector, whereas escalation focuses on specific cost fluctuations during the construction process. Proper assessment and control of these elements is essential for proper cost estimation, budgeting, and risk allocation among the parties involved.

In the world of construction, material prices play a pivotal role in project budgets and profitability. One material that has recently taken center stage is lumber, experiencing unprecedented volatility during the COVID-19 pandemic. In this article, we delve into the intricate relationship between lumber escalation and material rates, exploring how this dynamic has evolved across pre-COVID, COVID, and post-COVID.

To gain insights into the price fluctuations, we meticulously examined quarterly lumber escalation indices from 2019 through the second quarter of 2023, meticulously sourced from ENR escalation reports. These indices serve as a barometer for measuring changes in lumber prices over time.



In the pre-COVID era, the landscape of material escalation appeared starkly different. The material escalation indices showed negative values, reaching astonishing lows of up to -8.5%. During this time, lumber prices seemed to have a minimal impact on the overall material rates, which hovered between a modest range of 2-4%. The graph depicting this period displays a relatively stable trajectory, suggesting that construction projects were not significantly affected by lumber price fluctuations.

The COVID Impact: As the pandemic engulfed the globe, the construction industry experienced a seismic shift. Lumber escalation indices surged dramatically, with the material escalation rates soaring to nearly 65% during the third quarter of 2021. The graph portraying this period underscores the stark contrast, visually emphasizing the sharp incline in material rates, directly influenced by the skyrocketing lumber prices. It becomes evident that the COVID-induced disruptions in the lumber market had a profound effect on material costs, challenging project budgets and procurement strategies.

It is also important to note that the lockdown measures implemented to curb the spread of the pandemic led to a significant increase in the amount of time people spent at home. As a result, many individuals embarked on home renovation projects during this extended period. However, this surge in demand coincided with limited supplies, creating challenges in the market. Notably, the housing market in the United States and Canada experienced a boom, with a particular interest from individuals who were now working from home and seeking new housing options. Many individuals focused on renovating their houses to accommodate home offices or undertake similar projects to adapt to the changing work environment. Thus, the supply chain has also affected the escalation rates for the lumber. According to Home Depot sales reports, the 1st quarter 2020 price for 7/16" OSB was approximately $9.55 compared to 2021 quarter 1 price of approximately $39.76, implying a 32.7% cost increase.

As time progressed, several factors contributed to shifts in the construction material pricing landscape. After 2021 Quarter 3, prices began a gradual descent, which can be attributed to various factors. The widespread distribution of vaccinations and the subsequent relaxation of pandemic-related restrictions allowed people to resume their normal activities, resulting in less time dedicated to home renovations. Additionally, employees were able to return to work, leading to increased mill output and expanded truck driver capacity. However, even with these changes, prices remained notably high following the third quarter of 2021, discouraging many individuals from embarking on new projects. The combination of reduced demand and a shortage of adequate supply further exerted downward pressure on prices as time went on.

As we enter the post-COVID era, an intriguing pattern emerges in construction material pricing. Lumber indices have returned to negative values, reaching as low as -20% in the current quarter of 2023, while material indices have stabilized at 0.8%. This suggests that lumber escalation continues to exert a significant influence on overall material rates, raising the need for in-depth research to understand the underlying causes. Analyzing supply and demand dynamics, market forces, and global economic factors will be crucial in unraveling this complex relationship. By delving deeper into these

dynamics, industry professionals can make informed decisions, mitigate risks, and ensure the long-term sustainability of construction projects in this evolving landscape. When examining the factors influencing escalation indices, an additional noteworthy element to consider is the impact of inflation. We conducted a quarterly analysis of the inflation rate and observed a clear correlation between inflation and escalation indices. The inflation rate of the country has exhibited a significant effect on the escalation rates, indicating a proportional relationship. This finding highlights the importance of monitoring inflation trends as a key factor influencing material escalation. By understanding and incorporating the influence of inflation into pricing strategies and project planning, construction professionals can navigate the intricate landscape of material rates with greater precision and foresight.

While there is no one answer to the volatility of the material price fluctuations, there are some steps we could take as estimators to better predict the effect on their costs:

Mathematical models and statistical techniques can be used to predict future costs of construction materials. These models rely on historical data, market trends, economic indicators, and other relevant factors to forecast price changes. There have been studies focusing on developing a model for predicting construction material prices. The research utilizes cost records for various construction materials such as steel, cement, lumber, brick, ceramic, and gravel, along with relevant indicators affecting their prices. The studies outline practical methods for forecasting building material prices for example, the Box-Jenkins approach Autoregressive Integrated Moving Average (ARIMA) time series model and multiple regression models. These models analyze historical data to identify patterns and relationships, enabling the prediction of future material prices. To evaluate the model's performance, out-of-sample predictions are used, which involve predicting prices for a period not included in the historical data. The accuracy of the models is assessed using the Mean Absolute Percentage Error (MAPE), which measures the average percentage difference between predicted and actual prices. The results of the study indicate that the generated models perform well in predicting month-to-month variations in material prices, with MAPE ranging from 1.4 to 2.8 percent for the selected models. This suggests that the models provide reliable forecasts and can assist owners and contractors in improving their budgeting processes and cost estimates. Estimators can make themselves aware of these studies and incorporate these for accurate material price forecast.

Value engineering is a systematic approach to optimize costs while maintaining or improving quality. It involves analyzing materials, exploring alternatives, and finding ways to reduce expenses without sacrificing performance. Techniques such as material substitution, cost analysis, and value analysis are commonly used.

Risk Analysis and Management is also a core part of VE which could help in anticipating the effect of major events such as COVID or the more recent-Canadian Wildfires on construction materials like lumber. Adding a contingency to the estimate in similar accident-prone areas wherever possible is a good practice.

Value engineering is a collaborative team effort bringing together stakeholders from different disciplines to brainstorm ideas and evaluate alternatives. At CCM we contribute to this endeavor by providing expertise in cost estimation and analysis. We part-

ner with Value Engineering firms to get more accurate cost estimates for big and complex projects that could be affected by such major changes. Apart from this its important, as estimators, we stay updated with industry publications, reports, and journals that provide insights into construction market trends, pricing indices, and material cost fluctuations. These resources often provide valuable information on regional or national cost variations. We should utilize online platforms and resources that aggregate construction cost data and provide industry benchmarks. Websites and databases such as RSMeans, ENR (Engineering News-Record), and BCC Research offer comprehensive cost data, pricing indices, and market analysis. Trade associations and professional organizations related to construction engineering, such as the Associated General Contractors (AGC) or the American Society of Professional Estimators (ASPE), often provide members with access to cost databases, industry reports, and networking opportunities to gather cost information. Researching local market conditions by networking with industry professionals, attending construction trade shows, and participating in professional events and conferences is often helpful in keeping up with the material prices. Apart from this, engaging in conversations with suppliers, contractors, and other stakeholders in your region to gain insights into local pricing dynamics will add on to the accuracy of your estimates. Consulting government sources, such as the Bureau of Labor Statistics (BLS) or the U.S. Census Bureau, for data on labor rates, construction indices, and economic indicators can provide valuable information on labor cost trends and overall market conditions.

In conclusion, significant issues for estimators in the construction business emerge as we consider the complex dynamics of material costs, escalation, and outside influences. Estimators can work to overcome the difficulties posed by changing material prices and environmental elements by embracing novel ways and making use of in-depth data analysis, ultimately ensuring the success and profitability of building endeavors.

Pooja Kakde (AEP)
Nishant Patil (AEP)
Cost estimators at CCM,Inc.

2024 AWARDS

Honoring Members + Chapters for their contributions to ASPE and the construction industry
Honoring Member Estimators for their project successes

ESTIMATOR OF THE YEAR

For excellence in advancing the art of construction estimating thru Standards, Ethics and Practice, while leading and training others, and promoting ASPE throughout one's career

CHAPTER PRESIDENT OF THE YEAR

For excellence in leading, promoting and supporting the goals and growth of the Chapter

FELLOW AWARD

For having attained national recognition for achievements in the art of construction estimating and made exceptional contributions to the Society

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For excellence in promoting and utilization of Standards of Ethics and Practice

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For excellence in pioneering and promotion of Educational Opportunities and Advancements

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For excellence in promoting and utilization of Standards of Ethics and Practice

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For dedicated effort and contributions made to the advancement and growth of the Chapter

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For excellence in promoting ASPE and supporting its Members at the Chapter level

TECHNOLOGY AWARD

For promoting Technology innovation in advancement of the estimating profession

Intent to Submit Forms – Due March 15
Candidate Nominations + Chapter Applications - Due by April 5
Consider nominating an ASPE Member who exemplifies the qualities needed and who deserves acknowledgement for their contributions
ASPEnational.org /Awards Requirements

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2024 Critical Calendar

March

4	2024 Summit - Registration Opens
4	2024 Summit - Registration Opens for Chapter Representatives
15	Deadline to submit "Intent to Submit" form for Awards

April

5	All Award Nominations / Applications due to SBO
15	Estimating Academy classes begin
30	Scholarship applications due to SBO

May

17	Chapter Reports due to Regional Governors
27	SBO Closed for Memorial Day

June

14	Nominations for Board of Directors Due to SBO
30	Deadline for Chapters to identify their 2024 Summit Chapter Representative

July

4	SBO Closed for Independence Day
8	Estimating Academy classes begin
8-22	Board of Directors Election
31	Board of Directors Election Results Announced

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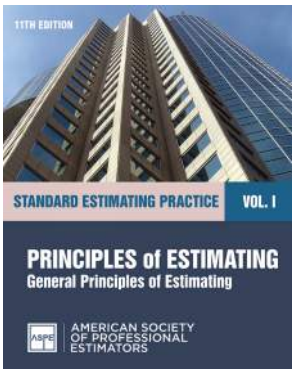

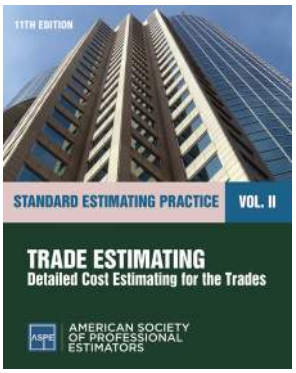

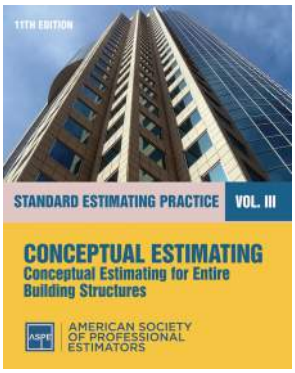

This comprehensive three-volume reference set thoroughly covers the full scope of construction cost estimating -- from basic concepts to advanced topics. Written by a team of experts in the field, under the guidance of the American Society of Professional Estimators, it will help professionals working in every area of construction make sure their estimates are accurate, consistent and verifiable. While the entire reference serves as a fully integrated guide, each volume stands alone with its own individual focus, and each volume can be purchased separately.

Volume I Principles of Estimating - General Principles of Estimating
$89.99 Including Shipping + Digital Copy

The first volume of this reference set gives you a firm foundation in the basics of estimating and then builds on these fundamentals to give you a solid grasp of more advanced topics such as Value Engineering and BIM. You'll get clear, step-by-step procedures for a wide range of essential tasks: from scoping out the job to bid-day procedures. This volume also provides sample spreadsheets and forms, as well as two bonus chapters on trade and conceptual estimating.

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Membership Classification Count (as of 02/15/2024)

Affiliate	35
AEP	62
Corporate	6
CPE	353
Estimator	520
Fellow	25
Honorary Member	5
LCPE	104
Member Emeritus	15
ME (CPE or LCPE)	18
Student	24
Total	**1,167**

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ASPE develops a fellowship of professional estimators that connects and leads the construction industry.

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ASPE is the construction industry's leader and recognized authority in professional estimating through excellence in education, certification and standardization.

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