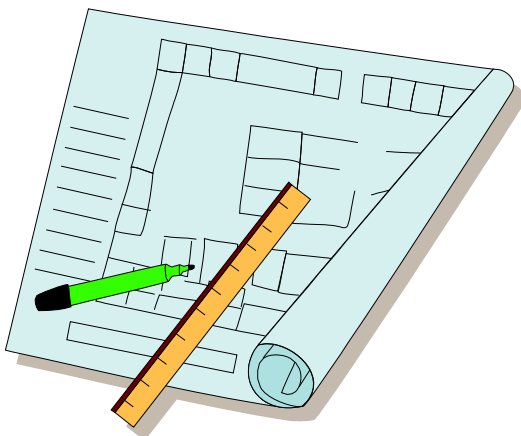


**VIII. ENGINEERING FEE SCHEDULES AND POLICIES  
FOR THE LCDBG PROGRAM**



# *ENGINEERING FEE SCHEDULES AND POLICIES*

*FOR THE LCDBG PROGRAM*



*AUGUST 2007*

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**NOTE:** Only funded projects are eligible for reimbursement of engineering fees.

**PRE-AGREEMENT COSTS (ENGINEERING)**

A flat fee of \$1,500 will be allowed for the engineering work necessary to complete the LCDBG Application. This will include the development of the project description, preparation of the cost estimate, certification of violations, and at least one site visit.

**BASIC SERVICES**

Basic services will be contracted as a lump sum; however, the maximum allowable fees for the LCDBG Program will be calculated based on a percentage of the estimated construction cost. The fee percentages are as follows:

Basic Services Table

<b>Estimated Construction Cost</b>	<b>Basic Services Fee Percentage</b>
\$0 - \$30,000	14.6%
\$40,000	14.1%
\$50,000	13.6%
\$60,000	13.2%
\$70,000	12.9%
\$80,000	12.6%
\$90,000	12.3%
\$100,000	12.0%
\$200,000	11.0%
\$300,000	10.3%
\$400,000	9.8%
\$500,000	9.3%
\$600,000	8.8%
\$700,000	8.6%
\$800,000	8.4%
\$900,000	8.2%
\$1,000,000	8.0%

This fee will be the engineer's compensation for providing engineering services traditionally known as "basic services" found in standard engineering contracts from the

preliminary design phase through the post-construction phase. The following services will also be considered as basic services with compensation included in the 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 furnished by the Grantee.
2. Redesigning to reduce project costs to within available funds.
3. Rebidding contracts.
4. Preparing documents for alternate bids.
5. Determining the acceptability of substitute materials and equipment.
6. Services in making revisions to drawings and specifications occasioned by the acceptance of substitute materials or equipment.
7. Evaluating claims by the contractor.
8. Services in connection with preparing and furnishing to the Grantee a set of reproducible Project Record Drawings (As-Built Drawings) showing appropriate record information based on project documentation.
9. Surveying for the purposes of design except as provided in the "Eligible Additional Services" section.
10. Reproduction of reports, drawings, specifications, bidding documents, and similar project-related items.

#### NON-ELIGIBLE ADDITIONAL SERVICES

Services customarily referred to as additional services that will not be eligible for payment under the LCDBG Program include, but are not limited to:

1. Services required as a result of the Grantee's providing incomplete or incorrect project information.
2. Providing renderings or models.
3. Services (which are not part of basic services) during out-of-town travel required of the engineer other than for visits to the site or Grantee's office.
4. Providing construction phase services beyond the contract time unless liquidated damages are assessed.
5. Additional or extended services during construction made necessary by a significant amount of defective, neglected, or delayed work by the contractor.
6. Additional or extended services during construction made necessary by the acceleration of the progress schedule involving services beyond normal working hours.

Other additional services may not be eligible for payment under the LCDBG Program. The eligibility for payment for these services will be considered on a case-by-case basis.

#### ELIGIBLE ADDITIONAL SERVICES

Additional services that are eligible for payment under the LCDBG Program include, but are not limited to:

1. Providing property surveys.
2. Providing construction staking to enable the contractor to perform the work.

3. Providing extensive topographic surveying necessary for design purposes.

Compensation for additional services must be requested in the LCDBG Application. **The amount of compensation and a written justification for the additional service must be included in the cost estimate portion of the LCDBG Application. The Office of Community Development will evaluate the necessity and eligibility of the requested additional service and may disallow or limit the amount of compensation based on the results of the evaluation.**

Other additional services may be eligible for payment under the LCDBG Program. The eligibility for payment for these services will be considered on a case-by-case basis.

#### SANITARY SEWER EVALUATION SURVEY

Sanitary Sewer Evaluation Surveys (SSES) are eligible under the LCDBG Program for sanitary sewer collection system rehabilitation projects. The firm performing the SSES may be procured by the Grantee using LCDBG procurement requirements or may be hired by the engineer as a sub-consultant. Engineering fees for the administration of the SSES and for basic services will be computed by totaling the estimated cost of the SSES and the estimated construction cost and deriving the associated percentage of the total costs from the Basic Services Table. Resident Project Representative fees associated with the construction project will be based only on the estimated construction cost (not inclusive of the estimated cost of the

SSES). The Office of Community Development will reimburse the Grantee for the actual invoiced costs for these services up to the maximum amount allowed. Please see the section entitled, "Method of Calculating Engineering Fees" below.

#### RESIDENT PROJECT REPRESENTATIVE

The engineer shall furnish a Resident Project Representative (RPR), assistants, and other field staff to assist the engineer in observing the progress and quality of the work. The RPR shall be under the engineer's supervision and normally is to be a member of the engineer's staff or a contract employee. In some cases, a qualified employee of the Grantee may be approved. In any case, the engineer shall attest to the RPR's qualifications and abilities to perform the appropriate duties and responsibilities. A copy of the RPR's current resume showing his qualifications and work history must be submitted to the Office of Community Development along with a completed and signed "Qualification Certification for Resident Project Representative" form. The Office of Community Development must approve the proposed RPR before construction begins.

The fee for the RPR is to compensate for the effort necessary to ensure that the construction project is properly and adequately inspected. As part of his duties, the RPR will prepare reports recording, at a minimum, the following information: project name, contractor's name, date, weather conditions, contractor's work force (indicating

work classifications), equipment (in use or idled), quantities of pay items installed, deficiencies in materials or work, general observations, summary of construction activities, and RPR's signature. Each report shall be **completely** filled out. Furnishing a RPR does not relieve the engineer of the responsibility of making visits to the site at intervals appropriate to the various stages of construction.

RPR services will be contracted as a lump sum; however, the maximum allowable fees for the LCDBG Program will be calculated based on a percentage of the estimated construction cost. The fee percentages are as follows:

RPR Services Table

<b>Estimated Construction Cost</b>	<b>RPR Services Fee Percentage</b>
\$100,000 or less	5.0%
\$200,000	4.6%
\$300,000	4.3%
\$400,000	4.1%
\$500,000	3.9%
\$600,000	3.8%
\$700,000	3.7%
\$800,000	3.6%
\$900,000	3.5%
\$1,000,000	3.4%

**METHOD OF CALCULATING ENGINEERING FEES**

For both the basic services fee and the fee for the resident project representative, the percentages are interpolated from the tables; however, rounding the percentage should be avoided. The interpolated percentage is then multiplied by the estimated construction cost to calculate the fee. The fee is then rounded up to the nearest \$100.

Example: The construction cost of the project is estimated to be \$427,500. From the Basic Services Table, the percentage figure is calculated as 9.6625%. The basic services fee is calculated as \$427,500 x 0.096625 = \$41,307. Rounding up to the

nearest \$100 would make the eligible fee equal to \$41,400. Similarly, for the RPR fee, the percentage from the RPR Services Table is calculated as 4.045%. The RPR fee is calculated as \$427,500 x 0.04045 = \$17,292. Rounding up to the nearest \$100 would make the eligible fee equal to \$17,300.

On projects involving a significant amount of pipe installation, i.e. water distribution systems and sewer collection systems, the RPR fees will be eligible to be increased. This is being done to compensate for the added inspection effort made necessary by the nature of the work. The fee or portion of the fee associated with pipe installation will be multiplied by a factor of 1.35.

The items eligible for the increase are items related to the main line, i.e. gravity sewer pipe, water distribution pipe, borings, force mains, fittings, fire hydrants, canal crossings, tapping sleeves and valves, flushing risers, etc. Not eligible are sewer manholes, sewer services, water services, and other non-main line items.

Example: The project involves the construction of a new sewer collection system. The estimated construction costs is as follows:

8" sanitary sewer pipe	\$175,000	
8" sanitary sewer pipe (jack or bore)	\$ 12,000	
Manholes	\$ 45,000	
Mainline wyes	\$ 5,000	
4" service line	\$ 50,000	
4" service fittings,cleanouts, etc.	\$ 30,000	
4" force main	\$ 25,000	
Lift station	\$ 50,000	
Asphalt street repair	\$ 10,000	
Maintenance aggregate	\$ 10,000	
Remove and relay 18" CMP	\$ 1,000	
Remove and relay 24" CMP	\$ 1,000	
Project sign	\$ 1,000	
TOTAL	\$415,000	

From the table, the percentage figure is calculated as 4.07%. The initial fee is calculated as \$415,000 x 0.0407 = \$16,891. The amount subject to the increase is the amount related to the main line items, i.e. \$175,000 (8" sanitary sewer pipe) + \$12,000 (8" sanitary sewer pipe (jack or bore))+ \$5,000 (mainline wyes)+ \$25,000 (force main) = \$217,000. Prorating the fee gives  $(\$217,000/\$415,000) \times \$16,891 = \$8,832$ . The increased portion is  $\$8,832 \times 1.35 = \$11,923$ . The remainder is  $\$16,891 - \$8,832 = \$8,059$ . The total allowable fee is  $\$11,923 + \$8,059 = \$19,982$ . Rounding up to the nearest \$100 would make the eligible fee equal to \$20,000.

On projects involving water wells or ground storage tanks, the fee (or applicable portion) will be as per the RPR Services Table up to a maximum of \$7,500 for each well or tank.

On projects involving elevated storage tanks, the fee (or applicable portion) will be as per the RPR Services Table up to a maximum of \$12,000 for each tank. The fee for paint inspection shall be included herein.

### TESTING AND GEOTECHNICAL INVESTIGATIONS

It shall be the responsibility of the Grantee to provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of samples, materials, and equipment required by the contract documents. Additionally, there will be occasions when the engineer will require a geotechnical investigation to be performed for the purposes of engineering design. The hiring of a firm or firms to provide these services may be accomplished by either the Grantee procuring the firm(s) in accordance with LCDBG procurement requirements and entering into a contract with the firm(s) or the Grantee may allow the engineer to contract directly with the firm(s) in which case the LCDBG procurement requirements would not apply.

The basic services fee will include compensation to the engineer for providing assistance to the Grantee in the selection of the firm(s), contract negotiation and preparation, processing and handling invoices, and other associated overhead costs. The engineer will estimate the cost of testing services and geotechnical investigations in the LCDBG Application and will include a written justification for each service. The Office of Community Development will reimburse the Grantee for the actual invoiced costs for these services up to the maximum amount allowed.

### PERMITS

Reimbursement will be made to the Grantee for railroad crossing permits up to a maximum of \$1,800. For all other permits, reimbursement will be made to the Grantee for the actual cost of the permit (any engineering work required for permit applications is included in the compensation for basic services).

### APPLICATION LINE ITEMS FOR ENGINEERING COSTS

Each engineering item should be shown on the cost estimate of the LCDBG Application as a separate line item. Typical items include basic services, resident project representative, surveying (topographic), surveying (property acquisition), construction staking, testing, geotechnical investigation, etc. **Written justification must be provided for all engineering services other than the basic services and Resident Project Representative fees. The justification is to contain an explanation of how the requested fee was derived.**