

Memo

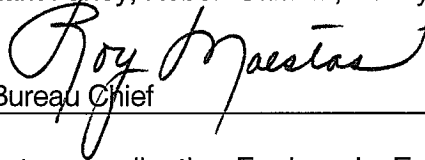
New Mexico State Highway & Transportation Department

SUBJECT: Design Directive
2-2000-Design (Estimator Software)

DATE: 5-June-2000

TO: Internal Project Development Engineers-North
(Ed Escudero, Dan Garcia, Sixto Martinez, Hooshang Tavanaiepour, Robert Garcia)
Internal Project Development Engineers-South
(Bryan Peters, Mark Fahey, Robert Salazar, Benny Martinez, David Trujillo)

FROM: Roy P. Maestas
Internal Design Bureau Chief



FILE REFERENCE:
PSESHARE:Design Directives

Training for using Estimator to compile the Engineer's Estimate ("EE") was held in August 1999. The software was installed in September 1999. Since that time, there has been limited use of Estimator. You are hereby directed to use the Estimator immediately to assist you in the compilation of the EE. The bid history files used in Estimator are representative of the statewide Average Unit Bid ("AUB") prices for a twenty-four month period (1998 and 1999). However, if there are enough occurrences for a particular item, Estimator will generate a more representative price based on project location.

It is noted that the pricing generated by the Estimator software is only a baseline. The Project Development Engineer ("PDE") must adjust this baseline pricing to conform to project location, quantity, difficulty in performing the work and any historical information deemed necessary to reflect the market price of bid items. With few exceptions, such as pricing for Reflectorized Painted Markings, unit bid prices to the hundredth place should not be established.

The PDE will use the estimate files generated through Trns•port (formerly BAMS). It remains the Design Supervisor's responsibility to create the estimate files. On projects currently under design or on new projects commencing at the Pre-Final Design stage, the PDE shall utilize Estimator to establish the baseline pricing on all items. The PDE shall adjust the pricing as indicated above. When new items are added, the PDE shall utilize Estimator to establish the baseline pricing for the added items. **THE PDE IS CAUTIONED TO SELECT ONLY THOSE NEW ITEMS FOR PRICING. IF THE PDE PRICES ALL ITEMS, THE PREVIOUSLY ADJUSTED PRICING WILL BE REPLACED WITH AUB PRICES.**

Attached are "quick reference" procedures for using Estimator with Trns•port estimate files. There are procedures for using Estimator to establish pricing for all items and procedures for using Estimator to establish pricing for added items. If you have any questions on using Estimator, contact the P. S. & E. Section at X.5452.

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In addition, the following factors are recommended to establish a baseline for the Lump Sum items.

201000-Clearing and Grubbing

- 1% of Project Total (Check actual terrain and ground cover for adjustments.)

304800-BC/Subbase Testing by Contractor

- 40%-50% of Total Tonnage for Base Course Aggregate (i.e. 10,000 Tons of Base Course, Price for Testing Item \$4,000-\$5,000)

401400-PMBP Sampling and Testing by Contractor

- 33%-50% of Total Tonnage for PMBP Aggregate (i.e. 10,000 Tons of PMBP, Price for Testing Item \$3,300-\$5,000)

601000-Removals of Structures & Obstructions

- 1%-2% of Project Total
- Compare the above cost to actual list of Removals at 1/2 the installation costs.

613000-Cleaning Culverts and Drainage Structures

- 0.2%-0.7% of Project Total
- \$5,000 Minimum

618000-Traffic Control Management

- 1%-2% of Project Total for Typical Highway Projects
- Up to 6% of Project Total for Urban Projects
- \$5000 (Minimum) + (1%-2% of Project Total) for Miscellaneous Construction projects, i.e. Fencing, Stockpiling, etc. Projects

621000-Mobilization

- 10% of Project Total (Establish pricing for all other items, before pricing this item.)

621100-Contractor Process Quality Control

- 50% of Total Tonnage for Base Course Aggregate (i.e. 10,000 Tons of Base Course, Price for Testing Item \$4,000-\$5,000) + 50% of Total Tonnage for PMBP Aggregate (i.e. 10,000 Tons of PMBP, Price for Testing Item \$3,300-\$5,000)
- Round up pricing to the nearest thousand dollars.

702800-Traffic Control Plan

- 5% of Project Total
- The pricing for Item No. 702801-Traffic Control During Construction will be established by the items and quantities indicated on the plans.

801000-Construction Staking by Contractor

- 1%-3% of Project Total
- Compare to \$5,000 Minimum + \$10,000/Mile.

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It is noted that the Project Total indicated above is defined as the total for all items in the EE but does not include the standard 8% Engineering & Contingencies ("E&C") or Gross Receipts Tax ("GRT").

The above factors may be updated in the future as market trends suggest. Updates will be sent out as available.

The P. S. & E. Section will review the EE submitted for advertising. If the EE reflects AUB prices and if it appears that the above instructions have not been used, the cost estimates will be returned to the appropriate PDE for re-pricing.

In the future, District-lead designs and consultant-designs will also be using Estimator in their compilation the EE. The estimate files for these designs will be created in Estimator and not in Trns•port as these design groups do not have access to Trns•port.

It is the responsibility of the PDE to adjust the pricing, established by the Estimator software, based on project location, quantity, difficulty in performing the work and any historical information deemed necessary to reflect the market price of bid items.

The accuracy of the EE is crucial to the planning, funding and the awarding of highway construction projects.

Attachments

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DISTRIBUTION LIST

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