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### 2 PARTIES TO A CONTRACT

#### 2.1 A CONTRACT

The agreement between two parties to undertake certain works for the payment of a sum of money is known as a Contract. Such a contract legally binds the two parties to undertake the works on the one hand and to pay for the works on the other hand.

In order for a Contract to exist it must satisfy the following:

- There must be an offer by one party and an unconditional acceptance of that offer by the other party.
- Some form of consideration or payment must be required
- Each party must have the capacity to enter into contract
- The contract must have legal objectives
- The promises made by the parties must be capable of being performed.

Contracts can range from very simple verbal agreements to very complicated contracts comprising many hundreds of pages, as is the case with normal ERA road construction contracts. Contracts such as those for the larger ERA projects are so big because they attempt to anticipate every occurrence which could happen during the course of the project and provide mechanisms for dealing with these when they do happen.

This section of the manual is designed to provide an explanation of the responsibilities and relationships between the parties in typical ERA FIDIC (see section 3.4) based construction works contracts. The topics discussed are, nevertheless, relevant for all major highway sector projects.

## 2.2 THE PARTIES TO A CONTRACT

The construction team for a major project most commonly consists of three primary members, the Client (sometimes called the Promoter or, under FIDIC Contracts, the Employer) who initiates, pays for and is the ultimate owner of the project, the Contractor who carries out the actual construction and a Consultant, who may have designed the works and who supervises the works in the role of the Engineer. The Consultant may employ sub-consultants and the Contractor may employ sub-contractors for some parts of the Project but in general, the Principal in each case will retain responsibility for such sub-contracts and consequently they are not considered here.

Under the provisions of the FIDIC forms for a construction contract, the Engineer may appoint a Representative to carry out certain duties on his behalf. Subsequently, the Engineer or the Engineer's Representative may appoint any number of people to act as Assistants to the Engineer's Representative. The Contractor is required to provide all necessary superintendence during the execution of the Works.

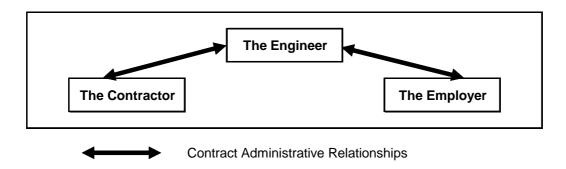
In the case of organisations such as ERA there is often a fourth entity with an interest in the contract which is a Funding Agency other than the GOE. There are formal legal agreements between the Funding Agency and the Client, the Client and the Contractor, and between the Client and the Consultant (Engineer). There is no legally binding contract or agreement between the Consultant (Engineer) and the Contractor.

<sup>&</sup>lt;sup>1</sup> Party = each side in an agreement, contract or dispute

The Employer and the Contractor are bound by the obligations laid down in the Agreement. The detailed requirements for the Contractor's work are contained in other documents such as the Drawings, Bills of Quantities, Specifications, etc. The Contractor's compliance with these, and the exercise of his general obligations is made subject to a test of satisfaction. It is not, however, the Employer who must be satisfied as both parties have agreed to pass this authority over to a third person – the Engineer who is specified in the Contract.

The inclusion of the Engineer's function in the contract, between the Employer and the Contractor, is effected via the conditions of the construction contract, which define the Engineer's functions, roles, responsibilities and obligations for the administration of the construction contract. The delegation of the Engineer's authority is usually to be found in the Agreement between the Employer and the Consulting Engineer, which will stipulate, as a primary duty of the Engineer, that he carefully observes the requirements of the Employer in the realisation of the project.

It is important to note, however, that the Conditions of Contract between the Employer and the Contractor stipulate that where, under the contract, any of the Engineer's duties are discretionary, the Engineer shall act fairly between the Employer and the Contractor and apply the Contract in an unbiased manner. The Conditions of Contract are based on this fundamental principle and this requirement applies even if the Engineer is a member of the Employer's staff. The Contractor will, of course, have to assess whether or not he has confidence in the ability of an in-house Engineer to take independent decisions and if he does not he would have the right to object to the appointment of the particular Engineer.



The organogram above shows the administrative inter relationship between the three parties involved in the contract. It is important to note that there is no administrative link between the Contractor and the Employer and that all communication occurs via the Engineer. Therefore, having accepted a Contractor's tender and appointed the Engineer, the Employer steps back from the day to day administration of the project and effectively only reacts to requests or instructions from the Engineer.

The following sections detail the functions, roles, responsibilities and obligations of each of the three parties involved in the implementation of the project.

#### 2.3 THE EMPLOYER

#### 2.3.1 Role of the Client

Without a Client a Project would never get off the ground. The Client identifies a need for the Project, be it a factory, an airport, a road, etc., sets in motion the requisite studies, investigations and designs, and arranges the finance. When the details of the project have been finalised the Client engages a Contractor to execute the works, ensures the land is available for the works to be constructed, and makes payments to the contractor at regular intervals.

When a Client does not have sufficient funds to cover the whole cost of the Project, he will have to have access to additional sources of funding. This may be in the international money market, or he may approach one of the international or national Funding Agencies such as the World Bank, the African Development Bank or Bi-lateral Agencies who promote such projects.

When a project is funded by an international agency the Client is normally the Government of the country concerned, but in practical terms may be a single entity within the Government. The responsibility for the securing the finance and the loan agreement will most likely be with the relevant Finance Ministry or Department, whilst the implementation will be the responsibility of the appropriate functional Ministry or Department.

Having identified the need for the Project the Client will appoint a Consultant to carry out the initial studies, investigations and designs, procure a Contractor, and (usually) supervise the construction as the Engineer. This appointment is generally made by advertising for interested companies to submit an Expression of Interest with details of their experience and capabilities; from these a short-list of companies is selected (usually 5 or 6), who are then invited to submit formal Proposals. These Proposals are then evaluated for both their technical and financial acceptability and the optimum applicant appointed. If a Funding Agency is involved in the Project it may stipulate certain procedures with regard to the selection and appointment of a Consultant. This aspect of project management is addressed in the Project Planning and Procurement Manual.

Once a Consultant has been appointed the role of the Client reduces, in terms of the relative amount of work to be done, as the majority of the subsequent pre-construction work is carried out by the Consultant and, for actual construction, the Contractor. However during the stages before appointment of a Contractor there will be many issues identified by the Consultant during the course of his studies, which will require decisions by the Client.

The Consultant in conjunction with the Client usually carries out the identification of a Contractor to whom the construction contract should be awarded, but the Client as one of the two contracting parties will do the actual award of the contract. The process by which a suitable Contractor is identified is discussed under the Role of the Consultant section below.

When the construction contract has been awarded, the role of the Client reduces even further. It is a peculiarity of the FIDIC-style contracts that the party with arguably the greatest interest in the satisfactory outcome of the Project, and certainly the greatest financial investment, has the least direct involvement in the actual execution of the works. The Client's primary responsibilities are to ensure that the Site where the works are to be executed is available for the Contractor when required, that issues related to other external bodies that affect the project are resolved (relocation of utilities, etc) and that payments are made promptly in accordance with the requirements of the Contract. These issues can however have major and serious repercussions if the Client fails in his duties.

During the course of the Contract the Employer's duties and responsibilities are limited to the following (see also 7.6 and Appendix 7-12):

- Appointing the Engineer and advising the Contractor
- Appointing the Contractor and advising the Engineer
- Providing access to the site for the Contractor to undertake the works.
- Making of payments to the Contractor
- Responding promptly on matters for which the Engineer is required to consult the Employer before issuing an instruction, determining an amount to be added to or deducted from the Contract price or granting an extension of time.
- Approving of securities, insurers and terms of the insurance policies
- Taking over the works once substantially completed
- Deducting liquidated damages from monies due to the Contractor when payable
- Terminating the Contract in the event of the Contractor failing to perform

### 2.3.2 Appointing the Engineer

Before the construction contract is awarded the Client should have appointed the Engineer to supervise the works. The firm of consulting engineers employed for the design process may also be appointed as the Engineer under the construction contract. Alternatively, the Employer may appoint another firm or appoint the Engineer from within its own organisation.

The appointment is generally made by advertising for interested companies to submit Expressions of Interest, which would contain details of their experience and capabilities. A short list (usually 5 or 6) of companies would be prepared from the Expressions of Interest and only those companies invited to submit formal Proposals. These Proposals are then evaluated for both their technical and financial acceptability and the optimum applicant appointed. Once an Engineer has been appointed the responsibilities of the Client are reduced to those described above.

The Consulting Services Agreement will set out conditions of appointment and these often impose restrictions on the Engineer's freedom of action under the construction contract. Therefore, the restrictions described in the Consulting Services Agreement must be the same as the restrictions defined in Sub-Clause 2.1 of the Conditions of Particular Application (see section 3.4). Any additional restrictions placed on the Engineer, after the bidding process, may materially affect the Contractor and may place the Employer in breach of Contract.

### 2.3.3 Appointing the Contractor

The Contractor is appointed following a competitive bidding process. The written acceptance of the Contractor's bid, by the Employer, constitutes the formation of the Contract. In Ethiopian terms and in accordance with the Ethiopian procurement regulations the formal signature of a contract agreement is required for the "confirmation" of a contract. (For further clarification see the Project Planning and Procurement Manual and Federal Negarit Gazeta, Proclamation 430/2005 entitled "Determining Procedures of Public Procurement and Establishing its Supervisory Agency")

### 2.3.4 Providing Access to the Site.

Unless the Contract contains specific provisions, the Employer is to hand over possession of as much of the Site and the agreed means of access to enable the Contractor to commence and proceed with the execution of the works, all in accordance with the Clause 14 Programme or proposals for the Project (see sections 5.2.4 and 7.11).

The programme is to be submitted within the specified period after the Letter of Acceptance (see 3.2) and this may not give the Employer a great deal of time. If the Contractor is delayed or incurs costs due to a failure by the Employer to give necessary possession, the Engineer is to grant an extension of time and costs. Such a situation is not a good start to a Project and will probably be stated as the reason for any further delays that may occur, no matter what the actual cause, throughout the duration of the Contract.

It is therefore essential that the Employer does not award the Contract until he can ensure that the Site can be made available to the Contractor. In particular the complex issues involved in land acquisition and resettlement must be taken into account such that they do not result in delays in making available the Site to the Contractor (see 5.2.8)

### 2.3.5 Payments to the Contractor.

The Contract provides a mechanism in Clause 60 of the FIDIC Conditions of Contract for payments to the Contractor (see 6.3). The Contractor is required to submit his request for an Advance payment (see 5.2.11, 6.1.4.3 and 6.3.12) or his monthly evaluation of the work executed, including details of materials on site (see 6.3.11), contract price adjustments (see 6.3.9) and any claims for additional costs to the Engineer who in turn certifies to the Employer that such payments are payable.

The Engineer has a specified time in which to certify the sum due (see 5.2.16), less retention (see 6.3.10) and any other sums the Contractor owes the Employer. This would not include liquidated damages (see 6.5), which are deducted by the Employer and not certified by the Engineer. The Engineer is not obliged to certify unless the net amount of the payment certificate exceeds the minimum amount set out in the Contract and the Contractor has submitted his Performance Security (see 6.1.4.2).

The Employer is required to pay the amount due on an Interim Payment Certificate and the Final Payment Certificate within the specified times and if not, interest will accumulate on late payment. The Employer cannot correct any mistakes or make any other alterations to the Engineer's Payment Certificate. Errors can only be corrected by the Engineer in the next Payment Certificate.

### 2.3.6 Agreeing Changes to the Contract.

Although the Employer's role reduces once an Engineer and Contractor have been appointed, his actions can still have a major effect on the Project. Any changes by the Employer in its requirements can be extremely disruptive to the smooth running of the project, and in addition could have major cost implications. Furthermore, if it wishes to make changes once the construction contract has been awarded it may not be possible to instruct such changes under the provisions of the contract. In such an instance it would be necessary to negotiate with the Contractor for it to execute the additional or varied work. It is important therefore that the Employer is clear in its own mind as to its requirements before the construction contract is awarded.

The Engineer will also have an involvement in this by ensuring he liaises fully with the Employer at all stages of the Project to keep the Employer informed of developments and identify when decisions are required. Resolving issues at an early stage reduces the likelihood of delays and disruption later in the Project. It should be noted that the Employer does not have any authority under the Contract to instruct the Contractor. The Engineer must instruct any changes in the works that the Employer may require.

The Engineer may have considerable powers under the Contract but he has no authority to do anything that will alter the Contract or to relieve the Contractor of any of his obligations under the Contract. Where approval is required by the Engineer from the Employer, prior to him exercising certain of his powers under the Contract, these constraints on his authority must have been noted in Sub-Clause 2.1 of the Conditions of Particular Application (see 3.4) before the formation of a Contract.

The circumstances under which the Engineer is usually required to seek the specific approval of the Employer include: -

- Clause 4 consenting to the subletting of any part of the Works
- Clause 12 certifying additional cost for unforeseen conditions
- Clause 44 determining extensions of time
- Clause 51 issuing variation orders
- Clause 52 fixing rates or prices

Some Employers may not wish to place any restrictions and others may require additional restrictions. Most if not all of the Funding Agencies supporting ERA will require consultation before any substantial changes are made to a Contract, particularly one that uses their Standard Bidding Documents or are directly funded by them.

### 2.3.7 Approval of Securities.

Under the contract the Contractor is required to submit a number of different types of securities (see 6.1). In general all have to be in a prescribed format and or be approved by the Employer. These include:

- Performance Security (prescribed format, Institution to be approved)(see 6.1.4.2)
- Advance Payment Security (prescribed format, Institution to be approved)(see 6.1.4.3)
- Insurance (to be approved)(see 7.2)
- Retention Security (prescribed format, Institution to be approved)(see 6.1.4.4)

All of the forms of securities are required to provide financial compensation, in the event of certain occurrences. It is imperative that the Employer confirms that the required cover is provided, by the security, prior to giving its approval.

### 2.3.8 Taking Over the Works.

Once the Contractor has completed the works and the Engineer has issued the Taking-Over Certificate (see 2.3.8, 5.2.17 and 9), the Employer is required to take over the Works. Failure to do so, for whatever reason, could result in delays to the demobilisation of the Contractor with associated costs for the Employer.

Under the general conditions of contract the Engineer does not require the approval or even consent of the Employer to issue the Taking-Over Certificate. In the event that an Employer wishes to "be involved" in the taking over it is essential that provision be made in the special conditions of contract at tender stage.

### 2.3.9 Liquidated Damages.

The conditions of contract make provision for the payment of a specified sum, by the Contractor, to the Employer in the event that the Contractor does not complete the works within the contract period. The conditions further allow the Employer to deduct any such amounts from any amounts due by the Employer to the Contractor. This amount is known as a Liquidated Damage (see 6.5).

In terms of the Contract it is, therefore, the responsibility of the Employer, and not the Engineer, to take the decision to impose liquidated damages and accordingly to make the applicable deductions.

### 2.3.10 Termination of the Contract.

The conditions of contract make provision for the termination of the contract, by the Employer, in the event of any of a number of events occurring (see Appendix 3-5 FIDIC IV clause 63)

The conditions of contract similarly make provision for the Contractor to terminate the works (see Appendix 3-5 FIDIC IV clause 69)

The Engineer has no authority with regard to the termination of the contract but does have a role to play in the events leading up to termination.

#### 2.4 THE CONTRACTOR

The role of the Contractor is to execute and complete the Works, for which he has submitted his Tender, within the time specified in the Contract. In addition he has an obligation to remedy any defects which appear during the Defects Liability Period (see 8.6).

The Contractor is not usually responsible for the design and specification of the Permanent Works unless expressly provided for in the Contract.

The Contractor receives and complies with instructions from the Engineer acting on behalf of the Employer and is responsible for the care of the Works throughout the construction period until the Works are officially taken over by the Employer or are deemed to be taken over by the Employer.

The Contractor is responsible for his own staff and work force and for taking out social and other insurance in respect of his personnel. He must comply with all laws and regulations and ensure that all those for whom he is responsible also comply.

In the event of default by the Employer, the Contractor may suspend the progress of the Works or reduce the rate of work and claim an appropriate extension of time and/or compensation for loss of income/profit.

By employing a Contractor the Employer is buying not only the Contractor's skills in construction, but also his skills in planning and resourcing the work. The Client should therefore be wary of imposing restrictions on the Contractor with regard to the timing of sections of the work or the types of plant to be utilised. In some instances it will be critical that some sections of work are completed by specified dates, e.g. where another contractor has to follow on, in which case completion by the defined date would be made a requirement of the Contract. In the absence of such requirements however the Contractor should be at liberty to programme the Works and provide the plant to best suit his method of operations.

The Contract requires the Contractor to superintend the construction of the Works either by being present in person or by appointing a competent and authorised person to act on his behalf. Superintendence involves the active direction of the means by which the Works are carried out. This is distinct from the task of the Engineer's Representative to supervise, which involves control over what will be accepted into the Works. Superintendence, as far as civil engineering construction is concerned, involves the active direction of the means by which the Works are carried out. This covers:

- Organising resources
- Ordering materials
- Programming tasks
- Setting targets for both productivity and costs

Superintendence is necessarily more active and positive, as it is the Contractor who has agreed to construct the Works for the Employer. The Contractor strives to ensure that he complies with the requirements of the Contract in such a way that its costs are minimised.

The Contractor's Representative's responsibility is to ensure that as far as site operations are concerned the Contractor's obligations are discharged (see also 7.5 and Appendix 7-12). This involves the following:

- Constructing, completing and maintaining the works within the contract period.
- Providing all the required labour, materials, plant etc. and avoiding any unreasonable noise, disturbance and damage.
- Carrying out the instructions of the Engineer and his representative.
- Providing adequate superintendence.
- Setting out the works.

- Providing a programme together with methods of working and updates.
- Caring for the works during construction period and making good any damage.
- Providing for the safety and security of the site and all construction operations.
- Providing plant and labour returns.
- Preparing and presenting monthly statements of the value of work executed.
- Notifying any claims for additional payment supported by such contemporary records and particulars as are necessary for proper investigation and assessment.

#### 2.4.1 Role of the Contractor

The Client awards the contract for the construction and maintenance of the Works to the Contractor and the Contractor's primary obligation is to complete the Works within the specified time in accordance with the requirements of the Contract, to the satisfaction of the Engineer, on behalf of the Client. The Contractor is also responsible for the security of the Works until they are taken over by the Client.

Generally the Contractor will not be responsible for the design of the Permanent Works (i.e. those which he has contracted to build and which remain when he vacates the Site) although he will be responsible for the design of Temporary Works (i.e. those items, such as falsework, that are required for the execution of the Permanent Works but that are removed before completion of the Contract). If the Contractor is required to design any part of the Permanent Works it must be made clear in the Tender documents.

#### **Sub-contracts**

A common principle is that a main contractor is responsible to the Client for the performance of his sub-contractors. Practice varies in whether a main contractor is free to decide the terms of sub-contracts, choose the sub-contractors, accept their work and decide when to pay them. It also varies in whether and when a Client may bypass a main contractor and take over a sub-contract.

Civil engineering contracts normally state that the Contractor shall not place any sub-contracts without the approval of the Engineer, and that the Contractor shall remain liable for all the acts and defaults of sub-contractors, see Appendix 3-5 FIDIC IV clause 4.1.

#### Nominated sub-contractors

In some model conditions of contract a sub-contractor can be nominated by the Engineer or the Employer (see Appendix 3-5 FIDIC IV clause 59). This is done for instance if the sub-contractor has to be ordered to start to manufacture a component for a project before the main contract is made, if a particular supplier's product is required, or if novel or risky work is required from a specialist sub-contractor under direct supervision by the Engineer.

In these arrangements the Contractor is instructed to obtain quotations from approved sub-contractors, and then accept the tender of the nominated sub-contractor and work with that sub-contractor as with any other. The Contractor usually has the right to decline to accept a nominated sub-contractor for a good reason.

The nomination of sub-contractors is not recommended, because it complicates relationships and divides responsibilities.

#### 2.5 THE ENGINEER

The Conditions of Contract (see 3.4), normally comprising the General Conditions and Conditions of Particular Application, define contractual obligations, the apportionment of risk between the parties, and provisions under which the Contractor will be paid for undertaking the Works. According to Clause 1 of the Conditions of Contract, the "Engineer" means the person appointed by the Employer to act as Engineer for the purposes of the Contract and named as such in the Conditions of Particular Application. A "person" may be an individual but is more usually a firm or company. Normally, any Director of a firm or a company may exercise the rights and responsibilities of the Engineer without further specific appointment. The firm or company may also appoint an individual to exercise the powers of the Engineer on its behalf. The Employer may prefer to appoint a member of his staff, or a firm of construction managers to act as the Engineer with a consulting firm or company providing Site supervision staff only.

It is a peculiarity of FIDIC IV that the Employer is unable to replace the Engineer. In ERA's Standard Tendering Documents (see 4.2 and 4.3) Sub-Clause 1.1(a)(iv) of the Conditions of Contract has therefore been amended by the Conditions of Particular Application by adding the following words after the word "Conditions" – "or any other competent person appointed by the Employer, and notified to the Contractor, to act in replacement of the Engineer."

The Conditions of Contract define the powers and responsibilities of the Engineer. They describe two distinct roles.

- Representative of the Employer e.g. giving permission to sub-contract the works, issuing drawings etc.
- Independent and impartial Arbiter e.g. certifier of claims and payments etc.

In exercising his discretion, Appendix 3-5 FIDIC IV Sub Clause 2.6 of the Conditions of Contract expressly requires the Engineer to be impartial within the terms of the Contract and having regard to all the circumstances.

Although, as stated above, the Engineer is not a party to the contract between the Employer and the Contractor his terms of engagement are set out in an agreement between the Employer and the Engineer and include, but are not limited to the following under the Conditions of the Works Contract:

- The issue of information and instructions to the Contractor
- Commenting on the Contractor's proposals for carrying out the work
- Ensuring that materials and workmanship are as specified
- Agreeing measurements of work done
- Certifying to the Employer that the Contractor is eligible for payments
- All other matters of an administrative nature
- Evaluation of claims

The Employer may choose to limit the authority of the Engineer with regard to matters concerning variations, fluctuations in the price of materials, labour and transport, additional works done or materials and services supplied and the settlement of Contractor's requests for additional payment i.e. all those clauses which could result in an increase in the Contract Price and period. In these cases it would be necessary for the Engineer to obtain the Employer's approval of such additional expenditure prior to issuing any instructions.

In the standard FIDIC form the Engineer **has** the authority to determine additional payments and extensions of the contract period. In the event that the Employer wishes to limit the authority of the Engineer this must be clearly stated in the Conditions of Particular Application.

The Engineer's duty is to interpret the Contract as written. In doing so he should endeavour to determine what the Contractor could have reasonably foreseen would have been required of him when preparing his tender.

It is important to realise, however, that neither the Employer nor the Contractor is finally bound by the Engineer's interpretation or determination. All contract documents should make provision for the steps to be taken where one or both of the parties do not accept a decision made by the Engineer.

### 2.5.1 Authority of the Engineer

The Engineer may have considerable powers but he has no authority to do anything that will alter the Contract or to relieve the Contractor of any of his obligations under the Contract. Where approval is required by the Engineer from the Employer, prior to him exercising certain of his powers under the Contract, these constraints on his authority must have been noted in Appendix 3-5 FIDIC IV Sub-Clause 2.1 of the Conditions of Particular Application (see 3.4) before the formation of a Contract.

The circumstances under which the Engineer is usually required seek the specific approval of the Employer include:

- Clause 4 consenting to the subletting of any part of the Works
- Clause 12 certifying additional cost for unforeseen conditions
- Clause 44 determining extensions of time
- Clause 51 issuing variation orders
- Clause 52 fixing rates or prices

It should be noted that the funding agency may require consultation before any substantial changes are made to a Contract, particularly one that uses their Standard Bidding Documents or are directly funded by them.

Subject to these restrictions, the Engineer may exercise the authority specified by or implied by the Contract in respect of:

- Instructions
- Approval and Acceptance
- Evaluation and Adjudication

The Engineer may issue instructions, directions and orders to the Contractor so that the construction of the Works can proceed. He may comment on the Contractor's proposals for carrying out the Works and must ensure that the workmanship and quality of materials are in accordance with the Specifications. He will measure and value the work done by the Contractor and will issue payment certificates to enable the Employer to pay the Contractor.

### 2.5.2 The Engineer's Representative

The Contract recognises that the Engineer may not be able to devote all his time to the management and control of the works on Site. In order to carry out these responsibilities, the Engineer may appoint an Engineer's Representative to watch and supervise the construction process. This appointment is made under the provisions of Appendix 3-5 FIDIC IV Sub-Clause 2.2 of the Conditions of Contract. The Engineer's Representative is responsible only to the Engineer. He is required to carry out such duties and exercise such authorities as may be delegated by the Engineer, in writing, with copies to the Employer and the Contractor. Principally, he will supervise the construction of the Works and ensure that they are completed in general accordance with the requirements of the construction contract.

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It should be noted that, as well as delegating duties and powers, the Engineer's letter may impose restrictions upon the actions of his representative that do not apply to the Engineer himself. For example, the Engineer may place financial limits on the powers of the Engineer's Representative to instruct additional works. These restrictions would be of fundamental importance to the Contract and must be kept within the direct responsibility of the Engineer. What powers to delegate to Site and what powers to retain should be supported by reasoned assessment. The best division is one which gives the Engineer's Representative the authority to act in those areas where relatively rapid decisions and /or specific knowledge of the Site is needed, leaving issues of longer range and wider consequences for the Engineer.

Any system of delegation can only work effectively if it is operated strictly in accordance with the arrangement notified to the Contractor. If the Site does not have the authority for a particular action it must come under the Engineer's signature. Contractors are usually allowed the right of appeal to the Engineer on any decision taken at Site under delegated power. Similarly, the Contractor can ask the Engineer's Representative to examine any instruction given by his assistants. This is separate from the main disputes procedure and allows for second thoughts before a formal Engineer's decision is invoked. The Employer has no comparable facility and he must go direct to a formal decision under the disputes procedure. It is therefore important for staff all the way up the chain of delegation to be kept fully informed and for the Engineer to report contentious matters to the Employer as they develop.

The Engineer or the Engineer's Representative may appoint any number of people to act as "assistants" to the Engineer's Representative. The assistants have no authority to issue instructions to the Contractor other than to the extent that such instructions may be necessary to enable them to carry out their duties and to record their acceptance of work, materials etc. The Engineer's Representative should issue to each assistant a job description defining duties, rights and responsibilities under the Contract. The Contractor must be notified, under the provisions of Sub-Clause 2.4 of the Conditions of Contract, of the appointment, names, duties and scope of authority for each assistant. The number and function of assistants will vary considerably from Site to Site, depending on the complexity of the works to be carried out.

### 2.5.3 The Engineer as Designer

#### **Pre-Contract Award**

The Consultant's role as a Designer can start in the early days of a project's life, when he may be carrying out feasibility studies to determine the viability of the Project. Once the decision has been made by the Client to proceed with the Project, the Consultant will prepare designs and carry out preliminary investigations, e.g. investigations to ascertain the ground conditions at the site of the Project, which will affect the design. He will submit regular reports to the Client and estimates of the cost of the works. It is possible that factors will become known during the design stage, which will have a major financial impact, even to the extent of affecting the overall viability of the Project. The Consultant will also be responsible for the procurement of a Contractor to execute the works. This can be done in a variety of ways: by open invitation, by selection of a list of companies who are invited to submit bids following prequalification, or by direct negotiation. The means adopted will depend on the size and complexity of the Project and any particular directives from the Client or Funding Agency.

#### **Post-Contract Award**

During the execution of the Works, the Consultant will be required to review the Contractor's proposed methods of construction, and he will usually also review the Contractor's proposals for Temporary Works to satisfy himself that safety is not compromised. Such reviews will not however relieve the Contractor of any of his responsibilities under the Contract. Sometimes it may be a requirement that the Engineer's site staff finalise the geometric design of a road from information provided by the Contractor.

### 2.5.4 The Engineer as Contract Administrator

Once the construction contract has been awarded to the Contractor, the Consultant's role may include general administration, ensuring compliance by the Contractor with time and quality obligations, approving the programme and method statements (and requesting up-dated versions as and when appropriate), issuing instructions for variations and negotiating rates for payment thereof, issuing drawings and ordering tests.

As there is no contractual arrangement between the Consultant and the Contractor, the Consultants role in these circumstances is as a representative of the Client to ensure the works are implemented in accordance with the Clients wishes.

However most construction contracts define a third party "The Engineer" to act as the administrator of the contracts with pre-defined authority to ensure the Client's wishes are fulfilled and the Contractor's interests are protected as set out in the contract. This is the role in which the Consultant generally acts during the construction stage of most Projects.

For convenience the duties and powers (see also 7.4 and Appendix 7.8) can be reviewed under three headings representing the main functions of the Engineer.

#### Approval and Acceptance

- Permission to sub-let parts of the works
- Approval of programme and proposed methods of working
- Approval of contractor's representative and employees
- Acceptance of workmanship and quality of materials
- Approval of measures to deal with problems such as slow progress
- Unforeseen physical obstructions or conditions
- Issue of taking-over certificate
- Issue of defects liability certificate

### Instruction

- Sub-contracting
- Drawings
- Variations of the works
- Suspension of the works
- Dealing with unforeseen physical obstructions and conditions
- Uncovering and making openings
- Removal of improper work or materials
- Provisional sums and employment of nominated sub contractors
- Contemporary records with regards to claims

#### **Evaluation and Adjudication**

- Ambiguities and discrepancies
- Drawings
- Obstructions or conditions unforeseen
- Delays and additional costs
- Liability for damage to the works
- Avoidance of damage to roads
- Assessment of progress
- Measurement for interim payments and final account
- Variations and new rates
- Settlement of disputes

### 2.5.5 The Engineer as Certifier

During the course of the Contract the Engineer will be required to issue certificates to certify payments due to the Contractor (see 6.3), and completion of the Works (including, if appropriate, sections thereof) (see 8). He will also be responsible for determining extensions of time and fixing rates for the valuation of varied works, and for certifying unforeseen ground conditions and default on the part of the Contractor (see Appendix 3-5 FIDIC IV clauses 44, 51, 12 and 63).

In some instances the Client will retain some control over the Engineer's actions, by requiring the Engineer to seek (the Client's) approval before determining extensions of time or valuing variations. In such a case the Contractor must have been made aware, by means of appropriate revisions to the Contract that such controls apply.

### 2.5.6 The Engineer as Dispute Settler

Under FIDIC style contracts there is a requirement to nominate an entity as The Engineer to act as the administrator of the contract whose formal authority is defined in the contract in accordance with the Client's wishes. The Consultant is normally appointed as The Engineer under the contract with powers and responsibilities specified.

The Engineer as defined in the Contract may be a company or an individual. If he is a company, then a named individual should be identified to fulfil the role of the Engineer. The Engineer then appoints a Representative to work full-time on the Project, to whom some of the Engineer's powers will be delegated. The Engineer's Representative will then act as the Engineer in those areas for which powers have been delegated. The Contractor will however have the right to refer a communication from the Engineer's Representative to the Engineer for confirmation, reversal or variation.

In some instances the Client will retain some control over the Engineer's actions, for example, by requiring the Engineer to seek his (the Client's) approval before determining extensions of time or valuing variations or claims. In such a case it must be made clear to the Contractor in the Contract that such controls apply.

During the course of the Contract the Engineer will be required to issue certificates to certify payments due to the Contractor, on completion of the Works (including, if appropriate, sections thereof). The Engineer will also be responsible for determining extensions of time and fixing rates for the valuation of varied works, and for certifying unforeseen ground conditions and default on the part of the Contractor.

The Engineer has a role as settler, in the first instance, of any disputes that arise between the Client and the Contractor. Such disputes can include disagreement with a ruling made by the Engineer. In the event that either party is not satisfied with the Engineer's decision, they may proceed to some form of dispute resolution or even arbitration. (See 5.2.5, Appendix 5-2 and the Claims Manual)

Under current Works Contracts, Clause 67 has in fact been amended by ERA to include a Disputes Review Expert, or Board, to whom disputes are referred in the first instance i.e. the Engineer in Clause 67 is basically replaced by the DRE or DRB.

It is possible for the Client to assume some or the entire role of the Consultant, even to acting as the Engineer under the contracts, but this practice is neither effective nor practical and contains many hidden difficulties. It is, however, common that some of the pre-construction activities such as design may be carried out by the Client, but for donor funded projects there is a requirement that a Consultant be appointed for supervision of the contracts to ensure that an independent party, with appropriate experience in such matters is in place (see the Project Planning and Procurement Manual).

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#### 2.6 THE FUNDING AGENCY

The role of the Funding Agency in the case of donor-financed projects is to provide sufficient funds for the implementation of the project in accordance with the agency's aims and objectives and ensure that the funds provided are utilised in accordance with the conditions applicable to the loan.

Where projects are funded from commercial loans, the primary involvement of the Funding Agency is that the loans are repaid as per the agreements.

With funding provided by Multilateral or Bilateral Agencies these donors have a more significant role in projects as these loans are provided to satisfy the donors' particular objectives in relation to national or regional development. There are also specific conditions applicable to these loans, particularly as the repayment terms are more favourable than normal commercial loans, and as there is a requirement by the agencies to satisfy the wishes of their principals (country or member countries).

In such cases there is consequently a significant input from the Funding Agency during the early stages of a project in relation to its selection and how it will be implemented, with a lesser input during the actual implementation of the project.

The Funding Agency has a formal relationship (loan agreement) only with the Client and has no formal relationship with either the Contractor or the Consultant. Notwithstanding it is more often than not the case that ERA requires the approval, "No Objection", of the funding agency prior to taking any one of a number of actions e.g. increasing the project budget, extending the time for the project.

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