

CHAPTER SIX : INSTRUCTIONS**CONTENTS**

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6.01 Introduction.

If it were possible to devote unlimited time and resources to the preparation of contracts and if contractors always complied strictly with their requirements, site instructions from the supervision team would be unnecessary. However, such a situation will never be realised. Contract documents are inevitably prone to error and inaccuracy, or are less than fully comprehensive, whilst contractor's performance, at some time or another, is bound to be imperfect. The issuing of site instructions to overcome these deficiencies is therefore a necessary and important part of the supervision staff's duties.

6.02 Specific Grounds for Instruction.

Some of the more specific reasons for the need for site instructions can be categorised as follows:

- a) to provide, clarify or amplify details of work already explicitly or implicitly contained in the contract;

- b) to order extra work rationally connected with and necessary for the project;
- c) to omit work originally included in the contract but which is found to be unnecessary;
- d) to introduce changes in design (as presented in the Drawings or Specification) for technical, financial or progress reasons;
- e) to instruct work to be undertaken by Daywork - see Chapter 7.08;
- f) to indicate the applicability of a particular unit rate to an original or added item of work;
- g) to eliminate conflicts between the contract's constituent documents;
- h) to enforce the contractor's compliance in cases of actual or potential non-compliance with the requirements of the contract;
- j) to order the removal and replacement of defective or non-complying work;
- k) to order the removal of contractor's staff;
- l) to re-programme or accelerate the works;
- m) to suspend the works.

Instructions under all of these headings may be given legitimately within the terms of the contract but those which constitute variations may (and in most cases will) result in changes in cost.

**6.03 Instructions for Work;
Circular KPKR 6:88**

Before any instruction for work is issued by any method whatsoever, the requirements of Circular KPKR 6:88 must be considered. If the work involves a contractual variation, then the rules for obtaining financial approval operate and the instruction cannot be issued without such approval. The Circular sets out the procedures which have to be followed and details the make-up of approving committees in various circumstances. (See also Chapter 7.11 Certificate of Variation of Works)

6.04 Various Methods of Instruction.

Instructions may be issued to the contractor in a number of ways. Verbal communication and normal correspondence are of course obvious methods that feature in all site dealings and have a proper place, but in order to achieve the systematic control that is essential to proper site management, the use of standard forms is strongly preferred for many instructions, particularly those connected with the ordering of works. They save time and effort, eliminate confusion or doubt as to what is required and provide a convenient and permanent record of data which facilitates not only the control of construction operations, but measurement/payment, progress and archival matters as well.

The methods dealt with in the following sections of this chapter under individual headings are

Non Standard-Form Methods.

- i) Verbal Instructions
- ii) Normal Correspondence
- iii) Duplicate Memo Books
- iv) Progress Meetings Standard Form Methods:
- v) Site Diary Entries
- vi) Site Instruction Form
- vii) Engineer's Instruction (A.P.P.)
- viii) Certificate of Variation of Works
- ix) Drawings

6.05 Verbal Instructions

Verbal communication between supervision and contractor's staff is both natural and convenient. At the man to man level of works operations it is essential and encourages good site relations. Instructions given verbally have the advantage of immediacy and "discuss-ability". However, they also have the serious disadvantage that they can create confusion, or be disputed as to their content, or even as to whether they were given at all. For instructions which:

- a) authorise or detail extra or variation works,
 - b) require measurement for payment,
 - c) concern potentially contentious or disputable issues, or
 - d) need to be recorded for any reason,
- verbal instructions are obviously inadequate and, if given, must be followed promptly by confirmatory written instructions of one form or another. The

confirmation should quote the date of the original verbal instruction (and time if significant).

6.06 Normal Correspondence

All normal correspondence letters to the contractor must be typewritten on official letter-heads. They should be addressed to the contractor's agent authorised to receive official communications in connection with the contract and be signed by the Engineer or, if he is specifically delegated* with respect to the particular subject, by the Resident Engineer. All instruction letters issued under delegated authority must be copied to the Engineer. Since most R.E.'s offices are located near the contractor's site offices, letters can be passed by hand and it is a simple matter to organise an acknowledged delivery system.

Normal letter correspondence is of course appropriate for dealing with matters of contract administration, contractual issues and for strictures or warnings in connection with the contractor's work performance. However, for detailed work instructions they are less suitable because they do not provide data for the various site records in a convenient or manageable form. The standard forms (Site Instruction Forms and/or Engineer's Instructions - A.P.P.'s) should be used for this purpose.

ordinary letters can usefully be employed as covering correspondence in cases where amplification of the standard form details, or special instructions as to how and when the work is to be executed, are required.

* See Chapter 3.06

6.07 Duplicate Memo Books

For urgent field instructions Memoranda handwritten in Duplicate Books can be issued. They can be written and signed by Resident Engineers or subordinate staff and, unlike normal correspondence letters, can be addressed to individual members of the contractor's staff. They are particularly useful on small sites which have no typing facility and for warning the contractor of unsatisfactory work, or for giving advance warning of variations.

The pages of the Duplicate Memo Book should

be serially numbered in duplicate and be prefixed, when issued, with the writer's initials. If the time of issue is significant it should be added to the date. Distribution of the copies should be as follows. Top Copy to the contractor's staff member or office. Second Copy (after countersignature by the top copy recipient) to the Resident Engineer for his filing system. Staff issuing such Memos must pass the second copy promptly to the Resident Engineer who will decide whether the matter is sufficiently important to warrant endorsement of the instruction with a typewritten version on an official letterhead or standard form signed by the Engineer for himself if appropriately delegated).

6.08 Site Progress Meetings

Instructions can be conveniently passed on at these meetings which have the advantage of discussion between supervisory and contractor's staff. The item should be carefully minuted for circulation to the contractor and, if concerned with an order for work, followed by a Site Instruction Form, APP Form etc. - see Chapters 6.10 and 6.11.

6.09 Site Diary Entries

Instructions given verbally are often recorded in the Daily Site Diary (see Chapter 9.05) and are counter-signed by the contractor's staff member receiving them

This provides an authenticated record and there is no reason why the practice should not continue. However, the entries do not provide data which can be conveniently disseminated systematically to the various site records, or which can be readily retrieved. Nor do they necessarily constitute instructions passed between formally authorised officers on both sides. They should therefore not be regarded as a substitute for the use of Site Instruction Forms and/or Engineer's Instructions (APP'S), which are dealt with in the following two sections.

6.10 Site Instruction Form

This is the first of a three-tier system of standard work instruction forms which is an essential part of operational and financial control for JKR roadwork contracts. The forms should be used

for any of the cases listed under items a) to f) in Chapter 6.02.

Common examples of clarification or amplification which can be the subject of Site Instruction Forms include the following.

1. Removal of unsuitable material below embankment or in cutting subgrade (giving chainage limits, widths, depths or other dimensions if possible).
2. Detailed position and invert level of ditches, drains and chambers only generalised on Standard Drawings.
3. Details of pavement course thickness or width only generalised on the contract drawings.
4. Location and dimension details of mass concrete or masonry retaining structures given only in Standard Drawing form in the contract.
5. Specifics of street furniture and fencing details only generalised in the contract drawings.

Copies of a blank Site Instruction Form and of a completed example are given in Figures 6A and 6B respectively.

The following further points apply to the preparation of Site Instruction Forms.

- a. They are to be issued in triplicate. Pre-printed books are the most suitable form preferably with different colours for first, second and third copies.
- b. They are to be serially pre-numbered in triplicate. on larger jobs it is desirable to keep one book for each section of the Bill of Quantities and to prefix the serial number with the section number by hand in order to facilitate filing and retrieval.
- c. They may be handwritten.
- d. They can be prepared by subordinate staff but must be signed in triplicate by the Resident Engineer or an officer authorised or delegated under the contract to issue instructions. Primarily the intention is that the forms should be signed by the Resident Engineer. They must be addressed to the contractor's authorised site agent and delivered to him or his office. Attention is drawn to the requirements contained in Departmental Circular KPKR BIL 6/1988 for approval

of any instructions which constitute variations.

- e. Distribution of the copies of the Form is to be as follows.

Top Copy : to contractor's site agent.
He (or authorised subordinate) must sign (in triplicate) on receipt.

Second Copy: to Resident Engineer's filing system after circulation to:

- i) draftsman or technician responsible for drawings who will note any amendments on the Master Set of prints (see Chapter 10.06) or other appropriate drawings.
- ii) to site QS or officer responsible for measurement who will note requirements for measurement.

Third Copy: promptly to the Engineer, accompanied by an estimate, prepared by the Resident Engineer, of the cost of the work raised by the Instruction

- f) There is provision on the Form for the method of payment to be declared as:
- i) Bill of Quantities Item No., ii) Rate to be agreed,
- iii) Daywork, or,
- iv) No additional payment.

One or other of the methods must be selected by striking out the other three. If there is doubt as to whether an original Bill of Quantities item applies, or whether a new item is appropriate, the first method should be selected and the matter negotiated with the contractor, if so raised by him.

If there is doubt as to whether the work involved in the instruction is covered by an existing rate, the last method should be selected.

In the case of Daywork the word should also be added prominently in capitals to the text section of the Form. (Site Instruction Forms must be raised for all Daywork operations - see Chapter 7.08).

- g) The text of the instruction should deal exclusively with the work item to be performed and kept as simple as possible but the maximum of dimensional and location detail (and/or quantities if they can

be definitive at the time of issue) should be given. Explanation, conditions or other elaborations, if necessary, should be reserved to be provided in covering letters.

- h) Simple sketches may be given on the face of the Form particularly to establish location and dimension but also to provide constructional detail. If the matter is too complex to be dealt with by a simple sketch, supplementary or new drawing numbers can be referenced. (Site Instruction Forms can be used simply as covers for the issuing of new or supplementary drawings).

The use of Site Instruction Forms for the purposes detailed in this chapter is a mandatory requirement which must be observed by Engineers and Resident Engineers, except in cases where Engineer's Instructions (APP'S) are prepared and issued promptly to cover the particular item. Even then, the use of Site Instruction Forms preparatory to APP'S is strongly recommended because of the way they contribute to systematic site records and controls.

6.11 Engineer's Instruction (APP - Form JKR 203U/82)

The Site Instruction Forms provide a convenient method of issuing instructions to the contractor quickly from the site base. The second stage of the process is the issuing of an Engineer's Instruction (A.P.P.). An example of a completed Form is given in Figure 6C.

The following points apply to the preparation of the APP Forms.

- a) The printed standard forms should be completed by typewriting and prepared in triplicate.
- b) As their name suggests, they are to be signed by the Engineer (except as required in c) below).
- c) Under contracts subject to Form 203A Conditions of Contract with a completed Appendix to the Conditions, only officers nominated in the Appendix* can authorise and issue A.P.P. Forms which raise variations (Financial authorisation limits for each nominated officer are also

set in the Appendix). See also the last paragraph of this Section with regard to Circular KPKR 6:88.

- d) Reference is made in Paragraph 1 of the printed form to Clause 5 of the Conditions of Contract which gives the Engineer the power to issue instructions and also provides a blank for the insertion of other authorising clauses.
- e) Paragraph 2 of the Form provides for the statement of reasons for the instruction. In the case of instructions for the removal of defective work the reasons can be stated here. It is not essential to quote practical reasons for extra, omitted or varied work except as being ".....required (not required) in connection with the Contract..."
- f) Paragraph 3 of Form makes provision for reference to the Site Instruction Form, Drawings or Specification covering the APP instruction.
- g) The Forms for each contract are to be numbered (3 digit) in consecutive sequence as issued.
- h) Distribution of the Form is to be as follows.
First Copy to the contractor, who completes the acknowledgement section in triplicate and retains one copy.
Second Copy to Resident Engineer's file.
Third Copy to the Engineer.
By photocopy to the further officers noted at the foot of Page 2 of the Form.
- j) In cases where the APP Form is issued without a preliminary Site Instruction Form the Resident Engineer must ensure that the APP is circulated in his site organisation for action similarly as detailed in Chapter 6.1.0 e M and (ii).

The APP Forms provide a formal confirmation of instructions given on site in one form or another, but as previously noted, will most usually follow a Site Instruction Form. Unlike Site Instruction Forms, which are normally signed by the Engineer's Representative, the APP Forms are not subject to review by the Engineer under clauses of the various Conditions of Contract, since they are already formally authorised by him. The implications, with regard to

valuation, extra cost and time extension referred to in the "Special Notes" on page 3 of the Form should therefore be carefully considered before the APP is finally issued.

Again, it is necessary to draw attention to the requirements of Circular KPKR 6:88. Approval, as required by the Circular, must be obtained before issuing any A.P.P. Form which constitutes a variation to the contract, or is otherwise subject to the Circular's provisions.

** See Cl. 3(a)(ii) of the Form 203A Conditions of Contract.*

6.12 Certificate of Variation of Works (JKR 203V - Pin 4/83)

Site Instruction Forms and Engineer's Instruction Forms do not necessarily create variations to the contract, neither are all variations the result of either or both of these forms being issued. However, where the subject of these first two stages in the instruction process are variations, the next step is to raise a Certificate of Variation of Works, Form JKR 203V Pin 4/83 - It is a standard printed form (see Figure 7/G) and is signed by the Engineer.

Certificates of Variation are a formal acknowledgement by the Engineer and the contractor that an instruction which constitutes a variation under the relevant clause of the Conditions of Contract has been issued and accepted for execution. Although the standard printed forms contain (on the first page) space for detailing the work involved, they are less important for that purpose than they are for valuing the work and establishing an agreed amendment to the Contract Sum. since their purpose is primarily concerned with the financial aspects of the contract, notes on their preparation and use are given in Chapter Seven: Measurement and Financial Control - see Chapter 7.11.

6.13 Drawings

The issuing of additional or supplementary drawings by the Engineer or his Resident Engineer constitutes instruction to the contractor to undertake work which may or may not be variations to the contract. In order to formalise the procedure, however, it is necessary to issue

such drawings under covering letter or Site Instruction Forms, normally simply informing the contractor that he is to carry out the work detailed on the drawings.

The preparation and issuing of additional or sup-

plementary drawings is dealt with in Chapter 10.08.

FIGURE 6A

JABATAN KERJA RAYA, CAWANGAN JALAN CONTRACT : JKR/PERS/IP/39/91 Contructions of Bandar Baru to Kampong lama Rd.	SITE INSTRUCTION NO. /
From : Resident Engineer JKR To: Site agent, Syarikat Bina Suprim	
You are instructed to <u>carry out the following work</u> <div style="text-align: center; margin-top: 10px;">omit</div>	
Method of Payment 1. Bill of Quantities 2. Rate to be agreed 3. Dayworks 4. No additional payment	<div style="text-align: center;"> Signed Resident Engineer </div> <div style="text-align: center; margin-top: 10px;"> Date: / / / </div> <hr style="border: 0.5px solid black;"/> <div style="text-align: center;"> Received by </div> <div style="text-align: center; margin-top: 10px;"> Date: / / / </div>

FIGURE 6B

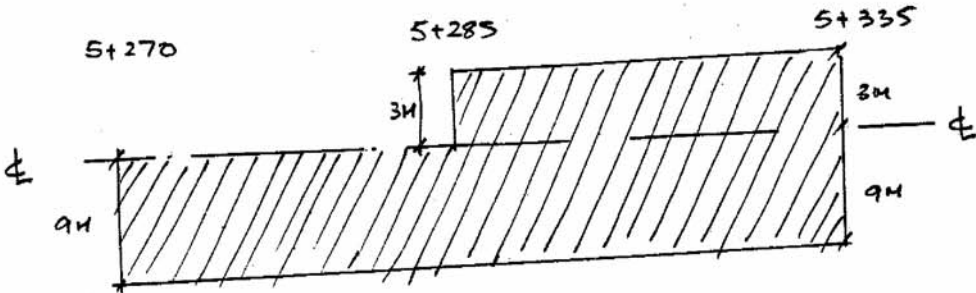
JABATAN KERJA RAYA, CAWANGAN JALAN CONTRACT : JKR/PERS/IP/39/91 Construction of Bandar Baru to Kampong Lama Rd.	SITE INSTRUCTION NO. 4 / 073
From : Resident Engineer JKR To : Site Agent, Syarikat Bina Suprim	
<p>You are instructed to omit ^{carry out} the following work:</p> <p>SOFT AREA CH 5+270 - 5+335</p> <ol style="list-style-type: none"> 1. EXCAVATE SOFT MATERIAL OVER AREA INDICATED IN SKETCH 0.5 M BELOW FORMATION LEVEL 2. PROVIDE AND PLACE SAND FILL 0.5 M THICKNESS. <p>(SUB BASE TO REMAIN 150 MM)</p> 	
Method of Payment: 1 Bill of Quantities Item No. ① 4/5 2 Rate to be agreed ② SANDFILL 3 Dayworks 4 No additional payment	Signed <i>Mohd / Sall.</i> Resident Engineer Date 06/09/91 Received by <i>S. Manian</i>

FIGURE 6C

(JKR 203U/82)

ARAHAN PEGAWAI PENGUASA: SUPERINTENDING OFFICER'S INSTRUCTION:	NO.	Tarikh Date	Rujukan surat kebenaran pihak berkuasa mengikut A.P. 202(c) jika arahan melibatkan perubahan. <i>Reference to letter of approving authority under T.I. 202(c) if instruction involves variation.</i>
	2		

Rujukan: Pejabat: Jurutera Penguasa Kanan
 JKR Unit IKTP., Pahang,
 28000 Temerloh,
 Pahang Darul Makmur.
 Tarikh: 26. JAN. 1988.

Kepada: Ken Construction and Trading Sdn.Bhd.
 125M, SS 21/37, Damansara Utama,
 47400 Petaling Jaya.
 (Kontraktor)

Kontrak No: JKR/FERS/IP/JR/8/85
 Contract No:

Untuk .. Pembinaan dan penyiapan jambatan ..
 for .. Diatas Sg.Tersang, Raub, Rahan, Darul Makmur.

1. Menurut Klausula 5 dan/atau Syarat-Syarat Kontrak, tuan adalah dengan ini diarah-
 kan seperti berikut:

*In accordance with Clause 5 and/or of the Conditions of Contract, you are hereby
 instructed as follows:*

(a) Membina sebuah "RC retaining wall" dekat abutment jambatan
 Sg.Tersang. Panjang retaining wall 25 kaki.

(b) Membekal dan memasang "bracket" air pada R.C.parapet jambatan
 tersebut.

(c)

2. Sebab-sebab arahan:
Reasons for the instruction:

.....

FIGURE 6C
continued

3. Rujukan kepada Pelan-Pelan Kontrak/Spesifikasi/arahan terdahulu dll.
Reference to Contract Drawings/Specification/previous instruction etc.


.....


.....

4. Sila ambil perhatian Catitan-Catitan Khas yang dinyatakan dalam arahan ini.
Please take note of Special Notes stated herein.

5. Sila akui penerimaan arahan ini dan mengembalikan semua salinannya (kecuali satu salinan untuk simpanan tuan) kepada P.P., setelah ditandatangani.

Please acknowledge receipt of this instruction and return all copies (except one copy for your retention) to the S.O. duly signed.

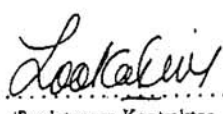

Jurutera Penguasa Kanan
 JKR, Unit LKTP,
 Tandatangan Pegawai Penguasa
 Pahang
Signature of Superintending Officer


Ir. Long Sea Seum,
 Jurutera Meja (T/K),
 JKR Unit LKTP, Phg. Barat (Nama penuh)
 Bentong, Pahang. *Name in full*

Jawatan
Designation

Saya/Kami dengan ini mengakui penerimaan arahan yang tersebut di atas dan akan mengambil tindakan sewajarnya seperti diarahkan.

I/We hereby acknowledge receipt of the above-mentioned instruction and shall take necessary action as instructed.



 Tandatangan Kontraktor
Signature of Contractor

Tarikh 9/3/86
 Date

(Nama penuh Asol Koh Wing)
Name in full
KEN CONSTRUCTION & TRADING SDN BHD
 125M, SS 21/37, Damansara Utama,
 Petaling Jaya, Selangor,
 Cap Kontraktor
 Malaysia
 Contractor No. 184326

s.k. Pengarah Cawangan
 Ibu Pejabat JKR, Kuala Lumpur

— Pengarah JKR Negeri

— Juru Ukur Bahan

— Bank/Syarikat Insurans.
 (yang menjamin pelaksanaan kontrak)

2

FIGURE 6C
Continued**CATITAN-CATITAN KHAS**
SPECIAL NOTES

- (a) Jika arahan ini menjadikan perubahan kepada Kontrak is hendaklah dinilai mengikut Klausula 25 Syarat-Syarat Kontrak.

If this instruction constitutes a variation to the Contract, it shall be valued in accordance with Clause 2.5 of the Conditions of Contract.

- (b) Jika pematuhan arahan ini meiiatkan perbelanjaan atau kerugian lebih darigada yang dijangka munasabah menurut Kontrak, maka tuan hendaklah dalam tsmph satu bulan selepas menerima arahan ini, memberi notis secara bertulis tentang cadangan tuan hendak menuntut perbelanjaan atau kerugian itu kepada P.P. berserta dengan anggaran amaun perbelanjaan dan atau kerugian tersebut.

If in compliance with this instruction involves expense or loss beyond that reasonably contemplated by the Contract, then you shall within one month of receipt of this instruction, give notice in writing of your intention to claim such expense or loss to the S O. together with an estimate of the amount of such expense and/or loss.

- (c) Jika pematuhan arahan ini meiiatkan kelambatan dan lanjutan masa terhadap penyiapan Kerja-Kerja di bawah kontrak ini tuan hendaklah dengan serta nlerta memberi notis bertulis kepada P.P.

If in compliance with this instruction involves delay and extension of time for the completion of the Works under this Contract, you shall forthwith give written notice to the S. O. .