Dealings at site

- 1. Daily programme
- 2. Daily supervision
- 3. Daily material order
- 4. Solving instant problems
- 5. Solving problems with the consultants and pursuing the matters to solutions
- 6. Solving staff disputes and making necessary orders in the interest of the job
- 7. Labour bills for wages and overtimes and leave sanctions
- 8. Labour working on contract valuations to be kept moving
- 9. The preparation of the reinforcement bending schedules
- 10. Proposing alternatives to the resident engineer for discussions and approvals
- 11. Technical study of the job and instructing the site engineers when required
- 12. Daily meetings and general liaison as required

Elaboration of the coordinations as pointed earlier

Architectural/structural : Tender/contract drawings comprise of architectural, structural building allied services, civil works and miscellaneous works. Architectural details should be related to the structural details and in case of discrepancies being discovered that should be informed to the resident engineer or the related structural and architectural engineers and the remedial engineer's details obtained. The structural details as included as engineer's details cannot be followed blindly since these drawings are used on architectural requirements and the details as in engineer's design. Having brought that in the notice of the resident engineer, it is upto the resident engineer whether the alteration is to be made in the engineer's details but a site memo should be requested by the agent to confirm the instructions to protect the contractor's skin. In this case there can be no claims raised due to the aberrations as the same should have been examined before closing the tender. The general practice adopted is that alterations/adjustments are done to the structures and recorded as built drawings. Be noted that this can be done in one go on all the parts of the project since it is not practically possible to have to overload the work on site as well as low staff strength on site. The tendency of every contractor remains to maintain the minimum level of staffing on site to make economy but this practice of comparing the drawings should be carried out continuously particularly by the site engineers or the project coordinators of the contractor who are responsible fully technically for the part of project site assigned to him/them. The moment the site engineer discovers any discrepancy, immediately he has to bring that to the notice of the site agent or the coordinator who shall get the discrepancies remedied by the resident engineer/specialists engineers. Site engineer may directly contact the resident engineer/specialist engineer and let the decision taken or finalisation reached be communicated to the agent or the coordinator later so that the site head is kept informed.

To a new structure this coordination may not be that difficult but complexities arise when a structure is existing and the alterations and additions are to be carried out. For example, an existing shed made of structural steel framework and the old walls of cladding and roofed with old sheets is to be dismantled partly, altered and extensions to be carried out in the existing as a new structure in both the directions. The new design incorporates new structural steel framework of different sections in the portion to be extended and alterations in the existing framework. A RCC slab shall be added between the floor level and the eaves level to act as a balcony to the gymnasium below. The existing old walls shall be converted to a sheet cladded wall. This is the case where an existing shed is to be converted to a modern sports club/complex. The main contractor decides to award the structural steel work and the wall sheet cladding work to two parties both in the different countries due to quotations being lowest. The contracts manager presumes that both the contractor/supplier or the sub-contractors are sincere and shall coordinate efficiently. The contract (sub-contract) further provides a clause that the structural steel sub contractor shall supply the material while the erection shall be carried out by the main contractor himself. The sheet cladding subcontractor shall supply as well as erect the finished product supplied himself. On the demand by the structural steel sub contractor the site agent communicates all the technical informations to him. The sheeting cladder sub contractor measures all

the record drawings of the site for your use. You shall also write to these departments independently informing that you have started the work on that site according to contract and the building permit reference. You shall make sure that all the records drawings are in your possession before commencing the activities of the excavations to avoid damaging the existing services and it must be remembered that particularly the excavation shall be the specific responsibility in the duties of the site agent. The agent shall have to take care of all the way leave forms as included in the contract forms(way leave is a distance required to be left between the government existing properties and your building exteriors) Should your extreme point comes in between the two limits, it is the responsibility of the agent to intimate the resident engineer & request to decide what to do and at the same time contact the concerned department for remedial action. Even if the consultants and the resident engineer approve the setting out of the building, the contractor shall not be relieved of his responsibility for the same as that shall be considered a civil crime. The contractor shall all the time be aware of the real location of the site. To be called a site agent looks very pleasing but very difficult to succeed. In some countries should be existing services be damaged during excavations, heavy penalties are imposed on the contractors for the rectifications of the services. Similarly, as said earlier the agent shall coordinate to the statutory departments throughout the contract time and the resident engineer kept informed of what the outcome are. On important projects 'as built drawings' are revised every half yearly, you should know the alterations from the site record drawings which are updated. The objectionable materials per bye laws cannot be included in the job should you by chance come to know, immediately inform the resident engineer so that corrective steps be taken in time and alterations or alternatives employed.

Structural/Structural : This looks ridiculous but factually you face in the field. For example, the contract says that you have to take foundations upto a hard stratum of the specified bearing capacity. Excavations reveal that the same be either available at a lesser depth or at the extra depth as shown in the drawings. For the case of being at extra depth than specified, you shall carry the extra excavation till the required bearing capacity is met and adjust the levels in the foundations accordingly. But when the case is reverse that you are meeting the specified bearing capacity at lesser excavation, the intelligent and the practical resident engineer shall ask to raise the formation levels in the foundations and propose for the approval. The adjustment shall be applied to the formation level, the top of the blinding concrete levels, the top of the footings' levels, the bottom of the strip beams levels, the top of the strip beams, the ground floor slab and the top of the strip beam, the protection of the waterproofing level if provided and also the concerned services pipes as the case be. These proposals shall be approved before the start of the blinding concrete in the foundation. The site agent shall get that done at an earliest to avoid the wastage of time. If that is delayed the agent shall bear the pressure from all directions.

Liaison

1. Main contractor/Sub-contractor : It is very essential to keep the process of updating and exchanging the informations on regarding the developments on both sides. The material submittals, shop working drawings submittals made by the sub contractors to the main contractor office must be promptly endorsed for forwarding submittals to the resident engineer duly scrutinised by the contractor regarding the conformation of the contents to the specifications in the contract. Similarly, the submittals shall be received back approved, rejected or approved with comments from the resident engineer's/engineer's office having been scrutinised by the resident engineer and his specialists engineers employed in his office. Sometimes, to save time the submittals which are finally recommended for approval are only forwarded to the engineer for the grant of 'approved' while those rejected are returned back to the contractor directly. The contractor's agent should act promptly on these returned submittals and put them in the process of posting to the related sub-contractors with a covering letter on the contractor's pad commenting about the submittals and instructing the sub contractor to act promptly either for the resubmission, or for incorporating the comments and resubmission or for taking necessary action for the placement of the orders, etc., or issue the required prints of the approved drawing for the distribution purposes, while the contractor should maintain a posting records with him. Should the submittals be suppressed by the agent due to carelessness, the overall effect shall be negative on the

| Guarterly programme | | | | | | | | | | | | | | | | |
|----------------------------|---|--|-----|----|-----------------|-----|------|------|----|-----|------|----|----|----|----|------------|
| Contract No. | | | DOS | | | | | | | | | | D | _ | | |
| Name of work | | | | | D | ate | of s | tart | | | Date | of | on | | | |
| S No. | Quarterly programme | Rate | | | | | Weel | k 14 | to | wee | k 26 | 5 | | | | Remark |
| | Description of Item | of prog. per week | | | and progress | | | | | | | | | | | |
| | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | monitoring |
| 1. 2. 3. 4. | (Building A) Foundations G.F. Works Cols GF-FF Slabs Plastering (Building L) Excavation Blinding Foundations (Pump room) Foundations (Football pitch) | 50% 50% 30% 50% 50% 80% 45% 50% | | | | | - | | | | | | | | | |
| | Machines | | | | | | | | | | | | | | | |
| | Manpower | | | | | | | | | | | | | | | |

on the big and complex projects where most of the durations the interaction of the operations and the activities control shall be of much significance. But these programmes shall not be of some use to the common site supervisors and foremen who are in the direct control of the job and sometimes even to the engineers on sites as technician engineers who must understand all this. It is therefore, advisable to frame the bar charts for the individual buildings and the structures and the infrastructural works as these shall be easily understood by all on site in addition to the network systems so that a combination of the two shall be used at site for the purpose of the progress monitoring. Interpretation shall be made easy this way and a combined programme of all the structures in the form of the bar schedule or chart be constructed for the whole contract. This shall make the programme review and progress convenient and easy for the contract site meetings. Proforma follows.

In addition to the said chart the proposed manpower/work force and mechanical power shall also be included for the guidance. The items as included in the exhibited bar schedule are only for the purpose of the guidance and the agent shall have to decide the items himself depending on the nature of the job, the contents of the items in the BOQ the details of the job in the plans and the related engineer's details. The main point is the experience of the dealing agent.

Similarly, the bar schedules for all the other structures should be prepared and got approved by the resident engineer and the engineer along with the combined unified overall job bar schedule representing all the details covering the date of start to the date of completion period. There shall be a number of charts depending upon the number of the buildings and their sizes and also the nature of the job. The unified chart shall exhibit the details of manpower/work force, machineries and the equipments to be engaged on the job for the whole period of the contract, the quantity may vary per requirement and per the contractor's experience. In the early stages this activity shall appear to be very

| | Remarks | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|----|--|--|--|
| | Delivery problems | | | | | | | | | | | |
| | Damages, if any, in transportations | | | | | | | | | | | |
| ' | Material sample inspection Approved/ rejected or any other order given to the contractor | | | | | | | | | | | |
| | Date of actual arrival | | | | | | | | a: | | | |
| | Expected time of arrival (ETA) | | | | | | | | | | | |
| | Details of the material placed in order | | | | | | | | | | | |
| | Date of the approval | | | | | | | | | | | |
| | Rejected/ Approved | | | | | | | | | | | |
| | Date of submittal | | | | | | | | | | | |
| | Submittal reference | | | | | | | | | | | |
| | Description of the material | | | | | | | | | | | |
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