



# ***TECHNICAL ADVISORY***

## ***FHWA TA 5080.4/6***


# **GUIDELINE ON PREPARING ENGINEER'S ESTIMATES & BID REVIEWS**

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# **TA 5080.4/6**

- ❑ **Combined TA 5080.4 & TA 5080.6**
  - **TA 5080.4 : Preparing Engineer's Estimate and Reviewing Bids.**
  - **TA 5080.6 : Guidelines on Contract Procedures with emphasis on Bid Reviews and Evaluation.**
- 



# ***Engineer's Estimate***

❑ **23 USC 106 (a)(1)**

➤ **Submission of Plans  
Specification & Estimate**

❑ **23 CFR 630.205(b)**

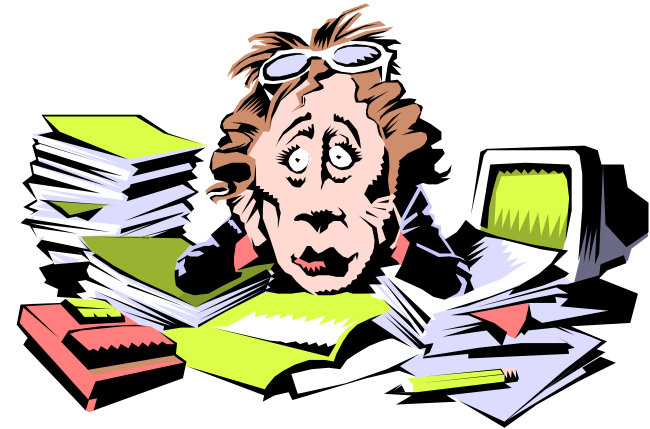
➤ **Estimate to reflect anticipated  
cost in sufficient detail**





# *Engineer's Estimate*


- ❑ **Applies to all Federal-aid NHS highway construction projects**
  
- ❑ **Essential to FHWA project approval**





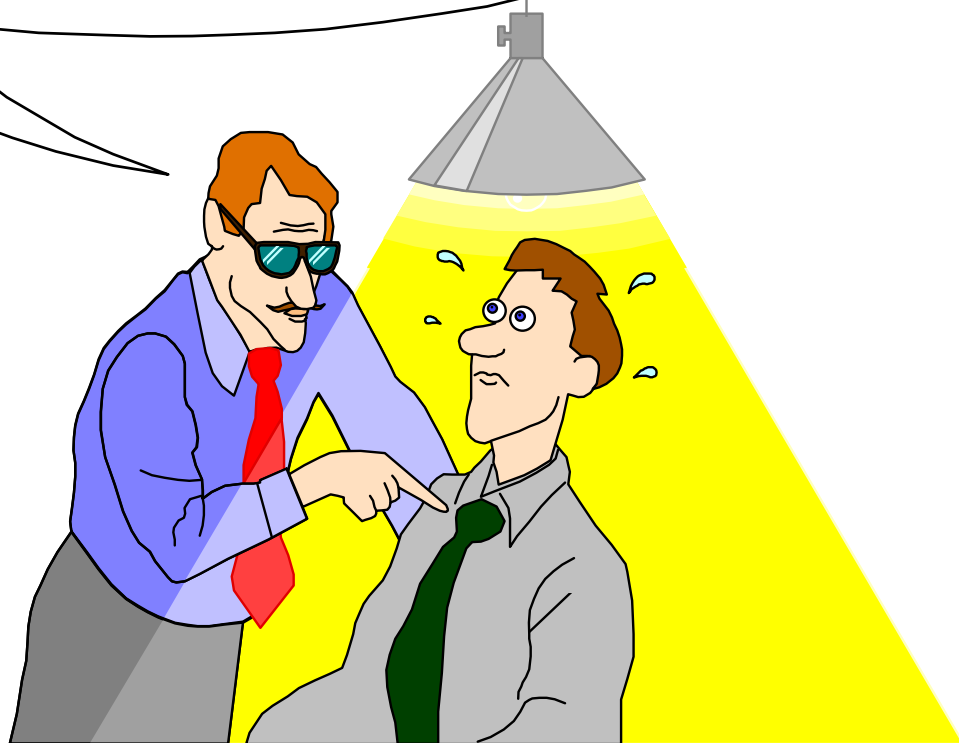
# ***Engineer's Estimate***

## **□ WHY EE IS IMPORTANT?**

- Estimate of financial obligation.**
  - Evaluation of bids for unbalancing.**
  - Comparison basis for justification award.**
- 



You “underestimated” the job  
by 48%!!!!!!!



# *Engineer's Estimate*


- **3 basic methods**
  - actual cost
  - historic data
  - **Combination**

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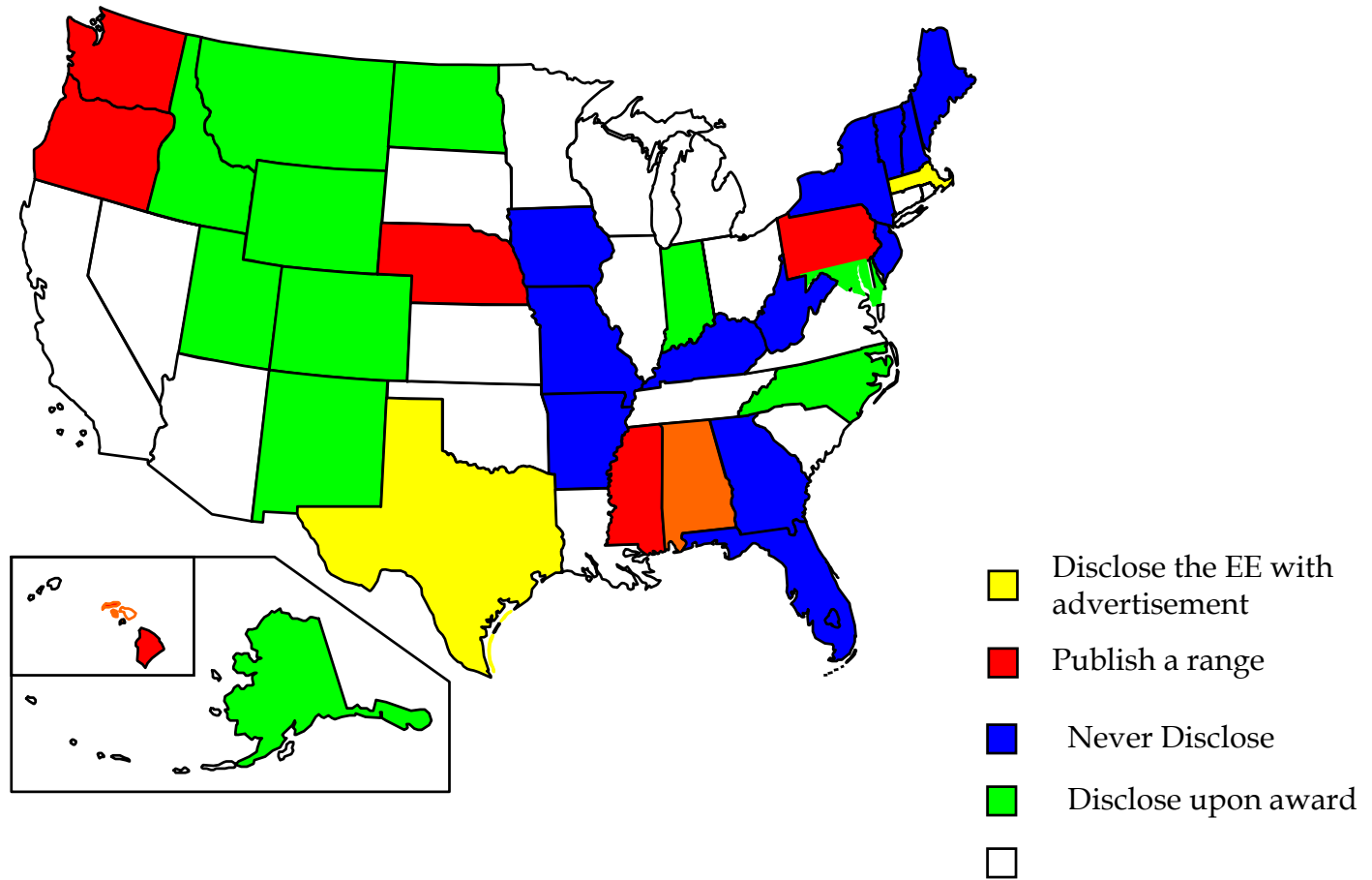


# ***Engineer's Estimate***

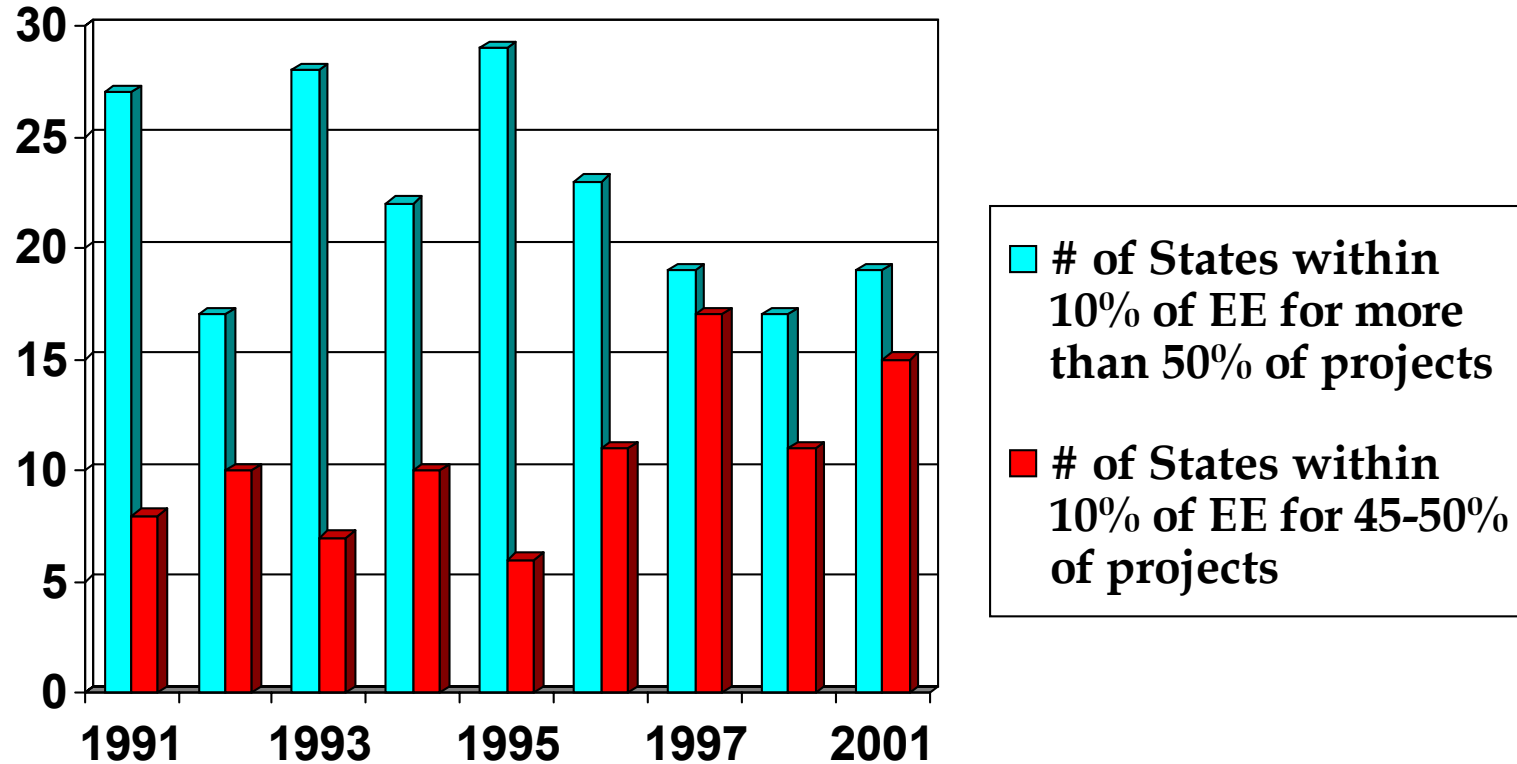
- **Estimate confidentiality**
    - no formal policy
    - discourage disclosure
    - “range” an option
  - **Estimate accuracy**
    - EE +/- 10% of low bid 50% of time
- 



# 2001 FHWA Survey Regarding Disclosure of the Engineer's Estimate



# Accuracy of Engineer's Estimate




Accuracy of State DOT Engineer's Estimate



# ***BID EVALUATION***

<b># of competitive bids *</b> <b>(* Range = low bid + 20%)</b>	<b>Competition adequate when low bid <math>\leq</math> EE</b>
<b>5</b>	<b>120% of EE</b>
<b>4</b>	<b>115% of EE</b>
<b>3</b>	<b>110% of EE</b>
<b>2</b>	<b>105% of EE</b>
<b>1</b>	<b>The EE</b>





# ***Pre-qualification***

- **Predetermination of a firm's**
- **job experience,**
- **capability,**
- **work capacity, and**
- **Performance**





# ***Bonding & Pre-qualification***

- **FHWA does not require**
- **If an STA has procedures, it:**
  - **must conform to competitive requirement**
  - **must be approved by Division Administrator**





# ***Bonding & Pre-qualification***

- **MUST NOT:**
  - **Restrict Competition**
  - **Prevent Submission of a Bid**
  - **Prohibit Consideration of a Submitted Bid**
  - **Require a License Before Bid Submission or Consideration of Bid Submission**







# **Advertising for Bids**


**23 USC 112 and 23 CFR 635.112**



- **All Federal-aid construction projects**  
**EXCEPT**
- **State-approved non-NHS projects:**
  - **FHWA DA's authorization to advertise**
  - **minimum 3 week advertisement**
  - **DA's approval of addenda**




# ***Advertising for Bids***

- **Assurances prior to advertisement:**
    - **PS&E approval**
    - **clearances complete (utility, r/w, R.R.)**
    - **relocations complete**
    - **public hearing & environmental processes complete**
    - **other agency reviews complete**
- 



# ***Advertising for Bids***

- **Addenda**
    - **require assurance that all bidding contractors receive**
    - **major changes approved by division prior to issue**
    - **inform division of minor changes prior to concurrence in award**
- 

# ***Bid Opening & Tabulation***

- **23 CFR 635.113**
- **All Federal -aid construction projects EXCEPT non-NHS projects do not need **bid tabulations****
- **Bid openings shall be public and read aloud**





# ***Responsible vs Responsive***

- **Responsive = meets the written requirements of the bid solicitation**
  - **Non-responsive = irregular (p. 108)**
- **Responsible = demonstrates the capability & capacity to do the work**






# ***Bid Opening & Tabulation***

- **Bid tabulations NHS projects**
  - **submit to division**
  - **certified by STA official**
  - **details on 3 low bidders**
  - **total amount on all bidders**






# ***Bid Analysis & Contract Award***

- **ALL FEDERAL-AID CONTRACTS SHALL BE AWARDED TO THE LOWEST RESPONSIVE/RESPONSIBLE BIDDER !!!**
  - **Analysis (NHS projects)**
    - **justify award or rejection**
    - **required evaluation**
    - **rely on an accurate engineers estimate**
- 




# ***Bid Analysis & Contract Award***

- **Mathematically unbalanced**
    - **unit costs do not reflect actual cost to perform work**
  - **Materially unbalanced**
    - **reasonable doubt that award would result in lowest ultimate cost**
  - **Written justification for obvious extreme variations or unbalance**
- 



# ***Concurrence in Award (NHS)***

- **Authorization to proceed with construction**
    - Prerequisite for Federal-aid participation
    - Written
    - By STA for FHWA on exempt NHS projects
    - STA procedures for exempt non-NHS projects
  - **Rejecting the lowest bidder or all the bids requires FHWA concurrence**
    - By STA for FHWA on exempt NHS projects
    - p.108
- 



***THE END !!!***

***Time For A Break***

