A.4 Multi-Prime

What is it?

Multi-prime contracting is a variation of design-bid-build in which the STA utilizes multiple contractors to construct a project. In this setup, the STA has several contracts with different contractors that perform specific aspects of the construction. In essence, the STA becomes the general contractor who manages the multiple "sub-contractors" during construction (1). Typically, the STA may procure a general prime contractor, but also procures a contractor for the specialty trades of structural, mechanical, plumbing, and electrical (2).

Why use it?

STAs use multi-prime contracting as a method to fast-track construction or for emergency situation purposes (1). Since work can be bid for each discipline of construction, the STA gains the flexibility of bidding portions of the work as soon as the design of that aspect is complete. This gives the overall schedule control to the STA. Additionally, multi-prime contracting gives the STA the opportunity to procure materials directly from suppliers to avoid contractor mark-ups and to make sure materials are ready when needed (1).

STAs may also benefit from increased competition among the various prime contractors and therefore result in lower bid costs. The increased competition is the result of the specialty contractors having the ability to avoid working under a general contractor, resulting in more control by the specialty contractor (3).

What does it do?

Multi-prime contracting allows the STA to have more control over the project schedule as the STA sets the timeline for bidding individual portions of the work. An STA

How to use it?

Multi-prime contracting works in the same manner as Design-Bid-Build, except that instead of procuring and contracting with one general contractor, the STA now procures and contracts with several prime contractors to complete the project scope of work according to completed or nearly completed construction design documents. Since the design does not need to be completed across all of the trades, once a design is complete for a portion of the project, it can be procured, usually with competitive low bid.

Appendix A

When to use it?

Multi-prime contracting works best for projects that are of an emergency scenario or projects that need the schedule to be reduced. STAs have the advantage of "fast-tracking" a project by constructing components of a project as the design is completed for that component. Projects with phasing and sequentially completed designs are also candidate projects to use multi-prime contracting.

Limitations?

Due to the fact that many contractors are a part of multi-prime contracting, the major disadvantage to this type of delivery method is the increased coordination in the development of the separate bidding and contract packages for each separate prime contractor. If not coordinated properly, there is the possibility of work scope being duplicated or omitted. Other concerns in using multi-prime contracting are:

- Final cost of the project not known until final prime contractor is procured (1),
- Lack of authority and coordination during construction (1),
- Contractor delay issues that can delay sequential prime contractor work (1),
- Lack of authority of one prime contractor to dictate the schedule of another prime contractor (1),
- Potential for numerous claims to occur between the various prime contractors (1),
- Higher costs and more change orders (2),
- Poor quality (4).

Bidding can be affected by multi-prime contracting in that firms will tend to raise bid prices to offset the risk of working with other prime contractors or firms may abstain from bidding altogether (5).

Who uses it?

California, Illinois, Minnesota, New Jersey, New York, Ohio, and Pennsylvania have experience using multi-prime contracting. It is important to note that most multiple prime contracting projects are vertical or temporary structure type projects for highway projects.

Example

Appendix A 2

References

- Construction Management Association of America (CMAA). An Owner's Guide to Project Delivery Methods: Advancing Professional Construction and Program Management Worldwide. McLean, Virginia. 2012.
- 2. Rojas, Eddy M. Single versus Multiple Prime Contracting. *Journal of Construction Engineering and Management*, American Society of Civil Engineers, Vol. 134, No. 10, 2008, pp. 758-565.
- 3. Kuprenas, J.A., and M. Rosson. Interface Considerations on Multiple Prime Contractor Construction Projects. *Proceedings of the Construction Congress VI*, American Society of Civil Engineers, Reston, VA, 2000, pp. 1093-1102.
- 4. Holland, W. *State's Construction Contracting Methods*. State of Illinois, Office of the Auditor General, Springfield, IL, 2002.
- 5. Monti, R. M. Multiple Primes-Contracting Method: 'Yes'-'No' and 'It All Depends.' *Proceedings of the Construction Congress V*, American Society of Civil Engineers, Reston, VA, 1997, pp. 619-621.
- 6. Becker, B. *Single vs. Separate Prime Contracting: A National Study*. The Electrical Contracting Foundation and the Mechanical Contracting Foundation, Bethesda, MD, 1995.

Appendix A 3