



Estimating Sitework Construction

Earth Moving – Underground Utility – Roadwork

**Class size is limited.
Register Now!**

Tuition:

AGC Members \$1595

AGC JUP: \$0 (Eligible Funds)

NON Members \$1995

Includes Tuition, Books & Materials.

"I now feel confident doing takeoffs in all aspects of sitework. I feel I am much more prepared to be an estimator today than I was prior to attending this course."

—Matt Bluth

Markham Contracting

"After attending several seminars on construction, this course taught me more than any other because of the small class size and the instructor's confidence and knowledge. The instructor taught us that shooting from the hip is like having your address on Low Bid Lane"

—Eric Paul-Hus

Hypower Inc.

SYNOPSIS

DAY 1: ESTIMATING EARTHWORK

- Pre-bid investigation
- Plans and specifications
- Site visit and soil borings
- Pre-estimate checklists
- Area and perimeter calculations
- Cut/fill calculations: average end area method
- Soils shrink and swell
- Cut/fill calculations: grid cell method
- Soils classifications
- Matching equipment to soil type
- Excavation production
- Bulk excavation exercise

DAY 2: ESTIMATING EARTHWORK

- Crew analysis
- Trucking optimization
- Bidding and mark-up discussion
- Equipment costing
- Road calculations
- Mass haul diagrams
- Earthwork "Rules of Thumb"

DAY 3: ESTIMATING UNDERGROUND UTILITIES

- Estimating forms and formats
- Trench volume calculations
- Trenching productivity
- Pipe laying productivity

- Storm drainage exercise
- Materials costing

DAY 4: ESTIMATING UNDERGROUND UTILITIES

- Equipment selection procedures
- Subsurface interferences
- Clearing and demolition
- Dewatering methods
- Specification analysis
- Safety requirements
- Complete the estimate
- Sanitary sewer exercise

DAY 5: ESTIMATING ROADWORK & PAVING

- Estimate slopes/shoulders
- Curb and gutter calculations
- Estimate and quantify asphalt paving
- Estimate and quantify concrete paving
- Estimate hauling costs
- Crew assemblies
- Estimate compaction



To register go online www.agcsd.org or call 858-558-7444 ext 101

This five-day course is designed for those who want to better understand the methods by which sitework construction cost estimates are developed. This course covers all the tasks required to **develop an accurate sitework estimate**. Students learn to calculate work quantities from engineering drawings, correctly adjust for material swell and shrink, assemble efficient crews, and determine productivity.

WHO SHOULD TAKE THIS COURSE

- Beginning to Intermediate Estimators
- Anyone who quantifies cut and fill, underground utilities or road-building
- Real Estate Developers
- General Contractors
- Project Managers

WHAT YOU WILL LEARN

This course consists of a full week of hands-on training in sitework estimating. It enormously improves and complements your knowledge and experience in sitework construction. Learn concise and proper methods required to prepare thorough, organized cost estimates. The training enables you to effectively evaluate the extreme range of sitework price quotations that are often received by the general contractor.

This course gives students the knowledge and skills necessary to assemble and organize all elements of an accurate sitework estimate. Learning is accomplished with testing and practical application via a series of hands-on exercises, problem solving, and discussions.

UPON COMPLETION, STUDENTS WILL BE ABLE TO

- Accurately measure quantities of earthwork, utilities, and paving.
- Properly adjust the measured quantities of each allowing for swell, shrink, subsidence, and waste.
- Select appropriate equipment that represents a cost-effective approach to constructing the entire project.
- Determine accurate productivity rates for projects based on soil conditions, site restrictions, excavating depths, special requirements, etc.
- Calculate the production cost estimate of a project by using the crew analysis method of estimating.



Dates: May 7 - 11, 2018

LOCATION:

AGC San Diego Training Center
6212 Ferris Square
San Diego, CA 92121

858-558-7444 ext 101

Register Online at www.agcsd.org



Estimating Earthwork Construction

Class size is limited.

Register Now!

Tuition:

AGC Members \$795

AGC JUP: \$0 (Eligible Funds)

NON Members \$995

Includes Tuition, Books & Materials.

SYNOPSIS

DAY 1:

- Pre-bid investigation
- Plans and specifications
- Site visit and soil borings
- Pre-estimate checklists
- Area and perimeter calculations
- Cut/fill calculations:
average end area method
- Soils shrink and swell
- Cut/fill calculations:
grid cell method
- Soil classifications

- Matching equipment to soil type
- Excavation production
- Bulk excavation exercise

DAY 2:

- Crew analysis
- Trucking optimization
- Bidding and mark-up discussion
- Equipment costing
- Road calculations
- Mass haul diagrams
- Earthwork "Rules of Thumb"

"This course taught me about cost items that I wasn't taking into consideration in my bids. We learned how to properly plan productivity, forming the best crew, and new measuring shortcuts. Using the tools that I learned here, I'll be making my company more competitive."

—Josh Clossey
Clossey Excavating, Inc.

"The instructor was a wealth of knowledge—both from the field and office end of the industry."

—Phil Sabatino
J. A. Neary Excavating



To register, AGC members call 858-558-7444 Non members call 800.423.7058 or register online at www.ceihome.com

Estimating Earthwork Construction contains many assumptions and unknowns, which represents the greatest financial risk to the contractor. The most effective way to **minimize your risk** is to increase your estimating knowledge and skills. This course will teach the estimator correct guidelines for verifying quantities, adjusting soil swell and shrink, selecting efficient equipment and determining productivity.

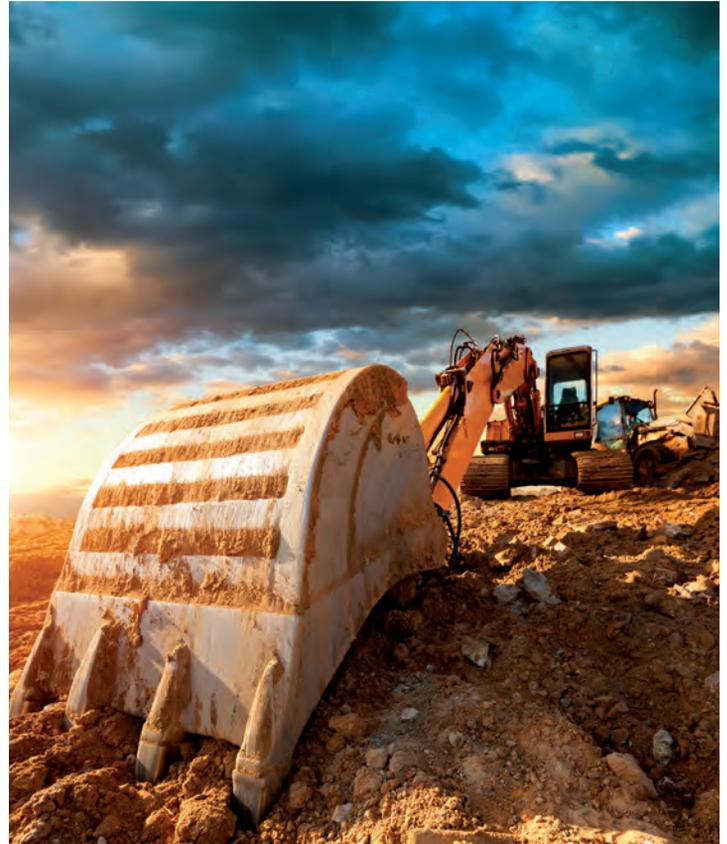
WHO SHOULD TAKE THIS COURSE

- Beginning to Intermediate Estimators
- Anyone who quantifies cut and fill, underground utilities or road-building
- DOT employees
- Real Estate Developers
- General Contractors
- Project Managers

WHAT YOU WILL LEARN

Upon completion of this course the student will be able to:

- Accurately measure quantities of cut and fill using both of the generally accepted methods of measurement:
 1. Average end area method
 2. Grid cell method
- Properly adjust the measured quantities of cut and fill, allowing for swell and shrink based on soil type and operation.
- Select appropriate equipment, both size and type, that represents a cost-efficient approach to constructing the earthwork portion of the project.
- Determine accurate productivity rates for projects based on soil conditions, site restrictions, excavating depths, special requirements, etc.
- Zero in on the true cost that incurs in the operation of specific machines.
- Extend the production cost estimate of a project by using the crew analysis method of estimating.
- Complete the earthwork estimate by combining the production estimate with the fixed costs in earthmoving.
- Convert the cost estimate to a correct bid by incorporating the four basic pricing premises:
 1. Business plan pricing
 2. Asset utilization
 3. Risk analysis
 4. Market conditions



Date: May 7 - 8, 2018

**LOCATION:AGC San Diego
Training Center**

6212 Ferris Square

San Diego, CA 92121

858-558-7444 ext 101

Register Online at www.agcsd.org



Estimating Underground Utilities

Class size is limited.

Register Now!

Tuition:

AGC Members \$795

AGC JUP: \$0 (Eligible Funds)

NON Members \$995

Includes Tuition, Books & Materials.

"The instructor's passion and course content kept me interested and anxious to return each day. I would encourage all persons interested in sitework construction estimating to experience this course."

—Don Swasing
Schlouch Inc.

"I think everyone at every level of estimating should take this course."

—Robert Astephen
Prime Time Construction

"This course exceeded my expectations!"

—James Cotton
*Cook Concrete
Excavation & Utilities*

SYNOPSIS

DAY 1:

- Trench volume calculations
- Trenching productivity
- Pipe laying productivity
- Pipe trench assemblies
- Storm drainage exercise
- Materials costing
- Pre-bid investigation
- Performing pre-estimate checklists
- Analyze sites and soil borings
- The bidding procedure
- Estimating forms and formats
- Swell and shrink
- Material weights and swell factors
- Prepared exercises
- Daily production estimates
- Calculate productivity
- Allow for time at structure locations
- Adjust productivity for subsurface interference
- Apply crew cost to estimated productivity
- Test estimating skills with problem solving exercises

DAY 2:

- Equipment selection procedures
- Subsurface interferences
- De-watering methods
- Specification analysis
- Safety requirements
- Sanitary sewer exercise
- Clearing and demolition
- Drainage pipe and miscellaneous structures
- Estimating ground water control
- Format of the estimate
- Basic cost data
- Complete the bidding package
- Effects of interference, interruptions and the unexpected
- OSHA trenching excavation standards



To register go online www.agcsd.org or call 858-558-7444 ext 101

This course is for new estimators, field personnel and all other construction professionals who want to acquire a fundamental understanding of the principles of underground utility construction cost estimates. The course is designed to improve costing, pricing, and production techniques of underground utility contractors on private and government projects.

WHO SHOULD TAKE THIS COURSE

- Underground Utility Workers
- Sitework Contractors
- Earthwork Contractors
- Developers
- New Estimators
- DOT Employees

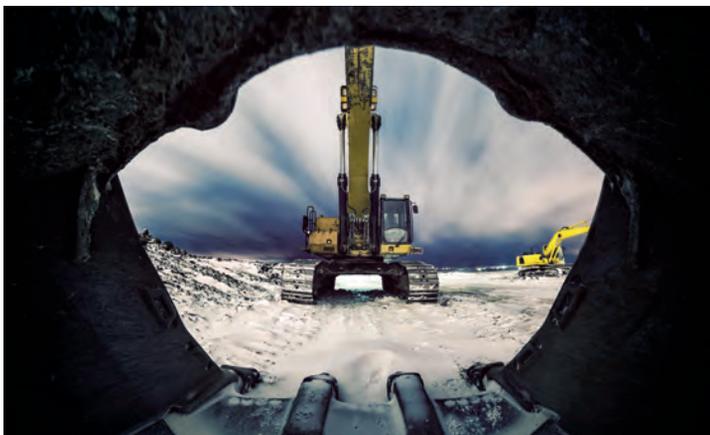
WHAT YOU WILL LEARN

This program concentrates on the specific problems encountered while estimating varying costs of underground utilities. Solutions for items such as interferences, work stoppages, and unanticipated conditions are covered in detail.

This course provides the estimator with a practical and time-saving approach to quantity calculations, soil analysis and water tables. It covers how to accurately determine the productivity rates upon which to base your bid.

UPON COMPLETION, STUDENTS WILL BE ABLE TO

- Perform accurate trench volume and backfill calculations.
- Verify the engineer's quantities.
- Foresee project complexities and installation difficulties.
- Assemble crews for maximum efficiency.
- Correctly gauge productivity.
- Improve estimate accuracy.



May 9 - 10, 2018

LOCATION:

AGC San Diego

Training Center

6212 Ferris Square

San Diego, CA 92121

858-558-7444 ext 101

Register Online at www.agcsd.org



Estimating Roadwork and Paving

Class size is limited to 22 registrants.

Register Now!

Tuition:

AGC Members \$395

AGC JUP: \$0 (Eligible Funds)

NON Members \$595

Includes Tuition, Books & Materials.

Date:

May 11th, 2018

LOCATION:

**AGC San Diego
Training Center
6212 Ferris Square
San Diego, CA 92121**

858-558-7444 ext 101

**Register Online at
www.agcsd.org**

SYNOPSIS

- Estimate slopes/shoulders
- Curb and gutter calculations
- Estimate asphalt paving
- Estimate concrete paving
- Establish crew costs
- Estimate hauling costs
- Estimate from typical details
- Calculate compaction production

WHO SHOULD TAKE THIS COURSE

- Road & Highway Contractors
- Asphalt & Concrete Pavers
- Commercial Contractors
- Developers
- DOT Employees

WHAT YOU WILL LEARN

This program teaches the primary aspects of estimating roadwork and paving construction. It provides the estimator with the skills necessary to assemble a detailed and accurate estimate of this scope of work. Practical experience is gained throughout the course using hands-on exercises and problem-solving challenges.

UPON COMPLETION, STUDENTS WILL BE ABLE TO

- Implement a structured system for determining job costs by accurately assessing equipment, labor, material and other service costs involved in the completion of roadwork projects.
- Determine cut and fill quantities in road-way excavations, working from cross sections and profiles.
- Increase work efficiency and control of the project.
- Accurately calculate and apply equipment production rates to the estimate.
- Confidently estimate all major aspects of paving construction, including: asphalt and concrete materials, subgrade preparation, curb and gutter.

"We have sent several of our estimators and the results have been fantastic. They are more organized and we see better bidding results!"

—Paul Pate
Pate Asphalt Systems

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