

ENGINEERING SERVICE REQUIREMENTS

BASIC SERVICES

Basic services will be contracted as a lump sum, based on a maximum fee calculated as a percentage of the estimated construction cost, using the appropriate attached tables for the work to be done.

The fee will be the engineer's compensation for providing "basic engineering services", as found in standard engineering contracts, from the preliminary design phase through the post-construction phase. Also, the following services are considered basic services with compensation to be included in the basic fee:

1. Services to make measured drawings of or to investigate existing conditions or facilities, or to verify the accuracy of drawings or other information provided by the Grantee.
2. Performing the necessary design surveys, accomplish the detailed design of the project, and prepare detailed construction drawings, specifications and contract documents.
3. Preparing and furnishing to the owner three copies of a map showing the general location of any needed construction easements and permanent easements and any land to be acquired. Property surveys, plats, and descriptions, abstracting and negotiations for land or rights shall be accomplished by the owner, unless the owner requests the engineer to provide these services, for which the engineer shall be compensated as an additional service.
4. Establishing base lines for locating the work with a suitable number of benchmarks located adjacent to the work as shown in the project plans.
5. Reproduction of reports, drawings, specifications, bidding documents and similar project related items as needed.
6. Review and approval of any necessary shop and working drawing furnished by the contractor.
7. Preparing necessary change orders for required approvals.
8. Review and approval of the contractor's applications for payment and submission of them to the owner and any required funding agencies for payment consideration.
9. Redesigns to reduce project costs within the available funds.
10. Rebidding contracts.
11. Determining the acceptability of substitute materials or equipment, and revising drawings and specifications necessitated by the acceptance of substitute materials or equipment.
12. Evaluating claims by the contractor.
13. Preparing and furnishing to the Grantee at the final inspection reproducible As-Built Drawings showing appropriate record information based on project documentation.
14. Coordination of submission to the Grantee the following items at the final inspection: all final pay requests, the engineer's statement that the project has been completed in accordance with the plans and specifications, the contractor's "proof of publication" of the advertisement of completion and request for claims, and any permit releases such as those from a road or highway department permitting the work.
15. Furnishing engineering services and consultations to the owner to correct unforeseen project operation difficulties for a period of 1 year after the date of substantial completion of the work. This service will include instruction to the owner in the initial project operation and maintenance but will not include supervision of the normal operation of the system.
16. Assisting the owner in performing a review of the project during the 11th month after the date of substantial completion.

ELIGIBLE ADDITIONAL ENGINEERING SERVICES

Additional services eligible for payment include, but are not limited to, the following:

1. Providing property and site surveys.
2. Providing extensive topographic surveys beyond what is included in the surveying for the purposes of design.
3. Detailed staking necessary for the construction of the project more than the control staking described in Item 4 under Basic Services.

4. Engineering work required for permit applications.

Compensation for additional services must be requested in the application after being estimated as accurately as possible at that point. The exact compensation and the justification for it must be included with the submission of the Engineering Services Agreement.

RESIDENT PROJECT REPRESENTATIVE

The engineer shall furnish a Resident Project Representative (Resident Inspector/Observer), assistants, and other field staff to assist the engineer in observing the progress and quality of the work. The Resident Project Representative shall be under the engineer's supervision and is to be a member of the engineer's staff or a contract employee. The engineer shall attest to the Representative's qualifications and abilities to perform the appropriate duties and responsibilities.

As part of his duties, the Resident Project Representative will prepare reports to be submitted on a two-week basis, beginning two weeks from the start date of construction and ending when the construction is 100% complete, to the Grantee and the Community Development Office to include the following information: The project name, quantities of pay items installed, deficiencies in materials or work, general observations and a summary of the construction activities. It shall be signed and dated by the Representative.

Furnishing a Resident Project Representative shall not relieve the engineer of his/her responsibility of making visits to the site as appropriate to the stages of construction.

Resident Project Representative Services will be contracted for as a lump sum, with the maximum allowable fees calculated on a percentage of the estimated construction costs using the appropriate table for resident inspection.

APPLICATION LINE ITEMS FOR ENGINEERING COSTS

Each engineering cost must be shown as a separate line item in the CDBG application cost estimate; pre-agreement engineering costs, basic services, resident project representative, and additional engineering costs. As stated in the section on Eligible Additional Engineering Services, written justification must be provided for all engineering services, other than the basic services and the resident project representative fees, when the Engineering Agreement is submitted. The justification must contain an explanation as to how the fee was derived.