



## MAINE DEPARTMENT OF TRANSPORTATION

### Instruction for Estimating a Reasonable Profit Worksheet

1. Profit should be established as a dollar amount based on:
  - a. Degree of risk
  - b. Nature of the project to be performed
  - c. Joint venture responsibilities
  - d. Extent of the Consultant's investment
  - e. Sub-contracting of work
  - f. Other criteria

The "Weighted Guidelines Method" of computing profits specifically provides contract managers with:

- a. A technique that takes into consideration the value of the project, in relation to the appropriate profit margin.
  - b. A method of documenting the calculation of a fair and reasonable profit that can be used in negotiations.
2. In preparing in-house estimates and/or where profit is negotiated as an element of price, a reasonable profit should be negotiated or determined for each procurement action by using the following procedure as a guide:

#### WEIGHTING GUIDELINES

Factor	Weight	Profit Factor	Value
Degree of Risk	25		
Relative difficulty of project	20		
Size of job	15		
Period of Performance	20		
Consultant's investment	5		
Assistance by MaineDOT	5		
Sub-contracting	10		
		Total Profit Value	_____

3. Based on the Project complexity, each of the above factors will be assigned a profit factor from 0.06 to 0.15. The value shall be obtained by multiplying the weight by the profit factor. The value column, when totaled, indicates the fair and reasonable profit percentage under the circumstances of the particular procurement.

#### 4. Factors

- a. **Degree of Risk.** Where the Project has a small degree of risk, the profit factor should be 0.06; as the degree of risk increases, the profit factor should be increased up to a maximum of 0.15. Contracts with options will have, generally, a higher profit factor than contracts without options for which quantities are provided. Other considerations include: the portion of the project to be done by sub-contractors, the nature of Project, amount and type of labor included in costs.
- Cost Plus Fixed Fee contracts carry the lowest possible degree of risk as the Department absorbs any cost overrun that may occur.
  - Lump Sum contracts carry a higher degree of risk as the Consultant absorbs any cost overrun.
  - Cost per Unit of Work contracts carry a moderate degree of risk in that the Consultant absorbs any cost overruns resulting from an incorrect estimate of the amount of effort required to produce one unit of Work, but the Department absorbs any cost overrun resulting from an incorrect government estimate of the number of units required.
  - Specific Rates of Compensation contracts carry risk only if the Consultant's actual salaries, overhead, fringe benefits, and direct costs are higher than those initially estimated.
- b. **Relative Difficulty of Project.** If the Project is very difficult and complex, the weighing should be 0.15 and should be proportionately reduced to 0.06 on the simplest of jobs. To some extent this factor is tied to the Degree of Risk. Consider: the level of risk, the nature of the project, and by whom it is to be done, i.e. sub Consultant, Consultant principal, what is the time schedule.
- c. **Size of Job.** Projects with an estimated cost of:
- Up to \$50,000, use a profit factor of 0.15.
  - \$50,000 up to \$500,000, use a profit factor proportionately from 0.15 to 0.09.
  - \$500,000 or greater, use a profit factor between 0.08 to 0.06. (Note: the higher the value of the contract the more incentive there is for the Consultant to control the direct costs)
- d. **Period of Performance.** Projects with actual design times:
- Up to 60 days, use a profit factor of 0.06.
  - 60 to 180 days, should have a profit factor that is proportional from 0.06 to 0.15.
  - Greater than 180 days, use a profit factor of 0.15.
- A higher profit factor is allowed on projects that extend over a long period to account for the higher risk of lower profit margins. Fast-tracked projects done over a shortened period of time would entail greater weighting.

- e. **Consultant's Investment.** For Turnkey projects where the Consultant is expected to provide all labor and materials use a factor of 0.15. If the Municipality overseeing the project is furnishing some of the project materials and services, use a profit factor that is proportional from 0.06 to 0.15 based on the amount being provided. A ranking of average, average to above average can be used to determine the appropriate factor. Consider: the amount of sub-consulting, the degree of government furnished items, surveys, soil tests and engineering site explorations, and complexity of foundation considerations.
- f. **Assistance by the MaineDOT.** The greater the degree of technical and administrative assistance by MaineDOT personnel, and reliance on MaineDOT documents, the lower the profit factor.
- g. **Subcontracting.** The profit factor used should be in inverse proportion to the amount of subcontracting.
- If the entire project is to be performed with the Consultant's own forces, use a factor of 0.15.
  - If 10% to 30% of the project is to be sub contracted use a profit factor of 0.12.
  - If 30% to 80% of the project is to be subcontracted, use a profit factor of 0.09.
  - If 80% or more of the project is to be subcontracted, use a profit factor of 0.06.

Note: This is NOT intended to be the final number to be used in establishing an appropriate profit level for the proposed work, but a tool to be used in negotiations with consultants for supporting what the Department feels is an appropriate profit level.



## Worksheet for Estimating a Reasonable Profit

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**Project:**  
**PIN:**  
**Description:**

**Date:**  
**Route:**

The value in the weight column shall be a minimum of "6" and a maximum of "15" based on "Estimating a Reasonable Profit" sheet.

<u>Factor</u>	<u>Rate</u>	<u>Weight</u>	<u>Value</u>
Degree of Risk	25		- 16.6667
Relative difficulty of work	20		- 13.3333
Size of Job	15		- 10.0000
Period of Performance	20		- 13.3333
Contractor's investment	5		-3.3333
Assistance by government	5		-3.3333
Subcontracting	10		-6.6667
	100		- 66.6667

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<u>Value</u>	to	<u>Profit</u>	
0	=	6%	minimum
100	=	15%	maximum

**A reasonable profit on this project would be                    =                    00.0%**