



## Board Report

File #: 2019-0502, File Type: Contract

Agenda Number: 35.

### CONSTRUCTION COMMITTEE JULY 18, 2019

**SUBJECT: SUPPLEMENTAL ENGINEERING SERVICES (SES) CONSULTANT SERVICE CONTRACT**

**ACTION: AWARD PROFESSIONAL SERVICES CONTRACT**

#### **RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to NEGOTIATE and EXECUTE:

- A. A three-year cost plus fixed fee type contract for AE59600 with HDR Engineering, Inc. for Supplemental Engineering Services for Engineering Design of Transit Rail Projects on a task order basis, plus two one-year options. The amount for the three-year base contract is \$50,000,000 and the amount for the two one-year options is \$20,000,000 for a total contract value not to exceed \$70,000,000; subject to resolution of protest(s), if any; and
- B. Individual Task Orders and modifications within the Board approved contract amount.

#### **ISSUE**

Metro's staff engineers, architects and CADD designers in the Engineering Group are currently fully engaged supporting our current Major Rail Transit Projects (Crenshaw, Regional connector and Purple Line sections 1, 2 and 3), Metro Emergency Security Operations Center (ESOC), Metro Capital Improvements projects (CIP) such as the Patsaouras Plaza project and the Willowbrook / Rosa Parks Station Improvement Project and the State of Good Repairs Projects (SOGR) such as the Metro Blue Line (MBL) Signaling Rehabilitation and Operational Improvements project, Metro Orange Line (MOL) Improvements and the I-210 Barriers Replacement project.

The passage of Measure M has added a considerable workload to the Metro Engineering group with projects that are starting or that are completing design in the next five years such as the Airport Metro Connector 96<sup>th</sup> Street Station (AMC), West Santa Ana Branch Transit Corridor, the Gold Line Foothill Extension to Claremont, and the BRT Connector Orange / Red Line to the Gold Line, which all have groundbreakings within the next five years.

In addition, important motions by Board of Directors require considerable engineering work to evaluate the feasibility and develop conceptual alternative designs to validate engineering solutions for the projects called by the motions: This includes, but not limited to the MBL Wardlow Grade

---

Separation study, the MBL Washington/ Flower Wye Improvement or Grade Separation, and the Pico Station Grade Separation.

## **BACKGROUND**

The funding limit for our existing Supplemental Engineering Services (SES) contract (Contract No. AE36687) has almost reached its limit. This new SES will enable Metro the flexibility to supplement internal resources on an as-needed basis for the work detailed above, when we either do not have the sufficient capacity, or lack the particular expertise necessary to perform a particular specialty task in a timely manner. Metro Engineering staff does not possess the resources or, in some cases, technical expertise to carry out certain specialized tasks such as Traffic Control Plans, three-dimensional nonlinear soils-structure interaction analysis, Noise and Vibration Control or Corrosion Control. There is not currently a need for full-time resources for these specific specialties. Therefore, it is more efficient to use consultants on an as-needed basis.

## **DISCUSSION**

Metro Engineering has developed this SES Contract to supplement Metro's engineering efforts. The SES consultant team shall be capable of supporting its engineering group's technical disciplines. This Contract will be issued for a term of three years with two one-year optional extensions for a maximum total duration of five years. The Procurement Summary for this Contract is included as Attachment A.

This Contract called for the proposers to demonstrate their capabilities and technical expertise listed in the Statement of Work for this RFP. The technical proficiencies required for this SES contract (AE59600) are very comprehensive and include all engineering and specialties disciplines which Metro may require in support of its projects. These include the following:

### **General Services include:**

1. Preliminary and Final Design of Transit Rail Projects.
2. Design Review Support & Coordination for CIP projects & other special projects.
3. Production of Project Status, Technical and Engineering Reports.
4. Design of Structures, Stations and Guideways.
5. Facilities/Systems Interface Coordination.
6. Surveying Services.
7. Cost Estimating.
8. Intra/Inter Disciplinary Coordination.
9. Scheduling and Cost Management for Task Orders.
10. Post Design Services including; Bid and Design Support during Construction.
11. Administrative Tasks associated with General Engineering Support Services.

### **Specific Rail Facilities and Third Party Utility Design Services include:**

12. Engineering Services for Review and Approval of Metro Projects.
13. Development of Technical Specifications, Drawings and Reference Documents.

14. Engineering Services for support of Metro Rail Operations and Maintenance.
15. Land Surveying and Legal Description.
16. Potholing.
17. Geotechnical Services, Borings and Reports.
18. Civil & Utility Engineering
19. Drainage Design and Hydraulic Calculations.
20. Structural Engineering.
21. Bridges and Aerial Structure Design.
22. Tunnels, Trenches and Underground Station Design.
23. Track Work Engineering, Plan and Profile.
24. CPUC Grade Crossing Application including attendance to field diagnostic meetings.
25. Yard and Shop Rail Maintenance Facility Design.
26. Architectural Design.
27. Station Site Development.
28. Urban Design Integration.
29. Landscape Architecture.
30. Traffic Control Plans including Striping Drawings and Signal Drawings.
31. CADD and MicroStation Drawings.
32. BIM Services and Training.
33. Project Presentation including Three Dimensional Rendering.
34. Corrosion Control Measures and Cathodic Protection.
35. Value Engineering and Cost Reduction.
36. Noise and Vibration Analysis including Site Visits, Measurement and Mitigation.
37. Any other engineering or technical discipline not listed above that is ancillary to the Statement of Work and consistent with the general requirements of an approved Task Order.
38. HVAC design including HVAC and emergency ventilation.
39. Electrical Design.
40. Plumbing Design.
41. Fire Protection Design

### **DETERMINATION OF SAFETY IMPACT**

This SES Contract is not directly related to a specified safety issue. However, the services provided via this SES Contract will reduce Metro's dependency on limited internal resources and, thus, is generally in support of safety initiatives.

### **FINANCIAL IMPACT**

As specific engineering design or support needs arise, task orders will be issued and funded from the associated project budget, upon approval by the responsible Project Manager.

Since this is a multi-year project, the Chief Program Management Officer, Project Managers and respective Cost Center Managers will be responsible for budgeting for costs of future task orders

related to this contract.

**Impact to Budget**

The funding for the task orders are provided by the specific project requiring the services. The source for these funds are in line with the respective projects' funding plans and fund sources may consist of federal and/or state grants as well as local funds. Many of the state of good repair projects are funded with local funding sources that are eligible for rail and bus operations.

**IMPLEMENTATION OF STRATEGIC PLAN GOALS**

Supporting this recommendation supports Metro's strategic plan goal 1. By supporting the recommendation for HDR Engineering, Inc. to provide supplemental engineering services, the Board is supporting strategic plan goal 1 which promotes trip reliability, reduces trip disruptions as well as deliver of world-class transit service by ensuring our transit assets are in a state of good repair.

**ALTERNATIVES CONSIDERED**

1. Solicit qualifications proposals for each individual task when the requirement arises: This alternative is not recommended as it would require extensive additional staff time to process each individual task and would result in project delays due to the lead time required to complete each procurement cycle. Additionally, procuring services on a per-assignment basis would impose significant additional burden on the Engineering and Vendor/Contract Management departments.
2. Utilize existing engineering staff to provide the required technical support: This alternative is also not feasible as Metro's current engineering capacity is fully utilized to support the existing major, CIP and SOGR projects. Due to these commitments, it is anticipated that the current staff would be challenged to provide the necessary additional technical support required for the up-coming capital projects which will be under concurrent development. If this alternative were exercised, Metro would need to hire additional staff with expertise in several currently underrepresented disciplines to perform this work. Such an action is not practical nor cost-effective.

**NEXT STEPS**

Upon Board approval, staff will complete the process to award the contract. Specific task orders will then be issued on an as needed basis.

**ATTACHMENTS**

Attachment A - Procurement Summary  
Attachment B -DEOD Summary

Prepared by: Androush Danielians, Executive Officer (213) 922-7598

Reviewed by: Debra Avila, Chief Vendor/Contract Management Officer (213) 418-3051  
Richard F. Clarke, Chief Program Management Officer (213) 922-7557



Phillip A. Washington  
Chief Executive Officer