Pavement Type Selection & Alternate Bidding

Southeastern Asphalt User/Producer Group (SEAUPS)
Savannah, GA
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Session Outline
- Review of regulations and guidance
- Challenges with PTS and alternate bidding
- FHWA policy memo on alternate bidding
- What are other states doing
- FHWA next steps

Question
Can FHWA make a new regulation that requires alternate bidding for pavement type selection or competition between different pavement types?

Laws, Regulations and Guidance
- 23 USC 112(a)
  "The Secretary shall require such plans and specifications and such methods of bidding as shall be effective in securing competition"
- 23 CFR 635.104(a)
  "The STD shall assure opportunity for free, open, and competitive bidding"
- 23 CFR 635.411(b)
  "When more than one product will fulfill the requirements and these products are judged equally acceptable on the basis of engineering analysis and the anticipated prices are estimated to be approximately the same" it must be included
- 23 CFR 626NR
  "The FHWA does not encourage the use of alternate bids to determine the mainline pavement type, primarily due to the difficulties in developing truly equivalent pavement designs"

Should alternate bidding be required?
- PTS process
  Every state has a PTS process. There are opportunities to improve the process.
- Alternate bidding process
  alternate bidding process is important to ensure competition.
Overview of Pavement Type Selection

- Components of Agency Processes
  - Selection of alternatives
  - Structural design
  - Economic Analysis
  - Primary/Secondary Factors

- Contractor-based processes
  - Alternate Bidding
  - Design Build
  - Long Term Warranty
  - Other (PPP, Value Engineering, BV Contracting, Contract Maintenance)

PTS Method #1
- Identify feasible alternatives
- Perform LCCA
- Consider subjective factors: constructability, adjoining pavement, competition, traffic control, budget, etc.
- Cost within specified % of lowest estimate
  - YES: Make Decision
  - NO: Eliminate alternative

PTS Method #2 (Michigan)
- Identify feasible alternatives
  - 1 rigid, 1 flexible
- Perform LCCA
- Alternate with lowest LCC
  - YES: Make selection decision
  - NO: Eliminate alternative

PTS Method #3
- Identify feasible alternatives
- Perform LCCA
- Submit to selection committee. Committee evaluates engineering and economic factors
- Committee recommends a decision

PTS Method #4
- Identify feasible alternatives
- Perform LCCA
- Alternate with lowest LCC
  - YES: Prepare LCC
  - NO: Alternate Bids to determine pavement type
- Adjustment factor
- Eliminate alternative

Selection of Feasible Alternatives
- Past experience
- Adjacent pavement
- Local preferences
- Traffic congestion
- Weather
- Availability of materials
- Construction sequencing

8 states

10-25 states
**Secondary Factors**

- Factors that are not monetized but still important
- Assist in making the decision
  - Constructability
  - Materials/Contractor availability
  - Noise
  - Local preference
  - Competition
  - Safety
  - Etc.

**Overview of Alternate Bidding**

- Alternate pavement types
- Two projects designed
- Award based on lowest cost project
  - Adjustment factors
  - No adjustment factors
- What are adjustment factors?
  - Equivalent designs
    - performance
    - level of service
    - performance period
    - cost

**FHWA Memo on Alternate Bidding**

- Issued November 13, 2008
- Clarifies and consolidates FHWA policy
- Applies to Federal-aid on the NHS
- Alt Bidding is “not encouraged”
- However, many states are doing it….
Issue #1

Issue: States may not be taking enough steps in their design process to ensure that sound engineering and economic principles are considered in their pavement type selection decision.

Response: Issue PTS guidance & provide technical assistance.

Issue #2

Issue: More states are using alternate bidding, but FHWA’s position is still to “not encourage” its use.

Response: New guidance will recognize alternate bidding as viable option for pavement type selection.

Issue #3

Issue: Use of alternate bidding needs to be done under SEP-14, requiring approval by FHWA.

Response: FHWA proposes to “graduate” alternate bidding to an accepted practice.

Issue #4

Issue: Alternate bidding practice varies across the country, some approaches do not provide a competitive bidding environment.

Response: FHWA proposes to issue a technical advisory on use of alternate bidding for pavement type selection to provide a competitive bidding environment.
Thank You

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