



Government of Karnataka



**KARNATAKA PUBLIC WORKS
DEPARTMENTAL CODE**

2014



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2014**

GOVERNMENT OF KARNATAKA

No. PWD 35 RDF 2010,

Public Works, Ports & IWT Department,
3rd Floor, Vikasa Soudha,
Bangalore, dated 24-06-2014

NOTIFICATION

Sub: - Revision of Departmental code-reg.

The Public Works Department Code, Volume I and II, which was meant to be guidance for officers of the Department, had originally come into force vide Notification No. PWD 32 MS 65 Bangalore, dated 17-10-1965. As the activities of the Department had increased/changed considerably over years and a number of amendments to the code had also been issued from time to time. Thus, the Department intended to revise the D-code in view of the "Karnataka Transparency in Public Procurement Act-1999", Country Procurement Assessment Report on procurement aspects by the World Bank, changes in policies viz; PPP module, EPC, environmental policy, packaging, treasury mode of payment etc. Accordingly, the code has been revised incorporating all the latest developments in the technology and a revised code applicable for Public Works Department is brought out in a single volume.

The Government is pleased to adopt the revised "Public Works, Ports & IWT Department Code-2014". This shall come into force prospectively from the day of this notification and is applicable to all the Public Works activities.

In case of conflict between any provisions of this code with relevant other codes viz; Karnataka Finance Code, Karnataka Public Works Accounts Code, KSCR etc; those in the later code will prevail.

This notification is issued in concurrence with the Finance Department vide Note No.PW 685 FC-I 2012 dated 26-11-2013.


(S. R. SHIVASHANKAR)
Special Officer

Public Works, Ports & IWT Department

Copy with a copy of the revised D-code to:

1. The Accountant General, Bangalore.
2. The Principal Secretary to Government, Finance Department, Vidhana Soudha, Bangalore.

3. The Principal Secretary to Government, Water Resources Department, Vikasa Soudha, Bangalore.
4. Secretary to Government, Public Works, Ports & IWT Department.
5. The Secretary to Government, RDPR Department, M.S. Building, Bangalore
6. The Additional Secretary to Government, Public Works, Ports & IWT Department.
7. The Chief Project Officer, KSHIP, KR Circle, Bangalore.
8. The Managing Director, KRDCCL, Vasanth Nagar, Bangalore
9. The Chief Engineer, Communications & Buildings (South), Public Works, Ports & IWT Department, KR Circle, Bangalore
10. The Chief Engineer, Communications and Buildings (North), Public Works, Ports & IWT Department, Dharwad.
11. The Chief Engineer, National Highways, KR Circle, Bangalore.
12. The Chief Project Officer, SHDP, KR Circle, Bangalore.
13. The Deputy Secretary to Government, (C&B), (Services), Public Works, Ports & IWT Department.
14. The Deputy Secretary, IDS Cell to post the revised D-code on the Department Website.
15. The Superintending Engineer, Public Works, Ports & IWT Department
..... Circle.....
16. The Executive Engineer, Public Works, Ports & IWT
Department..... Division.....
17. The Executive Engineer, Work Monitoring Cell, Public Works, Ports & IWT
Department.
18. PS to Honourable Minister for Public Works, Vidhana Soudha.
19. Under Secretary to Government, (Communication), (Buildings), (EAP),
(Services-A, B & C).
20. The Compiler, Karnataka State Gazetteer, Bangalore with a request to publish
this notification in the ensuing gazette.
21. SGF/Spare.

KARNATAKA PUBLIC WORKS DEPARTMENT CODE 2014

PREFACE

The Public Works Department Code, Volume I and II, which was meant to be guidance for officers of the Department, originally came into force as per Notification No. PWD 32 MS 65 Bangalore, dated 17.10.1965. The activities of the Department have increased considerably over years and a number of amendments to the code have also been issued from time to time. The Public Accounts Committee had recommended that the Departmental Code should be revised in keeping with the manifold activities of the Department.

The World Bank had taken up review of India procurement environment to prepare the Country Procurement Assessment Report (CPAR) in cooperation with the Government of India and a few selected States to evaluate how their procurement system operates. Karnataka was one of the three States selected for the study. The CPAR became the basis for dialogue with Government of India and the Bank to explore ways in which systems could be strengthened and improved. The revision of the Departmental code was one of the recommendations of the Report.

In view of the above, and also the PPP initiatives of the Government of India and mandate on Environment clearances for major projects, the existing Departmental Code has been revised (in single volume) incorporating the PPP, Environmental Impact Assessment and Management, present system of payment through Treasury to contractors, e-procurement, provisions of KTPP Act & Rules and other recent pertinent subjects.

Bangalore.
Dt: 04/06/2014

Sd/-
(Dr. E. Venkatiah)
Principal Secretary to Government,
Public Works, Ports &
Inland Water Transport Department

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CHAPTER 1

OBJECTIVES

1. General

Karnataka Public Works Department Code is intended to define the scope of the administrative and executive functions of the officers of the Public Works Department in the state of Karnataka. The rules in this Code describe primarily the procedure to be followed by the Public Works Department officers in dealing with activities concerning design, execution and maintenance of public works pertaining to buildings, ports, roads and bridges and in keeping and rendering accounts of such transaction.

1. The operations of the Department are controlled by the Government of Karnataka. The various items of public works assigned to the State Government as a State Subject are contained in List 2 of the 7th Schedule of the Constitution of India and are reproduced below:

“ 12 - Libraries, Museums and other similar institutions controlled or financed by the state, ancient and historical monuments and records other than those (declared by or under law made by parliament) to be of national importance.”

‘35 – Works, lands and buildings vested in or in the possession of the state.’

2. Accounting Procedures:

The detailed procedure to be adopted in the accounting for transactions authorized by this code is laid down in the Karnataka Public Works Accounts Code. Rules contained in the Karnataka Civil Service Rules and the Pension Rules therein, are applicable to the Public Works Department. Provisions in the Karnataka Financial Code, Karnataka Treasury Code and Karnataka Public Works Accounts Code relating to classes of transactions which occur in the Public Works Department are binding upon the Public Works Department except in so far as they may be overridden by express provisions in this Code.

3. Safety and Economy in contracts:

Works executed in the public works and other state Government undertakings shall always consider economy as important factor and is next only to safety. Prime importance shall always be for safety in construction. Any work under execution, major or minor shall have well thought out safety precautions inbuilt in the construction process at all stages. There shall always be principle centered approach in all the spheres of activity of the Department. Periodically the Department shall undertake restructuring of the Department to make it more dynamic, less bureaucratic, more effective and attuned to cost reduction in all its activities.

4. Chief Engineer (Communication and Buildings):

The Chief Engineer(C & B) South zone and Chief Engineer (C & B) North zone, shall be in charge of design, construction and maintenance of roads, bridges and buildings in the state. In their office there shall be Superintending Engineer, Deputy Chief Engineers of the rank of Executive Engineer, Technical Assistants of the rank of Assistant Executive Engineer and subordinate Engineering, ministerial and accounts staff. The Superintending Engineer (Designs) shall be the authority for approving designs of all structures and he must be qualified and experienced in designs and capable of directing the design process. Officers who are not experts in designs shall

not be posted as Superintending Engineers (Designs). Superintending Engineers of circles, Executive Engineers of divisions, Assistant Executive Engineers of subdivisions and subordinate Engineering, ministerial and account staff shall be under the administrative control of the Chief Engineer and responsible for execution of works.

5. Chief Engineer (National Highways):

The Chief Engineer, National Highways, shall be the head of the Department for execution of National Highway works. He shall be assisted by Superintending Engineers of circles, Executive Engineers of divisions, Assistant Executive Engineers of sub-divisions and the subordinate staff. In his office there shall be a Superintending Engineer, a Deputy Chief Engineer of the rank of Executive Engineer, Technical Assistants of the rank of Assistant Executive Engineers and subordinate Engineering and Ministerial staff.

6. Legal Cell:

There shall be a Legal Cell exclusively to deal with Court cases filed in various courts against the Department including filing of cases against contractors, officials, private parties, other Departments, firms as the case may be. The Legal Cell will be headed by Chief Legal Advisor assisted by Legal Advisor and other clerical staff. The Chief Legal Advisor will work under the Chief Engineer.

7. Chief Architect:

Buildings, major or minor including additions, modifications to the existing buildings shall always be designed by the Principal Chief Architect / Chief Architect to the Government of Karnataka or approved architects in private sector, in accordance with the rules and regulations of the Town Planning Department and local bodies like Municipalities, Corporations etc. These buildings shall be designed keeping in view functionality, safety, economy, aesthetic, ecological and environmental factors and need based adopting green building concept rather than on the lines of IT, BT Sector Building and also Victorian Style Columns.

8. Specification for Buildings, Roads & Bridges:

The Karnataka Building Specifications (KBS), the Karnataka Roads and Bridges Specifications (KRBS), the Karnataka Standard Rate Analysis for Buildings (KSRB), and the Karnataka Standard Rate Analysis for Roads and Bridges (KSRRB) have been approved for adoption in the public works Department, in Government Circular No. PWD 315 CRM 96 (part) Dated 18-9-2002 with effect from 1-11-2002. In addition Indian Roads Congress and MORTH specifications shall be followed.

All building works shall be investigated, designed, constructed and maintained in accordance with Karnataka Buildings Specifications (KBS) and Bureau of Indian Standards (BIS) as amended from time to time.

All roads and bridges works, be it for Rural roads or District roads or State Highways or National Highways shall be investigated, designed, constructed and maintained in accordance with MORTH , Karnataka Roads and Bridges Specifications (KSRRB), Karnataka Buildings Specifications (KSRB) Indian Roads Congress (IRC) standards, Bureau of Indian Standards (BIS) as amended from time to time.

Schedule of Rates for all building items shall be in accordance with the Karnataka Standard Rate Analysis for Buildings (KSRB).

Schedule of Rates for all roads and bridges items shall be in accordance with Standard Rate Analysis for Roads and Bridges (KSRRB)

9. Standard Rate Analysis:

There shall be a Standard Schedule of Rates for labour, materials, and for all items of work of buildings, roads and bridges for each circle approved by the Chief Engineer of the zone based on the rate analysis prescribed in KSRB and KSRRB.

10. Karnataka Highways Act:

The Karnataka Highways Act, 1964 and the Karnataka Highways Rules, 1965 have come into force for the acquisition of land for formation of roads, prevention of encroachment, construction and development of highways, levy of betterment charges of highways, to meet the demand for construction of additional bridges for facilitating communications with inaccessible areas, to introduce legislation for the levy of fees in respect of motor vehicles, to enable the state Government to enter into agreement with any person for development and maintenance and to empower such person to collect and retain fees at specified rate for service or benefits rendered by him and to regulate and control traffic in accordance with the provisions of the Motor Vehicles Act, 1988.

11. Register of Lands under control of PWD:

All works carried out by the Department involve acquisition of lands or usage of Government land. Each sub-division shall maintain a Register of Lands showing details of all the lands in their possession, either from Government or by acquisition. All original land documents shall be in the custody of a responsible officer in the division or sub-division and shall be meticulously handed over and taken over at the time of transfer of charge. All such documents shall be digitized and available in each of the concerned offices. Right of Way of all categories of Roads under their jurisdiction shall be maintained in a separate Register and also in digital form.

12. Safeguarding Government Lands:

Safeguarding Government lands adjoining roads, bridges or buildings is the primary responsibility of the section/Field officer who may be a junior Engineer or Assistant Engineer. Encroachments in any form, major and minor, including fixing of hoardings, shall not be allowed to exist and responsibility vests with the section officer and the Assistant Executive Engineer to take timely and effective action to book the encroachments and get them cleared immediately without issuing any notice, . wherever necessary through the Revenue Department and / or with the assistance of the Police. Every Field Engineer and sub-Divisional officer shall maintain the authentic copies of the land records like title deeds, award statements taking over of land and land handing over documents, revenue survey extracts and related documents in safe custody and shall be in a position to produce before the authorities whenever there are unauthorized occupations or allotments.

13. Execution of works:

Engineers at the sub-division, division, circle level and state level are expected to provide leadership, to create within the organization a working environment, which will facilitate the accomplishment of the prime objectives of the Government – execution of cost effective works of acceptable quality in workman like manner, with all safety features in place, without cost and time over run.

14. Contracting strategy:

Magnitude of construction requirement is so high, Government Departments have to

necessarily opt for the services of professional contractors, who can be innovative and who have enough resources to carry out the construction job entrusted to them within the agreed time and amount. The Departmental Engineers shall strive to gain experience, yet be willing to learn and innovate. They should be careful and yet be willing to take calculated risk. They should be disciplined and yet be humane in approach. Successful implementation of any project executed through contractors depends upon, in time payments, solving site problems & resolving claims without loss of time . There should not be any hesitation in making midcourse corrections based on prevailing circumstances as a part of contracting strategy and always in the interest of work.

15. New materials of construction:

Construction machinery, materials and construction techniques are undergoing rapid transformation with globalization and Information Technology revolution ushered in the construction sector. Following are the designated officers vested with the responsibility of approving use of new materials, new machinery in the Department. The Chief Engineer shall evolve standardized procedures and formats for inspection and evaluation of new products at the earliest without allowing for bureaucratic delays.

- (a) The Superintending Engineer, Building Circle shall be the designated officer for examining new building materials available in the market, to determine their suitability or otherwise, for use in Government Departments after getting from manufacturers, details of quality standards adopted by the manufacturers, test reports and other relevant details accord approval.

Adoption of Fast Track Monolithic construction in mass housing and quarters of identical designs could be examined and adopted.

- (b) In respect of roads and bridges, the Superintending Engineer, Bangalore Circle shall be the nodal officer for approving the usage of these new materials.

Use of precast units (Pre-fabricated)for culverts / drains could be adopted. Adoption of Fast Track Monolithic construction with MEIVAN shuttering for mass housings and quarters of identical designs could be examined and adopted.

- (c) In the case of tools, plant & machinery, the Chief Engineer, Central Mechanical Organization, Bangalore shall be the designated officer who will conduct such studies as may be required of new construction equipments, machineries, and transport and non-transport vehicles.

- (d) In respect of laboratory equipments needed for conducting tests on construction materials etc., the Superintending Engineer quality control circle shall be the designated officer, who shall always be consulted before any laboratory equipment barring minor items are to be procured.

16. KTPP Act and Rules:

The Karnataka Transparency in Public Procurement Act 1999 (KTPP Act), the Karnataka Transparency in Public Procurement Rules 2000 (KTPP Rules) have come into force. The provisions in this act and the rules carry primacy over codes rules, Government orders and circulars. In addition, officers of the Departments shall keep in mind the principles to be followed in the invitation and acceptance of tenders by public bodies as laid down by the Honourable Supreme Court of India, which is extracted below, which shall not only be followed but also should appear to have been followed.

"It must be taken to be the law that where the Government is dealing with the public, whether by way of awarding works or entering into contracts or issuing quotas or licensing or granting other forms or largess, the Government cannot act arbitrarily at its sweet will and like a private individual, deal with any agencyit pleases, but its action must be in conformity with standard or norm which is not arbitrary, irrational or irrelevant. The power of discretion of the Government in the matter of grant of largess including award of jobs/works, contracts, quotas, licenses etc., must be confined and structured by rational, relevant and non-discriminatory standard or norm and if the Government departs from such standard or norm in any particular case or cases, the action of the Government would be liable to be struck down, unless it can be shown by the Government that the departure was not arbitrary, but was based on some valid principle which in itself was not irrational, unreasonable or discriminatory."

17. Right to Information Act and Rules:

The Right to Information Act 2005 (Central Act No.22 of 2005) and the Karnataka Right to Information Rules 2005 have come into force from the dates mentioned in the Act and the Rules. Right to Government held information is accepted by the Supreme Court as apart of a right to speech and expression guaranteed to the citizens in the Constitution. Right of access to information promotes openness, transparency, and accountability in administration. Hence the aforesaid Act and the rules have been promulgated. The provisions in the Act and the Rules have to be complied with and in case any modifications or amendments are needed to achieve the desired objectives, officers of the Department at all levels shall submit proposals in appropriate manner.

18. Continuing Education Program:

There shall be a continuing education program for the Engineering as well as the ministerial staff of the Department. Their training needs to be identified and training courses organized, keeping the career growth of the individual as well as fulfillment of the interests of the Government as per the State Training Policy. There has to be a follow-up action to determine whether training provided has resulted in improved work performance. Under no circumstances employees need be deputed to training courses such training is not needed and the employee or the Government does not stand to benefit from these courses. Training programs conducted or attended by the Department employees which will not result in improved work performance shall be considered as infructuous expenditure.

19. Training for rural youth in construction:

Theoretical and practical training followed by on site training for young and able bodied persons, hailing preferably from rural areas, to enable them to become skilled masons, brick layers, bar benders, carpenters, plumbers, electricians, and to acquire skills for centering and shuttering works, concreting and vibrating works, plastering, painting and in association with builders and contractors to be taken up on an urgent basis as there is a dearth of skilled workers in the state when the construction activities are on the increase.

20. Computerisation in Department:

Computerisation at all levels of the Department, namely, sub-division, division, circle and state level in an organized and phased manner has to be carried out as per the Computer Training Rules of the State Government. In addition not only the Engineers but also the ministerial and accounts staff shall also strive individually and become conversant with the use of computers. Intensive organisational efforts are needed to

ensure that every Engineer in the Department from the Engineer in chief / chief Engineer to the Field Engineers possesses a computer wherein all the information needed by them, all the software they are using are available. They should all be in a position to generate their own documents. Extensive use shall be made of software programs available for personnel management, for preparing rate analysis, designs, Estimates, bills, project monitoring systems and also for quick communication of the desired information without the necessity of incurring wasteful expenditure in deputing the employees to communicate information. Extensive use should be made of e-mail and FAX facilities. It is stressed that well-structured training program to enable the Departmental Engineers and ministerial staff at all levels to become conversant with the operation of computers have to be carried out. All relevant details shall be posted on Department website periodically which will considerably reduce providing of these details under RTI.

21. Powers of PWD officers:

To facilitate execution of works satisfactorily and economically, the officers of the Department have been vested with financial powers keeping in view the prevalent cost of materials, labour and machinery. All orders issued relating to administrative and financial aspects shall always mention the rule under which such orders are made. All sanctions, approvals issued shall derive power either from the provisions in this Code, and / or delegation of powers ordered by Government from time to time.

22. e-Governance in Public Works, Ports & IWT Department:

1. Computerisation of the entire operations of the Department including establishment, works, inventory and communication through Local Area Network (LAN) and Wide Area Network (WAN) and web-based service, are required to be taken up on topmost priority. Works planning, execution, monitoring are important activities of the Department which has to monitor thousands of budgeted and non-budgeted works from the planning stage to completion. Preliminary designs, preliminary Estimates, detailed Estimates, tender processes, budgeting, monitoring the progress of works, monthly accounts to be submitted to the Accountant General, maintenance of all records, correspondence, preparation of database etc which are being done manually are often error prone and time consuming. These are some of the major activities to be computerised.
2. It is necessary to connect all offices, divisions and above, located in different buildings and different places. This needs to be done by connecting all computers in all the offices of a campus, in a LAN system. These campus LANs have to be connected together for information exchange, which requires the establishment of a Wide Area Network (WAN). The WAN design shall incorporate the connectivity not only for the purpose of data transfer but also for the purpose of Voice Calls, which can be established with the help of Voice over Internet Protocol Technology. All the offices shall be connected with the separate voice connectivity through the medium of WAN reducing the communication costs.
3. Advantage has to be taken of the tremendous possibilities offered by the Internet.

The Department Website has been established,

- (a) to ensure quick and easy availability of accurate and latest **information to public**, business community as well as to the Departmental officers and staff.
- b) to enhance the Department's image by bringing greater transparency in its working.

Some of the important features of the website are as follows:

- i. Facility for registered contractors to receive Notice Inviting Tenders alerts on their mobile phones, e-mail etc.
- ii. Updating of all data from the point of origin, at the instant when the data is generated or changed, from all the locations.
- iii. Automatic deletion of old and unwanted information.
- iv. To ensure correctness of information by hierarchical web based monitoring.
- v. Statistical analysis to assist decision making.
- vi. In house hosting and management.
- vii. e-Tendering.

In addition, dynamic process leading to highly transparent procurement process; increasing competition by attracting more bidders through information access; information in respect of all works like details of bids, comparison with Estimated cost as well as current schedule of rates, statistical information for preparation of schedule of rates based on tender trends: exhaustive list of inspection and traveler's bungalows with online reservation of suites; details of registered contractors, rules of registration, download of forms; details of organizational set up, jurisdiction, monitoring of progress of all highway works at all levels right up to the Ministry of Surface Road Transport and Highways and a host of related information would always be available.

Computerisation of work management system in the Department by proper planning and implementation, utilizing the vast potential available, shall only be a stepping stone, for achieving greater success in carrying out the development activities of this state, to achieve the status of a developed state.

23. Disaster Management:

1. When disasters such as flooding, cloud bursts, earth quakes, explosions, fire, caving of earth, collapse of buildings/ bridges, road accidents etc. occur, the Departmental officers should act in a spirit of cooperation with other Departmental officers, aiding and assisting wherever it is required in their jurisdiction. They should discharge their duties in a manner expected of responsible citizens, instead of standing off on the pretext that it is not their official responsibility.

As departmental officers they should have ready access to information on transportation, men and materials available within their subdivisions or divisions. In addition they should have clear knowledge of all private sources, which could be relied upon in emergencies to supply men, materials such as water, sand etc and also the type and number of transport vehicles which could be commanded. In the case of their own staff, their places of residence and landmarks nearby, telephone numbers, e-mail ID, shall all be known to all the staff members of the local office, so that they could be contacted in times of emergency. If no role is assigned to them at least they should be available in office or at a known place.

2. In the Government guest houses details of emergency services in health, hospital / private clinic, services, blood bank, fire, water supply, ambulance, police available in the locality shall be displayed always with updated information. In addition, details of public roads whether they are under the control of PWP & IWTD or Zilla Panchayat shall be correctly available and should be readily offered.

24. Constant Innovations:

1. With globalisation and with best practices becoming world class practices, changes are taking place in all spheres of human activity. With the emergence of computers and internet as powerful media for accessing and sharing of knowledge in all disciplines, no department or organization can afford to remain complacent or stagnant. The need for constant innovation in usage of men, materials, machinery and techniques and procedures, was never more evident. The Department shall only benefit by giving a clear direction to all the personnel to freely offer suggestions for improvisation in all the activities, and to make it mandatory for the senior officers to listen and encourage talent, by appropriate incentives.
2. Suggestions can emanate from any staff member but it shall only pertain to the functions of the Department for the time being. Suggestions shall always be submitted to the higher officer or to the head of the Department through proper channel. All the officers shall forward the suggestion with their remarks to the appropriate officer. When the suggestion is accepted by the higher authorities, the order implementing the suggestion shall invariably mention the staff member's initiative.

CHAPTER 2

DEFINITIONS

25. General:

The following terms are used in this Departmental code in the sense contained in each case unless there is something repugnant in the subject or context.

Accountant General: Accountant General is the head of an office of the Accounts and Audit, subordinate to the Comptroller and Auditor General of India, who keeps the accounts of Government. The term Accountant General used in this Departmental code refers to the Accountant General, Karnataka, Bangalore, or his authorized representatives.

Administrative Approval: This term denotes the formal acceptance by the administrative Department concerned, of the proposals for incurring any expenditure in the Public Works Department on a work initiated by or connected with the requirements of such administrative Department. It is in effect, an order to the Public Works Department to execute certain specified works at a stated sum to meet the administrative needs of the Department.

Advance Payment: means a payment made on a running account to a contractor for work done by him before final settlement of account.

Appropriation: Appropriation is the allotment of a particular sum of money out of a grant voted by the Legislature to meet expenditure on a specified object or the sum allotted by Government to meet charged expenditure.

Architect: Architect is defined as a person who is skilled in the art of building and who is competent to design buildings and supervise in erection. He must not only be well versed in buildings techniques and be able to prepare plans, sections, elevations and specification; but he must also have ability to supervise the carrying out of the work. An architect is one, who possesses with due regard to aesthetic as well as practical considerations, adequate skill and knowledge to enable him (i) to originate, (ii) to design and plan, (iii) to arrange for and supervise the erection of such buildings or other works calling for skill in design and planning as he might in the course of his duties reasonably be asked to carry out or in respect of which he offers his services as a specialist. An Architect is to be registered as such with the Indian Council of Architects established under the relevant Act.

Award: The Award is a decision given by an Arbitration Tribunal or by Sole Arbitrator. To make an award is to pronounce and publish such a decision.

Bank: The term "The Bank" means the Reserve Bank of India, or any office or agency of the Reserve Bank of India and includes any branch of the State Bank of India or the State Bank of Mysore and all other banks acting as the agent of the Reserve Bank of India in accordance with the Provisions of the Reserve Bank of India Act 1934, (Act II of 1934).

Bill of Quantities: Bill of Quantities is the name given to a detailed statement of the different items of works, labour and materials which is estimated and will be required for the proposed work and therefore included in the tender documents.

Book Transfer: This term is applied to the process whereby financial transactions which do not involve the giving or receiving of cash, or of stock materials, are brought to account. Such transactions may either affect the books of a single accounting officer or they may involve operations on the books of more than one accounting officer whose accounts are ultimately incorporated in the accounts of Government. They usually present liabilities and assets of Government brought to account either by way of settlement or otherwise but they may also represent corrections and amendments made in cash, stock or book transfer

transactions previously taken to account.

Building Materials: In the ordinary sense building materials would mean and include all those materials which are originally required in the construction of the building. Electrical fittings in a house come under the category of building materials.

Charged Expenditure: Charged expenditure means such expenditure as is not subject to the vote of the legislature and is declared to be charged on the Consolidated Fund of the state under Article 202 (ii) of the Constitution of India.

Circuit House: Guest Houses in District Head Quarters.

Competent Authority: means the Government or any other authority to whom the relevant powers may have been delegated by the Government.

Concession Agreement:- It is the agreement between one who proposes to grant a concession to construct, develop, procure, finance, maintain, license and transfer the use of the **constructed** in the specified area for specific purpose.

Concessionaire:- The party who gets concession to construct, develop, procure, finance, maintain and license and transfer the use of the **constructed facilities** facilities in the specified area for specific purpose after the successful bid.

Corrupt Practice: Corrupt practice means the offering, giving, receiving, or soliciting of any thing of value to influence the action of the public official in the procurement process or contract execution or any action against law for self centered work etc., which is punishable under the Prevention of Corruption Act.

Contingencies (Works): When used in respect of the accounts of works the term "Contingencies" indicates the incidental expenses of a miscellaneous nature which cannot appropriately be classified under any distinct sub-head or sub-work, but yet pertain to the work as a whole. A Lump sum provision up-to 3% is required to be provided in the project Estimates towards contingency expenditure.

Contract : According to the definition of "Contract" contained in the Indian Contract Act, only those agreements which are enforceable as such having been made by free consent of parties, by persons competent to contract, for lawful consideration and lawful object and which are not expressly declared to be void by any statute are called 'contracts'. A contract has been defined as an agreement enforceable in law. In order to constitute an agreement there must be a proposal and an acceptance of the proposal. For such an agreement to become legally binding and result in a valid contract, it is essential that

1. There must be a proposal and acceptance.
2. Parties must be competent to contract.
3. Parties must give their free consent.
4. Agreement must be for a consideration, which must also be lawful.
5. The object of the agreement must be lawful.
6. Standard **Tender** Document prescribed shall be adopted as per Government order No-FD/4/PCL/2008 Dated: 14-10-2008.

Contract and Contractor: The term Contract also means any kind of undertaking, written or verbal, express or implied, by a person not being a Government servant, or by a Joint Venture or Firms, for the construction, maintenance or repairs of one or more works, or for the performance of any service in connection with the execution of works or the supply of materials and services.

The term "Contractor" means a person, joint venture or firm, that has made such an undertaking but often its use is restricted to Contractors for the execution of works or for services in connection therewith.

Contracts on behalf of Government: All contracts made by or on behalf of the Government must be made according to the provisions of the statute applicable to them. Such contracts are governed by Article 299, of the Constitution of India, according to which all contracts made in exercise of the executive powers of the Union or of a State, shall be expressed to be made, by the President of India, or by the Governor of the State, as the case may be, and all such contracts and all assurances are properly made in exercise of their powers shall be executed on behalf of the President or the Governor, by such persons and in such manner as he may direct or authorize. The law insists that where contracts are required to be in particular form with particular officers of authority to sign them that must be strictly complied with, in order to bind the Government. The provisions of Article 299(1) of the Constitution are mandatory and if a contract on behalf of the Government does not satisfy the requirements of that article, the contract is not binding on the Government and unenforceable against it.

Contracts Types: Following are the types of contracts adopted in the Department.

- Lump-sum Contract or all inclusive contracts or Turnkey Contract
- Item Rate Contract / Unit Rate / Engineering Procurement Contract
- Supply and Erect / Install, Commission and Test.
- Design Build Transfer
- Consultancy Contract / Project Management Supervision Consultancy Contract
- Maintenance Contract

Construction Works: means putting up, demolishing, repairs or renovation of buildings, roads, bridges, or any other structures including fabrication of steel structures and all other civil works.

Controlling Officer: In relation to expenditure or revenue under any head of account, controlling officer means the authority responsible for control over expenditure or collection of revenue by the subordinates. The term also refers to be Head of the Department or any other Departmental Officer, to whom the above responsibility is entrusted.

Deposit Work: This term is applied to works of construction or repair, the cost of which is met out of funds from Government other than PWD / non-Government source which may either be deposited in cash or otherwise placed at the disposal of the Divisional Officer. Works executed for Municipalities and other public bodies fall under this category when the cost is chargeable either to cash deposits made for the purpose, or to their credit balance at treasuries.

Direct and Indirect Charges: "Direct charges" are those charges pertaining to a work, project or job which are incurred directly for its execution and are included in the regular accounts of it. "Indirect charges" are those charges which pertain or are incidental to a work, project workshop job or manufacture job, but which are not incurred directly or solely in connection therewith and thus cannot be taken directly into such detailed accounts of it as are incorporated in the regular accounts of the expenditure of the Department.

Direct and Indirect Receipts : "Direct Receipts" are those items of revenue receipts which are realized in connection with a work or project, either by officers of the Public Works Department or other Departments and are brought to account directly as appertaining to the work or project. "Indirect Receipts" are those receipts which pertain, or are incidental, to a

scheme or work, but cannot be taken directly into such detailed accounts of it as are incorporated in the regular accounts of the receipts of the Department.

Division and Divisional Office: These terms are used to denote respectively, the executive charge held by a Divisional Officer and the head office of such a charge. Thus the office of an independent executive division is a Divisional Office for the purposes of this code.

Divisional Officer: This term is applied to an executive officer of the Public Works Department who is not subordinate to another executive or disbursing officer of the Department, even though the executive charge held by him may not be recognized as a Division by the Government. Thus, the officer-in-charge of an independent division is also treated as a Divisional Officer for the purpose of this Code. See also Clause (17) of KPWA Code.

Extra Items Rate List (EIRL): The list of items and rates not originally included in the tender but required to be executed as per actual requirement at site. This also refers to increase in quantities. This term is referred as variations in the Standard Tender Document.

Estimate: An Estimate is a valuation or a statement, in advance, of the amount for which certain work can be done. It is an approximate judgment or opinion on a rough calculation or measurement, or a statement, based on the Departmental rates published by respective circles at the time of preparation, generally in writing specifying the amount of money for which a contracting party is likely to perform certain work.

Expression of Interest: It is an invitation offered by an agency seeking participation from private sector for carrying out the specific project. This will include preliminary information memorandum containing eligibility criteria and information regarding the project.

Extras: Extras are works or materials not expressly or impliedly included in the original contract.

Field Engineer: This designation is used to describe those Government servants who may be Assistant Engineers, special grade Junior Engineers / junior Engineers, also called section officer who are placed in responsible executive charge of works under the orders of the officer-in-charge of a recognized sub-division, and the accounts of whose transactions are, therefore, ultimately incorporated in those of the sub-division

Final Payment / Final Bill: means the last payment on a running account made to a contractor on the completion or determination of his contract and in full settlement of the account of a work awarded to him.

Fraudulent practice: means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Government (borrower) and includes collusive practice among bidders (prior to or after tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the Government (borrower) of the benefits of free and open competition.

Goods: means machinery, motor vehicles, equipment, furniture, articles of stationery, textiles raw materials, drugs, scientific instruments, chemicals, food grains, oil and oil seeds, or other commodity required for consumption, use or distribution by a procurement entity in discharge of its public duties.

Government: means the State Government unless the context implies otherwise.

Grant: Grant means the amount voted by the legislature in respect of a demand for grant on a specific service or for specific purpose.

Heads of Departments: The term includes all the Heads of the Departments mentioned in

Appendix - I of the Karnataka Civil Services Rules and any other officers whom Government may, from time to time, declare to be Heads of Departments.

Imprest: This is a standing advance of a fixed sum of money given to a subordinate officer / Field Engineer to enable him to make certain classes of disbursements which may be entrusted to his charge by the Divisional or Sub-Divisional officer.

Inspection Bungalow: Are Guest Houses in Taluk Head Quarters.

Intermediate Payment: is a term applied to a disbursement of any kind on a running account, not being the final payment. It includes an "Advance Payment", a "Secured advance" and an "on account payment" (Other than the final payment on a running account), or a combination of these.

Invitation for Tender (IFT): A tender notice is only an invitation extended to contractors for making offers. It does not amount to an offer or proposal and quotation of rates made by the contractor, does not amount to an acceptance of offer. An invitation for tenders shall be clear, specific and contain all the details of the terms, conditions, nature of the work required to be done, the place, where and when the drawings, specifications and other documents may be seen if not already sent with the invitation, or where copies etc. can be obtained and the location of the site of the work. Care shall be taken to draw out the IFT and shall be as per Standard Tender Document so as to leave no room for any controversy at a later stage. Looking to the fluctuations in the market prices, it is necessary that time limit is mentioned in the IFT during which an offer contained in the tender will remain valid. This will solve situation, which arise out of delay in the acceptance of tenders.

Liquidated Damages : It is a sum stated and agreed to be paid as damages between the parties to a contract, in the event of default by either. The primary meaning of this phrase is, that the sum' has been agreed to or assessed between the parties.

Local Loan Works: This expression indicates works executed by the Public Works Department on behalf of a Municipality, Taluk Board, and other corporation, when the cost of the works is to form part of a loan given to it by the Government for the purpose.

Market Rate: This term indicates the cost per unit at which the article, or an article of similar description can be procured at a given time at the stores godown, from the manufactures / public market.

Minor Head: A head subordinate to a major head or a sub-major head.

Mobilisation advance: An advance payment made to the contractor as per Contract Data of the Standard Tender Document.

On Account Payment Payment on Account ;means a payment made on running account to a contractor in respect of work done or supplies made by him and duly measured. Such a payment may or may not be for the full value of work or supplies; if it is an intermediate payment, it is subject to the final settlement of the running account on the completion of the contract for the work or supplies.

Plan: Plan is a design, a delineation, or projection on a plain surface of structure, which is reduced in size, the relative position of which, and the proportions being preserved.

Procurement Entity: means any Government Department, a state Government undertaking, local authority or board, body or corporation established by or under any law and owned or controlled by the Government, and any other body or authority owned or controlled by Government and as may be specified by it.

Public Authority: means, (i) all offices of the state Government including the Karnataka

Public Service Commission; (ii) all local authorities, all authorities constituted by or under any Act of the state legislature for the time being in force, a company, corporation, trust, society or any organization or body funded, owned or controlled by the State Government but does not include (i) offices of the Central Government; (ii) any establishment of the armed forces or central paramilitary forces.; (iii) Any body or corporation owned and controlled by the Central Government.

Public procurement or procurement: means purchase of goods, obtaining of services or undertaking of construction works by the procurement entities.

Progress: means the up-to-date quantities of work done or supplies made.

Quantity: In the accounts of work, this expression is used to describe the extent of work done, supplies made or services performed, when these can be measured, weighed or countered.

Quantum Meruit: Quantum Meruit is a legal term meaning reasonable amount to be paid for services rendered or work done, when the price therefore is not fixed by contract.

Rate: In estimating cost, contracts, contractors' bills and vouchers, generally rate means the consideration allowed for each unit of work, supply or other service.

Rate of Cost and Inclusive Rate of Cost: "Rate of cost" means generally the total cost of a work or supply divided by its quantity. In the accounts it represents the recorded cost per unit, as arrived at by dividing the up-to-date final charge on a sub-head, by the up-to-date progress thereof. "Inclusive rate of cost" means the rate of cost of the entire work relating to a sub-head, including the cost of materials, if recorded separately in the accounts.

Re-appropriation: means the transfer of funds from one head of appropriation to another such head within a grant.

Recoverable Payment: means a payment to or on behalf of a contractor which does not represent value creditable or payable to him for work done or supplies made by him, and has, therefore, to be made good to Government by an equivalent cash recovery or short payment of dues to him.

Record: includes, (i) any document, manuscript or file; (ii) any microfilm and facsimile copy of document; (iii) any reproduction of image or images embodied in such microfilm (whether enlarged or not); and (iv) any other material produced by a computer or any other device representing records.

Right to Information: means right of access to information from any public authority, (i) by obtaining certified copies of any records; (ii) by obtaining diskettes, floppies or any other electronic mode or through print-outs where such information is stored in a computer or in any other device; (iii) in such other manner as may be prescribed. (Section 2 of RTI Act)

Running Account: is a term applied to the account with a contractor when payment for work or supplies is made to him at convenient intervals subject to final settlement of the account on the completion or determination of his contract.

Schedule of Prices: It is a scale of prices included in the schedule attached to or incorporated in a contract, the actual amount being ascertained by measuring the work done and pricing each item according to the scale.

Schedule of Rates: is the rates fixed by the Department for each item of the work to be undertaken for any work and approved by the competent authority. These rates form the basis for preparation of detailed project reports and the estimates. This is a printed publication for reference and sale. .(See Paragraph 316 of KPWA Code).

Secondary Unit of Appropriation: A grant or supplementary grant may be in respect of expenditure falling under one or more major heads or section of a major head. For purposes of financial control, the grant allotted to each major head of account is divided into primary units of appropriation, each of which may be divided or subdivided, as may be necessary, into secondary units of appropriation.

Secured Advance: is a term applied specifically to an advance made on the security of materials brought to site of work, for use on work to a contractor whose contract is for completed items of work.

Services: means the action of serving, attending upon, helping or benefiting a Procurement Entity in the course of discharging its public duties and includes construction works.

Specified goods or services: means the goods or services as the case may be specified in a tender and identified in the contract resulting from acceptance of a tender on account of a procurement entity.

Specification: Specification means a particular and detailed list or account of an item or of work to be done or of goods to be supplied in carrying out order or contract. Specification is a document, which is, as a rule, prepared to accompany a set of drawings, to explain, materials to be used and method of construction to be carried out.

Sub-Contractor: A sub-contractor is a person, who enters into a contract with the general or main contractor or in relation to the work taken up by the latter.

Sub-Divisional Officer: This designation is applied primarily to a Government servant whether gazetted or not, who holds the charge of a recognized sub-division in subordination to a Divisional officer; but when the immediate executive charge of any works has not been constituted into a regular sub-Divisional charge, but is held by the Divisional officer himself, the latter is also treated as the sub-Divisional officer in respect of such charge.

Sub-Head: In the accounts of works and in working Estimates, this term is used to describe the sub-divisions into which the total cost of a work or of its sub-works (if it is a large work) is divided for purposes of financial control and statistical convenience. The several descriptions of work that have to be executed in the course of construction or maintenance of a work or sub-work, e.g., excavation, brick-work, concrete, woodwork etc., are usually treated as the sub-heads of it.

Sub-work: In the case of a large work consisting of several buildings or smaller works, or groups thereof, the term sub-work is often applied to a distinct unit of the same if that unit is sufficiently large or important to be kept distinct for purposes of accounts. For example, the outer wall, the solitary cells, the cook-houses, the jailor quarters etc. in the case of large jails.

Technical Sanction: It is the order of the competent authority sanctioning a properly detailed Estimate of the cost of a work of construction or repair proposed to be carried out. Ordinarily, such sanction can be accorded by only such authorities of the Department to whom the power has been delegated by Government and only after receipt of Administrative Approval from the Competent Authority. Sanction accorded to a work by any user Department of Government is regarded merely as an administrative approval of the work, vide clause (2) of KPWA Code. Technical Sanction amount shall be restricted to 5% over and above Administratively Approved Amount.

Tender: Tender is an offer. It is something which invites and is intended to invite acceptance. It is the formal offer made for Execution of works or supply of goods or services in response to an invitation for tender published in a Tender Bulletin.

Tender Bulletin: means a bulletin published for the state as a whole or for any district or

districts within the state containing the details of invitation, processing and acceptance of tenders. (Section 2 of KTPP Act).

Tender Bulletin Officer: means a State Tender Bulletin Officer or a District Tender Bulletin Officer referred to in Section 7 of KTPP Act.

Tender Document: means the set of papers detailing the schedule of works, calendar of events, requirement of goods and services, technical specifications, procurement criteria and such other particulars, as may be prescribed for evaluation and comparison of tenders. (Section 2 of KTPP Act) also known as standard tender documents prescribed by the Government.

Trade Secret: means information contained in a formula, pattern, compilation, programme, device, product, method, technique or process which is not generally known and which may have economic value.

Unit of Appropriation: A grant or supplementary grant may be in respect of expenditure falling under one or more major heads or sections of a major head. For purpose of financial control, the grants allotted to each major head of account is divided into primary units of appropriation, each of which may be divided and subdivided, as may be necessary, into secondary units of appropriation.

Un-balanced Tender: If a contractor either out of sheer anticipation while quoting for an item rate tender, may quote low/high rate for certain items works this is called as un-balanced tender. In such cases, additional security deposit shall be obtained as per standard tender document.

Validity: Generally referred to the period of offer which shall remain in currency till the period indicated in IFT .

Value: Term used in connection with the sale of stock materials (vide paragraphs 122 and 356 of KPWA Code) of their issue to works (vide paragraphs 242, 247 and 384 of KPWA Code) includes storage charges.

Variation: This expression is generally used in building and engineering (Works) contracts, as meaning changes, alterations, substitution in the drawings, plans, specifications etc. The change as contemplated by this expression does not mean replacement of one work by another. The change may be fairly considered to be an addition or an omission. Works which are not expressly or impliedly included in the original contract, and therefore, are not included in the contract price are generally termed variations, provided the work is done within the framework of the original contract.

Withdrawal of Tender: An offer made by a contractor can be withdrawn by him before its acceptance is communicated by the Department. A tender can be withdrawn by a bidder before the deadline prescribed for receipt of tender and also before its acceptance is communicated by the Department. If there is no period fixed, within which a tender is required to be accepted, then it shall be accepted within a reasonable time. A tender cannot be kept alive for indefinite period and its non-acceptance for an unusually long period may lead to an inference that it has lapsed. An offer after its acceptance becomes irrevocable. A tender, after its acceptance cannot be withdrawn. According to section 4 of the Indian Contracts Act, revocation of a proposal is possible before the communication of acceptance is complete, which means before the communication of acceptance has been sent or posted.

Work: The term "work" when by itself, is used in a comprehensive sense and applies not only to works of construction or repair, but also to other individual objects of expenditure connected with the supply, repair and carriage of tools and plant, the manufacture and supply of other stores or the operations of a workshop.

Work slip: Work slip is required to be prepared for submission to Superintending Engineer or Chief Engineer when the excess over the sanctioned Estimate due to change in design or other cause is beyond the powers of the Divisional officer to pass finally. The Divisional officer is bound to report in the form of work slip to the above officers describing the nature and cause of probable excess for seeking their orders before executing such excess quantity or in case of excess expenditure. **Work slip should be prepared when 50% of the expenditure is incurred and there is likelihood of excess beyond the approval of respective officers.**

Works Expenditure and Works Outlay: These terms are used to indicate, respectively, the expenditure and the capital charges on the special services connected with the construction, repair and maintenance of works. The charges falling under these categories may be met when any receipts are taken in reduction of the charges but they do not include the cost of the general services, tools and plant and establishment or any charges not taken to final heads of account but kept under one of the suspense accounts.

CHAPTER -3 ORGANISATION

26 Introduction:

1. The main functions of the Department at present are, to investigate, design, Estimate, build and maintain roads, bridges, buildings, ports and manage inland water transport. The Department takes up the construction of buildings of other Departments, which do not have their own construction units / wings.
2. The work in the Public Works Department has been divided into charges of Chief Engineers, Communication and Buildings South & North, National Highways, Principal Chief Architect / Chief Architect & Director of Ports and Inland Transport Department, Karnataka Road Development Corporation Limited (KRDCL), Karnataka State Highways Improvement Project (KSHIP), State Highway Development Project according to the administrative convenience of the Department. The Department is responsible for construction and maintenance of buildings, and road and bridge works on national highways, state highways, and major district roads, port activities, inland water transport. At the secretariat the Department is headed by a Principal Secretary who is assisted by a Secretary of Engineer In Chief rank.
3. The Communications & Buildings South Zone, Bangalore, Communications and Buildings North Zone, Dharwad, and the National Highways are the three zones in the Department, each headed by a Chief Engineer. Each zone comprises of circles headed by Superintending Engineers, divisions headed by Executive Engineers and sub-divisions headed by Assistant Executive Engineers.
4. Chief Engineer, National Highways, has jurisdiction over the entire state and is responsible for the execution of all National Highway works excluding those under National Highway Authority of India.
5. Principal Chief Architect / Chief Architect having jurisdiction over the entire state with adequate number of Deputy Chief Architects, Deputy Architects & Assistant Architects is responsible for providing conceptual designs as well as detailed designs of buildings under the jurisdiction of Public Works and Rural Development Engineering Divisions.
6. Karnataka Road Development Corporation Limited (KRDCL) was established on 21st July 1999 under the administrative control of the PWD. It is a wholly owned Government of Karnataka enterprise for development of road infrastructure in the state.
7. Karnataka State Highways Improvement Project (KSHIP) is an initiative of the Public Works Department of Government of Karnataka for the improvement of road network in the state under External Aided assistance from multilateral development banks.
8. The Karnataka Ports Department was formed during 1957 for conserving, maintenance and development of ports and harbours in the state. The Inland Water Transport Wing in the Department came into existence in 1972. The Director of Ports and Inland Water Transport with head quarters at Karwar is the head of the Department. The Ports Department is now merged with the Public Works Department in Government Notification No. DCA 15 ARH 2007 dated 24-10-07.

Role of Officers

27 Chief Engineer :

1. Chief Engineer is the administrative and professional Head of the Department in respect

of the charge held by him, for the efficient working of which he is responsible to Government. He is the responsible professional advisor to the Government in all matters relating to existing works or projected schemes to be undertaken within his charge. He is responsible for initiating changes required for effective functioning of the organization under his control, namely, appropriate personnel management systems, construction and quality management systems, information management systems and accounting management systems.

2. It shall be the responsibility of the Chief Engineer to ensure satisfactory execution of all budgeted works and also other works in his jurisdiction. He shall report to Government instances where works approved in the annual budget are not processed / executed satisfactorily and simultaneously indicate an action plan to take appropriate action.
3. He will exercise a concurrent control with the Accountant General, over the duties of the officers of the Department, in maintaining accounts and give legitimate support to him in enforcing strict attention to the rules concerning the disbursement of money, and submission of accounts. If in exercising this control, any financial irregularity is discovered and if it is considered to be serious and require disciplinary action, he shall initiate appropriate action.
4. Although the Accountant General will inspect the accounts of disbursing officers, this will not relieve the Chief Engineer of the responsibility for the maintenance of the authorized system of accounts in the Department. The Accountant General and the Chief Engineer should assist each other in rendering the maintenance of accounts of the Department as perfect as possible. It will be the duty of the chief Engineer to examine the registers of works, so as to keep a vigilant watch over rates of items of work, and when he considers it necessary, he may require a Divisional officer to report to him monthly or at longer intervals, the total expenditure to date under each sub-head of a work; in contract with the sanctioned estimates.
5. He shall see that the budget appropriations of the year are fully expended in so far as is consistent with general economy and the prevention of large expenditure in closing months of the year for the sole purpose of avoiding lapses.
6. He shall be responsible for ensuring that any fund which is not likely to be needed during the year is promptly surrendered, so as to allow its appropriation for other purposes by the proper authority.
7. It is the duty of the Chief Engineer to recommend to Government appropriate postings for Superintending Engineers, Executive Engineers and Assistant Executive Engineers based on their specialization, experience, aptitude and work requirements. The postings and transfers of all the Assistant Engineers and Junior Engineers work requirement shall be done in consultation with other concerned Chief Engineers of the Department.
8. He shall take steps necessary to instill a sense of responsibility in the personnel of the Department that they shall always strive to use appropriate choice of words in communication with others particularly the elected representatives and the general public.
9. The responsibility of important structural designs under execution rests on the Chief Engineer who shall exercise careful control over the designing and technical sanctions.
10. Work slip to be prepared when the physical stage of work reaches 50% of programme and when there is likelihood of revision beyond 15% of approved cost, so that the Government is kept informed about the possible revision in the project so that, the Government will take a decision about limiting the scope of the project or providing additional funds to see that the work is not held up at any stage.

11. Before according sanction to the revised estimate or work slip, or before submitting them to Government for sanction, the Chief Engineer shall inspect the work, if it is a major work and satisfy himself thoroughly, whether the excess has been reasonably incurred and could not have been foreseen at the time of preparation of the original Estimate.
12. In case of heavy damages sustained by the Department due to natural calamities during monsoon, flooding and such unforeseen contingency, the Chief Engineer shall at the earliest opportunity inspect the site of the damage, study the extent of damage, initiate appropriate remedial measures as well as take action to investigate the causes thereof, under intimation to Government. He has full powers to issue on the spot instructions to take up such works as may be dictated by the situation, in such manner as he deems fit and his decision shall be a commitment on the part of Government, in all emergencies.
13. It shall be the duty of the Chief Engineer to watch the progress of expenditure on all heads of charges under him with a view to see that sanctioned grants are not exceeded and that, if an excess is, for unforeseen reasons, un-avoidable, prompt action is taken for applying for a supplementary grant as soon as possible after the probability of an excess is foreseen. The consolidated register of expenditure will enable the Chief Engineer to discharge the above duty.
14. The Chief Engineer shall also consider it as a part of his duty to see that the allotments of the year are, as far as possible, fully expended and a special report explaining short outlay be submitted at *the* end of the year. This rule is not intended to encourage expenditure, which it might otherwise be desirable to postpone, simply for the sake of working up budget Estimates. It should be impressed on all disbursing officers that it is preferable to surrender the grants which cannot be profitably utilized, than to spend large sums in February and March merely to avoid lapse of grant. All that is required is a careful forecast of the operations of the year so as to minimize the difference between the actual and Estimates, to the utmost extent. Any grant not likely needed during the year should be promptly surrendered, so as to allow the competent authority to appropriate it to other purposes.
15. The general supervision and control of the assessment of such revenues, as may be collected in the Department will constitute the duty of the Chief Engineer who should frame the necessary estimates during the year.
16. As head of the Department, he is responsible for laying down job specifications and man power planning in his Department. He shall assess the technical and management skills of the Engineering personnel working under his control so that Engineers who are conversant or specialized in particular fields are posted to such works; shall identify Engineers with good academic and technical background and enable them to acquire higher skills; shall organize periodic refresher courses conducted by organizations like **KERS, CRRI, NITHE, RASTHA** and also reputed Engineering Institutions within the country for updating their technical knowledge and encourage Engineers in charge of responsible works involving complicated designs and construction problems, to prepare articles / papers with a view to present them in symposia / seminars.
17. He shall also subject to financial allocations, organize continuing education program, refresher courses and such training programs as may be necessary to all category of staff working at various levels.
18. He shall exercise overall control in adoption of design criteria, construction procedures including safety measures to be adopted for various works under his control so as to ensure uniformity and economy in construction. The quality control aspects of all works

under progress shall be closely arranged to be monitored so as to ensure that not only quality control measures are applied at all stages of construction, but also authentic records are kept of the same.

19. The Chief Engineer with the assistance of Superintending Engineer in his office shall order to conduct technical audit of works under execution selected at random or even surprise inspections to ensure that specifications prescribed, designs approved, instructions issued in technical circulars and Government directives wherever they exist, are followed at every stage . It shall also be his duty to order such inspections by a team of officers whenever serious irregularities are reported by reliable sources.
20. It shall be his duty to closely monitor the manner in which the powers delegated are exercised by his subordinate officers, with regard to sanction to estimates, excess and to suitably instruct the officers concerned to desist from committing such financial irregularities in writing; and in case it is observed, that the irregular practices are still being continued, it shall be entirely within his powers to order withdrawal of such powers delegated to such officers notwithstanding powers delegated to such subordinate officers by any executive order issued by Government . He, then shall report such cases in detail to Government to initiate such action as may be necessary, to order investigation as the situation demands and as directed by Government.
21. Execution of all works shall be as per physical and financial program drawn up in advance. Sanction of estimates by the subordinate officers in excess of grants allotted, shall be monitored closely and it shall be the duty of the Chief Engineer to order cancellation of all such sanctions irrespective of the fact whether the works have been started or not. He shall keep adequate watch to ensure that the officers who are transferred, do not sanction estimates and accord approvals or make payments, which are contrary to rules.
22. Whenever Chief Engineer goes on tour and inspects work, inspection notes shall invariably be issued in writing and communicated to all the officers concerned. If necessary, Chief Engineer shall insist on a detailed write up of the works going to be inspected, from the Divisional officers concerned well in advance. Unless ordered in writing to the contrary, instructions issued by the inspecting officers shall be as a rule, be followed only after approval of the competent authority for the financial implication is obtained in writing by the Divisional officer. Care must be exercised at all levels to ensure that no undue delay occurs in according financial sanction by the competent authority after the Instructions are issued in writing. In case, the works cannot be proceeded with, till such time the approval of the competent authority is obtained, the intervening period shall be considered for granting extension of time etc., as per agreement conditions. In cases, where competent authority is Government and stopping the execution of work till sanctions are received from Government is not in the interest of the Government or likely to involve higher financial implications, the Chief Engineer has powers to order execution of such works, in such manner as he deems fit, but shall report all such orders to Government . Execution of works without adequate / appropriate financial sanction shall be avoided as a rule except in cases of emergency and except where so ordered by the Chief Engineer in the interest of Government, which will be reported to the Government forthwith within a week.
23. It is one of the foremost responsibilities of the Chief Engineer to arrange to conduct performance appraisal, by a systematic evaluation of the present and potential capabilities of the personnel of the Department by their superiors, and to initiate appropriate measures for employee development.

24. Two months before the Republic Day, Independence Day and Rajyothsava Day, he shall bring to the notice of all concerned in the Government, with all necessary particulars, details of employees who have outstanding performances to their credit, during the preceding year or years, for grant of state awards in recognition of services rendered.
25. Whenever natural calamities occur, he shall immediately visit the site, decide in consultation with the officers at the field level, the mitigating measures to be adopted, and issue written instructions and communicate the same to the Government in the Public Works, Ports & IWT Department. All works done as part of disaster relief operations shall be paid on priority basis.
26. The Chief Engineer will review major works and lingering works in his jurisdiction at-least once in a quarter with SEs and EEs by convening a meeting at Head Quarters or Circle Offices.
27. The Chief Engineer will conduct monthly and bimonthly meeting of Superintending Engineers/ Executive Engineers and in his jurisdiction to review the progress of works and issues pertaining to works in different circles / divisions officers by rotation which facilities study of management and quality of works in each division.

28. Role of Superintending Engineers:

1. The administrative unit of the Department is the circle in charge of the Superintending Engineer, who is responsible to the Chief Engineer for the administration and general professional control the officers of the Department in his circle. He is also a direction officer for the divisions under his control.
2. It shall be the duty of the Superintending Engineer to inspect the important works in his circle and to conduct technical audit of selected works, major or minor, by a team comprising of senior engineers and accounts staff to satisfy himself that the system of management is efficient and economical, that the regulations as regards works, stock and accounts are strictly observed and that the executive and administrative work of the circle is satisfactorily performed. He can undertake technical audit of works of other Departments either on their request or when directed by Government. He shall check quality reports, field book and make entries in the field book covering remarks on shortcomings and suggestions for improvements.
3. The decision of the Superintending Engineer in all matters connecting to the rates payable for various items of work carried out in his jurisdiction is final. It will also be his duty to arrange to keep watch and control the rates paid for work. He should also satisfy himself that the staff employed is actually necessary and adequate. He should inspect each Divisional office twice in a year and send a report thereon to the Chief Engineer detailing therein the results of his examination of initial accounts including that of stock, tools and plant and other registers, records, agreements, contractor's ledger, Estimates etc.
4. He should generally supervise and control the correct assessment and realization of all revenues due in his charge. He is authorized to correspond directly with any of the other Departmental officers and local authorities in all matters pertaining to his circle.
5. The Superintending Engineer shall be responsible for the *engineering* features of all designs and calculations for the same, and the accuracy of the rates in the projects submitted from his office. When submitting any report, designs or Estimates to the Chief Engineer, he will invariably state his own recommendations and opinion.

6. He shall see that the authorized system of accounts of works is maintained throughout his circle and that the Divisional officers submit their accounts to the Accountant General punctually.
7. He shall arrange to examine at least once a year, the books of the Divisional offices and subordinates and see that matters relating to the primary accounts are attended to personally by the division and sub-Divisional officers and that the accounts fairly represent the progress of each work.
8. He shall arrange to see that no delay is allowed to occur in submission of work slip or revised estimate wherever necessary including completion reports.
9. The Superintending Engineer and Accountant General shall assist one another in rendering the management of the accounts of the Department as perfect as possible.
10. The Superintending Engineer is the controlling officer for the grants of the circle and reconciliation of departmental figures with that of the Accountant General.
11. It shall also be his responsibility to monitor execution of all budgeted works every month and shall bring to the notice of the Chief Engineer the instances where works approved in the annual budget are not processed or executed satisfactorily.
12. It shall be the duty of the Superintending Engineer to immediately bring to the notice of the Chief Engineer at the earliest when any Divisional officer acts infringing prescribed financial procedures either in sanctioning works or incurring expenditure not covered by appropriate financial sanction. It shall also be his responsibility to bring to the notice of the Chief Engineer instances where grants allocated are not adequate and stopping of works for want of adequate financial allocation will not be in the interest of Government; and to recommend requests for additional financial allocations which shall be decided by the Chief Engineer and communicated to the Superintending Engineer and the Executive Engineer within two weeks positively. It shall be in order for the Superintending Engineer and the Executive Engineer to temporarily suspend works under execution or not to commence works, until appropriate financial sanctions are received.
13. It shall be his duty to ensure that a well thought out disaster preparedness systems and arrangements are established at subdivision and Divisional levels, which remain functional at all times.
14. He shall be responsible for conducting failure analysis of civil structures if occurs, under construction or constructed already, anywhere in his jurisdiction. The practice of waiting for subdivision and division officers report is dispensed with, and it is hereby directed that he shall always take the earliest opportunity to inspect the site and direct the conduct of failure analysis. He shall also direct such steps as may be necessary for arresting further damage.
15. The Superintending Engineer shall review all works in his jurisdiction monthly with EEs by meeting at Head Quarters or Divisions by rotation.

29. Role of Superintending Engineer, Quality Assurance:

1. The Superintending Engineer, quality assurance shall work directly under the Chief Engineer. He is in-charge of the quality of the works of the entire zone in which he works. He shall closely monitor the quality control aspects of all works under progress so as to ensure that not only quality control is applied at all stages of construction but also authentic records are kept of the same.

2. The quality control division and sub divisions of the zone shall come under the control of the Superintending Engineer quality control.
3. The Superintending Engineer, quality assurance is responsible for the inspection of works costing more than Rs.1.00 crore at different stages of construction and ensure quality of the work by conducting tests including non destructive tests as per respective standards of roads, bridges and buildings. He shall bring to the notice of the concerned Superintending Engineer and the Executive Engineer, any discrepancy observed in the quality of the works and ensure that the same is rectified.
4. He shall inspect works during execution and guide the Field Engineers and contractors on quality aspects of works.

30. Role of Executive Engineers:

1. The executive unit of the Department is the division in charge of the Executive Engineer, who is responsible to the Superintending Engineer for the execution and management of all works within his division.
2. He can receive positive orders only from his own departmental superiors, the head of the administration or other civil officers duly authorized.
3. He is responsible for the proper measures to be taken to preserve all buildings and other works in his division and to prevent encroachment on Government lands in his charge. He should keep accurate plans of all Government lands borne on Departmental registers and supply tracings/Auto Cads there from to his subordinates, when it is necessary to acquaint them with the boundaries.
4. It is the duty of the Executive Engineer to report immediately to the Chief Engineer, through the Superintending Engineer under intimation to the deputy commissioner of the district, any serious damage to or loss of immovable property of Government caused by any accident or unusual occurrences.
5. The Executive Engineer can initiate any proposal for carrying out improvements to an existing structure or to take up new constructions or additions or alterations, if it is in the public interest. In case of buildings belonging to other Departments, he should conduct joint inspection with the concerned officer of that Department, identify the repairs or improvement works to be carried out, prepare priority lists and take action to prepare Estimates either for inclusion in the budget or for taking under lump sum grants, if feasible. In case of roads and bridges, he shall take action to prepare Estimates for repairs, renewals, improvements, or even new alignments, acquisition of buildings for providing the sight distance as per standards or improving the alignment or widening of formation etc., He should have a shelf of estimates ready, so that even they can be recast adopting current schedule of rates and submitted to the concerned authorities. One copy of all such Estimates must be available in the office library for ready reference. However the Executive Engineer shall ensure that in case of new building works unless the land is available, no estimate shall be prepared or technically sanctioned or tender floated.
6. As soon as the works are included in the budget, the Executive Engineer shall verify the works and any discrepancies shall be reported to the Government within a week's time.
7. He is responsible for the upkeep of surveying and mathematical instruments in his division and will report on their condition to the Superintending Engineer at the end of each working season. Any damage done to the instruments due to neglect or carelessness should be made good at the expense of the persons responsible for the same.

8. It is the duty of the Executive Engineer to furnish treasury and sub-treasury officers, after the inspections, with the certificate regarding the security of strong rooms used or proposed to be used for storage of Currency/ cash or other valuable property as required under article 34(a) of the Karnataka Treasury code. The Executive Engineer may depute for this purpose any selected sub-Divisional officers.
9. He is held responsible for the correct assessment of such items of revenue as are collected through the Department and should maintain the necessary records and accounts for the purpose in the register of revenues etc.
10. The Executive Engineer, in addition to his other duties is the ex-officio professional adviser of all departments in his jurisdiction and it is his duty to perform this function in a useful manner without allowing undue formalities to interfere with it.
11. It is incumbent on the Executive Engineer to ensure that sufficient precautions are taken by the officers concerned to prevent accidents at the work sites and to take precautionary measures to prevent chances of accidents to labour, officials and passers by in the vicinity of blasting operations.
12. It is the duty of the Executive Engineer to inspect periodically all major road works, bridges, buildings etc., and to see that they are maintained in an efficient condition.
13. The Executive Engineer shall not commence the construction of any work or spend public funds without the sanction of competent authority. (See paragraph 314 of KPWA Code.)
14. Executive Engineer shall close the accounts within two months after the work is finished and submit the completion report in the prescribed form to the Accountant General and ensure that the work gets deleted from the subsequent year's budget book.
15. Executive Engineer shall take necessary steps to obtain funds for the works under his control and keep his accounts and submit them punctually to the audit office as per rules in force.
16. Executive Engineer shall exercise a thorough and efficient control and check over his Divisional accountant and carefully examine the books, returns and papers from which the monthly accounts are compiled.
17. Executive Engineer is responsible for the correctness in all respects of the original records of cash and stores receipts and expenditure and for seeing that complete vouchers are obtained. (See paragraph 44 of KPWA Code).
18. He shall watch the progress of expenditure under each sub-head of work in contrast to the sanctioned Estimate. He shall see that a revised estimate is prepared when necessary and submitted to the sanctioning authority.
19. It is the responsibility of the Executive Engineer to hand over the buildings of other Departments immediately after their completion. If the user Department does not take over the same, it shall be deemed to have been handed over and a letter be addressed to the user Department accordingly.
20. Executive Engineer should examine at least once a year the books of his subordinates to see that the primary accounts fairly represent the progress of each work and that the accounts are personally attended to, by the sub Divisional officers.
21. The Divisional officer is primarily responsible for affording information in cases of probability of excess of actual over estimated cost of work and is expected not to allow any delay to occur in reporting to the Superintending Engineer, any such probability. In

such cases, as well as those relating to irregularities in the rates or cost of a sub-head which are beyond the powers of the Divisional officer to sanction, work slips should be submitted for orders. All the important liabilities not brought to account should also be noted in the work slip.

22. It is mandatory on the part of the Executive Engineer to review all budgeted works, minor works, works taken up under deposit contribution or for that matter any work taken up with or without sanction, once a month along with his Assistant Executive Engineers to ensure that the works are progressing according to agreed program; and in case any bottle-necks / problems are met with, to initiate such measures as are necessary to solve those problems. Cases requiring intervention of higher officers should be brought to their notice at the earliest. Wherever necessary, timely action should be taken to find solutions within the framework of the contract agreement, for claims raised by the contractors, after conducting proceedings in the presence of both the parties.
23. It shall be his duty that in case grants allocated are not adequate, to draw up a priority list of works wherever necessary in consultation with other Departmental officers who have countersigned the Estimates. He shall endeavor to utilize the budgetary allocations only for such priority works and to order stoppage of other works, if there are absolutely no other alternatives, till such time financial allocations are received. Before taking this extreme step which may adversely affect contractual obligations, the matter shall be brought to the personal knowledge of his Chief Engineer / Superintending Engineer. Where such stoppages are likely to result in higher cost due to escalation or other reasons, then such facts shall be reported well in advance not only to his immediate superior but also to the concerned officer of the user Department. In exceptional cases, if carrying out civil works is likely to result in utilization of machinery / equipment already procured by other Departments, then he shall take action to appraise not only to the immediate superior but also to the head of the Department, the imperative need to carry out such works to avoid loss to Government or to prevent costly equipments remaining idle and take up the work after obtaining the orders in writing from his official superior. On the whole, the Executive Engineer shall make all efforts to inform the concerned authorities about the need for adequate financial allocations; the likely consequences if allocations are not received in time; shall not proceed on oral assurances but proceed only when grants are conveyed in proper form.
24. He can authorize outsourcing of survey work, soil investigation; structural designs in case these facilities are not available in the Department.
25. The Executive Engineer shall review all works in his jurisdiction at-least every month with AEEs by meeting at Head Quarters or Sub -Divisions by rotation.

31. Role of Executive Engineer, Quality Assurance:

1. The Executive Engineer, Quality Assurance shall ensure that all the necessary tests are conducted on the materials used in the construction and are in accordance with the necessary MORT&H Specifications and BIS or IRC standards. He shall inspect all the works in progress costing more than Rs.25.00 lakh & less than Rs.1.00 crore, from time to time. He shall ensure that necessary quality control tests are conducted at the prescribed frequency and reports are kept at site and offices.
2. He shall inspect works during execution and guide Field Engineers and contractors on quality aspects of works, collecting of samples and testing in the field laboratory.

32. Role of Sub-Divisional Officer or Assistant Executive Engineer:

1. A Division is divided into sub-divisions placed in charge of Assistant Executive Engineers or sub-Divisional officers, who are responsible to the Executive Engineer in-charge of the division for the efficient management and satisfactory execution of all original works and repairs and the collection of materials and for the correct maintenance of the accounts pertaining to them. Sub-divisions can be constituted only with the sanction of Government.
2. The sub-Divisional officer is held personally responsible for the correctness of all initial cash and stock accounts require to be maintained in the sub-Divisional office. He shall examine the transactions relating to all such accounts and other important records and see that they are correct and conform to the rules in force, in all respects. It is his responsibility to see that all cash and stock accounts including all the important records are maintained up-to-date and their extracts wherever necessary are submitted to the Divisional office, on due dates.
3. It is incumbent on the sub-Divisional officer to ensure that all subordinates working under him are well posted in the work of correctly maintaining their primary accounts of works, i.e., measurement books, materials-at-site accounts, Tools and Plant accounts and the progress report of all works in their charge.
4. It is the duty of the sub-Divisional officer to inspect periodically all works in his charge and see to their proper maintenance. He shall also inspect all other road works, bridges and building works in his charge and see that they are also well maintained.
5. It is incumbent on sub-Divisional officer to see that all revenue due in his charge is assessed and collected, auction sales of all old and surplus materials and other revenue yielding property is conducted under orders of competent authority, well in time.
6. The sub-Divisional officer is also the professional adviser to the municipalities and other local bodies in his jurisdiction. When he is consulted by such local bodies, it is incumbent on him to comply, in so far as it does not interfere with his legitimate duties.
7. The sub-Divisional officer is primarily responsible for execution of work in accordance with prescribed specifications, approved designs and for adopting quality control measures and maintenance of records in a systematic manner. He along with the Field Engineer is responsible for the quality of works under execution. It is his responsibility to report in writing details of progress achieved in execution of works, shortfalls / malpractices noticed or apprehended.
8. The sub-Divisional officer shall always maintain up-to-date records of all works under execution, plan, non-plan and other schemes.
9. Sub-Divisional officer shall take effective action to prevent commencement of works without sanction / competent approval.
10. He shall take effective action to prevent encroachment of Government lands adjoining buildings, roads and bridges.
11. He shall take prompt action on every subordinate, particularly where issues like preparation of Estimates / revised Estimates / designs and drawings sought are delayed.
12. He shall along with his Executive Engineer shall inspect all buildings and roads and bridges in his jurisdiction and take steps to prepare Estimates for all repairs and improvements. He shall keep a shelf of Estimates ready, so that the works can be taken up with least delay when funds are made available.

13. He shall maintain an accurate and reliable map of all the roads in his charge.. He shall also maintain Road History register, Property register and ROW register in respect of all category of roads in his jurisdiction.
33. **Assistant Executive Engineer (Electrical):-** It is the duty of the assistant Executive Engineer to get the electrical installation drawings and Estimates of all the buildings and get approval of the competent authority through the Executive Engineer, electrical division and see that the electrical installation goes hand in hand with the progress of the civil works and ensure that at any time the building progress is not affected by the delay in electrical installation. He shall also monitor the power connection to the building from the concerned electricity Department / company.
34. **Role of Field Engineer:**
 1. The duties and responsibilities Field Engineer / Assistant Engineer / a selection grade Junior Engineer/ Junior Engineer / section officer or engineering subordinate in the Department are one and the same. The head of the office is at liberty to assign such duties and responsibilities as he may deem fit in the proper discharge of Government work. The Assistant Executive Engineer in-charge of the subdivision shall allocate the work to the field engineers keeping in view, their educational qualifications and basic training prescribed for the job; technical knowledge, experience, initiative, attention to detail, enthusiasm and willingness to work with a sense of involvement and responsibility; mental skill and efforts necessary for performing the functions and duties of the job; responsibility whether supervisory or non-supervisory attached to the job and working conditions including risks and hazards. Any differences about the allocation of duties and jurisdictions, appeal shall lie with the Executive Engineer whose decision in all cases keeping the above guidelines in view, shall be generally final and binding on all concerned.
 2. The field engineer shall be primarily responsible for the custody of Government land, buildings, machinery and other Government property vesting with the Department; for keeping Government road boundary lands and buildings free from encroachment and unauthorized occupations; for keeping in proper custody all Government machineries , tools and plants, and materials-at-site account. In case of any theft of machineries, a FIR shall be lodged with the police under intimation to Assistant Executive Engineer and Executive Engineer about the theft of Government property and materials and damage to Government properties.
 3. He shall submit occupational reports of buildings under his charge and reports of unauthorized occupations of Government buildings, and shall initiate prompt action to prevent unauthorized occupations or misuse of Government buildings.
 4. He shall carry out pre and post-monsoon inspection of buildings and submit reports periodically to the sub-Divisional officers for further action and for entry in the registers of buildings. He shall be answerable for the general conditions of buildings, roads, bridges, culverts and also construction materials at site, and shall immediately bring the structural weaknesses and deficiency if any, to the notice of the sub-division officers.
 5. He shall carry out pre and post monsoon inspections and timely inspections of all culverts/bridge works in his sections as prescribed from time to time.
 6. He shall also maintain the registers of buildings, bridges, and CDs with details of departmental inspections conducted; and similarly register of all lands including right of way of roads vested with Government under the charge of Department.

7. He shall conduct surveys including leveling and investigations for preparation of plans and estimates for the works entrusted, point out in writing to the sub Divisional officer any mistakes/ discrepancies in the sanctioned plans, variations in the conditions of the sites and plans; and any other anomaly that may be noticed.
8. He shall ensure that the works are carried out according to the specifications, approved plans and estimates with required quality at all levels of construction and also timely efficient execution of works entrusted to him.
9. He shall maintain measurement books, permanent measurement books and other relevant documents, in proper condition and shall not handover them to others concerned without an acknowledgement.
10. He shall be responsible for keeping in official custody of cash received from the subdivision office and render accounts as per rules and within due dates.
11. He shall preserve and take care of tools and plants, stock and other articles kept under his charge.
12. He shall submit financial budget and performance budget accounts in the prescribed proforma in time to the sub-Divisional officers.
13. He shall keep detailed accounts of works, consumption of material and item wise works expenditure of all plan and non-plan works.
14. He shall assist in preparation and checking of Estimates including analysis of rates, preparation of drawings, and project reports by the Assistant Executive Engineer.
15. He shall submit periodical progress reports describing in detail, the extent of work done, and bottlenecks if any.
16. He shall prepare plans, Estimates, layout plans as well as elevations of buildings under his charge in accordance with the prescribed standards.
17. He shall not only look after the requirement of machinery but also maintain all the required primary records such as log books, history sheets etc., in up-to-date condition.
18. He shall frequently check the registers of circuit house, inspection bungalow, travelers bungalows in his jurisdiction and arrange to deposit collections of rent in treasury or sub-Divisional office as per rules.
19. He shall assess the revenue due to Government correctly and ensure proper collections.
20. He shall build up records such as land statements, land schedules, for acquisition of lands and take effective action to prevent encroachment of Government lands in his charge.
21. He shall report immediately any unusual, extraordinary or peculiar occurrences including heavy rains, flooding and resultant damages relating to his sections, to his respective sub-Divisional officer.
22. He shall collect authenticated data with corroborative records and other necessary documents for preparations of projects.
23. It is the duty of the Field Engineer / Assistant Engineer / special grade Junior Engineer/ Junior Engineer of the quality control sub division to collect the materials from site for testing.
24. He shall take measurements himself and assist the sub-Divisional officers and Divisional officers in checking of measurements. He shall also maintain standard measurement of works.

25. He shall keep vigilant control over the expenditure and ensure that the works are carried out within the sanctioned cost and provisions, and to submit advance reports whenever alterations in the costs are likely.
26. He shall prepare timely running bills every month and final bill of all works within a month of completion, and submit the same to the Assistant Executive Engineer.
27. He shall, if necessary, work out abstract quantities in the measurement books so that the bill in proper form can be prepared in the office of the sub-Divisional officer.
28. He shall be responsible for timely submission of variations (E.I.R..L), work slips supplementary estimates, revised estimates, completion reports etc., to the higher authorities.
29. He shall maintain site order books which shall be presented to the inspecting officers invariably for recording their orders at site. It shall also be the duty of the field engineer to submit draft inspection notes for confirmation by the concerned inspecting officers.
30. He shall maintain daily diary giving details of journey performed, results of supervision and inspections conducted, and submit extracts to the sub-Divisional officers periodically as prescribed.
31. He shall keep field book / site book at every site/field and enter daily or during inspection and make the same available to inspecting officers for their remarks.
32. He shall report to superiors and local Police all cases of accidents, damages to Government. property, roads/culverts occurring either to workmen or to the public in the case of works under execution.
33. He shall remain at the site of work throughout the day if necessary and attend office of the Assistant Executive Engineer in the afternoon or attend to any specific work in office or whenever called for.
34. He shall not leave the headquarters without prior approval of the immediate superior.
35. He shall ensure that all the materials used in the work are tested for their quality in the quality control lab before use. He shall append the test results while submitting the work bills.
- 35. Assistant Engineer Electrical:** He is responsible for the electrical installation of the buildings under his charge. He shall prepare the electrical estimates as per the layout plan prepared by the Architect; submit the same to the Assistant Executive Engineer (Electrical) to get approval of the competent authority. He shall supervise all the electrical installation works and ensure safety and quality work. He shall immediately attend to any faulty electrical installation and ensure that no short-circuiting occurs.
- 36. Role of Divisional Accountant:**
 1. To assist the Divisional officer in the discharge of the responsibilities, a trained Divisional accountant is posted to each Divisional office.
 2. To be qualified for such a post, the Divisional accountant must have passed the examinations in accounts and should as a rule, have at least two years actual experience in accounts work in a Divisional office. The service of a Divisional accountant shall preferably be obtained on deputation from the State Accounts Department, excepting the number of posts already filled by the Department. through promotion of First Division Assistants and First Division Store Keeper who have completed the prescribed SAS exams.

3. The functions of the Divisional accountant are three fold:

As an accountant, i.e., the compiler of the accounts of the division in accordance with the prescribed rules from the data furnished to him.

As an internal auditor charged with the responsibility of applying certain preliminary checks to the initial accounts, vouchers etc.

As financial advisor to the Divisional officer in all matters relating to the accounts and the budget Estimates or to the operation of financial rules generally.
4. In the discharge of these duties, he is expected to keep himself fully conversant with all sanctions and orders passing through the office and with other proceedings of the Divisional officer and his subordinates, which may affect the Estimates or the accounts of actual or anticipated receipts and charges. He should advise the Divisional officer on the financial effect of all proposals for expenditure and keep a watch, as far as possible, over all the liabilities against the grants of the division as they are incurred.
5. The Divisional officer should see that he is given the fullest opportunity of becoming conversant with such sanctions, orders and proceedings. To enable him to discharge his duties efficiently, the Divisional accountant is treated as the senior member of the office establishment of the division. His position in respect of accounts is analogous to that of sub-Divisional officer in respect of works.
6. The Divisional accountant is expected to see that the rules and orders in force are observed in respect of all the transactions of the division, which come within his sphere of duties. If he considers that any transaction or order affecting receipts or expenditure is opposed to any rule or order, he should bring the fact to the notice of the Divisional officer with a statement detailing the reasons and to obtain his orders. It will then be **duty of officer** to comply with the orders of the Divisional officer, but if he has been over ruled and he is not satisfied with the decision, he should at the same time make a brief note of the case in the register of Divisional accountant's audit objections, and lay the register before the Divisional officer so that the latter may have an opportunity either of accepting the Divisional accountant's advice on reconsideration and ordering action accordingly, or of recording, for the information of the accountant general, his reasons for disregarding that advice. An objection entered in this register should not be considered as finally disposed off until it has been reviewed by the accountant general.
7. This register will remain in the personal custody of the Divisional accountant except when submitted to the Divisional officer.
8. If no inspection of the accountant general takes place in a financial year, entries if any made in the register since his last inspection will be arranged to be got reviewed by that officer by sending to him the register itself, or if the entries are only a few, an extract there from, in the **following** month of April .
9. The Divisional accountant is responsible for making those efficient arrangements for checking the computed tenders. After such check he should test-check the computed tenders personally to satisfy himself that the checking work has been done properly.
10. He should also see that the totals as checked on the individual tenders are incorporated correctly in the comparative statement.
11. The Divisional accountant shall bring to the Divisional officer's notice all instances in which subordinate officers exceed the financial limitations on their powers placed by the Divisional officer, or by a higher authority.

12. If the Divisional officer is allowed a lump sum appropriation for expenditure on a group of works and he has distributed it on individual works, expenditure should be watched against such individual appropriations and excess brought to the Divisional officer's notice.
13. He may further be required by the Divisional officer to undertake on his behalf, such other scrutiny of the accounts of receipts and disbursements of subordinate officers falling within the Divisional officer's own powers of sanction, as the latter may consider necessary.
14. The Divisional accountant is responsible for the issue of objections in the case of petty works and for regularizing them. He should maintain an objection book, to record and watch the clearance of such objections. The accountant general will examine the register during his local inspections.
15. The Divisional accountant is further required to inspect at least once a year, under the orders of the Divisional officer the account record of sub-Divisional officers and to check a percentage of the initial accounts. The defects noticed should be reported to the Divisional office for orders, but the Divisional accountant will be responsible, as far as possible, for explaining personally on the spot the defects of procedure and for imparting necessary instructions thereon to the sub-Divisional officers and their staff.
16. The result of these inspections shall be placed on record for the inspection of the Accountant General. Further, any serious financial irregularities like defalcations or losses of public money or other property should without delay be reported to him and also to the Superintending Engineer or Chief Engineer by the Divisional officer even though it is set right under the orders of competent authority, as per article 369 of Karnataka Financial Code.
17. The accounts of interest bearing securities maintained by sub-Divisional officers should be examined to see that the rules relating to them are observed and that the register is correctly maintained. With this object in view, a few transactions entered in the register should be compared with the entries in the cash book or other account, and vice versa. The securities certified in the last annual account of interest bearing securities as being on hand should be verified by inspection as far as possible, and it should be seen in respect of such of them as are not produced for inspection, that there are in existence either the original acknowledgments of the depositors bearing dates subsequent to the dates of the last account or the acknowledgments of the authorized custodians, as the case may be.
18. All the Bank Guarantees shall be **computerized and** checked periodically for their validity and take action for renewing wherever required.
19. The Divisional officer has a right to seek the advice of the accountant general in all matters connected with the accounts of his division or the application of financial rules and orders concerning which there may be any doubt. It will usually be desirable, however, that he shall first obtain the advice of the Divisional accountant who is specially trained for this duty, and this should be done in writing in all cases of importance.

37. Role of Registrars:

1. Registrar is the gazetted assistant to the Chief Engineer or the Superintending Engineer and is fully responsible for the proper functioning of the office in particular **and** directly responsible for the functioning of administrative section.

2. The following are his duties and responsibilities:

Maintain the office clean and tidy and arrange for disposal of papers as per hand book of office procedure and circulars received from Government time to time.

Organize the office into suitable branches / sections and compilations and to maintain organisation chart displaying the composition and function of every section.

- a. Dispose off all establishment matters such as postings and transfers, sanction of leave, increment, fixation of pay, seniority and promotion cases, preparation of pension records, writ cases and enquiry cases and other service matters in respect of permanent and temporary staff and supernumerary and other Staff wherever it is existing.
- b. Correspondence relating to stores in central office / circle office.
- c. Preparation of works and establishment and revenue - budget.
- d. Disposal of audit notes, inspection reports / rejoinders, appropriation accounts and entire correspondence relating to accounts matters where the post of accounts officer does not exist.
- e. Preparation of annual administrative report.
- f. Conducting annual inspections of circle / division / sub-division offices.
- g. Disposal of allegation cases and enquiry cases.
- h. Registration of contractors.
- i. Correspondence relating to creation and continuance of temporary establishment.
- j. Draw and disburse the salaries of staff of central office and / circle office. (a) D.C. Bills. (b) T.A. Bills of staff. (c) Counter-signature of T.A. bills of Executive Engineers.
- k. Maintain watch register of assets and liabilities statements of gazetted and non-gazetted staff.
- l. Maintain Registers of LA/LC Questions, Legislature Committees and review pending replies / actions.
- m. Maintain watch register of Annual Performance Reports of all gazetted and non-gazetted staff.
- n. Maintain confidential register.
- o. Assign work to each case worker of the administration branch and ensure that every person discharges his duties satisfactorily.
- p. Ensure that persons seeking replies from his office are able to get the same promptly.
- q. Visit periodically the different sections of his office, inspect the tables of the staff and ensure that the papers are arranged properly and the work is carried on methodically and the office is maintained tidily.
- r. Relieve the Chief Engineer/Superintending Engineer of most of the day-to-day routine work in regard to his branch.
- s. Place before the Chief Engineer / Superintending Engineer, all correspondence which he carries on with officers of equal or higher status and all other matters, as statutorily the head of the office is responsible for decision.

- t. Generally responsible for the efficient management of office work. He should maintain permanent files of Government orders, circulars issued by higher officers and' others which shall be handed over to his successor under acknowledgment.

38. Role of Technical Assistants to the Executive Engineer:

Technical Assistant to the Executive Engineer shall be an Assistant Executive Engineer who is responsible for ensuring proper administration in the office, such as punctuality of staff, cleanliness, decorum, arrangement of staff tables and chairs keeping in view their interaction with the public or staff from subordinate offices, maintenance of library, orderly arrangement of files in all the sections, timely disposal of papers, timely attention to all personal claims of the staff in the division and subdivisions under their control, preparation of meeting papers, attending meetings in the unavoidable absence of the Executive Engineer and promptly submitting reports to the Executive Engineer on what transpired in the meeting, preparation of staff meeting notices, agenda, and proceedings of the meeting , keeping a watch over the action taken by the subordinate staff on the decisions taken in the meeting, maintaining appropriate files and such other duties assigned by the Executive Engineer. He shall also attend to the proper functioning of all the computers in the office, spares are kept in sufficient supply, so that computer break downs are minimal. He shall also function responsibly when elected representatives visit the division when the Executive Engineer is out of headquarters.

CHAPTER - 4

Information Technology Applications

39. Computerisation in the Department:

Department has its own website having the URL - <http://www.kpwd.gov.in>. All the offices of the Department have been provided with an e-mail account in the Government domain for correspondence. An Information Technology (IT) Cell, headed by the Chief Information Officer is functioning at the Government level in the Secretariat for looking after the development of IT infrastructure in the Department.

40. Road Information System (RIS):

Road History is to be prepared containing classification, length, width of right of way, width of formation, width of carriageway, type of shoulder and pavement, details of cross drainage works, bridges, the year of last resurfacing/ strengthening of the pavement with type of treatment in the jurisdiction of the concerned officers.

1. RIS shall be used by the Chief Engineers for carrying out Strategic Options Study to prioritize the road network for taking up improvement of roads by way of strengthening / resurfacing.
2. Entire road network shall be analyzed for various parameters using the RIS by the appropriate authorities while considering large projects.
3. The Superintending Engineers shall use the RIS to prioritize the works to be taken up for maintenance by analyzing the road network for the surface distress condition.
4. RIS shall be used by the Departmental officers to extract required data by querying the database and mapping it automatically.
5. The RIS map indicating the roads, bridges, culvert shall invariably accompany the proposals/ estimates for these works while seeking sanction. The estimates/ proposals shall be deemed incomplete without such print of digital map and shall not be processed by the sanctioning authority. While preparing on-line proposals/ estimates through the e-procurement system, the image file/ portable documents file (pdf)/ PFT file of such maps shall be saved from the RIS and it shall be attached to the proposal / estimate.
 1. The data from RIS shall be interfaced with Highway Design Maintenance (HDM-4) software or any other optimization programme for prioritization of roads on different parameters/ conditions. The planning and budget preparation officials shall make use of the RIS, for preparing the budget proposal.
 2. The map data shall be revised/ updated as and when there is reclassification of roads or addition/ deletion of a road stretch/ construction of a bypass/ bridge or a culvert at a new location. The revision in map data shall be carried out centrally at the IT Cell based on the information provided by the field officers and the updated map data shall be disseminated to all the concerned offices as well as be posted on Web-RIS (Internet version of RIS). It shall be the responsibility of the jurisdictional Executive Engineer to review the map data periodically and submit right information for updating to the IT Cell. This updating shall be supervised by the Superintending Engineer of the circle and monitored by the Chief Engineer.
 3. The data in the RIS shall be updated monthly. Traffic data shall be updated annually, Each work shall be given unique identification code at the time of

sanction. Details of works shall be included in the Department web site as soon as it is sanctioned. It shall be the responsibility of the jurisdictional Executive Engineer to review the data periodically and submit required information to the IT Cell for updating. This updating shall be supervised and monitored by the concerned Superintending Engineer and the Chief Engineer respectively.

4. The condition data of the road (International Roughness Index and visual pavement condition) collected from the ROMDAS (vehicle mounted bump integrator) / roughometre) or any other mode shall be updated into the RIS regularly. The Executive Engineer of the Quality Control divisions shall arrange to provide the condition data collected from the survey at the earliest to the IT Cell for uploading on to the RIS.
5. The condition of Cross Drainages (Culverts / Bridges) /HFL shall be updated.
6. The RIS shall be upgraded monthly by the IT Cell based on the needs as per the directions of the Government, from time to time.

41. Publishing Tender Notification on website:

The Departmental website has been provided with the facility to upload the Tender Notification by the Division office staff. It is mandatory to publish all tender notifications on the Department website and only brief information shall be published in the print media. The publishing of tender notification for works which are proposed, approved and managed through the on-line e-procurement system shall be done on-line on the e-procurement portal (<http://eproc.karnataka.gov.in>) itself.

42. e-procurement system:

1. All the officers involved in tendering shall follow the procedure as per the Government Order NO. PWD 20 EAP 2008 dated 19-03-2008 and further directions that may be issued by the Government from time to time.
2. The Superintending Engineers of the Department shall provide a soft copy and a hard copy of the Schedule of Rates prepared by them as soon as it is issued and before the date of its commencement, to the Centre for e-Governance and ensure that it is uploaded on to the e-procurement system well in time.
3. Any Notification/ G.O./Circular issued by the Centre for e-Governance regarding implementation of e-procurement shall be strictly followed with effect from such date as mentioned in the Notification/ G.O./ Circular. All the officers of the Department shall adopt them as though issued from the Department itself.

43. e-Billing:

Using the Web-based Project Management System, Contractors / Team Members can report the progress by login with user name and password given to them. This progress can be accepted / rejected by the Project Manager/ Site Engineer through the Web access. After the Project Manager accepting the progress updated by the Team Members, the Contractor can generate and submit the bill. Bills costing more than Rs. 25 lakhs can be submitted by e-billing as per G.O. No. FD 56 PRO CELL 2004 Dated 18.01.2005. This bill can be cross-checked and submitted for approval along with the work slip/variation if any. The status of the bills can be known at any time. A mail shall be sent to all the members of the team in charge of that project after the bill is approved.

44. Preparation of Schedule of Rates (SR):

The software currently available in the Department shall be used in arriving at the data rates of all items in the Schedule of Rates. The preparation of SR using the software has the advantage of quickly applying the change in rate for a particular item across all work specifications, thereby saving considerable time required for computation of data rate for each such work specification. Another advantage is the error free calculations of data rate within a short time. Hard copy print of the data rates prepared from the software shall be taken and necessary approvals shall be obtained on such prints and preserved for records in the file. The soft copy of the SR so prepared shall be stored on Data Storage Media in current practice in multiple formats/ locations so that information can be retrieved at a later date.

45. Structural Design and Drawings:

All structural analysis and designs of buildings shall be carried out using through the industry standard software except for small works where not much of structural design is involved. All drawings shall be prepared using available industry standard Computer Aided Drafting software or Structural Analysis and Design software. Hard copy prints shall be taken from the software; approvals shall be accorded on these printed copies with necessary signature and seal and kept for records in the files. Further, soft copy of the entire analysis and design shall be stored on Data Storage Media in current practice in multiple formats/ locations so that the information if necessary can be retrieved at any time.

46. Architectural drawings:

All architectural drawings shall be prepared using only the industry standard Computer Aided Drafting software available. Necessary prints shall be taken from such software and approved for issue with signature on such hard copy prints. The architectural drawings prepared with the software shall be stored on Data Storage Media in current practice in multiple formats/ locations so that information can be retrieved any time. The drawings of important structures prepared earlier manually and issued, shall be scanned, digitized and stored with indexing for searching the database. So also, the drawings prepared earlier electronically and the ones to be prepared in future shall all be stored with indexing for searching the database. The architectural drawings of the final completed structure ('As-Built' drawing) shall be prepared using the CAD software and stored as above.

47. Project Management system:

A software shall be developed for Web-Based project Management System. With this software, the Field Engineers and Contractors in charge of the projects are required to take the photographs periodically and upload the pictures to Website along with site visit reports of higher authorities and the physical progress of the project can be monitored by concerned authorities. The financial progress of the project can also be viewed along with the physical progress. With this, the financial monitoring becomes effective and the contractors will know the status of their bills. This will also help all stake holders to monitor their project from their own perspective and make suitable value additions to the projects as it progresses.

48. Online updating Project performance reporting:

The Departmental website has been provided with a facility to upload the progress report of works by the Division office. Circular No. PWD ITC 2008 dated 26-03-2008 mandates the use of this system by the Division office staff for making entries of all the

works sanctioned and also to enter all the progress details for on-line reviewing by higher officers. This facility shall be used to take prints of consolidated reports at circle office level or at the zonal level as soon as the updating is successfully completed by the division office. This enables the higher officers of the Department to review the progress on-line quickly within the first week of the ensuing month.

49. HRMS system:

The e-Governance Department has introduced Human Resource Management System package wherein the details of all the Government officers and staff are collected in the database. This system also enables to draw the salary and allowances of all the employees, collect the service history, leaves, transfers etc. Each and every Drawing and Disbursing Officer (DDO) has been allocated a code through which the office wise information is stored in the system. It shall be the responsibility of every DDO to update the information about the employees under their control in this database. This database system has to be effectively used for human resource management (deputation to training, transfers, postings, vacancy positions, promotions, monitoring departmental enquiries, service matters, planning for recruitment etc.) in an efficient way. The Joint Secretary (services) / Deputy Secretary (services) at the Secretariat shall be the nodal officer for the usage of the HRM system for efficient management of human resource of the Department. The system shall be updated every month.

50. GPS based Survey for road condition data and posting of data into RIS database:

1. Road Condition Survey shall be carried out by the Quality Control Divisions and Sub-Divisions every year on the road network (length and selection of roads for survey shall be decided by the Government). Road Condition Survey shall include roughness measurement, visual observation and recording of pavement condition (viz., cracking, potholes, raveling, rutting, edge-break, drainage etc.), video recording co-ordinates using GPS etc. as specified by the Government from time to time. Roughness data (International Roughness Index) shall be collected using Road Measurement and Data Acquisition System (ROMDAS) or any other suitable equipment. Visual observation of the road pavement shall be done simultaneously with the Roughness survey. Vehicle mounted video recording shall be used to collect the video data of the pavement and the site details simultaneously during the roughness survey. The co-ordinates of the alignment of the road shall be recorded using the GPS provided with ROM DAS equipment. The data collected from the survey shall be provided to the IT Cell for updating into the RIS for drawing of Pavement Condition Index for proposing major maintenance.
2. Road Condition Data shall be used for prioritization of works to be taken up for improvement / maintenance as mentioned above under Road Information System.

51. Disclosure under RTI Act:

All the Heads of the offices of the Department shall publish the information su-motto as per section 4 (1) of the Right to Information Act. This information shall be revised frequently and shall also be published on the Department's website. In addition, all information relevant to the citizens/ public shall be published on the website. The soft copy of the latest/ updated information shall be provided to the IT Cell for publishing on the Department website. This will considerably reduce correspondence for providing information to references and requests under RTI which will be available on the website.

52. Website updating:

1. An IT cell shall be created in the central office. All the officers of the Department shall provide the information to be published on the Department website. The IT Cell shall gather such information as desirable for updating on the website and shall post it appropriately. The IT Cell shall also cause to remove the obsolete information and provide latest information in its place.
2. Facility has been provided in the Department website for uploading of documents like Inspection Notes of officers, Proceedings of review meetings, proceedings of the Committee meetings, Vigilance inspection notes, Circulars, Government Orders, Notifications, Government Policies and the like by the officers themselves or their staff by logging on to the website. All the officers shall compulsorily publish their inspection notes, proceedings of the review meetings conducted by them etc. onto the website as per the instructions contained in the Government circular No. PWD 24 ITC 2008 dated 26-03-2008.
3. Reports prepared by the Department or got prepared by the consultants or committee reports etc. shall be uploaded on the Department's website by the concerned officers of the Department.
4. Organizational chart of the Department and the contact details of all the offices along with names telephone numbers and e-mail address shall be posted on the website and shall be kept updated at least once in a month.
5. Photographs and videos of the important works, structures during and after construction shall be provided to the IT Cell for uploading on to the website. Photographs and videos shall be accompanied by a title and the date of recording with brief description.
6. Website has a facility to upload news/ events. The Departmental officers shall provide such information to the IT Cell so as to be published as news or details of events organized by the Department such as opening ceremonies, workshops, seminars, interactive meetings, dates of review meetings, tour programmes, starting/ completion of works, blacklisting of contractor, information about diversion of traffic due to construction / repair of bridges.
7. All Government orders pertaining to the Department shall be posted on the web site.

53. Use of e-mail accounts:

E-mail account has been created for all the offices of the Department. All the officers of the Department shall follow the directions contained in the Government circular No. PWD 17 ITC 2008 dated 04-03-2008 regarding the e-mail address of all the offices, tips for the usage of e-mail and e-mail usage policy etc.

54. Training:

The Chief Engineers shall take action to provide adequate training to all the officers and staff of their zone on basic IT usage and on special/ customized software applications relevant to the working of the Department.

55. Miscellaneous:

1. The IT Cell shall computerize some of the feasible manual processes to bring in e-Governance and improve efficiency of administration. Registers which are manually entered and maintained shall be computerized into a database and applications shall be developed to make data entries user friendly and also to generate reports from such database with ease.

2. The Superintending Engineers and Executive Engineer shall have computerized system for allotment of residential quarters to the Government employees. They shall also develop computerized system for receiving request for accommodation at Inspection Bungalows, Travellers Bungalow and Circuit Houses. and also to make reservation of accommodation in these buildings on first come first serve basis.
3. The Chief Information Officer of the IT Cell shall prepare Buildings Information System on the lines of Road Information System which shall be useful for taking up maintenance works, know the condition of building, extracting statistical details about the number of floors, floor area, facilities, number and type of rooms, asset information etc. This system shall also have the information about Government land, survey number, and area of the site with site-plan, constructed area, vacant area, ownership, rental provisions, lease details, lessee if leased out and such other information useful for the top management.
4. The Executive Engineers and Assistant Executive Engineers shall have access to the data under 'Bhoomi' software of the Government of Karnataka with regard to the land assets owned, land to be acquired for new works, payment of compensation, award of notifications, taking possession of lands etc. The Chief Information Officer, IT Cell shall co-ordinate with the e-Governance Department for introduction of such system with necessary trainings to the officers concerned.
5. The Chief Engineers shall introduce Letter Monitoring, and File Monitoring Systems, Court cases monitoring system, in all the offices in a phased manner starting from the zonal offices and expanding to division offices. This system on the model of "Sachivalaya vahini" shall be a transparent system for the citizens to trace their letters/ representations/ files and to know their movement.
6. The Chief Information Officer, IT Cell shall introduce the video conferencing facility in the Department as and when the technology is affordable and between such important offices as shall be decided by the Government.
7. He shall connect all the offices of the Department through Wide Area Network either through the help of e-Governance Department or by the Department itself so that web technology is utilized in an efficient way.
8. He shall develop software applications for computerizing the quality control certifications and making them available to the concerned offices so that the necessary certifications shall be verified before approving the bill towards execution. Standard templates shall be prepared and used for testing of materials in the laboratory and reporting of the results.
9. He shall also develop database to collect and disseminate information about various resources like experts in technical field for consultation, arbitrators, legal advisors, supervision consultants, specialist contractors, contact details for availability of special materials etc.
10. The Department shall have database management systems to track and manage the Legislative Assembly / Legislative Council questions and answering. The Chief Information Officer, IT Cell shall facilitate development of such a software system.
11. The Department shall have database system for monitoring Audit reports/ enquiries so that they are monitored efficiently within right time. The Chief Information Officer, IT Cell shall facilitate development of such a software system.

CHAPTER –5

SURVEYING

56. General

Accurate topographical survey facilitates design, Preparation of Estimate and execution of works. Surveying instruments like Total Station Survey and Precision Levels are electronic data collection devices, which can directly download the data to computer and plotter. Such modern devices are of considerable assistance in improving the accuracy and fast delivery of ground data.

1. Geographic Information System:

Geographic information system (GIS), Global Positioning System (GPS), Laser Scanner and Nano Technologies are some of the modern methods of acquiring attributes of any geographical location.

2. Referencing & Level Data: Prior to conducting of any survey work it is essential

- a) To establish a comprehensive network of survey beacons and level reference points.
- b) To obtain levels datum and co ordinates before detailed survey commences.
- c) To ensure the beacons and reference points are robustly constructed.
- d) To locate the beacons and reference points where they are unlikely to be disturbed.

3. Survey Data collection: The amount of data to be collected from survey will depend to a great extent on the use to which data is to be put up. The quantum of collection of data broadly depends upon the following.

- a) Terrain: In case of flat and gentle terrains, the data collection may be at longer intervals, whereas in mountainous terrain as the data changes at short distances, the data collection may be at shorter intervals.
- b) Cost of proposed work: It is necessary to collect intensive survey data when the works proposed are of expensive nature. Conversely when the works proposed are not expensive, a bare minimum data collection can be adequate.

57. Suggested Methodology for Data Collection and Representation for Building Project:

1. A key plan drawn to a scale not less than 1:10,000 shall be prepared showing the boundary locations of the site with neighborhood landmarks.
2. The site plan shall be drawn to a scale not less than 1:500 for a site up to 1 Hectare, and 1:1000 for a site more than 1 Hectare.
3. Site Plan: The site plan shall show the following.
 - a) Boundaries of the Site with details of neighboring property / roads
 - b) Neighboring street, site, river or any physical asset.
 - c) All the existing buildings standing on, or under the site including service lines.
 - d) Scale and north line direction.
4. Layout plan: The Layout is to indicate the present and proposed structures, utilities and services. This shall be drawn on a scale not less than 1:500.

5. The layout plan shall show the following.
 - a) Scale and north **line** direction.
 - b) Location of all proposed and existing roads with the width of **right of way**.
 - c) Directions of plots and buildings thereon.
 - d) Setbacks in different directions.
 - e) Location of drains, sewers with direction of flow, electric lines, water lines, etc.
 - f) Table indicating area of site, area of utility under roads, open spaces, parks, playgrounds, other circumstances along with percentages with reference to total area of the site.
 - g) Highest flood level and **water table level**.
 - h) Trial pit with details up to a depth at which bearing capacity is considered for design.
6. Building Plan: The Building plan shall consist of plans, elevation and sections and shall be drawn to a scale of 1:100.
7. The building plan shall consist,
 - a) Floor plans with size and spacing of all framing numbers
 - b) Position of staircases, ramps & lift wells.
 - c) Use or occupancy of all parts of building.
 - d) Location of essential services like Toilets, bath, sinks etc.
 - e) Sectional drawings showing footings, walls, columns, beams, slabs, etc.
 - f) At least one section through staircase.
 - g) Projections of chajjas, slabs, etc.
 - h) Terrace plan indicating drainage and slope of roof.
 - i) Service plans like water supply, electric supply, sewerage disposal, drainage etc.
 - j) Scale and North **line** direction.

58. Suggested Methodology for Data collection and Representation for Road Projects:-

- a. All levels shall be referred to GIS benchmarks.
- b. For flat and gentle slope terrain, cross section intervals shall be at 50m. The levels at 5m intervals on both sides of the centerline to a distance of / up to 10m beyond the right of way (**ROW**) shall be taken.
- c. For steep terrain, the cross section intervals shall be at 10-20m. The levels at 2m intervals on both sides of centerline up to a distance 10 m beyond right of way may be taken.
- d. For design of pavement overlay, cross section intervals shall be at 5m. The levels at 2m intervals on both sides of the centerline up to ROW shall be taken.
- e. Ground water level and highest flood level (HFL) are to be marked.
- f. **Longitudinal** sections shall be drawn along the centerline for straight sections and along left line, centerline and right line for horizontal curves.

- g. The vertical scale shall be 10 times that of longitudinal scale.
- h. The **Longitudinal** section should contain levels of existing ground surface, proposed road surface and gradient for sections proposed and also the levels of the existing CDs along with highest flood levels.
- i. Horizontal curves in a km shall be numbered and their radii noted in the **alignment plan, ROW, built up area, streams, utilities trees, nature of land alongside shall also be shown.**
- j. For drainage channels, top of banks, invert level of stream, slope of the stream shall be presented.
- k. Existing pavement layers shall be shown with thickness and type of material.

59. Notation for Detailing of Concrete Structures:

Detailing of concrete structures shall have standard notation which conveys details and dimensions with minimum writing on the drawings as per IS 456.

60. Suggested Methodology for Data Collection and Representation for Bridge Project:

1. Geophysical investigation of the bridge site shall be carried out to decide upon the type of foundation to be adopted **finalizing** general arrangement drawing.
2. Trial bores shall be taken at 3 to 5 m intervals along the alignment and 1 or 2 bores on **either side** at 4 to 5 m from the center line.
3. Cross sectional levels of the **nala /river** shall be taken at the proposed bridge site & also at 200 m upstream and down stream. The levels shall be taken at 1m interval incase of gorges and at 2 m interval in flat terrain. The site with defined bank shall preferably be selected.
4. For major bridges, the rainfall of last 15 years shall be collected to ascertain correct HFL and HFL if marked shall be noted in the survey.

61. Surveying and Engineering Drawings are the vital aspects of any Civil Engineering project that result in effective design, estimation and execution. As the science and technology develops, new methodologies and devices are bound to emerge. The Departmental Engineers shall explore any such method that aims at accurate, speedy, easy translation on drawings and economy.

For carrying out survey, investigation and soil test for projects, separate provision be made under minor head of account and provided **in the** project estimate.

CHAPTER – 6
ACQUISITION OF LAND

62. Brief Note on Land Acquisition:

Whenever private land is required to be acquired for Public Work Department such land can be acquired as per the provisions of either the Land Acquisition Act 1894 or The Karnataka Highways Act 1964 including the lands required for the development / maintenance of State Highways / Major District Roads / District Roads / Village Roads.

The Assistant Commissioners of Sub Division or Special Land Acquisition Officers are appointed as Land Acquisition Officers under the Land Acquisition Act of 1894.

As per section 4 of the Karnataka Highways Act, State Government may appoint any person as a highway authority for acquisition of land for the development of highways.

63. The new Land Acquisition Act called “Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation & Resettlement Act-2013” has come into force and the details are given in Chapter 6-A.

64. Procedure under the Land Acquisition Act 1894:

Section 4: Publication of preliminary notification:

Whenever it appears to the appropriate Government that the land in any locality is needed or is likely to be needed for any public purpose or for a company a notification shall be published in the official gazette.

65. Joint Measurement Certificate (JMC):

After issue of notification under section 4 (1) JMC to be conducted by the acquiring authority to ascertain the exact extent of land in each survey no. and the buildings, trees and wells and any other structure there on in the land. It is the responsibility of the officers who conduct the JMC that all the required information is noted in the JMC and they have to certify the JMC statement.

If any differences are noticed during JMC regarding survey no. extent, type of land the same should be clearly noted in the JMC statement.

66. Sections:

1. Section 5 (a) Hearing of objections:

Any person interested in any land which has been notified under section-4, sub section (1) may submit the application to the Deputy Commissioner in writing. The Deputy Commissioner has to dispose off the application after giving an opportunity to the objector.

2. Section 6: Declaration that land is required for a public purpose:

After completing the JMC work, a declaration shall be made by the Secretary to the Government (under section 6(1) of the Act) regarding land needed for a public purpose, or for a company as the case may be.

3. Section 7: After declaration Deputy Commissioner to take order for acquisition.

Whenever any land so declared, needed for public purpose or for a company the appropriate Government or officer authorized by the Government in this behalf, shall direct the Deputy Commissioner to take order for the acquisition of the land.

4. Section 8: Land to be marked out, measured and planned:

The Deputy Commissioner shall there upon cause the land (unless it has been already marked out under section – 4 to be marked out and also cause it to be measured.

5. Section 9: Notice to persons interested:

The Deputy Commissioner shall cause public notice to be given at convenient place details of the land required that Government intends to take possession of the lands, and that claims for compensation from all those interested in such land may be made to him.

6. Section 10: Power to require and enforce the making of statements as to names and interest:

The Deputy Commissioner may also require any such person to make or deliver to him at a time and place mentioned, a statement containing as far as may be practicable, his interest & claim in the land.

7. Section 11: Enquiry and award by Deputy Commissioner:

The Deputy Commissioner shall enquire in to the objections if any, which any person interested has stated pursuant to a notice given under section - 9 to the measurement made or to the value of the land.

8. Section 11(a): Period within which an award shall be made:

The Deputy Commissioner shall make an award under section 11 within a period of two years from the date of the publication of the declaration and if no award is made within that period the entire proceedings for the acquisition of the land shall lapse.

9. Section 12: Award of collector when to be final:

The award passed by the Deputy Commissioner shall be filed in his office and the Deputy Commissioner shall give immediate notice to such of the persons interested.

10. Section - 17 Special Powers in Case of Urgency:

11. In case of urgency whenever the appropriate Government so directs the Deputy Commissioner though no such award has been made, may, on the expiration of 15 days from the publication of the notice mentioned in section-9, sub section (1) take possession of any land needed for a public purpose. Such land shall thereupon vest absolutely with the Government free from all encumbrances.

12. Section – 18 Reference to Court:

Any person interested who has not accepted the award, may by written application to the Deputy Commissioner request that the matter be referred by the Deputy Commissioner to the Court of law.

In respect of cases referred under section 18 to the civil court, it is necessary to instruct the Government advocates to participate in the proceedings of the court and to defend the case on behalf of the Government.

13. Section – 23 Matters to be considered in determining compensation:

In determining the amount of compensation to be awarded for land acquired under this Act, the Court shall take in to consideration, the market value of the land on the date of the publication of the notification under Section -4 sub section (1) and damage sustained by the person interested. In addition to the market value the court award 12% per annum additional market value and 30% solarium for compulsory acquisition.

14. Section -30 Dispute as to apportionment:

If any dispute arises to the compensation awarded, the matter may be referred to the court.

15. Section 31: Payment of Compensation or deposit of same in Court:

If no person receives the compensation and if there is any dispute to receive the compensation, the Deputy Commissioner has to deposit the amount in the civil court.

16. Section – 34 Payment of Interest:

When the amount of compensation is not paid or deposited on or before taking possession of the land, the Deputy Commissioner has to pay interest at the rate of 9% per annum for one year from the date of acquisition and 15% per annum from the date of expiry of the period of one year on the amount of compensation.

17. Section – 46 Penalty for obstructing acquisition of land:

Obstruction to acquisition work by anybody is liable for imprisonment and / or fine of Rs. 500/- or both.

18. Section – 48 Completion of acquisition not compulsory, but compensation to be awarded when not completed:

If the land is not required for public purpose the Government may withdraw from any such acquisition.

After passing of the award and payment of compensation, necessary action is to be taken to incorporate the details regarding the acquisition of land in the revenue records.

The concerned records such as notification under section 4(1), 6(1), sketches, mahazars and copies of awards are to be preserved by the acquiring authority and all the details regarding the acquisition of land are to be entered in the property register of the Department.

Bhoomi Monitoring Cell of Revenue Department has developed a software for [processing](#) acquisition of land. The notification and notices may be issued using the software. This helps in automatic updating of land records.

67. PROCEDURE UNDER THE KARNATAKA HIGHWAYS ACT 1964

1. Section – 3 Declaration of roads, ways or lands as highways:

The State Government has to issue a notification in the Official Gazette declaring the roads as a State Highway / Major District Road / Other District Road / Village Road.

2. Section – 4 Appointments of Highway Authorities:

The State Government has to issue notification to appoint any person or any authority to be a Highway Authority for the purpose of this Act.

4. Section – 5 Powers and Duties of Highway Authorities:

The Highway Authority shall exercise the powers and discharge duties in accordance with the provisions of this act for the development of highways.

5. Section – 7 Power to fix boundary of building and control lines of highways:

The State Government has to issue a notification in the official gazette fixing the highway boundary, building line or control line.

6. Section - 8 Map to be prepared and maintained:

The Highway Authority has to prepare a map marking thereon the Highway boundaries and buildings and control lines and any other particulars necessary for the purpose of this Act.

7. **Section – 15 Acquisition of land or right or interest in land:**

The State Government has to issue a notification in the official gazette regarding the acquisition of land required for the development of highways.

8. **Section – 16 Land required to be marked and measured:**

The highway authority or any officer authorized by the Highway Authority has to measure and mark the land and prepare a plan.

After issue of notification under section 15, JMC to be conducted by any officer authorized by Highway Authority with the assistance of the Taluk Surveyor, Revenue Inspector & Village Accountant. It is the responsibility of the officers who conduct the JMC work, that the exact extent of land required in each survey numbers and the buildings, trees, wells etc. in the land are noted in the JMC statement.

The Assistant Commissioner, concerned Engineer and other officials who have conducted JMC work have to certify the JMC statement.

9. **Section – 17 Public notice and other notices of such requirement for acquisition:**

The Highway Authority has to issue a public notice under section 17(1) & individual notices under section 17(2) & (3) to the persons interested in the land acquired.

10. **Section – 19 Taking Possession of land:**

Any time after the publication of the notification under section 15, the State Government may issue direction for taking possession of the acquired lands and from that date the land vests with the Government free from all encumbrances .

11. **Section – 27 Determination of amount of compensation by agreement:**

The Highway Authority or any officer authorized by the State Government is empowered to fix the compensation by mutual agreement.

12. **Section– 28 Determination of amount of compensation in default of agreement:**

In default of agreement under section 27 the compensation may be determined as per section 23 & 24 of the Land Acquisition Act 1894.

13. **Section – 35 Reference against the award of Highway Authority or authorized officer under Section – 28.**

Any person aggrieved by the award of the Highway Authority, the person so aggrieved may request the Deputy Commissioner in writing to refer the matter to the Civil Court.

14. **Section – 39 Payment of compensation awarded:**

The Highway Authority has to make payment of compensation fixed Under Section – 27, 28 or under Section – 35 of the Act as fixed by the Civil Court.

After passing of the award and payment of compensation, action shall be taken to take over the land to the Department and incorporate the details regarding the acquisition of land in the revenue records in the Department register.

The concerned records such as notification under section 15, direction under section 19, strip map mahazar and award copies are to be preserved by the acquiring authority and all the details regarding the acquisition of land are to be entered in Department property register.

CHAPTER - 6 –A
ACQUISITION OF LAND

68. Brief Note on Land Acquisition & Preparation of Land Acquisition plan for Public Works:

- (i) Whenever private land is required to be acquired by Public Work Department for public works, such land can be acquired as per the provisions of "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013". However, the land required for the road projects such as development / maintenance of State Highways / Major District Roads / District Roads / Village Roads shall be acquired either under the aforesaid Act or "The Karnataka Highways Act-1964" provided the entitlements enumerated under this Act confers higher compensation and provisions for rehabilitation and resettlement which is more beneficial than provided under the aforesaid Central Act (section-107).
- (ii) The Land Acquisition plans have to be prepared by concerned Executive Engineer/Assistant Executive Engineer. The LAPs are to be prepared with the assistance of Taluk office staff like Taluk surveyor/ Licensed Surveyor. LAP should contain (1) RTC,(2) Mutation, (3) Akarbandh, ..(4) Tippani', (5) Strip.map..Strip map can be prepared with the assistance of Taluk Surveyor / Licensed Surveyor clearly indicating / marking the area required for acquisition, (6) sketches - area required for acquisition in each survey number to be marked clearly, (7) Village map with area required in each survey number should be clearly marked in the map. It is the responsibility of the concerned engineers to prepare the LAP mentioning the exact extent of land required in each survey number with their boundaries and type of land and crop. The LAP should be attested by the Tahsildar and Engineer concerned before submitting to the acquiring authority. Necessary care and caution shall be taken while preparing LAP to avoid delay and duplication.
- (iii) Adequate Budget provision should be ensured for land acquisition. Three times the guidance value for land & approximate value based on prevailing rates with depreciation of structure / structures shall be taken into consideration for the purpose of Budget Estimate.

69. Procedure under The Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation & Resettlement Act, 2013

(i) Section 4/1- Preliminary Investigation for determination of Social Impact & Public Purpose:-

Whenever the appropriate Government intends to acquire the land for a public purpose it shall consult Panchyat, Municipality or Municipal Corporation as the case may be, at village level or ward level, in the affected area & carry out a social impact assessment study in consultation with them in such manner & from such date as may be specified by such Government by notification

(ii) Section 11-Publication of Preliminary Notification:-

Whenever it appears to the appropriate Government that land in any area is required or likely to be required for any public purpose, a notification (hereinafter referred to as preliminary notification) to that effect along with details of the land to be acquired in rural & urban areas shall be published in the following manner, namely;

- (a) In the official Gazette

- (b) In two daily newspapers circulating in the locality of such area of which one shall be in the regional language
- (c) In the local language in the Panchayat, Municipality or Municipal Corporation , as the case may be & in the offices of the District Collector, the Sub- Divisional magistrate and the Tehsil.
- (d) Upload on the website of the appropriate Government
- (e) In the affected areas in such manner as may be prescribed.

(iii) Section 12- Preliminary Survey of land & Power of officers to carry out Survey.

For the purposes of enabling the appropriate Government to determine the extent of land to be acquired, it shall be lawful for any officer, either generally or specially authorized by such Government in this behalf, and for his servant's and workmen, -

- (a) to enter upon and survey and take levels of any land in such locality;
- (b) to dig or bore into the sub-soil;
- (c) to do all other acts necessary to ascertain whether the land is adapted for such purposes;
- (d) to set out the boundaries of the land proposed to be taken and the intended line of the work (if any) proposed to be made thereon; and
- (e) to mark such levels, boundaries and line by placing marks and cutting trenches and where otherwise the survey cannot be completed and the levels taken and the boundaries and line marked, to cut down and clear away any part of any standing crop, fence or jungle;

Provided that no act under clauses (a) to "(e) in respect of land shall be conducted in the absence of the owner' of the land or in the absence of any person authorised in writing by the owner.

Provided further that the acts specified under the first proviso may be undertaken in the absence of the owner, if the owner has been afforded a reasonable opportunity to be present during the survey, by giving a notice of at least sixty days prior to such survey. Provided also that no person shall enter into any building or upon any enclosed court or garden attached to a dwelling-house (unless with the consent of the occupier thereof) without previously giving such occupier at least seven days' notice in writing of his intention to do so.

(iv) Section 15 - Hearing of objections

Any person interested in any land which has been notified under sub-section (1) of section 11, as being required or likely to be required for a public purpose, may within sixty days from the date of the publication of the preliminary notification, object to —

- (a) the area and suitability of land proposed to be acquired;
- (b) justification offered for public purpose;
- (c) the findings of the Social Impact Assessment report.

- (2) Every objection under sub-section (1) shall be made to the Collector in writing and the Collector shall give the objector an opportunity of being heard in persons or by any person authorized by him in this behalf or by an Advocate and shall, after hearing all such objections and after making such further inquiry, if any, as he thinks necessary, either make a report in respect of the land which has been notified under sub-section (1)

of section 11, or make different reports in respect of the different parcels of such land, to the appropriate Government, containing his recommendations on the objections, together with the record of the proceedings held by him along with a separate report giving therein the approximate cost of land acquisition, particulars as to the number of affected families likely to be resettled, for the decision of the Government.

(3) The decision of the appropriate Government on the objections made under sub-section (2) shall be final

(v) Section 19 - Publication of Declaration & Summary of Rehabilitation & Resettlement:-

(1) When the appropriate Government is satisfied after considering the report if any, made under sub-section (2) of section 14, that any particular land is needed for a public purpose, a declaration shall be made to that effect, along with a declaration of an area identified as the "resettlement area" for the purposes of rehabilitation and resettlement of the affected families, under the hand and seal of a Secretary to such Government or of any other officer duly authorized to certify its orders and different declarations may be made from time to time in respect of different parcels of any land covered by the same preliminary notification irrespective of whether one report of different reports has or have been made (wherever required).

(2) The Collector shall publish a summary of the Rehabilitation and Resettlement Scheme along with declaration referred to in sub-section (1).

(3) In projects where land is acquired in stages, the application for acquisition itself can specify different stages for the rehabilitation & resettlement, and all declaration shall be made according to the stages so specified.

(vi) Section 20 - Land to be marked out & measured:-

The Collector shall thereupon cause the land, unless it has been already marked out under section 12, to be marked out and measured, and if no plan has been made thereof, a plan to be made of the same.

(vii) Section 21- Notices To persons interested:-

The Collector shall publish the public notice on his website and cause public notice to be given at convenient places on or near the land to be taken, stating that the Government intends to take possession of the land, and that claims to compensations and rehabilitation and resettlement for all interests in such land may be made to him.

(viii) Section 22- Power to require & enforce the making of Statement:-

The Collector may also require any such person to make or deliver to him, at a time and place mentioned (such time not being less than thirty days after the date of the acquisition), a statement containing, so far as may be practicable, the name of every other person possessing any interest in the land or any part thereof as co-proprietor, sub-proprietor, mortgagee, tenant or otherwise, and of the nature of such interest, and of the rents and profits, if any, received or receivable on account thereof for three years next proceeding the date of the statement.

(ix) Section 23 - Enquiry & land acquisition award:-

On the day so fixed, or on any other day to which the enquiry has been adjourned, the Collector shall proceed to enquire into the objections (if any) which any person interested has stated pursuant to a notice given under section 21, to the measurements made under section 20, and into the value of the land at the date of the publication of

the notification, and into the respective interests of the persons claiming the compensation and rehabilitation and resettlement shall make an award under his hand of -

- (a) the true area of the land;
- (b) the compensation as determined under section 27 along with Rehabilitation and Resettlement Award as determined under section 31 and which in his opinion should be allowed for the land; and
- (c) the apportionment of the said compensation among all the persons known or believed to be interested in the land, or whom, or whose claims, he has information, whether or not they have respectively appeared before him.

(x) Section-24 - Land acquisition process under 1894 LA Act deemed to have lapsed in certain cases:-

Notwithstanding anything contained in this Act, in any case of land acquisition proceedings initiated under the Land Acquisition Act, 1894 -

- (a) where no award under section 11 of the said Land Acquisition has been made, then all provisions of this Act relating to the determination of compensation shall apply; or
- (b) where no award under section 11 of the said Land Acquisition has been made, then such proceedings shall continue under the provisions of the said Land Acquisition Act, as if the said Act has not been repealed.

70. Determination of Market value, compensation & payment of solatium:-(i)

Section 26 - Determination Of market value of land:-

The Collector shall adopt the following criteria in assessing and determining the market value of the land, namely : -

- (a) the market value, if any, specified in the Indian Stamp Act, 1899 for the registration of sale deeds or agreements to sell, as the case may be, in the area, where the land is situated ; or
- (b) the average sale price for similar type of land situated in the nearest village or nearest vicinity area; or
- (c) consented amount of compensation as agreed upon under sub-section (2) of section 2 in case of acquisition of lands for private companies or for public private partnership projects, whichever is higher, Provided that the date for determination of market value shall be the date on which the notification has been issued under section 11.

(ii) Section 27 - Determination amount of compensation:-

The Collector having determined the market value of the land to be acquired shall calculate the total amount of compensation to be paid to the land owner (whose land has been acquired) by including all assets attached to the land.

(Hi) Section 30- Award Of Solatium:-

The Collector having determined the total compensation to be paid, shall, to arrive at the final award, impose a "Solatium" amount equivalent to one hundred per cent of the compensation amount.

71. Special powers, Authority & Appeal.

(i) Section 40 - Special Powers in Case of urgency:-

In case of urgency, whenever the appropriate Government so directs, the Deputy Commissioner of the District and any special officer designated by the Government, though no such award has been made, may, on the expiration of thirty days from the publication of the notice mentioned in section 21, take possession of any land needed for a public purpose and such land shall thereupon vest absolutely in the Government, free from . all encumbrances.

(ii) Section 64 - Reference to Land.Acquisition, Rehabilitation & Resettlement Authority:-

Any person interested who. has not accepted the award may, by written application to the Collector and any special officer designated by the Government, require that the matter be referred by the Collector for the determination of the Authority, as the case may be, whether his objection be to the measurement of the land , the amount of the compensation , the person to whom it is payable, the rights of Rehabilitation & Resettlement or the apportionment of the compensation among the person interested.

(iii) Section 69- Determination of award by Land Acquisition, Rehabilitation & Resettlement Authority:-

- (1) In determining the amount of compensation to be awarded for land acquired including the Rehabilitation and Resettlement entitlements, the Authority shall take into consideration whether the Collector has followed the parameters set out under section 26 to section 30 and the provisions under Chapter-V of this Act.
- (2) In addition to the market value of the land as above provided, the Authority shall in every case award an amount calculated at the rate of twelve per cent per annum on such market value for the period commencing on and from the date of the publication of the preliminary notification under section 11 in respect of such land to the date of the award of the collector or the date of taking possession of the land, whichever is earlier.

Explanation - In computing the period referred to in this sub-section, any period or periods during which the proceedings for the acquisition of the land were held up on account of any stay or injunction by the order of any Court shall be excluded.

- (3) In addition to the market value of the land as above provided, the authority shall in every case award a Solatium of one hundred per cent over the total compensation amount:

(iv) Section 74 — Appeal To High Court:-

- (1) The Requiring Body or any person aggrieved by the Award passed by an Authority under section 69 may file an appeal to the High Court within sixty days from the date of Award. Provided that the High Court may, if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal within the said period, allow it to be filed within a further period not exceeding sixty days.
- (2) Every appeal referred to under sub-section (1) shall be heard as expeditiously as possible and endeavour shall be made to dispose of such appeal within six months from the date on which the appeal is presented to the High Court.

Explanation - For the purpose of this section "High Court" means the High Court within the jurisdiction of which the land acquired or proposed to be acquired is situated.

72. (i) Section 77- Payment of compensation:-

On making an award under section 30, the Collector shall tender payment of the compensation awarded by him to the persons interested entitled thereto according to the award and shall pay it to them by depositing the amount in their bank accounts unless prevented by someone or more of the contingencies mentioned in sub-section (2).

If the person entitled to compensation shall not consent to receive it, or if there be no person competent to alienate the land, or if there be any dispute as to the title to receive the compensation or as to the apportionment of it, the Collector shall deposit the amount of the compensation in the Authority to which a reference under section 64 would be submitted.

(ii) Section 80-Payment of Interest

When the amount of such compensations is not paid: or deposited on or before taking possession of the land, the collector shall pay the amount awarded with interest thereon at the rate of nine percent, per annum from the time of so taking possession until it shall have been so paid or deposited.

73. (i) Section 81- Temporary occupation of waste or arable land:-

Whenever it appears to the appropriate Government that the temporary occupation and use of any waste or arable and are needed for any public purpose, the appropriate Government may direct the Collector to procure the occupation and use of the same for such terms as it shall think fit, not exceeding three years from the commencement of such occupation.

(ii) Section 93 — Withdrawal of Acquisition:-

The appropriate Government shall be at liberty to withdraw from the acquisition of any land of which possession has not been taken.

Whenever the appropriate Government withdraws from any such acquisition, the Collector shall determine the amount of compensation due for the damage suffered by the owner in consequence of the notice or of any proceedings there-under, and shall pay such amount to the person interested, together with all costs reasonably incurred by him in the prosecution of the proceedings under this Act relating to the said land.

Note: 1) "The Collector" means the Collector of a revenue district, and includes a Deputy Commissioner and any Officer specially designated by the appropriate Government to perform the functions of a Collector under "The Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation & Resettlement Act, 2013".

2) The Rules for this act are being framed by the Revenue Department. Once the new rules are notified the same shall be followed.

CHAPTER – 7

BUDGET

74. Preparation of Departmental Estimates:

1. The expenditure on all non-functional buildings (general) that is buildings coming under general use of services is shown under a single major head "2059 Public Works" in the Revenue account or under "4059, Capital Outlay on Public Works" if met from the Capital account. The expenditure on functional buildings under 'Social and Community Services' and 'Economic Services' like schools, hospitals, etc., will however be shown under the relevant functional major heads like Education, Medical and others. The expenditure on residential buildings will be shown under "Housing". Similarly the expenditure on roads will be shown under a separate major head 'Roads and Bridges' as under.

| Sl.No | Head of Account | Grant | Outlay |
|----------|---|-------|--------|
| I | MAJOR WORKS: PLAN | | |
| 4059 | C.O. on Public works | | |
| 4216 | C.O. on Housing | | |
| 4403 | C.O. on Animal Husbandry | | |
| 4402 | C.O. on Education Art & Culture | | |
| 4210 | C.O. on Medial and Public Health | | |
| 4211 | C.O. on Family welfare | | |
| 4217 | C.O. on Urban Development | | |
| 4225 | C.O. on Welfare of S.Cs, S.Ts and B.Cs | | |
| 4235 | C.O. on Social Security and Welfare | | |
| 4450 | C.O. on other Social & Community Services | | |
| 4401 | C.O. on Crop Husbandry | | |
| 4405 | C.O. on Fisheries | | |
| 4515 | C.O. on Other Development Programme & Community Development | | |
| 4885 | C.O. on Industries & Minerals | | |
| 4851 | C.O. on Village and Small Industries | | |
| 5452 | C.O. on Tourism | | |

| | | | | |
|-----------|---|------------------------|--|--|
| II | MINOR WORKS | | | |
| 2059 | Public Works voted | Plan, Non Plan Charged | | |
| 2011 | State Legislature | Plan & Non Plan | | |
| 2015 | Election | Plan & Non Plan | | |
| 2051 | Public Service Commission | Plan & Non Plan | | |
| 2052 | Secretariat General Service | Plan & Non Plan | | |
| 2058 | Stationery and Printing | Plan & Non Plan | | |
| 2216 | Housing (Government residential buildings) (Voted) | Plan, Non Plan Charged | | |
| 3054 | Roads and Bridges | Plan & Non Plan | | |
| 2202 | Education | Plan & Non Plan | | |
| 2203 | Technical Education | Plan & Non Plan | | |
| 2205 | Arts and Culture | Plan & Non Plan | | |
| 2210 | Medical & Public Health | Plan & Non Plan | | |
| 2211 | Family Planning | Plan & Non Plan | | |
| 2230 | Labour and Employment | Plan & Non Plan | | |
| 2235 | Social Security and welfare | Plan & Non Plan | | |
| 2252 | Community and other social service | Plan & Non Plan | | |
| 2401 | Agriculture | Plan & Non Plan | | |
| 2435 | Other Agriculture Programme | Plan & Non Plan | | |
| 2408 | Food | Plan & Non Plan | | |
| 2403 | Animal Husbandry | Plan & Non Plan | | |
| 2405 | Fisheries | Plan & Non Plan | | |
| 2406 | Forest | Plan & Non Plan | | |
| 2515 | Community | Plan & Non Plan | | |
| 2852 | Industries | Plan & Non Plan | | |
| 2851 | Village and Small Industries | Plan & Non Plan | | |
| 2070 | MISCELLANEOUS Other Administrative Services (Helicopter) | Plan & Non Plan | | |

| | | | | |
|------|------------------------------------|-----------------|--|--|
| 2070 | O A II Lokayuktha | Plan & Non Plan | | |
| 8000 | Contingency fund | | | |
| 6003 | Internal Debt of State Government. | Plan & Non Plan | | |
| 2049 | Interest Payments | Plan & Non Plan | | |

2. The Estimates in respect of "Salaries" "Allowances" "Office expenses" should be prepared in accordance with the instructions given in preceding paragraphs. In respect of Estimates under minor heads "Construction", "Maintenance and Repairs", "Furnishing", "Machinery and Equipment" the instructions given in the following paragraphs should be followed.

75. New major works:

1. Before provision can be made in the budget for new major works, formal approval of the concerned Department in the Government shall be obtained. Where land is required to be acquired, the likely delay in getting possession of the land should be assessed so that the amount that is likely to be actually spent during the year can be provided. No work shall be included in the Appendix-E without possession of land. Provision should be made on the basis of the latest estimate of costs. It is preferable to have possession of land before inviting tenders.
2. Officers should forward to the Chief Engineer by 2nd week of November in Budget Manual Form No. 9 lists of new major works, which have received the formal approval of Government for execution in the ensuing financial year. The works should be arranged in order of urgency and the grounds on which a particular work is considered necessary and urgent and the fact whether the land is available or is still to be acquired should also be stated. All works, the Estimates for which are more than five years old at the end of August, of the year previous, to that in which they have to be entered in the budget and which have not been completely revised by that time should be deleted from the list for the year. To prevent important works from being deleted from the list, however, the heads of Departments should take steps early in the year through the Executive Engineer concerned, for the revision of the plans and Estimates of such works and then obtain revised Administrative Approval as also the Technical Sanction of the competent authority.
3. The Chief Engineer should consolidate the Estimates received from the officers and arrange them according to major heads and forward the list to the Government in the administrative Department.
4. The procedure should also apply to the major works carried out by the Department wholly or partly from funds provided by contributions. In such cases, particulars such as the amount of contribution received and held in deposit, amounts to be provided by Government from State funds and the stage in regard to preparation of plans and estimates should be given.

76. Estimates for works:

The estimates in respect of the following items require special attention of the estimating officers.

- (a) Major works in progress

- (b) Minor works
- (c) Maintenance and repairs
- (e) Land Acquisition
- (f) Emergency/Calamity

77. Major works in progress:

Estimates for major works in progress should be submitted in Budget Manual form No. 10 **explaining** the necessity. Only such amount as can be usefully spent during the year should be included in the estimate. In the light of the progress of expenditure in the current year, the revised estimate should be framed.

78. Minor Works:

These works are undertaken from the lump sum provision made under each minor head. The provision proposed should be justified by giving adequate reasons and with due regards to the actual expenditure during the past years.

79. Maintenance and Repairs:

Estimates of repairs to buildings, roads and bridges should be submitted in Budget Manual forms No. 1 and 2. Explanations for important variations between the proposed Estimate and average expenditure during the preceding years should always be given.

80. Machinery and Equipment:

Lump sum provision of tools and plant (excluding special tools and plant) for public works should be made under "2059 Public Works" according to the requirement of executive engineers.

81. Land Acquisition:

Provision for land acquisition in major projects involving huge amounts shall form part of the project. However in cases of road and bridge projects especially involving court cases, separate estimates shall be proposed under the specific sub-head "Land acquisition".

In projects involving land acquisition, estimates may be prepared **separately** for acquisition of land and for project proper. Estimate for land acquisition may be sanctioned first and only after the land is in the possession of the Department, the tenders for the project proper may be invited.

82. Distribution of establishment and machinery & equipment charges:

The staff of the Department attend to works accounted for under many major heads viz.; "5054 Capital Outlay on Roads and Bridges" , "4059 Capital Outlay on Public Works", "4216 Capital Outlay on Housing", and Deposit heads such as "District Funds", "Municipal Funds", "Private Contribution works", etc. In order to account for the establishment and tools and plant charges under each head, the following procedure is in force.

83. Establishment:

- (i) The "Gross Expenditure" on the common establishment of the Department will be recorded under the Minor Head, "Direction and Administration" below "2059 Public Works". This minor head will have suitable sub-heads such as "Direction" "Designs", "Supervision", "Execution", "Architecture" etc. From this "Gross Expenditure", the distribution of the charges will be in two stages as explained below;

- (ii) The first stage of distribution will be in respect of the establishment charges relatable to capital major heads. The distribution of establishment charges from the omnibus P.W. Major Head to these will be calculated on a percentage basis, as per the existing principles in K.P.W.A.Code, the percentages being carefully determined by Government in such a manner as to remain current for at least three years so as to avoid frequent recalculations.
- (iii) In respect of establishment charges relatable to works done for other Governments, local funds, private parties, recovery will be made on percentage basis to be determined by Government and credited to the Major Head "0059 - Public Works - Other Receipts" as Revenue.
- (iv) The debits for the proportionate charges on establishment apportioned to the capital major heads will be adjusted under the sub-head "Buildings" under the appropriate programme Minor Heads against a distinct detailed head (or Object Classification) "Establishment" to be owned for the purpose. The contra credit (minus debit) under "2059 Public Works" will be booked under a distinct sub-head "Deduct-Establishment charges transferred on percentage basis to Capital Major Heads" below "Direction and Administration". Such adjustments may be done monthly in the Public Works Divisional accounts.
- (v) Centage charge, recovery of which is waived by Government should be treated as grant-in-aid and adjusted as such in accounts by debit to the functional major head of account concerned and credit to "0059 Public Works". For instance, the centage charges waived for a school building shall be debited to "2202 Education".
- (vi) The next stage in the Revenue section is not necessary. For this purpose from the residuary expenditure under "Direction and Administration", at the end of the year, after the adjustment as above is carried out, the amounts recovered during the year from other Government local bodies etc, on percentage basis for work done on their behalf and credited to Public works as revenue will be notionally deducted to arrive at the net charges on establishment relating to Public works (Original work) in the "Revenue section". From this net amount a pro-rata distribution of the charges to "2216 - Housing", and "3054 - Roads and Bridges", will be made according to works outlay record under these major heads vis-a-vis the total revenue expenditure on Public works (Original works) in all major heads in the revenue section. The distributable amounts so calculated will be adjusted from "2059 - Public works" through a deduct sub-head "Deduct-Establishment charges transferred pro-rata to "Housing", etc. by per contra debit to "2216 - Housing-Direction and Administration".

84. Communication of Grant:

1. As soon as the Appropriation Act is enacted, the Finance Department will intimate the same to all the administrative departments of the secretariat, heads of departments and other controlling officers indicating at the same time whether the demands have been voted in full or whether any amounts have been omitted or reduced by the Legislature either through substantive or token cuts and the purpose or object underlying each such cut. The administrative departments, heads of departments and other controlling officers will be responsible for taking necessary action immediately for communication of budget allotment to all disbursing officers under their control following the provisions of the budget manual. The administrative secretaries, heads of departments or the controlling officers as the case may be shall be responsible to ensure that the expenditure whether voted or charged, is kept strictly within the authorized grant or appropriation and where cuts have been made by the Legislature in the demands, to

ensure that the purpose or object underlying the cuts is duly fulfilled. They should carefully remember that it is not permissible to increase or provide for expenditure on any item the provision for which has been specifically reduced or disapproved by the Legislature through a substantive or a token cut.

2. The administrative departments will also ensure that the new items of expenditure for which provisions have been made in the budget as passed by the Legislature, are sanctioned by them as soon as possible. The orders will be issued with the concurrence of the Finance Department, except where that Department may have delegated the necessary financial powers to the administrative departments. A copy of each such order should be sent to the Accountant General and the Finance Department.
3. The Finance Department will supply copies of the budget literature and Appropriation Act to the Accountant General and while doing so, will communicate to him cases in which, on demand being presented to it, the Legislature has **not considered** to provide funds of expenditure on a particular item.

85. Distribution of Grants by Controlling Officers:

1. The heads of Departments and other controlling officers may distribute either the whole or a portion of the grants placed at their disposal among the disbursing officers who are subordinate to them in such manner as they may deem fit. In cases relating to the Estimates that are consolidated by the secretariat Departments, the necessary distribution of the grants amongst various officers will be made by those Departments.
2. In distributing allotments, care must be taken to intimate the allotments with complete accounts classifications of each sum allotted i.e., the major and minor heads, the primary units of appropriation, the secondary units and the detailed heads of Accounts (wherever they exist).
3. The appropriation under establishment charges need not be distributed where the officers and establishment are borne on state **wide** cadres and the provision for their pay exists under the same minor head. But where the cadres are not organized on a state **wide** basis or provision exists under different heads, or where the posts are isolated ones or are sanctioned temporarily for particular work or scheme, the appropriations under these units have necessarily to be distributed among various officers.
4. No distribution should generally be made of the appropriations under those heads where expenditure is watched by the controlling officer against the total grant but there is no bar to the controlling officer distributing the appropriations under such heads among the various disbursing officers if he considers it necessary to do so in the interest of exercising efficient control over expenditure.
5. In respect of such items of expenditure as annual contribution, special repairs, purchase of equipment which do not occur every month, the controlling officer has full discretion to decide whether he will distribute the grant or retain the full appropriation under his own control requiring disbursing officers who wish to spend money against it to apply to him for special allotment as and when the need arises.
6. Entire major works grant shall be enlisted in the Appendix 'E' as under:

The Executive Engineer shall prepare work wise annual implementation time schedule & shall complete the work accordingly.

Road & Bridge works: The road and bridge works are now being completed within one year with the adoption of new technologies and better management. Hence, road

and bridge works costing less than Rs. 5 crore shall be taken up with full budget provision, and works costing more than Rs. 5 crore shall be provided with 50% budget in the first year and remaining 50% shall be provided in the subsequent year for completing the work.

Other works: For works other than roads & bridges budget allocation shall be made as under;

- i). For the works costing up to Rs. 25 lakh which can be completed within 1 year, budget allocation of 100% of the estimated cost shall be made.
- ii) For the works to be completed within 2 years, budget allocation of 40% of the estimated cost shall be made in the first year and balance 60% in the second year.
- iii) For the works to be completed within 3 years, budget allocation of 30%, 40% and 30% shall be made during first, second and third year respectively.

No work shall be included in Appendix-E without grant as indicated above. The Appendix –E shall contain nomenclature of works and chainage in case of road works (starting km and ending km) and numbers of floors in case of buildings. No works shall be split. Divisional officers will be responsible for any lapses.

The expenditure must be so distributed according to time schedule based on mile stone event where included in the contract.

Budget Accuracy: The Budget Estimates must be realistic and as per actual requirement. The proposals should not be hypothetical and there should be no scope for large variations between the Budget Estimates and actual expenditure. The expenditure must be evenly distributed throughout the financial year to avoid rush of expenditure in the last quarter of the financial year.

Pre-budget scrutiny of new schemes: Heads of Departments should send new plan schemes including new buildings proposed to be taken up, for pre-budget scrutiny well in time before submission of estimates. The same shall be first sent to the concerned Secretaries to Government having Internal Financial Advisor system who in turn after scrutiny by Internal Financial Advisors will forward it to Planning Department and Finance Department for approval and clearance of the scheme and inclusion in the Budget Estimates.

Provisions for all buildings will be made under ‘Plan’ only. The Departments concerned should allocate sufficient amount out of their Plan allocation for buildings. While doing so, the Department concerned should take into account buildings that are already under construction and provide for new works after allocating sufficient amounts for works under progress. The Chief Engineer (C&B) should furnish a list of works in progress to the concerned Heads of Departments who will be responsible for providing necessary and sufficient funds under plan. The list of works and the estimates should be sent to Finance Department/Internal Financial Advisor along with the plan Budget Estimates. In accordance with the decision taken by Government, sufficient provision should be made so as to complete the work as per codal provisions. No token provision will be allowed.

In the matter of allocation of Budgetary provision between works in progress and fresh works to be taken up for execution, care should be taken to see that sufficient amounts are set apart for the on going works in order to complete them early, and in less than 2 years in any case. Accordingly, allocation of minimum 40% and 60% of the balance cost should be provided in the budget. Only thereafter, provisions may be proposed for fresh works. For this purpose a priority list may be prepared and sent to Government for consideration.

The forms for explaining the variations between Budget Estimates and Revised Estimates are given below.

Statement showing the variations between Budget Estimates and Revised Estimates for the year

| Head of Account | Budget Estimates for current financial year- BE | Revised Estimates of current financial year- RE | Variations between Budget Estimates & Revised Estimates. (increase/decrease) | Reasons for Variations | |
|--------------------------------|--|---|--|---------------------------------------|-------------------------------|
| Budget Estimates for next year | Variations from the Revised Estimates of current year & Budget Estimates of next year.(increase/ decrease) | Reasons for Variations | To be filled by FD officers/offices | | |
| | | | Accounts of previous year | Accounts for 6 months of current year | Opinion of Finance Department |

The Estimates shall be typed major head wise under each scheme. Separate sheets should be used for major heads.

The Estimating Officers shall frame the Revised Estimates for the current year with reference to the actuals of the preceding years, the actuals of the first six months of the current year and the probable expenditure for the remaining six months. The variations between budget Estimate and revised Estimate should be explained. Where increases are permitted by Government, reference to the Government Order in which increases were sanctioned/ authorized should invariably be quoted. The Estimates proposed should be based on the actual for the proceeding years and also on the proposed revised Estimates of that year.

Re-appropriation or Supplementary grants will not be sanctioned unless separate proposals are sent to the Government. Savings which are not required under other heads within the same grants should be surrendered to the Government. In no case should such savings be kept in the Personal Deposit Account of the Departments to avoid lapse of grants. In the event of such a contingency, specific order of Government in the Finance Department should be taken.

The necessity of communication of grants comes to picture on non-plan works or on revenue expenditure. As such, before distributing the grants, the controlling officers shall call for the details of works which are going to be executed within first six months on the basis of the floor area of the buildings as well as road length in km. The division plays a major role in spending this amount. The Divisional officer has to take more care in the preparation of programme of works. The estimates shall be prepared by the sub-divisions on the basis of the sub-division wise programme of works already approved by the authority competent or otherwise. It is the main responsibility of the Executive Engineer to sanction the estimates or obtaining sanction from higher authority within the limits of the grants allotted and as per the

approved list only. The audit officer and his staff will play a major role in watching the grants allocated to the divisions by the competent authority. A register in the accounts branch shall be opened for watching the grants allotted. Before sanctioning, all the estimates shall be forwarded to the accounts branch for audit certificate which shall be in the following format;

Audit Certificate:

1. Name of work:
2. Head of account:
3. Total Grant allotted :
4. Authority for allotment :
5. Total grant utilized prior to the sanction of this estimate :
6. Grant required for this work:
7. Cumulative grant spent on Estimates
8. Balance grant.(Sl.No.5-6):

Signature of Auditor

Signature of
the Audit Officer

Similarly head wise allotment of grant and estimates sanctioned is to be watched by maintaining a register in the audit branch in the following pro-forma to ensure the complete control over the grants.

| Sl. No. | Grant Released for the year | Name of work for which estimate has been sanctioned | Head of Account | | |
|---------|-----------------------------|---|--------------------|----------------------------|---------------------------------|
| | | | Amount of Estimate | Progressive grant utilized | Balance available (column 2 -5) |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | | |

86. Early action for communication of grants:

1. It is necessary that the communication of grant be effected with the least possible delay. Every effort should be made to utilize the allotted grant. For this purpose, the following procedure shall be adopted.
 - (i) After the budget Estimates are presented to the Legislature, the Finance Department will arrange for supply of budget publications to the secretariat Departments, Heads of Departments and other controlling officers as early as possible.
 - (ii) Immediately after the receipt of these publications the administrative Departments of the secretariat, Heads of Departments and other controlling officers shall prepare and keep ready the statement showing the distribution of grants among the disbursing officers under their control.
2. As soon as the authorization to incur expenditure is received from the Finance Department, the orders distributing the grants shall be issued.
3. If only "Vote on Account" is taken, the grants mentioned in the budget documents supplied to them will have to be modified as mentioned in the authorization order

issued by the Finance Department before distributing grants among the disbursing officers.

4. When the full demands are voted, intimation will again be given by the Finance Department. The grants mentioned in the authorization order should then be distributed among the disbursing officers.

87. Items provisionally approved by Finance Department:

1. Sometimes proposals for certain new schemes or items of new expenditure are referred to the Finance Department so late in the year that it is not possible for that Department to examine them completely in detail. At the same time, such new schemes or items may be considered to be so urgent and essential that the inclusion of necessary provision in the budget cannot be postponed. In such cases, the Finance Department may allow provision for them pending examination of all relevant details.
2. All such items must necessarily be examined thoroughly both in the administrative Departments and in the Finance Department, before sanction is accorded to the expenditure. In fact such further examination should be started and completed well in time after the presentation of the budget so as to enable the administrative Departments to issue necessary order as early as possible after the passing of the budget.

a. Distribution of lump sum provisions:

The working out of details for utilization of lump sum provisions should be started immediately after the amounts have been finally included in the budget. The administrative Department should settle the details of the lump sum provisions in consultation with the Finance Departments and issue orders as early as possible. This procedure will however not be necessary in respect of lump sum provisions when the expenditure is regulated by standing sanctions, instructions or rules.

b. Timely intimation of termination of sanction:

In the case of committed expenditure e.g. pay and allowances of permanently sanctioned posts and recurring contingencies, no fresh sanction is necessary and the sanction once given remains valid unless the funds necessary to make the sanction operative have been specifically refused either by the Legislature or by the Government. It is therefore, the duty of the administrative Departments of the secretariat to inform the disbursing officers concerned through the heads of Departments as soon as possible after refusal of funds by the Legislature or as soon as a decision has been taken by Government as the case may be, of all cases in respect of which sanction to a particular expenditure has been terminated. In the case of the expenditure sanctioned for a specified term, the sanction becomes inoperative after the expiry of that term. The disbursing officers should move the Government through proper channel in time for extension of the term when it is considered necessary. The disbursing officers should be informed of all cases in respect of which the sanction is not to be renewed. It is necessary that all such orders should be communicated well in time because, in the absence of a definite order to the contrary they may continue to incur expenditure in anticipation of sanction of the competent authority which will constitute a financial irregularity.

88. Re-appropriation:

The Appropriation Act is accompanied by detailed Estimates, but the provision in these Estimates are not so rigid. It is hardly possible in practice to adhere strictly to the Estimates for every item in the budget prepared some months before the commencement of the year and it may be necessary to spend more on one item and less on another. In such cases necessary transfer may be made within a grant whether out of sums charged on the revenues or out of the grant-voted by the Legislature, but not from one to other. Such transfers are known as re-appropriations. Except in certain special cases in which re-appropriations are not permissible, the Finance Department has full powers of re-appropriations in this grant, while the administrative Departments of the Secretariat and the heads of Departments exercise limited powers of re-appropriations in accordance with the rules framed by the Finance Department from time to time.

CHAPTER-8

SCHEDULE OF RATES

89. Schedule of rates is an important document of the Public Works Department as all the estimates are prepared adopting the rates therein and in turn the payments for works done are with reference to these rates. The Karnataka Standard Rate analysis for Buildings (KSRB) and Karnataka Standard Rate analysis for Roads and Bridges (KSRRB) have been approved by the Government of Karnataka in No. PWD 315 CRM 96 (Part) dated 16-9-2002 and have come into effect from 1-11-2002. Each item of work in the KSRB and KSRRB gives brief description of the work and reference to the specification number in the KBS and KSRB. The specification gives full particulars of the work to be executed. These two, namely the details of work mentioned in the rate analysis and the relevant detailed specification together describe the work for which the standard rate analysis is given for that particular item.

Schedule of rates for the roads, buildings & bridges shall invariably be prepared by the concerned Chief Engineers of the P.W.D zones and it shall be applicable for all works carried out in the districts under their jurisdiction.

While preparing schedule of rates the concerned Executive Engineers shall be actively involved. There shall be one schedule of rates for the entire circle. Items listed in the standard schedule of rates format of P.W.D. Water Resources and PRED Schedules of rates may be referred whenever the Department executes such works. Superintending Engineers of all circles irrespective of PRED, Water Resources, PHE, BWSSB (for Bangalore), Karnataka Urban Water Supply and Drainage Board shall be consulted for finalizing rates of labour, material and hire charges of machinery, so that rates of similar items are adopted in the schedule of rates of respective organizations.

1. Immediately after the announcement of the Central or State budget, the Chief Engineers of Public Works Department shall constitute a committee consisting of the Superintending Engineers and Executive Engineers concerned, and also fix up and circulate a time schedule for collection of data, preparation of schedule of rates, approval and issue of printed copies for distribution. The representatives of the state Government undertakings executing the departmental works and of Karnataka State Contractors' Association shall be invited to participate effectively in the proceedings of the committee. Chief Engineer should ensure that the time schedule drawn up is strictly adhered to.
2. (a). Market Rate or Market Price for materials is defined as the price fixed by the buyer and seller in the open market in the usual and ordinary course of lawful trade and competition. It is the price or value of the article established or shown by sales public or private, in the ordinary way of business. It is the price that would fetch in the market under the state of things existing for the time being. It includes the cost of material, labour, machinery, hire, transportation, handling, packaging, insurance, sales tax, royalty, central excise and customs duty wherever applicable and all incidental charges, the overhead and the profit component. The phrase 'market value' for the sale of goods means the price in the market to an ordinary consumer.
 - (b). The labour rates shall be considered based on the minimum wages and the daily allowance notified by the Labour Department from time to time.
 - (c). Adopting these rates for labour, materials and hire charges of machinery, draft rates shall be worked out as per the standard rate analysis approved by the

Government for all items and those rates should be sent to all the members of the SR committee for study and for communicating their views on each and every item together with reasons thereof.

- (d). The Chief Engineer will then convene a meeting of the SR Committee, discuss all the rates examining all the suggestions received and accord his approval under his full signature with date . The schedule of rates will come into effect on the date it is approved by the Chief Engineer or at a later date determined by Chief Engineer, but not later than June 1st of every year.

A Soft copy shall also be supplied along with the printed Schedule of Rates.

3. The schedule of rates shall invariably be got printed in a local printing press within 15 days of approval and the printing charges shall be met by the Government in the first instance and later recovered by sale of these schedule of rates books at the reasonable rate fixed by the Superintending Engineer. Schedule of rates shall be printed every year.
4. In case of procurement of aggregate for works or procurement of Ready Mix Concrete, if the royalty is paid already by the suppliers, certificates may be obtained in support of deduction and no further royalty shall be recovered from the bills.
5. Every effort shall be made to conduct work performance studies, so that reliable observed data is available for works under execution. Studies shall be conducted at different work sites in different places and the results critically reviewed by Engineers in the Departmental meetings and it shall be the responsibility of Executive Engineers to suggest modifications in the standard rate analysis based on such observed data. While it is within the power of Superintending Engineers to approve rates as per rate analysis in KSRB and KSRRB and approved standard rate analysis, any modification in the standard rate analysis which is approved by Government can only be effected after an amendment is issued by the Government in the Public Works Department.
6. When it is found from a number of cases that the amounts of tenders for works are less than the amount of the estimates for the same by ten percent, or more (which are based on the rates entered in the schedule of rate), the Superintending Engineer shall take steps to find out the contracting strategy adopted by the contractors in offering lesser tender premiums. A proper analysis shall be made of all such tenders and the findings utilized in approving the schedule of rates. No reduction in rates need be effected if the Executive Engineer comes to the conclusion that reduction in tender rates received is due to undesirable competition and the reductions offered are just to get the work.
7. The schedule of rates shall provide for a profit of 10 % and over head charges at 10 % over the prime cost of the work.
8. The schedule of rates shall be revised every year, and in working out the rates, the lowest tendered rates for works in the locality during the twelve months preceding its preparation, the tendency to fluctuate in the prices shall be taken into account. Due to extraordinary circumstances, if approval to the schedule of rates were to be delayed beyond the prescribed date, the schedule of rates of the previous year may be continued for some period of the succeeding year till the eventual approval of the new schedule of rates.

9. As the schedule of rates is an important document which forms the basis for audit of expenditure incurred on public works, the Superintending Engineer shall forward to the Accountant General's Office directly a copy of the schedule of rates relating to his zone as approved by him while communicating approval thereto.

CHAPTER – 9

DETAILED PROJECT REPORT AND PREPARATION OF ESTIMATES

90. Estimates:

1. Preparation of a detailed project report for a new work shall always be after extensive discussions held and recorded wherever necessary with all the concerned officers and / or with the officers of the user Department and after reconnaissance and surveying of the site or sites. It is sufficient in the initial stages to prepare preliminary report, a general layout and plans, and an abstract estimate.
2. The preliminary project shall be got countersigned by the officer of the Department for whom the work is required and then submitted to the competent authority for administrative approval. In cases where countersignature is not required like roads, bridges, etc., such estimates shall be submitted to the competent authority for according administrative approval.
3. Where it is felt that an abstract estimate in the form detailed above will not be sufficiently accurate or where there is distinct possibility of such works getting approved by the competent authority; in such cases, the Executive Engineer shall get detailed estimates prepared as indicated below.

A separate estimate shall be got prepared by the Executive Engineer for conducting accurate and detailed surveys; for conducting geo-technical, geological or hydraulic investigations and such other investigations as may be necessary. This estimate shall contain provisions for meeting expenses involved in Total Station Surveying and such other surveys as may be necessary, drilling bore holes, purchase of survey instruments, copying charges, photography charges, all expenses involved in obtaining outstation information, documents, binding charges and preparing sufficient number of booklets etc. This estimate shall be sanctioned under the budget head “surveys”.

4. If there are no grants under the head “Surveys” and instructions are received from the Government / representatives of the people / Heads of Departments in writing for preparing detailed estimates, after due investigations an estimate for incurring expenses may be sanctioned under repairs grants communicated, and later the expenditure be transferred to the correct head of account after the grants are communicated. Copies of such estimates duly signed by all the concerned officers shall be kept as a permanent record for future reference in the office of the Assistant Executive Engineer and Executive Engineer. Before the preparation of the estimate for a project such as buildings, bridges and road work; soil properties are to be got tested by the Quality Control Laboratories. Based on the soil properties (S.B.C report of the foundation soil for buildings and bridges and C.B.R values for road works), foundation for respective structures are to be designed. Based on the structural design, details for each component of the structures are to be incorporated in the estimate of a particular work including architectural drawings, which may be drawn in consultation with the user Department. Thus preparation of revised estimate may be avoided. Further in all the main estimates a provision of 1% shall be made for surveying and investigation as detailed above which will enable to meet such expenditures. For all building works, plans and designs shall be as per National Building Code and for all road & bridges estimates shall confirm to respective IRC Codes and latest MORTH Specifications.
5. After all the site details and statistics required are collected; the preparation of designs and drawings shall be carried out as per approved design practices wherever necessary in the case of original structures. The Executive Engineer shall get the designs prepared

for various components of the project and get it approved by competent design authority in the Department or outside the Department, if found necessary. The Executive Engineer while preparing the designs should keep in mind that the designs prepared are structurally sound, aesthetically pleasing, blend with the surrounding environment and at the same time they are cost effective and energy efficient. The type design prescribed by the Chief Architect or by the competent authority as the case may be is to be adopted, but not necessarily always. The Chief Architect could be requested to prepare Architectural designs for building that is most suitable to the site. The Executive Engineer and his deputies shall always endeavor for maximum utilization of the available site conditions keeping in view the future developmental prospects. Under no circumstances, structures which infringe the applicable laws of the local authorities like municipalities, corporations or infringe the statutes of other Department like Forest etc., should be prepared. Designs, plans, elevations, cross sections shall be examined thoroughly at all levels in the Department and also with the user Department authorities to the maximum extent, wherever necessary.

6. The building structures designed for the Government Departments need not be subjected to sanction by local authorities, but it shall be in accordance with all the local laws, byelaws, and statutory requirements of other Departments like Town Planning Department, Corporation / Municipalities, Fire Force Department, Airport Authority (in case of high rise buildings), Electricity & Water Supply Authorities. Responsibility is therefore vested with the Executive Engineer to ensure compliance of these rules before submitting to the higher authorities. A certificate to the effect that the designs prepared are in accordance with the applicable town planning regulations or local authority by-laws shall be recorded by the Assistant Executive Engineer on the plans and abstract estimate.
7. In preparing estimates, only the current rates for the items of works as per the schedule of rates applicable to the area in which the work falls shall be adopted. Where the area of work falls in more than one district, the rates applicable to the area where major part of the work lies shall be taken or alternatively rates applicable to the different areas shall only be considered. These details shall be explained in the report accompanying the estimate.
8. The estimate should include detailed rate analysis on the basis of the approved schedule of rates for finished works for all items of work involving leads and lifts. The practice of making lump sum provisions for the works like water supply, electrification, de-watering, construction of cofferdam, etc., shall not be resorted to. But provisions shall be made for pumping out water either based on man hours or H.P hours wherever pump sets are to be deployed. This is necessary so that any excess of the estimated rates over the scheduled rates is properly accounted for.
9. When the works of other Departments are taken up, the detailed project estimate should be got countersigned by the officer of the Department concerned before submitting it for technical sanction. The source from which the expenditure could be met with should be indicated. On receipt of sanction, funds required for the works shall be applied for and only after actual allotment of funds, the work shall be taken up. Commencing works in anticipation of allotment of funds is totally prohibited. A project estimate for a work prepared a year or years ago in however detailed manner, should not be submitted for sanction without careful review both in respect of details of design, rates, as well as provisions made therein. The practice of submitting estimates prepared by other officers years ago without any review as detailed above will render the officer submitting such an estimate responsible for the rates, designs and also the project estimate as a whole. If

additional investigations are required or investigations already carried out cannot be relied upon, in all such cases fresh investigations are to be carried out if necessary, involving additional expenditure. Submission of an estimate by an Executive Engineer who is regarded as a technically competent authority shall be carried out with due diligence and responsibility.

10. While submitting the project estimate for sanction, the Executive Engineer or his deputies shall note concisely and clearly in the report all points deserving consideration in connection with the proposals embodied in the project. He shall place himself in the position of those who have to examine the project without the advantage of detailed local knowledge which he possesses and shall make everything as clear to them as to himself.
11. It is not correct to issue sanction orders on a proposal at a higher level when the proposal was initiated by the same officer at a junior level. In such cases, it shall be referred to the next higher authority for according approval to the proposals.
12. It is also not correct for officers who have received transfer orders or who are on the verge of retirement to accord sanction to estimates or approve entrustment proposals or hastily approve any proposal which can be subsequently viewed as action done by the outgoing officer in 'undue haste'.
13. Any officer according sanction to an estimate, approving tenders or approving deviations or for that matter any proposal with or without financial implications, is expected to 'apply his mind' and then only accord approval or sanction orders, even when he has got powers and rules permit.
14. No building estimate shall be prepared and submitted to competent authority for sanction without the site being available though the work finds a place in the budget.

91. Designs of important structures:

1. The designs of very important structures and the schedule of quantities shall as far as possible be prepared after getting all the required information and data from the Chief Engineer and other officers of the designs branch of the office of Chief Engineer. The design and estimates for other works shall be prepared by the Executive Engineer which shall be checked carefully and approved by the Superintending Engineer. The Executive Engineer shall submit detailed calculations in the case of all such designs.
2. The sub-Divisional officers shall report promptly to the Executive Engineer any difficulties with regard to foundations or setting out. Any unsuitability or technical defect in the design shall be brought to the knowledge of their higher authorities by the local officers promptly.

92. Preparation of Estimates:

1. Estimates shall be prepared and submitted in a complete form so that it may not be necessary to prepare supplementary estimates as far as possible. When the user Department requests for additional works not suggested earlier, in such cases supplementary estimates can be prepared, got countersigned and administratively approved and then work got executed after following the formalities.
2. All plans and estimates for sanitary, electrical and special fittings or fixtures should be prepared and the approval of competent authorities obtained before the construction of building is commenced. During construction, officers of the electrical branch should visit the building and satisfy themselves that all electrical points necessary for work

with which they are concerned are being provided for in their proper places. Detailed estimates for water supply shall also be included in the main estimate.

3. Minor structural additions or alteration in connection with an electrical work such as making of grooves for wires or fixing bed plates etc., in walls might be carried out by the electrical branch instead of the staff in charge of the buildings, provided this can be done without causing much damage to the building and due intimation must always be given to the Field Engineer in-charge of the building.
4. Officers of other services may be prevailed upon to examine as closely as possible, plans and estimates of buildings sent to them for approval with regard to the provisions made for and the position of sanitary and electrical fittings and fixtures so that unnecessary changes may be avoided. Officers and officials of the Public Works and the user Department shall have detailed discussions on each and every provision in the estimate and the discussions are recorded immediately duly signed by all concerned. This should form part of the estimate.
5. Before detailed estimates for bridges are prepared, trial pits or borings shall be taken for each pier and abutments. It is necessary to make a careful geophysical investigation of the sub-soil in order to ascertain exact nature of the strata and determine accurately the suitability of sites for bridges, type of foundation to be adopted and the depths to which foundation should be taken any other relevant details.

Similarly for a new road project or where rehabilitation work is taken up, the CBR of the soil and Benkelman Beam test shall be carried out respectively as per latest MORTH specifications and IRC guidelines, at close intervals in case different types of soils are observed or at least one in every 500m distance shall be obtained. Available traffic survey shall also be carried out again wherever required.

6. The papers to be submitted to the authority concerned in the case of a project for a work will consist of a detailed report covering the villages and the population served, agricultural and industrial growth around, roads already improved under other schemes and the salient features of the project, detailed specification, detailed statement of measurement of quantities and rates, with an abstract showing the total estimated cost in rupees of each item with all necessary designs and drawings. These documents comprise what is called 'The Estimate' in the sense of this code. Different forms may be used for the abstract to suit different methods proposed for the execution of work.
7. If for any work costing less than Rs.5.00 lakh especially calamity relief works, it is proposed to purchase materials or otherwise to arrange for them and to employ labour only, the abstract of the estimate shall be framed as to show for each item of work separately (i) the quantity and cost of materials and (ii) the quantity and cost of labour. But in case of all other works executed by contract for finished item of work, the quantity and cost of each item of finished work only shall be shown in the detailed estimate abstract. In the case of project consisting of a number of component parts, only comprehensive report and specification, when necessary shall be drawn up for the entire component works. A detailed estimate and abstract shall be prepared for each component part of the project. There shall invariably be a general abstract bringing all the parts together and showing the entire cost of the project. The purpose of the work estimated for, any peculiarities requiring explanation, reasons for the adoption of a particular design in preference to others and the necessity for higher than normal rates if any, shall be clearly indicated in the report.
8. The following provisions shall be made in the estimate.

- (1) Work cost including consultancy charges, cost of Environmental Management measures if any.
 - (2) Land Acquisition including R & R cost if any.
 - (3) Provision of 3% for contingencies
 - (4) Provision of 1% for quality assurance.
 - (5) Price escalation of 5%
9. The estimate for each work to be framed shall comprise of the following parts:
- (a) A face sheet in form PWF-1 (showing the fund head, name of work and estimated cost).
 - (b) Abstract sheet (showing the quantities, rates and amount of items in the estimate).
 - (c) Measurement sheets (showing the details of each items of the estimate).

It is permissible to use these three forms in a combined format wherever it is feasible and sufficient.

10. The abstract of estimate shall show the total cost in rupees only of each kind of work. The only exception to this rule shall be the case of miscellaneous works which may be entered in the abstract without measurements, the estimated cost being alone given.
11. The abstract of the estimate may under instructions of the Executive Engineer be framed to show merely the quantity and cost of each completed item of artificer's work, e.g. brick work. It may be framed to show the cost of labour and materials separately. The adoption of either form of abstract should be determined with reference to the mode in which it is proposed to carry on the work. If it is proposed to contract for the complete item of artificer's work such as masonry, etc., then the first mentioned form of abstract will suffice. If it is intended to purchase or procure materials and to employ labour for construction separately, then the second form of abstract will admit of a closer, easier and earlier check on the outlay.

93. Trial pits:

Trial pits shall invariably be taken at the site of work and the nature of soil ascertained by carrying out tests Geo Technical investigations before preparing the estimates for work. The sections of trial pits and their position should be shown on the site plan of the work, which should also be countersigned by the officer of the Department concerned. The expenditure shall be charged to the concerned estimate.

94. Scale of drawings:

The scale of drawings shall be regulated so as to show only details required and as stipulated in the "Surveying" chapter. Smaller details shall be shown on a larger scale when required.

95. Consultation with Government Architect:

Superintending Engineers and Executive Engineers should freely consult the Government Architect before detailed plans of important public buildings requiring architectural treatment are prepared.

96. Provision of furniture:

The Public Works Department does not normally undertake the provision of furniture, which is purchasable by the Departments requiring it. Furniture for new offices if

specifically required by Department and by Government may be supplied by the Executive Engineer provided the cost of such furniture is included in the estimates of those office buildings.

97. Residential buildings:

Plans of residential buildings required by other Department shall be forwarded for countersignature to the head of the administrative Department concerned.

98. Electrical works:

The electrical branch shall be consulted before any provision for electric installation is made in the building estimates. The Executive Engineer, electrical division, shall be contacted directly for this purpose and building plans and site plans shall be sent to him in good time to enable him to ascertain the probable requirements in connection with electric installations.

99. Coordination between PW and other Departments:

Proper co-ordination shall exist between different branches within the Department and also officers of other Departments in respect of preparation of plans and Estimates and execution of works.

100. Contingencies:

There shall be a provision up to three percent for contingencies. All incidental expenditure which can be foreseen such as compensation for lands, stores, site office, communication facilities like internet, telephone, computers, copiers, approach roads, sheds for workman with bathroom & toilets, expenditure for inaugural and foundation stone laying ceremonies etc., shall be separately provided for in the estimate. The provision for contingencies shall not be diverted to any additional work or repair which is not provided for in the estimate and shall only be attributed for meeting contingent expenditure.

101. Checking of Estimate:

1. In every estimate submitted to Chief Engineer or Superintending Engineer for sanction or sanctioned by the Executive Engineer under the powers delegated to him, a certificate in the following form should be recorded by the section officer and the Assistant Executive Engineer.
"Certified I..... (name & designation) have personally visited the site on (DD)...(MM)...(YY)and prepared the estimate adopting the sanctioned schedule of rates of yearand providing for the most economical and safe way of executing the work".
2. All statistical information that may be required for the project should be given in tabular form and all calculations for design should be attached to the project papers.
3. The report accompanying the project should describe the general features of the scheme explaining the reasons for selecting a particular site in preference to others that may be available and for providing special rates if any for the item of work, explaining the extent of accommodation provided or the construction details of the project, the reasons for adopting a particular type of a design and state the total cost of the project.
4. If the Executive Engineer or the officer-in-charge and the officer who has to countersign the plans and estimates differ in their opinion and former is unable to meet the wishes of the latter, the matter should be referred to the Superintending Engineer and then on to Chief Engineer for decision and orders.

5. The following details should normally be furnished in the report accompanying the estimate:
- (a) History – A brief review of the circumstances leading to the need for undertaking the work, villages and people served, agricultural, industrial activity, site details, geo-physical investigations conducted etc.
 - (b) Scope – The extent of the work involved.
 - (c) Specifications-- Specifications for materials and execution of works shall be in accordance with Karnataka Buildings Specifications (KBS) and / or Karnataka Roads & Bridges Specifications (KRBS) and BIS / IRC standards & MORTH Specifications.
 - (d) Fund – Cost of work allocation of charges under budget or account, whether there is budget provision for the expenditure as stipulated in para 85.6 depending upon the size of the project.
 - (e) Rate Analysis -- In respect of rates provided for items of work not contemplated in the sanctioned schedules of rates, data sheets as to how each rate is arrived at should be furnished indicating schedules of materials, machinery and labour.
 - (f) Countersignature – Whether the estimates have been got countersigned by competent authority as required by rules.
 - (g) Execution – Proposed method of execution, slicing / packaging in case of large road projects.
 - (h) Flow Chart –Indicating the time frame for each physical activity / progress. The estimate shall carry all provisions without leaving any to forestall possible revision at a later stage. No lump sum provisions shall be made except for contingencies at 3% and miscellaneous and rounding off.
 - (i) The officers / officials preparing and checking the estimates at sub-Divisional level should take the required time to carry out all field investigations and never are they expected to prepare an estimate in a hurry, whatever may be the extraneous reasons. They should explicitly be aware that any defective investigations and incorporation of these results in preparation of estimate may involve financial implications at a later stage, for which they shall be held accountable.
 - (j) The estimates should be signed by the officer and officials preparing them with their name written in capitals at the bottom and with full date.
 - (k) All officers checking any estimate shall realize that check involves checking of all items, irrespective of quantity and no excuse shall lie either for not checking it fully or allowing errors to occur inadvertently. These officers / officials responsible for preparing, checking at various levels and sanctioning estimates are fully accountable for the correctness of the estimate and head of each office shall affix his signature with name and seal before sending the estimate to higher authority / Government for approval.

102. Original works-Civil buildings:

The site of every building should definitely be settled before the detailed designs and estimates are prepared. Local authorities must be consulted in all cases to ascertain the convenience of the site. In case of works or buildings which are intended to be erected in the neighbourhood of any fort or cantonment, the matter should in the first instance

be referred to the local military works officer for his opinion from military point of view and then submitted to the Government of India in the Defense Department for concurrence and when such concurrence has been obtained, no deviation is permissible without previous reference to that Department.

103. Roads:

1. Projects for construction of new roads shall generally be accompanied by the following documents and shall be in accordance with standards provided in KRBS, IRC and BIS & MORTH Specifications.
 - (a) Report including a brief note on the existing and proposed alignment & gradients.
 - (b) Traffic studies and pavement design based on design life.
 - (c) Abstract estimate of cost.
 - (d) Longitudinal -section & cross section drawings at suitable intervals depending upon the terrain as detailed in “Survey” chapter of this code.
 - (e) The Longitudinal -section drawings shall invariably be marked with the proposed formation level, gradients, Radius of curves, position of CDs / bridges etc.,
 - (f) Index map
 - (g) Plans of all CD works
 - (h) All cross drainage works with linear water way of more than 6 m are bridges and shall be taken as separate works and not as part & parcel of road work.
2. Estimate for construction of new roads shall be comprehensive clearly indicating the necessity of the work, type and volume of existing traffic, projected design life, alignment and strip plan of road, type of surface, construction of cross drainage works, traffic intersections, traffic islands wherever required, medians, designed entry and exit for road or roads to adjoining towns or villages, lane markings, pedestrian crossings, foot paths for pedestrians and side shoulder drains in urban/village limits, roadside trees, all mandatory traffic signs as per IRC specifications and maintenance during construction.

104. Bridges:

1. Estimates for bridges shall be accompanied by adequate design calculations for discharge in the stream, linear waterway, scour depth and stability analysis of the structure and the report as to how the stream was being crossed hitherto, and need for the proposed connectivity and the villages / towns served, the type and volume of traffic expected, whether the stream had ever been bridged before, if so, the description of it, the reasons for its failure, the vent way provided earlier, the kind of bridge now proposed, the justification for the waterway allowed, the nature and size of snags if any, the drainage of the stream, whether liable to sudden floods, whether the stream is used for navigation, if so the types of vessels, the highest flood level, and normal flood level, whether the bridge had over flown at any time, the nature of materials available within reasonable distance, etc.
2. Whenever it is proposed to construct or modify a bridge, culvert, diversion or other work which might affect any railway lines in the vicinity, the railway administration should be consulted in regard to the adequacy of the provision in the proposals. Any disagreement in the matter should be referred to the Chief Engineer through the Superintending Engineer concerned.

3. The estimates for construction of bridges, causeways, culverts shall be in accordance with standards laid down in MORT&H, KRBS, IRC and BIS. In addition to the actual bridge plans, the following plans generally shall accompany an estimate for a new bridge.
 - (a) A plan of the stream for one kilometer above and below the proposed crossing with cross sections at 200 m upstream and downstream of the bridge and also a cross section of the stream at the proposed bridge site showing the general level of the ground on either bank as well as that of approaches, the various water levels, depth at which good foundation is available and its nature. Bridge sites shall be preferably selected where the stream has defined and minimum cross section so as to be economically viable.
4. In case the DPRs are prepared through consultants, field engineers shall check the provision made with reference to site conditions after conducting joint inspection with the consultant's representative.
5. The cost of diversion road including maintenance shall also be included in the project cost.

105. Requisition by Civil officers:

1. Officers in-charge of any Department of the state Government planning construction of a new building or additions and alterations to existing building shall have prior consultations with the Executive Engineer of the division as well as Chief Architect. The requirement of the user Department shall be discussed threadbare and decisions on construction of a new building or for additions and alterations to existing building shall be jointly decided by the District Head of the user Department, the Executive Engineer and the Chief Architect or his authorized assistant. Such decisions jointly made and recorded shall form a part of the estimate to be prepared. It shall be the responsibility of the District Head of the user Department to obtain the concurrence of his higher authorities in such form as the Executive Engineer and the Chief Architect may decide.
2. It is open to the Executive Engineer to refuse any additions or alterations in case he is not convinced of the necessity of the proposals made. In such an event, the District Head of the user Department shall take up the matter with the Superintending Engineer who shall hold discussions with his counterpart in the user Department and the decisions then taken by these two officers shall be binding on the Executive Engineer and the district head of the user Department. In the unlikely event of no decision being arrived at the Superintending Engineer's level, the matter shall be dealt expeditiously by the Chief Engineer with the head of the user Department, whose decision shall be final and binding on all concerned.
3. The Public Works Department shall be the agency for execution of civil, mechanical and electrical works of all the Departments in the in the state with a few exceptions.

106. Reduction in Estimate costs:

1. It is very essential that estimates shall be as close to actuals as possible.
2. In case where the original estimate has administrative approval and counter signature of the user Department, and the estimate is recast adopting tender rates which are less, then a further sanction for the reduced estimate can be accorded by the Executive Engineer even though the estimate cost may exceed that up to which he is ordinarily empowered to sanction. The reduction in expenditure or savings that has occurred due to obtaining lower tender rates is not to be diverted for carrying out works not

contemplated in the original estimate. Savings or reduction in cost during execution of the works shall be specifically communicated to the user Department, wherever necessary, along with the completion report and record drawings.

107. Interests of other states:

If the construction of proposed work is likely to affect adversely the interests of any other state, the fact should invariably be brought to the notice of higher authority while submitting the estimate for it.

108. Railway affecting works:

In the case of road projects which are likely to affect railway lines in the vicinity, Executive Engineers of divisions should supply to the concerned railway administration with a copy of the plans together with an index plan, on which should be shown the size and position of roadway to be provided and the Railway Administration be requested to express their views. Copies of the replies from the Railway Administration should be attached thereto, while submitting the estimates to the higher authorities.

CHAPTER-10

MEASUREMENT OF WORK

109. Measurement book:

The measurement book is a most important record, since it is the basis of all accounts of quantities, whether of work done by the contract received which have to be measured and/or accounted. The description of the work must be lucid so as to be of easy identification and check. (See para 209 of KPWA Code).

It shall be the responsibility of the Assistant Executive Engineer to ensure that all measurement books in his jurisdiction are carefully accounted and kept and measurements are properly recorded. It should be distinctly understood that measurement books are complete records of the actual measurements of each kind of work done for which certificates have been granted. An authentic, reasonably accurate and reliable record is the object aimed at, as it may be produced as evidence in a court of law and what is reasonable, depends on each item.

110. Rules regarding taking measurements and keeping measurement books:

- 1.(a) Measurements for all works executed in accordance with sanctioned plans, estimates and according to prescribed specifications or works executed in accordance with the directions of the Departmental officers pending proper sanction, for all original and repair works, should in the first instance be taken by the field engineer in charge of the work. No work carried out which is not in accordance with the sanctioned plan or prescribed specifications need be measured. Alternately, whenever required, measurements of works which are not in accordance with the sanctioned plans, but in accordance with the directions of the Departmental officers and according to prescribed specifications, shall be measured and recorded. Measurement of works carried out in accordance with the sanctioned plans and estimates but not in accordance with the specifications may be recorded, if found advisable but remarks as to why the works carried out are not approved or admitted shall be clearly recorded under signature with date of the field engineer.
- 1.(b) Each set of measurements to be recorded shall commence with the following entries stating;
 - (i) Full name of work as given in the agreement /estimate.
 - (ii) Location of work.
 - (iii) Name of Agency / Contractor
 - (iv) Number and date of agreement.
 - (v) Date of written order to commence the work.
 - (vi) Date of completion of work as per agreement / date of actual completion.
 - (vii) Date of recording of measurements.
 - (viii) Date or reference to previous measurements.
- 1.(c) A suitable abstract shall then be prepared which should contain in the case of measurements of work done, the total quantities of each distinct item of work relating to the sanctioned sub-head. Details of quantities, rate and amount of each item for every bill shall be entered in the measurement book in a tabular form.

- 1.(d) For recording measurements and also for preparing abstract, the agreement item no. both in words and figures shall be given neatly, instead of writing the description of the item in full or in abbreviated form which would not be necessary.
- 1.(e) In case of extra or substituted item of work that is not covered in the agreement, the full nomenclature shall be reproduced in the MB and in the bill form.
- 1.(f) For works of contract value of Rs.25.00 lakh and above shall be recorded both in soft and hard copy. E- Billing through E- Procurement with Digital key shall be adopted and submitted for payment.
2. In the case of earth work such as deepening and widening of the existing channels, construction of channels, earth work to banks or bunds, road embankment / sub grade construction, earth work excavation for foundation of bridges etc., original cross sections at closer intervals should be recorded, based on block levels, check measured by the Assistant Executive Engineer before starting any work. This is important, since measurements of work done will be recorded on the basis of these levels and pre-measurements duly certified. Records of such field books or cross sections of bunds, channels or other site particulars shall be kept in proper custody and they are destroyed only under specific orders of the Executive Engineer.
3. Every opportunity should be taken by the Field Engineers, Assistant Executive Engineers and Executive Engineers to check the accuracy of detailed measurements. A note of all checks with date and initials of the checking officers should be recorded in the officers' note books (field books) as well as in the measurement books. The note book (field book) should be shown to the inspecting officers to enable them to ascertain the extent of checks exercised by them over works under their charge and returned to the Executive Engineers for record after completion. In respect of projects wherein PMC is appointed the measurement counter signed by PMC shall also be checked by the field engineer at random.
4. The entry 'Measured in my presence' by an Assistant Executive Engineer cannot be accepted as check-measurement.
5. Check measurement to be carried out by an Assistant Executive Engineer shall be 100%. After check measurement the bill prepared becomes ready for payment after the audit. However, in exceptional cases measurement shall be checked by Executive Engineer, If measurements recorded by a field engineer and check measured by an Assistant Executive Engineer is found to be erroneous, then it becomes a serious reflection on the technical competency and integrity of the check measuring officer. It is open to the Assistant Executive Engineer to order re- recording of measurements but shall never accept an erroneous recording.
6. Final measurements of all works should be carefully taken on the lines indicated below and should be the occasion for special check and scrutiny; Names of concerned engineers who recorded and checked the measurements should invariably written in the measurement book.
 - (a) Final measurements of all works Estimated to cost more than Rs10000/- shall be recorded by the section officer and check measured by the Assistant Executive Engineer to the extent of 100%.
 - (b) Final measurements of all works costing less than Rs.10000/- and all repair works of roads, bridges and buildings, whatever may the cost shall be recorded by the field engineer, and checked by the Assistant Executive Engineer.

7. Excavations carried out should be recorded on the basis of levels and check measured before proceeding with other works. Final measurements of all foundation excavations shall be recorded accepted and check measured before foundation concrete or foundation treatment works are started. Similarly, all works carried out up to ground level shall be recorded, check measured and accepted before the filling of sides is carried out.
8. Where measurement cannot be recorded in a single day it may be continued on subsequent dates and dates shall be noted in the measurement book.

Measurements recorded by the field engineer shall be check measured by the Assistant Executive Engineer. The object of check measurement is not only to detect errors in measurement and to prevent fraudulent entries but also to check or verify whether the works carried out at site and recorded in the measurement books are in accordance with the sanctioned plans and Estimates and prescribed specifications. The primary responsibility of indicating the variations from the sanctioned plans, and estimates, lies with the field engineer who records the measurement. The Assistant Executive Engineer shall exercise such checks as may be necessary to satisfy himself that the measurements recorded are accurate and are devoid of either over measurements or under measurements or omissions. Check measurements should therefore be conducted with discretion and diligence, those items being deleted which appear obviously incorrect or which would be most easily susceptible of misleading, or which would most seriously affect the total amount of the bills. Measurements shall only be carried out by technically qualified officers as they are expected to verify not only the correctness of measurement but also whether the work is in accordance with the sanctioned plan, in accordance with prescribed specifications, and to verify whether classifications of soil etc is in accordance with prudent engineering practices.

After check measurement, the Assistant Executive Engineer shall record in his handwriting and under his signature with date the fact that the "Measurement of works recorded on pages (...) have been checked and found to be correct, and the works are carried out as per sanctioned plans, and approved specifications". In case of repair works, it can be, "Checked and found to be correct & works carried out as per sanctioned estimates". It shall be clearly borne in mind that according to established practices prevailing in the Public Works Department over years, check measurement and certificate recorded by the Assistant Executive Engineer entitles the agency executing the work to claim payment from Government funds. Needless to say that a false certificate either by the field engineer or by the Assistant Executive Engineer who is a check-measuring officer, can be construed as a fraudulent attempt to claim payment from Government by unfair means and invites penal action.

9. Check measurement by Divisional officer shall be done up to 10% in respect of works costing up to Rs. 25 lakh and 25% in respect of works costing more than Rs.25 lakh especially before payment of final bill.
10. The Divisional officer who is responsible for proper execution in accordance with sanctioned plans, estimates and prescribed specifications shall take such steps as may be necessary to ensure that the execution of work as well as recording and check measurement of works is in accordance with prescribed norms. It shall be his primary responsibility to initiate disciplinary proceedings where fraudulent works are being executed, measured, check measured and payments are claimed. Where it comes to the notice of the Assistant Executive Engineer, that measurements recorded are fraudulent & is an attempt to claim payment by unfair means, it shall be the bounden duty of the

Assistant Executive Engineer to refuse to check measure such works and report the matter to his immediate officer and / or directly report such instances for initiating appropriate disciplinary action. When report of fraudulent works executed are reported to the Divisional officer, he shall take immediate steps to safeguard Government interests, to protect the reporting officer and to see that all assistance is rendered to the investigating officer to ascertain the facts and proceed according to KCSR Rules (CCA).

11. As a rule, measurements are to be recorded by the concerned field engineer in charge of the work. Where two or more field engineers take measurements jointly, the entry should always be recorded and signed by the senior most engineer. In respect of works costing more than Rs.10 crore, two or more field engineers may take joint measurement with joint responsibility for recording the measurement.
12. When it is not possible for the Assistant Executive Engineer to check measure intermediate bills before payment owing to the pressure of the work or distance, the reasons for not having check measurement done before payment should be recorded by him in the remarks column of the measurement books concerned, and check-measurement should be done, by him invariably at the earliest opportunity after payment has been made. In the case of maintenance & repair works executed, if the measurements are recorded by an Assistant Engineer, no further check measurements would be necessary for works costing less than Rs. 10,000/-. It is however made clear that though the entire responsibility for correctness lies with the officer who recorded such measurements, the Assistant Executive Engineer who makes payments has to exercise such care as may be necessary to ensure that no fraudulent measurements are allowed to go unnoticed or get paid.
13. The check measuring officer should invariably date and initial all corrections over writings, and insertions made in the measurement books as noticed at the time of check measurement. The number of such corrections over-writings and insertions must be clearly mentioned at the end of each page of the measurement book duly signed with date by the check-measuring officer. The corrections and overwriting and insertions should be allotted separate numbers, i.e., corrections should start from 1, 2, 3, etc. and overwriting should similarly from 1, 2, 3, etc., and so also insertions should be in the same manner. In case there are no corrections or insertions or over-writing, it should be clearly noted at the bottom of the page that there are no corrections or insertions or over writings as the case may be.
14. Quantities entered in the measurement books should be clearly traceable into the vouchers under reference in which they are entered as well as the date of payment should be given in measurement book by writing in red ink at the end of the abstract of quantities. The entries in the measurement book should, however, be crossed diagonally in red ink at the time of preparation of the bill by the officer preparing the bill.
15. Measurement books should invariably accompany the bills and accounts to which they refer to. They should be scrutinized and checked in the Executive Engineer's office by the accountant or his assistants; and immediately below the total of each set of measurements, an encasement should be made connecting the entries with the bill, cash book voucher, and work abstracts in which the quantities are taken to account; the encasement should invariably be signed and dated by both the Executive Engineer and the accountant. For works located at a distance from the Divisional headquarters, alternate measurement books should be used so that measurements may be made in the

second book, whilst the other is in the Executive Engineer's office. For large works, two or more sets of measurement books may be used, if considered necessary. These orders are however, subject to the option allowed in paragraph 220 of the K.P.W.A. Code except in regard to measurements in support of contract certificates for final payments in which case, details of measurements with final contract certificates should be submitted for check and payment by the Divisional office..

16. Mistakes in entries should be corrected by drawing the pen through the incorrect entry, and inserting the correct figures or words between the lines with their dated signature. A reliable record is the object to be aimed at, as the measurement book may be required as evidence.
17. All the measurement books of a sub-division should be physically checked in the sub division office every month.
18. As a rule, check measurement of works shall only be carried out by technical officer of the cadre of Assistant Executive Engineer and Executive Engineer. It is not open to the Assistant Executive Engineer to delegate this power.
19. When any entry in a measurement book is cancelled, the reason for doing so should be recorded in the book with signature, name & designation of the officer with date of canceling the measurements.
20. Each set of measurements should be signed and dated by the officer by whom it is actually made and the signature of the contractor obtained in token of acceptance by him of the recorded measurements. The signature of the clerk who checks the calculations should also be affixed. Measurements should be recorded in Kannada or English only.
21. All corrections made in the entries should be signed & dated by the person responsible.
22. No page should be removed from a measurement book and all blank pages should be cancelled before the book is recorded. The number of pages should be certified before using the same.
23. Officers executing public works should see that the subordinates who get the works executed, record the measurements immediately after the works are completed so as to prevent the work becoming not susceptible of measurement on account of a lapse of time.
24. Sub-Divisional officers are responsible for the safe custody of all measurement books in their charge. Completed books when no longer required in the sub-Divisional office, should be promptly returned to the Divisional office where they should be recorded with the same care as is bestowed on cash books and other important accounts papers. The books should be machine-numbered on each page and a register of their receipt, issue and final return to headquarters should be maintained in the Executive Engineer's office. The Divisional accountant after satisfying himself that all requirements have been complied with, should record a certificate to that effect at the end of the book with his signature and date. The sub-Divisional head clerk or manager as well as the Divisional accountant shall ensure that all measurement books issued are properly accounted by all the concerned Engineers, the yearly returns tally with the work register recordings and a corrected return of measurement books in the subdivision and division are placed before the Divisional officer for his information. Simultaneously action shall be initiated to dispose off completed books in accordance with rules prescribed in this code.

25. To avoid loss of measurement book which are important accounts documents, a record of movement of measurement books shall be kept both in sub-Divisional and division offices.
26. When a measurement book is lost in transit or elsewhere, an immediate report shall be sent to the Chief Engineer for orders explaining the fact of the case together with the explanation of concerned official responsible for the loss. A first information report shall also be filed with the police. The Chief Engineer may sanction write off of the measurement book under intimation to the Government in Public Works and Finance Departments.
27. In case of transfer of field engineer the measurement book and relevant records shall be handed over to successor or any other field engineer attached to the subdivision in the presence of sub division officer. Details of measurement books such as book number, number of pages recorded, number of pages which are blank, handed over and taken over, shall be clearly recorded in the transfer of charge list. The transfer shall also be recorded in the measurement book after the last entry in each book under the dated signature of the relieving officer and relieved officer.
28. All measurements are to be taken and recorded in the presence of the contractor or his authorized representative. If the contractor fails to be present at the time of taking measurements or fails to accept and countersign the measurements recorded, he has to file his objections within seven days from the date of measurement recorded to the Assistant Executive Engineer. In the event of his failure to file his objections within seven days, the measurements recorded shall be deemed to have been accepted by the contractor and no appeal shall lie thereafter.

111. Standard measurement books:

1. Standard Measurement Books including soft copies may be maintained for works periodically and / or repeatedly carried out for repairs of buildings such as white washing, color-washing, painting, varnishing, distemper, emulsion painting etc. They are permanent records to be carefully preserved both in division and sub-division offices.
2. Certified copies of measurement books relating to works in charge of a subdivision should be sent to the Assistant Executive Engineer to be kept in their personal custody and noted on separate pages of the subdivision register of measurement books.
3. For the use of field engineer, standard measurements of each work copied and signed by the Executive Engineer should be sent to the Assistant Executive Engineer who will issue them to the section concerned. Such books shall be treated as permanent records.
4. When corrections have to be made owing to additions or alterations in buildings, the Assistant Executive Engineers concerned should make the corrections in their copies of the measurement books. At the same time the corrections should be intimated to the Executive Engineers who will have the books in their office corrected under their initials. The copies with the field engineer in which corrections have to be made, should be called for by the Assistant Executive Engineer s, corrected under their initials and returned.
5. On the 30th April of each year, Executive Engineers should send certificates to the Superintending Engineer that all the standard measurement books in their divisions have been inspected by them, that the entries therein have not been tampered with, and that all corrections due to additions or alterations in the buildings have been made in the books and that the latter are reliable and up-to-date records.

6. When a payment has to be based on standard measurements, the field engineer preparing the bills for payment, should certify in the normal measurement book and the bill that the whole of the work (or works since previous running bill, as the case may be) as per standard measurements in a book (the number of which should be quoted) has been done and that it has previously not been billed for in any shape.
7. Separate measurement books should be set apart for noting the details of such bills so as to facilitate the review of payments based on standard measurements
8. All bills so paid should be specially checked with reference to standard measurements on record in the office.

112. Measurement of works costing above RS.25 lakh:

1. The following rules shall govern recording of measurement of works and supplies for all works contracts of value more than Rs.25 lakh. (Government. Order No. FD 56 PRO CELL 2004 Bangalore 18th January 2005)
2. Recording of measurement of works and supplies, which are to be uniformly adopted in all the organizations coming under the purview of the KTPP Act 1999.
 - (i) In respect of Works Contracts of value more than Rs.25 lakh, the contractors shall be made responsible for submitting bills both in soft and hard copy of detailed measurements of works using electronic spreadsheets and making computations thereof. The contractor shall submit diskette/CD ROM in addition to the hard copy.
 - (ii) The field engineer in direct charge of the work shall take independent measurements of the work and enter the same in the electronic spreadsheets and do computations thereof. The field engineer can make use of the detailed measurements as given by the contractor in the diskette /CD ROM. In any case the responsibility for the correctness of the measurements shall be entirely of the field engineer, as prescribed in the Codes and Manuals.
 - (iii) The measurements would be checked by the officers from the hard copy of the spreadsheet as per present stipulations and computations would be made accordingly;
 - (iv) The countersignature of the contractor in all respects; is compulsory
 - (v) The hard copies of the detailed measurement spreadsheets shall be bound, numbered and stored, which shall be considered as the measurement books, as referred to in the Manuals and Codes. An index shall be prepared for each Contract/Work, which shall show the details of the bills, reference to measurement books and vouchers. Similarly the diskettes /CD ROMs shall be indexed and stored
 - (vi) In respect of supplies, goods and equipments, the invoices detailing the items supplied with specifications, quantity, rate and amount would be sufficient. This shall be checked and inspected by the receiving authority and accounted as per normal accounting procedure prescribed by Government/Corporation/ Board Society/ Local body from time to time. In the case of contracts concluded and are still current, the agreement conditions shall prevail. This order shall apply to all Procurement Entities as defined in Section 2 (d) Chapter I of the Karnataka Transparency in Public Procurements Act. 1999.

113. Rules for taking measurements when the contract is to be terminated.

1. When contract awarded to a contractor is terminated by issue of notice by the authority who accepted the agreement duly fixing up a date and time for recording of measurements, a registered post with acknowledgement due, notice shall be issued to the contractor to be present personally or through authorize representative during measurement giving minimum 7 days time from the date of receipt of notice by the contractor. The section officer shall proceed to take measurements of work done in a systematic manner. If the contract is terminated on account of contractor's fault and the contract conditions specify that all the materials at site, plant, equipment, temporary works, and works are deemed to be that of the Government, then the measurements of the materials at site, temporary works, plants and equipment at site shall be recorded in the measurement book with full details such as description of work, make, serial number, location of the plant and equipment etc. In case of works which are not in a measurable condition, the field engineer shall record the measurements as correctly as possible. All such measurements are recorded in the measurement book at site itself and not in a rough book. The contractor will affix his full signature with date in the measurement book, on all pages if need be or on the last page, in token of acceptance of measurements in full. In case the contractor declines to affix his signature, the fact shall be recorded by the field engineer under his signature. The rules prescribed shall be followed, as the recording of measurements of work done can be questioned or produced as evidence in a court of law. In case the contractor is not present the same procedure shall be followed without any exception. The field engineer shall record under his signature with date that the contractor was not present. If the recording of measurements require more than one day then the notice issued to the contractor shall state, that the measurement recordings will commence on the date and time noted and will continue during the working hours, if necessary, on subsequent working days also and no separate notice will be issued.
2. After the recordings are completed, check measurement shall be carried out by the Assistant Executive Engineer on a date intimated in advance to the contractor asking him to be present at site by a registered notice. When the work is fully check measured by the Assistant Executive Engineer, an opportunity is again extended to the contractor to satisfy himself about the correctness and completeness of the measurements recorded. The Assistant Executive Engineer shall hear the objections raised at site by the contractor if any relating to the measurements of work done, materials collected, works done but not measured or rejected etc and clarify the same at the site itself. The contractor shall again be asked to affix his signature with date as a token of his acceptance of the recordings. In case of non-compliance, the fact shall be recorded under the signature of the Assistant Executive Engineer. The measurements so recorded shall be construed as final measurements and no claim what so ever shall lie against the Government .as far the correctness and completeness are concerned. A copy of the measurements so recorded shall be certified by the Assistant Executive Engineer and forwarded to the contractor by registered post with acknowledgement due for his information.
3. If the contract is terminated, the contractor shall stop the work immediately, make the site safe, secure and hand over the site to the departmental officer. If it is not handed over on the date of recording of final measurements by the field engineer, it is deemed to have been taken over. The officer shall make suitable watch and ward arrangements to safe guard Government property, by providing 24 hours security by engaging an agency. Till such time, the section officer hands over the site to the next agency, the

security arrangements shall continue. The expenditure so incurred shall be chargeable to the provisions under the contingencies of the sanctioned estimate. The field engineer has to take all steps necessary for safe guarding the Government property.

CHAPTER-11

QUALITY MANAGEMENT

114. QUALITY MANAGEMENT IN CONSTRUCTION:

1. Construction management is an art, which a large number of Engineers have been performing every day, but have to become fully aware of the vast developments that have taken place over the years in management science.
2. Construction Management is also an art of directing and coordinating human and material resources throughout the life of a project by using modern management techniques to achieve predetermined objectives of scope, cost, time, quality and participation satisfaction.
3. The impact of globalization and the economic liberalization and the subsequent spurt in construction sector underline the need for adoption of advanced technology to improve the constructional practices and use the state of the art construction tools for facing the competitive environment successfully.
4. Ensuring quality of work constructed is important as this is a key factor in the structure put up to last till the design life.
5. Guide lines given in Publications of Indian Roads Congress – IRC SP:47-1998, SP 57-2000 and Quality Assurance manual published by NHAI shall be followed.

115. PRINCIPLES OF QUALITY MANAGEMENT

1. Involvement of officers at higher level:

The officials at higher echelons of the Department must set quality guidelines for site staff at various levels. They must monitor quality during construction process. The seriousness of Department in achieving quality is most important. The ultimate goal of the Departmental approach should be to involve everyone for quality management process. There shall be regular interaction among the construction site team comprising field engineer, Assistant Executive Engineer, contractors, Project Management Consultant Engineer and Quality Control Sub Divisions / Divisions depending upon the type of work. The project engineer shall have constant interaction with the higher officers, quality control engineer etc., as poor teamwork leads to undesirable construction and unnecessary delay, ultimately resulting in poor quality of work.

2. The Public & Department Involvement:

The ability to produce a quality work largely depends on the working relationship among the parties involved namely, contractor, Department and public. The quality of the project constructed by the contractor is directly related to quality of plans and specifications of the planners, designers, quality of materials, equipments and machinery used, contractors, skilled / unskilled labour.

3. Training and education:

In order to gain more knowledge, ability, improvements in attitude and habits, training and continuous education is essential. Motivation of work forces, at various levels is essential and can be achieved by training and education. At the beginning of the financial year, the Superintending Engineers of circles shall prepare a training programme for various technical staff working in the circle. The programme shall be prepared in such a way that every technical person shall undergo minimum one

training of duration not less than Three days in every Two years, and the type of training shall be need based. The Chief Engineer / Superintending Engineer / Executive Engineer shall prepare a calendar of training programme for engineers in the first quarter of the financial year and get the same approved by the Government.

116. Quality Assurance:

The Department is heavily dependent on traditional contractors who in turn employ labour force, which is more often inadequately skilled. The concept of labour intensive construction technology to obtain required quality specifications in works shall be adopted by appropriate mechanization, to achieve quality project. Strict supervision of work by field Engineers shall be enforced during all stages of construction to ensure proper quality of work.

117. Quality Assurance Procedure:

1. The Quality Control circles shall establish **Quality Management Systems (QMS) and Quality Assurance Programme (QAP)** applicable to all site activities, which would constitute very important inputs to the field Engineer for effectively discharging his responsibilities.
2. These **QAPs** shall provide detailed guidance for the proper execution, monitoring and control of all site activities including Quality Assurance aspects. They shall typically cover the following aspects, some of which are work related.
 - i) Project Objectives
 - ii) Implementation of Quality Assurance Plan
 - iii) Documents
 - iv) Drawings
 - v) Document Control (current issues of applicable drawings, documents, etc.)
 - vi) Internal Communications (for accurate & up to date information on customer requirements
 - vii) Method Statements or work procedures for various activities
 - viii) Quality Control Plan for materials
 - ix) Process Control aspects including;
 - a) Planning & preparation
 - b) Quality Assurance measures,
 - c) Adherence to codes/requirement,
 - d) Monitoring of process parameters (materials, type, quantity and proportions – mix designs),
 - e) Suitable equipment to be used and environments,
 - f) Workmanship,
 - g) Qualified workers
 - x) Temporary works (Form work and centering, material transportation system like conveyors/cranes, hoists, access scaffolding, etc.)
 - xi) Certification of work

- xii) Adherence to time schedules.
 - xiii) Non-conformance control procedure.
 - xiv) Incoming, in process and final inspection and tests.
 - xv) Handling, storage, preservation, etc. of materials at site.
 - xvi) Cost control (avoiding wastage).
 - xvii) Maintenance of records to demonstrate achievement of required quality.
 - xviii) Preparation of periodical reports.
 - xix) Training/motivation of subordinates & contractors for achievement of quality and prevention of deficiencies.
3. The aim of Quality Assurance is to get things right from the beginning. This shall be achieved by documenting the requirement and procedure of doing and checking whether the requirement is fulfilled; and finally recording the fact. Proper quality assurance plan and quality acceptance criteria in respect of each item of material and workmanship shall be prepared at pre-tender stage and also immediately after the award of the contract, duly approved by the competent authority, so that both the parties fully understand the requirement of quality control and make necessary preparation to implement such Quality Assurance Plan.
 4. A contractor is expected to carry out works as per designs approved by the Department and also as per the specifications prescribed by the Department. Both the contractors and the Department shall ensure that not only the work is carried out as per predetermined mutually agreed quality assurance procedures but also appropriate documentation is maintained by implementing good QMC and QAP, The responsibility of the contractor ceases once the work is completed as per contract agreement conditions including defect liability period and also maintenance period and quality assurance plans, and is certified to have been completed satisfactorily by the designated Engineers.
 5. The Executive Engineer soon after issue of work order to the contractor shall forward approved copy of plans and Estimates along with copy of work order and tender agreement to the concerned Executive Engineer Quality Control.
 6. The Quality Assurance plan shall be finalized by the quality control division before commencement of work by the Executive Engineer. The copy of the finalized QAP shall be forwarded to the higher officers as well as to the Executive Engineer and contractors for necessary action. The supervising engineers shall assure the quality by getting the test done as per the frequencies stipulated for the works in the MORTH specifications & relevant codes.
 7. The quality control divisions / sub divisions shall further confirm the quality assurance by conducting random sample tests as appropriate.
 8. The Superintending Engineer shall verify the quality control procedures and frequencies and monitor the same. The Quality Assurance shall be done by the quality control divisions under the concerned Chief Engineer with the assistance of the concerned Divisional Executive Engineer.

118. Quality Management Requirement:

1. Quality management is an effective and comprehensive management process that helps in achieving goals of public satisfaction and continuous improvement. Action

has to be initiated to impart training to all the personnel of the Department in quality management.

2. All the information gathered as a part of quality management such as innovative/new/ cost effective methods / procedures developed/ adopted / implemented, shortfalls, deficiencies, lessons learnt during the course of the project shall be compulsorily documented and made accessible to all the officers for dissemination. The Engineers shall compulsorily refer these documents and utilize the appropriate information for the optimization of the new projects. These documents shall be in soft/hard copies and preserved for the next generation as excellent reference material.

119. Quality Monitoring:

1. The Superintending Engineer quality control circle, through the quality Assurance divisions / quality control sub divisions shall verify quality of works in accordance with contract specifications. This verification shall be implemented through QA division/sub division for all Bill of Quantities items using random sampling method.
2. QA Circle / QA division / QA sub division shall review the material testing, construction methods, up keeping of quality control records etc., and advice for improvements.
4. The Superintending Engineer shall review and document for compliance, safety measures, working conditions, environmental management requirements and employment legislation as stipulated under the contract and relevant national and state laws/ regulations and advise for improvements required.
5. The QA Superintending Engineer through division / sub division shall undertake on a sample basis the follow up visits to verify actual compliance with previously identified defects and recommendations.
6. The Superintending Engineer shall prepare monthly reports documenting the tests undertaken, problems identified and recommendations made as above. The reports are inter alia, to specify the main aspects that need to be addressed and compliance with the previous reports findings using suitable formats.

The results of quality tests conducted shall be submitted along with bills for processing payments.

7. In respect of work costing more than Rs. 1.00 crore, the contractor shall establish field laboratory at his cost with requisite equipment or as stipulated in the Agreement.

CHAPTER –12

CONSTRUCTION MANAGEMENT

120. Introduction:

1. The Public Works Department in Karnataka is one of the oldest Departments presently engaged in the design, construction and maintenance of buildings, roads, bridges and port works, a major segment of the infrastructure development. Construction sector is set to take giant strides due to innovative applications of information technology. Prudent efforts are required to be made in the Department to usher in an era of predominance of IT to encompass all facets of construction engineering involving men, materials, equipments, processes, techniques, quality and management.
2. Construction management is defined as the art of organized planning managing and directing men, materials, and equipment (resources) to accomplish the purpose of the project objectives of time and budget. In the broad sense, it envisages all the actions taken to ensure that a project is conceived and planned carefully, resources and costs are worked out in detail, designs are made economically and accurately according to requisite standards, the project is executed in the shortest possible time with minimum cost and time over-runs achieving international standards of quality. The Project Manager is involved in project initiation, project planning and design, project execution or construction, project monitoring and project completion. Construction Management involves complete planning, executing, monitoring, controlling and co-ordination of project deliverables.
3. Project management is the process of thinking carefully about what one wants to accomplish, laying out all the steps, and obtaining the resources to carry out the steps. The objectives of project management are to execute a project so that deliverables can meet scope requirements on budget (money) and schedule (time), with safety and security levels together with quality standards with optimum resources. All these interrelated project elements must be managed together if the project is to be a success. Project management is one's response to the problems, delays, changes, obstacles and sometimes opportunities that arise during the course of the project. Successful project management requires dedication and constant vigilance finding out what really happened, how much was really accomplished, what remains to be done, and who will be available to do it. The project manager must be able to balance the project objectives in a timely manner to adequately plan and successfully execute the project. No shortcuts exist for managing the projects. Construction projects include a number of sub-stages in each major step including pre-planning, conceptual design, schematic design, design development, construction drawings, programme and construction administration. In the competitive world project management software can facilitate the engineer to co-relate all the construction stages together in a simplified manner to identify potential problems.

The entire gamut of management operations from the stage of initiation to closure of a construction project is considered as Project Management in Construction. Project management is the discipline and art of planning, estimating, organizing and controlling all resources required to complete a project's defined tasks and activities.

Every project is to be delivered within defined scope, specific time limits and budgets. Reducing or increasing any one of the three has a direct impact on the other two.

Scope defines the ambit of work required to be included in planning and scheduling for project completion.

Time determines the time period required for completion of the project defined by defining the project schedule. The scheduling of a project involves slicing/ packaging the work into manageable activities needed to accomplish the scope of project, assigning and estimating the duration of each activity and placing them in a logical sequence.

Budget involves estimating, budgeting and controlling project costs. Every project requires a budget to initially define its funding requirements and planning for resources accordingly.

The project management phases includes

i. Planning:

The main purpose of the planning stage is to set out a time frame for each item to be completed, secure a budget if needed and organize the resources needed. These resources can include employees/teammates and actual materials/machinery needed to complete the project.

In this phase all project tasks and activities are defined. Relationship between these tasks is defined. Milestones are set to identify important aspects of the project that need to be met. These activities are organized to meet project deliverables and resources required to complete these activities are worked out. Durations for these activities are defined. The entire work plan is then scheduled. The risks and constraints related to the project are also identified.

ii. Execution:

This phase includes building the project team. During the execution phase the work defined in the project plan is executed to deliver the project deliverables. Resources are assigned and budgets are allocated to various tasks in the project. All elements of the project are coordinated and integrated.

Execution includes effective management of resources towards the completion of each task, and the coordination of the various tasks toward fulfilling the overall goals.

iii. Monitoring and Controlling:

As the project is implemented, it is important to monitor and control progress of project activities based on the objectives that were established in the project plan. It is required to monitor milestones for completion or deviation. Monitoring involves enabling to quickly recognize and take corrective action to elements that affect activities and the coordination of the various tasks towards completion of the project.

iv. Closure:

The project reaches a closure stage when all the desired outcomes as spelled in the project plan are achieved.

4. Construction sector is facing the challenge of constructing complex structures of high quality at an economical cost, lesser burden on the environment with green technology as well as better working conditions. Information technology tools have to be used to achieve the above requirements in an increasingly competitive environment. With proper use of Information Technology tools, construction industry has the potential to lower project costs, shorten schedules and streamline coordination between managers, suppliers and contractors. Information technology has a big role in efficient development and management of deliverables. Complicated processes of large projects can be well organized through use of IT in order to increase competitiveness and reduce

costs. Information technology tools can be effectively used across distant geographical and organizational boundaries, giving unlimited access to the project information to all the stakeholders involved and the general public as well.

Information technology as a tool can be used to streamline any construction project operations. Most critical factors of construction delay are identified as lack of project understanding, inefficient site management, poor site coordination, improper planning, lack of communication; and substandard contract. Increased pressure on timeliness highlights the need to bring about seamless co-ordination between various functional areas in a project, enhancing widespread use of IT, to monitor and document the work of the many disciplines involved in construction projects.

All project information can be entered into software tools or generated by computer programs and can be represented in different MIS formats required by the disciplines involved in the project. This coordination and integration of the information across several project phases is easily achieved through information technology tools. This leads to better communication between different officials in the Department resulting in timely achievement of overall project deliverables.

Information technology in construction accompanies the entire life cycle of a project from the initial idea to its completion. It helps to manage projects successfully, through proper planning, execution, and controlling in a targeted and cost-effective manner. IT brings together business processes into an integrated project management, which guarantees interdisciplinary cooperation between the specialists areas involved. It thereby brackets together several modules, which provide optimal support for business processes.

The integrated IT approach supports and optimizes business processes during project execution. It helps to reduce routine activities and speeds up processes. This leads to comprehensive project management and optimum combination of business procedures. IT opens the way to a new level of effectiveness in progressive project management.

Information technology has the potential to change the way we manage, retrieve, and exchange project information in the construction industry. This will result in multiple benefits through improved communication, team coordination and information access.

121. Original works:

1. In continuation of the foregoing paragraphs, the operations of the Department are divided primarily into two classes: 'original works' and 'repairs' or 'maintenance'. The term 'original works' indicates new constructions whether of entirely new works or of additions and alterations to existing works. It also includes all repairs to newly purchased or previously abandoned buildings required for bringing them into use.
2. When a portion of an existing structure or other work not being a road surface, road bridge, cause-way, embankment, ferry approach, protective or training work in connection with a road, is to be replaced or remodeled (whether or not change involves dismantling) and the cost of the change represents a genuine increase in the value of the property, the work of replacement remodeling, as the case may be shall be classified as 'original works' and the cost (which should be estimated if not known) of the portion replaced or remodeled being credited to the estimated/Detailed Project Report for original works and the balance debited to repairs. If the cost of the portion replaced or remodeled is not known, it shall be estimated.

3. In case of buildings, the capital value of any portion of building which is abandoned or dismantled without replacement should be written off the total capital value of the building in any pro-forma account of its cost.
4. The expenditure on minor additions and alterations to buildings up to a limit of Rs.1.00 lakh in each case may be classed as petty works expenditure. If such works relate to residences, the cost is taken into account in determining the capital cost and in calculating the rent in accordance with the rules laid down in Appendix-IV of Karnataka Civil Services Rules.
5. If the existing structure is dismantled for the reason that it is structurally unsound and is replaced by work which is in material essentially the same as the work dismantled, the work is strictly of the nature of repairs unless it comes within the purview of clause 2 supra. If the work is dismantled and replaced not because it is structurally unsound but purely because of administrative reasons, the entire operation will be treated as original work and the whole cost debited to 'original works', cost of the dismantled work being written off the 'capital account'.
6. When an existing portion of a road, bridge, cause way, embankment, ferry approach, protective or training work in connection with a road is to be replaced or remodeled (whether or not the change involves any dismantlement) and the change represents a genuine increase in the value of the property, the whole cost of replacement or remodeling as the case may be, should be classed as 'original work' and the cost or value of the portion replaced or remodeled should not be debited to 'repairs'. For example.
 - (a) Road widening involving land acquisition;
 - (b) Re-alignment, or diversion of road e.g. to avoid dangerous curves in villages or steep gradients, and
 - (c) Reconstruction of roads to meet present traffic conditions, e.g. by the provisions of (i) new sub base, base and for (ii) a new type of surfacing, are all classified as original works.
7. Bituminous or Concrete surfacing of roads for the first time is to be classified as 'original works'.

122. Repairs:

The term 'repairs' indicates primarily, operations undertaken to maintain in proper condition buildings / roads / bridges / causeway and other works.

1. Repairs are of three kinds. Firstly, those works which as a matter of regulation are carried out periodically and which are usually of the same quantity from time to time such as painting of a building, new coating of metal on a road and resurfacing. Secondly, those which are not done as a matter of regulation periodically but which is convenient to carry out so far as may be necessary with periodical repairs. Thirdly, such occasional repairs which may have to be carried out as and when they occur.
2. Provision of repairs of the first two kinds shall be made in annual Estimate/Detailed Project Reports and for the third kind in separate estimate/Detailed Project Reports, as may be required
3. Estimate/Detailed Project Reports shall be prepared for the maintenance of each work or a portion of work or group of works as detailed in the budget. This point needs to be kept in view though in principal accounts the total outlay of each Estimate/Detailed

Project Report being alone posted, it is only by recording outlay year after year on the maintenance of each building or particular set of buildings or works that useful comparisons can be made.

4. Each repair Estimate/Detailed Project Report shall include the whole expenditure which is anticipated, will be incurred during the working year on the maintenance of the work concerned. Should any additional expenditure be needed beyond what has been provided for its maintenance during the year shall be met by a supplementary Estimate/Detailed Project Report. It is in order to classify under special repairs items, which appropriately form part of ordinary repairs.
5. Repair Estimate/Detailed Project Report for a building normally consists of repairs to electrical works, water supply and sewerage works, cables etc., in addition to civil works such as patch plastering, sealing cracks in walls, repairs to leaky roofs etc. Many a time it becomes necessary to call an electrician or a plumber to carry out the repairs. If, for the entire repair works Estimate/Detailed Project Report, there is only one agency, then that agency will have to arrange for electricians, plumbers etc. and get the work done. It is therefore considered that splitting repair Estimate/Detailed Project Reports according to the exigencies is not an irregularity. Since timely maintenance is the criteria to be fulfilled; option exists with the field engineer and the Assistant Executive Engineer to execute the repair works in parts involving one or more agencies. Similarly, when there are maintenance contracts for lifts, air conditioning, generators etc., it is permissible to have separate maintenance repair Estimate/Detailed Project Reports for each type of work, but all work done shall be recorded in a chronological order in the standard measurement book of that building, so as to ensure accountability.
6. Repair Estimate/Detailed Project Report shall be like those for original works, provide for removal of debris which may have accumulated around the buildings, all work establishment employed especially on the works and under separate sub heads, say watch and ward sanctioned by competent authority for the care of vacant buildings or for guarding works etc.
7. The detailed Estimate/Detailed Project Report for works for which grant has been provided in the budget may be sanctioned by the Departmental officers according to the powers vested in them.
8. The practice of distributing repair grants under ordinary repairs and special repairs separately have been dispensed with. It shall be just repair grants. The repair grants shall be separate for residential and non-residential buildings. Similarly, distribution of annual repair grants on plinth area basis also has been dispensed with. Estimated requirements for first priority, second priority works etc of each building are known and based on grants allotted, the Estimate/Detailed Project Reports shall be prepared. The procedure adopted for the distribution of repair grants shall be need based. Thus the whole system shall be geared to meet the most important needs of the building. Each building shall be considered as a separate entity and its maintenance requirements are arrived at strictly in accordance with the priorities prescribed below.

Priority No 1 – (a) Repairs to electrical, sanitary, water supply fittings, repairs to leaky roof and walls showing distress signs.

Priority No 2 - (b) Repairs to broken doors, windows, ventilators, including their fittings, repairing broken glass of windows and ventilators.

Priority No 3 - (c) Repairs to ceiling and flooring.

Priority No 4 - (d) Repairs to plastering.

Priority No 5 - (e) Repairs to gates.

Priority No 6 - (f) Finishing external and internal walls.

Priority No 7 – (g) Finishing doors, windows and ventilators.

Priority No 8 – (h) Finishing the compound walls and gates.

Priority No 9 – other related works.

As priorities are well established, any deviation will be the subject of special audit, technical as well as financial. Therefore continuous attention of the field engineer is needed to watch the performance of the building.

9. The Estimate/Detailed Project Report shall be prepared in the month of December of each year, agencies are fixed, pre-monsoon works are carried out well in advance of the onset of the monsoons, the efficacy of such works are watched during and after pre-monsoon showers and wherever necessary, remedial actions are taken well in time. In case of electrical, water supply work etc., agencies are fixed well in advance, so that they are ready to take up repairs whenever needed and without loss of time. All these Estimate/Detailed Project Reports shall carry a clause in the agreement that the payments for works done before the commencement of the financial year are made only after the commencement of the financial year, charging to the repair Estimate/Detailed Project Report for that year.
10. Maintenance contracts are concluded for lifts, air conditioning, generators, etc. well in advance so that the agencies are in readiness to attend to breakdowns or for that matter, any problem that may arise. In the case of major breakdowns, where the repair costs were not foreseen at the time of preparation of Estimate/Detailed Project Report, the same should be prepared afresh as per the revised requirements and the sanctions accorded earlier are cancelled and the outlay incurred is transferred to the new Estimate/Detailed Project Report. As the requirements of grants for annual maintenance contracts of lifts etc., vary from installation to installation, no general limits are laid down. The officers are therefore expected to act in good faith in public interest in demanding allocation for these works.
11. To minimize the time and labour spent on the preparation of Estimate/Detailed Project Reports for building repairs, the Executive Engineer shall keep in his division, Standard Measurement Books (SMB) which show the detailed measurements of each kind of work for each building or structure, which is usually subject to renewal or repair under his charge. SMB shall contain detailed land plans, photographs of the buildings, construction details in a standardized format, detailed measurements of each component of the building with abstract to facilitate easy and quick identification. Items of works to be executed along with quantities are arrived at correctly to enable preparation of Estimate/Detailed Project Report in a simple format quoting quantities with reference to page and item number in the SMB. Such works can be executed conveniently on lump sum contract basis. There shall be one SMB for one building. When there are a group of buildings, say, in a hospital complex, still for each building there shall be one SMB. In this book, not only periodical repairs, but also occasional repairs carried out wherever necessary, additions, alterations, improvements carried out are also recorded in a chronological order. This enables the officers concerned to have updated details of the particular building, enabling them to follow the guidelines for repairs. Estimate/Detailed Project Reports are not recorded in the SMB but the measurements of work done are recorded. This enables the engineer in charge to correctly figure out

works carried out in previous years and to properly schedule the repair works during the current and next year depending upon the availability of grants.

- a) Minor and miscellaneous items of work as detailed below, when ordinarily be classed as 'new works' may be debited to 'repair;' up to a limit not exceeding Rs.1.00 lakh in any one case provided that the works in question do not form part of any comprehensive scheme or project covered by a works Estimate/Detailed Project Report.
 - b) Super elevation at curves.
 - c) Widening the formation or carriage way of a road, widening a drainage, cutting back a hill side to improve vision at curves provided that the acquisition of land is not involved in any case.
 - d) Improvements of alignment or gradients or dips carried out at the time of renewing a surface, provided that the acquisition of land is not involved in any case.
 - e) Improvements to or reconstruction of road surfaced with different material, where it is desirable to carry out such improvements or reconstruction at the time of renewing a surface.
 - f) The construction or reconstruction of road surface in different materials for the purposes of experiment.
 - g) Providing additional guard rails at sharp curves and on high banks.
 - h) Providing direction posts, caution or danger boards and gauge posts for indicating depth of water over causeways.
 - i) Surveys of land in charge of the Department for the purposes of verifying encroachments of the execution engaged thereon.
12. In addition to all repairs and renewals in material similar to the existing, the following, items of road work should be classified as 'repairs'.
- (a) Repairs and maintenance including surface painting, surface dressing but not including Bituminous concrete, macadam in place of concrete.
 - (b) Repairs and periodical renewals.
 - (c) Minor and miscellaneous items of work.
14. All measurements pertaining to a road shall be recorded in a chronological order, whether they come under repairs or improvements, as the intention is to facilitate proper planning of works and also for technical as well as financial audit.

123. Administrative Approval and Technical Sanction:

1. Administrative Approval is an important order conveying the formal acceptance by the administrative department concerned on a work initiated by or connected with the requirements of such administrative departments. The Authority according Administrative Approval shall ensure that adequate provision is made in the Budget Estimate as stipulated in para 85.60 depending upon the size of the project.
2. Technical Sanction is the order of a competent technical authority sanctioning a Detailed Estimate/Detailed Project Report of the cost of construction or repair proposed to be carried out in the Department.
3. Estimates/Detailed Project Reports are technically scrutinized by the authority competent to accord Technical Sanction and then forwarded to the administrative department for according administrative approval.

4. After the receipt of Administrative Approval from competent authority, the Estimate/Detailed Project Report is technically sanctioned by the competent authority in the Public Works Department subject to the availability of funds/ budgetary grants.
5. In case there are no budgetary grants allotted for the year or the grants allotted are only token grants or the amount allotted is barely sufficient to meet the expenditure of spill over works, then the Technical Sanction to that work shall not be accorded during that year. If sufficient grants are allotted during next year or subsequent years, the Estimate/Detailed Project Report should be recast adopting prevailing schedule of rates of that year, and then, technical sanction is accorded provided the increase over the administrative approval amount is less than 15% of that amount. If the excess is more than 15%, Revised Administrative Approval shall be obtained for the Estimate/Detailed Project Report recast adopting prevailing schedule of rates.
6. For every work (excluding repairs) initiated by or connected with the requirement of another Department, it is necessary to obtain the concurrence of the Department concerned to the proposals before Technical Sanction to the work is accorded in the Public Works Department. The formal acceptance by the Department concerned is the administrative approval of the work and is in effect a clearance to the Public Works Department to execute certain specified works at a stated sum to meet the administrative needs of the Department requiring the work. The authority according administrative approval shall record the order on the last page of the abstract Estimate/Detailed Project Report, the plans and estimates shall also be countersigned signifying acceptance of the proposals contained in the Estimate/Detailed Project Report document. The order of administrative approval shall carry the full signature with name in capital letters and the office seal of the officer. Administrative approval shall be accorded (in consultation with the finance Department wherever necessary) only after the professional authorities have intimated that the proposals are sound, the preliminary Estimate/Detailed Project Report is sufficiently correct for the purpose and that there is a reasonable prospect of funds being provided for the work in the same or succeeding year.
7. A similar procedure shall be followed in case of works required to meet the administrative needs of the Public Works Department where both the Administrative Approval and the Technical Sanction will be accorded in the Public Works Department.
8. For every work proposed to be carried out and for which lump sum provisions have been sanctioned by the Superintending Engineer, a properly framed detailed Estimate/Detailed Project Report must be prepared for obtaining technical sanction of the competent authority to whom powers have been delegated. Sanction accorded for the construction of a work by any other Department of Government is to be regarded as administrative approval of the work. The fact that such approval has been accorded by the concerned administrative Department do not in any way dispense with the necessity for a further technical sanction based on prevailing schedule of rates which must be obtained before taking up the work.
9. A proposal for administrative approval shall be forwarded to the authority competent to accord it, accompanied by a preliminary report, an Estimate/Detailed Project Report, such preliminary plans and information as to the site and other details as may be necessary to fully elucidate the proposals and to be returned thereafter to the officer of the Public Works Department, who is competent to accord technical sanction.

124. Technical sanction:

1. Technical Sanction accorded by competent technical authority shall be in the form PWF-2. The order shall contain details of administrative approval received for the work with the estimate amount, budget head in detail, budget grant allotted for the work or for the division and amount available during the current year for taking up the work.
2. Works should be sanctioned only when budgetary allocations are made available. If the funds made available during the year are insufficient to carry out the works already sanctioned, there is no need to sanction further works and hence sanction generally should not be accorded. In all such cases, a factual report should be sent to the local/state head of the department about the availability of funds and the inability of the Department to include this work in the current year's programme. Availability of funds should be examined at zone, circle, division level when technical sanction orders are issued by Chief Engineer/ Superintending Engineer/ Executive Engineer. Normally officers executing public works are not expected to state that owing to non-availability of funds the works cannot be taken up. On the other hand, the replies could be that the works are not included in the current year's programme.
3. Technical Sanction shall not be accorded if the availability of funds is not definite or funds allotted are insufficient or only token grants are provided. Further, according technical sanction subject to conditions or subject to compliance of technical note amounts to according technical sanction to an incomplete Estimate/Detailed Project Report and may be avoided. If detailed Estimates are to be prepared for lump sum provisions, technical sanction shall be accorded only after such detailed Estimate/Detailed Project Report are prepared. According technical sanction in anticipation of receipt of funds will be an irregularity and should be avoided. If funds are available in the succeeding year the administratively sanctioned Estimate/Detailed Project Report shall be recast and sent through proper channel to the authority who had originally accorded the administrative approval, seeking revised administrative approval or fresh administrative approval. Under no circumstances, provisions made in the administratively approved Estimate/Detailed Project Report shall be reduced so as to bring the amount within 15% so as to accord technical sanction. This irregular procedure takes away the sanctity attached to the administrative approval order.

For example, if a grant communicated under special repairs of state fund for roads is Rs.10 lakh, cost of spillover work is Rs.8 lakh, it is permissible to sanction further Estimates for Rs.2 lakh but not more. In case more works are sanctioned, it will be an irregularity. However, it will be permissible for the Executive Engineer to sanction works in the month of December of each year, Estimates to an extent of 25% of the grants normally accorded each year, so that working seasons April and May will have enough works, till new grants are communicated in April or May subsequent year.

4. (a) The KTPP Rules stipulates that no tenders be invited for a major project (comprising more than four works and estimated cost of Rs.100 crore) with out preparation of a well thought out Packaging Plan and Procurement Schedule.
- (b) Packaging Plan and Procurement Schedule are to be prepared before Administrative Approval is accorded for the project.
- (c) The pros and cons of centralized versus decentralized procurement, "small packages" versus "large packages" for works, "turnkey" versus "packages" are required to be examined thoroughly before Packaging Plan is prepared.

- (d) After the packages are decided and approved, the method of procurement and Procurement Schedule (showing the timings of various procurement activities) are to be framed depending upon the value of the packages.
- (e) The Procurement Schedule shall form the basis for the preparation of designs and specifications as well making available the required funds.
- (f) The officers responsible for taking decision on the planning and execution of the projects are to be adequately trained in Project Procurement Planning in reputed Training Organizations at national level.

125. Technical scrutiny:

When Estimates for original or repair works are prepared by other department, such estimates shall be technically scrutinized, corrected or action taken to correct, and then forwarded to that Department. Technical scrutiny is checking whether the estimates and specifications are as per the plans/designs prepared by the competent authority. In case where works are already partly executed and the estimates prepared by the other Department is received for technical scrutiny, still the technical scrutiny can be carried out but the stage of work at the time of inspection, deviations from standard practices, if any, should be recorded, preferably accompanied by a cost statement for the deviations noticed.

It shall be clearly borne in mind that by insisting on technical scrutiny, Government expects that the Public Works Department officers should exercise all necessary checks applicable to plans, specifications, quantities and rates and to bring to the notice of the administrative department the deviations from standard practices prescribed by Government of Karnataka and Bureau of Indian Standards together with the financial implications involved. All estimates technically scrutinized shall be certified as "Technically scrutinized" with reference to KSRB/ KSRRB/ KRBS; (whichever is applicable) and the standard schedule of rates of the year. Total number of corrections shall be attested in red ink on each page. This certificate should be on the last page of the abstract Estimate/Detailed Project Report. However the primary responsibility for the correctness of field data and preparation of Estimate/Detailed Project Reports thereof vests with the officers and official preparing the Estimate/Detailed Project Report. The officer who certifies as technically scrutinized is responsible for the overall correctness of the Estimate/Detailed Project Report. If there are numerous corrections, a neat copy may be got prepared and then the scrutiny certificate be recorded.

Estimate for works shall be scrutinized within 15 days from the receipt of all the relevant records and on receipt of necessary fee.

126. Execution of Building works:

1. In the case of buildings, all works shall be carried out as per Karnataka Building Specifications and Bureau of Indian Standards, as amended from time to time.
2. In localities where competition for labour between two Departments of Government leads to demands by labour for advance, co-operation on the part of the Executive Engineer, with the local heads of the other Department should secure all available labour on equal terms.
3. The Superintending Engineer may, if he deems it necessary, direct the Executive Engineer to suspend commencement or progress of any work pending orders of Government.

4. The Executive Engineer may, if he deems it necessary, direct the assistant Executive Engineer to suspend the commencement or progress of any work costing less than Rs. One lakh pending the orders of higher authorities / Government. But all such orders should indicate the reasons for suspension, period of suspension and if a contract is involved, how the contract conditions should be dealt with.
5. No person who is under the age of 14 years shall be employed on works carried out on contract labour. In case of works given out on contract, a condition to this effect should be prescribed in all contracts.

127. Additions and alterations to buildings:

1. No officer in charge of any Department shall make any application for the construction of a new building for additions and alterations to existing building without the previous consultation with the Executive Engineer of the division, whose duty it is to oppose any such application in case he is not convinced of the real necessity for the proposals made and if he is unable to convince the officer of the same, then to refer the matter to the Superintending Engineer. The Public Works Department can take up the actual execution of works and repairs asked for by the civil Department only, when there is real need for them and when funds are available.
2. In case any works are not executed by other Departments under the provisions of Articles 175 to 177 of the Karnataka Financial Code, but are to be carried out by the public works Department, a requisition shall be made by the concerned Department officer. The Executive Engineer will record on the requisition that work shall be done and give in response to the requisition, a broad Estimate/Detailed Project Report of the probable cost. After acceptance of the Estimate/Detailed Project Report by the requisitioning officer the Department shall take necessary action to request the concerned Department to provide funds and sanction the execution of the work.
3. The Executive Engineer shall sanction the execution of such works from the grants distributed by the Superintending Engineer from the lump sum grants allotted to his circle for minor works.

In case of a work costing more than Rs.25000 after the Administrative Approval of the competent authority is obtained, the detailed plans and Estimate/Detailed Project Reports will be sent to the concerned local head of Department for countersignature. The Estimate/Detailed Project Report will then be technically sanctioned by the competent authority of the public works Department. Funds for the work must be duly allotted before the work can be commenced.

4. The procedure to be followed in case of repair works is as follows:
 - a) The requisition will be made by the concerned Department officer.
 - b) On receiving the requisition the Executive Engineer will first satisfy himself as to the propriety of the work and that there is sufficient provision in the budget grant under the proper subhead of 'Repairs' and that the funds have been duly allotted to him.
 - c) The Executive Engineer may then order the immediate execution of the work, without the preparation of detailed Estimate/Detailed Project Report, if the cost is not likely to exceed Rs.25000/-.
 - d) Should the budget grants under the particular sub-head be insufficient to meet the outlay reference must be made to the Superintending Engineer.

- e) When the approximate Estimate/Detailed Project Report exceeds Rs.25000/- a detailed Estimate/Detailed Project Report must be framed to the authority competent to accord technical sanction.
- f) Nothing contained in these paragraphs should be construed to mean that a group of works or alteration or purchases, the aggregate cost of which exceeds that an officer is empowered to sanction could be so split up as to bring them within the powers of sanction of that officer.
- g) Whether the question repair grants can be utilized for the original work is answered in the affirmative subject to the proviso that the essential repairs are not kept on hold. In the case of buildings, a limit of Rs.50000/- is fixed for minor alterations and additions.

128. Execution of road and bridge works:

1. In the case of roads and bridges, all works shall be carried out as per Karnataka Roads and Bridges Specifications, Indian Roads Congress Code of Practice for Roads & Bridges MORTH specification and Bureau of Indian Standards, as amended from time to time.
2. Road works include formation of medians, traffic islands, traffic intersections, road signages, approaches from the adjoining roads, footpaths in urban areas etc.
3. The requirement of any roadwork is that of formation and construction of cross drainage works, improving the vertical and horizontal geometric, if necessary with acquisition of private property. The width of the culvert shall be that of the full formation width of the road. In case of minor bridges also the width shall be that of formation width of the road with parapets on either side. Embankment shall have guard stones fixed securely. Sub-grade, Granular Sub Base, WMM/ WBM shall only be done after the formation and cross drainages works are completed in all respect. The roadwork shall be executed as per relevant IRC standard & MORTH specification.
4. All major bridges shall be designed as per IRC code for bridges and relevant specifications as amended from time to time. At all major bridge locations, salient features of the bridge including the name of the river, year of construction, cost of construction, with the names of the concerned Engineer and the contractor's shall be displayed permanently. Designed / observed HFL shall invariably marked on the Abutment.

129. Programme for repair works:

Programme shall be drawn for the entire year well in advance so that the repairs are carried as and when needed and the expenditure is uniformly spread over the entire year to the extent possible, but the guiding factor is to carry out repairs in time to prevent breakdowns or to prevent / minimize damage.

- a) For example, when a culvert is damaged and requires replacement of pipes, such works are accorded highest priority. Works of this type constitute serious traffic bottleneck or hazard and has to be attended to without loss of time. It shall be in order to commence the work, complete it, and make payments, if necessary pending sanctions to Estimate/Detailed Project Reports and pending communication of grants. It is pointless to keep the damaged culvert barricaded on the pretext that the Estimate/Detailed Project Report is yet to be sanctioned and the grants are not communicated or tenders have to be called for, as public interest is supreme and demands immediate action. The Assistant Executive Engineer shall take recourse to the provisions available in this code to nominate a contractor, who can be relied upon to execute the work at the earliest. The

discretion exercised by the Assistant Executive Engineer in this case is final and binding and no appeal shall lie against it. Still, during excavation if it is observed that other pipes, head walls are also damaged, then reconstruction works entirely in accordance with IRC standards shall be taken up through the same nominated agency. Action shall be taken at the earliest to prepare the Estimate/Detailed Project Reports, obtain sanction and grants required.

For instance, if span of a major bridge has developed distress or collapsed making it unfit for traffic, then it is the duty of the field engineer to construct barricades, warning boards and communicate the failure immediately to all the authorities concerned namely his superior officers, police and revenue heads at the district and taluk level. In such cases, anticipatory action shall be taken only to provide a diversion road. Permanent repairs shall be taken up only after failure analysis is carried out by a competent authority & sanctions are accorded.

- b) The Divisional Officer at District level and Chief Engineer at state level shall have a panel of experts, who may be in service or practicing Engineers or retired officers to conduct failure analysis, identify causes for failure and also identify personnel responsible for design and construction of the failed structure.

130 Sanction to repair Estimate/Detailed Project Reports:

1. Sanction to a repair estimate lapses on the last day of the financial year. If inconvenience arises in any exceptional case, from the stoppage of work on the fixed date, the repairs may be carried out till completion and the expenditure after the date may be treated as expenditure against a fresh repair Estimate for the coming year.
2. The estimate for repairs like roofing a building, replacing of beams or renewal of flooring etc., remains current till the completion of repairs in the same manner as estimate for original works.
3. Repair estimate for roads shall be framed only for amounts as can be spent most economically within the year and closed like annual repair estimate every year. They shall never be treated as incomplete works and taken forward to the succeeding year.
4. In case of buildings, commencement of repairs can be taken up in anticipation of formal sanction to the estimate. But in such cases, approximate sum fixed may be based on the amount required for priority works and / or grants communicated. The concerned engineers in the sub-division and the division shall ensure that the sanctions are accorded to the repair estimate at the earliest possible date.
5. It is reiterated that estimate for maintenance and repairs of road works to be executed during the year shall be prepared and got sanctioned in the month of December of the preceding financial year, tenders invited wherever it is desirable and works awarded before the end of January. The sanctions shall be invariably communicated to the audit office before 15th May of each year.
6. Filling the potholes, ruts, depressions, heaving or settlement of road surface, road cuttings, clearing of blockage of cross drains, rectification of settlement on bridge and culvert approaches, rectification of joints in RCC bridges, cleaning of drainage spouts, rectification of depressions developed in the wearing coat on bridges, cleaning, oiling and greasing of bridge bearings, repairs to damaged culvert and bridge parapets shall be given first priority in the allocation of grants provided. These works are to be carried out whenever need arises as a matter of routine. Precautions have to be taken to record the pre measurement of the potholes, ruts, before repair work is taken up. Pothole

filling and other such items are to be carried out as per MORT&H specifications as amended from time to time.

In case of works for the renewal of which any specific period of time has been fixed, the estimate for its repair should show the date when such item of work was last executed.

131. Packaging plan and procurement schedule:

1. A comprehensive packaging plan and procurement schedules is to be prepared before Administrative approval and Technical Sanction are accorded as per circulars issued by Finance Department from time to time.
2. An important factor to be considered while deciding on the packages is the availability of funds. The funding pattern needs to be clearly established is consultation with competent authorities, or otherwise even the best-laid plans can go awry. Infructuous expenditure, which is likely in the event of packages and procurement planning getting altered due to exigencies, as far as possible, should be avoided.
3. Officers according Administrative Approval and Technical Sanction are expected to be adequately aware of situations which may cause hold ups in executions, notwithstanding the elaborate planning exercise. They should alert the concerned authorities of the possible in fructuous expenditure well in advance and take all steps that may be necessary to safeguard public interest. The procurement schedule is to follow the basis for the preparations of designs and specifications as well as making available the required funds. Therefore, it is imperative that officers responsible for preparation of packages and procurement schedules are adequately trained in project procurement planning.

132. Revised Administrative Approval:

This procedure will apply to modifications of the proposals originally approved, if likely to necessitate eventual submission of Revised Estimate/Detailed Project Report to cover material deviations from the original proposals, even though the cost of the same may possibly be covered by savings in other items, and to cases where the detailed Estimate/Detailed Project Reports, when prepared exceed the amount administratively approved by more than 15 per cent*. In case of modifications during construction, Revised Administrative Approval of the competent authority should be obtained without awaiting the preparation of a detailed supplementary or Revised Estimate. However, the authority that accorded administrative approval shall be kept fully informed of the increased cost of the work.

(* As per Government. order No. PWD 671 FC1 2009 dt.3/2/2010 & revised from time to time)

133. Supplementary / Additional items of work:

1. Whether supplementary items / additional items are ordered to be executed by the user Department or due to the exigencies of the work by the Departmental officers, in all such cases, Supplemental Estimate/Detailed Project Reports shall be prepared adopting current schedule of rates and action taken to carry out the work depending upon the availability of funds, priority or necessity. If the supplemental work is proposed to be executed through the agency which executed the original Estimate/Detailed Project Report work for want of alternatives; then, instead of current schedule of rates, agreement rates (accepted tender rates) may be provided, if it is in accordance with agreement conditions. For instance, if foundation concrete item is exceeded by more

than 25%. For the additional quantity a Supplemental Estimate/Detailed Project Report may be prepared and approved but the rate proposed shall be prevailing schedule of rates. On the other hand, if the additional quantity is 25%, then the Supplemental Estimate/Detailed Project Report shall have agreement rates, reason being that the contractor by virtue of his agreement condition is bound to do additional work ordered by the Executive Engineer to the extent of 25% at the agreement rates. While this may not pose problem when the tender premium is above Sanctioned Estimate/Detailed Project Report rates based on the prevailing schedule of rates, in case of tenders where the tender premium is less, rate quoted for that particular item or items is less, the question arises whether necessity of such an excess did not exist earlier at the time of preparation of Estimate/Detailed Project Report; and reasons for not considering earlier. The reason for increased quantity should be explained satisfactorily avoiding meaningless terms like “increase as per actual etc.” and how it could not be envisaged earlier at the time of preparation of Estimate/Detailed Project Report. If no satisfactory explanation is forthcoming, then how the erroneous quantity was arrived at, shall be analyzed and steps should be initiated to avoid recurrence of such occurrences in future. This problem and consequent increase in cost should be discussed in meetings so that others will be aware and such mistakes are not repeated.

2. The work to be commenced upon executing a simple supplemental agreement. The supplemental work so ordered shall be completed, billed and paid for separately and accounted finally as an addition to the original Estimate. This procedure is to be adopted to obviate the procedure of taking up incidental works not contemplated in the original Estimate/Detailed Project Reports but charging the expenditure to the Revised Estimate/Detailed Project Report, pending sanction, an irregular procedure which needs to be avoided. The Divisional Officers while carrying out instructions issued by the higher officers shall not charge the cost to the original Estimate/Detailed Project Report, when there is no provision or the provision made is already spent, as this creates accounting problems apart from procedural irregularities. The procedures involved in preparing and sanctioning of Supplemental Estimate/Detailed Project Reports shall be the same as adopted in original Estimate/Detailed Project Reports and the agreement procedures shall remain the same excepting that instead of including the contract data and contract conditions separately, a certificate or an undertaking in writing is obtained from the agency executing the work that he is prepared to abide by all the conditions relating to the particular contract and specifications.
3. All orders of Administrative Approval and Technical Sanctions accorded by officers in accordance with the powers vested in them shall be communicated to the all the officers concerned and to the Accountant General and Government in the Public Works and Finance Department.

134. Execution of scarcity relief works:

The scarcity relief works shall be executed as per the guidelines of the Revenue Department.

135. Commencement of works:

1. All works shall be commenced only after issue of work orders by the competent authority, and signing of agreement and handing over the site free of encumbrances after following procedures prescribed in this code.
2. When any new building is about to be commenced or any alterations, addition or repairs executed to any building, due intimation of such intention must be given to the local head of the Department concerned.

3. No work should be commenced on land, which has not been duly handed over by the concerned Department.
4. Calling for tenders for works for which lands are not acquired shall be avoided. In rare cases, when tenders for works are accepted but the lands required for the purpose is still to be acquired, then action should be taken on war footing to initiate acquisition proceedings. Notification under Section 4(1) of Land Acquisition Act should be expedited and only after issue of such a notification, action should be taken to obtain land by mutual consent, undertaking in writing, clearly indicating survey no, extent, boundaries, ownership and lands taken over with dates, with mahazar of crops existing, if any, at the time of taking over of the lands.
5. After Technical Sanction, acquisition proceedings should be initiated, if funds are earmarked for the work. Calling for tenders in all such cases shall be only after the entire land is taken possession including obtaining clearances wherever necessary under Forest Conservation Act & shifting of utilities by concerned Agencies.
6. It is not in order to issue orders for the commencement of works either on a requisition from a head of an office of other departments or at the discretion of the Public Works Department officers in anticipation of approval of Government in cases when the standard rent leviable for a bungalow exceeds 10 per cent of the average monthly emoluments of the usual occupant etc. No work should therefore be undertaken in anticipation of sanction of Government except in urgent case. If such works are carried out, Government may withhold their sanction and the officers concerned will be responsible for expenditure incurred and will remit the amounts involved themselves.
7. All works shall begin only after detailed design and Estimate/Detailed Project Reports have been sanctioned by the competent authority and minimum one third funds are allocated and Work Order shall be issued by the competent authority.
8. Permission granted by Government in orders on a Budget Estimate/Detailed Project Report, for the retention of an entry of proposed expenditure during the year on a work conveys no authority for the commencement of outlay. Such permission is granted on implied understanding that before any expenditure is incurred the above conditions will have been fulfilled. Excepting in regard to minor works and repairs and in case of emergency, to be immediately reported and explained to the authority competent to accord administrative approval and technical sanction, this injunction may not be infringed. The sanction to design and Estimate/Detailed Project Report by any authority conveys no permission for the incurring of expenditure on the work, unless such expenditure has been provided for in the Budget Estimate/Detailed Project Report of the Government or provision has been made for the outlay within the official year either by appropriation or out of lump sum grants allotted for the head of classification under which the service falls. Whenever land acquisition is involved the work may be divided as estimate for land acquisition and estimate for works. Sanction to the estimate for land acquisition shall be obtained at the first instance & estimate for works later.
9. No liability may be incurred in connection with any work, until an assurance in writing has been received from the authority competent to provide funds that such funds will be allotted before the liability matures.
10. With a view to avoid irregular expenditure by diverting the provisions from one work to another without the sanction of the competent authority, the officers concerned should see that no expenditure is incurred on inspection and residential bungalows, garden and nurseries attached to them unless it is provided for in the final issue of the budget or an assurance can be got from the authorities responsible for watching the progress of

expenditure against appropriations that the item of expenditure on a garden nursery etc. can be met from the budget provision as finally sanctioned (see paragraph 312 to 314 of KPWA Code).

11. No Additional work shall be carried out beyond what is sanctioned or any enhancement of rates promised involving an excess over the sanctioned Estimate/Detailed Project Report without the express approval of the competent authority.
12. If during execution of building works, deviations are proposed by the Departments for whom the works are done, or by any public works Divisional officer such deviation must receive the sanction of competent authority if it involves (1) additional cost, (2) material modification of original plans and designs and should on no account be made without the previous concurrence of such authority.

136. Taking up works in Emergency:

1. Initiation of works without sanctioned plans and Estimate/Detailed Project Report and incurring of expenditure without proper authority during normal times shall be avoided. This should not lead to inaction on the part of local officers in the face of an emergency.
2. In an emergency, where however it becomes necessary to start any particular work in anticipation of sanction, the officer embarking on the work should at the time of starting of work record in writing the reasons which led him to start the work without plans and Estimate/Detailed Project Reports and necessary sanction but however inform likely expenditure. A detailed report should be submitted to the Government in the Administrative Department and also detailed plans and Estimate/Detailed Project Reports should be submitted within two weeks to the appropriate authority and sanction obtained.
3. In particular, all officers should realize that officers at all levels should expedite execution of Government orders within the framework of the standing orders including these instructions; the existence of these instructions will be no justification for not taking prompt action in an emergency or exceptional cases and failure to do so would as much be a dereliction of duty.
4. For instance , when the Divisional officer is assigned with the responsibility of arranging barricades, pendals, dias, speakers etc., and where the Divisional officer has to make arrangements for setting up an office for a Commission or Committee for which a time limit is fixed by Government for submitting its reports, removal of debris due to land slides/collapse of buildings etc.

137. Scope of Sanction:

1. The authority granted by a sanction to an Estimate/Detailed Project Report must on all occasions be looked upon as strictly limited to the precise objects for which the Estimate/Detailed Project Report was intended to provide. Accordingly, it is not permissible to apply without the sanction of the competent authority any anticipated or actual saving whether due to the abandonment of a part of the work or to any other cause on a Sanctioned Estimate/Detailed Project Report of a definite project, to carry out additional work not contemplated in the original project or fairly contingent on its actual execution.
2. Divisional officers are strictly prohibited from making or permitting any changes except marginal deviations, from any sanctioned design in the course of execution unless under specific authority or in case of emergency, when the change should be forthwith reported to the Superintending Engineer.

3. The provisions for contingencies shall not be diverted to any new work or repair, which is not in the Estimate/Detailed Project Report.
4. The cost of testing of the soil for the foundation of the buildings and roads ordered by proper authority shall be brought on the Divisional accounts. Such outlays shall be covered by proper sanction.
5. Savings due to the abandonment of a substantial section of any project sanctioned by Government are not to be considered as available for work in other sections. For the purpose of this ruling a substantial section of a project shall be considered to have been abandoned if the Estimate/Detailed Project Report cost of the works in such sections is not less than 5 percent of the total sanctioned cost of the project or the Estimate/Detailed Project Reported cost of the head works as originally approved.

138. Lapse of Sanction: -

1. The Administrative Approval to a public work or Technical Sanction to an Estimate/Detailed Project Report for such, will ordinarily cease to operate after a period of five years from the date upon which such approval or sanction was accorded. In exceptional cases where the work will be in progress beyond 5 years the competent authority who provided the budget and sanction the DPR may revive the sanction.
2. The Estimate/Detailed Project Reports may be regarded as current for periods specified as below from the date of Administrative Approval after which it gets lapsed and any outlay incurred thereafter requires to be regularized by renewal of sanction by competent authority. The period fixed for the currency of an Estimate/Detailed Project Report falling under clause should invariably be noted for the information of the Accountant General in the monthly returns of sanctions communicated to him.

| Sl. No. | Amount of Estimate/ Detailed Project Report | Period of currency |
|---------|---|--------------------|
| 1. | Up to Rs. 5.00 lakh | 1 year |
| 2. | Above Rs. 5.00 lakh but below Rs. 25 lakh | 3 years |
| 3. | Above Rs. 25.00 lakh | 5 years. |

3. No outlay shall be incurred on provisions proposed for works, the sanctioned Estimate/Detailed Project Report of which are not current and the time limit prescribed having been exceeded, unless they are renewed by competent authority. Renewal of sanction is not necessary when a closed account is reopened merely for rectification of errors.

139. Alterations in design during construction:

1. In the case of works the Estimate/Detailed Project Reports which have been sanctioned by a competent authority, no additions or alterations likely to cause an excess which will not fall within the power of sanction of that authority shall be permitted without the previous approval of higher competent authority, who accorded Administrative Approval and Technical Sanction.
2. Where important structural alterations are contemplated though not necessarily involving an increased outlay, the orders of the original sanctioning authority should be obtained.
3. The responsibility of bringing material deviations or modifications to the notice of the competent authority rests primarily with the executive and not with the audit.

4. No material alteration in standard designs may be made during the course of execution of work without the approval of the Executive Engineer.

140 Safety during execution of works:

In the execution of works care should be taken that the safety and convenience of the public are duly attended to and that all operations are carried out in such a manner as to interfere as little as possible with the traffic or ordinary daily pursuits of the people. Diversion roads and culverts should be provided and the occupation of land when practicable be sanctioned as not to lead to the destruction of standing crops.

141. Accidents at site:

1. Serious accidents should be reported to the Executive Engineer and also to Government directly. The Assistant Executive Engineer and subordinates in charge of work should furnish immediate information to the proper civil authorities on every serious accident, and in the case of fatalities, police shall be allowed to take over area for mahajar.
2. Cases should normally be reported to Government in which the accident warrants such action, e.g. in the case of a defect in the building road bridges being the cause of accident or if the subsequent enquiry proceedings are such as should be reported to Government.
3. In the event of personal injury caused to the workers employed by the Department and included in the definition of the term 'Workmen' by accident, arising out of and in the course of their employment, relevant provisions of that Act should be strictly complied with, the notice of fatal accident being given to the proper authorities, within the prescribed period.

142. Interruption to execution:

1. The report of all interruptions of large work in progress should be immediately submitted to the Superintending Engineer, the causes and probable duration of such interruptions being duly explained.
2. When budgeted works are being executed on tender basis, and works are proceeding as per agreement conditions, prompt payments are to be ensured. It shall be the responsibility of the Executive Engineer to bring to the notice of the higher authorities including Government in the Public Works Department, the requirement of funds well in advance. If the works are proceeding at a faster phase than indicated in the Agreement, the Executive Engineer shall take action in advance to request for additional funds. It shall be in order for the Executive Engineer to bring the requirement of funds to the notice of the Government in the Public Works as well the Finance Department. The Chief Engineer shall take effective action to apprise the requirement of additional funds from the Finance Department, duly explaining the consequences if the payments are not made in time. Where works are ahead of schedule, it is imperative on the part of the Departmental officers that all steps needed to be taken by Government to keep up the tempo shall be taken and under no circumstances, work is made to come to a grinding halt due to non-payment. There shall not be any hesitation to bring to the notice of the higher authorities the adverse effects when a work proceeding at a faster pace is made to slow down or stopped.
3. When a work is being executed on tender basis, grants required to meet the contractual requirements are normally provided in the budget. A situation may arise when the grants are insufficient and the work has to be necessarily proceeded with to give the stipulated progress. The Executive Engineer shall put forth efforts to secure the required

grants well in advance. The contractor has proceeded with the work expecting payments in time or with little delay and gives notice that he is unable to proceed with the work unless his dues are cleared. The Executive Engineer has the option of either to make payments and enable the contractor to proceed with the work or to suspend the work for a brief period to be intimated in writing. Situations of this type shall not be allowed to occur by proper resource management at the level of the head of the Department. As stoppage of work midway due to the inability of the Department to pay the legitimate dues, results in severe dislocation of work, which is highly counterproductive, ordering suspension of work shall be the last resort of the Executive Engineer. In extreme cases the Executive Engineer shall report to Government through proper channels the circumstances that compelled him to take the step of suspending the work and proceed after orders of Government are received. Similar steps are to be taken in cases, where letter of credit is not available. All orders issued or actions taken in this regard shall be in exercise of powers vested with the Executive Engineer under this rule.

143. Medical and Sanitary arrangements:

1. For all contracts, the contractor shall ensure the medical and sanitary arrangements. This shall be insisted in the contract agreement.

2 HIV / AIDS in Construction Sector:

Construction Sector, which invites migrant labourers from different areas, is one of the hot spots of spreading HIV / AIDS. The migrant labourers who are generally in poor health condition are very vulnerable and are often the vectors of the disease and are likely to transmit HIV / AIDS to the local populace. Therefore, it is necessary to control and prevent the spread of HIV / AIDS at work places in construction works.

- 3 This Code of Practice is intended to help reduce the spread of HIV and mitigate its impact on workforce. The fundamental principles for development of this Code of Practice are:
 - i. Prevention through information dissemination, education and practical support for behavioral change.
 - ii. Non-discrimination and protection of worker's right.
 - iii. Care and support including voluntary counseling and testing as well as treatment at local health support system.
 - iv. For Prevention and Control of HIV the construction projects / works can be divided into 'small', 'medium' and 'large size'. The term small, medium and large size works / projects for the roads and buildings sectors has already been defined in the previous chapter.

1. Small Size projects/works:

Following Prevention and Control Measures should be taken up at work place and labour and construction camps.

- a) Providing basic information about HIV / AIDS, on preventive methods and on fair treatment of people living with HIV / AIDS through posters at all labour camps and construction camps in vernacular language, distributing pamphlets, providing necessary counseling and conducting workshops.
- b) Promoting preventive methods by making available reliable condoms at camp sites which are available free of cost in nearby Government Hospitals.
- c) Promoting safety awareness.

- d) Providing clear guidance and direction about working with people affected with HIV / AIDS.

2. Medium Size and Large Size project/Works:

Following Prevention and Control Measures should be taken up at work place and labour and construction camps.

- a) Dissemination of information contained in Para 136.
- b) Services of trained and competent experts from VCTCs who provide counseling before and after testing against a customary payment of just ten rupees, be taken from nearby VCTC. Before testing for HIV, elaborate counseling shall be provided for every individual. Test results shall be kept. Confidentiality which is of utmost importance shall be maintained with care. Top project management shall ensure that any HIV Positive case is known to the authorized management staff and concerned individual only. Any HIV Positive case should be subjected to necessary care, support and treatment system with utmost confidentiality. Any person, who is detected as HIV Positive should not be deprived from his livelihood, but shifted to more suitable works as required. Contractor should submit a summary of test reports containing numbers of persons tested and cases confirmed as HIV Positive, only to the concerned Engineer in a confidential manner.
- c) Care, support and treatment are fundamental elements of an effective response system. Several Care and Support Centers are established throughout Karnataka, which are run by NGOs and monitored by KSAPS. Generally HIV infected persons require balanced diet, mild exercise and positive attitude. It is seen that most of AIDS patient get Tuberculosis (TB) as opportunistic infection. In such cases, these patients should be referred to nearby District Hospitals where treatment for TB is provided free of cost.

3. Institutional Mechanism:

The above conditions should be incorporated in the cost Estimates, bidding documents and the contract conditions. Compliance should be maintained by the concerned Executive Engineer who can also take help from nearby Government hospitals as well as VCTCs.

144. Information to be given to the Survey of India:

1. With a view to enable the Survey of India Department being supplied with information regarding all new public works to make the map of India to be brought up to-date; the following procedure is to be followed in regard to new alignment of roads.
2. When any such public work has been constructed, or section thereof has been opened, the index or record map, on whatever scale available, provided it is from original survey and not a mere eye sketch made on tracing from the survey of India map, should be sent to the Survey of India office at Calcutta and /or Bangalore and the Department will take steps to have the materials utilized by its own draftsman. Index plans alignments of road should be supplied.
3. To ensure materials supplied being suitable for the purpose of the survey Department, the topography adjoining the alignment such as village sites, tri-junction boundary pillars, other permanent objects and the crossing of roads and streams should be accurately shown and it should be stated on the maps supplied if the information is derived from actual survey or otherwise.

4. The survey Department should be requested to treat index of record maps with every care and to return them as early as possible to the officers from whom they have been received so that the labour of making tracing again need not be resorted to.

145. Execution of non-Government works and deposit contribution works:

1. Non-Government works for the purpose of classification as termed as Deposit works.
2. For every non-Government work, there must be a duly sanctioned Detailed Estimate/Detailed Project Report or requisition, as the case may be, in the same way as for a Government work.
3. In the case of (a) Contribution Works, which are executed partly from general revenues and partly from the funds of the local bodies, which are financed partly by Government and partly by private bodies, the Government contribution or an installment of it will be paid only after the local body or private body has paid its share in advance.
4. The rules regarding the recovery of interests on Government money spent in advance may be relaxed in case of an amount spent in advance of the first installment payable by a local body for a contribution work which is partly financed by that body by means of a loan. On Government money spent in advance of the second and subsequent installments, however, interest shall be charged unless otherwise ordered by Government in any particular case.

146. Deposit contribution works:

1. The Department may occasionally, at the discretion of Government, be called upon to execute works for which outlay is provided wholly or in partly as follows:
 - (a) Funds of a public nature, but not included in the financial Estimates and accounts.
 - (b) Contributions from the public.
2. Government may delegate the powers of authorizing the undertaking of contribution works to the Chief Engineers, Superintending Engineers and Executive Engineers, subject to such limitations and restrictions as they consider suitable.
3. Where a work is to be carried out partly from funds of the foregoing nature, the contribution will be considered, as a lump-sum in addition to the Government grant and the work executed strictly in accordance with the procedure laid down for public works.
4. At present procedure has to be followed as per GO. No. FD 03 So FC 2007 dated:11-07-2007. The available fund should be watched at both Division and Treasury level.
5. It will be the duty of the officer in charge of the work to bring at once to the notice of his superiors and of the local body or individuals, any anticipated excess over estimate as well as to provide the fullest information in connection with the progress of expenditure, so that no responsibility may be attached to Government in the event of the work being stopped for want of funds.
6. It must be distinctly understood that contributions on account of one work can, under no circumstance be utilized for meeting outlay on account of another work, the contributions which may be in arrears.
7. No interest will be allowed on sums deposited as private contribution for public works.
8. In the case of works undertaken on behalf of local bodies or other parties prior concurrence of the depositor should be obtained for the excess outlay on works over and above the amount deposited by them and for charging of interest at 12% per annum

on the amount spent by Government in excess of the deposit contributions from local bodies or the parties. The additional expenditure over and above the deposits together with interest at 12% per annum should be got reimbursed from the parties concerned.

9. In cases where the Department undertakes to design and construct a work wholly from the sources alluded into in the above paragraphs such as Town Hall or Reservoir for a Municipality, or a School or Hospital for which funds have been raised by subscription, the following rules will be observed.
 - (i) The design and Estimate will, in the first instance drawn up in consultation with the parties depositing or administering the funds and must be submitted for approval and sanction of competent authority.
 - (ii) The recovery of the cost of establishment, tools and plant, audit and accounts establishment and pensioner contribution is regulated in accordance with the rules in Appendix of Karnataka Public Works Account Code and rules for distribution of establishment and tools and plant charges and provisions therefore should be made accordingly.
 - (iii) Prior to the work being assigned, a written approval to the Estimate and design must be obtained from the authority depositing or administering the funds and an acknowledgement procured in the prescribed form to the effect, in undertaking the work, the Department does not bind itself, to complete the work within the amount of the estimate and that the authority depositing or administering funds agree to finance any excess that occur. Any material alteration in design must be similarly dealt with.
10. The necessary funds for the execution of the work must be realized and paid into the Government treasury either in a lump-sum or in such installments and by such dates as the Executive Engineer shall decide in each case. No advance of Government money for such purpose will be permitted and in a case where the money is paid in installments, Government will not be responsible for any increase in cost, or damage to the incompleting work, caused by a temporary stoppage of the work pending receipt of further installments.
11. Whenever a deposit work is undertaken by Public Works Department, the Divisional officer is required to make a formal report every month to the administration of depositor concerned regarding the financial progress and the final report should contain the amount of estimate, total deposit received and the amount of the progressive expenditure and should accompany the schedule of deposit works so that the Accountant General may after auditing the schedule, verify the report and forward it to the authority concerned.
12. However, when any excess of expenditure over the estimate is anticipated, the Divisional officer in charge of the work should at once bring to the notice of his superiors as well as to the notice of the administration of depositors regarding the progress of expenditure so that no responsibility may be attached to Government in the event of the work having to be stopped for want of funds.
13. The extent to which Government is responsible in regard to execution of the work should be thoroughly understood both by the parties for whom the work is to be constructed and by the executive officer to whom its construction is to be entrusted.
14. Where the work is of high magnitude or there are any special circumstances, an agreement or a Memorandum of Understanding should be drawn up under legal advice.

15. Expenditure incurred on deposit works should be debited against the amount advanced by the party concerned to the extent of the amount. Any excess over that amount and also any expenditure on a deposit work which has been authorized by competent authority in anticipation of receipt of money, should be classified under “Miscellaneous Public Works Advance” pending recovery.
16. Expenditure on a local loan work including the portion of expenditure on a joint work which is incurred against a sanctioned loan under orders of competent authority should be classified under the head, “Q-Loans and Advances by the State Government”.
17. With regard to the recovery of contribution on account of construction and repair of local fund dispensaries, the following procedure is prescribed.
 - (i) The President or the Vice President of the local bodies as the case may be will issue crossed cheque for the amount to be transferred to the Public Works Department in favour of the Divisional officer concerned and forward to him. The Divisional officer will, on receipt of crossed cheque, will credit the contents thereof to “Public Works Remittances” and send the cheque to the treasury after taking the amount into his cashbook.
 - (ii) The amount will be adjusted subsequently as per instructions in sub-paragraph below. To prevent delay in the intimation of payment reaching the Divisional officers and wrong classification in treasury account, the procedure prescribed above for payments of contributions towards dispensaries will also be followed in other cases of use of crossed cheques in favour of the treasury officers for amount to be transferred to the credit of public works Department.

Contributions are taken under “0059- Public Works” as receipts.

18. The following procedure shall be followed with regard to the recovery of amounts due from defaulting local bodies towards works done on their behalf.

The statements of outstanding dues from defaulting local bodies should be sent by the head of the Department direct to the Accountant General instead of through the Controller, State Accounts Department, Bangalore, before 15th March every year so as to enable the audit office to issue necessary reimbursement orders on the concerned treasury before the close of the financial year. One copy of the statement should also be simultaneously sent to the Controller, State Accounts Department for local verification and the controller, should intimate to the audit office in due course, cases where demands have been assessed incorrectly by the departmental officers.
19. The above procedure will not in any way absolve the Divisional officers from sending usual demand statements to the local bodies and effecting recoveries in time.

147. Failure analysis:

When a structure shows signs of distress or when its failure occurs with or without warning ahead of its normal life span, detailed tests and analysis are to be carried out to determine the causes of failure. Failure may occur due to several causes such as natural causes or human failure etc. In all such cases the Superintending Engineer in consultation with the Chief Engineer shall assign expert consultants to study the structure under distress or facing imminent failure or which has already failed to conduct such studies as may be required, and submit the findings to the Chief Engineer at the earliest. In all cases without exception when failure is due to human errors , a thorough study shall be conducted of the work executed in different periods by officers and officials who were in charge of the work. In the first instance the precise

point at which the failure has occurred has to be identified and then who were in charge and responsible shall have to be identified. As all failures evoke strong reactions from the public, the Superintending Engineer shall if necessary get the analysis done by an independent team, examine the facts reported in depth and then report to the Chief Engineer, as to who were the officers responsible.

148. Procurement:

1. The Karnataka Transparency in Public Procurement Act 1999 (KTPP Act), the Karnataka Transparency in Public Procurement Rules 2000 (KTPP Rules) have come into force.
2. The term procurement according to Section 2 of the Act means purchase of goods, obtaining of services or undertaking of construction works by the procurement entities.
3. The provisions in this Act and the rules carry primacy over Codal rules, Government orders and circulars.
4. Standard Tender Document has been prescribed and shall be strictly followed as per GO. No. FD/4/PCL/2008 dated : 14-10-2008.
5. International Competitive Bidding and National Competitive Bidding documents in respect of World Bank and Asian Development Bank / other external aid agencies projects as stipulated in the Loan Agreement shall be adopted.

149. Contracts:

1. The Indian Contract Act, 1872 has come into effect on 25th April 1872. This is a comprehensive law enacted in respect of contracts. In this Act, contract itself is defined as an agreement enforceable by law. An agreement not enforceable by law is said to be void. A contract, which ceases to be enforceable by law, becomes void when it ceases to be enforceable.
2. According to Section 3 of the Act, the communication of the proposals, the acceptance of the proposals, and the revocation of the proposals and acceptances respectively, are deemed to be made by any act or omission of the party proposing, accepting or revoking, by which he intends to communicate such proposal, acceptance or revocation, or which has the effects of communicating it.
3. According to Section 4 of the Act, the communication of a proposal is complete when it comes to the knowledge of the person to whom it is made.

The communication of an acceptance is complete,-

- (a) as against the proposer, when it is put in a course of transmitting to him so as to be out of the power of the acceptor;
- (b) as against the acceptor, when it comes to the knowledge of the proposer.

The communication of a revocation is complete,-

- (a) as against the person who makes it, when it is put into a course of transmission to the person to whom it is made, so as to be out of the power of the person who makes it;
 - (b) as against the person to whom it is made, when it comes to his knowledge.
4. As per Section 5 of the Act, a proposal may be revoked at any time before the communication of its acceptance is complete as against the proposer, but not afterwards.

5. As per Section 6 of the Act, a proposal is revoked,-
 - (a) by the communication of notice of revocation by the proposer to the other party;
 - (b) by the lapse of the time prescribed in such proposal for its acceptance, or, if no time is prescribed, by the lapse of reasonable time, without communication of the acceptance;
 - (c) by the failure of the acceptor to fulfill a condition precedent to acceptance; or
 - (d) By the death or the insanity of the proposer, if the fact of his death or insanity comes to the knowledge of the acceptor before acceptance.
6. The works executed by the Department are carried out tenders invited after public notification.

150. Tenders:

1. Tenders and / or contracts may be as under.
 - a) Item rate contract / Engineering Procurement contract
 - b) Lump sum contract / Turn key contract.
 - c) Design, Build and Transfer contract
 - d) International Competitive Bidding / National Competitive Bidding
2. All procurement activities in the Public Works Department categorized as construction and supply of goods and services shall be governed by the provisions in the Karnataka Transparency in Public Procurement Act- 1999 and the Karnataka Transparency in Public Procurement Rules -2000, as amended from time to time.

151. Item rate contract: Engineering Procurement Construction Contract:

Item rate contract or unit price contract is one where contractor undertakes the execution of work quoting rates for individual item of work in the bill of quantities. The contractor gets paid for the actual quantities of works executed at these rates. Detailed measurements of all works executed by him are recorded and payments made to the contractor as per his quoted rates.

152. Lump sum contract / Turn Key Contract:

The contractor is required to quote fixed sum for execution of work, complete in all respects, in accordance with the designs, drawings and specifications and within the stipulated time. A schedule of rates for various items of work is also provided, which regulates the payment of the contractor in respect of any additions and alterations, which are made to the original work. When the work is completed, the work done has to be compared and checked with drawings and specifications. However, it is very essential that the work shall be defined accurately, specifications are completely written and the site conditions fully explained so that disputes may not arise. The parameter has to be made available by the Department and schedule of payment at different stages like foundation , substructure, superstructure, completion, maintenance period / defect liability period.

153. Design and build contract: Contractors Own Design and cost :

Design and build contracts are adopted for major works and other infrastructure works, wherein the Government or the employer wishes to explore on a competitive basis, the most innovative designs, expertise and technology available in the private sector which are cost effective and less time consuming. In cases of this type the contractor's offer is

for design and construction, which may include maintenance for a specified period. Project specific tender conditions have to be incorporated in the NIT, special conditions of contract along with payment schedule .

154. International Competitive Bidding / National Competitive Bidding:

This contract and contract document are adopted in respect of World Bank and Asian Development Bank and other externally aided projects as prescribed by them.

155. Pre-qualification of contractors:

Pre-qualification is an assessment made by the Government or employer of the experience and capacity of bidders by prescribing work qualification etc, and is adopted in respect of works costing more than Rs.50.00 lakhs wherein tenders are received in two cover system containing Technical Qualification and Financial offer. The provisions contained in the KTPP Act and the rules framed there under as well as Government orders in this regards shall invariably be followed.

156. Post-qualification of contractors:

Post-qualification is an assessment made by the Government or the employer after the evaluation of bids and immediately prior to the award of contract, to ensure that the lowest evaluated, responsive, eligible bidder is qualified to perform the contract in accordance with previously specified qualification requirements. What is crucial is the qualification criteria specified in the tender notification/tender documents itself. It is important not to deviate in any manner from the specified qualification requirements as an appeal against all these decisions can be made under the provisions of KTPP Act. It is equally important that the criteria fixed are on valid grounds.

157. Guidelines on the choice of contracts:

1. Projects of the Government departments / undertakings and local bodies are some times complex and necessitate the use of other alternative forms/ types of contracts. Details of the various forms / types of contracts and guidance for their choice as indicated below.
2. In the preliminary planning stages of procurement, implementing agencies have a choice of procurement method and / or the types of works contract to be used, depending on prevailing circumstances. The type of contract chosen will affect the subsequent stages of procurement, the content of the tender document, and to some extent the degree of influence, which the employer can exert during contract implementation. It is important, therefore, at an early stage in the planning process to consider carefully the types of contract that might be suitable for use and the factors affecting the choice of type of contract.

Some of the general factors which may affect / influence the choice of contract type by an employer or implementing agency are:

- Nature and complexity of the works (e.g., building, highway, bridges , industrial plant etc.);
- Size and duration of the contract (e.g., Primary Health Center, Primary School, Major Hospital, Feeder road, Expressway, Pump House etc);
- Degree of the difficulty of the works and the element of risk uncertainty;
- Status of design (preliminary or final);
- Technical capability, design and supervisory resources of the employer(Government);

- Financial resources available and / or budget constraints;
- Previous experience of the employer in a particular type of contract:

The following is a list of common types / kinds of works contracts, and their features,

158. Item Rate Contract/ Unit Rate/ measurement / Engineering Procurement Contract (EPC):

Features:

- The Tenders are invited to quote unit rates for carrying out the employer's Estimate/Detailed Project Reported quantities of different items of work to be executed.
- The unit rates are inclusive of all related inputs (labour, materials, equipment usage and a proportion of profit and overheads and profit)
- The tender price comprises the summation of Estimate/Detailed Project Report quantities multiplied by the respective unit rates for all items of work.
- Detailed measurements of all items of work executed are recorded and payments are made to the contractor as per quoted rates.
- The unit rates be fixed for short duration (less than one year) contracts or adjustable for variations in the indexed price of inputs over longer duration contracts.

Circumstances/ Areas in which to be used:

Most common type of contract in general used internationally in the public sector works under conditions of moderate perceivable risk in sectors such as transportation, power, irrigation, water supply and sewerage etc.

159. Lump-sum Contract or all-inclusive contracts (LS)/ Turn key

Features:

- The tenderer is required to quote a fixed sum for execution of the work, complete in all respects in accordance with the designs, drawings and specifications within the stipulated time. The parameters with designs and drawings shall be made available by the Department.
- It is essential that the work must be defined accurately, specifications are completely written up and the site conditions fully explained so that disputes shall not arise.
- Quantities are not normally given for small works, but major quantities are some times indicated for the convenience of tenderers on large works.
- The interim payment schedule is normally a proportion of the contract price related to progressive stages of completion commonly termed as "Schedule of Activities".
- Two modifications of the Lump-sum contract may be introduced to cope up with uncertainty during implementation, one relating to quantity variations and the other price adjustment.

160. Supply and Erection / Installation, Commission and Test:

Features:

- This type of contract provides for the supply of major items of manufactured or pre-fabricated goods (such as turbines, pumps, generators, switch yards, transmission towers, pipelines, boilers, telecommunication works etc) including relatively minor works involved in their erection or installation and commissioning at a site or sites.

2. The goods would normally be the subject of performance specifications, or fabricated to the designs of the employer on a lump sum basis. For minor works lump sum quote can be obtained based on the design of the supplier, but major works should normally be undertaken to the design of the employer on a item rate/ unit rate basis.

161. Procurement Planning, Packaging / slicing and Scheduling:

(Refer G.O. No. PWD 1359 SO/FC/2001 (P-2) dated 25.10.2002)

Procurement Planning is an integral phase of procurement process. Planning of packages/slicing is an important activity, which needs to be finalized before taking up a project for implementation. There shall, invariably be approved Packaging Plans and Procurement Schedules which determine the timing of the various procurement activities such as invitation of tender, sale of tender documents, receipt of tenders, preparation of evaluation report, award decision, signing of contract, period of achievement of milestones / delivery schedule, time of completion of works/ supplies for all the projects. Usually the field engineers decide on the packaging as the implementation of the project proceeds and invite tenders on that basis. All these lead to haphazard completion of works and commitment of scarce financial resources without realizing the project objectives. The principle behind packaging/slicing is the technical requirement, need for speedy execution, preparedness to invite tenders and the expected competition.

The pros and cons of centralized versus decentralized procurement, bulking of procurement (for goods) and small versus big packages for works, packaging and slices are to be thoroughly examined, keeping in view the Implementation Plan of the project.

1. After the packages are decided and approved, the appropriate Method of Procurement and Procurement Schedule (showing the timing of the various procurement activities) should be framed depending on the value of the packages.
2. This Procurement Schedule should form the basis for the preparation of designs and specifications to match the invitation for tenders.
3. The Procurement Plan should be used as a template for monitoring progress, thus helping with timely recognition of problems and also in taking timely corrective action.

The Procurement Plan should be used to help all participants to the procurement process to understand the sequence and timing of the procurement action (stages), their contribution and responsibilities at each stage.

The Procurement Plan should be used to record the progress of planned action thus supporting monitoring of performance of the responsible unit and the staff, and

4. The Procurement Plan and Schedule should form the basis for working out requirement of funds and its release to the implementing Agency. If the work is contemplated to be completed within a year, full provision, if within 2 years 30% and 70% for I & II year and if it is 3 years 30%, 40% and 30% for I, II & III year shall be provided. No tender should be awarded without having grant as indicated.

Authorities should ensure that these instructions are followed strictly in respect of all projects irrespective of the funding agency.

162. Consultancy services:

- 1 (a) Consultancy Services includes activities such as policy advices, institutional reforms, management, Engineering services, construction supervision, financial services, investment and merchant banking services, social and environmental

studies, identification, preparation and implementation of projects to complement Government of Karnataka capabilities.

- (b) “Consultants” means Individuals, firms or Organizations engaged for providing Consultancy Services in accordance with Chapter VI A. of KTTP Act.
- (c) “Client” means the Procurement Entity engaging the Consultants.
- (d) “Party” includes the Client or the Consultant, as the case may be and “Parties” means both of them.

2. Selection of consultancy services:- The following methods of selection of Consultants shall be adopted as found appropriate for the assignment.

- (a) Quality and Cost Based Selection (QCBS);
- (b) Least Cost Selection (LCS);
- (c) Single Source Selection (SSS);

Quality and Cost Based Selection (QCBS): The quality and cost based selection is based both on the quality of the proposals and the cost of the services to be provided in this method, the technical and financial proposals shall be received in separate sealed envelopes. The technical proposals shall be opened first (unopened financial proposals are kept under security) and the evaluation report of the technical proposals shall be evaluated by giving marks to each of the qualification criteria and the approval of Tender Acceptance Authority shall be obtained. The financial envelopes of those consultants who submitted responsive technical proposals meeting the stipulated minimum qualifying scores shall be opened in the presence of the consultants or their representatives. The proposals shall then be evaluated. Once the financial proposals are evaluated, a combined evaluation of the technical and financial proposals shall be carried out by weighing and adding the quality and the cost scores, and the Consultant obtaining the highest combined score shall be invited for negotiations. Since price is a factor of selection, staff rates and other unit rates shall not be negotiated.

Least Cost Selection (LCS): The Least Cost Selection method is more appropriate to selection of consultants for assignments of a standard or routine (audits, Engineering, design of non-complex works and so-forth) where well established practices and standards exist. Under this method stipulated qualifying score for quality is established and indicated while inviting proposals. Such consultants shall submit their proposals in two envelopes. The technical proposals shall be opened first and evaluated. Proposals scoring less than the minimum technical qualifying score shall be rejected, and the financial envelopes of the rest shall be opened in public. The Consultant with the lowest evaluated price shall be selected.

Single Source Selection (SSS): Under Single Source Selection, the client selects a specific consultant and requests him to prepare technical and financial proposals, which are then negotiated. Since there is no competition, this method is acceptable only in exceptional cases and made on the basis of strong and convincing justifications where it offers clear advantages over the competition, because,-

- (i) The assignment represents a natural or direct continuation of a previous one awarded competitively (the Estimate/Detailed Project Reported cost of the continuation assignment is not more than 50% of the previous competitively awarded assignment), and the performance of the incumbent consultant has been satisfactory; or

- (ii) A quick selection of the consultant is essential e.g., in emergency operations such as natural disasters and financial crisis; or
- (iii) The contract is very small in value (i.e., less than rupees 5,00,000 for consulting firms or organizations and less than Rs.1,00,000 for individual consultants); or
- (iv) Only one Consultant has the qualifications or has experience of exceptional worth to carry out the assignment.

163. Steps in the Selection Process: Depending on the selection method adopted, the selection process carried out generally shall include the following steps;

- i) Preparation of Expression of Interest (EOI) with the Terms of Reference (TOR) for the assignment;
- ii) Preparation of the cost Estimate/Detailed Project Report to determine the budget of the assignment;
- iii) Advertising to invite the expressions of interest from Consultants (mandatory in respect of assignments Estimated to cost more than rupees 20 lakhs);
- iv) Short- listing to identify consultants; qualified for the assignment;
- v) Preparation and issuance of the Request for Proposals; (REP)
- vi) Preparation and submission of proposals by the consultants;
- vii) Evaluation of the technical proposals i.e., quality evaluation;
- viii) Evaluation of financial proposals;
- ix) Final combined quality and cost evaluation to select the winning proposal (QCBS); and
- x) Negotiations, if any and signing of contract between the Client and Consultant.

164. Time-Based contracts: Under this type of contract, the Consultant provides services on a time basis according to quality specifications, and Consultant's remuneration is based on, agreed unit rates for Consultant Staff multiplied by the actual time spent by this staff in executing the assignment and reimbursable expenses using actual expenses and agreed unit prices.

165. Contracts: Two main considerations determine the type of contract to be used for the various consultant assignments; the nature and degree of the definition of the assignment, distribution of risks between the Department and Consultant and the level of contract supervision the Department will be able to provide. The following are the various types of contracts that can be adopted for appropriate assignments, namely;-

- a) Lump Sum (Firm Fixed Price) contracts: - These are used mainly for assignments in which the content and length of services and the required output of the Consultant are clearly defined and for these reasons the Consultant can generally control the scope of work and duration of services. In these contracts payments are linked to clearly specified outputs.
- b) Indefinite Delivery Contracts (Price Agreement or Standing Offers):- These refer a contract in which a Consultant is hired for a specified period to undertake tasks as and when the need arises.

166. Request for Proposals (RFP) and Contract Formats: Standard RFP (Request for Proposals) and Contract Formats issued by the Government of Karnataka from time to time shall be adopted. The Instructions to Consultants (ITC), Formats for submission of

Proposals (unless specified otherwise) as well as the General Conditions of contract (GCC) shall not be changed. However the Data Sheet and Special Conditions of Contract enable the Procurement Entities to amend or supplement Instructions to consultants (ITC) and General Conditions of Contract (GCC) to reflect local conditions and characteristics of assignment. (FD PD PCL 2004 2/06-08-2005)

Supervision of the Consultancy Contracts: The Department is responsible for supervising the assignment. The concerned officer shall make arrangements to monitor the progress of work, the timely completion of deliverables, the staff months and money expended (for time-based contracts) and determine where, within the contract, changes in the scope of work might be appropriate. The Contract usually requires that the Consultant shall submit regular progress reports and other periodical reports. The concerned officer shall ensure providing comments on these reports in a timely manner. For large assignments, a Committee shall be constituted to review Consultant's work.

Individual Consultants versus Consulting Firms: Individual Consultants may be employed to assist the Department in various areas of the project preparation and implementation. Individuals may be engaged on assignments namely:

- (a) The experience and qualifications of the individuals must be dominant;
- (b) No support from an organization is needed for the Individual; and
- (c) Team work or multidisciplinary approach is not necessary.

When integrated technical work and joint responsibility for the Consultants' output are important it is necessary to hire a Consulting Firm. The TOR of the assignment provides the basis for decision. As a general rule, when dealing with project preparation services of a complex nature, it is advisable to hire a firm, whereas individuals can be considered for advisory services assignments or technical opinions on specific matters in which specialist individual knowledge is the key issue. As a practical rule, if three or more individuals are needed for an assignment, it is often better to hire a Consulting firm, so that the firm will be responsible for identifying the best individuals, ensuring cohesiveness and technical solvency, as well as backup and transparent administration.

Hiring of Government officials, officials of Government Undertaking, Corporations etc.:

Government officials and officials employed in Government Undertakings or Corporations shall not be engaged under consulting services, since there could be a conflict of interest. This applies regardless of their being on leave or on deputation. University Professors or Scientists from Autonomous Research Institutes may be contracted individually, provided they are permitted by their service organizations to undertake assignments for a specified period in a year. Individual Consultants shall not be hired if any relatives of the Individual Consultant are employed in position of influence.

Hiring of Consultancy Services:

(As per Government order No. FD 9 PCL 2004(III),dated 6-8-2005)

The Hiring of Consultancy services shall be as follows:-

| Form Number | Consultant Entity | Method of Selection | Type of contract | Value of contract |
|------------------------------|---------------------------|---|------------------|-------------------------|
| K/C-1 (Annexure-I) | Firm/Organisation/ NGO | Quality cum Cost Based Selection (QCBS) | Time Based | Less than Rs.10 Lakh |
| K/C-2 (Annexure-II) | Firm/Organisation/ NGO | Quality cum Cost Based Selection (QCBS) | Time Based | More than Rs.10 Lakh |
| K/C-3 (Annexure-III) | Firm/Organisation/ NGO | Quality cum Cost Based Selection (QCBS) | Lump Sum | Less than Rs.10 Lakh |
| K/C-4 (Annexure-IV) | Firm/Organisation/ NGO | Quality cum Cost Based Selection (QCBS) | Lump Sum | More than Rs.10 Lakh |
| K/C-5 (Annexure-V) | Firm/Organisation/ NGO | Least Cost Selection (LCS) | Time Based | Less than Rs.10 Lakh |
| K/C-6 (Annexure-VI) | Firm/Organisation/ NGO | Least Cost Selection (LCS) | Time Based | More than Rs.10 Lakh |
| K/C-7 (Annexure-VII) | Firm/Organisation/ NGO | Least Cost Selection (LCS) | Lump Sum | Less than Rs.10 Lakh |
| K/C-8 (Annexure- VIII) | Firm/Organisation/ NGO | Least Cost Selection (LCS) | Lump Sum | More than Rs.10 Lakh |
| K/C-9 (Annexure-IX) | Firm/Organisation/ NGO | Single Source Selection (SSS) | Time Based | Less than Rs.5 Lakh |
| K/C-10 (Annexure-X) | Firm/Organisation/ NGO | Single Source Selection (SSS) | Lump Sum | Less than Rs.5 Lakh |
| K/C-11 (Annexure-XI) | Individual | Single Source Selection (SSS) | Time Based | Less than Rs.1 Lakh |
| K/C-12 Annexure-XII) | Individual | Single Source Selection (SSS) | Lump Sum | Less than Rs.1 Lakh |

1. Instructions to the Consultants, Formats for submission of proposals (unless specified otherwise) and the General Conditions of Contract, indicated in the standard RFP documents shall not be changed. However, amendments, supplementary instructions, if any, to the above, to take care of local needs/specific requirements, may be provided in the Data sheet, Special Conditions of Contract, provided for in the documents.
2. Amendments to the relevant codes and rules will be incorporated in due course.
3. Additional documents as may be found necessary for other types of contracts would be issued in due course.

Principles to be followed by officers entering into contracts:

1. The terms of a contract must be precise and definite and there must be no room for ambiguity for misconception therein. Whenever and wherever required legal and financial advice should be sought for and incorporated.
2. Standard terms of contracts should be adopted wherever available possible, the terms to be subject to adequate prior scrutiny.
3. Terms of a contract once entered into should not be materially varied without the previous consent of competent authority.
4. No contract involving an uncertain or indefinite liability or any conditions of an unusual character should be entered into, without the previous consent of competent authority.
5. Whenever practicable and advantageous, contracts should be placed only after tenders have been openly invited and only the lowest responsive tender is accepted by the competent authority.
6. In selecting the tenders to be accepted, the financial status of the individuals and the firms tendering must be taken into consideration in addition to all other relevant factors.
7. No contracts may be entered into by any officers who have not been empowered to do so.
8. Contracts regarding which there are no definite rules or orders of Government as to conditions, form etc., should be entered into only after obtaining the sanction of Government who will take necessary legal and financial advice in each case.
9. Order for supplies etc., should not be placed without a written agreement as to price & conditions of supply as per prescribed norms.
10. Provision must be made in contracts for safe guarding Government property entrusted to a contractor.
11. Provisions should be made in every contract to enable Government to cancel it with due notice and without excessive cost.
12. A clause to the effect that the contractor shall be responsible for all payments under the Workmen's Compensation Act should invariably be inserted in the agreement.
13. Every officer must before entering upon legal proceedings obtain the approval of the competent authority unless he himself is competent so to enter.
14. Every tender for the work shall not be witnessed by a contractor or contractors who himself/themselves has / have tendered or who may tender for the same work. Failure to observe this condition would render tenders of the contractors tendering as well as the tender of the witnessing person, liable to summary rejection.

167. Contract documents:

1. The Executive Engineer shall prepare contract documents (as enumerated in Rule 9, 11 and 12 of KTPP Rules 2000) to include:
 - a) A complete set of drawings showing the general dimensions of the proposed work and so far as necessary details of the various parts.
 - b) A complete specifications of the work to be done and of the materials to be used including reference to the standard specifications
 - c) A bill of quantities of the various descriptions of work.

- d) A set of conditions of contract to be complied with by the person whose tender may be accepted.
- e) The items of work executed by the contractors shall be with all leads and lifts
- f) The notice for invitation of tenders (IFT), tender documents, should form part of the agreement. It should however be ensured that the terms and conditions specified in the IFT do not in any way contravene the terms and conditions prescribed in the agreements. Any addition or alterations to rules / clauses of the IFT should be got approved by the competent authority before the prescribed rules / clauses are amended or additional rules / clauses are inserted.
- g) Tenders should invariably be invited publicly under e-procurement portal for all works given out on contract as per Government order FD/4/PCL/2008 Dated : 14-10-2008 and issued from time to time. Exceptions are only when additional works or items of work have to be undertaken as part of a scheme for which tenders have originally been invited publicly and which are required to be executed while the work originally undertaken is in progress or for other exceptional reasons. Contracts for works Estimate/Detailed Project Report to cost less than Rs.100,000/- or as per Government order issued from time to time may be given out with or without the invitation of public tenders at the discretion of Executive Engineer to the best advantage of Government. In the latter case, the rates allowed should not be in excess of the current schedule of rates. Contract documents for works cost fixed by the Government order issued from time to time.
- h) Contract documents for procurement of works by inviting open tenders (item rate) – restricted to registered contractors- Value less than Rs20 lakh shall be as per FORM NO K/W-1
- i) Contract documents for procurement of works by inviting open tenders (item rate) – Post- qualification criteria incorporated –value of contract more than Rs20 lakh but less than Rs50 lakh (threshold for two cover tender system) shall be as per FORM NO K/W-2.
- j) Contract documents for procurement of works by inviting open tenders (item rate)- Two cover tender system-No price Adjustment – Value of contract more than Rs50 lakh but less than Rs100 lakh shall be as per FORM NO K/W-3.
- k) Contract documents for procurement of works by inviting open tenders – Two cover tender system – with price adjustment – Value of contract more than Rs 100 lakh but less than Rs10 crore (threshold for pre-qualification) as per FORM NO K/W-4.
- l) Contract documents with form numbers K/W-1, K/W-2, K/W-3, K/W-4, K/W-5 and K/W-6 shall be taken from the publication, “Standard Tender Documents For Procurement Of Works” published by the Finance Department of Government of Karnataka on August 6, 2005. (as per Government order No FD 9 PCL 2004(1), Bangalore Dated 6-8-2005 with amendments in GO. No. FD/4/PCL/2008 Dated : 14-10-2008).
- m) Instructions to tenderers, formats for submission of tender (unless specified otherwise) and general conditions of contract, indicated in the standard documents shall not be changed. However, amendments, supplementary instructions if any to the above, to take care of local needs / specific requirements, may be provided in the data sheet, special conditions of contract, provided for in the documents.

- n) Additional tender documents for procurement of works of value of more than Rs10 crores, documents for other types of contracts such as lump sum private sector participation BOT, BOO, BOOT etc and other documents as found necessary to be issued by Government. shall be adopted.
 - o) If the amount of the tender is likely to be beyond the Executive Engineer's powers of acceptance or of an unusual character, he should before publicly inviting tenders, submit the contract documents to the Superintending Engineer for his approval, together with a copy of the proposed advertisement for tender and the form in which tenders are to be submitted. If the amount of tender is likely to exceed the Superintending Engineer's power of acceptance, or to be of a very special nature, that officer should in like manner submit the contract documents to the Chief Engineer for approval. Powers to accord approval to the draft tender documents are given in the chapter-22 on Powers of PWD officers.
2. Invariably all IFT shall be issued by the Executive Engineer who is considered as the Tender Inviting Authority (TIA).
 3. All agreements shall be entered into for and on behalf of Governor of Karnataka by the Executive Engineer concerned.
 4. IFT shall be issued clearly mentioning that it is issued for and on behalf of Governor of Karnataka. Any omission of the words "For and on behalf of the Governor of Karnataka" may be considered as not in accordance with the provisions contained in Article 299 (1) of Constitution of India. Hence such omissions shall be avoided.
 5. Tender documents, in case of works costing (in other words amount put to tender) Rs. one crore and above, shall be scrutinized and approved by the Technical Committee. If no special clauses are introduced and if there are no special terms and conditions apart from what is prescribed in this Code, then such tender documents shall be approved by the Chief Engineer irrespective of amount put to tender.
 6. In case of all works except those of great magnitude contract deeds or agreement formats should invariably be drawn in such form as have been approved by Government. In respect of works of high magnitude they should be prepared, if necessary, by opting for services of reputed consultants and shall be got approved by the Technical Committee.
 7. Tenders shall be called for, adopting pre-qualification procedures if so decided, according to Rule 27 of the KTPP Rules. In addition, Rules 28 and 29 are to be followed where two cover and the two stage tender systems are to be adopted. Provisions in this Code are applicable in all matters not specifically covered in the KTPP Act & KTPP Rules as amended.
 8. The advertisement charges relating exclusively to particular work may be debited to contingencies of the concerned work. When such charges are common to several works the same may be debited on prorated basis to 'contingencies' of sanctioned Estimate/Detailed Project Reports.
 9. After the work has been approved by competent authority or other proper authority, it should be seen that sanctions to plans and Estimate/Detailed Project Reports and orders to start work within a reasonable period are issued.
 10. It is not necessary for tendering firms to submit detailed working drawings and calculations in the first instance along with the tenders but it should be specified in the notice calling for tenders that these will have to be supplied by the tenderers whose

tender is accepted and that in the event of their not being found satisfactory, they will have to be revised or otherwise the contractor shall be held responsible for the delay.

10. The Departmental officers dealing with transport tenders should make it a point to give wide publicity in regional news papers. These tenders should be called for and decided well in time before commencement of the year for which tenders operate. The rules relating to tenders should be strictly followed and the interest of Government kept in view while making recommendations for acceptance of such tenders.

168. Procurement of goods and equipment- Use of Standard Tender Documents:

1. The Departmental officer shall make use of standard tender documents brought out by the Finance Department in procurement of goods and equipment in the following manner.

| Form Number | Description of the document | Value of Contract |
|--------------------|--|---|
| K/G-1 | Procurement of Goods and Equipment by inviting open tenders (Annexure I) | Less than Rs.10 lakh |
| K/G-2 | Procurement of Goods and Equipment by inviting open tenders (Annexure II) | More than Rs.10 lakh but less than Rs.50 lakh |
| K/G-3 | Procurement of Computer Systems and allied Equipment by inviting open tenders (Annexure III) | Less than Rs.50 lakh |
| K/Q-1 | Procurement of Goods and Equipment by inviting quotations from selected vendors-Evaluation to be done for all items put together (Annexure IV) | Less than Rs.1 lakh |
| K/Q-2 | Procurement of Goods and Equipment by inviting quotations from selected vendors-Evaluation to be done for each item separately. (Annexure V) | Less than Rs. 1 lakh per contract |
| K/S.O | Format of supply order when quotations are invited on Formats K/Q-1 and K/Q-2 (Annexure VI) | |

2. Instructions to the tenderers, formats for submission of tender (unless specified otherwise) and the general conditions of contract, indicated in the standard tender documents should not be changed. However, amendments, supplementary instructions, if any, to the above, to take care of local needs / specific requirements, may be provided in the Data sheet, Special conditions of contract, provided for in the documents.
3. Additional tender documents for procurement of goods and equipments / computer systems of value of more than Rs.50 lakhs with two cover tender system, supply and erection of equipment,and other documents as issued from Government from time to time shall be followed.

Documents referred above shall be taken from the publication “Standard Tender Documents For procurement Of Goods And Equipment” issued by the Finance Department of Government of Karnataka on 6-8-2005.

(as per Government order no FD 9 PCL 2004 (II), Bangalore Dated 6-8-2005.)

169. Two-Cover Tender System – Safeguards:

(as per Government Circular No. PWD 1359 SO/FC 2001 (P-2) Dated: 30-06-2003)

1. Rule-28 of the Karnataka Transparency in Public Procurement Rules, 2000 explains the circumstances where two-cover tenders system is to be adopted and the procedure to be followed in such cases.
2. The rationale of the two-cover tenders system is that the tender requirement will be strictly enforced and the possibility to consider a tender, which has failed to meet the tender requirements but has offered an attractive price, will be eliminated. The second cover containing the price quotations of only those tenderers found qualified as per tender requirements shall be opened by the tender inviting authority.
3. In order to ensure transparency in the procurement process and build public confidence in the system, the following safe guards shall be adopted, whenever two-cover tenders system is adopted.
 - a. At the time of opening of the first cover the second cover containing the price quotations shall be placed in a large cover and securely sealed in the presence of the tenderers or their representatives, who are present and also get the same signed by all those tenderers or their representatives. This large cover containing the second covers containing the price quotations shall be opened on a predetermined time and date. This will instill confidence in the mind of the contracting community.
 - b. The evaluation of the technical aspects contained in the first over should be completed within a reasonable period and the time gap between the opening of the first and the second cover should be the minimum and, in any case not more than 45 days, In exceptional cases, approval of the secretary to the Government shall be obtained where the period is more than 45 days but less than 60 days. If it exceeds 60days, the tenders shall be re invited.
 - c. The qualification criteria and the technical requirements should not be restrictive/ discriminatory and the specifications particularly of equipment should be broad based and functional without any irrelevant details.

170. Verification of qualification criteria*¹ and available Bid capacity before award of contracts:

(as per G.O. No. PWD 1359 SO/FC 2001 (P-2) Dated:03-12-2002):

- i. The qualification criteria to check the requisite resources required for the satisfactory performance of the contract should be appropriately incorporated in the pre-qualification and tender documents for works and goods*³
- ii. The pre-qualification documents and the tender documents following two-cover system should have stipulations to check the aggregate of the qualifying criteria of the individual contracts*⁴, when the tenderer is lowest for more than one contract and also check the available tender capacity*⁵ of the lowest evaluated responsive tenderer who satisfies the aggregate qualifying criteria. The tenderer would be pre-qualified / awarded the contract only if he satisfies the aggregate qualification criteria and has the available tender capacity more than the value of the tender under consideration.
- iii. The tender documents for works/ supply Estimate/Detailed Project Report to cost more than Rs.20 lakh, but below Rs.50/- lakh should have post-qualification criteria, which have to be satisfied by the lowest evaluated responsive tenderer both for the aggregate qualification criteria as well as available tender capacity before taking decision on the award of the contract;

- iv. It is not necessary to separately incorporate qualification criteria in tender documents for works / supply whose Estimate/Detailed Project Report cost is less than Rs.20/- lakh. Registration in appropriate class should be sufficient.

Attachment-I.

*¹ Minimum qualification criteria (turnover, value of work completed, equipment, personnel and financial resources) to be satisfied for award of a contract and aggregate qualification criteria to be satisfied if the tenderer is lowest in more than one contract.

*² Available tender capacity of the tenderer is computed taking into account the maximum value of works executed / supplies made in a year, possible value of works that could be executed / licensed manufacturing capacity for supplies, value of the existing works/ supply commitments etc.

*³ See Attachment I

*⁴ The model clause that should be incorporated in the tender document could be as follows:

“To qualify for a package of contracts made up of this and other contracts for which tenders are invited in the ITT (invitation for tenders), the tenderer must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts”.

*⁵ The model clause that should be incorporated in the tender document of works could be as follows:

“Tenderers who meet the minimum qualification criteria will be qualified only if their available tender capacity is more than the total tender value. The available tender capacity will be calculated as under:

$$\text{Assessed available tender capacity} = (A \times N \times 1.5 - B)$$

Where

A= maximum value of civil Engineering works executed in any one year during the last five years (updated to.....* price level) taking into account the completed as well as works in progress.

N= No. of years prescribed for completion of the works for which tenders are invited

B= Value at* price level, of existing commitments and on-going works to be completed during the next.....years (period of completion of the works for which the tenders are invited)”

For goods:

“Tenderers who meet the minimum qualification criteria will be qualified only if their available tender capacity is more than the total tender value. The available tender capacity will be calculated as under:

$$\text{Assessed available tender capacity} = (A \times N \times 1.5 - B)$$

Where

A= licensed capacity for the item of supply;

N= No. of years prescribed for completion of the supplies for which tenders are invited

B= No. of existing commitments to be supplied during the next.....years (period of completion of the supplies for which the tenders are invited)”

Attachment-I

MODEL QUALIFICATION CRITERIA FOR WORKS AND GOODS

The model clause for works contract shall be as follows:

“To qualify for award of the contract, each tenderer in its name should have in the last five years i.e.

- i. Achieved, in at least two financial years, a minimum annual financial turnover (in all classes of civil Engineering construction works only) of Rs.....@ (usually not less than two times the Estimated annual payments under the contract):
- ii. satisfactorily completed (not less than 90% of contract value), as a prime contractor, at least one similar (define) of value not less than Rs.....@ (usually not less than 50% of the Estimated value of the contract):
- iii. executed in any one year, the following minimum quantities of work; (usually 80% of the expected peak rate of construction for 3 or 4 critical items which account for more than 60% of the total cost of the work):

The tenderer or his identified sub-contractor should have executed.....

Works ** totaling to Rs.....@ in any one year

@ at.....price level. Financial turnover and cost of completed works of previous years shall be given weightage of 10% per year based on the rupee value to bring them to.....* price level

- The financial year in which tenders are received.

** repeat for other times of works for which subcontracting would be allowed.

The tenderer should demonstrate:

- a) availability (either owned or leased or by procurement against mobilization advances) of the following key and critical equipment for this work:
.....
- b) availability for this work of a project manager with no less than five years experience in construction of similar civil Engineering works and other key personnel with adequate experience as required; and
- (c) liquid assets and / or availability of credit facilities of no less than Rs.....lakhs (credit lines/ letter of credit/ certificated from banks for meeting the funds requirements etc. (usually the equivalent of the Estimated cash flow for 3 months in peak construction period)

The model clause for goods contract could be as follows:

- a) The tenderer should be a manufacturer who must have manufactured, tested and supplied the equipment similar to the type, size and complexity as specified in the schedule of requirements upto at least% (indicate the percentage as considered as appropriate-usually not less than 80% of the requirement) of the quantity required in any one of the last three years
- b) The equipment offered for supply must be the most recent serious models incorporated the latest improvements in design and must have been in satisfactory operation for a period not less than.....months as on the date of tender opening;

- c) tenders of tenderers quoting as authorized representative/ agent of a manufacturer meeting with the above requirements in full, can also be considered provided;
- d) the manufacturer furnishes authorization in the prescribed format assuring full guarantee and warranty obligations as per GCC and SCC: and
- e) the tenderer, as authorized representative, has supplied, installed and commissioned satisfactorily at least.....% (*indicate the percentage as considered appropriate usually not less than 30% of the requirement*) of the quantity similar to the type, size and complexity specified in the schedule of requirements in any one of the last three years and which must be in satisfactory operation for at least.....months on the date of tender opening.

171. Approval of contract documents:

Before a work is given on contract, the Executive Engineer shall approve the contract documents for works up to his powers of acceptance. If the amount of the tender is likely to be beyond the Executive Engineer's powers of acceptance or of an unusual character, he should before inviting tenders submit the contract documents to the Superintending Engineer for his approval or remarks with all the relevant details. If the amount of tender exceeds the Superintending Engineer's powers of acceptance or of a very special nature, then that officer in like manner submit the contract documents to the Chief Engineer for approval.

172. Procedure for sale of tender documents for manual tenders:

(as per Government circular No.PWD 140 SO/FC 2003 Dated:01-09-2003)

1. The Invitation for Tender (IFT) issued by the Tender Inviting Authorities (TIAs) shall specify:
 - (a) The time and date (period being usually two to seven days) up to which the applications for request of tender documents will be received
 - (b) The time and date (usually one to three days) when the tender documents would be sold to those who have submitted the applications earlier;
 - (c) The time and date up to which the tenders would be received as well as the time and date on which the tenders would be opened (usually 7 to 8 days after the sale of tender documents).
2. The above procedure shall be adopted to enable the TIAs to know the number of copies of the tender document to be prepared and provide adequate time for the preparation of the requisite number of documents.
3. The tender documents should be made available for entire period provided for the submission of tenders as per KTPP Rule 17. For this purpose the TIA's shall prepare adequate number of copies of tender documents before the publication of NIT and sell the document as per instructions contained in KTPP Rule 13 from the date of publication of the NIT up to the pre-declared time on the working day previous to the day fixed for submission of tenders (either original or extended).
4. The Executive Engineers shall ensure that the above procedures are followed scrupulously, as any violation of the KTPP Act 1999 and KTPP Rules 2000 attracts the penal provision under Section 23 of the said Act.

173. Invitation of tenders:

1. The Executive Engineer shall invariably invite the tenders in the most open and public manner possible by advertisement in the local news papers by notice in English and Kannada posted in public places and bidders should have free access to the contract documents. The tender notice should in all cases state –
 - a) The place where and when the contract documents can be seen and the blank forms of tenders obtained, also the amount, if any, to be paid for such form of tender.
 - b) The place the date and time on which tenders are to be submitted and are to be opened shall be prominently mentioned.
 - c) The amount of earnest money to accompany the tender and the amount and nature of the security deposit required in the case of the accepted tender.
 - d) In cases where it is decided that the Department should supply certain materials to the contractors for use on the work, a description of every such material and the rate and place at which it will be supplied should be specified in the notice calling for tenders also in the tender documents.
 - e) Authority should always be reserved to reject any or all the tenders to be received without the assignment of any reason and this should be expressly stated in the advertisement.
 - f) No tenders should be received after the expiry of the time specified for receipt in the tender notice even though these are presented before the time fixed for opening of tenders.

Note: In the event, the officer inviting tenders received credible information that there is undesirable collusion on the part of tenderers to rig the tender to their advantage or with a view to defeat the intention of Government to allow for free and fair competitive bidding, it shall be the duty of the concerned officer to postpone the date of receipt of bids to a future date and also to notify the place of receiving tenders in two or three other offices. A sense of urgency should not vitiate the policy of Government to encourage free and fair competitive bids. If repeated attempts are willfully made by vested agencies to rig the tender, the matter should be investigated in detail, if necessary by utilizing the services of reputed private or Government detective agencies and action is taken against the erring tenderers under registration of contractors rules after following quasi-judicial proceedings either to order suspension of business or delist or demote or blacklist such tenderers. It must be clearly understood that “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Governmental interests and includes collusion practice among bidders, prior to or after bid submission, designed to establish bid prices at artificial non-competitive levels and to deprive the Government of the benefit of free and fair competition. Failure to protect the interests of Government or inaction leading to defeat of the intentions of Government to have a free & fair competitive bidding, renders the officer inviting or receiving tenders liable for disciplinary proceedings. If in the judgment of the Executive Engineer who is the TIA, arrived at on the basis of credible evidence, the contractor has engaged in corrupt or fraudulent practices, in competing or in executing the contract, the Executive Engineer may, after having given 14 days’ notice to the contractor, terminate the contractor’s employment under the contract and expel him from the site after following all formalities like issue of notices, providing an opportunity for the contractor to defend

himself orally and in writing, as per relevant clauses of the contract document or under registration of contractors rules in force.

2. At the advertised time and place, all tenders received for the same contract should be opened by the Executive Engineer in the presence of such of the intending contractors or their authorized agencies. The officer opening the tender should also initial all the corrections in each tender which have been initialed or not by the tenderer and keep a personal note of the total number of tenders received and opened by him and verify the number in the comparative statement. Before the selection of lowest tender, the officer concerned should examine all the tenders and satisfy himself that no corrections which were not in the tenders at the time he received them has been made in any of them. No tenders should be accepted from any person directly connected with the Government service.
3. The officer opening the tenders should invariably date and initial not only the corrections in the bill of quantities, schedule of materials to be issued, specifications and other essential parts of contract documents but should invariably date and initial all the pages of the bill of quantities irrespective of whether they contain or do not contain any corrections, over writings etc.
4. The officer concerned should mark all corrections and over-writings and number them and attest them in red ink. In case of a number of corrections in any rate, either in words or in figures or in both, the number of corrections marked should indicate the corrections serially that is to say, in case of say three corrections, they should be allotted independent numbers serially and not one number to represent all these corrections. In case of more than one correction where the correction is not legible the rate should be written afresh in the hand of the officer opening the tender, in red ink.
5. The number of such corrections and over-writings must be clearly mentioned at the end of the each page of the schedule attached to the tender paper and properly attested with date. Any omission observed should also be brought but clearly on each page of the bill of quantity.
6. The corrections and over writings should be allotted separate numbers, i.e. corrections should start from 1,2,3 etc., and overwriting should similarly start separately from 1,2,3 etc.
7. Any ambiguities in rates quoted by tenderers, in words and figures must be clearly indicated on each page in the schedules attached to the tender to which it concerned.
8. In case where the contractor has quoted rate in rupees and paisa is mentioned, the word 'only' should invariably be added after the words and the correction should be initialed and dated with suitable remarks at the end.
9. Where the contractors have omitted to quote the rates in figures or in words the omission should be recorded by the officer opening the tender on each page of the schedule. Where no rates are quoted, it shall only mean that item will be carried out by contractor as per agreed contractual conditions and no amount is payable.
10. Where the contractors quote rates in words and figures differently, rates, which are lowest of the two alone, should be considered and should be recorded as such at the time of opening of tenders itself.

174. Earnest Money Deposit for manual tenders:

1. As a rule no tenders for the execution of works of any description should be received unless accompanied by the deposit of earnest money in acceptable forms to the extent, which has been notified as necessary by the Executive Engineer in the NIT.
2. The earnest money shall be paid in the following manner for manual tenders of works costing less than Rs.5 lakh.
 - a) EMD shall be paid by the tenderer into Government treasury for credit to revenue deposits and the challan shall be enclosed.
 - b) A deposit at call receipt from a scheduled bank guaranteed by Reserve Bank of India.
 - c) Demand draft in favour of the Executive Engineer, drawn from any scheduled bank guaranteed by Reserve Bank of India.
 - d) A bank guarantee in the form prescribed in the tender documents, from any scheduled bank guaranteed by Reserve Bank of India.
 - e) National Saving Certificates issued by post offices, pledged in favour of the Executive Engineer. NSC's not pledged in favour of Executive Engineer but enclosed to the tender documents with an undertaking that they will be pledged in case their tender is accepted may be considered as EMD paid in acceptable form. In case the contractor fails to pledge the NSC after the tender is accepted but before signing the agreement and / or does not enter into an agreement within the period prescribed, the NSC's shall be withheld till such time the amount of EMD is recovered from bills payable to him for works done elsewhere or till the amount is recovered as arrears of land revenue. This shall be sufficient ground for the registering authority to order suspension of business till such time the amount is made good or till such time the registering authority decides.
3. The Divisional officers should certify in tender that the amount of earnest money fixed has been received. The contractors are prohibited from making request to treat any arrears of payment due to them by Government as earnest money. In such cases, the tender shall be considered as submitted without earnest money deposit and shall be summarily rejected. Provided that any category of tenderers specifically exempted by the Government from the payment of earnest money deposit will not be required to make such a deposit. (See also Rule 12 of KTTP Rules 2000)
4. The word 'Arrears' referred to in the above Para refers not only to the deposit of the contractors but also the other dues to the contractors' payable by Government.
5. The earnest money in all cases is refundable after intimation of rejection of tenders or within 10 days whichever is earlier. But the officers concerned should see that tenders are finally disposed of within a maximum period prescribed from the date of opening of tender.
6. If cash were deposited as security, the amount received will be placed with the consent of the person pledging the security in the nearest treasury savings bank in the name of the pledger who should hypothecate it to the Divisional officer in terms of the letter of agreement to the treasury officer.
7. All expenses connected with renewal, consolidation or sub division of Government securities must be borne by the contractors.

8. In case of tenders received without EMD in full or not in acceptable form, the officer opening the tenders shall record the fact of non-submission of EMD in full or in acceptable form and record his orders rejecting the tender on the above ground with his dated signature, in the presence of the tenderer or his representatives present, at the time of opening of the tender itself. Such tender shall not be processed further notwithstanding the fact that they are lowest or otherwise. In all such cases, 50% of the amount paid shall be credited to Government accounts and balance 50% refunded to the tenderers. If EMD is in the form of bank guarantee (BG), the entire BG shall be encashed by addressing the bank authorities immediately and after its receipt, 50% shall be paid to the tenderer within 7 days. If such payments are not made within 7 days after the receipt of amount from Bank, the tenderer shall be entitled to payment of interest @ 6% per annum. The administration and audit heads shall review all such cases where interest payments are made and allocate responsibility on the concerned in the Divisional and directional offices. Attempts made to thwart this provision by obtaining an undertaking from tenderer agreeing to forego interest payment, shall be discouraged as any such undertaking given under duress are ab initio void and unacceptable.
9. Repeated submission of tender without EMD in accepted forms may render the tenderer liable for disciplinary action under Registration of Contractors Rules.
10. Audit authorities have power to examine contracts and bring before the Public Accounts Committee, any cases where competitive tenders have not been sought or where high tenders have been accepted or where irregularities in procedure have come to light.

175. Officers empowered to execute contracts:

1. The powers of the Public Works, Ports & IWT Department officers to accept tenders and execute on behalf of the Government of Karnataka, the different classes of deeds, contracts and other instruments shall be in accordance with the delegation of powers issued by Government from time to time.
2. It is permissible to give out different contractors a number of contracts relating to one work even though such work may be Estimated to cost more than the amount up to which the officers are empowered to accept the tenders. This splitting up of work should be resorted to only in exceptional cases in the interest of speedy execution of work or when the nature of work is such that if tendered it is difficult for a single agency to execute its various aspects, subject to obtaining prior approval of the authority who is competent to accept the tender for the work as a whole. In case more than one contract is awarded to the same contractor at the same time or one after the other, the sanction of the authority who is competent to accept the total of such tenders and not the authority who can accept each tender with reference to value of each contract is to be obtained.
3. Immediately after opening of tenders an action plan shall be drawn up by the officer fixing up time for each activity for processing of tenders and determining the lowest responsive/cost effective tender if done manually, as indicated below:
 - a) Detailed examination of all tenders received, arithmetical check, preparation of comparative statement and determination of lowest responsive tender–5 to 7 working days.
 - b) Detailed check of all tenders received, comparative statement and determination of lowest responsive tender–1 to 3 working days.

- c) According approval to lowest responsive/cost effective tender and issue of Letter of Acceptance and invitation to enter into agreement with the lowest responsive tenderer – 1 to 2 working days (if powers are within the Divisional officer)
 - d) Submission of tender to higher authorities (to the Superintending Engineer) – 1 to 2 working days.
 - e) Submission of tenders to higher authorities (from Superintending Engineer to Chief Engineer) – 1 to 2 working days.
 - f) According approval to Lowest Responsive Tender and communication of orders to Executive Engineer by Chief Engineer with all tender documents – 1 to 3 working days or submission to Government.
 - g) Examination of recommendations of Chief Engineer by the Department concerned in Government, technical committee recommendations, according approval by Government and communicating the orders with all enclosures – 15 to 21 days.
4. Thus, percentage tender can be decided within 7 days or earlier. Item rate tender decided, if it is within Executive Engineer's powers within 7 to 12 working days, within 8 – 14 days if it is within Superintending Engineer's powers and 9 to 17 working days if it is within Chief Engineer's power and 24 to 38 working days if it is within the power of Government.
 5. It is not necessary to write elaborate details in covering letter about administrative approval or technical sanction etc. It is sufficient, if the recommendations above are mentioned, in a one-page letter, as all tender documents (relevant) will be accompanying. Action plan followed indicating the names of persons responsible for preparation, checking and approval shall also be enclosed. Officers and officials exceeding the maximum limit will be held responsible and are liable to be charged with negligence of duty. Intention behind this clause being elimination of delay at all levels but does not permit incorrect or slipshod or lackadaisical processing. Tenders not decided within the time limit mentioned in the clause, shall not be approved or rejected except with the previous approval of next higher officer.
 6. Tenders for supplies of material for works should be invited publicly and such contracts should be for a period not exceeding a year. When however, tenders for supplies costing Rs.1,00,000/- and more are not publicly invited, detailed reasons should be recorded and orders of Government seeking exception under Rule 4 of KTPP Act, 1999 shall be obtained.
 7. Claims arising out of the alleged losses on contracts or other transaction should in all cases be dealt with independently and solely on the merits of each and submitted to Government for orders.
 8. The currency period or initial validity of any tender should not be less than 90 days (Rule 12 (2) of KTPP Rules, 2000). If delay is likely, the consent of the tenderer for agreeing to keep open the offer for a minimum further period should be obtained in advance from the tenderer. The evaluation of tenders and award of contract shall be completed as far as possible within the period for which the tenders are held valid. In case the evaluation of tender and award of contract is not completed within the extended period, all the tenders shall be deemed to have become invalid and fresh tenders may be called for. (Rule 22 of KTPP Rules, 2000).
 9. The contractor has to have a detailed analysis of cost involved with or without reference to the departmental estimates and payment is done, based on the detailed measurements

of each item actually done. Scope exists for effecting changes in drawings and quantities of individual items whenever found necessary during execution. As a rule, all the detailed working drawings are to be made available by the Department either along with the tender documents or at the time of issue of work order. In the latter case, working drawings can be prepared and issued as per schedule of requirements drawn up by the Department in consultation with the contractor. Care has to be exercised by the Department, as the contractor, either by sheer anticipation or based on information received, may quote high rate for items that are likely to be increased and low rate for items likely to be decreased, making it an unbalanced tender. In such cases, the Department has to take precautions to ensure that it does not stand to lose substantially, in the unlikely event of the contractor backing out after doing only profitable items. While preparing comparative statement, intelligent scrutiny is required.

10. Vigil has to be exercised by the Department to ensure that there is no tampering in rates intentional or otherwise.

176. Minimum time for submission of tenders:

1. The Tender Inviting Authority (TIA) shall ensure that adequate time is provided for submission of tenders and a minimum time is allowed between the date of publication of the NIT in the relevant tender bulletin and the last date for submission of tenders.

(a) This minimum period shall be as follows:

- (i) For tenders up to Rs. two crore in value, thirty days.
- ii) For tenders in excess of Rs. two crore in value, sixty days.

- (b) Any reduction in the time stipulated under sub-rule (1) has to be specifically authorized by an authority superior to the TIA for reasons to be recorded in writing (Rule 17 of KTPP Rules 2000).

Relevant Acts having bearing on the procurement :-

The Government stands at par with any private purchaser in matters relating to contract. The following Acts of the Government of India and the state which have a bearing on procurement of works, goods and services to a considerable extent and which are applicable to private parties also, govern Government procurement.

1. The Indian Contract Act, (1872)
2. The Sale of Goods Act (1930)
3. The Indian Partnership Act (1932)
4. Karnataka Value Added Tax Act (2003)
5. The Companies Act (1956)
6. Central Sales Tax Act(1957)
7. Payment of Wages Act (1936)
8. Minimum Wages Act (1948)
9. Workmen's Compensation Act (1923)
10. Employees State Insurance Act (1948)
11. Employees Provident Fund and Miscellaneous Provisions Act (1932)
12. Factories Act (1948)

13. Production of Contract labour (Regulation and Abolition) Act (1970)
14. Karnataka Tax on Entry of Goods Act (1979)
15. Service Tax Act (1997)
16. Income Tax Act (1961)
17. Payment of Bonus Act (1965)
18. Maternity Benefit Act (1961)
19. The Arbitration and Conciliation Act (1996)
20. Industrial Disputes Act (1947)
21. Child Labour (prohibition and regulation) Act (1986)
22. Environmental Protection Act (1986)

177. Contract agreements:

The Executive Engineer is responsible for the safe custody of accepted tenders and contract agreements. The contract agreements entered into by the Divisional officer with the contractors shall be in duplicate, both having the same force as original, and one copy shall be delivered to the contractor immediately after signing of the agreement. No fees shall be charged for supplying the original agreement to the contractor. He should keep a detailed record of such agreements. He shall issue certified copies of tenders and agreements to sub Divisional officers and section officers. The Standard Tender Document published by the Finance Department shall be followed.

178. Negotiations with the contractors:

1. As the contractors are expected to quote rates according to their construction plan requirements, no negotiations are normally to be conducted with the lowest responsive tenderer.
2. Negotiation with contractors whose tender is not the lowest is totally barred.
3. However, negotiation can be conducted by competent authority subject to conditions prescribed under Rule 13 of KTPP Act, which states that “subject to such general or special order as may be issued by the Government from time to time, the TAA may before passing order of accepting of tender, negotiate with the lowest responsive tenderer”. The TAA shall therefore exercise this power after carefully considering all aspects of the lowest tender only when it is absolutely necessary. Negotiations as a rule are generally forbidden.
4. The lowest responsive tenderer, either by sheer anticipation or based on information he has received, may have quoted higher rates for items that are likely to be increased and lower rates for items likely to be decreased, thus making an unbalanced tender. In certain cases the lowest responsive tenderer might have quoted very high rates for items to be executed in the beginning and low rates for items to be executed in the later stages, which again is an unbalanced tender, and the authority evaluating the tender is drawn to a conclusion that this contractor, after executing items occurring initially is likely to generate for himself disproportionately high returns and may abandon or delay the completion of work due to non-workability of rates quoted for works to be executed in later stages of contract. In all such cases the lowest tenderer shall deliver to the Executive Engineer, in addition to the prescribed performance security, additional performance security for unbalanced bids. The additional performance security in the form of bank guarantee shall be for such amount and in such multiples as determined by

the Executive Engineer. Performance security and additional performance security shall be delivered by the contractor to the Executive Engineer within 10 days after issue of Letter of Acceptance of tender and before entering into agreement. Failure on the part of the contractor to deliver the performance guarantee or such additional performance guarantee within the time limit fixed or unwillingness of the contractor conveyed in writing to the Executive Engineer shall render the tender non-responsive and the Executive Engineer shall proceed to process the next lowest responsive tender. Amount determined by the Executive Engineer for additional performance security shall be conclusive, final and binding on the contractor. In all unbalanced tenders, the Letter of Acceptance issued by the Executive Engineer shall be conditional to submission of performance and additional performance guarantees.

179. Guidelines for conducting negotiations before award of contract:

(as per circular. No. PWD 1359 SD/FC 2001 (P-2) Dated: 03.12.2002)

1. It has to be recognized that:
 - a) Negotiations even with the lowest tenderer defeats the very ethics of competitive tendering and should not be resorted solely for the purpose of reduction of rates;
 - b) When negotiations are conducted in a routine manner, there is every possibility that the tenderer would have jacked up the prices considerably and would reduce the prices marginally to satisfy the employer / purchaser with the result that the employer / purchaser may in most cases ends up paying more than real cost of the work / goods.
 - c) Negotiations very often lead to delay in award of the contracts; and
 - d) Negotiations open up opportunities for corruptive practices.
2. The following guidelines shall be followed for conducting negotiations, if need be, in respect of works contracts.
 - (a) Negotiations solely for the purpose of obtaining lower prices would be appropriate only in exceptional circumstances, such as lack of competition (less than three), single bid, suspected collusion, or where the lowest evaluated responsive bid is substantially above the Estimated cost. In such cases also, the first choice is for rejection of all tenders and re-inviting fresh tenders.
 - (b) A substantially high tender is defined as under:

| Period of contract & provisions of price adjustment | Updated* Estimate cost of the work upto Rs.20 lakh | Updated* Estimate cost of the work Rs.20 to Rs.50 lakh | Updated* Estimate cost of the work Rs.50 lakh & above |
|---|--|--|---|
| a) Contracts where price adjustment is not provided | 10% above the updated* Estimate or Rs.1 lakh whichever is more | 10% above the updated* Estimate | 10% above the updated* Estimate |
| b) Contracts where price adjustment is provided from the date of opening of tenders | Does not arise | Does not arise | 5% above updated* Estimate or Rs.5 lakh which ever is more. |

*Estimate/Detailed Project Report based on the current rates of labour and materials such as cement, steel and other key materials.

- (c) In all cases where the tendered amount is not substantially high (refer definition of substantially high given in para-2(b) above), the tender accepting authority shall pass orders accepting the lowest evaluated responsive and qualified tender only.
- (d) In respect of exceptional cases, as listed in para 2 (a) above (other than those that are considered substantially high), the Tender Scrutiny Committee or the Evaluating Officer as the case may be, depending on the value of contract may choose to propose to the Tender Acceptance Authority to reject all tenders and re-invite fresh tenders or negotiate. In case the proposal is for rejection and re-invitation, the causes leading to the rejection shall be examined by the Tender Scrutiny Committee or the Evaluating Officer, who shall propose the changes if any, to be made in the Estimated cost, specifications, provisions in the special conditions of contract or packaging before re-inviting the tenders.
- (e). The Tender Accepting Authority shall pass orders for re-inviting tenders with changes, if any, on the tender document. Pre-tender conference shall be held to explain the qualification criteria, specifications and conditions of contract and clarify reservations, if any, to the prospective tenderers. The reservations, if any, pointed out by the prospective tenderers shall be further studied and modifications, if any, required shall be made in the bidding documents.
- (f). After re-tendering the tenders shall be processed as per 2(a), 2(b), & 2(c) above.
- (g). In respect of tenders which are determined high in terms of para 2(b) above the Tender Scrutiny committee or the Evaluating Officer as the case may be, depending on the value of the contract, shall (i) identify the item(s) for which the rates are considered high and are contributing to the increase; (ii) get the break up of rate(s) from the lowest evaluated responsive tenderer and make a thorough examination of the reasonableness. If the Tender Scrutiny Committee or the Evaluating Officer is satisfied with the explanation by the tenderer it shall make its recommendation for the acceptance of the tender.
- (h). In cases where the Tender Scrutiny Committee or the Evaluating Officer decides in favour of negotiation (in all exceptional cases listed in para 2(a) above), he shall seek the permission of the Tender Acceptance Authority, detailing the reasons and the points on which negotiations are proposed to be conducted. The Tender Accepting Authority shall after careful examination of the proposals approve the points (including the change in scope, specification, packaging etc) on which negotiations are to held, appoint a Negotiating Committee consisting of Tender Inviting Authority, a representative of the Tender Scrutiny Committee or the Evaluation Officer and Tender Accepting Authority. The Committee shall conduct negotiations on the approved points and make a record of the proceedings of the negotiations. The committee shall submit the proceedings to the Tender Accepting Authority for taking decision. If the negotiations are successful and the Tender Accepting Authority accepts the recommendation of the Negotiating Committee, the tender is accepted at the negotiated rates/ terms and conditions and contract is concluded.
- (i). If the negotiations fail, the tender accepting authority shall issue orders on the future course of action to be taken by the Tender Inviting Authority, which may include adoption of revised procurement strategy (to include repackaging, execution by Departmental procedures / facilities etc.)

4. In respect of procurement of goods, since there are no schedule of rates and rates for equipment / goods satisfying the minimum functional requirements vary widely, depending upon the quality, specifications of the material input, award should generally be made to the tenderer who is technically and commercially responsive and meets the stipulated qualification criteria and who is determined to perform the contract satisfactorily. If the tendered rate is considered unreasonable (one of the method of determining the reasonableness being the comparison with the market rate for the same brand and specification of equipment) negotiations shall be conducted with the lowest tenderer. The procedure as outlined in para 3(g) and 3(h) above should be adopted scrupulously. Here also the first choice would be to reject and re-invite the tenders, after analyzing the causes leading to the rejection of the tenders.
5. The above guidelines are applicable only to works / goods tenders received against notice inviting competitive tenders and not for consultancy proposals, it is also not applicable for tenders invited to fix rate contracts.
6. The above guidelines shall not be applicable to tenders invited for projects funded by International Financial Agencies or Projects covered under International Agreements for which the rules of funding agencies shall apply (refer Section 3 of KTPP Act)
7. In all cases the negotiations are subject to the main condition that they do not involve any deviations from the clauses of a standard contract agreement form.

180. Important rules in execution of contracts:

The following rules must be carefully noted in connection with the execution of contracts:

1. No authority shall accept any contract for a work until an assurance has been received from the authority competent to provide funds for the same, that such funds will be allotted before the liability matures.
2. On no account should rates in excess of those provided in the agreement be paid, as payment of such rates, which are not due, would nullify the contract.
3. Duplication of agreements should in no case be resorted to that is to say, an authority who has concluded an agreement should not be required to draw-up and sign again an agreement already executed.
4. Ordinarily no work should be started without a formal agreement or contract sanctioned by a competent authority and a work order issued by Executive Engineer.
5. When a contractor refuses to execute work at the rate provided in his agreement, then the agreement should be terminated and the work measured up and paid for at the rates in the agreement, enforcing or not as the case may be, the forfeiture of the amount withheld in the bills, if any. The work should then be given out only after open tenders have been called for and the most favorable rates are obtained.
6. The corrections in agreements should be attested under dated initials by the accepting authority not only to indicate his acceptance of the altered sales, but also to prevent any tampering with the agreements after approval.
7. Agreements relating to works, etc., are not exempt from stamp duty merely for the reason that Government is a party. They are to be executed on stamped paper of Rs.100/-. No additional fees need be levied nor need the agreements be registered.
8. A register of contractors should be maintained in the Divisional office for all the works for which tenders have been called for whether they are accepted by the Divisional officer or by any higher authority.

9. The Executive Engineer in respect of tenders accepted by the authorities higher than himself, should ensure that a copy of the agreement bound and correct in all respects is forwarded by him to the Accountant General for the purposes of audit as soon as the agreements are executed. While forwarding a copy, he should certify that the rates and all the terms and conditions in the copy of the agreement are in accordance with the tenders accepted by the competent authority.

181. Awarding of Contracts:

(as per Government Circular No. PWD 1359 SO/FC 2001(P-2) dated: 25-10-2002)

1. The practice of splitting the contract (particularly in goods contracts) among all or some tenders by offering the price of the lowest tenderer to others and dividing the quantity of supply evenly or in other proportion undermine the rationale of competitive bidding, promote collusion and go against the provisions of the KTTP Act and Rules.
2. The provisions of the KTTP Act and Rules provide for only the acceptance of the lowest tender. The lowest evaluated responsive tenderer deserves the full award, if he has satisfied the stipulated qualifying criteria.
3. From the provisions in the KTTP Act and Rules, it is clear that the contract should be awarded only to the lowest evaluated technically and commercially responsive tenderer, who meets the prescribed qualification criteria including bid capacity and past performance.
4. Hence when tenders are invited for a specified quantity of goods, the contract should be awarded only to the lowest technically and commercially responsive tenderer who meets the prescribed qualification criteria including bid capacity and past performance.

182. Intimation of tender accepted:

1. A list of tenders accepted by the authorities like Superintending Engineers and Chief Engineers should be furnished to the Accountant General by the Divisional officers each month along with the monthly accounts.
2. Register showing return of tenders accepted by the authorities higher than the Divisional officer for the month of

| Sl. No and Name of Work | Name and address of the contractor | Authority by whom the tender was accepted. | Date of acceptance of the tender | Date of execution of the tender contract agreement | Date of commencement of the work. |
|-------------------------|------------------------------------|--|----------------------------------|--|-----------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |

Executive Engineer

..... **Division**

3. The public works contractors should register themselves as dealers under Sales Tax Act. The contractors are responsible for payment of sales tax for all materials purchased by them in open market and submitting appropriate returns to the commercial taxes Department.
4. Contractors should make their own arrangements with the water supply and electric Departments both in regards supply of and payment for water and power that may be utilized by them in the course of execution of works under contract. The Public Works Department should not pay such charges in the first instance pending recovery from the

contractors. If however the supplying Department send the bills of charges due by contractors to the division they should deduct the amounts from the pending bills of the contractors and remit the same to the Department concerned immediately, duly collecting an additional 5% as collection charges.

183. Third party inspection of works goods and equipments:

1. The contractor is mainly responsible to ensure that the works are executed as per specifications and deliver the works in sound condition. The Departmental officers have to make periodic checks to ensure the quality of works executed. The Government is concerned over the deterioration in the quality of the works executed. To assist the departmental officers to ensure quality work in some major projects, separate in-house Quality Assurance organizations have been set up and in some other projects funded by International Agencies, Supervision Consultants are being employed. However, for most of the works under execution, the departmental officers herein after called 'employer', are responsible for ensuring the quality of the works. Similar is the position in respect of procurement of goods and equipment. The inspections are mostly in-house.
2. Government in order to check deterioration in the quality of works executed has introduced third party inspection of works and supplies to ensure adherence to quality standards leading to value for money. This will also check quality & quantity as per contract document and instill public confidence in the system.

184. Variation in quantities:

1. Execution of new items of work whether in lieu of tendered items or in addition to them, incidental to execution of works let out on contract, often have to be carried out. The contract agreement empowers the Executive Engineer to order any variation in quantity, addition or alteration in items of work, which the contractor is bound to carry out. Changes in drawing, designs and specifications lead to alterations and additions, generally categorized as indicated below.
2. Work necessarily required in the performance of the contract, intentionally or by oversight or for any other reasons omitted from the contract, but evidently necessary for completion of the work, referred to as '**additional work**'.
3. Works which may not expressly or impliedly included in the original contract and therefore, not included in the original contract price provided the work is done within the framework of original contract.
4. The work arising out side and entirely independent of the contract and required in its performance are referred to as '**extra work**'. Since the additional work is part of the original contract, it is subject to the original terms and conditions. But, extra work when accepted and carried out by the contractor forms a new contract. Such a new contract is binding.
5. Execution of new items of works either in addition to or partial / whole replacement of tender items which became necessary in the course of execution of public works, let out on contract, the practice was, an additional item was termed as extra item and an item replacing an existing item partly or wholly was termed a deviation item generally. Sometimes both these were termed as extra items. To have uniform system, the distinction between extra work and additional work, shall be as prescribed in paras 3 and 4 above, as otherwise the contractor may raise the question that additional work has radically changed the original nature of contract and demand new rates for that work.

6. By taking into account whether such additional work, which has arisen during the performance of the contract, would have or have not been reasonably anticipated; whether it is an additional work or an extra work, settlement of rates on a reasonable basis is to be done at the earliest.
7. The basis for the additional work, being the contractual rate or agreement rate and in the case of extra work, rate worked out on the basis of prevailing prices and cost, namely, schedule of rates prevailing at the time of ordering the execution of work.
8. In both these cases supplemental estimates have to be prepared for the additional quantity over and above the contractual quantity adopting the contractual rate for the additional work and schedule of rate for the extra work.
9. Additional work or extra work shall be executed only with the prior approval of the competent authority . Anticipatory action in proceeding with additional work shall not be resorted to except under emergent conditions at site.
10. The execution of such items of works should be governed by definite directions so as to result in, (a) ensuring best technical considerations, (b) avoiding undue expenditure and (c) expeditious settlement of contractor's claims.
11. In case of all the works let out on contract, no extra item of work shall be ordered by the Executive Engineer without obtaining approval of the Superintending Engineer or Chief Engineer who originally accorded technical sanction to the estimate. As a corollary, Executive Engineer should not offer any specified rates to contractors for such items until approval of technical sanctioning authority is obtained.
12. Execution of extra items of work shall not be ordered on the spur of the moment but after obtaining approval of competent authority. The contractor as well as the Engineer in charge of the work shall proceed only after written approval from the competent authority before the execution of extra or additional work. In cases where the extra or additional work are executed and approvals are not forthcoming or refused, the contractor who has done the work is entitled for payment but such amounts are not a legitimate charge on Government and are therefore recoverable from the officers who ordered and the officers who executed the work.
13. The supplemental estimates for extra work or additional work shall be technically approved by the authority who originally accorded technical sanction to the estimates of the concerned work. The powers up to which such extra items of work and / or additional items of work could be sanctioned shall be in accordance with the delegation of powers ordered by Government from time to time.
14. In case the Executive Engineer himself is the technical sanctioning authority, he is empowered to order execution of extra or additional items of work subject to the conditions given below:
 - a) Before the extra item of work / additional item of work is started, the rates to be paid should be agreed to between the contractor and the Executive Engineer to avoid complications in settling the claims of the contractor for such items.
 - b) In case of emergency or urgency, the Executive Engineer may however order the contractors to take up the extra work by entering the order under his signature in the work order book. The contractor will have to execute the work but abide by the decision of the competent authority in regard to rates. Responsibility for justifying the emergency or urgency conditions vests with the officer ordering the work.

- c) The execution of extra items in such emergency cases should immediately be reported to the authority who has technically sanctioned the Estimate/Detailed Project Report. Immediately after ordering the contractor to take up extra item, the rates to be allowed for those items should be drawn up, financial implications worked out and got sanctioned by competent authority.
 - d) The contractor should execute a supplementary agreement indicating his acceptance of rates and payments for the extra items.
15. A copy of the supplementary agreement referred to above should be forwarded to the Accountant General.
 16. The items of extra work done shall be paid separately to the contractor, quoting the sanction order of the supplemental Estimate/Detailed Project Report as authority for execution of these items. The powers up to which such extra items and or deviated items could be sanctioned shall be in accordance with the delegation of powers ordered by Government from time to time.
 17. The authority for the acceptance of an original contract is however sufficient to cover extra item of work which forms part of legitimate extension of such contract and are covered by the provisions of the contract agreement, when the cost of such extra items including the total amount of contract does not exceed the monetary limit up to which such authority is empowered to accept the tender.
 18. An extra item of work should not be ordered by the Executive Engineer if the Revised Estimate/Detailed Project Report providing for the item requires the sanction of higher authority. It therefore follows that when extra or additional items of work have become necessary, apart from correspondence for obtaining approvals, the field engineer should take action to prepare revised Estimate/Detailed Project Report simultaneously or better earlier. It shall be a routine action on the part of the field engineer and the Assistant Executive Engineer to monitor the outlays on the work without waiting for the finalization of Divisional accounts. Difference shall be reconciled as and when they occur.
 19. Departure from the rules of contract specified above can be permitted or condoned only by the Government.

185. Price adjustment Clause for works contracts

This shall be as per contract data in the contract documents adopted.

186. Payment of rates in excess:

Recommendation shall not be made to Government for payment of rates in excess of tendered rates to the contractors or for extending to them for other concessions not covered by their contract agreements.

187. Extension of time:

1. The officers of the Public Works Department who accept the tenders of a contractor are also competent to give extension of time for the performance of the contract work according to the powers delegated to them subject to the following conditions. When work is obstructed by natural calamity or by any action like delay in handing over the site as per contract on the part of the Government.
2. In fixing the periods of time in respect of tenders the period from 15th June to 15th October in Mangalore, Udupi, Uttara Kannada and Kodagu districts and the period from

15th June to 15th September in other districts of the state shall normally be excluded. However, it is open to the Executive Engineer to fix up a time limit including monsoon periods mentioned above.

188. Completion report by contractor:

1. When the sub Divisional officer in charge of a work under construction is satisfied that all items mentioned in the Estimate/Detailed Project Reports or other necessary contingent items required for the work are completed and functional in respect of water supply, UGD & Electricity by the contractor and all the unwanted material etc., are all removed and the surroundings as well as the interior of the work made clean, a completion report should be submitted by the contractor to the Executive Engineer and the assistant Executive Engineer. The Assistant Executive Engineer shall inspect the work and see if there are any rectifications to be attended to by the contractor, and if so, he should issue necessary instructions to the contractor.
2. The contractor after carrying out the orders of the Executive Engineer should give notice to the latter, by registered post, if necessary, that the work has been completed in all respects and may be taken over. The Executive Engineer or the sub Divisional officer may then take over the work from the contractor, or his authorized agent, after which the contractors final bill may be paid and the accounts of work closed early by submitting the completion certificate for the work.
3. The contractor shall be held responsible for the maintenance of a completed work up to period specified in the contract for a reasonable time until it is taken over by the Department.

189. Refund of security deposit:

The security deposit shall be refunded as per provisions of contract agreement.

190. Forfeiture of security deposit:

When the amount recoverable from the contractor is in excess of the pending bills/security deposit of the said contract, in order to safeguard the interest of the state, the normal practice has been to withhold the security deposit of another contract of the same contractor. It is clarified that the amounts due to Government from the contractor by way of risk purchase recoveries or forfeited security deposit/ pending bills are outstanding "claims" only and cannot be recovered till these have been converted into "due"(debt) by an award of the arbitrator. Once the award is given, the sum due to the Government against the contractor will be in the nature of a debt or due and the Government would be entitled to withhold any other sum under any contract, due to the same contractor to safeguard the above due. Once the award becomes the rule of the court, the Government can legally adjust the amount from the pending bills/security deposits of the contractor available with the Government, of any other contract. With holding of security deposit / pending bills of any other contract for realization of Government claim of a disputed contract, without obtaining an arbitration award, is not tenable before a court of law. It is therefore necessary in all cases where the Government claims are in excess of the pending bills / security deposit of the contractor for the contract under dispute, immediate step is to be taken to get the dispute adjudicated and to obtain an arbitration award. Then only the security deposit / pending bills of other contracts can be withheld to safeguard the interest of the state.

191. Revised Estimate:

Excess over the sanctioned estimates should be strictly avoided. However, a Revised Estimate must be prepared when a sanctioned estimate is likely to be exceeded by more than 5 percent either from the rates being found insufficient or from any cause. It must be accompanied by a comparative statement and by a report showing the progress made to date and explaining fully the cause of the revision. The Revised Estimate so prepared shall be got approved by the competent authority as per the Government Order No.PWD 671 FC-1 2009 dt. 3/2/2010 and revised from time to time.

If the excess passed by the authority results in revised estimate going beyond the amount up to which he is empowered to sanction the revised estimate, a report of such cases should be made every month to the next higher authority who will satisfy himself about the propriety of excess sanctioned and take suitable action.

Obtaining sanction of competent authority for the revised estimate is the responsibility of the departmental officers. Settlement of final bills, refund of security deposit shall not be delayed and shall be governed by the agreement conditions only. The E.M.D. and the F.S.D are refunded to the contractor within the period in conformity with the provisions of agreement.

The field engineer as well as the Assistant Executive Engineer shall be responsible for prompt submission of the revised Estimate.

192. Defects Guarantee Period:

The period of maintenance shall be twelve months from the date of completion of the work or till the expiry of defects liability period or as per agreement conditions. The works to be done to maintain the work during the maintenance period or defects liability period shall be correctly indicated in the agreement under the special conditions of contract.

193. Final certificate by Engineer:

1. Before the final bill is paid to the contractor, the Departmental officers should furnish certificates of completion of the works as per terms and conditions of the contract after personal inspection of the work as under.

| | Designation of the inspecting officer | Final cost of the work awarded to contractors |
|----|--|--|
| 1. | Assistant Executive Engineer | Upto Rs. 20 lakh. |
| 2. | Executive Engineer | Upto Rs. 100 lakh. |
| 3. | Superintending Engineer | Above Rs.100 lakh. |

2. The certificate of completion in case of such works should be furnished by the concerned officers within a period of one month after the actual date of completion of the work as per terms and conditions of the agreement unless otherwise agreed to. The fact of the certificate having been furnished by the concerned officer does not in any way absolve the official in-charge of the work/Divisional accountant from exercising their normal supervision/checks in respect of proper execution of works/scrutiny of their claims.
3. In case where it is not desirable to keep the contract open for carrying out minor items such as flooring in the bath rooms, commissioning after power supply is received etc., the main contract may be finalized after getting a supplementary agreement executed in

the prescribed form by the same contractor for doing the residual work at his agreement rates.

194. Monitoring of Work progress:

1. An accurate account of progress secured, physical and financial of all the major and minor works, maintenance and repair works shall be available at all levels viz., field engineer , Assistant Executive Engineer and Executive Engineer in respect of works pertaining to their jurisdiction. Details of all the works shall be maintained in a standardized form PWF 3.
2. Budget head-wise grant and outlay details as per PWF 4 shall be maintained. If additional entries are required regarding the budget heads they may suitably incorporated. All the budget heads need not be listed but it is sufficient to have only such heads as are operated. An abstract shall be maintained in form PWF 5.
3. There shall be uniformity in the expenditure statistics maintained both in division and sub division. Each field engineer, Assistant Executive Engineer and Executive Engineer shall work out every month, number of works sanctioned, budget head and subhead-wise, estimated cost, expenditure to the end of the previous financial year, budget grant, current year expenditure and up to date expenditure separately for plan and non-plan works. Deposit contribution works shall be listed separately. The Assistant Executive Engineer shall review the progress secured as often as possible each month with the executive subordinates and record precisely and briefly the physical progress achieved. Similarly, the Executive Engineer shall review every month physical as well as financial progress achieved in respect of all the works and shall record the up to date progress secured. Such reviews conducted at division level shall be submitted to circle office and central office on or before 5th of the succeeding month.
4. The forms devised for keeping details of physical and financial progress, contain all the details normally required for reviewing the progress of any work. It is sufficient if three or four details are recorded every month to get updates. e-monitoring affords quick entry of data for analysis at any level.

195. Delay in execution of work and defective work:

1. When the Public Works Department employs a contractor for a work, it is the duty of the officers and subordinates in-charge to see that, it is executed strictly in accordance with the specifications, sanctioned plans and Estimate/Detailed Project Reports under the orders and supervision of the Executive Engineer.
2. If the contractor unduly delays or fails to execute the work to the satisfaction of the Executive Engineer and in accordance with the agreement and specifications agreed upon at the time of settlement of contract, he should send at once a registered notice. This notice shall explain precisely the location, extent and nature of substandard work or substandard materials collected or shortfall in progress noticed and shall always be signed by the Executive Engineer and sent by registered post acknowledgement due.
3. If reply is not received or reply received is not satisfactory, the Executive Engineer shall immediately issue a notice to the contractor to appear before him on any particular day and time for hearing his defense either orally or in writing wherein the Departmental Engineers concerned shall also be present. In case the Executive Engineer is convinced of the arguments advocated by the contractor, he shall forthwith issue an order granting him a time limit within which the substandard work shall be removed and reconstructed or substandard materials are removed or short progress is

made up. It shall be clearly mentioned in the notice the action proposed to be taken as per contract , if there is failure on the part of the contractor to comply. Where there is compliance, no action is necessary. If there is partial compliance, the Executive Engineer shall decide whether a further time limit shall be given or not. If within a reasonable margin of time not exceeding a fortnight the contractor does not effect proper progress or improvement or does not carry out the orders conveyed to him in circumstances are such that even repeated notices, warnings have had no effect, then the contract should be terminated forthwith with the approval of competent authority. and further suitable arrangements promptly be made for continuation of the work through Department or other agency as per provisions made in the agreement.

4. Provision must be made in the contract for safeguarding Government property entrusted to a contractor.
5. Should the Executive Engineer in consideration of any peculiar and unforeseen circumstances find the representation of a contractor reasonable and worthy of acceptance, he should report the special circumstances in detail to the officer who accepted the contract for his decision and if himself has accepted the agreement, his own decision in writing should be given to the contractor.
6. However, any authority higher in rank than the Executive Engineer may, in his absolute discretion, waive or modify any penalty or forfeiture or determination of the contract ordered by the Executive Engineer, under the provisions of this clause, provided the contractor submits a written appeal within seven days of the issue of the notice to the said higher authority.
7. If, however, the Executive Engineer notwithstanding the failure of the contractor to comply with the demand referred to in the above clause or failure to maintain the 'rate of progress' specified in the agreement plus any extension of time that may have been allowed to the contractor, shall permit the contractor to proceed with the whole or part and continue and complete the whole or such part of the work, such permission shall not be deemed to be a waiver in any respect by the Engineer of the right of forfeiture under this clause, provided however that any such forfeiture under this clause shall not exceed five percent of the total of the contract amount.
8. It shall be a further right of the Executive Engineer, under this clause, at any time the 'rate of progress' in the agreement is not maintained, to give any part of the work to any other contractor at his discretion, in order to maintain the 'rate of progress'. Upon the completion of that part of the work that is withdrawn, the Executive Engineer shall certify the amount of expenditure incurred by the Department for getting it completed by another contractor or contractors. Should the amount so certified be less than the amount, which would have been due to the contractor on the completion of that part of the work by him, the difference shall not be paid to the contractor. Should however the former exceed the latter, the difference shall be recovered from the contractor, provided however that such a recovery shall not exceed five percent of the total finished contract amount.

196. Procedure for action in case of short progress or bad work:

1. When an agreement is executed and work order is issued, site is to be handed over to the contractor in full within 15 days or such other period fixed in the agreement.
2. At the time of submission of tenders, contractors are normally expected to enclose a work schedule programme for completion of the works. After the tender is accepted agreement is executed; opportunity is again extended to the contractor to submit a

schedule on work execution programme, to fulfill the physical and financial progress stipulated under different milestones in the contract agreement. This can be in the form of PERT chart, GANT chart etc., detailing various activities, their start date, commencement and completion date and cash flow. Once this schedule is given by the contractor, it becomes a basis for monitoring the progress of the work periodically. Then the Executive Engineer shall arrange to draw up a programme, listing the activities required on the part of the Department to fulfill its part of the obligations under the contract. These schedules shall not only be for handing over sites, supply of approved drawings but also for ensuring supply of funds in time to make payment for works done and Departmental supplies if any. On the whole, the Executive Engineer will organize the project implementation unit in his office as well as in the sub-division under due intimation to quality control division and sub-division. This unit will be responsible for organizing fulfillment of the Departmental obligations of the contract agreement but also to take action to solve immediately problems that may occur during the execution of works.

In the Contract Data of the SBD mile stone events are stipulated and fines shall be levied accordingly.

3. Particular attention is to be given for collection of materials as per specification. It is quite possible that materials like coarse aggregate and fine aggregates available locally may not be in accordance with agreement specifications, it is practical to raise issues about the size, quality etc in the initial stage itself. Preventive measures adopted effectively can ensure supply of quality materials. Once the sub-standard materials are allowed at site and stacked, clandestine use of these materials becomes a possibility. Therefore all precautions are to be exercised to prevent collection of sub-standard materials. It shall be a test of efficiency and management skills of the Field Engineer which counts in ensuring quality right from the commencement stage itself. No field engineer shall feel helpless in physically preventing collection of sub-standard materials.
4. The Contractor is bound by agreement conditions to execute works in accordance with the prescribed specification. If the Field Engineer determines that a portion or whole of work constructed is not according to specifications, it shall be then his duty to cause a notice to be issued to the contractor under acknowledgement, listing the deviations from specifications, location and approximate quantity wherever it can be arrived at, in form PWF 6. If the defective work is not removed or the deviations from the specifications are not made good by the contractor within the stipulated time, either additional time if requested by the contractor can be granted or action taken to issue notice to the contractor about non-compliance of the instructions issued in the first notice, with the specific intimation that final measurements of the defective work done shall be recorded on a particular date and time and informing him to be present as otherwise the measurements will be recorded in his absence. This notice shall be in form PWF 7. After final measurements are recorded, due intimation shall be sent to the contractor in form PWF 8 and the amount of the cost of removing and redoing the work shall also be furnished to the contractor.
5. Before removing and redoing the said work, the Executive Engineer shall issue a notice to the contractor that the said work is withdrawn from his agreement; the said work site is also withdrawn in terms of agreement conditions and the work shall be carried out thro' alternate agency at the cost as already intimated. The Executive Engineer, after issue of this notice in form PWF 9 shall allow the alternate agency to carry out the said work.

6. If there is short progress and the Executive Engineer comes to a conclusion that notices issued to step up progress has not yielded the desired results, he shall at once issue a notice to the contractor giving details of short progress and the liquidated damages shall be levied at the rate mentioned in the agreement or at such rates determined by the Executive Engineer, in form PWF 10.
7. If there is continued short progress or failure to execute work according to specifications and notices issued earlier have not been complied with fully, the Executive Engineer shall take action as per clause under Liquidated Damage to rescind the contract issue a show cause notice in form PWF 11 as to why the contract should not be rescinded as per the agreement conditions at the risk and cost of the contractor. This show cause notice issued giving at least 15 days time for the contractor to file his reply and sent by RPAD.
8. The Assistant Executive Engineer shall issue notice in form PWF 12 to the contractor calling upon him to be present when the final measurements will be recorded on a particular day and time and in case he fails to be present, the measurements will be recorded in his absence, for which he shall be solely responsible.

197. Final bills disputed:

1. Final bills of all works shall be duly recorded and billed for within one month of completion of the work. The period of one month shall be considered from the date of receipt of contractor's completion report in the subdivision office.
2. If at the time of final inspection and measurements, it is observed that certain items are not fully completed, like final polishing of wood work is not done, paint and distemper stains on walls and glazing are not satisfactorily removed or excess or unwanted material is not removed and the site around the construction is not completely clean etc then it is open to the Assistant Executive Engineer to issue a notice to the contractor by Registered Post Acknowledgement Due (RPAD), pointing out all the omissions, alterations, modifications required without leaving any item however minor, allowing time for the contractor to complete the same within a reasonable time, subject to the condition that the question of allowing further extension to be considered on merits. The completion report already submitted loses value and the contractor is expected to submit a fresh completion report duly attending to all the deficiencies pointed out.
3. The field engineer shall conduct his final inspection, record measurement and still certain deficiencies are noticed, then all such deficiencies are identified, correctly Estimated and proposed for recovery from the final bill. This procedure is to enable the Department to close the accounts of the contractor by recording his final bill, with the option to the Department to execute the balance work through the same or alternate agency.
4. The date of completion of work is considered as the date of recording of final measurements notwithstanding minor deficiencies noticed.
5. Maintenance period, if any exists as per agreement conditions, starts from the date of recording of final measurements.
6. In the case of a final bill for a work, if the contractor does not accept the final measurements as recorded by the field engineer / sub Divisional officer and consequently refuses to sign the final bill or give his final declaration, the sub Divisional officer should send a registered notice to the contractor and with sufficient notice, fix a suitable date and hour for going through the measurements again with them at the work spot. Sub Divisional officers should patiently consider their oral or written

complaints and explain to them in convincing manner how the final measurements are arrived at, or alternatively, make such corrections as may be necessary. The sub Divisional officer then shall address the contractor to attend office and accept measurements and sign the bills prepared within 10 days after the receipt of notice.

7. If even then, the contractor refuses to sign the final bill and give his final declaration thereto the sub Divisional officer should submit a report to that effect along with the final bill, to the Executive Engineer. The Executive Engineer should intimate the contractor after audit of the bill in question that if he does not receive the final payment within one month from the date of issue of registered notice, the accounts of the work of the contractor would be closed and the balance due to the contractor would be kept in deposits, which if unclaimed by him for three years after the date of closing the works accounts would automatically lapse and be credited to revenue.

198. Suspension of the works by the contractor:

1. If, the contractor (except on account of any legal restraint not occasioned by his own willful act or default or orders from Government preventing the continuance of the work) suspends the works, or sublets the work or a portion thereof, without sanction of the Engineer, or in the opinion of the Engineer, neglects or fail to proceed with due diligence in the performance of his part of the contract as laid down in the schedule rate of progress, or if he continues to default or repeat such default, the Engineer shall give notice in writing to the contractor requiring that the works be proceeded with, in accordance with the terms of the contract.
2. Such notice shall not be unreasonable, or vexatiously given and must signify that it purports to be a notice under the provisions of this clause and the relevant clauses of the agreement and must specify the act or default on the part of the contractor upon which it is based.
3. After such notice having been given, the contractor shall not be at liberty to remove from the site or the works, or from the ground contiguous to any plant or material belonging to him, which shall have been placed thereon for the purpose of the work.
4. Government shall have a lien upon all such plant and materials, which subsists from the date of such notice given until the notice has been complied with.
5. The Government shall have power to post watch & ward at the site of the works and/or the ground contiguous thereto, in order to prevent the removal of any plant or materials upon which the Government shall have a lien.
6. If the contractor fails to comply with the same to the satisfaction of the Executive Engineer even after fourteen days after such notice has been given by him in writing, Government may enter upon and take possession of the works and site, and of all such plant and materials thereon (or any ground contiguous thereto) and all such plant and materials as above mentioned shall thereupon be at the absolute disposal of Government for the purpose of completing the work.
7. If Government exercises the above power to enter upon the works and take possession of the works, plant and material, they may engage any other person to complete the works and exclude the contractor, his agents and servants from entry upon or access to the same, except that the contractor or any person nominated by him may have access at all reasonable times to inspect, survey and measure the works already executed by him and Government shall thereupon take such steps as they may consider necessary for the due prosecution and completion of the work.

8. Upon the completion of the works, the Executive Engineer shall certify the amount of the expenses properly incurred consequent on, and incidental to the default of the contractor as aforesaid and in having the works completed by other persons having credited the contractor with the value of the materials utilized as aforesaid.
9. Should the amount so certified be less than the amount which would have been due to the contractor on the completion of the works by him the difference shall not be paid to the contractor by Government. Should the amount of the former exceed the latter, the difference shall be paid by the contractor to Government.
10. Government shall not be liable to make any payment to the contractor on account of the use of such plant for the completion of the works under the provisions herein before contained.
11. Government may at any time give notice in writing to the contractor to remove any of his plant or materials from the site and not required for completion of the works. If such plant and/or materials are not removed within fourteen days after notice shall have been so given, Government may remove and sell the same, holding the proceeds less the cost of removal and sale, to the credit of the contractor.
12. In case Government exercises the power contained in this clause and complete the works by any other person as therein provided, the Executive Engineer, after instituting such inquiries as he may deem fit, with notice to the contractor, shall certify what amount (if any) had at the time of the Government exercising such power as aforesaid, been reasonably earned or would reasonably accrue to the contractor in respect of work then actually done by him in the premises and such certificate shall be final and binding on the contractor.
13. Notwithstanding anything contained in the above clause, when possession of the work and site is taken by Government in exercise of the power contained in this clause the portion of the work actually completed by the contractor in the premises shall be maintained by Government at the risk and expense of the contractor until the whole of the work is completed by other agency and possession thereof taken by Government.
14. (a) In all the above cases, the notice issued by the Engineer shall be sent to the contractor at his main address as well as his site office address by Registered Post Acknowledgement Due (RPAD). In the case of site office, it is sufficient if an acknowledgement is obtained from the Site Engineer for having received the notice issued by the Engineer.
(b) However it must be clearly understood that the notices shall be addressed to the contractors and sent by Registered Post Acknowledgement Due (RPAD) to the address given in the agreement.
(c) If the Engineer has reasons to believe that the notice sent by registered post is being willfully avoided or dodged, it shall be open for the Engineer to communicate his notice by e-mail or through fax and proceed on the basis of acknowledgement received.
(d) These notices should not be vague. Instead of merely mentioning that work done is unsatisfactory, it should explain specifically what work has been done, at which location and what is wrong with the work and whether the contractor is instructed to carry out.
(e) Copies of letters addressed by the Executive Engineer to his Departmental officers shall be copied to the contractors.

- (f) However, as far as quality, deviations in execution of works are concerned; the assistant Executive Engineers are empowered to correspond with the contractors.
- (g) All letters received from contractors shall be replied point-wise on the issue raised carefully, keeping always in view the contractual conditions, within seven days or earlier by registered post.
15. Measurements of work done by the contractor shall be taken, check measured under proper intimation to the contractor and then only balance work ordered to be proceeded with or bad work ordered to be removed and rectified. Pre-measurements of bad work ordered to be removed shall be recorded; check measured and then handed over to the next contractor under acknowledgement. On the whole, every care shall be taken by the Executive Engineer that work done by one agency is properly and fully recorded in the measurement book, check measured, and accepted by the contractor. Then only next agency be allowed to step in. To avoid complications all notices to the contractor shall be issued by the designated officer who has entered into agreement under his signature and not by others.
16. A contract is equally binding on both the contracting parties. The officer of the Department should not forget this aspect of the matter in dealing with a contractor and his work. The Executive Engineer should see that the contractor is bound from the beginning by the conditions of his contract so that difficulties may not arise at the time of settling his claims. Simultaneously, the Executive Engineer should ensure that obligatory responsibilities of the Department such as handing over site, providing approved drawings, site approvals, timely instructions, monthly payment of work done, seeking or according approvals for additional or extra items of work are carried out without delay. Executive Engineer shall be responsible for ensuring approvals, sanctions etc. are obtained from higher authorities in time, as the agreement is signed by him on behalf of the Government. It shall be clearly understood that the entire responsibility of fulfilling the contractual obligations of the Department vests with the Executive Engineer. Efficient contract management requires that the contractor is not made to run around various offices for carrying out or expediting the activities which are legitimately the functions of the Departmental authorities.
17. Everything in connection with a contractor and his work should be so done that the Executive Engineer may have a clear case in case the contractor should appeal to higher Departmental authorities or approach court of law.
18. All works carried out by any of the methods classified above shall have a clear physical and financial programme for execution. This programme should be continuously updated by mid-course corrections, wherever they are found to be necessary. Periodical reviews shall be conducted by the Executive Engineer with the contractors and proceedings recorded and communicated to all the participants. Such proceedings shall be confirmed in the next meeting with or without corrections. Such review meetings shall be treated as important as contractors are afforded an opportunity to express their problems or suggestions. The Standard Tender Documents details the Management meeting and composition of members.
19. All works irrespective of their cost in his jurisdiction shall be reviewed by Assistant Executive Engineer concerned. Similarly it is mandatory for the Executive Engineer to hold periodical meetings at frequent intervals of a month or two or even earlier, as successful implementation of a project executed through contractors depend upon in time payments, problem solving and resolution of claim.

20. Superintending Engineer during inspections shall particularly review the meeting proceedings of the meeting & record his observations.

199. Security for performance of contracts:

Contractors shall in each case be required to submit earnest money deposit on a sliding scale of the Estimated cost of work tendered for, while submitting tenders. No interest will be allowed on these amounts.

In respect of unsuccessful contracts, the EMD shall be returned and in respect of successful contractors the EMD shall be returned and Security Deposit of 5% shall be obtained in the form of Bank Guarantee as in the Standard Tender Document.

200. Mobilization advance against Bank Guarantee:

Mobilization advance as stipulated in the contract shall be paid to the contractor and shall be payable against bank guarantee obtained from scheduled banks approved by the Reserve Bank of India. The bank guarantees can also be in multiples if required by the contractor, or the Executive Engineer. Mobilization advance shall be paid to the extent of 5% of the agreement amount within 15 days of the issue of work order against production of bank guarantee mentioned above as per Contract Document.

201. Performance guarantee:

1. Immediately before signing of the contract agreement, the contractor shall submit a performance bank guarantee for 5% of the total contract value for the period of the contract as well as the defects liability period or maintenance period as per contract document.
2. It shall be clearly understood that forfeiture of any bank guarantee shall be carried out by the Executive Engineer after giving adequate warning to the contractor in advance, after issue of a show cause notice, after giving the contractor an opportunity to appear in person before the Executive Engineer and present his case and only after lapse on the part of the contractor is conclusively established.
3. The Accounts Section of the concerned officer shall check the validity of the Bank Guarantee periodically so that the Guarantee will be in currency till the completion of works / contract as stipulated in the agreement. The validity of Bank Guarantee shall be reviewed in the Accounts Department of Division Office by the Executive Engineer and renewals may be effected.

202. Payment of work bills

1. To ensure equalization of expenditure throughout the year and to avoid the rush of expenditure at the end of each month and also at the end of the year, it has been ruled that work done and measured in one month shall ordinarily be paid for during the next month. But no work should be measured after the 15th of March without the special order of Chief Engineer concerned and paid for till April.
2. The concerned office shall audit the bill and prepare a statement of work bills, supply bills passed and kept ready for submitting the bills to treasury concerned as per GO No. FD-03SOFC 2007 Bangalore dated 11-12-2007 or send the same to the Head office as the case may be.
3. The bills to be submitted to treasury based on releases made by the administrative Department. The Chief Engineer concerned shall allocate the funds to the Executive Engineer / implementing officers in respect of schemes.

4. The Chief Engineer concerned shall also upload the allocation in the budget control software at TNMC as per allocation released by the administrative Department. This allocation should be with reference to administrative/ technical approvals. The uploading to treasury software will be similar to that being followed in respect of NON LOC Expenditure. Necessary instruction as issued in paragraph 9 of the GO No. FD 25 BPE Dated 31.05.2003 to be followed.
5. The Finance Department would separately indicate to the treasury network management centre, the balance amount which is available for the release under each scheme in each year after taking into account the amount already released.
6. Treasury Network management centre shall ensure that only balance amount as communicated by Finance Department is available for the purposes of uploading for the financial year.
7. The implementing officers shall not draw any cheque for works payment payable on bank (from 1st January 2008).
8. The Division shall continue to render accounts to the Accountant General (A & E), in respect of previous public account transactions which have been cleared during the months.
9. The Chief Engineer shall also send a report on the balances outstanding under each head and their clearance each month to the Administrative Department and Finance Department.
10. The Division shall arrange audit of bills in such a way that “first come first serve principle” is followed and no room is given for complaints. The bills should be passed and sent to Treasury as per grant received. If the bills are passed and recommended for payment to Treasury violating these instructions the Divisional Audit Officer/ Accounts Superintendent and Executive Engineer amounts to unfair practice and are made responsible accordingly.
11. The rule, that works shall be measured, check measured, audited passed and paid within the time schedule prescribe under the above paragraph is mainly due to reasons that payment in time, increases enthusiasm of the contractor and provides funds for further investment on works. This requires a higher degree of financial discipline. In time payment increases the quality of the work and exhibits the effectiveness of Government developmental activities.
12. All bills shall invariably contain quality test reports.

203. Work bills remaining unpaid after financial year end:

Work bills unpaid after the close of the financial year shall be examined in detail and reasons for their pendency determined.

1. Each bill shall be subjected to technical audit to determine whether the work was essential, whether the provisions in the Estimate/Detailed Project Report are in order, whether work done is according to the priorities, according to the specifications, according to the requirements and whether the work has been done and whether the measurements recorded and check measured are in accordance with standard practice.
2. The responsibility of carrying out these checks devolves on the head of the Department and he shall appoint teams specially chosen from the departmental personnel to conduct technical and financial audit of these works and submit work wise statement to Government with his recommendations. In addition he shall arrange for third party

inspections also for cross checking the findings of the departmental teams. The approach should be thoroughly professional, and unbiased.

3. Cases where the bills are not paid for works done where there was absolute necessity, budgeted works under progress, works for which grants were available but LOC was not received shall be dealt with separately and payments arranged during the next financial year.
4. In all other cases the steps described above involving financial and technical audit alone shall be followed. If there are instances where the pendency is attributable to due to non-receipt of LOC from Government, such cases shall be frankly reported so as to further streamline resource management procedures at Government level. Further action shall be taken after the orders of Government are received in this regard.

204. Settlement of disputes:

In the case of any dispute or disputes between the parties to the contract either during the progress or after the completion of the works or after determination of the contract by the Engineer, action may be taken as per contract agreement.

CHAPTER-13

e-PROCUREMENT

205. E-procurement system:

1. The e-procurement system is an end-to-end internet based total solution offering right from the preparation of line estimate for grant approval through the processes of estimate preparation, Administrative and Technical sanctions, approval of Draft Tender Schedules, publication of tender on the portal for viewing, downloading, submission of bids, EMD payment by the bidders, tender evaluation both technical and financial, award notification, issue of LOA and finally passing on to the Contract Management. The system is built with hierarchical file movement and with appropriate delegation of powers. It has been developed in a convenient modular way. The term Indent is commonly used on the portal to indicate an estimate for work and each time an estimate is prepared for sanction it is created with a specific Indent No. and the projects/ works/ estimates are commonly referred by the Indent No.
2. All the authorized Tender Inviting Authority shall follow the KTPP Act 1999 as amended from time to time and also as per the Government Notification No. DPAR 2 EPR 2009 dated. 9th October,2012 and any further directions that may be issued by the Government from time to time.
3. The Chief Engineers of the Department shall provide a soft copy and a hard copy of the Schedule of Rates prepared by them as soon as it is issued and before the date of its commencement to the Centre for e-Governance and ensure that it is uploaded on to the e-procurement system well in time.
4. The Notice Inviting Tender shall be published in the newspapers and the e- portals in accordance with the directions of the Government. The Tender notice shall briefly indicate the amount put to tender, the EMD to be paid, submission of queries, date and place of pre-bid meeting and last date for accessing and submission of tenders and all other relevant information required for the bidders.
5. The tender will be processed through the e-procurement portal in www.eproc.karnataka.gov.in
6. The interested contractors / suppliers may download the tender documents. The contractors may choose or otherwise attending the pre-bid meeting indicated in the Invitation for Tender.
7. The contractors shall submit the digitally signed tenders electronically on or before the date and time of submission published in the e-procurement portal along with stipulated EMD notified in the tender document.
8. If the Tender inviting Authority permits, the contractor / supplier shall attach scanned Bank Guarantee along with the bid on e-procurement portal and submit the original Bank Guarantee on before the last date and time notified in the Tender Document to the Tender Inviting authority.
9. The tenders will be evaluated only on confirmation of receipt of payment of EMD.
10. After opening the tender, the tender inviting authority shall announce electronically the names of the appropriate contractors / suppliers who have successfully uploaded the tender and also EMD amount, the submission of qualification information and any other information.

11. The technical bid of uploaded tender documents shall be opened online in the presence of tenderers or their authorised representative who choose to be present at the place and time specified in the tender notice.
12. The technically qualified contractors / suppliers shall be intimated the date and time of the opening of financial bid.
13. Training programs shall be organized for officers in charge of bidding procedures and the bidders may also be invited to participate in the training .
14. Any notification/ G.O./Circular issued by the Centre for e-Governance regarding implementation of e-procurement shall be strictly followed with effect from such date as mentioned in the Notification/ G.O./ Circular. All the officers of the Department shall adopt them as though issued from the Department itself.

206. Registration to participate in e-Procurement:

Every contractor / supplier shall have to pay a fixed sum prescribed from time to time as registration fee at the time of the registration in thee-Procurement platform.

207. Payment of Tender Processing Fee:

Every contractor / supplier shall have to pay a fixed sum as prescribed in the tender notice as tender processing fee.

208. Earnest Money Deposit:

The contractor / supplier shall remit the required Earnest Money Deposit (EMD) as prescribed in the tender notice/ tender document.

209. Payment of Earnest Money Deposit/ Bid security:

The contractor/supplier may pay the Earnest Money Deposit (EMD) using any of the following payment modes:

- Credit Card
- Debit Card / Direct Debit
- National Electronic Fund Transfer (NEFT)
- Over the Counter (OTC)

Or other form of payment prescribed by the Government.

210. Submission of Tenders:

Bidder shall submit the bids electronically before the stipulated date and time for the submission published in e-procurement portal. No tenders can be submitted after the due date and time as the portal will not accept late tenders.

211. Modification and withdrawal of Tenders:

The contractor / supplier can modify and correct or upload any other relevant document in the portal before last date and time of submission on e-portal. No modifications or withdrawal of tender is possible the closing time of the submission of the tender.

212. Opening of Technical bid:

1. The tender inviting authority shall open online the technical bid received through e-procurement portal, in the presence of the bidders or their authorised representatives who choose to attend on the date and the place specified in the tender notification.

2. In the event of the specified date of tender opening being declared a holiday for the tender inviting authority, the tenders shall be opened at the appointed time and location as notified in the tender notice.
3. The names of the bidders, the presence or absence of earnest money deposit (amount, format and validity), the submission of qualification information and such other information as the Tender Inviting Authority may consider appropriate shall be announced by the Tender Inviting Authority at the time of opening.

213. Evaluation of Tenders:

The Tender Inviting Authority shall evaluate and determine whether each tender

- a. meets the eligibility criteria defined in the bid document
- b. is accompanied by the required earnest money deposit as per stipulations in the bid document
- c. meets the minimum technical and financial qualification criteria stipulated in bid document.

The tender inviting authority shall draw out a list of qualified bidders.

214. Opening of Financial Bid :

The Tender Inviting Authority shall inform all the qualified bidders the time, date and venue fixed for opening of the Financial Bid. The Tender Inviting Authority shall open online the Financial Bid of the qualified bidders at the appointed time and date in the presence of the bidders or their representatives who choose to attend.

215. Acceptance of Tender :

The Tender Inviting Authority / Tender Accepting Authority who is empowered to accept the tender shall after careful consideration accept the tender of the eligible contractor / supplier in accordance with the KTPP Act, 1999 as amended from time to time. The contractor / supplier shall be issued the necessary work order etc as per the prevailing rules and guidelines of the Government.

CHAPTER - 14

PUBLIC PRIVATE PARTNERSHIP

216. Overview of Public Private Partnership:

Public Private Partnerships (PPPs) are increasingly being adopted by Governments and public sector authorities throughout the country as a way of increasing access to infrastructure services. This is mainly because PPPs allow access to the substantial financial resources of the private sector; enable the public sector to benefit from private sector technical expertise, experience and efficiency and also enable the public sector to transfer project-related risks to the private sector

Definition of PPP:

PPP is defined as an arrangement between a Government or statutory entity or Government owned entity on one side and a private sector entity on the other, for the provision of public assets and/ or related services for public benefit, through investments being made by and/or management undertaken by the private sector entity for a specified period, where there is substantial risk sharing with the private sector and the private sector receives performance linked payments that conform (or are benchmarked) to specified, pre-determined and measurable performance standards.

Characteristics of PPP:

A PPP typically has the following characteristics:

The private sector is responsible for carrying out or operating the project and takes on a substantial portion of the associated project risks.

During the operational life of the project the public sector's role is to monitor the performance of the private partner and enforce the terms of the contract

The private sector's costs may be recovered in full or in part from charges related to the use of the services provided by the project, and may be recovered through payments from the public sector.

Public sector payments are based on performance standards set out in the contract.

PPP modal variants:

Public-private partnership's (PPPs) can take a range of types encompassing various roles, ownership arrangements, and allocations of risk between the private and public partners. These different types are called PPP modes. Common examples of different modes are management contracts, lease, build-own-operate (BOO) contracts, and build-operate-transfer (BOT) contracts. In the roads sector, BOT is a common PPP mode, with revenues for the private operator often being from tolls (BOT Tolls contract) or from a fixed annual/semi-annual payment (BOT Annuity contract).

Various types of Public Private Partnership Models are as follows.

Build-Operate-Transfer (BOT) / Design-Build-Finance-Operate-Transfer (DBFOT):

In this models responsibility for construction and operations rests with the private partner while ownership is retained by the public sector.

The Private Partner is entrusted to design, finance, construct, manage, maintain the project.

PPP duration under this model is generally for 20 to 30 years.

This is the most common form of BOT concession in the country.

Examples- Nhava Sheva International Container Terminal, Amritsar Interstate Bus Terminal, Delhi Gurgaon Expressway, Hyderabad Metro, Salt Lake Water Supply and Sewage Disposal System.

Build-operate-transfer (BOT) Annuity:

In this model, responsibility for construction and operations rests with the private partner while ownership is retained by the public sector.

The Private Partner is entrusted to Design, finance, construct, manage, maintain the Project.

PPP duration under this model is generally for 20 to 30 years.

This has been adopted for NHAI highway projects in the past.

Recently, it is the preferred approach for socially relevant projects

Examples - Tuni Anakapalli Project, Alandur Underground Sewerage Project, Bangalore-Mysore State highway

Build-operate-transfer (BOT) Toll Model:

In this model, responsibility for construction and operations rests with the private partner while ownership is retained by the public sector.

The Private Partner is entrusted to Design, finance, construct, manage, maintain and collect Tolls for the Project.

PPP duration under this model is generally for 15 to 30 years.

This is the most common mode in the roads sector.

Build-own-operate Transfer (BOOT)

In this model, Private partner has the responsibility for construction and operations. Ownership is with the private partner for the duration of the concession.

The Private Partner is entrusted to Design, construct, own, manage, maintain, transfer the Project.

PPP duration under this model is generally for 20 to 30 years.

Example -Greenfield minor port concessions in Gujarat are on a BOOT basis.

Build-own-operate (BOO):

In this model, Private partner has the responsibility for construction and operations. Ownership is with the private partner for the duration of the concession but has no obligation to transfer.

The Private Partner is entrusted to Design, finance, construct, own, manage, maintain the Project.

PPP duration under this model is Perpetual.

Under this Model, the asset ownership is with the private sector and the service / facility provision responsibility is also with the private sector.

Build Lease Transfer (BLT) / Build-Own-Lease-Transfer (BOLT):

In this model, asset is leased, either by the private partner to the public entity or vice-versa.

This model involves building a facility, managing and maintaining it, leasing it to the Government. and transferring the facility after recovery of investment.

PPP duration under this model is for 10 to 15 years.

Primarily taken up for railway projects such as gauge conversion in the country in the past.

Criterion for selection of PPP model:

It is important that the stakeholders understand the various PPP model options and their applicability or appropriateness to specific project types and sectors.

The selection of the suitable PPP model is guided by

1. New (Greenfield) or Existing Asset:

Greenfield developments, which include major capital expenditure to build new infrastructure, have different requirements to the rehabilitation or management of existing assets in Brownfield developments. The scope of potential private sector roles is broader in Greenfield projects. The chosen PPP mode will reflect whether the private sector will be responsible for the design, finance and construction of the project (eg DBO agreement or a variation) or only some of these roles.

2. Ownership flexibility:

There may be legal restrictions on public ownership (as is the case in the country for highways or port frontages). Other practical issues need to be taken into account in deciding ownership, such as political acceptability. Restrictions on ownership rule out PPP modes that specifically contain ownership aspects, such as Build-own-operate (BOO) and its variants (eg. BOOT). In this case other options such as lease management contracts, BOT, BTL, could be considered.

3. Lifetime of the asset and scale of capital costs:

Infrastructure assets that involve large upfront capital costs, such as roads, require long timeframes for cost recovery. Such assets may be suited to long-term contracts (eg. BOT, BLT etc) and have associated risks. The public sector may be required to take on some of these risks by providing some guarantee to cost recovery in order to attract private sector project finance. The willingness or ability of the public sector partner to meet these risks is a further factor to be considered in determining the length of contract. For example, for a road project where future traffic volumes are uncertain the PPP might be structured with annuity payments rather than being toll-based, to reduce the revenue risk to the private operator.

4. The nature of the service to be provided & the supporting infrastructure assets, the nature of the end-user service itself will tend to favour a type of contracting structure. This is related to the capital cost structure (scale and timing) and the nature of the assets (physically fixed to their location or transportable).

5. Cost recovery options :

Whether the revenue from the PPP will be from a user-charge or a management fee or annuity paid by the public sector has important implications for the nature of the risk sharing and the selection of the PPP model.

Major Phases in a PPP process:

Identifying, developing and implementing a project as a PPP involves a series of steps and should be undertaken following a clear process. A PPP process can be categorized into a sequence of four phases and further detailed below:

Phase 1: Project identification and needs analysis

Potential PPP projects are identified on the basis of an analysis of the need for infrastructure services, and the options for meeting the service are considered in terms of the need for and type of assets.

Phase 2: PPP decision, project appraisal and clearance

Potential PPPs are evaluated for their suitability for development as PPPs. Those that are considered suitable are studied in detail and an application is made for in-principle clearance to continue to procurement.

Phase 3: Final approval and procurement

The procurement process begins, application is made for Final Approval, negotiations take place with the preferred bidder and the project is taken to technical and financial close.

Phase 4: Implementation and monitoring

The project proceeds through its construction (when part of the project) and operation phases. The public partner monitors the PPP over the life of the contract.

The above phases are detailed below.

1. Activities in Phase 1 - Project identification and needs analysis

Phase 1 involves the following specific activities:

- a) Strategic planning to identify and prioritize infrastructure service needs and identify a set of potential projects.

A strategic planning process should be conducted for the sector, sub sector or across the Sponsoring Agency's jurisdiction. This should relate to all infrastructure needs, including those that might be met with traditional public sector projects or using PPPs. Strategic planning includes preliminary needs assessment and the identification and prioritization of a set of possible projects to meet these needs.

- b) Project pre-feasibility analysis to assess specific needs and consider service delivery options, and to test, if an identified project is feasible and worth developing further. The Financial Viability Indicator model can be used at this stage to analyze the financial viability of the project, including any requirements for public sector support.
- c) PPP suitability checks of the identified project to test suitability for development as a PPP. Projects that might be developed as a PPP should be tested for their suitability to the PPP approach. This is to ensure only projects that have potential to be quality PPPs go forward for further development.

2. Activities in Phase 2: PPP decision, project appraisal and clearance

Phase 2 involves the following analytical and procedural steps for an individual project:

- a) Planning and preparing for PPP project management
- b) Carrying out a detailed feasibility study including PPP due diligence of the project, including updating the Financial Viability Indicator model and using it to reassess the impact of changing parts of the project design and verify the feasibility study model results
- c) Deciding on the best-suited procurement method for the project
- d) Preparing first drafts of the key project documents

- e) Applying for In-principle Clearance from the appropriate Appraisal / Clearance Authority. If In-principle Clearance is granted then the project is able to proceed to PPP procurement.

3. Activities in Phase 3 - Final approval and procurement

This phase includes

- Preparing for procurement
- Market sounding – preparing and issuing an EOI
- Qualifying - Issuing RFQ and shortlisting bidders
- Preparing final drafts of key project documents
- Applying for Final Approval to procure the project as a PPP
- Bidding - RFP and bid evaluation
- Contract finalization and award, and public disclosure of the PPP agreement

The above activities in Procurement phase 3 are detailed below.

Step 1:- Preparing for Procurement Process

In this key preparation activities include:

- Forming a team to lead the procurement and evaluation process
- Reviewing project information and making necessary updates
- Appointing an independent monitor/consultant to ensure quality and process oversight

Step 2:- Issuing of EOI / RFQ

This will depend on the type of Procurement Process.

- a) Single Stage Process comprising issue of Request for Proposal (RFP) only. A single-stage process is appropriate for smaller projects when there is a well known and relatively small group of private entities that are likely to bid, and when the project scope and service delivery options can be clearly specified in advance.
- b) Multi Stage Process comprising the following stages.
 - i) issue of Expression of Interest (EOI) to identify a list of interested firms
 - ii) issue of Request for Qualification (RFQ) to identify a shortlist of qualified potential bidders who are technically and financially qualified and those possessing requisite skill sets for implementation of the project.

Step 3:- Selection of Bidders

The Request for Qualification (RFQ) is used in multi-stage bidding to select a shortlist of qualified bidders. An RFQ is used to narrow down the list of potential bidders to only those who are technically and financially qualified and those possessing requisite skill sets for implementation of the project. These shortlisted firms are then invited to submit bids for the project at the RFP stage.

Step 4:- Drafting for Request for Proposal (RFP)

This involves drafting of Request for Proposals (RFP) for further inviting comprehensive technical and financial proposals from shortlisted bidders.

The RFP is the comprehensive request for proposals from shortlisted firms.. It is the most important communication to bidders of the Public entity requirements. The RFP shall typically include several sections detailing the essential aspects of the project and the bid including details on general instructions to bidders, including introduction and overview of the RFP itself, detailing its contents and purpose, instructions to bidders, details of the minimum submission requirements, required format for financial bids, and submission procedures, details of pre-bid meetings, site visits, requirements for Bid Security, detailed description of the project scope and required service outputs based on the specifications developed in the feasibility study.

Draft Concession Agreement specifying the commercial framework in legal terms, including the intended risk allocation, roles, rights, responsibilities and restrictions of all parties, payment mechanisms, performance standards covering all stages in the life of the PPP, penalties for under-performance, key schedules to the agreement, including site description, specifications and standards, required tests and inspections, and procedures for testing, independent inspections, and reporting, schedule of user fees/ tariff rates, financial arrangements, such as performance security. It will also include details on criteria for bid evaluation.

Step 5:- Application for Final Approval

An application shall be made by the concerned public entity to the relevant approving authority, which depends on the jurisdiction governing the PPP for final approval to procure the project as a PPP. .

The Approving Authority shall assess the key documents prepared for the bidding stage, and review the results of the qualifying stage. It shall also take account of the in-principle recommendation made by the Clearance Authority.

Step 6:- RFP Distribution & Bid Preparation

On PPP Final Approval, RFP, including all bidding documents, shall be distributed to the shortlisted bidders. The bidders are given sufficient time to prepare their bids. The shortlisted bidders may be required to provide a Bid Security to discourage them from dropping out of the bid process. RFP includes details on subsequent Pre-bid meeting, Site Visit and Data Room. All bidder queries are to be answered before the submission of bids.

Step 7:- Tender Submission and Evaluation

Bidders are required to submit their tender bids as per the conditions laid in RFP.

Evaluation of submitted bids shall be carried out by the Procurement & Evaluation (P&E) team using advisors where necessary. The evaluation shall follow the pre-determined criteria as specified in the RFP. The Independent Monitor shall be present for all evaluation meetings. The bid evaluation includes the following.

i) Conforming bids

Bids shall be checked to ensure they have met the submission requirements stated in the RFP. This will include that the required sections of the RFP have been correctly completed and that requested documentation and records are included. Bids that don't conform to the minimum requirements shall be excluded from further evaluation.

ii) Technical evaluation

Bids that satisfy the minimum technical requirements shall proceed to financial evaluation. Bids that fail to meet the cut-off shall not be considered for financial evaluation.

iii) Financial evaluation

The particular focus of the financial bid will have been clearly specified in the RFP, along with instructions for how the financial aspects should be presented in the bid.

The evaluation process shall consider the whole-of-life costs or payments in the bid. Net Present Value should be calculated to enable comparison between bids with different cash flow timing.

Step 8:- Selection of the preferred bidder

The preferred bidder shall be selected on the basis of the evaluation criteria. The independent Monitor shall be present during the evaluation.

The preferred bidder shall be notified. All other responding bidders shall be informed that they were not successful on this occasion.

4.Activities in Phase 4 – Implementation and Monitoring.

This includes,

Step1:- Preparation for Contract Management

The Concession Agreement is the most important document that defines the roles and responsibilities of all parties to the PPP. This includes setting out the obligations of all parties, the requirements for performance, the obligations for monitoring performance, and what happens in the case of under-performance.

A well designed Concession Agreement will create the conditions for the private partner to deliver the services at the agreed standard. These conditions include empowering the public entity to effectively monitor and enforce the terms of the agreement.

Step 2:- Institutional preparation

The institutional set-up is what enables the public entity to implement the monitoring arrangements set out in the Concession Agreement. If the institutional arrangements are inadequate the contract management and monitoring will also be inadequate and the quality of the PPP output is likely to suffer.

Institutional preparation includes Ensuring a Contract Management Team is in place, led by a Contract Manager, preparing a contract management manual, budgeting for the costs and clearly allocating costs among the contractual partners.

Step 3:- Monitoring performance

The purpose of monitoring is to ensure that the concessionaire meets the agreed level of performance. Most of the monitoring roles will be carried out by the public entity, either by the Contract Management Team or by an Independent Engineer.

The performance requirements will reflect the agreed risk allocations. Part of the purpose of monitoring performance against these standards is to ensure that risk is actually shouldered by the party who the risk was allocated to. These allocations will be different for different projects. Accordingly, performance requirements, criteria and monitoring roles will also vary.

Step 4:- Managing asset transfer at the end of the PPP

Contract closure happens at the end of the PPP life when the contract reaches its end date. The required activities at this time depend on whether or not the project involves assets that will be handed back to the public entity..

If the PPP model does not involve transferred assets (e.g. a management contract, or a BOO) the contract closure process simply requires the termination of the contract.

If the PPP model requires asset transfer (e.g. in a BOT) then contract closure requires greater preparation and is itself subject to compliance standards and monitoring.

For PPPs that have asset transfer, the critical management issue is ensuring that the assets are up to the agreed standard. While developing the Concession Agreement the aim should be to create the correct incentives for the concessionaire to maintain the assets to the agreed standard, and to provide the public entity with the information it needs to check that standards have been met. The Concession Agreement shall clearly specify the standards required of the assets on the handover date, laying out a process for monitoring the asset standards over a period leading up to the contract end date and specifying financial penalties for failure to meet the required standards.

Because assets can be allowed to deteriorate over a long period before the end of the contract it is important that the monitoring of the asset condition with regard to the standard required at the end date is ongoing well in advance of the contract end date.

Conclusion

Public-private partnerships (PPPs) are increasingly being used by Governments and public sector authorities throughout the world as a way of increasing access to infrastructure services for their citizens and economies at a reduced cost. This model is apt for development of physical infrastructure, such as roads, water and sanitation networks, and transportation systems that involve large investments that can be substantially met by collaboration between the public and private entities.

CHAPTER – 15

WORKS ACCOUNTS

217. Initial records of accounts:

1. The initial records upon which the accounts of works are based are:
 - a) The Measurement book,
 - b) The Running Account Bill
2. For contract work, the measurement book will form the basis of account to check the bills and account of contractors.

218. Bills and Vouchers:

1. Before the bill is passed for payment the sub-Divisional officers shall be careful to note in the body of the bill or in the memo of payments.
2. Divisional officers shall take all necessary steps to satisfy themselves that the responsibility for carrying out the check of bills with office copies of indents is duly discharged by the accounts staff working in their divisions and that the bills are passed only after the prescribed check has been carried out.
3. Whenever the Divisional officer is in direct charge of works, the duties referred to above will necessary devolve on him.
4. Where the value of the work to be done by a contractor does not exceed Rs.5000/- payments shall, as a rule, be made on the completion of work as the first and final payment.
5. To ensure equalisation of expenditure throughout the year and to avoid rush of expenditure at the end of each month during the period from 16th of the previous month to the 15th of the month shall be measured within 3 days thereafter and payment to contractor invariably made before the close of the month but no work measured after the 15th March shall without special orders of the Chief Engineer, be paid for till April.
6. In case of cheques drawn for bills in which the payee cannot appear in person in the Divisional office to receive payment, a separate acknowledgement in the form, note below, duly stamped wherever necessary may be obtained by post and attached to the original bill concerned. This concession will be allowed only at the discretion of the Divisional officer and on the specific written request by the payee / concerned.

“Received from the Divisional officer Division, a sum of rupees..... (Rs.....) by cheque No..... dated..... for (name of work or of supplies to be specified).....”.

Signature of contractor.

7. The contractor’s subsequent acknowledgement for the cheque which contains the particulars of the several claims constitutes a full and sufficient discharge for the payment.
8. In case of bills of Government and other departments payable by cheques ,the same procedure of receipting contents or issue of separate acknowledgement may be adopted.
9. In cases where the amount passed differs from that claimed when the contractor had furnished his receipt before-hand, the passing officer shall arrange to communicate the actual amounts passed and the reasons for difference to the concerned party.

219. Disposal of materials received from dismantled Buildings:

Whenever a structure or a building is to be dismantled tenders may be invited including disposal of dismantled materials excluding reusable materials if any in the view of the officer designated.

220. Register of Works:

1. A permanent and collective record of expenditure incurred on all (Major and Minor) works carried out during the year should be maintained in the Divisional Office in the Register of works. There are two forms of Register of works, one for major Estimates and the other for minor Estimates in forms PWA 12 and 13. The register of works shall be posted monthly from work abstracts.
2. Liabilities shall not be included in the accounts of works unless the Chief Engineer may for special reasons think it necessary. The accounts of works shall exhibit totals of contract certificates on which part payments have been made and the necessary deduction entries to bring out the net payments being made under the suspense columns concerned. This rule must not be held to imply that attention need not be paid to liabilities. Divisional officers are responsible for keeping a strict watch over them and for reducing them as far as possible by means of prompt measurements and payments. All important liabilities not brought to account should be noted on the work slip which is furnished to the Chief Engineer.
4. It is important to close the accounts of works as soon as possible after the actual work of construction is completed. If necessarily there is any delay in the closing of the accounts, it should be seen in particular that further charges are not incurred without the permission of the Divisional Officer.

Note: The date of completion of a work is the date on which the completed work is taken over by the Department and not the day on which final measurements are recorded by the Engineer in charge; so far as works executed on regular contracts in which a time limit is specified or concerned.

5. Before closing the accounts, all outstanding liabilities should be discharged and balances in the suspense account be cleared.
6. When a detailed completion report is prepared in prescribed form and in the event of excess being not within the Divisional Officer's powers to deal with, the completion not required to be recorded in the Register of work should be exemplified as under:

“Works completed in & Completion Report / statement submitted with this office letter No. dated.....”

The orders passed subsequently by a higher authority on the excess reported in the completion report or statement should also be noted in the register of works to complete the record, (refer KPWA Code).

221. Work Slip:

1. The Divisional Officer is held primarily responsible for affording information in cases of probability of excess over estimated cost of work and is expected not to allow any delay to occur in reporting to the Superintending Engineer or the Chief Engineer immediately on its becoming apparent that, whether from excess of certain rates or departure from a design or any other cause the estimated cost of work is likely to be exceeded, the Divisional officers are bound to report the fact forthwith to the Superintending Engineer or the Chief Engineer describing the nature and cause of the

probable excess and asking for orders. (refer KPWA Code).

2. The work slip shall be prepared when the anticipated expenditure is likely to exceed more than 5% of the sanctioned cost; and is to be submitted to the higher authority when the probable excess is beyond the powers of the Divisional officers to pass finally over the sanctioned estimate.

222. Variation:

Payment towards any variation in quantities from the approved BOQ shall be as per contract documents executed with the contractors.

223. Completion reports:

1. The accounts of all works must be closed as soon as the works are completed and completion report sent to the Accountant General and Superintending Engineer, wherever necessary, within three months.
2. When the settlement of compensation claim is unavoidably delayed, the completion report should not be held back on this account but the estimated amount of compensation for land should be recorded therein as a distinct item in order that the total cost of the work including liabilities may be brought out in the completion report, so as to admit of administrative check being exercised over the total outlay compared with the sanctioned estimate.
3. It is left to the Superintending Engineer when starting the execution of a work to decide whether intermediate completion reports may be submitted for important component works forming part of a large scheme.
4. When the submission of revised completion reports become necessary, full particulars should be furnished as regards the excess incurred and the circumstances under which revision of the original completion certificate has become necessary.
5. Completion statements or reports should not be delayed for want of completion certificates.
6. Completion reports before being forwarded to the Accountant General shall be noted in the register of sanction to Estimates and the number and date of all completion reports shall be quoted on the pages of the register of works below the closing entries.

224. Fees for copies of documents:

1. No fees shall be charged either for forms or bills supplied or for clerical assistance rendered in the preparation of bills.
2. A contractor requiring an extract from his account in the contractor's ledger shall be furnished with the same and a nominal charge of Rs 10/- per page may be made which shall be credited to Government account as a revenue receipt under '0059 Public Works-Miscellaneous'.
3. Certified copies of drawings of sanctioned projects may be sold to tendered contractors at the following rates for each set of drawings. While selling the copies, a clause shall be inserted that the drawing sold are not final and that they shall be interpreted in conjunction with the detailed working drawings to be furnished later. The realization shall be accounted for as an item of miscellaneous revenue receipt.

| No. | Estimated Amount | Cost per set of drawings |
|-----|-----------------------------------|--------------------------|
| 1 | Works costing below Rs.1,00,000/- | Rs.500/- |
| 2 | Above Rs. 1,00,000/- | Rs.1000/- |

4. Contract agreement after signature by the contractor and the Executive Engineer shall be formally handed over to the contractor and shall not be charged. The agreements are executed in both originals and duplicates both having the same force. Similarly in the case of bills passed and paid, the triplicate copy shall be handed over to the contractor and shall not be charged.

In case additional copies or duplicate copies are sought for, then certified copies of contract agreements and passed vouchers shall be issued to concerned contractors (those who have executed the agreement and done work) only on payment of charges at the rate of Rs.10/- per page.

5. The charges so collected shall be accounted for as miscellaneous revenue. The charges to be levied for granting extract shall be in accordance with the provisions of the Stamp Act or Court Fee Act which also apply to the Public Works Department.
6. No Government servant below the rank of the Executive Engineer is competent to grant such copies.
7. Any other document if desired by the contractor shall be made available as per the provisions in the Right To Information Act 2005 on a written application along with an initial fee of Rs.10/- and then fees for supplying the information shall be charged at Rs.2/- per each page of matter in A-4 size; and in the case of Maps, Plans, Reports, a Partial record or any Technical data or sample or models, a reasonable fee as fixed by the State Public Information Officer in each case as per the provision in section 4.1, 4.2 (a) and 4.2 (b) of the Act respectively.

If the documents are desired in Diskette or Floppy or CD or in any electronic mode, then the same shall be supplied by charging a fee of Rs.50/- as per section 4.3 of the R.T.I.Act.

The fee shall be also be collected in accordance with provision 4.4 of the R.T.I. Act. Under no circumstances shall an uncertified copy or extract be granted. (G.O.No. PWD 156 SMS 71 of 7th July 1971).

Tender forms:

| Sl. No. | Cost of work documents | Cost of tender documents |
|---------|---------------------------------|--------------------------|
| 1 | Upto Rs. 1 lakh | Rs 300/- |
| 2 | Above Rs. 1 lakh upto Rs 5 lakh | Rs 500/- |

8. Additional certified copies of running account bills shall be supplied to the contractors if requested on payment of Rs.10.00 per page of the bill form typed. The realization shall be accounted for as an item of miscellaneous revenue receipts.

225. Grants:

A grant or Supplementary grant is the total sum sanctioned by the State Legislature in the Budget Estimates for expenditure falling under one or more major heads or section of a major head. The expenditure on Public Works Heads will be strictly limited to

grants sanctioned by the State legislature and no expenditure unsupported by sanctioned appropriations or in excess of allotments made there for in the budget; should, under any circumstances be incurred. Should any necessity arises for charges for which no appropriations are made in the budget it should be foreseen as early as possible and proposals submitted to Government for obtaining a supplementary grant at the next sessions of the State Legislature.

However, the Heads of Departments shall prepare work wise annual implementation / time schedule and provide grants as stipulated in para 85.60 and shall complete the works accordingly.

226. Financial Rules for controlling expenditure against the Annual Grants:

1. Sanction to any given expenditure becomes operative as soon as funds have been appropriated to meet the expenditure, and does not become operative until funds have been so appropriated.
2. Sanction to recurring expenditure covering a specified term of years become operative when funds are appropriated to meet the expenditure of the first year and remain in operation for each year of the specified term subject to appropriation in such years.
3. The provisions of the Karnataka Budget Manual, Karnataka Financial Code and powers delegated from time to time should be followed.

227. Contingent Expenditure:

Expenditure on office furniture shall be debited to office contingencies in the case of direction, Divisional and sub-Divisional officers. (G.O.No. FD.2. ACP.57 2nd/4th March 1957).

228. Rush of expenditure:

1. To ensure progress of expenditure in each sub-division being watched and an effective control being exercised in respect of the utilization of grants, a monthly statement of grants and outlay shall be prepared regularly by the Divisional officers as soon as the monthly accounts are completed and sent to sub-Divisional officers with needful instruction for taking timely action in respect of lapses or excess foreseen.
2. In order that the expenditure may as far as possible be equal throughout the year, the Divisional officers shall before-hand draw up a programme of anticipated monthly outlay in the following manner:
 - (a) In respect of sanctioned original works costing more than Rs.10,000 and all repair works of recurring nature such as; 'Road Repairs' or 'Maintenance Works' the Estimated expenditure in each month shall be taken.
 - (b) In the case of repairs to buildings, the anticipated expenditure shall ordinarily be distributed from the month of November to March for the purpose of the programme.
 - (c) The actual expenditure incurred shall be watched against the programme every month and steps taken to arrest any tendency towards rush of expenditure in particular months or in the month of March.
 - (d) Works done and measured in one month shall ordinarily be paid within 30 days and in cases where payments are intended to be made to the contractors more than once in the interests of works in progress, the Sub-Divisional officer shall submit the bills to the Divisional office on dates to be agreed upon in advance. For larger work the payment of bills may be made generally once a month unless exceptional circumstances warrant a deviation from the prescribed procedures. Works completed in the early part of

March may, however, be measured and paid for before the end of the month. But no work measured after 15th March shall, without the special orders of the Chief Engineer, be paid for till April.

Note: To avoid rush of expenditure in March, no bills received in the Divisional office after 20th March, may be passed during the same month without the special orders of the Divisional officer.

- (e) The Irregularities which may be caused by rush of expenditure in March may be classified as under;
- i) Non-realistic payments, that is, payments charged off in the accounts as expenditure, without the payment being actually made to the parties concerned.
 - ii) Payments made before the work or service, for which they are due, is performed.
 - iii) Purchase of materials on Government account or advance of money to contractor on materials collected by him when such materials are not required in the near future.
 - iv) Adjustments during March from work to stock or from one work to another, with a view to write back as soon as the year is over.
 - v) Hasty or imperfect measurements of works followed by hurried payments towards the close of the year.

These irregularities shall be scrupulously avoided and if committed, serious notice will be taken by Government of the conduct of the Government servants responsible for them.

CHAPTER 16

AUDIT AND INSPECTION

229. Result of audit:

1. Audit Note: All points noticed during the audit of the monthly accounts as requiring attention or further explanation from the Divisional Officer which do not require to be referred to the Superintending Engineer or the Chief Engineer will be entered in the Audit Note by the Accountant General. This should be returned to the Accountant General with replies within a fortnight from the date of its receipt in the Divisional Office.
2. Objection statement: Irregular and excess expenditure will be communicated by the Accountant General through the Divisional statement of objectionable items, which will be prepared during the audit of the monthly account of the division.
3. The Divisional officer shall enter his explanation and return the statement of the Accountant General through the Superintending Engineer or the Chief Engineer, as the case may be, who will record his opinion on the several items remaining unsettled. The Accountant General will then review the statement and only items on which orders of Government are required will be reported by him to the Government in the Public Works Department for orders.
4. The outstanding objections under the category miscellaneous will be reported by the Accountant General to the Chief Engineer every quarter on 20th May, 20th August, 20th November and 20th February.

The same shall be reviewed by the Superintending Engineer at circle level, Chief Engineer at zonal level and same shall submit to the Government in the Public Works Department reports of the reviews so made within one month from the date of receipt of report from the Accountant General.

230. Inspection by the Chief Engineer and Superintending Engineer:

1. It is the duty of the Chief Engineers and Superintending Engineers to make frequent periodic inspections of the Divisional and sub-Divisional offices under their jurisdiction.
2. Each Divisional office should invariably be inspected by them in detail once a year, and report of such inspection should be drawn up in the prescribed form and submitted for the information and orders of Government.
3. They should also submit to Government annually by the 15th April, a report showing the offices they have inspected during the previous year as well as those they have not inspected, giving reasons why they have not inspected the latter.
4. In addition CE, SE, EE and AEE shall maintain monthly dairy and submit to the next higher authority in the first week of succeeding month.

231. Inspection by the Divisional Officers:

1. The Divisional officer or under his orders and on his behalf the Divisional Accountant is expected to inspect once a year the accounts records of sub-division offices and to check a percentage of the initial accounts. The defects noticed in the cases of inspections by the Divisional Accountant should be reported to the Division officer for orders; but the Divisional Accountant will be responsible as far as possible for personally explaining the defects or procedure and imparting necessary instructions thereon to the sub-Divisional officers and their staff. The prescribed form should be

made use of for these inspections with any additions or modifications as the circumstances of the case may require.

2. With a view to facilitate the Divisional officers and inspecting officers to review whether the sub-Divisional accounts have been inspected annually by the Divisional accountant promptly and to know when each sub-Divisional accounts were inspected, a register in the following form should be maintained in the Divisional office and periodically examined by the Divisional officers.

232. Inspection procedure - by Chief Engineer and Superintending Engineer and Divisional Officers.

FORM:

1. Name of each sub-division.
 2. Date of inspection by the Divisional accountant.
 3. Date of submission of the report to Divisional officer.
 4. Important points particularly brought to the notice of the Divisional officer.
 5. Important points brought to the notice of the Accountant General.
 6. Date of final disposal of the report.
 7. Review by the Divisional officer.
1. The results of these inspections should be placed on record for the inspection of the Accountant General but serious financial irregularities should be reported at once for the information of that officer, even though set right under orders of competent authority.
 2. The Divisional officer has a right to seek the advice of the Accountant General in all matters connected with the accounts of his division or sub-division and the application of financial rules and orders concerning which there may be any doubts. It is usually desirable, however, that he will first obtain the suggestions of the Divisional accountant, who is specially trained for this duty and this should always be done in writing.
 3. Every Officer shall keep a diary of inspections conducted and submit to the next higher authority in the first week of every month.

233. Inspection by Accountant General:

1. The Accountant General will arrange for the inspection and test audit of the accounts of each public works division by a gazetted officer of his establishment according to a programme of inspections.
2. The work of test audit and inspection will be conducted ordinarily at the headquarters or the Divisional offices but it is open for the Accountant General to require the accounts records of a few sub-divisions or subordinate offices to be inspected in the offices concerned.
3. The Divisional officer will be given sufficient notice of the probable dates of inspection and requested (i) to obtain from his subordinate offices the necessary books, records etc., which will be specified and (ii) to be present at his head-quarters to meet the Inspecting Officer in time to discuss the results of Inspection with him.

Note: The provisions of this paragraph do not apply to cases in which the Accountant General deems, a surprise visit to an office by an Inspecting Officer is necessary.

4. The procedure in disposing of the Accountant General's inspection reports containing the results of inspection as laid down in paragraph 26 of Karnataka Public Work Accounts Code Volume I shall be followed.

a. Procedure for settlement of Audit objections:

In the course of audit, the Accountant General raises certain observations or desires clarifications in respect of expenditure incurred and revenue realized by the various officers of Government. These observations and irregularities raised as a result of audit in central office or during local audit or inspection of the accounts in the Departmental offices. These observations and other points requiring settlements have to be cleared at the earliest opportunity. Some of the observations or points mentioned in the observation memoranda of audit party are likely to lead to audit paragraphs in the Comptroller and Auditor General's Reports to be placed before the Legislature. The expeditious settlement of these observations is therefore most important. Special Reports sent in respect of irregularities such as excess or short collections, misappropriations of revenue collected etc., and also results of audit of sanctions, rules etc., made by the Government require immediate attention as any lapse on the part of Departmental officers will be viewed seriously by the Karnataka Public Accounts Committee.

b. Speedy Settlement of Audit observations:

The results of audit are reported to Departmental officers so that appropriate action is taken to rectify the defects and omissions where possible, and to prevent their recurrence. Delay in the disposal of audit observations tends to defeat the very purpose of audit. Besides, it may involve avoidable loss on account of fraud, defalcation and other serious irregularities, which may remain undetected for want of prompt attention. Moreover, with the lapse of time it may become more difficult in locating the relevant records, or death, retirement or dismissal of concerned officer and officials. In the case of taxes, delay may result in the time limit being over, rendering corrections or re-opening of assessments or appeals impossible. In some cases immediate amendments to Legislation to prevent leakage or loopholes may also become necessary.

c. Responsibility of Officers:

The responsibility for replying to audit observations and the settlement of other issues raised in audit devolves primarily upon disbursing officers, heads of offices, controlling authorities and secretariat officers according to the nature and responsibility involved.

d. Time limit for disposal of Audit observations:

1. Audit observations / notes received from the Accountant General's office should normally be replied within a fortnight from the dates of their receipt by the officer, except where consultations with other officers are required to be made or orders of superior officers are required to be obtained for rectifying defects on omissions, but in no case should the time exceed three months.
2. Heads of offices should maintain a register of audit observations in the prescribed form to watch the prompt disposal of audit observations.
3. The following instructions should be followed by the Departmental officers in the maintenance of this register;
 - a) As soon as an audit observation (memorandum or letter) is received from the Accountant General, it should be entered in the register.

- b) All the audit observations received in a calendar year should be serially numbered. Each audit observation should be given a serial number. If there are two or more items in a single memo or letter received from the Accountant General, separate serial number should be given for each of them.
- c) The item should be treated as closed only after an intimation of acceptance of the reply is received from the Accountant General. If however, a reply is not received during the half year and the item is not shown as outstanding in the next half-yearly list of outstanding objections received from the Accountant General, the item may be treated as closed.
- d) Items which are cleared, should be rounded off in red ink under the attestation of the head of office.
- e) There should be only one register for the whole office and one of the clerks should be made responsible for the maintenance of the register.

e. Review of Audit observation register:

- 1. This register should be closed monthly. It should be reviewed by the head of the office monthly and by a senior assistant or such other intermediary supervising officer, if there is one every fortnight.
- 2. The review of the register by the head of office or any other officers entrusted with this work should be critical and detailed and special attention should be given to the clearance of old observations still pending.

f. Liaison with Audit Office:

The officer entrusted with the work of clearance of audit observations should keep a close contact with the office of the Accountant General and discuss with the concerned officer if there are any special difficulties.

g. Responsibility of the Heads of Departments:

The Accountant General forwards to the Head of the Department and Secretaries to Government in the administrative Department, half yearly statements or audit observations outstanding for more than 6 months. These statements will be forwarded in June and December every year. The statement sent in June/December will detail the items of objections relating to the period ending with last preceding September / March which are outstanding at the close of the accounts of March / September.

h. Action by Heads of the Department:

Immediately on receipt of half yearly statement, the Heads of Department should address the concerned drawing officers to clear all the audit observations expeditiously. He should obtain from the drawing officers every month, a report showing the details of observations cleared during the previous month and those awaiting clearance and the reasons for the delay in the clearance of the outstanding items. The Head of Department should closely watch the receipt of the monthly report, review the progress in the clearance of the objections and issue suitable instruction to the drawing officer. He should also forward to the concerned secretary to Government every month, a consolidated report showing the extent of progress achieved on the previous half-yearly report received from the Accountant General. The serial numbers of the items actually cleared and the year-wise analysis of the number and amount of such items should be indicated in the report. The details of the action for clearing the outstanding items and the reasons for the non-clearance should also be reported. A copy of this monthly report

should also be forward to the finance Department.

It is necessary in the interest of sound financial administration that audit observations should be disposed of within the stipulated time limit. They should not be allowed to get accumulated; serious attention should be paid by the Heads of Departments to clear the backlog. Instructions issued in this regard time to time by Finance Department should be strictly followed.

i. Visits to the Accountant General's office by the Departmental officers for clearing audit observations and inspection reports:

1. The heads of Department should specifically depute a senior officer for ensuring prompt attention to the audit observations and inspection reports. In those Departments which have been provided with financial assistants or accounts assistants, this work may conveniently be entrusted to them. It shall be the responsibility of the officer to keep a close watch on the clearance of all observations and inspection reports. In respect of items outstanding for over a year, he should collect from the officers the details and documents required for the clearance of the observations through correspondence and/or by visiting the officers. He should also visit the office of the Accountant General with the particulars and documents so collected from the various offices and hand over the required documents to the concerned officers. He should also discuss with the officer the outstanding items and decide on the further action to be taken for clearance. The process may be repeated until all items which are more than one year old are cleared.
2. In all cases where audit observations relate to irregular claims of action of officer, the officers concerned with the alleged irregularities should never themselves deal with the observations but should submit papers to higher officers at each stage.
3. If the above procedure is strictly followed, there should hardly be any scope for the increase in number of observations. The administration should welcome the suggestion from the audit to enable them to safe guard public funds by rectifying the errors and taking steps to minimize the irregularities.

j. Continuance of payments objected to by Audit:

1. If any payment of recurring nature is considered in-admissible by audit, the audit point view should be provisionally accepted by the concerned authority and further payments on that account should not normally be made till a final decision is obtained from the competent authority.
2. In exceptional cases where the administrative authorities consider that, the continuance of such payments pending a final decision by the competent authority is absolutely necessary in public interest, payments may be made provisionally but subject to recovery if need be. This condition should be made clear to the payee so that in the event of the decision for recovery, the payee is bound to make good the excess payment. The fact that payments are being continued in spite of the audit objections should also be reported to the authority to whom the case is referred to for a final decision.

k. Inspection reports:

During the course of local inspection, the audit staff may issue "enquiries" calling for information on various points. The particulars given in reply to such enquiries should be correct with reference to the records so that at a later stage, the accuracy of the figures and the facts contained in the Inspection Reports are not disputed. To ensure this the

replies to audit enquiries should be furnished only after approval by the proper authority. The audit officer shall generally discuss with the head of the office the more important irregularities before finalizing his inspection report. The head of the office should seize this opportunity to check whether all relevant materials have been made available to audit to enable them to bring out the full facts of each case in the inspection report and by mutual discussion, it may be possible to settle on the spot all the minor objections and irregularities.

l. Rectification of irregularities disclosed during audit:

The head of the office should also simultaneously without waiting for the receipt of the inspection report initiate action to rectify irregularities, defects, omission, etc, which come to light in the course of audit. For example, if it is found that a sanction issued by the head of office is beyond the powers delegated to him, immediate steps should be taken to get his action ratified by the competent authority.

m. Reply to inspection reports:

All inspection reports received from the Accountant General should normally be replied to within a period of one month from the date of their receipt. This time limit should be strictly adhered to except where consultation with other officers is required to be made or orders of the competent authority are required to be obtained for rectifying the defects or omissions pointed out. If replies to certain points mentioned in the Inspection Reports cannot be furnished to the Accountant General within the time limit specified, interim replies indicating the action taken or proposed to be taken to rectify the defects should be sent to the Accountant General; and action be taken to give final replies within a 'maximum period of three months'. The factual correctness of the replies should be 'ensured' and proper steps also taken to avoid recurrence of such defects.

CHAPTER-17

ARBITRATION & DISPUTE RESOLUTION

234. Arbitration and Conciliation Act

The Arbitration and Conciliation Act, 1996, enacted on 16th August 1996, provides both for domestic arbitration but also international commercial arbitration. It provides for greater autonomy in the arbitral process and limits judicial intervention to a narrow circumference than under the provision of law. Transparency is a statutory feature of the arbitral process and the disclosure of circumstances, which may throw doubt on arbitrator's independence or impartiality, is an integral part of the process. The element of accountability is reflected in the requirement that the award must state reasons, unless parties dispense with it or the award is on agreed terms. Conciliation has been specially included in this legislation and recognizes important function of persuading disputing parties to amicably settle their disputes.

Copy of this Act is enclosed.

235. Important features of the Act:

The notable features of the Act are briefly mentioned below.

1. Where there is arbitration agreement, the judicial authority is required to direct the parties to resort to arbitration as per the agreement, provided application for that purpose is made before or when a written statement on merits is submitted to judicial authority by the party seeking arbitration.
2. The grounds on which award of an arbitrator may be challenged before the court have been severely cut down so that broadly speaking, such a challenge will now be permitted only on the basis of invalidity of the agreement, for want of jurisdiction on the part of the arbitrator or want of proper notice to a party of the appointment of the arbitrator or of arbitral proceedings or a party being unable to present its case. At the same time, award can now be set aside if it is in conflict with the public policy of India a ground which covers inter alia fraud and corruption.
3. Powers of the arbitrator himself have been amplified by inserting specific provisions on several matters such as, the law to be applied by him, power to determine venue of arbitration failing agreements, power to appoint experts, power to act on the representation of a party, power to apply to the court for assistance in taking evidence, power to award interest and so on.
4. Obstructive tactics sometimes adopted by parties in arbitration proceedings are sought to be thwarted by an express provision where under a party who knowingly keeps silent and suddenly raises procedural objection will not be allowed to do so.
5. The role of institutions in promoting and organizing arbitration has been recognized.
6. The power to nominate arbitrators has been given failing agreements between the parties, to the Chief Justice or to an institution or person designated by him.
7. Time limit for making awards has been deleted.
8. Present provisions relating to arbitration through intervention of court when there is no suit pending or by an order of the court when there is a suit pending have been removed.
9. The importance of transnational commercial arbitration has been recognised and it has been specifically provided that even where the arbitration is held in India, the parties to

the contract would be free to designate the law applicable to the substance of the dispute.

10. Unless the agreement provides otherwise, the arbitrators are required to give reasons for the award. The award itself has now been vested with the status of a decree in as much as (“subject to powers of the court” to set aside the award) the award itself is made executable as a decree and it will no longer be necessary to apply to the court for a decree in terms of the award.

236. Domestic and international arbitration:

Some expressions relating to arbitration which are commonly used, though statutorily defined are briefly explained below:

1. Domestic arbitration:

The term Domestic arbitration denotes arbitration which takes place in India when the subject matter of the contract, the merits of the dispute and the procedure for arbitration are all governed by Indian Law or when the cause of action for the dispute has arisen wholly in India or where the parties are otherwise subject to Indian jurisdiction.

2. International arbitration:

International arbitration has a foreign ingredient. Arbitration becomes ‘international’, when at least one of the parties involved is resident or domiciled outside India or the subject matter of the dispute is abroad. The law applicable to arbitration proceedings may be Indian Law or a foreign law, depending upon the terms of the contract in this regard and the rules of conflict of laws.

3. Foreign arbitration:

Foreign arbitration is an arbitration conducted in a place outside India where the resulting award is sought to be enforced as a foreign award.

4. Ad hoc arbitration:

Ad hoc arbitration is arbitration agreed to and arranged by the parties themselves without recourse to an institution. The proceedings are conducted by the arbitrator/s as per agreements between the parties or with the concurrence of the parties. It could be domestic, international or foreign arbitration.

5. Institutional Arbitration:

Institutional, arbitration is an arbitration conducted under the rules laid down by an established arbitral organization. Such rules are meant to supplement provisions of the Arbitration and Conciliation Act in matters of the procedures and other matters, the Act permits. The rules may provide for domestic arbitration or for international arbitration or both and the disputes dealt with may be either general in character or specific.

6. Specialised arbitration:

Specialised arbitration is arbitration conducted under the auspices of arbitral institutions which might have framed special rules to meet the specific requirements for the conduct of the arbitration in respect of disputes of particular types such as, disputes as to commodities, construction or specific areas of technology.

7. Statutory arbitration:

Statutory arbitrations are arbitrations conducted in accordance with the provisions of certain special acts which provide for arbitration in respect of disputes arising on matters covered by those Acts.

237. Submission to arbitration:

Submission to arbitration is a reference by the parties of a dispute between them to arbitration.

238. Arbitration clause:

Arbitration clause is the clause contained in and forming part of the main contract for the reference to arbitration of differences between the parties. Differences may be present (already arising) or future (likely to arise in future).

The Finance Department vide the G.O. No. FD 9 PCL 2004 (i) dated 06-08-2005 has brought into use-revised tender documents K/W-1, K/W-2, K/W-3, K/W-4. The Standard Tender Document K/W-4 for works costing more than Rs. 1 crore is subject to dispute resolution by arbitration. Works up to Rs. 20lakhs (K/W-1), Works of more than Rs. 20 lakhs but less than Rs. 50 lakhs (K/W-2), Works of more than Rs. 50 lakhs but less than Rs. 100 lakhs (K/W-3) are not subject to dispute resolution by arbitration.

239. Conciliation under the Act:

1. Sections 61 to 81 contained in part III make express provisions – to conciliation by agreement of the parties – a matter on which there has so far been no statute in India.

2. Conciliation and Arbitration :

Unlike an arbitrator, a conciliator does not give a decision but his main function is to induce the parties themselves to come to settlement. An arbitrator is expected to give a hearing to the parties, but a conciliator does not engage in any formal hearing, though he may informally consult the parties separately or together. The arbitrator is vested with the power of final decision and in that sense it is his contribution that becomes binding. In contrast, a conciliator has to induce the parties to come to a settlement by agreement.

3. Commencement:

A party initiating conciliation can, under section 62, send to the other party a written invitation to conciliation. Conciliation commences when the other party accepts in writing this invitation. If it does not accept it, then there will be no conciliation. (Section62) .

4. Conciliators:

- a. There will be only one conciliator, unless the parties agree to two or three.
- b. Where there are two or three conciliators, then as a rule, they ought to act jointly.
- c. Where there is only one conciliator, the parties may agree on his name.
- d. Where there are two conciliators, each party may appoint one conciliator.
- e. Where there are three conciliators, each party may appoint one, and the parties may agree on the name of the third conciliator, who shall act as presiding conciliator.

- f. But in each of the above cases, the parties may enlist the assistance of a suitable institution or person.

The above provisions are contained in section 63 and 64(1).

5. Institutional Assistance:

Section 64(2) and proviso lay down as under:

- a. Parties may enlist the assistance of a suitable institution or person regarding appointment of conciliator. The institution may be requested to recommend or to directly appoint the conciliator or conciliators.
- b. In recommending such appointment, the institutions etc. shall have regard to the considerations likely to secure an “independent and impartial conciliator”.
- c. In the case of a sole conciliator, the institution shall take into account the advisability of appointing a conciliator other than the one having the nationality of the parties.

6. Stages:

Sections 65 to 73 contain provisions regarding the procedure for conciliation. Their gist can be stated in short form –

- a. The conciliator, when appointed, may request each party to submit a statement, setting out the general nature of the dispute and the points at issue. Copy is to be given to the other party. If necessary, the parties may be asked to submit further written statement and other evidence.
- b. The conciliator shall assist the parties “in an independent and impartial manner”, in their attempt to reach an amicable settlement. [Section 67(1)]
- c. The conciliator is to be guided by the principles of “objectivity, fairness and justice”. He is to give consideration to the following matters –
 - i. rights and obligations of the parties;
 - ii. trade usages; and
 - iii. Circumstances surrounding the dispute, including previous
 - iv. Business practices between the parties. [Section 67(2) of the
 - v. new law]
- d. He may, at any stage, propose a settlement, even orally, and without stating the reasons for the proposal. [Section 67(4)]
- e. He may invite the parties (for discussion) or communicate with them jointly or separately. [Section 68]
- f. Parties themselves must, in good faith, co-operate with the conciliator and supply the needed written material, provide evidence and attend meetings. [Section 71]
- g. If the conciliator finds that there exist “elements of a settlement which may be acceptable to the parties”, then he shall formulate the terms of a possible settlement and submit the same to the parties for their observation.
- h. On receipt of the observations of the parties, the conciliator may re-formulate the terms of a possible settlement in the light of such observation.

- i. If ultimately a settlement is reached, then the parties may draw and sign a written settlement agreement. At their request, the conciliator can help them in drawing up the same. [Section 73(1) and (2)]
7. Legal effect:
 - a. The settlement agreement signed by the parties shall be final and binding on the parties. [Section 73(1)]
 - b. The agreement is to be authenticated by the conciliator. [Section 73(4)]
 - c. The settlement agreement has the same status and effect as if it were an arbitral award rendered by the arbitral tribunal on agreed terms. [Section 74 read with section 30]

The net result is that the settlement can be enforced as a decree of court by virtue of Section 36.

8. Role of the Parties: Under section 72, a party may submit to the conciliator his own suggestions for the settlement of a dispute. Such suggestions may be submitted by him on his own initiative or on the conciliator's request.
9. Conciliator's Procedure:

The net result of Section 66, Section 67 (2) and Section 67(3) can be stated as follows:

- a. The conciliator is not bound by the Code of Civil Procedure, 1908 or the Indian Evidence Act, 1872.
- b. The conciliator is to be guided by the principles of objectivity, fairness and justice.
- c. Subject to the above, he may conduct the proceedings in such manner as he considers appropriate, taking into account-
 - (i). the circumstances of the case;
 - (ii). wishes expressed by the parties;
 - (iii). need for speedy settlement.
10. Disclosure and confidentiality:
 - a. Factual information received by the conciliator from one party should be disclosed to the other party, so that the other party can present his explanation, if he so desires. But information given on the conditions of confidentiality cannot be so disclosed.
 - b. Notwithstanding anything contained in any other law for the time being in force, the conciliator and a party shall keep confidential "all matters relating to the conciliation proceedings". This obligation extends also to the settlement, except where disclosure is necessary for its implementation and enforcement. [Section 75]
11. Admission etc:

In any arbitral or judicial proceedings (whether relating to the conciliated dispute or otherwise), the party shall not rely on, or introduce as evidence-

 - (i). views expressed or suggestions made by the other party for a possible settlement;
 - (ii). admissions made by the other party in the course of conciliation proceedings;
 - (iii). proposal made by the conciliator; and

(iv). the fact that the other party had indicated his willingness to accept a settlement proposal. [Section 81]

12. Parallel proceedings:

During the pendency of conciliation proceedings, a party is debarred from initiating arbitral or judicial proceedings on the same dispute, except “such proceedings as are necessary for preserving his rights”. (Section 77) (There is no mention of arbitral or judicial proceedings which are already initiated).

13. Conciliator not to act as Arbitrator etc:

Unless otherwise agreed by the parties, the conciliator cannot act as arbitrator, representative or counsel in any arbitral or judicial proceedings in respect of the conciliated dispute. Nor can he be “presented“ by any party as a witness in such proceedings. (Section 80).

When the need for arbitration arises for works subject to Standard Tender

Document K/W-4, the Executive Engineer who has entered into the agreement shall make a reference to one of the Organizations listed in the Annexure to Special Conditions of Contract of K/W-4 to nominate a Sole Arbitrator. Reference shall be made to the Indian Roads Congress in case of road works, the Indian Buildings Congress in case of building works and to the Indian Institute of Bridge Engineers in case of bridge works. The Executive Engineer shall get the name of the proposed Sole Arbitrator approved by the Chief Engineer.

The arbitration cases shall not be considered as legacy of old and defunct divisions handed over to subsequent Executive Engineers. These shall, on the other hand be given due importance and dealt with on priority basis at all stages, till these are finally disposed of.

One of the important documents for defense in an arbitration case is the agreement. It is essential that a copy of the Superintending Engineer’s orders conveying his decision on recovery of compensation and copies of sanctioned extra substituted and deviated items, details of abnormally high/ low rated items and sanctions to extension of time etc. shall be attached to the original agreement so that these are readily available during the hearings of the Arbitration Case. It would be better if these papers are got signed by the contractor as far as possible so that any claim on these issues can be refuted before the Arbitrator.

Before a dispute is put to arbitration, the Department should know its exact position with regard to each item of the claims under dispute. It is very necessary that a very close and thorough study of the relevant documents is made and the case prepared accordingly.

Executive Engineer will send a quarterly statement every year to the

Superintending Engineer, who should consolidate a similar statement of the entire circle and submit to the concerned Chief Engineer. These reports shall be reviewed by the Chief Engineers at periodical meetings with their Superintending Engineer/ Executive Engineers to expedite the finalization of Arbitration Cases.

All correspondences between Executive Engineers, Superintending Engineers and Chief Engineers regarding appointment of Arbitrator or on award or subsequent court cases if any, should be through confidential demi-official letters and should be sent through special messengers.

CHAPTER 18

SAFETY IN CONSTRUCTION

240. General

Workers / employees' life safety is valuable asset. Work force can be protected and also workers compensation cost can be reduced by improving safety and preventing accidents. The code summarizes the basic safety and health requirement for public works.

241. Safety practices and regulation

Proper safety practices and regulation will help in avoiding or at least in reducing accidents and fatalities. Hazards such as adverse site conditions, exposure to excess heat & cold, electricity, dust, deafening sound, booms and arms of machines are to be studied and analyzed before providing programme to operators of plants and other personnel at site. Even visitors should follow these safety programmes. IS codes for safety & health shall be followed during safety practices and regulation.

242. Safety Programme:

Safety programme is an integral part of the construction operations. As effective safety programme must instill a sense of safety consciousness in every worker from top to bottom. Protecting equipments must be provided to workers while performing hazardous jobs. The following are normally provided depending on type and nature of work.

1) Helmet (2) Gum boots (3) Gloves (4) Goggles (5) Apron (6) Safety saddles (7) Portable lights (8) Fire extinguishers (9) Safety belts (10) Gas masks (11) Oxygen or air breathing apparatus (12) Face mask (13) Ear protector.

243. Accident reporting:

Any accident that interrupts or interferes with orderly progress of the activity causing personal injury (either fatal or non fatal) or property damage must be properly investigated by the safety officer / qualified person and is to be submitted in the following format, by the field engineers and / or Assistant Executive Engineers.

- a) Name of employee injured
- b) Identifying data such as date, time, Department, name of supervisor and operation being performed
- c) Description of accident, injury, first aid provided, shifting to the hospital
- d) Description of the unsafe condition that caused the accident
- e) Description of the unsafe act that caused the accident
- f) Recommendations to prevent reoccurrence of such accident in future

Such accident reports are generally used for future safety measures and are very helpful in reducing the number of similar accidents.

244. Safety tips in construction:

1. There are a number of safety lacunae which need rectification to minimize health hazards in construction industry.
2. The contractor should ensure that all the personnel engaged in construction activity are well trained about safety.

3. Before starting of the day of work, the workers should be apprised about the possible hazards and risks involved and procedure to overcome such hazards.
4. The workers involved at site shall be re-trained after every successive project.
5. The contractor should ensure that all his personnel are insured as per prevailing Government rules.
6. The construction site should be fully equipped with all the required safety equipments including first aid facility.
7. Over working: The illiterate workers engaged in construction industry should be educated about their working time and their wages. Overtime shall be avoided as far as possible.
8. The contractor should ensure that proper communication system at the plant site, office premises and at work site and also telephone numbers of emergency, nearest hospital or clinic, ambulance, police, fire force and other required contract numbers.

245. Safety measures by the contractors

The Bureau of Indian standards stipulate several codes for safety management, material handling, storage, safety precautions health's etc. The contractors are required to follow the IS codes for safety during constructions which are listed below are prominently displayed.

246. Safety Management Codes in construction work

IS 3696 (I) – 1996 for scaffoldings: Revised 1987

IS 3696 (II) – 1966 for Ladders: Revised 1991

IS 3764 – 1966 for Excavation works: Revised 1992

IS 4130 – 1976 for Demolition of Buildings: Revised 1991

IS 7205 – 1974 for erection of steel structures

IS 5121- 1969 for piling and other deep structures

IS 5916 – 1970 for construction involving hot bituminous material

IS 8969 – 1978 for erection of concrete framed structure

247. Material Handling, Storage and safety precautions:

IS – 7969 – 1975

IS – 4082 – 1977

IS 4081 : 1986 (R2010) Safety code for Blasting and Related Drilling operations

IS: 818 – 1968 (Ref – 03) Safety and health requirements – in Electric and Gas welding and cutting operations

IS: 6922 – 1973 criteria for safety and design of structures – subject to underground blasts

IS: 7293 – 1974– safety code for working with construction machinery

CHAPTER-19

REGISTRATION OF CONTRACTORS IN PUBLIC WORKS DEPARTMENT

248. The contractors in the Public Works Department shall be registered under the following four classes. These rules of registration of contractors supersedes the existing rules vide Government Order NO. PWD CRM 91dated 27/10/1994.

Class I: Qualified to tender for works up to any amount

Class II: Qualified to tender for works up to Rs. 5.00 crore

Class III: Qualified to tender for works up to Rs. 2.00 crore

Class IV: Qualified to tender for works up to Rs. 25.00 lakh

In this rules works means construction / improvements or repairs to any buildings, roads, bridges etc. Cost means amount put to tender.

249. The Electrical contractors shall get themselves registered with the Government Chief Inspector of Electrical / BESCOM / KPTCL. The same shall be accepted by the officers of the Public Works, Ports & Inland Water Transport Department for the electrical works of the department and no separate registration in the department shall be insisted.

250. Registration Authority:

The registration authority in respect of Class I and II shall be the Chief Engineers (C&B), Class III the Superintending Engineers of Public Works Department and in case of Class IV the Executive Engineers of Public Works Department.

251. Jurisdiction:

Contractors registered under Class I and II may tender for works anywhere in the state. Contractors registered under Class III may tender for works within the districts of the Public Works Department circles where in they are registered. Contractors registered under Class IV may tender for works within the district or within the division whichever is applicable, where they are registered. These registrations are valid for all works undertaken by all the Government departments, Government undertakings in the respective jurisdictions. No separate registration is required in other Government departments and Government undertakings. This registration procedure is based on the single window concept.

252. Qualifications:

The following qualifications are laid down in regard to registration of the different classes of contractors.

- (a) Class I: Contractors shall have completed at least one single work in all respects, the cost of which is not less than Rs.5 crore and the total turnover should be over Rs.15 crore in the preceding five years.
- (b) Class II: Contractors shall have completed at least one single work, in all respects the cost of which is not less than Rs.1 crore and the total turnover should be over Rs.3 crore in the preceding five years.
- (c) Class III: Contractors shall have completed at least one single work, the cost of which is not less than Rs.50 lakh and the total turnover Rs 1 crore in the preceding five years.
- (d) Class IV: Contractors shall have completed at least one single work, the cost of which is not less than Rs.5 lakh and the total turnover Rs 15 lakh in the preceding five years.

Note: 1. In case of class I, the work done by subcontractors shall be considered for work qualification, provided the subcontracting was done with the approval of the employer or the Executive Engineer under an agreement, payments were received by cheque and / or declared as such in their income tax returns. If required by the registering authority the contractor shall provide agreements of the main contractor and such additional documents necessary as proof and shall be prepared for verification. Verification shall also be made with the income tax authorities about declaration of income received from subcontracts only when it is required.

253. Work Qualifications:

1. Certificates of work qualification in respect of Class III and below need not be confined only to Karnataka and central Government works & Karnataka and central Government undertakings. Authenticated certificates from private sector and public sector undertakings may be accepted for purpose of registration, after such verification as may be necessary.
2. Such certificates need not be insisted in case of graduate engineers and diploma holders when they register themselves as contractors of Class III and Class IV respectively.
3. With regard to contractors of Class I and Class II, the works qualification shall be confined to works relating to:
 - (a) The Government of Karnataka, Central Government, and other state Governments.
 - (b) The Government of Karnataka undertakings and the Government of India undertakings.
 - (c) The Boards/ Universities / Corporations/ Authorities constituted by Government of Karnataka and other state Governments and central Government.
4. In case of a new contractor or a contractor who does not have the works qualification specified above for a class for which he applies, the appropriate registering authority may after satisfying itself about the financial ability and qualifications of such an Engineering Applicant applicant, award one or two works to him and after he executes the work/works satisfactorily, register his name in the appropriate class, the first registration in such cases shall not be for a class higher than Class – III.

254. Application for Registration:

1. A contractor shall first apply for registration in the prescribed form PWF-14 annexed to the rules to the appropriate authority viz., the Chief Engineer(C&B) or the Superintending Engineer or the Executive Engineer of Public Works Department.
2. The application for registration in the prescribed form PWF 14 shall be submitted to the authority competent to effect registration and it shall be accompanied by the following documents:
 - (a). A challan for having credited to Government a non-refundable sum of Rs. 10000 being the registration fee in case of Class I, Rs. 5000 in case of Class II, Rs. 3000 in case of Class III and Rs. 2000 in case of Class IV contractors.
3. Registration once done shall be effective for a period of five years from the date of registration.

4. A residential certificate to be obtained from the revenue authorities not below the rank of Tahsildar or an officer not below the rank of the chief executive officer of the concerned local authorities or identification card issued by the Election Commission of India or Ration card issued by the Food & Civil Supplies Department or Pass port issued by the Pass Port authority of India should accompany.
5. A certificate of solvency in the prescribed form obtained from the Deputy Commissioner of the district concerned or a scheduled bank; in the case of Class I- Rs.100 lakh, Class-II – Rs. 50 lakh, Class-III contractors to the extent of Rs.25 lakh ; in the case of Class IV contractors to the extent of Rs.10 lakh shall accompany.
6. A certificate issued under companies act in the case of firms or companies.
7. Income Tax Clearance Certificate.
8. Application shall be submitted in the prescribed form for registration together with three passport size photographs of the contractors in whose name the registration is sought for.
9. A Registration certificate shall be issued retaining one copy with registering authority.
10. In case of partnership firms the photograph of all the partners shall be furnished. Photograph of the managing partner shall be affixed in the registration certificate. After receipt of application, preliminary scrutiny shall be conducted to verify whether the particulars, annexure etc. have been received correctly. An acknowledgement also indicating the probable date of issue or registration certificates shall be sent to the contractor in form PWF-14.2. A 30 days time limit is fixed for issue of registration certificates. Any contractor submitting the documents and application in complete shape with the requisite fees is eligible for registration, and hence there should be transparency and quick processing of applications.
11. Registration certificate shall be in form PWF- 16 which includes details of tenders purchased as well as details of work awarded and carried out.
12. This registration book shall be produced at the time of issuing work order for making corresponding entries in Part II and III respectively. In addition, the book shall be produced as and when required to ensure up to date entries of all columns.

255. Appointment of technical personnel by the contractors:

1. Class I and II contractors shall engage at least one civil engineering graduate for every work costing Rs.15 lakh and above and also an electrical engineering graduate for building works of the same magnitude. Class III contractors shall engage at least one engineering graduate in civil engineering for every work Rs.10 lakh and at least one diploma holder in civil engineering on every work or group of works together costing more than Rs.5 lakh but less than Rs 10 lakh. The appointment orders and other educational qualifications are required to be produced at the time of executing agreement.
2. Provided that if the registered contractor himself possesses the qualifications prescribed above for the technical personnel and is able to spend the required time at site, the requirement of the appointment of technical personnel need not be insisted on.
3. For Class IV contractors, it is sufficient if the contractor has in the opinion of the registering authority gained experience and possesses the necessary works qualification.

4. All engineers, both graduates and diploma holders shall be fully computer conversant with information technology oriented construction management practices such as e-monitoring, e-tendering etc.

256. Renewal of Registration:

1. Every registration effected and every certificate of registration granted under these rules, shall be valid from the date of registration of grant, for a period 5 (five) years. Such registration may be renewed for a further period of (five) years, on application for renewal of registration in form PWF-14 itself, which will be subject to all the conditions laid down in these rules for first application for registration including payment of renewal registration fee as under for each category:
 - (a) Class II Contractor - a fee of Rs.2000/-
 - (b) Class III Contractor - a fee of Rs.1500/-
 - (c) Class IV Contractor - a fee of Rs.1000/-
2. Application for registration /renewals should be submitted to the registering authorities one month in advance of the expiry date and registering authorities should see that all applications for registration / renewals are promptly disposed off within 30 days of receipt or earlier. The production of works qualification certificates need not be insisted at the time of renewal of registration.
3. The competent authority accepting the registration shall not delay the registration due to omission of certain documents while submitting application for renewal in time so that the contractors are not denied the benefit for tendering for works, due to these procedural delays.
4. The solvency certificate should be produced during first registration and once in five years, at the time of renewal.
5. The registering authority is empowered to grant time for the production of such documents up to a maximum of 90 days and failure to produce the documents within the granted grace time would automatically cancel the registration renewal. The registering authority shall promptly issue orders of cancellation of registration.

257. Penalty for delay of applying for renewal of Registration:

1. Where there is delay on the part of the contractors in applying for renewal, a penalty fee for renewal of registration be levied i.e., when there is delay in applying for renewal, a renewal fee shall be levied as follows:
 - a) Delay up to 1 year – double the registration fee
 - b) Delay of 1 to 2 year – three times the registration fee
 - c) Delay by more than 2 years –registration stands cancelled
2. The authority, shall, before issue of final orders of renewal satisfy himself about the suitability of the contractor for renewal of registration.
3. Confidential reports as per the form PWF-19 of the contractors shall be sent to the registering authority every year at the time of furnishing the statement of Income tax department, in order to assess the performance of the contractor for balance registration/ renewal.

258. Refusal of registration:

1. The registration of a contractor shall not be refused except on any of the following

grounds, namely,

- (a) That the applicant or any person responsible or proposed to be responsible for the execution of the contract is not qualified.
 - (b) That the applicant has not complied with the rules in respect of registration;
 - (c) That the satisfactory evidence has been produced that the applicant or any person responsible for the management of his business has knowingly participated in or connived at any fraud or dishonesty in the conduct of or in connection with the business of contract.
2. The registering authority shall, before refusing registration, afford an opportunity to the said contractor to appear before the registering authority and explain his stand orally and / or in writing and the registering authority shall record his orders with reasons.

259. Promotion:

A contractor may be promoted to the higher class after careful analysis of the performance of his work, ability, capability both financial and executive, including adherence to the quality after detailed examination of the execution of works entrusted to him for one year.

260. Demotion to lower class:

1. The Registering authority may demote contractor to a lower class, if the contractor fails to execute a contract or execution is unsatisfactory or is proved to be responsible for constructional defect(s) revealed even before the expiry of the prescribed maintenance period after completion; or has no longer the adequate equipment, technical personnel or financial resources or violates important conditions of contract performance appraisal reports continuously for a period of three years indicate that the performance is poor / very poor or responsible for any other matter which may justify his demotion to a lower class taking into account the merits of case.
2. However, a demoted contractor may again be promoted to his original class after a period of one year if the registering authority is satisfied by his performance during this period.

261. Removal from the approved list or delisting a contractor:

The registering authority may remove the name of contractor from the approved list, if such contractor,

- (a) has no longer the adequate equipment, technical personnel, or financial resources;
- (b) Fails to furnish required Income tax clearance / sales tax clearance wherever due.
- (c) Fails to abide by the conditions of registration or is found to have given false particulars at the time of registration.
- (d) Is declared or is in the process of being declared bankrupt, insolvent, wound up dissolved or partitioned; or
- (e) Persistently violates the provisions of labour regulations; or
- (f) Has entered into partnership with a partnership firm duly registered under the Indian Partnership Act 1932, without the prior written consent of the registering authority.

- (g) Directly or indirectly indulges in acts of blackmail or spreading of false information or violating the code of conduct provided for contractors, with a view to interfere with the legitimate processing of tenders.

262. Black listing:

1. Registered Contractors:

The registering authority may black-list a contractor for a specific duration. where,

- (a) There are sufficient and strong reasons that the contractor or his employee has been guilty of malpractices such as bribery, corruption, fraud including substitution of, or interpolation in tenders, or submission of fraudulent solvency certificates or bank guarantees, pilfering or unauthorized use of, or disposal of Government materials issued for specific works etc.
- (b) The contractor has executed bad quality work.
- (c) The Contractor has failed to complete the work within the stipulated period of time.
- (d) The contractor is a habitual litigant.
- (e) The contractor continuously refuses to pay Government dues without showing adequate reasons.
- (f) The Contractor or his partner or his representative has been convicted by a court of law for offences involving moral turpitude in relation to the business dealings;
- (g) the contractor either by himself or through his agents or his association with others conducts himself in a manner which in the opinion of the registering authority is liable to impede or affect prejudicially the progress of any Government work, or is guilty of misconduct in connection with the execution of Government work and,
- (h) The contractor who is in the habit of purchasing tender forms (for more than three times) for works without submitting tenders

Provided further, that before action under sub-clause (a) is taken, the employer shall submit a proposal to the Government for action and the Secretary, Karnataka Public Works Ports and Inland Water Transport Department (KPWP&IWTD) shall conduct quasi-judicial proceeding and the contractor concerned shall also be given reasonable opportunity to explain his stand before he is blacklisted for the reasons mentioned in such clauses.

2. Un-Registered Contractors

1. The Government may black-list an un-registered contractor for a specific duration where,

- (a) There are sufficient and strong reasons that the contractor or his employee has been guilty of malpractices such as bribery, corruption, fraud including substitution of, or interpolation in tenders, or submission of fraudulent solvency certificates or bank guarantees, pilfering or unauthorized use of, or disposal of Government materials issued for specific works etc.
- (b) The contractor does not rectify bad quality work.
- (c) The contractor is a habitual litigant.

- (d) The contractor continuously refuses to pay Government dues without showing adequate reasons.
 - (e) The contractor or his partner or his representative has been convicted by a court of law for offences involving moral turpitude in relation to the business dealings;
 - (f) The contractor either by himself or through his agents or his association with others conducts himself in a manner which in the opinion of the authority is liable to impede or affect prejudicially the progress of any Government work, or is guilty of misconduct in connection with the execution of Government work and,
 - (g) The contractor who is in the habit of purchasing tender forms (for more than three times) for works and does not quote.
2. Provided further, that before action under sub-clause 1(a) is taken, the employer shall submit a proposal to the Government for action and the Secretary, Karnataka Public Works Ports and Inland Water Transport Department (KPWP&IWTD) shall conduct quasi-judicial proceeding and the contractor concerned shall also be given reasonable opportunity to explain his stand before his is delisted or blacklisted for the reasons mentioned in such clauses.
 3. The quasi-judicial proceedings shall be conducted by the appropriate authority and this duty shall not be delegated to any other officer.
 4. Registered P.W.D. contractors carrying out works in other Departments of state Government or state Government undertakings or central Government undertakings, who fail to carry out works as per agreement conditions or who are guilty of misconduct as indicated already are liable to be suspended from business by the executive authority of the organization, where they are working, pending institution of disciplinary proceedings by the registering authority.
 5. The authority shall issue a show cause notice detailing the charges, conduct quasi-judicial proceedings wherein the contractor and / or his representatives or advocates are heard, evidences/ statements/ counter statements, are recorded and an order pronounced by the registering authority within three days after the last sitting and a copy of the order issued to the contractor.
 - 6.. Whenever penal action has to be taken, there should not be any hesitation but grounds of urgency shall not vitiate the prescribed procedures. No impression should be created that vindictive action is based on any consideration other than natural justice.

263. Restoration:

Upgrading a demoted contractor, lifting the ban on business, restoring the registration, withdrawals of black listing etc., may be considered at appropriate time on the merits of each case by the authority who has passed the original order.

264. Registration of consultants:

- (i) Project management consultants
- (ii) Architects / Interiors
- (iii) Service consultants.

Individuals/Companies/Agencies shall be registered in the Public Works Department by following the procedure detailed below.

1. A consultant shall first apply for registration in the prescribed form PWF 14 annexed to the rules to the appropriate authority viz., the Executive Engineer or the Superintending Engineer or the Chief Engineer(C&B) of Public Works Department.
2. The application for registration in the prescribed form PWF 14 shall be submitted to the authority competent to effect registration and it shall be accompanied by the following documents:
 - (a) A challan for having credited to Government a non-refundable sum of Rs. 1000 being the registration fee.
3. Registration once done shall be effective for a period of five years from the date of registration.
4. A residential certificate to be obtained from the revenue authorities not below the rank of Tahsildar or an officer not below the rank of the chief executive officer of the concerned local authorities or identification card issued by the Election Commission of India or Ration card issued by the Food & Civil Supplies Department or Pass port issued by the Pass Port authority of India should accompany.
5. A certificate issued under companies act in the case of firms or companies.
6. Income Tax Clearance Certificate.
7. Application shall be submitted in the prescribed form for registration together with three passport size photographs of the contractors in whose name the registration is sought for.
8. A Registration certificate shall be issued retaining one copy with registering authority.
9. In case of partnership firms the photograph of all the partners shall be furnished. Photograph of the managing partner shall be affixed in the registration certificate. After receipt of application, preliminary scrutiny shall be conducted by the caseworker to verify whether the particulars, annexures etc. have been received correctly. An acknowledgement also indicating the probable date of issue or registration certificates shall be sent to the contractor in form PWF-16 . A 30 days time limit is fixed for issue of registration certificates. Any contractor submitting the documents and application in complete shape with the requisite fees is eligible for registration, and hence there should be transparency and quick processing of applications.
10. Registration certificate shall be in form PWF-17 which includes details of tenders purchased as well as details of work awarded and carried out.
11. This registration book shall be produced at the time of issuing blank tender documents and also at the time of issuing work order for making corresponding entries in Part II and III respectively. In addition, the book shall be produced as and when required to ensure up to date entries of all columns.

If a contractor desires registration certificate for Class II and below within 24 hours and all the documents required are submitted in complete shape, such applications can be accepted provided the registering authority is in station and not likely to be away on tour and certificates shall be issued within 24 hours, after collecting registration fee at twice the rates prescribed. In the event of inability of the registering authority to comply with this requirement, only normal fee payable should be received. If fees at twice the rates are already paid, excess collected shall be refunded. The case worker and registrar shall organize the work of issue of registration certificate in the order in which it was received and no out of turn issues shall normally be practiced.

CHAPTER – 20

ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT

(Applicable for Externally Aided Projects & Projects Amount above Rs.50 crore)

265. Purpose of Environmental Assessment and Management:

1. To formalize a systematic approach to environmental management within the department.
2. To ensure that adequate safeguard measures are taken to avoid / minimize air, water and noise pollution due to various project activities and associated environmental impacts.
3. To ensure that statutory / regulatory requirements are complied with.
4. To ensure clean and green environment during and post project period.

266. Scope :

Minimizing adverse environmental impacts of the works by environmental screening and management framework.

1. Ensuring that relevant/detailed information regarding environmental management aspects of road is readily available for good practice in environmental management.
2. Encouraging good construction practices.
3. Ensuring compliance with the statutory requirements.
4. Carrying out environmental monitoring.
5. Institutionalizing environmental management in all aspects of PWD projects.

267. Environmental Clearance:

1. The department plans, designs, executes & maintains the roads (NH, SH, MDR & ODR), buildings, ports and inland water transport. These projects require clearances on environmental impacts. As per the Ministry of Environment and Forests (MOEF) Government of India, Notification dated 14th September 2006 and subsequent amendments thereafter, environmental clearance is mandatory in the following cases.

a) Road Works:

- (i) Expansion of National highways greater than 30 km and involving additional right of way greater than 20 m will come under category A and should comply with Environmental Impact Assessment Authority (EIAA) New-Delhi.
- (ii) Expansion of State Highways greater than 30 km and involving additional right of way greater than 20 m will come under category B and should comply with State Environmental Impact Assessment Authority -Bangalore.
- (iii) For 'B' category projects located within 10 km from boundaries of, (a) Protected areas as notified under the wildlife (Protection) Act 1972, (b) Critically polluted area as notified by the Central pollution Control Board (c) Notified eco-sensitive Zone; and for Interstate or International Boundaries which are treated as Category 'A' projects, the *flow chart* for obtaining clearance is given in Annexure –I.

b) Building works:

All Building construction activities greater than or equal to 20,000 Sqm(m²) and less than 1,50,000 Sqm (m²) built up area are categorized as 'B' Projects. If these building projects are located in the Industrial area/Export processing zones/ Special economic zones /Bio-Tech park, they are treated as category 'A' projects.

268. Forest Conservation Act-1980:

As per the Forest Conservation Act 1980 and Forest Conservation Rules 2003,if diversion of forest land required for non forestry activity is greater than 40 hectares, MoEF New Delhi will be the authority to issue clearance. If diversion of forest land is less than 40 hectares, the Regional MoEF, Bangalore will be the authority to issue clearance. The flow chart is given in Annexure-II

269. Pollution Control Board: {Water (Prevention & Control of pollution) Act1974 and Air (Prevention & Control of pollution) Act1981.}

1. It is necessary to obtain clearance from Karnataka State Pollution Control Board (KSPCB) so that there is minimum possible environmental pollution due to the proposed project and to have pollution within tolerable limit during post project period.
2. Necessary applications viz. **(Form I and Form XIII)** will be issued by KSPCB for obtaining clearance or *Consent for Establishment* under the Air and Water Act.
3. Suggested Procedural flow chart for Environmental clearance of Roads and Building projects are given in **Annexure-III**
4. In the above circumstances, all the Engineers of the department shall ensure that statutory clearances are obtained well before the commencement of the works.

270. Environmental Assessment and Management – (EMP)

Following are the steps for analyzing environmental issues in design, construction and maintenance of roads and buildings:

1. Environmental Screening
2. Environmental analysis and assessment
3. Environmental design
4. Environmental management action plan

271. Environmental Screening:

The environmental screening shall include, but not be limited to , the analysis of available information (Supplemented where appropriate by site visits) concerning the general and environmentally sensitive human population, sensitive and /or critical natural habitat (e.g. National parks, reserves wild life sanctuaries, sacred groves, protected area, designated forests, wetlands etc.), major rivers and water bodies, cultural and heritage sites, other potential sensitive areas, areas with concentration of tribal or cultural groups, areas of significant right-of-way (ROW) encroachments, official data information from NGO and site visits. The results of this analysis are to be plotted on maps and tabulated to clearly identify any major conflicts with proposed priority road improvements along with the nature and extent of such conflicts and recommendations concerning how to resolve them (Including recommendations for exclusion, analysis of alternative alignment and / or mitigation) as a precursor to

finalizing roads for Engineering design and undertaking the required environmental assessment studies.

272. Attributes of Environment Screening Report:

The environmental Screening report shall contain brief description of the following.

- i) Topography of the area
- ii) Rainfall and climatic conditions and soil characteristics of the area
- iii) Air quality, water quality and noise level
- iv) Terrestrial ecology and Flora/Fauna of the project influence area, including Wildlife havens within (say 7 km) of the alignment
- v) Community resources like Public water supplies, water bodies
- vi) Consultation with the local people regarding the proposed improvements.

273. The attributes differ for the road works and building works as under;

1) Road Works :

Commonly occurring environmental attributes for analysis of sensitiveness of the project corridors are, (1) water bodies like rivers/lakes/ tanks etc., (2) hospitals/ nursing homes, (3) irrigation tanks locations of quarry (4) forest land, (5) congestion locations, (6) Number of trees which are proposed to be removed, in each of the corridors, and also (7) industrial premises and (8) wildlife / bird sanctuaries and National parks present in influence zone. These are considered as ‘**environmental hotspots**’. Depending upon the number and type of hotspots present in each of the corridors, importance of each attribute is worked out for estimating sensitivity of the project corridor.

The works are generally classified as ‘Less sensitive’, ‘Medium sensitive’ and ‘ high sensitivity ‘ special category works considering the proposed nature of treatment and number of hot spots as follows,

- a) Less sensitive Works: Projects or works such as repair and maintenance work involving no acquisition of land beyond the existing pavement or cutting of existing trees and not passing through Reserve Forest area, National Parks or Wild life sanctuaries.
- b) Medium sensitive Works: Projects or Works such as rehabilitation, involving additional acquisition of land and tree cutting in the avenues and not passing through Reserve Forest area, National Parks or Wild life sanctuaries.
- c) High sensitive Works: New construction and up gradation of roads that include the large acquisition of land and passing through the reserve forest involving diversion of forestland more than 40 hectares.
- d) Special Category works: Alignments passing through sensitive areas like (i) Protected areas as notified under the wildlife (Protection) Act 1972 like Any project or works passing through Reserve Forest area, National parks or Wild Sanctuaries, Tiger Reserves (ii) Critically polluted area as notified by the Central pollution Control Board, (iii) Notified eco-Sensitive Zone, (iv) Interstate or International Boundaries involving stretches longer than 30 km and widths of more than 20 m.

These special category works would require a detailed analysis for obtaining environmental clearance.

2) Building Works:

The building works are categorized as follows:

- a) Small Size Works: Projects or works less than 20,000 sq m(m²) of built up area not involving tree cutting, not located in Reserve Forest area, National Parks or Wild life sanctuaries.
- b) Medium Size Works: Projects or works greater than 20,000 sqm (m²) and less than, 150, 000 sq m of built up area involving tree cutting up to 50 trees, not located in Reserve Forest area, National Parks or Wild life sanctuaries.
- c) Large Size Works: Projects or works greater than 150,000 sq m(m²). of built up area involving tree cutting greater than 50 trees and located in Reserve Forest area.
- d) Special Category works: Any project or works located in the Industrial area/Export processing zones/ Special economic zones /Biotech park will be treated as category 'A' Project.

(Note: wherever it is not specifically indicated for building works the details are for roads)

274. Checklist for screening:

The following attributes should be specifically examined during the environmental screening for both roads and buildings.

Environmental Screening for road works:

| | | |
|---|---|--------|
| 1 | Will there be a large change in environmental condition? | Yes/No |
| 2 | Will new features be out of scale with the existing development? | Yes/No |
| 3 | Will the effect be unusual in the area or particularly complex? | Yes/No |
| 4 | Will the effect extend over a large area? | Yes/No |
| 5 | Will there be any potential for trans-frontier impact? | Yes/No |
| 6 | Will many people be affected? | Yes/No |
| 7 | Will many receptors of other types (fauna, flora, etc.,) be affected? | Yes/No |
| 8 | Is there a high probability of the effect occurring? | Yes/No |
| 9 | Will it be difficult to avoid or reduce or repair or compensate for the effect? | Yes/No |

Note: The decision making for yes or no will have to be done by an environmental expert either from the department or from the consultant.

Environmental Screening for building works:

| Environmental attributes | Whether Nil | Whether Limited | Whether Sizable |
|----------------------------|-------------|-----------------|-----------------|
| Permanent land acquisition | | | |

| | | | |
|--|--|--|--|
| Involuntary resettlement | | | |
| Tree cutting | | | |
| Filling of water bodies | | | |
| Need for sinking bore well for water supply source | | | |
| Need for additional surface water source | | | |
| Need for additional water treatment plant | | | |
| Need for additional sewage treatment plant | | | |

Note: The Environmental Safeguard/Mitigation measures should be decided based on the above screening.

275. Scoping:

1. Much attention should be given for scoping as Scoping is an early step which lays the foundation of EIA by identifying the boundaries of the EIA study, information necessary for EIA study and the key issues and the significant impacts to be considered.
2. Even though there are several methods to conduct a scoping study viz. checklist method, Leopold matrix, network method, most of them are time consuming and subjective. So a new method for scoping has emerged to overcome the problems of recording subjective judgments - the Rapid Impact Assessment Matrix (RIAM).

276. Environmental Impact Assessment (EIA):

Environmental Impact Assessment is a planning process used to ensure that environmental matters are taken into account early in the project planning process along with the more traditional, technical and economic considerations. It identifies, predicts, interprets and communicates information about impacts of a proposed project on the bio-physical environment as well as social and economic environment of the people to be affected. It is also a decision making process which examines alternative ways of carrying out a project, arriving at the selection of a preferred alternative. It provides a framework for gathering and documenting public and external knowledge and opinion.

a). Objectives:

1. To give a systematic approach to proposed constructions of roads and buildings with systematic, reproducible and interdisciplinary approaches
2. Denoting systematic order and scientific considerations of on the physical, biological, cultural and socioeconomic aspects of environment.
3. Predict environmental impact of projects which are easily reproducible by other group of investigator. Inputs are required from many disciplines to ensure that complete analysis has been accomplished and Find ways and means to reduce adverse impacts;
4. Aggregation of impact informations on each of the alternatives and other technical and economic considerations.

5. Shape the projects to suit local environment and cost effective.
6. Preparation of a draft Environmental Impact Statement (EIS) in accordance with specific guide lines and respective agency.
7. Impact statement should be circulated for review and comments.
8. Finally incorporating the comments from various agencies and final impact statement is prepared and the proposed actions shall be initiated.

b). Methodology :

Environmental Impact analysis is carried out for different environmental condition. Impact analysis shall be carried to scale and magnitude with comparison with environmental quality standard and environmental function parameter. Before conducting Impact analysis it is necessary to conduct baseline survey. The EIA studies shall be carried in conformity with prevailing regulations of Government and World Bank guidelines, which include the following norms.

c). Base Line Survey:

- a) The baseline provides which helps to predict and assess impact from proposed project for comparison of alternatives. Baseline survey provides information pertaining to physical, chemical, biological, cultural and socioeconomic conditions. Field visits shall be conducted to identify environmentally sensitive locations will be documented on base maps, Photo captions of environmental conflict will be documented, verification of issues with various sources of information and preparation of maps showing sites for environmental enhancements, Environmental Conflicts are resolved with scientific analysis and techniques.
- b) Number of trees to be removed in reserved forest areas and avenue plantation will be recorded, forest boundaries are marked in strip maps which will be required for diverting forest land for non-forestry activity of the project.
- c) The following base line survey will be carried for road and building as under.
 - i) **Land use:** Describing the extent of present uses, as in agriculture, business, industry, recreation, residence, wildlife, water resources utilisation and other uses , including the potential for development ; locate major transportation links such as airport, harbour and railways and potential traffic in the project area .
 - ii) **Topography, Physiographic and geology:** Provide a detail description of topographical , physiographical and geological features within in the project area including geological survey of India topographic map, Graphical information system maps etc,
 - iii) **Soils:** describing the physical and chemical composition of the soils, including relationship with slope stability, Safe bearing capacity and compaction factor.
 - iv) **Geological hazard:** Indicating the potential occurrence of geological hazard in the area such as earthquake, slumping, landslides, subsidence, permafrost and erosion.
 - v) **Species and ecosystem:** identifying those species and ecosystem that will be affected by proposed project.
 - vi) **Species:** List in general categories, by common and scientific names, the plant and wildlife species found in the proposed project area and also indicate commercial and recreational importance.

- vii) **Communities and associations** : Describing the dominant plant and wild life communities and associations located in the proposed project area and provide their population density
- viii) **Rare and endemic species:** Describe the unique ecosystem or rare endangered species and other biotic resources that may have special importance in the proposed project.
- ix) **Socio-economic considerations:** If proposed project could have socio-economic effects on the local area, discuss the socioeconomic futures of the area without implementation of proposed project, describe the economic development in the vicinity of proposed project identify trend economic development / land use area, describing population densities, major settlements and distribution of business activity, industry that proposed project will be directly affected and those requiring relocations from the project.
- x) **Air and water Environment:** Describing the prevailing climate and quality and quantity of air and water resources in the project area.
- xi) **Climate:** Describe the climatic conditions that have prevailed in the vicinity of proposed project area indicating mean and extreme of monthly temperature, precipitation and wind speed and direction. In addition, indicate the frequency of temperature, inversion, fog, smog, and destructive storms and hurricanes and tornadoes.
- xii) **Hydrology and Hydrograph:** Describe the surface water, fresh water and brackish water in the vicinity of the project area and discuss the drainage basin, physical and chemical characteristics, water use, water supply and circulation. Describing the ground water situations, water uses and sources, aquifers system and flow characteristics.
- xiii) **Air, Noise and water quality:** Provide data on the existing quality of the air and water (Indicate distance from the project site) to monitor and mean and maximum noise level in the community area.
- xiv) **Unique features:** Identify unique or important features in the vicinity of the project area such as historical sites, archeological monuments and scenic sites.

d). Impacts Analysis:

All the information collected during site visits and field monitoring shall be quantified and scientifically analyzed for the determination of environmental impacts. Impacts are presented in the form of a matrix for each environmental parameter monitored. An important part of this task will be identification of mitigation measures for various adverse environmental impacts.

The Detailed EIA identifies the significance of all environmental and social impacts (positive and adverse, short-term/long-term or transient, direct and indirect) associated with the proposed project. Identification of high impact sensitive areas etc. The PWD & IWT should highlight and described likely future impacts through changes in the physical, biological or socio-cultural environment. Uncertainties associated with the predictions have to be identified. The principle aim of this task will be to identify future impacts for which suitable environmental mitigation measures may be implemented. Details of impact should include following e environmental components

1. **Location:** The impact statement should include alteration from physiography terrain area. Hilly terrain, landslide zone and earth quake zones where extensive cut-and-fill operations are involved.
2. **Climate and Topography:** impact should emphasize changes in local atmosphere like temperature, loss of shade trees, which in turn might lead to formation of heat islands. In addition, the removal of trees will increase the amount of direct sunlight resulting in higher temperatures along the project road alignment.
3. **Geology and Soil:** The excavation of quarries and borrow pits used for obtaining rocks, soil and aggregate materials for road construction can cause direct and indirect long-term adverse impacts on the environment. Quarrying operations could be significant at various stages of road construction. Quarrying and crushing could have a critical impact especially on the air quality of the area especially the area downwind to the quarry.
4. **Water resources:** Impacts of Surface water quality with the construction of cross drainage structures and bridges at various streams, canals and rivers. Requirement of river and or gully training. Alteration of drainage leading to soil erosion of adjacent areas, disturb local vegetation.

e). **Land use:**

Report should include impacted locations of forest land, workers' camps, agriculture land, borrow areas etc albeit during the construction stage. The EIA should project loss productive areas used for construction purposes and avoid adverse impact. This should also include loss of Private Properties like agriculture land, residential, commercial, mixed and other type of properties falling in Row along the project road alignment are to be acquired for the construction of the main carriageway, median, service road, compacted earth space etc.

f). **Flora and Fauna:**

It is necessary to examine significant reversible and irreversible impact. Depending upon the final design of the project, the total forest land to be diverted and resultant pressure on flora and fauna, potential impact in terms of biodiversity loss in forest land, utility of the unreserved waste land by the villagers exercising considerable privilege in the way of grazing cattle and cutting timber other than reserve trees for fuel or building or agriculture, domestic purposes etc. The impact should high light loss of crops or plant species in productive fertile lands during construction. The operational impact should include increase in wild life and traffic conflicts by road widening which lead to accidents of wild life in forest sections and common domestic animals in rural settlement regions due to traffic maneuvering with increased speed and smoothness of roads. Specialized detail studies should be conducted in case of stretches of roads known for wildlife threatening and loss of endangered fauna and preservation of biodiversity in Coastal Regulatory zones.

g). **Socio-Economic Impacts:**

1. In road sector, socio-economic aspects are considered with respect to alignment, routing, connectivity to tourism places, landscaping, human values such as health and education, land use impact and keeping business and commercial integrity constant for construction of a project. Frequently two to three alternatives are to be chosen and within these there will be several sub alternative treatments for specific features.
2. The positive benefits put into assessment with increase in the width of the existing road is that it makes smooth flow of traffic reducing accident rates, savings in fuel

consumption, accident prevention due to decongestion, creation of employment opportunities and growth in project area i.e. creation of good infrastructure facilities, tourism and IT industry which is the backbone of economic growth.

3. 3. Specific issues in the environmental impact statement as well as in the environmental management plan should include the impact of the project on

- i) **Indigenous People:** If the project is located in ancestral land or domains of these people and affects their lives and culture;
- ii) **Women and Consideration of gender Issue:** Such as women access to the land, water and fuel to meet their family and basic needs;
- iii) **Population and its relationship with the resources:** Development and environment for instance, if significant increase in population will put pressure on the resources.

h). Strengthening of EIS through the Public Consultations:

- i) **Public Consultation:** This is necessary to allow free and open exchange of information and discussion by the project proponent and stakeholders. This is particularly important during scoping and EIA study and planning stage.
- ii) **Public hearing:** This should be conducted if the project affects a great number of people, if there is mounting concern or opposition to the project or if there is request from any stake holders. The hearing officer shall facilitate the same .
- iii) **Alternative dispute of conflict resolution process:** This shall be used if there are complex issues between the proponent and other stakeholders that remains unresolved and stall the completion of the EIS or hinder the determination of social acceptability. Mediation, negotiations of similar methods may be used in a sincere effort to come to consensus on key issues.
- iv) **Public information:** Public should be informed through notice, posters, news, and other medias by the proponent meeting can take places in the community hall and municipal halls of affected communities. The stakeholder and public are also notified of any consultations to the communities in the local language. The proponent shall pay for the cost of public notifications. All the consultations, hearing and conflict resolution activities should be clearly and accurately recorded. This record shall be the part of supporting document of the EIS.

i). Impact Mitigation:

- 1. Mitigations for negative impacts shall be included for preservation of rich heritage sites, conservation of geographical location like hills, valleys water bodies like rivers and wells, plains, forest and resources. Enhancement measures to tourism and industrial locations, forts, tanks, mosques and historical importance to the posterity. Mitigations for settlements affected in towns, industrial, commercial and educational center. The negative impact effective measures for avoidance and impact mitigations were considered which includes the following .
 - i) Compensatory afforestation against impact of avenue plantation
 - ii) Slope stabilization issues
 - iii) Iii) Debris and waste disposal that includes pilot bio Engineering and geo technical solutions
 - iv) Bio diversity Conservation

- v) Measures to improve road safety
 - vi) Noise barriers for schools and hospitals
 - vii) Rehabilitation of hand pump, public water supplies, wells and other sources of drinking water
 - viii) Mitigation and avoidance measures for water courses
 - ix) Flood alleviation along flood prone areas
 - x) Environmental monitoring during construction and operational phases
 - xi) Parking areas for car and trucks
 - xii) Bus lay-bys and rain shelter
 - xiii) Access road for carts and agriculture equipments
 - xiv) Tree removal and tree planting
 - xv) Community requirement
 - xvi) Impact mitigation for religious structures
 - xvii) Mitigation for most congested locations
 - xviii) Cultural property rehabilitation
 - xix) Provision for longitudinal and cross drainage
 - xx) Forestry, wildlife/traffic conflict
2. To reduce the potentially significant adverse impact, feasible and cost effective mitigation measures should be adopted so as to bring it to acceptable levels. Also the capital and recurrent costs shall be worked out to implement the measures including institutional, training, monitoring and enhancement measures.
 3. Mitigation measures shall include river training works, improvement of water bodies that includes dredging, beautification, protection works and creation of rest spots and scenic spots along the highway, noise barrier, underpasses for pedestrians at sensitive locations such as hospitals and schools, construction of tunnels, compensatory afforestation, fencing and chicanes for wild life crossing which prevents accident at forest locations, cattle crossings near settlements and provision of any associated landscaping shall also be included in mitigations.

277. Environmental Management Plan (EMP):

1. The environmental management plan is a strategy, which aims at minimization of environmental impacts at design, construction as well as the operational phases. Numerous preventive and control measures shall be adopted and incorporated right at planning and design stage itself. Additional efforts are required in the construction and operation phase to further minimize the impacts.
2. EMP is covered in the following different stages:
 - a) Pre-Construction Phase:
 - i) Contractor's Role
 - ii) Site Selection Criteria:
 - b) Construction Phase:
 - i) Pre-Construction Scheduling

- ii) Construction Scheduling
- iii) Construction Activities
- c) Post Construction Compliance
- d) Debris Management and Disposal
- e) Road Safety
- a). **Contractor's Role – Pre-Mobilization Activities:** This includes
 - i) Review of Contractual Conditions on Environmental protection.
 - ii) EMP Requirements and Key issues in Project Corridor
 - iii) Discussion with PIU / EMPIU on EMP implementation and adherence to SPCB / MOEF guidelines and conditions
 - iv) Action Plan of Contractor to implement EMP Mitigation Measures in consonance with Construction Scheduling for agreed milestone
 - v) Site Selection for:
 - 1. Hot Mix Plant
 - 2. Stone Crusher Unit
 - 3. Quarry Site
 - 4. Borrow Areas
 - 5. Storage Area- Raw materials
 - 6. Labour Camp
 - 7. Service Area for vehicles
 - 8. Water source
 - 9. Debris Disposal sites
- 10. Approval and NOC from State Pollution Control Board for establishing Stone Crusher Unit and Hot Mix Plant.

1. Site Selection criteria for Hot Mix Plant and Stone Crusher Unit:

- i) The hot mix plant will be located at least 500 m away from the habitation in the downwind direction and on the barren land to avoid its adverse impact on the human population.
- ii) Selected site to be at least 500 m away from any settlement in the downwind direction
- iii) Site to be atleast 500 m away from any water body like, lake, stream, pond or river.
- iv) Selected site should not be in the vicinity of sensitive areas like Reserved forests, protected forests, schools, hospitals and religious sites etc. The Contractor should identify areas that are atleast 500 m away and in the downwind direction with respect to the sensitive areas.
- v) The distance of the stone crusher units shall be minimum 250 m away from the boundary of National Highways and State Highways.

2. Site Selection criteria for Borrow Areas:

Borrow Areas for road construction material must be identified keeping in view the following:

- i) Borrow Areas are generally Government land or land leased from private landowners. No borrow areas should be opened up in the Right of Way. Soil from barren or uncultivated land having required bearing capacity should be sourced. Proper agreement should be arrived with the land lessor to avoid complications at later stage. The Contractor should have an adequate action plan to carry out grading, drainage facilities and restoration of the borrow area following completion of works or on exhaustion of the source. This plan should be discussed with the concerned Engineer.
- ii) No excavation or dumping on private property should be carried out without written consent of the owner.
- iii) No excavation or dumping shall be allowed on wetlands, forest areas or other ecologically valuable or sensitive locations.

3. Site Selection criteria for Quarry Site:

- i) The Contractor shall make endeavors to identify Government Quarries to meet raw material requirement. In the situation that Government Quarries are not there, private quarries and new quarry sites should be explored.
- ii) The contractor shall obtain material from private licensed quarries, which have obtained Environmental clearance.
- iii) Requisite NOC for Quarry operations must be taken from Mines and Geology Department
- iv) All explosives shall be stored in a secure manner in compliance with all laws and ordinances, and all such storage places shall be clearly marked.
- v) The contractor shall at all times make full liaison with and inform well in advance and obtain such permission as is required from all Government authorities, public bodies and private parties whatsoever concerned or affected or likely to be concerned or affected by blasting operations.
- vi) Storage shall be provided to the satisfaction of the Engineer and in general not closer than 300 m from the road or from any building or camping area or place of human occupancy.
- vii) Adequate safety precautions shall be ensured during transportation of quarry material from quarries at the construction sites.

4. Site selection criteria for construction workers' camp:

- i) Construction of labour camps shall be proper dwelling units with adequate ventilation and lighting. Such camps shall be located away from the settlements and villages. Adequate health care is to be provided for the work force.
- ii) In sites where workers' camps are located near settlements, the local community should be consulted and taken into confidence.
- iii) The sewage system for a construction laborers' camp, such as a septic tank shall be properly designed, built and operated so that no pollution to ground or adjacent water bodies / watercourses takes place. Depending upon duration of the contract period, number of workers residing and site soil conditions, the contractors can opt for the size and type of sanitary facility to be constructed.

- iv) Potable water shall be provided for drinking, cooking, etc. There shall be adequate supply of water for flushing of toilets and urinals.
- v) Contractor should ensure adequate supply of fuel (Kerosene, LPG) to the workers. Contractor should take adequate measures to prevent his work force from indulging in felling, pruning and cutting of trees and other vegetation for usage as fuel.
- vi) Housekeeping measures should include segregation of Domestic waste in terms of wet (Kitchen wastes) and dry (Household items like paper, clothing, other articles etc) wastes and plastic wastes. Separate collection bins with lids should be placed in the camp for disposing domestic wastes and plastic items. The inhabitants need to be educated on the utility and necessity of segregating wastes at the household level and in ensuring proper disposal of solid waste in the campsite.

5. Site Selection criteria for Service Area for vehicles:

- i) Designated site should be earmarked in the Plant area as service area.
- ii) Sand beds should be provided in the service area to limit spread of Oil and Grease spills.
- iii) Sumps should be provided to collect the Liquid wastes originating from vehicle maintenance works and spillages.
- iv) Salvaged parts and machinery should be properly stacked.
- v) Effluent coming from washing of Construction vehicles should be directed into properly designed Settling tanks.
- vi) Solid waste like rags, cloths etc. used for cleaning and maintenance should be properly disposed off or incinerated in Sand pits.
- vii) Service area should be barricaded to prevent unauthorized entry.

6. Site Selection criteria for Fuel Storage Area:

- i) Fuel Storage depot should be located on leveled ground in the downwind direction of the Plant site.
- ii) Adequate Ventilation and lighting should be undertaken around the fuel storage depot.
- iii) “No Smoking ” boards and “ fire hazard ” warning boards should be installed in this area.
- iv) Trained Personnel should be employed for unloading and filling of Fuel.
- v) Sand bed should be provided around the fuel unloading and filling area.
- vi) Adequate number of “fire extinguishers“ and sand buckets should be kept in the fuel storage depot.
- vii) This area should be barricaded to prevent unauthorized entry. Security personnel should be positioned to prevent entry of unauthorized personnel.
- viii) Telephone numbers of Emergency, Police, fire Station and Hospitals should be displayed.

7. Selection criteria for Water Source:

- i) For domestic requirements water is either sourced through existing bore wells or any nearby surface water source.

- ii) For plant operations and construction requirements the contractors should utilize surface water sources like streams, rivers and canals after obtaining necessary permission from other Government agencies. In the eventuality adequate surface water is not available and there is a need to extract ground water through bore wells then requisite prior permission should be obtained from the Central Ground water Authority, Government of India and should provide water meters for measuring the quantity of ground water abstracted.
- iii) Requisite water quality analysis should be carried out to ensure suitability of the water for construction and domestic purposes.

8. Site Selection criteria for debris disposal sites:

- 1. Disposal of excavated earth and debris from dismantling of CD structures:
 - i) Low-lying areas near villages shall be identified in due consultation with the Panchayat and local community.
 - ii) Identified location should not be in the vicinity of any water body, productive agricultural land and any land designated for forestry purpose. The selected site for disposal should not cause any obstruction to the natural drainage pattern of the area.
 - iii) Possible re-use of excavated material for embankment construction, other road works and rehabilitation of adjoining rural roads shall be considered.
Disposal of excavated bituminous material and bitumen-coated material shall be done,
 - i) in discussion with the local community, local PWD offices for identifying abandoned/defunct quarries and/or barren uncultivated lands with a rock base away from water bodies.
 - ii) With the assistance of the Gram Panchayat, Revenue Department and Private quarry owners for selecting the disposal sites.
 - iii) Re-use of excavated black top in rehabilitation of rural roads shall also be considered.

9. a) Pre-Construction Scheduling: This shall include,

- i) Identification of sensitive environmental features in the selected stretch.
- ii) Inventory of adjoining water bodies, forest area, Land Use, settlements and sensitive spots like schools, religious structures and hospitals.
- iii) Installation of traffic management and safety signage in the selected construction zone.
- iv) Identification of areas for storage of borrow material, sand and aggregates in vicinity of road corridor and CD structures in construction site.
- v) Information dissemination to the local community.

b) Construction Scheduling: shall include,

- i) Positioning trained flagmen for traffic management in construction zone.
- ii) Regular maintenance and protection of traffic and safety signage.
- iii) Installation of traffic management devices like cones, delineators and barricades in the construction zone to guide the road user and as a safety measure.

- iv) Dust control measures before initiating operation of hot mix plant and stone crusher units.
- v) Sprinkling of water in construction zone and plant area to coincide with movement of construction vehicles and dust generating activities like excavation, construction of diversion roads, dismantling of CD structures, loading and unloading of aggregates, borrow material etc.
- vi) Periodic clearance of excavated material and dismantled structures from construction area for further reuse and/ or disposal at the designated site (depending upon the volume of excavated / dismantled material).
- vii) Regular maintenance of diversion roads.
- viii) Safety gadgets provided to the labourers at construction site.
- ix) Proper drainage facilities provided in diversion roads.
- x) Implementation plan for all the above activities.

C. Construction Activities:

Includes

- i) Raw material storage and handling at plant site and construction zone
- ii) Soil erosion and sedimentation control measures near CD works
- iii) Maintenance and dressing of temporary diversions
- iv) Debris clearance and disposal from construction site
- v) Recycling and re-use of construction debris
- vi) Traffic management during construction activities.
- vii) Safety gadgets provided to construction workers.
- viii) Borrow area grading and rehabilitation.
- ix) Maintenance and servicing of construction vehicles and Equipment
- x) Health check ups for the work force employed at the construction site.

10. Post Construction compliance:

- i) Rehabilitation, dressing and closure of debris disposal sites
- ii) Grading of borrow area, conversion into water storing structures
- iii) Plant site clearance
- iv) Dismantling of labour camps, other residential quarters and utilities
- v) Exploring possibility of retaining the temporary residential structures and other sanitary utilities as per the request and requirements of the vi) Land Lessor
- vi) Submission of compliance report to EMPIU in prescribed format

11. Debris Management:

A. Debris management and environmentally sound debris disposal:

- i) Segregation of earth material and bituminous material shall be done at the time of excavation.
- ii) Stockpiling and storage of dismantled/excavated road debris shall be at designated sites.

- iii) Storage area near road works shall be identified to facilitate re-use of dismantled material.
- iv) Possible re-uses of earth material depending upon suitability for embankment and shoulders shall be considered. It can also be utilized for strengthening rural roads that are feeders to the project corridor.

B. Identification and selection of disposal sites for earth material:

The disposal sites should be identified before initiating civil works. These activities should run parallel to the other activities of the contractor like site selection for Stone Crusher unit, HMP etc, identification of borrow areas and quarries. The same importance needs to be accorded by the contractor for debris management and disposal as is taken for construction site management and plant management.

Suitable areas for disposal of earth material shall include:

- a) Low lying area away from water bodies in the vicinity of road works.
- b) Borrow pits utilized for road works.
- c) Allowing local villagers to carry earth material from site.
- d) Abandoned quarries, quarry pits and borrow pits in the vicinity of road works.

These sites should be finalized by the PIU site Engineer and the contractors in consultation with the local community, Gram Panchayat and office of the department of Mines and Geology. The local PWD office should also be consulted, as the information on existing/abandoned quarries is available with them.

C. Identification and selection of disposal sites for excavated bituminous material/wastes:

1. Abandoned quarries with a firm rock base with proper gradient should be selected for disposal of bituminous waste.
 - i) A clay lining or earthen layer of at least **30 cm** is to be provided over the base rock.
 - ii) Over this earthen layer, the bituminous waste should be spread and the thickness of this layer should not exceed 20 cm.
 - iii) Over this bituminous waste, another layer of earthen material of 30 cm thickness should be spread and graded and compacted.
 - iv) A wire mesh should be laid over the layer to ensure there is no slippage of the layers. Fencing could be provided around the disposal site as a security measure and to prevent entry of locals and domestic animals.
 - v) This procedure should be adopted to reach adjoining ground level.
 - vi) On attaining ground level, the contractor may plant some saplings or grass to prevent any erosion of the layers.
2. Caution should be exercised as not to allow the ingress of water into the bituminous waste. The bituminous waste should not be allowed to contaminate any water body, stream or any surface water source. The disposal sites should be at least 500 m away from any water body.

278. Road Safety:

1. **Construction zones:** Construction zones create conditions that can be hazardous to drivers and highway workers. Work zones are a necessary fact of life in our communities and can cause changing traffic patterns; reduced speed limits; congestion; and an influx of construction workers and equipment on the road. Therefore work zones should be properly marked, and warning signs should be exhibited especially at night.
2. **Intersections:** All dangerous intersections with confusing turn lanes, blind spots, or lack of appropriate or inadequate signage or traffic signals shall be avoided. Obstructions including vegetation, which can block a driver's view of signs, signals, and other traffic control devices shall be taken care of.
3. **Roadway design limitations:** The safety of many local roads is limited because they were built to serve fewer vehicles traveling at slower speeds. Their safety is compromised by hazards such as sharp curves, poor signs and markings, and lack of medians to separate oncoming traffic, which shall be taken care of during planning as well as execution.
4. **Pedestrian traffic:** Pedestrian traffic must be accommodated and speeds must be controlled, especially in settlements and commercial areas like markets by providing rumble strips humps as per standards.

279. Guidelines and procedure for road construction in Forestland:

1. **Right of Way:** Right of Way doesn't confer ownership. There is a wrong notion prevalent amongst the Project Implementers that right of way in forest area bestows ownership of land. Consequent to the enactment of Forest Conservation Act, 1980, and subsequent Supreme Court judgments it is imperative that even though right of way is available, clearance from State Forest Department / Government of India is required for maintenance / widening of roads.
2. **Forest Conservation Act (FCA) 1980** Section 2 provides for taking any non - forestry activity on forest land with prior permission of Forest Department of the State /Central Government as the case may be. The Ministry of Environment and Forests (MOEF), Government of India has issued certain clarification in respect of maintenance of roads constructed on forest lands for public purpose prior to commencement of FCA 1980 in their circular no. F.No.11-48/2002-FC dated 14th September 2004 the clarifications are as under.
 - i) Roads constructed on forest lands (other than national parks, wild life sanctuaries and tiger reserves) prior to 25-10-1980 (date of enactment of FCA,1980) may be repaired and maintained and black topping may be done with prior permission of the State Forest Department.
 - ii) While undertaking such works the state Government shall ensure
 1. Tree felling should not be allowed
 2. Widening of road should not be undertaken without prior permission of the Central Government under FCA, 1980.
 3. Breaking of fresh forest lands is not carried out.
 4. While black topping, adequate precaution should be taken by the user agency to avoid any damage to flora and fauna.
 5. Plantation activities are taken up along the road at the cost of user agency, if the concerned Divisional Forest Officer (DFO) finds it necessary.

3. The forest conservation act, 1980 also stipulates that whenever diversion of protected/reserved forestland is required for realigning purpose, permission is required from the competent forest authority subject to the condition that non-forest land saved on account of such realignment would be declared as protected forest.
4. Repairs to Roads passing through Ecologically Sensitive areas such as National Parks, Wild Life Sanctuaries, and Tiger Reserves etc.:
 - i. As per MoEF Notification of May 1994 of Government of India and amended time to time, Environmental Impact Assessment is mandatory for roads passing through the ecologically sensitive areas such as National Parks, Wild life Sanctuary, Tiger Reserves etc. Further, MoEF Circular of October 2004 stipulates only repairs and routine maintenance for roads passing through National Park. Widening of road and tree cutting is not permitted. Following procedure has to be followed for obtaining environmental clearance for roads passing through National parks, Wild life sanctuaries and Tiger reserves etc.
 - ii. An Environmental Impact Assessment Report and Environmental Management Plan have to be prepared and submitted to the PCCF (WL) seeking no objection for taking repairs.
 - a) Separate Application along with NOC from PCCF (WL) to be submitted to the MoEF, GoI, New Delhi.
 - b) The application will be reviewed in Forest and Wild Life Division of MoEF and if required will be referred to the Standing Committee of the National Board of Wild Life.
 - c) The Standing Committee may depute experts to the project area to study the ground situation.
 - d) Based on the recommendation of the experts, Standing Committee will take a decision (Later Honorable Supreme Court India has to be approached for clearances)
 - e) If approved, certain conditions are imposed which are listed below
 - f) Five percent of the project cost has to be paid by the user agency for taking up improvement in the park area.

280. Mitigation Measures in National Park area:

The Environmental Management Plan should consider following mitigation measures.

1. Measures suggested by the Park Warden for protecting the wildlife.
2. Traffic calming measures such as, perforated pavement design, rumble strips, caution boards, reflectors, etc. shall be provided at strategic wildlife crossing locations.
3. Working timing to be limited to daytime only.
4. Stone crushing, hot mixing, wet mixing and other process shall be carried outside and sufficiently away from the park area.
5. Waste generated during repairs shall be taken out from the park area on daily basis.
6. Borrow area and stone quarries shall be located outside and sufficiently away from the park area.
7. Staff and labourers should be made aware of the basic knowledge of wildlife.

8. Sufficient protective measures to be taken during stay in park area.
9. Labour camp should be located outside and sufficiently away from the park area.
10. No plastic material shall be carried inside the park area.
11. Any wildlife sighted during working period shall be reported to the local forest officer immediately.
12. No forest produce shall be allowed for use or taking away outside the park.
13. Fire shall not be lit in the park area.
14. Environmental monitoring such as ambient air and noise shall be recorded before the start of the project, during project and after completion of the project for one year.

281. Institutional Mechanism:

1. For proper supervision of EMP Implementation the PWD will require to have '*Organization structure 'or Environmental project implementing unit (EMPIU)*' of environmental engineers including forest officers and land acquisition officers at all levels of Departmental offices from the offices of the Chief Engineer to the office of the sub-division . This organization structure of environmental engineers will ensure proper processing for obtaining timely clearances and avoid any possible delays in project implementation.
2. The Environmental Unit is responsible for the co-ordination of the environmental and social issues of the various project packages, and shall work in close interaction with the environmental engineers at different project areas. Environmental responsibility belongs to every single engineer in the department as well as the contractors. The Executive Engineer shall be the key officer for all environmental issues.

282. Institutional Training:

1. The main objectives of the environmental training is to impart to the staff of the Department and other participants an understanding of the environmental and social issues which may be associated with the development of infrastructure projects, and how the impacts on these issues can be mitigated through proper design and implementation of appropriate mitigation measures during construction and operation of the project. The training would review the regulatory regime, the role of public consultation in project development, supervision and monitoring of the project and reporting.
2. The environmental training should encompass the following:
 - i) Relevant regulations and their applicability to the project. Permits and clearances.
 - ii) Main impacts of the Department on the environment.
 - iii) Mitigation measures as given in the EMP and their implementation through incorporation in the design, construction supervision and monitoring.
 - iv) Duties and responsibilities of the Contractors, Supervisor Engineers, Supervising Consultants, EMPIU of the Department.
 - v) Role of public/community consultation during project preparation and implementation.
 - vi) Liaison with other departments and relevant agencies (such as Forestry).

- vii) Supervision of the implementation of the EMP and social issues during construction and operation.
- viii) Resolution of environmental and social issues arising during construction and their reporting.
- ix) Safety during construction (signage, diversion, traffic management, etc.)
- x) Afforestation, rehabilitation of borrow areas, construction camps, etc.
- xi) Monitoring during construction and operation.
- xii) Weekly, monthly and quarterly report preparations and submission.
- xiii) Preparation of dissemination notes, holding of workshops, and training of other staff in the Department.

CHAPTER - 21

PUBLIC BUILDINGS, CIRCUIT HOUSES AND INSPECTION BUNGALOWS

283. Public buildings:

1. Any public building shall be functional rather than architectural providing for glazing, Air-conditioning, expensive flooring, Victorian style columns which will increase the cost considerably.
2. The term public building as used in this code applies to buildings borne on the registers of the Public Works Department and maintained from the appropriation for public works and maintained by the officers of the public works Department. The officer in charge of each building shall make one member of his establishment answerable for its general condition and for keeping it clean, tidy and presentable.
3. Insurance of Government buildings are not to be effected except in the case of special valuable property liable to special risks. In the latter cases the sanction of Government shall be obtained.

284. Fixtures and Furniture:

1. Every Public building should be provided with all necessary fixtures.
 - a) All expenditure on furniture which can be classified as Fixtures should be debited direct to works.
 - b) All expenditure on table fans, refrigerators, furniture etc. provided residences should be debited to the Minor Head 'Furniture' under the concerned head of account, Separate Estimate should however be prepared and sanctioned for furniture meant for issue to residences under the control of Public Works Department and account of such furniture should be kept separate and distinct from those supplied for officers.
2. The periodical repairs of these fixtures should be carried out by the Public Works Department and charged to the repair Estimate of the building. All petty repairs to fixtures and replacements of broken glass in doors and windows required in the intervals between the periodical repairs should be carried out by the officer in occupation of the building (See Rule 55(27) of the Manual of Contingent Expenditure), and charged to his contingent accounts. The Executive Engineer, will neither supply nor repair furniture, screens, Purdahs or tattis, nor will he perform any of the duties specified above as devolving on the duties, Departmental officer in charge. Furniture for new offices may, however be supplied by the Executive Engineer provided the cost of such furniture is included in the Estimate of the office concerned. In the case of Circuit Houses, Travelers Bungalows and Public Works Departmental Inspection Bungalows etc., the furniture should be supplied duly debiting the expenditure to the concerned head of accounts i.e. "2059 Public works – non plan".

Note: Under the special rules laid down by Government for the maintenance of Circuit Houses, Circuit Houses are in charge of the Public Works Department. The Executive Engineer of the Division is responsible for the care of the building including fittings and furniture and the grounds; and he has to see that due provision is made to meet charges for replacements and renewals of furniture, carpets, crockery, table liners etc., as necessity arises.

3. Government furniture not used for official purposes should not be kept in the residence of an officer unless a receipt is obtained and rent recovered from him according to the rules.
 - (a) The execution of repairs of other works required to buildings will rest with the Public Works Department. The works to be done to them by the Department will

generally be confined to the ordinary periodical repairs (including white and colour washing etc.), and to need,

- i) for the stability of the building
- ii) for preventing deterioration or leakage through the roof
- iii) for proper sanitation and
- iv) in exceptional cases for providing minimum accommodation (where it already does not exist) for a house-hold of nationality to which the Government servant belongs.
- v) Water Supply, Sanitary, Doors & Windows fixture will be met under the main Estimate. However for interior works like partition, work station, office furniture separate Estimate shall be prepared on the request of user Department.

Note 1: The complete management of 1st and 2nd class Travelers Bungalows and Circuit Houses is vested in the Public Works Department.

Note 2: The furniture in the buildings in charge of the Public Works Department will be periodically counted by the Divisional officer or the sub-Divisional officer and accounted for in the manner as laid down in the standing orders on the subject.

Note 3: The stock of articles in residential quarters should also be verified every time the officer-in-charge is transferred.

285. Furniture in VIP residences:

1. Rules regarding furniture articles supplied to residences:

The following detailed procedure shall be followed in accounting furniture and equipment supplied to residences.

- a. No furniture or equipment shall be provided to any Government residence without the previous sanction of Government. The furnishing of a residence shall be on such scale as may be prescribed by Government. Additions to furniture and equipment shall not be made without the previous sanction of Government.
- b. The expenditure incurred on purchase of furniture and equipment shall be debited to the minor head 'furniture', under the concerned head of account. The upkeep, repair and maintenance of furniture shall be done by the respective Divisional officers in charge of Government residences. The supply of furniture and equipment to the residences of Hon'ble Chief Minister, Chairman & Deputy Chairman of Legislative Council, Speaker & Deputy Speaker of Legislative Assembly, Cabinet Ministers and Ministers of State would be done by the Executive Engineer, Buildings Division, Bangalore, in accordance with the scale provided by Government from time to time. A new head of account is to be created.
- c. All expenditure on furniture, curtains and carpets, provided to residences should be debited to the Minor Head 'Furniture' under the concerned head of account. Separate Estimate should be prepared and sanctioned obtained for furniture meant for issue to residences under the control of Public Works Department and Account of such furniture should be kept separate and distinct from those supplied for officers.
- d. The officer responsible for the supply and maintenance of furniture is required to furnish to the Accountant General concerned an annual certificate of verification of furniture in the following form:

Form of certificate:

Certified that all furniture in... .. has been verified with the stock lists maintained and, I am satisfied that,

- i) all new supplies up-to-date have been correctly brought on to inventories.
- ii) the inventories are correct in all respects,
- iii) the articles in stock agree with the inventories,
- iv) sale proceeds, if any, have been properly accounted for, and
- v) sanction of competent authority exists for writing off all articles taken off the inventories.

Dated signature of the Assistant Executive Engineer

.....Sub-division

Countersigned.

Executive Engineer

.....Division

2. At least once in every three years a special inspection and check of the stock list shall be made by an independent Public Works Department officer and the certificate of verification to be forwarded to the audit officer in that year shall be countersigned by a special inspecting officer in token of his joint responsibility for the actual verification. It is the duty of the special inspecting officer to satisfy himself that the furniture is being properly maintained in good and serviceable condition and they tally with the lists and inventories maintained for this purpose.
3. In case of the residences of Hon'ble Chief Minister Chairman & Deputy Chairman of Legislative Council, Speaker & Deputy Speaker of Legislative Assembly, Cabinet Ministers and Ministers of State, the special inspection shall be made once in every three years, without reference to any particular year of the incumbency of the occupant.
4. Inspection of buildings shall be carried out by respective officers as below: -
 - i. Up to the rank of Executive Engineers shall inspect all buildings under their jurisdiction every year and update the records.
 - ii. Superintending Engineers shall inspect all buildings under their jurisdiction costing more than Rs. 5 Crore once in a year.
 - iii. Chief Engineers shall inspect any five buildings under his jurisdiction costing more than Rs. 10 Crore once in a year.
5. In order to facilitate furnishing of the annual certificate and proper maintenance of accounts, a stock register of furniture supplied to residences has to be maintained in the division office for prescribed.
6. The issues made to residences should be noted in a separate register allotting separate folios in each residence in the form prescribed and tallies with the total articles purchased and in stock. An abstract has to be put up and the fact of having furnished the annual certificate of verification to Accountant General as required in paragraph 3 has to be noted in this register. The certificate of annual verification as at the end of 31st March

of each year has to be furnished to the Accountant General on or before 15th May of each year.

7. While bringing the registers in prescribed forms into use, as on the date of opening of the registers an inventory of articles of furniture and equipment shall be got prepared and the register in prescribed forms shall be posted simultaneously.
8. The acknowledgment for the supply of furniture made to residences shall be obtained from the private secretaries or personal assistants to the Ministers/Speaker/Chairman/Deputy Ministers and filed in a chronological order and shall be made available during inspection by higher authorities.

286. Rent for office accommodation:

The amount of rent to be paid for office accommodation in private premises or building -- requires the sanction of Government, unless it is sanctioned by competent authority.

- (1) When Divisional officers and Superintending Engineers provide accommodation for their offices in the building in which they reside, the amount they can draw as office rent requires the sanction of Government; such rent should in no case exceed half the rent of the whole house:
- (2) When a sub-Divisional office is necessarily accommodated in the sub-Divisional officer's residence, the sub-Divisional officer may under the sanction of the Chief Engineer be allowed a fair proportion of the rent actually paid for the house he occupies on account of the accommodation which he necessarily has to provide for the office establishment attached to his sub-division subject to the following conditions:
 - (a) In calculating the accommodation set apart for office purpose, no allowances should be made for a separate room, apart from the office to be occupied by the sub-Divisional officer.
 - (b) The sub-Divisional officer's immediate superior must certify what accommodation is necessary and if the accommodation in the house in question is sufficient and suitable.
 - (c) He must also certify that no Government building is available, and that no suitable separate building can be hired for the purpose at a less cost.
- (3) If it is a Government building, the rent to be paid by the occupant should be calculated under Rule 9 of Appendix-IV of the Karnataka Civil Services Rules, In the case of a building hired specially as a sub-Divisional office, the rent to be paid will be fixed by Government.
- (4) When accommodation for an office is provided in a private residence, or in a building hired for the purpose, the first charge in every year that an officer makes in his contingent bill on account of house rent shall be supported by a certificate to the effect suitable public building was not available.
- (5) Bonafide charges for conveying furniture etc from one office to another will be charged to office contingencies. The removal of records and the carriage of office furniture required on tour, will also be charged to office contingencies.

Note: Sub-Divisional and field engineers are not supposed to carry with them, on ordinary tour, more records than can be conveyed without inconvenience with their personal luggage for which they draw traveling allowance and charges on this account will not be allowed.

287. Provision for furniture and fixtures in respect of Buildings of other Departments:

Generally when the buildings of other Departments are completed and constructed by PWD the User Department insists on fixtures and furniture are to be provided by PWD itself, though they are not originally provided in the sanctioned Estimate accepted by the User Department. In order to mitigate this problem the original Estimate itself shall make provision for fixtures and furniture so that there will be no references at later state and delay in taking over the completed buildings.

288. Purchase, sale and transfer of Government buildings:

1. No building shall be purchased for public purposes without the orders of Government to whom a survey and valuation report by the Executive Engineer of the division shall in all cases, be submitted.
2. Chief Engineer, Superintending Engineer and Executive Engineers have powers to sanction the sale or dismantlement of state Government buildings in-charge of public works Department, when the book value of buildings does not exceed the powers delegated to the officers time to time by the Government. However they have no powers to sell the land except with the previous approval of the Government.
3. No building shall be sold unless it has been previously ascertained that any Department of Government does not require it.
4. No building shall be demolished unless it is in a dangerous condition or beyond repair.
5. When it is proposed to sell or dismantle a portion of the building the value of the entire building and not of the portion shall be taken for the purpose of determining the authority competent to sanction the sale.
6. Temporary buildings erected during the construction of a work may, under the sanction of the Executive Engineer, be sold or dismantled on the completion of the work or when the purpose for which they were erected has been served. It is the duty of the Executive Engineer to report when in his opinion, any other building or property of Government in his charge ought to be sold or dismantled.
7. The Executive Engineer concerned shall have certified that any building proposed for demolition is dangerous or beyond repair.
8. The sale proceeds of Public Works Department buildings including the actual area occupied by or auxiliary to a building shall be apportioned as follows:
 - a) When the cost of the building was originally debited to the capital account or the revenue account of a project for which regular capital and revenue accounts are kept, or to a capital expenditure head outside the revenue accounts are kept for the work covered by the capital expenditure, the sale proceeds should be credited to the capital or revenue account of the project or to the capital expenditure head originally debited, as the case may be, as recoveries of expenditure.
 - b) When the sale is of a building the cost of which was originally debited to "2059. Public Works" the amount shall be credited to "0059. Public Works".
 - c) In all other cases;
 - i) If sold in the Public Works Department the amount shall be credited to "0059. Public Works, and

- ii) If sold by civil agency, to "1068. Miscellaneous General Services-other receipts".
10. Superintending Engineers are empowered to sanction in consultation with the Deputy Commissioner of the district and the heads of Departments concerned, the occupation as an office by one Department of Government of a building in charge of the Public Works Department after it is vacated by another Department for which it was originally constructed or provided, but the orders of Government shall be obtained by the authorities concerned before the transfer is made.
- a) When two or more Departments ask for the same buildings, the discretion in regard to the transfer of Government buildings (which though not immediately required for Government purposes, it is not considered desirable to dismantle) to local bodies on terms which will ensure the buildings being kept in proper repair and to secure the right of re-entry after reasonable notice, will be exercised by Government.

289. Leasing of Government Land:

If Government land is leased to some other Government Agency, the Government can fix the rent in consultation with the Finance Department. The revision of lease rent shall be in accordance with the agreement entered into and checked periodically.

290. Hire of Office Accommodation:

- 1. a) When no suitable Government building is available, private buildings may be hired for public purposes, the rent and Municipal and other taxes being paid as laid down in Rule 55(46) (e,f) of the Manual of Contingent Expenditure when the building is entirely used for office accommodation. In case it is occupied partly as a residence and partly as an office for which no separate rent is paid, the share of the rent payable by an officer residing therein shall be determined in accordance with the rule (9) in Appendix-IV of the Karnataka Civil Services Rules- volume 1.
- b). The power delegated to the PWD officers in this respect shall be as per the general delegation of financial powers.

2. Occupation of Government Bungalows and Residences:

The occupation of Government bungalows as residences is regulated by the rules in Appendix-IV of the Karnataka Civil Services Rules, Volume-I, Appendix-X.

291. Renting of building:

- 1. It is the duty of the Executive Engineer unless special orders to the contrary exist in any special case to endeavor to get tenants for public buildings not immediately required for Government use. They should generally be let on monthly basis, but the lease shall be given with the sanction of the Government in the case of non-residential buildings and residential buildings. A clause in the agreement should be added, when necessary, to enable the Executive Engineer to terminate the lease at short notice in case the buildings is required by Government. For rules regarding letting and occupation of Government bungalows as residence.
- 2. (a) Public buildings let to private individuals should not be altered or extended at Government expenses to suit the tenant, and the persons occupying public buildings on rent are prohibited from making any alterations even at their own expenses, except with the express concurrence of the Executive Engineer. The fact of any additions or alterations being made by the tenant confers no right of ownership on him nor can be

considered as giving him any claim to a set off against or diminution of rent, these conditions should be entered in the agreement of lease.

- (b) The tenants shall be held responsible for the conditions of the buildings while in their occupancy and they are, on vacating bound to hand over the same in proper order, i.e., without any damage having been done to them.
 - c) Before vacating the building the occupants must give timely intimation to the Public Works officer or subordinate at the place, of the date on which they intend to vacate to allow of the inspection being made to ascertain if the buildings are handed over in proper order. If a building is not in fit condition, what is required to render it so should be noted and communicated to the party concerned at once and steps taken to recover the cost of the same from him.
 - (d) In the case of Government buildings leased on tender basis for commercial purpose such as running restaurants etc., the tenders for building fetching a rent up to as fixed by the authority competent shall be considered.
3. Renting of a building / land belonging to Government to a person not in Government service:
- (a) In all cases where a bungalow, flat or other building or land belonging to Government., is let out or leased to a person not in the service of Government, the following rules shall apply.
 - i) A month's rent should be recovered in advance.
 - ii) The required deposit shall be fixed by the Government, or the authority competent who allots the building / land in the form of demand draft of a nationalized bank, or pledged NSC in favour of the respective Executive Engineer, or bank deposit receipts drawn in favour of the respective Executive Engineer.
 - iii) The daily rate of rent should be taken at 1/30 of the monthly rent or 10% of the occupant's emoluments for a broken period of a month.
 - iv) Charges for specific services such as sanitary, water supply, electricity etc. shall be borne by the tenant/lessee.
4. **Fixation & mode of payment of rent:**
- a) The rent for the occupants shall be fixed on the basis of standard rent which will be calculated and approved by the respective authority as detailed below as in Chapter -20:
 - i. When the year of the construction or acquisition of a residential building is not known, its present value will be taken into account. The rate of interest applicable to the year in which the assessment of the capital cost of the building was made will be adopted for purpose of calculation of rent and preparation of rent data statement of the building.
 - ii. The rent deposit shall be recovered in cash or demand draft in advance.
 - iii. If the tenant is working under a Government Department, occupying the rentable buildings, in such cases the rent shall be recovered / deducted from the pay bills of the concerned and fact of deduction shall be intimated to the respective Department.
 - iv. The disbursing officer is entirely responsible for deduction of rent and to intimate the fact of recovery to the concerned Department.

5. Provision for penal rent:

The tenant shall be liable to pay penal rent if the tenant does not vacate the building / land in time, as per the conditions of agreement conditions. The penalty shall be at the rate of twice the normal standard rent for the overstay of first 3 months, after that it is four times the normal standard rent for next 3 months, beyond which it shall be eight times the normal standard rent as per prevailing.

6. Agreement to be concluded:

The tenant is required to execute a tenancy agreement on Rs.50/- stamp paper or lease agreement with the Government of Karnataka in the prescribed form, which shall expressly state about the recovery of arrears or rent due to Government. The tenant shall expressly give consent that the arrears of rent shall be treated as on arrears of land revenue and will bear all the expenses of registration, stamp duty and other unforeseen expenses which may occur by refusing to vacate the Government buildings. The agreement shall be concluded in consultation with the respective Government pleaders.

292. Leasing of private buildings and residential accommodation:

1. When it is more convenient or economical to do so, buildings may be taken on lease with the sanction of Government instead of construction or purchasing a residence for a Government servant.
2. Leases should ordinarily provide that the leaser shall execute all structural repairs before the building is occupied and will carry out such additions, alterations, and repairs necessary to render the building habitable and suitable for the purpose for which it is required. In the event of any additions and alterations to the building being made subsequent to the signing of the lease at the request of the occupant and at Government expenses, the consent of the owner must first be obtained in writing unless the work is considered by the Government as essential.
3. Capital expenditure under clause 2 above shall not ordinarily be incurred if it will raise the rent of the leased building to an amount in excess of 10% of the average emoluments if any, of the class of the official who will usually occupy the building.
4. For the procedure in connection with the leasing of private building for residential accommodation and for the rent to be charged to the occupants of the leased buildings see Appendix IV of Karnataka Civil Services Rules, Volume-1.

293. Custody of vacant buildings:

Whenever a public building, which is not borne on the registers of the Public Works Department falls vacant, it shall be handed over to custody of the revenue Department by the occupying Department. If it is considered desirable, for any special reasons to transfer the buildings to the charge of the Public Works Department, orders of Government shall be obtained. Public buildings borne on the register of Public Works Department shall be handed over to respective Department when vacated.

294. Municipal taxes on buildings:

All the circuit houses, inspection and traveler's bungalows in the state are exempted from the payment of municipal taxes as they are used only for non-residential purposes.

1. In the case of buildings, in places other than Mysore and Bangalore, the following procedure has to be followed in the accounting of charges incurred in connection with general and special water rates levied by the municipalities /corporations.

- a. The cost of installing water connection shall be included in the capital cost and in the case of residential quarters, the full prescribed rent shall be recovered from the tenant occupying the building. In the case of rent-free quarter, no installation shall be undertaken unless the tenants agree in writing to pay the house connection fees levied by the municipality.
- b. The levy of general water cess which is invariably included by the municipality / corporation in the bill for house tax will be borne by Government. In the case of house connection, an additional tax viz. house connection fees, will be separately levied whether the quarters are rent-free or not. In the case of buildings used as offices such charges shall be paid by the Department occupying the building and charged to its office contingencies. No amount on this account shall be charged to the annual repairs Estimates of the buildings.
- c. The work of recovery of house connection fees devolves upon the Public Works Department.
- d. To avoid complications in the matter of recovery in case of frequent transfers of tenants, the drawers of bills may be asked to deduct out of their salary and establishments bill one twelfth of the annual rent every month supported by a deduction statement. Whenever the buildings are occupied or vacated during the middle of a month, the recovery of the proportionate amount shall be noted in the last pay certificate.
- e. The taxes when paid by the Public Works Department shall be charged to the cost of the maintenance of the building. The responsibility for the acceptance of the assessment rests with the Divisional officer in charge of the building. If the assessment appears to be unduly high, proceedings shall be taken to obtain redress under the municipal law.
- f. Exception: Residential quarters attached to public institutions for the use of Government servants, who under the rules have to live in the premises of those institutions, as well as medical staff quarters used for residential purposes on which a share of rent is received by the municipalities, shall be liable to municipal taxation.
- g. Utility service charges such as municipal taxes, water charges are to be paid on first priority out of building maintenance charges by the concerned Executive Engineers.

295. Remission of municipal tax for vacant buildings and for demolished buildings:

1. Whenever a Government building (residential and non-residential) is likely to fall vacant, the occupant of the building immediately before the actual vacancy occurs or the head of the office to which the occupant belongs, should on the date of which the building falls vacant give notice of the vacancy direct to the executive authority of the municipality concerned or the commissioner of the corporation concerned or the executive authority of the Panchayat concerned as the case may be a copy of such notice being simultaneously sent to the Executive Engineer of the division concerned to enable him to claim remission. The head of the office mentioned above shall take similar action on the first day of every succeeding half year, if the building continues to be vacant even then. The Executive Engineer shall thereafter in due course, claim remission of municipal property tax or Panchayat house tax. The officer paying the tax

for a vacant building should ascertain that remission of tax has been claimed for the period that the building was vacant.

2. In case of vacant buildings which are taken over by the Public Works Department from other Departments and which continue to remain in charge of the Public Works Department, it shall be the duty of the section officer concerned to give necessary notice of the vacancy of the building to the local body concerned immediately they are taken over and thereafter on the first day of every half year, if the building continues to be vacant, then a copy of such notice being simultaneously sent to the Executive Engineer concerned.
3. When a Government building (whole or part) is demolished or destroyed, the Executive Engineer concerned shall immediately give the requisite notice to the municipality / village or town Panchayat concerned and obtain remission of property tax.

296. Taxes on new buildings:

1. Intimation shall be given to the local body concerned about the construction of a new building or the reconstruction of a building within 15 days from the date of completion or occupation whichever is earlier. This intimation shall in case of buildings (residential or non-residential) on which the Public Works Department will have to pay the property tax, to be given by the Executive Engineer concerned. In case of other buildings on which the Public Works Department will not have to pay the property tax, the intimation to the local body shall be given by the occupants or the heads of offices who will have to pay the tax on the buildings.
2. In order to avoid delays in the assessment and payment of municipal taxes on new buildings constructed by the Public Works Department or the corporation or the local body as the case may be shall be informed by the Executive Engineer of the cost of a new building within six months of its completion. In case where it is not possible to close the account of a work within six months of its completion, provisional figures of cost so far as can be made out at the time shall be given by the Executive Engineer so that the assessment may be calculated on these figures subject to revision when the final figures of cost are available.

297. Inspection of public buildings:

1. All public buildings shall be inspected at least once in each year by the Executive Engineer. The field engineers and the sub-Divisional officer must make frequent inspection of all buildings including pre and post monsoon inspection in their charge throughout the year and see that each is maintained in good condition. They will be responsible that all defects which cannot be remedied from the repair grants allotted are at once brought to the notice of the Executive Engineer for the latter's inspection, if necessary. The results of their inspection shall be recorded in a register maintained for the purpose. The Executive Engineer will in turn report to the Superintending Engineer if circumstances required it, for further action. The Executive Engineer and the Superintending Engineer shall, in their tours of inspection, see that the above instructions are being complied with the record with results of their own inspection in a similar register maintained in their offices. The Executive Engineers are required to inspect a fairly large proportion of the buildings themselves in addition to the inspections made at the request of the sub-Divisional officers. Matters that cannot be dealt by the Chief Engineer shall be brought to the notice of the Government.

It is mandatory for the officers of the Department at the section, subdivision and

division level to inspect the buildings in their jurisdiction, record their findings in the registers prescribed, during the month of February of each year or earlier. A certificate to that effect has to be furnished by them in the month of March to the higher officers. A register for inspection of public building shall be maintained in form PWF 20.

298. Register of buildings and property accounts:

1. The capital value of any portion of the building which is abandoned or dismantled without replacement should be written off the total capital value of the building.
2. Whenever any building is constructed or purchased by Government, no special permission of Government is necessary for taking it over on Public Works Department return of maintenance.
3. All vacant lands in possession of PWD and land that may possess in future shall be recorded in prescribed formats with all details like survey no., area with boundary, value of land and year of acquisition and other details. Guidelines issued by the Government are given at the end of this chapter.
4. The Divisional officers shall also maintain separate property accounts,
 - a. for immovable Government properties in form PWF 21.
 - b. Register of Buildings in form PWF 22.
 - c. for all lands in possession of Public Works Department in form PWF 23
 - d. Register of leased lands PWF 24 and,
 - e. for bridges and culverts in charge of the Public Works Department in form PWF 25

299. Plans of buildings:

In case of buildings and works borne on the returns of the public works Department, the Executive Engineer shall ensure that as built drawing are prepared on completion of any alterations.

300. Maintenance of Electrical Installations of Government PWD Buildings

1. Heads of Offices may get minor electrical works executed by licensed contractors, provided there is sufficient provision in their Department building grants to meet the charges and that such installations are got tested by the section officers of the division.
2. With regard to electrical installations, the need for the same has to be considered by the administrative Department in the first instance and only after this is examined and the installation approved by the administrative Department and made are found available, technical sanction to the Estimates shall to be accorded by the Public Works Department. The Superintending Engineer and Divisional officers are empowered to sanction Estimates for electrical installations to Government buildings to the extent of powers vested with them from time to time by the Government.
 - a. In case of rent-free quarters, the installations shall not be sanctioned unless the tenants agree in writing to pay the charges mentioned above which should on no account be remitted.
 - b. The expenditure on telephone installations or improvements thereto executed by the Telecom Department does not come under the term electrical installation and it shall be

met from the contingencies of the Department concerned, Estimates for such works shall not be sanctioned from the funds of the Public Works Department.

- c. The Executive Engineer, Electrical Division, shall furnish to the Divisional officer concerned before or at the time power bill is issued, particulars as to the date of completion of each installation, the actual expenditure incurred on it, the date of commencement of service in order to enable him to add the cost of the electrical installation to the capital cost of the building and calculate rent at 7% on the combined outlay for inclusion of the claim in the monthly rent statements, wherever electrical work is carried out by him.

301. Special provisions in public buildings for the use of physically challenged:

It is essential to make all the public buildings and facilities used by the public accessible to and functional for the physically challenged through and within their doors without loss of function, space or facility where the general public is concerned. The following facilities shall be provided to all the Government buildings, to make them easily accessible by such persons;

- a) Ramps with gradients at the entrance to the building.
- b) Wheel chair maneuvering space.
- c) Self- closing doors.
- d) Hand rails in stairs and lifts.
- e) Non- slippery floors.
- f) Accessible and usable sanitary facilities, drinking facilities, public telephones, identification of door handles, workbench etc.

302. Safety Measures in Construction of High raise public buildings:

In respect of construction of high raise buildings (more than 15 Mtrs in height) it is mandatory to obtain prior clearance of Fire Force Department and Airport Authority (in case of proximity to International & Civil Airports). Also provision of fire escape stairs as required by the Fire Force Department shall be provided at the time of preparation of designs, drawings and Estimates of high raise buildings. Environmental clearance is also required in case of building and construction projects of more than 1,50,000 sq mts of built up area.

303. Fire prevention, safety and protection:

The type and scale and fire fighting appliances to be provided in a building will depend on the type of fire that is likely to be encountered in the building and in term depends on the type of the building. The necessary fire fighting equipments as prescribed in the National Building Code from time to time shall be installed in all the Government buildings.

304. Rain water Harvesting:

The Executive Engineer shall ensure that provision for rainwater harvesting shall be made for all the Government buildings in consultation with the Karnataka State Council for Science and Technology IISc Bangalore.

305. Circuit Houses and Inspection Bungalows:

Classification: -

All Inspection Bungalows and Travelers Bungalows in the State / out side the State shall be classified into the following categories and are meant primarily for the use of Government officers and officials on duty. The traveling public also may occupy these bungalows at the discretion of the controlling officer, if not required by Government officers / officials: -

- a. Circuit Houses: These are Government guest houses in District Head Quarters providing accommodation with adequate furniture.
- b. Inspection Bungalows: These are Government guest houses in Taluk Head Quarters providing accommodation with adequate furniture.

The Circuit Houses & Inspection Bungalows will be under the control of the Executive Engineer having jurisdiction over them. In other words Executive Engineer shall be the controlling officer whose decision is final in all matters concerning allotment; occupation, vacation. In respect of Circuit Houses & Inspection Bungalows outside the State, reservations are to be made with the respective Executive Engineers of the Division.

306. Rules for occupation of Circuit Houses & Inspection Bungalows:

1. Persons entitled for occupation are primarily meant for the occupation of Governor, Speaker of the Karnataka Legislative Assembly, the Chairman of the Karnataka Legislative Council, Chief Minister, Ministers, Deputy Ministers, Ministers of State and Heads of Departments.
2. However other gazetted officers of the state Government, officers / officials of the Government of India, Karnataka State Government undertakings traveling on duty may also occupy these bungalows at the discretion of the controlling officer, subject to availability of accommodation and payment of fees prescribed for gazetted Government officers.
3. Members of Legislative Assembly, Legislative Council and Members of Parliament, while on journeys to attend the meetings of committees appointed by Government or the legislature or a session of the Council or Assembly or session of Parliament and return journeys from such meetings or session as the case may be, may also occupy these bungalows at the discretion of the controlling officer, subject to the availability of accommodation and payment of fees.
4. Officers of other state Governments traveling on duty may also occupy these bungalows at the discretion of the controlling officer, subject to the availability of accommodation and payment of fees as for others. (The occupants will have to vacate the bungalow if it is required for occupation by the state Government officer traveling on duty entitled to its use and the person above them as per protocol required the bungalow for occupation).

307. Reservation:

1. The officer who gives three days clear notice to the controlling officer of his intention to occupy shall not normally be refused permission unless is either reserved already by other officers entitled to it or is especially reserved under the rules.
2. The Government officer on duty may reservation for his occupation on prior intimation to the controlling officer, three days before the occupation.
3. The reservation for Government officers on duty shall carry the right to occupy.

4. The maximum period of occupation by an officer at a time shall be three days, at the end of which the same shall be available for occupation by other officers entitled to its use. There is however, no time limit for an officer occupying the bungalow beyond the prescribed time limit provided others legitimately entitled to occupy the bungalow are not refused accommodation.
5. In the case of persons requesting reservation, an advance equivalent to the period of stay may be taken as reservation charges. If the reserved persons do not turn up within 8 hours from the hour from which accommodation is reserved the advance shall be forfeited to Government and the accommodation be provided to others according to rules.
6. Rent for occupation shall be as per the prevailing Government orders.

308. Film shooting:

1. A rent as per prevailing Government orders shall be levied in respect of Kannada language films and other language films respectively for shooting in the premises of the circuit houses / inspection bungalows / guest houses in the state.
2. The concerned Executive Engineer shall ensure that no damages are caused to the premises of circuit houses, inspection bungalows and guest houses while shooting the films.

309. General Maintenance:

1. The following acts are strictly prohibited in all bungalows:
 - (a) Lighting a fire in any room.
 - (b) Using any part of the bungalow for any purpose for which it is not intended.
 - (c) Using for immoral or illegal purposes.
 - (d) Using for political purposes like conducting political meetings and conclaves.
 - (e) Using for throwing parties where liquor is served.
 - (f) Using for video shows, singing and dancing with or without loud speaker.
2. The person using a bungalow shall be responsible for maintaining discreet silence and decency in the choice of words used in conversations out of respect or consideration for the other inmates of the building. All the occupants as well as the staff are enjoined to co-operate to maintain an atmosphere of quiet dignity in the bungalow and its surrounding areas.
3. As soon as the visitors arrive at the bungalow, they shall be requested to write their names, addresses and telephone number, arrival timings, approximate period of stay etc., in the bungalow register. At the time of leaving, the date and time of departure shall be entered in the bungalow register. Every new occupant of the bungalow is entitled for fresh clean bed linen and towels. They shall feel free to bring to the notice of the controlling officer any infringement of the rules or any abuse of the building and note the same in the remarks column of the register. A complaint book provided in the bungalow also can be utilized to give their feed back to help the administration to improve the services and facilities.
4. The occupants are responsible for utilizing the facilities properly, without causing damage to the building or its furniture either by themselves or their servants. They are required to leave the bungalow and its premises clean and tidy before their departure.

5. The mess charges and telephone charges if any shall be paid by the occupants before leaving the bungalow. Any irregularity, inconvenience or any claim for exemption from payment shall be referred to the controlling officer.
6. It is the duty of the caretaker to take such steps as may be necessary to prevent violation of the above instructions by courteous approach. If required, he shall bring any violation of regulations laid down for the occupation to the notice of the Section Officer in charge of the Bungalow.
7. The care taker, shall have to maintain cleanliness, proper water supply and sanitary arrangements, lighting etc., in the premises.
8. All the staff members shall be provided with uniforms, which are simple and decent.
9. The road map of the state, map of the local area, details of the train and bus timings, fire service, police, travel and tourist information, medical facility, telephone numbers constantly updated shall be displayed. If possible enlarged photographs of places of historical importance nearby shall be neatly displayed.
10. Where there are no cooks attached to the bungalows, no cooks shall be appointed and all food arrangements shall be out sourced. It shall be clearly understood that the aim of maintenance shall be only to provide simple, clean lodging facilities to the Government officials.
11. There shall be necessary staff for maintenance. They shall be provided with simple and clean uniforms. Housekeeping of these bungalows can be outsourced.
12. The caretaker of the bungalow can allow occupation of the rooms depending upon the availability of rooms for officers / officials arriving on duty at odd hours and bring it to the notice of the section officer at the earliest time and to collect and remit necessary rent as prescribed. But their arrival shall be recorded in the register before occupation of the room. Any violation can be construed as accommodation given on a sly and therefore shall not be done.
13. The controlling officer, who is the Executive Engineer of the division, is the referee in all the cases of dispute. Travelers who have any complaints to make should address that controlling officer by letter or enter their complaints in the book kept.
14. The Field Engineer shall take timely and effective action to prevent encroachment or misuse of the surrounding areas. The vacant land around the building shall not be let out for small hotels, shops etc. Un-authorized occupation shall be dealt with expeditiously and cleared with the help of police and revenue Department officials, if necessary.
15. Depending upon the availability of water supply, a neatly designed garden with the co-operation of horticulture Department staff shall be developed and maintained. All existing trees shall be appropriately marked and preserved with the natural greenery around them taken care properly.
16. Maintenance of canteen for the benefit of the occupants in the premises of guest house wherever required shall always be carried out adopting modern principles of management ensuring cleanliness and good hygiene. If necessary, the assistance of health authorities shall be obtained to see that only healthy workers are appointed and good, healthy food alone is prepared and served to the occupants.
17. If the person to whom the canteen is leased is not preparing food satisfactorily and keeping the premises clean and tidy, action shall be taken to terminate the lease and

dispense with the services. There shall not be any delay in fixing an alternate agency to run the canteen.

18. The building shall be maintained regulating the expenditure as per priorities laid down in the Chapter 19 of this code. Not only the buildings but also the furniture provided like chairs, tables, cots, sofa sets etc., shall also be maintained properly. A building register showing all the furniture, fittings, furnishing shall be maintained in the guest house.

310. Government Residential Buildings (Quarters)

1. Government buildings constructed for the use of Government officials as residence are considered as residential buildings or quarters.
2. Any additions/ alteration and improvements work shall be carried out on request of the respective Departments only if required grant is provided by Department.
3. Government residential quarters under the custody of the Public Works Department shall be maintained by the concerned Executive Engineer out of the allocated grants once in three years.
4. Allotment of Government residential buildings shall be done by the Allotment Committee constituted as per the prevailing orders. In case of any disputes, the decision of this committee shall be final.
5. Rent for the Government quarters shall be recovered by the respective pay drawing and disbursing officers of the respective Departments and the same has to be intimated to the PWD authorities concerned every month.
6. The officers/officials who are allotted Government quarters shall be allowed to stay for a maximum period as per the Government order prevailing at the time of allotment of quarters. Maximum period of stay in the Government quarters by the officials as per the Government orders prevailing at that time.
7. The officer/official occupying a Government quarter shall vacate it upon the stipulated period. If the occupant refuses to vacate the quarters after the maximum period of allotment, he/she shall be evicted thereafter, as per the Karnataka eviction of Public Building Rules. Vacation of the quarters/residential buildings by officials shall have to be done as per the Government orders prevailing at the time or other wise, eviction of the Government residential buildings shall have to be done as per the Karnataka Eviction Rules.
8. In case of any disputes regarding and residential buildings (quarters) the decision of Department/ committee is final.

311. Vacant Land in possession of Department

1. Whenever a Requisition is received from other Department/Government Organisation for leasing or grant of vacant land in possession of Department, the Executive Engineer shall verify the request keeping in mind the future requirement of the said land for Department use, then only recommend for lease or grant of such vacant land to competent Authority.
2. If any request received from private party/non Government Organisation/non Governmental Institution at first instant, such request shall be rejected.
3. For the land, which is already leased, there shall be separate register with all details like Sy.No. Area, lease agreement, period of lease etc. The Executive Engineer shall periodically look into the terms and conditions of the lease agreement. The

Executive Engineer shall verify any violation of terms and conditions of the agreement, with respect to lease period, payment of lease amount etc. If any violation are noticed, the Executive Engineer should at once report to higher authority and necessary action to be initiated by him immediately in order to safeguard the interest of the Department.

The Executive Engineer on 30th of April every year shall submit following certificate to the Chief Engineer for having verified the lease land and lease agreement.

It is certified that, the land bearing the (Sy.No.)..... ofTaluk and District leased tovide lease agreement..... is inspected by me on..... date,

It is further certified that, there is a / no violation of lease agreement

4. In case of leased land where the lease period going to be completed or when the renewal of the lease rent is due, the Executive Engineer a year before the completion or otherwise of lease period/renewal of lease amount shall initiate a proposal for renewing lease amount/lease period.
5. Periodical revision of rent as per agreement shall be effected and revised rent collected accordingly.

CHAPTER 22
VALUATION OF BUILDINGS

312. Background:

The Chief Engineers at the zonal level shall constitute a committee comprising of Engineers, representative/s from the Institution of Value to work out details of cost of buildings of normally constructed, arrive at the plinth area rates for different areas of the State, which will ensure greater uniformity in preparing the valuation of buildings for fixing fair rent. The PWD Engineers shall be guided by value of normal buildings fixed on plinth area basis.

313. Reasonable rent:

Reasonable Rent shall be fixed on the basis of recognized principles of valuation, guidance value of land fixed by revenue authorities from time to time and cost of construction based on prevailing SR with depreciation as applicable.

314. The assessment:

The assessment of rent according to the recognized principles of valuation shall be done in accordance with the method prescribed as hereunder;

1. The present cost of the building shall be worked out as on the date of valuation based on the ruling cost of building construction in the locality.
2. The depreciated value of the building shall be worked out assuming a straight line variation of the depreciation depending on the age of the building. Date of construction of the building shall be ascertained on the basis of documents produced and local enquiry and depreciation allowed up to the date of assessment taking into account the anticipated total life of the building, and keeping in view the specifications adopted for the building construction. Salvage value of the building shall be 6% to 10%, depending upon the quality of construction and maintenance, usage, as also present condition of the building.
3. The cost of land shall be worked out on the basis of guidance value of land fixed by revenue authorities from time to time. Surplus land which does not enhance the utility of the property shall not be considered while assessing the rent of the property. Value of the land appurtenant to the building which is surplus shall be taken separately and indicated in the rent certificate. The PWD land adjacent to / within the town/ City shall be valued as Non Agricultural land.
4. The net value of the property shall be arrived at, adding the cost of the land to the depreciated value of the property for the purpose of working out the return thereon. The annual rate of return shall be 7%.
5. If the open area around the structure which has facility of parking or can be utilized for other purpose is proposed to be taken over along with the building, the percentage of return on the said open area shall be taken as 9% in case of corporation cities and 8% in case of mofussil towns both for non-residential and residential use of the property. The following items shall be added to this for arriving fair rent.
6. Sinking fund; Provision for sinking fund, to be ascertained with reference to standard sinking fund tables or alternatively to be calculated as per standard formula given below:

$$\text{Sinking fund co-efficient (K)} = \frac{0.06}{(1+0.06)^n - 1}$$

Where n=residual life of the building in years.

Annual provision for sinking fund = 0.94 x (K) x (D)

Where K= sinking fund coefficient as above

D = Depreciated value of the building.

315. Buildings to be hired

Where buildings proposed to be hired are built-up space or properties acquired by private persons, the cost of purchase includes the cost of land also. It represents the correct capital cost of the properties. The valuation for fixing rent shall be worked out according to the recognized principles of valuation in the following manner:

- (a) Wherever information is available regarding acquisition and purchase price of any ready built property by a Government Department or any state undertaking, in the vicinity of the leased private buildings during the period of assessment / re-assessment of rent, the same may be considered for working out the capital cost of the property (building and land) on the date of assessment, after ensuring that the building under assessment is really similar to the acquired property, not only in terms of specifications but also in terms of FAR (Floor Area Ratio) achieved, as the proportion of the cost of land will depend on the FAR achieved, making suitable adjustments for minor differences, if any. The capital cost so worked out shall be subject to depreciation as specified above, to arrive at the net value of the property.
- (b) Where information referred to in (a) above is not available, the usual methods as laid down in paragraph 33.3 above shall be followed to work out the fair rent according to the recognized principles of valuation.

316. The market rate:

The market rate of rent prevalent in the area shall be ascertained by making inquiries on the rent being paid for properties taken on lease by other Government or semi-Government organizations like public sector under takings, public sector banks etc. having similar or near similar accommodation in a comparable locality. The data probably based on documents taking into account the conditions in the particular lease deed for such premises shall also be kept on record as far as possible. The properties shall be compared on the basis of various parameters like locality, area, size, specifications, amenities, accessibility, open space, surroundings, nearness to railway station, bus station, market place etc. It is the responsibility of the land owner to bear the cost of maintenance, repairs and municipal and any other taxes. The rates may be compared with that of neighboring properties.

317. Re-assessment:

The re-assessment of rent of the existing building shall be treated as fresh assessment and shall be done adopting the methods given in the preceding paragraphs.

318. Valuation:

The services of officers and subordinates of the Department shall be made available for work of valuation of buildings including lands on behalf of private or semi Government body or institution, if it is not detrimental to the interests of Government work on the following terms:

1. The fees recovered for the grant of renewal of licenses for theatres and other places of public amusement are inclusive of the fees and traveling allowance of the Department officer who inspects and the same is credited to the concerned revenue head.
2. Engineers shall inspect the buildings concerned personally (Assistant Engineer up to value of Rs 50 lakh, Assistant Executive Engineer up to value of Rs.100 lakh, Executive Engineer above Rs 100 lakh and up to any value) and satisfy themselves fully on all aspects including their existing condition at the time of inspection. They should make a detailed report on all the points, in the form prescribed in the Annexure-1 of the rules, specifically mentioning the dates on which they had made personal inspection of the buildings concerned and certifying that the report is based on such personal inspection.
3. Age of the building shall be verified from the records made available by the concerned authorities. It can also be verified whether the buildings have been constructed according to the sanctioned plans and Estimates as per standard specifications. In case the buildings are not constructed according to the prescribed zoning regulations and according to the sanctioned plans generally, the facts shall be mentioned in the valuation report. The year of construction shall be verified and noted. All necessary records including title deeds of the property should be examined properly. The age of the building shall be fixed correctly, if necessary through local enquiry also, in case sufficient records are not available.
4. Condition of the buildings, whether the buildings are maintained properly with periodical repairs etc., up to the date of valuation shall be noted. If any improvements or repairs are required to bring the building fit for further use, it shall be reported with details of cost of such improvements or repairs.
5. Valuation of water supply, sanitary works & electrical Installations:
Where a building is valued for acquisition, sale or registration, then if competent Engineering officer is of opinion after personal inspection of building, that the scale of sanitary, water supply and electrical fittings are far below or above the standard pattern / scale adopted for Government buildings (i.e.7% to 10% of each category), then the actual assessed market value of such fittings, irrespective of the percentage limit, shall be taken into consideration in the valuation statements with due regard to the age of such fittings / future life, amount of depreciation for such fittings etc.
6. In cases where the valuation of a private building is required on the basis of a detailed survey and Estimates of the building, the following scale of fees shall be charged based on the valuation arrived at by the officer concerned:
Percentage to be charged:

| | |
|------------------------------|---------------|
| 1. Up to Rs one lakh | 1.00 Percent |
| 2. Rs one lakh to Rs.25 lakh | 0.75 Per cent |
| 3. Above Rs. 25 lakh | 0.50 Per cent |
7. In cases where valuation based on the plinth area basis is sufficient, a fee of 0.5 per cent of the capital cost of the valuation of building and 0.25 percent of the land value shall be charged.
8. The fees prescribed in paras (8) and (9) above for the private bodies and individuals shall also be charged to other Government Departments such as central Government Departments and local bodies and traveling and halting allowances admissible to the

officer concerned under the rules in force should be recovered from the party concerned and credited to Government.

9. (a) It should be clearly explained to the party requiring the valuation that the Government will not be responsible for, or in any way bound by the valuation arrived at or the opinions expressed by the officers permitted to carry out the valuation. In respect of the services rendered by the Public Works Department for issuing valuation certificates for the fixation of fair rent relating to private buildings requisitioned by the other Departments of the state Government, the owner shall pay the valuation fees.
- (b) The fees recovered for such valuations should be credited wholly to Government.
- (c) In certain cases where the Public Works Department officers carry out valuation work based on plinth area rate basis, the scale of fees laid down in para (6) above shall be followed.

319. Exemption of fees:

The services rendered by the Public Works Department officers in assessing the rent of Mujrai temples & buildings, school buildings, issuing completion certificates or in evaluation of educational hospital or charitable dispensary buildings shall be free except that if an officer is required to make a special journey for the purpose of inspecting any particular building, the traveling allowance of the officer concerned in respect of such special journey shall be recovered from the local authority or private institution concerned and credited to Government.

320. Valuation of private buildings:

Engineers of the Public Works Department are permitted to prepare valuations of buildings whenever requested by the private institutions or individuals, subject to the condition that this work is not done during the office working hours, and that the Government work does not suffer. Remuneration received shall be declared every month to the officer under whom they are working, and 30% of the amount so earned shall be credited to Government funds. The certificate issued by them shall clearly state that this valuation is not in any way binding on the Government.

321. Fair rent:

1. The fixation of fair rent for private buildings taken on rent for Government purposes shall be done on the basis of the rates provided in the schedule of rates of concerned division or at market rate whichever is applicable minus proportionate depreciation according to the life of the building.
2. Fair rent shall be calculated as per norms prescribed in paragraph 286.
3. Fair rent once fixed shall be valid for a period of three years. At the end of three years period fresh valuation of the building in the same manner as aforesaid shall be carried out, as if it is a fresh valuation based on the conditions prevailing at that time.

ANNEXURE -1

Statement to accompany the valuation of buildings done by the officers of the public works Department:

I. Location:

1. Site or survey number
2. Brief description of the property.

II. Land particulars:_(Site survey plan to be enclosed)

1. Extent of land.
2. Cost per sq.mtr.
3. Total cost of land

III. Main building particulars :(Sanction plans to be enclosed)

1. Nos. of storeys
2. Floor area
3. Plinth area
4. Foundation
5. Superstructure
6. Flooring
7. Woodwork and roofing
8. Architectural and other finishing etc.

IV. Valuation of property:

1. Plinth area rate
2. Cost at current rate
3. Age of the building
4. Rate of depreciation
5. Depreciation of the building
6. Subsidiary buildings like garages, servant quarters, out houses, compound wall, well etc. (Particulars required under III &IV 1-5 should be furnished for all subsidiary buildings valued in the compound)
7. Depreciated value of the building

V. Valuation of water supply, drainage & electrical installation and other movables:

1. Existing value
2. Condition of the movables
3. Depreciation
4. Recommended value

VI. Improvements and repairs required to make the building fit for occupation:

- 1(a). Brief nature of improvements and repairs

2(a). Approximate cost of improvements

(b). Approximate cost of repairs

VII. Municipal taxes, repairs and maintenance costs, contributions to sinking fund if any:

1. Approximate amount of municipal taxes

2. Approximate amount of sinking fund, and maintenance and repairs.

VIII. Value of property:

1. Cost of land including trees.

2. Cost of Buildings (including appurtenant buildings, taxes, repair and improvement costs, sinking fund)

3. Total cost of land plus buildings and appurtenant structures.

4. Recommended value of the property.

IX. Certificate:

Certified that I, Sri personally inspected this building onin the presence of / along with..... and prepared the valuation statement adopting market rates /current schedule of rates, and in my opinion the value of the property is Rs..... (Rupees.....) (in words) and the fair rent is Rs.....(Rupees.....)(in words) per annum.

Place:

Signature:

Date:

Name and designation of the officer

ANNEXURE -2

Rates Of Depreciation For Buildings per year

| SI No | Description of buildings | Rate of depreciation |
|-------|---|----------------------|
| 1 | Buildings built with brick in cement mortar in which teak wood is used. | 1 percent |
| 2 | Buildings built with brick partly in cement mortar and partly in other mortar in which teak wood is used. | 1.5 percent |
| 3 | Buildings built with brick in mud in which country wood is used. | 1.75 percent |
| 4 | Buildings inferior to those in class 3 above with brick in mud, un-plastered walls, mud floors in which cheap country wood is used. | 5 percent |
| 5 | Buildings built with brick in cement mortar in which other than teak wood is used | 1.25 percent |
| 6 | RCC framed structure with walls constructed with brick in cement mortar in which teak wood is used | 0.75 percent |
| 7 | RCC framed structure having walls built with cement mortar in which other than teak wood is used | 0.60 percent |

ANNEXURE - 3

Calculation of value of residential building -example

Example of calculating the value of a residential building, 15 years old, having a plinth area of 120 sqm and constructed on a site of 12m X 20m.

Prevailing land value - Rs. 2000 per sqm.

Replacement rate of construction of the building - Rs.6000 per sqm.

Part 1. Land:

1. Prevailing land rate Rs. 2000 per sqm.
2. It is assumed that the rate is for a virgin site.
Since the site under valuation is having a building on it,
the rate of land is considered at 10% less.
3. Rate adopted for valuation $0.9 \times 2000 = \text{Rs.}1800$ per sqm.
4. value of site $240 \times 1800 = \text{Rs. } 4,32,000/-$

Part 2. Building:

1. Plinth area of the building
120 sqm.
2. Replacement rate of construction Rs. 6000 per sqm.
3. Replacement value of the building $120 \times 6000 = \text{Rs. } 7,20,000/-$.
4. Age of the building 15 years
5. As the building is constructed as a load bearing structure life is taken as 60 years.
6. Residual value of the building is considered as 6%.
7. Percentage of depreciation $15/60(100-6) = 21\%$
8. Depreciation amount. $0.21 \times 7,20,000 = \text{Rs. } 1,51,200/-$.
9. Depreciation value of the building $7,20,000 - 1,51,200 = \text{Rs. } 5,68,800/-$
Rs 5,69,000/-

Part 3. Services:

Service charges on depreciation value:

1. Water supply and Sanitary @ 7% Rs. 39, 830/-
2. Electrical @ 7% Rs. 39, 830/-
3. Compound and Gate Rs. 50,000/-
- Total Rs.1,29, 660/-

Part 4. Abstract:

1. Land Rs. 4,32,000/-
 2. Building Rs. 5,69,000/-
 3. Services Rs. 1,29,660/-
 - TOTAL **Rs. 11,30,660/-**
- TOTAL VALUE OF THE BUILDING say Rs. 11,31,000/-**

CHAPTER – 23

MISCELLANEOUS

322. Draft rules and notifications:

Drafts of rules, regulations and notifications having the force of law and affecting the outside public should, before issue under any Act, be published in Karnataka Gazette and / leading news papers with a view to ascertain where any valid objections can be taken thereto. A similar course should be adopted in the case of rules or notifications affecting the outside public intended to be issued not under any act or regulations but as executive orders.

323. Stationery and forms:

1. Stationery is supplied by the Director of Printing, Stationery and Publications, Bangalore. Officers other than those to whom power has been delegated, are prohibited from obtaining elsewhere articles which can be procured from the Department of printing stationery and publications and if not made available within a fortnight they may purchase from market after obtaining quotation except under orders of Government in each case, or after obtaining no objection certificate from the Director.
2. All the Departmental forms are kept in stock by the Director of Printing and Stationery, Bangalore. The Government may make changes in them except in the case of PWA forms which require the approval of the Accountant General. In case supplies are not supplied within 15 days by the Director of Printing and Stationery, Bangalore the EE, AEE can may arrangements in the market as per powers vested.
3. All the Public Works Account forms are standardized and sent for printing to the Government Press, Bangalore, by the Accountant General. These forms will be distributed by the Director of Printing and Stationery, to the officers concerned.

324 Recording of plans and drawings:

An Executive Engineer must keep on record in his office the following plans, or such of them as are required in his division;

- (a) Copies of all standard plans of buildings: Complete plans, sections and elevations of every building under his charge as built, any departures from sanctioned design being carefully noted. The boundaries details of adjoin properties of the ground attached to any buildings should be distinctly shown.
- (b) Plans of roads under his charge:
- (c) Detailed drawings including foundations, where practicable, of all bridges and other works in the division as actually constructed, any departures from sanctioned design being carefully noted. The boundaries of the ground attached to any bridges and other works should be distinctly shown.

325. Supply of type designs and plans:

1. Copies of type designs and plans may be supplied to other states, central Government departments, municipalities, corporations, local bodies and private institutions at the rates indicated below:-
 - (a) For drawings up to a size of 60cm x 50cm. Rs. 300/- per copy
 - (b) For drawings bigger than (size) 60cm x 50cm. Rs. 500/- per copy
but not larger than 60cm x 100cm

2. The supply of type designs and plans shall be subject to the specific condition that the plans shall not be reproduced without the written concurrence of the Chief Engineer of the public works Department.

326. Police and other guards:

1. Officers in charge of Government money or valuable Government property while traveling or in camp on public duty, on application by the Executive Engineer to the Superintendent of Police be provided with police guards by the police Department. When such police guards are required in the case of large original works in progress in out of way localities either for the safety of Government officers or funds / the cost shall ordinarily be borne by the public works Department.
2. Precautions to be taken for cashing or remitting of Government money from one office to another: - The following instructions are issued in encashing bills or remitting money from one office to another office or Treasury.
 - (a) Sums above Rs. 5,00,000: Such transactions should not be common. A clerk accompanied with an escort should be employed.
 - (b) For sums greatly in excess of Rs. 5, 00,000, special security arrangements should be made.

These are the minimum and reasonable precautions to be taken for safeguarding Government money outside a Government office in normal circumstances. During abnormal circumstances, the officers will use their discretion as to the additional precautions that may be required to prevent any loss in transit due to misappropriation of the money by the messenger or any other cause.

327. Security Deposits:

1. Every cashier or any other subordinate who is entrusted whether permanently or temporarily with the collection or custody of Government cash should ordinarily be required to execute a security bond in financial Form No.63 setting forth the conditions vide articles 353 of Karnataka Financial Code. A reference to each bond should be recorded in the Register of Security Deposits in financial Form No.64.
2. The security bond furnished by a Government servant may be returned to him after six months from the date on which he vacates his post for which security was given, or after it is certain that there is no necessity for keeping it any longer.

328. Principles for determining what expenditure is chargeable to capital and what to revenue:

1. The principles to be observed in deciding whether an item of expenditure should be charged to capital or to revenue are as follows:
 - a) Capital bears all charges for the first construction and equipments of a project as well as charges for maintenance on sections not opened for working and charges for such subsequent additions and improvements as may be sanctioned under the rules by competent authority. It may also bear charges on account of restoration of damages caused by extraordinary casualties, such as flood, fire etc., and such charges should be recorded under a separate minor head 'Extraordinary replacements'.
 - b) Revenue bears all charges for maintenance and working expenses embrace all expenditure for the working and upkeep of the project, as also for such renewals and

subsequent replacements and such additions of extension as may be considered desirable to charge to revenue instead of increasing the capital cost of the undertaking.

- c) In the case of renewals and replacements of existing works, if the cost really represents an increase in the capital value of the system and exceeds the cost of the original works by Rs.1,00,000, the cost of the new work should be divided between capital and revenue, the portion debited to the latter account being the cost of the original work, which should be estimated if the actual cost is not known and the balance charged to capital. In other cases, the whole cost of the new work should be charged to revenue. Thus a renewal which does not represent a substantial improvement of the original work but which is in all materials essential the same as the latter, although it may exceed the cost of that work by more than Rs.1,00,000 should not be charged to capital but to the revenue accounts.
2. In respect of works for which capital and revenue accounts are maintained the allocation of expenditure between capital, and revenue should be made as noted below capital bears:
 - (i) The cost of land.
 - (ii) The first cost of construction and equipment of the works.
 - (iii) The cost of maintaining during construction and of maintenance of the section or sections of the works not opened for workings.
 - (iv) The cost of additions or improvements or extensions to the works exceeding Rs.1,00,000.
 - (v) In the case of renewals and replacements of existing works, if the cost represents an increase in the capital value of the system and exceeds the cost of the original work by Rs.1,00,000 the cost of the new work should be divided between capital and revenue, the proportions debited to the latter account being the cost of the original work should be estimated if the actual cost is not known and the balance only charged to capital. In other case the whole cost of the new work should be charged to the revenue. Thus renewal which does not represent a substantial improvement of the original work but which is in all materials essentially the same as the latter, although it may exceed the cost of the original work by more than Rs.1,00,000 should not be charged to capital but to the revenue.
 - (vi) Capital is credited with the cost at debit to capital of any work, which is abandoned or dismantled. The guiding principle in allocating a charge to a capital is that capital having once paid for a work or service should not be charged once again in respect of the same work or service so that the capital account may at any time represent the actual value of the assets of the work.

FORMS
Preparation of Estimates (Para 92.8)
GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT

Name of work:

| |
|---|
| Budget Head: |
| Authority for preparation of the Estimate: |
| Architectural designs by : |
| Foundation/ structural designs by: |
| Estimate prepared by: |
| Schedule of rates adopted: Schedule of rate of approved by |
| Details of Administrative Approval : |

Details of technical sanction:

Any other details:

Place:

Date:

Executive Engineer
..... Division,
.....

**GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT
MONTHLY PROGRESS REPORT (Para 194.1)**

.....CIRCLE
Division.....

Sub-division.....

^a
Head of Account :
Name of the work:

District:

Taluk:

| Classification of Building Residential / Non-Residential ----- | | | | Administrative approval order No. date and Amount ----- | | | | Technical sanction Order No. date and Amount | |
|---|--------------|-------------------------------|-------------------------|--|-------------------------|------------------------|---------------------|---|--|
| Details of the Agreement | Month | Expenditure of previous month | Provision for the month | Expenditure to end of previous month | Programme for the month | Progress for the month | Cumulative progress | Excess /short fall | Physical progress and Reasons for Short fall |
| Amount put to tender at Estimated rates | | | | | | | | | |
| Amount as per CSR of entrustment | | | | | | | | | |
| Amount of work as per approved tender | | | | | | | | | |
| Tender percentage with reference to CSR of approval of tender | | | | | | | | | |
| Name of Agency | | | | | | | | | |
| No. and date of authority accepting the tender | | | | | | | | | |
| Date of issue of work order | | | | | | | | | |
| Date of commencement of tender | | | | | | | | | |
| Target date of completion as per tender | | | | | | | | | |
| Target date of completion as per actuals | | | | | | | | | |
| Expenditure to end of March | | | | | | | | | |
| Ref. to page No. in the Budget of | | | | | | | | | |
| Grant allotted in the Budget | | | | | | | | | |
| | Total | | | | | | | | |

**GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT**

Division.....

Sub-division.....

**PROGRESS REPORT OF WORKS, BUDGET-HEADWISE, WORKWISE UPTO END OF
(Para 194)**

| Sl. No. & Name of work or job order No. | Total Estimated cost (Rs.) | Grant (Rs.) | Expenditure to end of previous year (Rs.) | Expenditure to end of previous month(Rs.) | Expenditure during the month (Rs.) | Current year expenditure (Rs.) | Cumulative expenditure | Anticipated date of completion | Remarks |
|--|-----------------------------------|--------------------|--|--|---|---------------------------------------|-------------------------------|---------------------------------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 (5+6) | 8 (4+7) | 9 | 10 |
| | | | | | | | | | |

**GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT**

.....CIRCLE

Division.....
Sub-

division.....

ABSTRACT OF WORKS (Para 194)

| Sl. No. & Budget head | No. of works sanctioned | Total Estimates sanctioned | Total Expenditure up to end of March..... | Spill over cost | Budget grant during | Expenditure during | Current year expenditure | Cumulative expenditure up to end of..... | Remarks |
|----------------------------------|--------------------------------|-----------------------------------|--|------------------------------|----------------------------------|---------------------------------|---------------------------------|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | | | | | | | | | |

**GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT
(Para 196)**

From : To :

No: Date:

Dear Sir/Sirs,

Sub
(Name of the work)

Whereas the assistant executive engineersub division..... has brought to the notice of this office that the following work/s has / have not been carried out satisfactorily in accordance with the specifications and the location of the work/s as well as the defects noticed were as detailed below.

| Sl. No. and description of items | Defects of deviations in execution noticed |
|----------------------------------|--|
| | |

You are hereby called upon to rectify the defects pointed out above within 10 days after the receipt of this notice and report compliance to this office. If it is noticed that the rectification work is not carried out fully or the work carried out satisfactorily, you are hereby informed that the final measurements of the portion of work adjudged as defective will be measured by the section officer on the date and time intimated by him directly by a registered notice. You are hereby called upon to be present at the work site at the appointed date and time, failing which the measurements will be recorded in your absence. Please take notice that no further notice will be issued in this regard and measurements so recorded shall be final and binding on you and no claim shall lie thereon.

Yours faithfully

Executive Engineer

(seal of office)

GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT
(Para 196)

From :

 To :

No:

Date:

Dear Sir/Sirs,
 Sub
(Name of the work)

Whereas the following work/s has / have not been carried out satisfactorily in accordance with the specifications and the location of the work/s as well as the defects noticed were as detailed below.

| Sl. No. and description of items | Defects of deviations in execution noticed |
|----------------------------------|--|
| | |

You were called upon to rectify the defects pointed out above within 10 days after the receipt of notice no... ..dated.....issued by the Executive Engineer,Division,.....

It is noticed that the rectification work is not carried out fully / the work is not carried out satisfactorily.

You are hereby informed that the final measurements of the portion of work adjudged as defective will be measured by the section officer on the date and time given below.

You are hereby called upon to be present, failing which the measurements will be recorded in your absence.

Further please be informed that action to withdraw the portion of the site concerned, to withdraw the portion of the work concerned from your agreement and action to execute the same through an alternative agency will be taken as per agreement conditions.

Yours faithfully

Assistant Executive Engineer

(seal of office)

GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT
(Para 196)

From :

 To :

No:

Date:

Dear Sir/Sirs,

Sub
(Name of the work)

Whereas the assistant executive engineersub division..... had brought to the notice of this office that the following work/s has / have not been carried out satisfactorily in accordance with the specifications and the location of the work/s as well as the defects noticed were as detailed below.

| Sl. No. and description of items | Defects of deviations in execution noticed |
|----------------------------------|--|
| | |

You were called upon in this office letter No. dated to remove all the bad work and / or rectify the defects pointed out so that the work executed is in accordance with the agreed specifications, on or before You were also informed that if the work done after rectification is also less than satisfactory, the assistant executive engineer was permitted to record the final measurements of the said work on the said date in your presence or in your absence and that such measurements shall be final and binding on you.

The Assistant Executive Engineer has reported that the final measurements have been recorded for the said work onin your presence / in your absence after issue of notice dated

Please be informed that the said work will be executed through an alternate agency and for that purpose, the site handover to you is hereby withdrawn at the location and to the extent noted below. This notice is issued under Rule 14.71 and 14.72 of the KPWD Code and contract conditions vide

Location and extent of site withdrawn :

This site withdrawal effective fromshall be current till (both days inclusive) or such other date as may be indicated by this office.

Yours faithfully,

Executive engineer
(seal of office)

**GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT**

(Para 196)

From :

.....
.....
.....
.....

To :

.....
.....
.....
.....

No:

Date:

Dear Sir/Sirs,

Sub

.....(Name of the work)

In continuation of the notice issued by this office under Rule 14.71 and 14.72 of the KPWD Code, and contract conditions in the accepted agreement, the contractor is hereby informed that the work carried out to remove and / or rectify the defects pointed out, has been held as unsatisfactory and hence final measurements have been recorded on by the Assistant Executive Engineer as per rules. The cost of removing and re-doing the said work is assessed at Rs. (in figure) Rupees (in words)

Please take notice that appropriate reductions in your bills or payment due to you will be effected.

Yours faithfully,

Executive engineer
(Seal of office)

Copy to Assistant Executive Engineer,Sub Division.....

GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT
(Para 196)

From : To :

No: Date:

Dear Sir/Sirs,

Sub
(Name of the work)

Whereas the above work has been entrusted to you as per agreement No..... dated with stipulation that the following physical and financial progress are to be achieved as on

The actual progress achieved is as indicated below:

| Sl No. | As per agreement | | Achievement as on | | Short progress | |
|--------|-------------------|--------------------|-------------------------|--------------------|-------------------|--------------------|
| | Physical progress | Financial progress | Physical progress | Financial progress | Physical progress | Financial progress |
| | | | | | | |

The contractor is hereby called upon to make good the short progress on or before falling which liquidated damage as provided in the agreement shall be levied without further notice. Time allowed for making good the short progress shall not in any way affect the time schedule prescribed in the agreement and shall not in any way affect the Department from deciding at their discretion the extension of time of the contract if it becomes necessary.

Yours faithfully,

Executive Engineer,
 Division

GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT
(Para 196)

From : To :

 No: Date:

Dear Sir/Sirs,

Sub
(Name of the work)

Whereas the above work has been entrusted to you as per agreement No.....dated with stipulation that the following physical and financial progress are to be achieved as on or before

The actual progress achieved is as indicated below:

| SI No. | As per agreement | | Achievement as on | | Short progress | |
|--------|-------------------|--------------------|-------------------------|--------------------|-------------------|--------------------|
| | Physical progress | Financial progress | Physical progress | Financial progress | Physical progress | Financial progress |
| | | | | | | |

You were called upon to make good the short progress on or before falling which liquidated damage as provided in the agreement shall be levied without further notice.

The Assistant Executive Engineer has reported that the progress achieved as on is as indicated below:

| SI No. | As per agreement | | Achievement as on | | Short progress | |
|--------|-------------------|--------------------|-------------------------|--------------------|-------------------|--------------------|
| | Physical progress | Financial progress | Physical progress | Financial progress | Physical progress | Financial progress |
| | | | | | | |

Please show cause within 15 days of the receipt of this notice as to why the contract awarded to you as per the said agreement shall not be rescinded; works done by you measured finally and the balance works executed through alternate agency at your risk and cost without further notice. If no reply is received or reply received is considered as unsatisfactory, please be informed that your contract will be rescinded at your risk and cost, materials, equipments, machinery etc., lying at site shall be taken possession by the Department and the balance works shall be executed through alternate agency at your risk and cost.

Yours faithfully,

Place:

Date:

Executive Engineer
 Division

GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT
(Para 196)

From : To :

No: Date:

Dear Sir/Sirs,

Sub
(Name of the work)

Whereas the above work has been entrusted to you as per agreement No.....dated with stipulation that the following physical and financial progress are to be achieved as on or before

The actual progress achieved is as indicated below:

| Sl No. | As per agreement | | Achievement as on | | Short progress | |
|--------|-------------------|--------------------|-------------------------|--------------------|-------------------|--------------------|
| | Physical progress | Financial progress | Physical progress | Financial progress | Physical progress | Financial progress |
| | | | | | | |

A show cause notice was issued to you in this office No. dated as to why the contract awarded to you as per the said agreement shall not be rescinded; works done by you measured finally and the balance works executed through alternate agency at your risk and cost without further notice

Reply received in your letter No. dated has been examined. An opportunity was also given to you to appear in person or through your authorized representative on and explain your reasons for not adhering to the agreement conditions.

After examining your replies, you are informed that the contract awarded to you as per agreement No. dated is hereby rescinded. The materials, equipments, machinery etc., lying at site shall be taken possession by the Department and the balance works executed through alternate agency at your risk and cost. The rescinding order is without prejudice to the rights of the Department to take action under the registration of contractors rules at an appropriate time in future.

Yours faithfully,

Place:

Date:

Executive Engineer
..... Division

REGISTRATION OF CONTRACTORS
DETAILS OF WORKS EXECUTED
(Past experience of the contractor for the last five years)
(Para 252)

| Sl. No. Name, location and type of project | Name of the organization for which the work was done | Contract price | | | Date of Commencement | Date of completion | | Was the work satisfactorily completed | Remarks |
|--|--|----------------|-------|---|----------------------|--------------------|--------|---------------------------------------|---------|
| | | Initial | Final | Reasons for increase (including claims) | | Original | Actual | | |
| | | | | | | | | | |

I/sri.....hereby certify that the particulars furnished above are true and correct

Place:
Date:

For and on behalf of :.....
Signature of the applicant with seal
Name:
Position:

(In the remarks column, please indicate whether the works mentioned above were carried out in the name of the firm in which the application is submitted or in any other names. If in any other name, please state the relationship with the firms and also furnish a copy of the partnership deed. If space is not sufficient, please enclose additional sheets)

**GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT**



APPLICATION FOR REGISTRATION / RENEWAL OF CONTRACTORS (Para 254 & 256)

1. Name of the applicant (in full and block letters)

2. Full address of the applicant's registered office.

3. Indicate whether the applicant is : (Tick the appropriate item)

(i) Joint stock company (ii) Hindu undivided family (iii) Individual

(iv) Registered Partnership (v) Co-operative society

vii) viii) ix)

4. Name of the person holding Power of Attorney (Notarized copy of the Power of attorney to be filed.

5. The names of all partners and their addresses and their occupation or business, if any, in case of partnership firm (Notarized copy of the Partnership Deed should be enclosed).

NOTE: If the Partner is a partner of other firm or firms of a member of a company or companies, the registered name(s) of such other firm(s) or companies and the nature of business carried on by it/them, the extent of financial interest in such other firm / firms and / or the extent of share holdings on such other company / companies should also be enclosed.

6. If the Applicant is a company, notarized copy of the Memorandum of Association and the Articles of the Association, proof of incorporation and enlistment to carry on business of the company shall be enclosed.

7. Whether the applicant or any of his partners been registered with state PWD/Central PWD/ Public Sector Undertakings?

8. Works executed as per FORM I enclosed

9. Works on Hand as per FORM II enclosed

10. Does the applicant maintain office for preparation of Drawings, Estimates, tenders etc? If so give details.

11. The particulars of machinery, tools, and plant owned by the applicant as per Form III enclosed.

12. Names of Technical / Managerial Key Personnel employed by the applicant together with their qualification and experience as per Form IV enclosed.

13. Name(s) of the Banker(s) with whom the applicant transacts business.

1)

2)

14. Solvency certificate issued by Revenue authority as per Form V enclosed

15. Solvency certificate issued by Bank as per Form VI enclosed

16. Whether the latest Income tax clearance certificate and sales tax clearance certificate are furnished?

I/ We solemnly declare that to the best of my/our knowledge and behalf, the information given in this application and the enclosed proforma is true and correct.

Place:

Date:

For and on behalf of.....

Signature of the applicant:

Name:

Address:

REGISTRATION OF CONTRACTORS

FORM OF SOLVENCY CERTIFICATE BY DEPUTY COMMISSIONER (Para 254)

I.....Tashildar ofTalukDistrict, do hereby certify, on being satisfied by the examination of revenue and other records and local enquiries that.....(here the name and address of the contractor should be mentioned) is solvent to the extent of Rs.....(Rupees in words.....)

Date:

Tahsildar:

Place:

Seal of the office:

Taluk:

REGISTRATION OF CONTRACTORS

FORM OF SOLVENCY CERTIFICATE BY NATIONALISED BANKS (Para 248)

I.....Managing Director/ Manager/ General / Agent ofBank certify that.....do hereby the name and address of the contractor) to be solvent to the extent of Rs.(Rupees in words.....) as disclosed by the information and record which are available with the aforesaid Bank.

Date:

Place:

FOR THE.....BANK

DESIGNATION OF THE OFFICER AUTHORISED TO SIGN

REGISTRATION OF CONTRACTORS
(List of Technical / Managerial key personnel)
(Para 255)

PWF-15

| Sl. No. and full Name | Present location | Qualification | Major works for which responsible | | | Remarks |
|-----------------------|------------------|---------------|-----------------------------------|------|----------|---------|
| | | | Project | Task | Duration | |
| | | | | | | |

I/Sri.....hereby certify that the particulars furnished above are true and correct

For and on behalf of:

Place:
Date:

Signature of the applicant with seal
Name:
Position:

(Additional sheets to be enclosed if space above is insufficient)

GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT
(Para 254 & 256)

From :

.....

To :

.....

Sub: Registration / Renewal of Registration of Contractors in Class S/I/II/III/IV in Karnataka - Acknowledgement.

I/We am/are enclosing herewith my/our application for Registration under Classand category..... in the PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT and enclosing the following documents as prescribed in the Rules of Registration of Contractors in Karnataka 1999.

| 1 | Application in form PWD No..... with notarized copies of the following documents. | For Office use only |
|---|---|---------------------|
| | i)Individual ii) Hindu undivided family | |
| | ii)Joint stock company iii) Registered partnership | |
| | v)Co-operative society vi) | |
| | vii) viii) | |
| | (Tick what is enclosed) | |
| 2 | Power of Attorney | |
| 3 | Solvency certificate in original issued by TahsilarTaluk.....District | |
| 4 | Solvency certificate issued by a scheduled bank, in original | |
| 5 | Certificate in original notarized copy issued under the company's Act in the case of firms or companies | |
| 6 | Income tax clearance certificate (Notarized copy may be enclosed) | |
| 7 | Sales tax clearance certificate (Notarized copy may be enclosed) | |
| 8 | Registration certificates issued by other agencies such as state Government and their undertakings, central Government and their undertakings, (Notarized copy may be enclosed) | |
| 9 | Certificates and testimonials issued by other Government/ Non-Government agencies (notarized copies may be enclosed) | |

| | | |
|----|--|--|
| 10 | Registration fees paid in the form of amount Rs..... | |
| 11 | Passport size photographs – 3 nos. | |

I/We hereby solemnly state that I/We have studied the Registration of Contractors Rules 1999 as appearing in Karnataka PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT Code and agree to abide by the rules and regulations.

I request issue of Registration certificate within 24 hours, that is, on or before I have also paid the fees at twice the rates.

I request issue of Registration Certificates within two weeks, that is on or before

(Tick what is applicable)

Yours faithfully,

Place:

Date & Signature of Authorized Signatory

Name:

Position:

Name of the contractors

ACKNOWLEDGEMENT

Application for Registration with enclosures indicated above are received on

The registration certificate will be ready and dispatched by Registered Post on or before.....

To:

.....
.....
.....

Signature of Authorized Signatory for
Registering authority

Name:

Position:

Date:

**GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT (Para 254)
REGISTRATION CERTIFICATE**

Sub: Registration of contractors under Class:

Whereas Sri/ M/s. has / have submitted his / her application for registration under class
..... category in the prescribed form;

Whereas he has /they have enclosed the following documents in original/ notarized copies ;

- 1.
- 2.
- 3.
- 4.

Whereas registration fee of Rs. has been paid in the following form

I, Sri.Engineer, (note: designation and address), being the Registering authority
hereby register Sri M/s. as class contractor under category as per
Registration of Contractors Rules in Chapter 19 of Karnataka PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT Code.

This Registration is valid from to

Signature
Name and designation of
Registering authority

Round Seal of office.

Pass Book issued to Sri/M/s.

DETAILS OF TENDER FORMS PURCHASED (Para 256)

| | |
|---|--|
| 1. Name of the work for which Tender forms are purchased. | |
| 2. Cost of work put to tender | |
| 3. Whether tender is submitted or not | |
| 4. Amount of EMD paid | |
| 5. Tender amount and percentage | |
| 6. Whether the tender is accepted or rejected | |

Pass book issued to Sri/M/s.

DETAILS OF WORK PERFORMANCE (Para 256)

| | |
|---|--|
| 1. Name of work | |
| 2. Tender amount and its percentage at the time of acceptance | |
| 3. The division where the work is to be executed and agreement No. & date | |
| 4. Time limit fixed for completion of work as per agreement | |
| 5. Date of commencement | |
| 6. Stipulated date of completion | |
| 7. Details of extension of time granted if any | |
| 8. Details of penalty levied if any | |
| 9. Actual date of completion | |
| 10. Amount of final bill | |

NOTE: Passbook shall be produced at the time of issuing blank tender documents and also at the time if issuing work order for making corresponding entries (Part II & III) respectively. In addition, the passbook shall be produced as and when required to ensure upto date entries of all columns.

GOVERNMENT OF KARNATAKA
PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT (Para 257)

Annual confidential report of.....

Contractor, for the year.....

| | |
|--|--|
| 1. Name of the contractor with address | |
| 2. Class of registration/date of registration | |
| 3. Designation of registering authority | |
| 4. Name of work/ agreement No./ agreement amount/ work order No. and date | |
| 5. Date of commencement/ agreed date of Completion | |
| 6. Is the contractor executing the work by personal supervision or through his authorized representatives or through a sub- contractor | |
| 7. Does contractor/ authorized representative at site: a) has technical knowledge of the work under progress b) has capacity to understand and comply with instruction of the Departmental officers on work in progress. c) Has capacity to execute works ensuring quality at all stages. | |
| 8. Has the contractor employed proper technical staff as per rules of registration for proper supervision of works. If so, give details. | |
| 9. Has the Department handed over the site fully/ approved the drawings in time/ made payments in time/ gave decision on problems posed by the contractor. | |
| 10. Is the progress of work at site satisfactory and as per schedule. | |
| 11. Is there any tendency to offer lame excuses for shortfall? If so, give details. | |
| 12. Do the works in progress get held up frequently for want of materials , labour etc. If so, give details. | |
| 13. Have any technical defects or execution of works not in accordance with specifications noticed? If so, give details. | |
| 14. Has the contractor brought or engaged the requisite machinery and other equipment appropriate to the work executed/ under execution? If so, give details. | |

| | |
|--|--|
| 15. Has the contractor made labour payment on time and in accordance with labour rules? | |
| 16. If there is any violation of labour registration clauses. If so, give details. | |
| 17. Has the contractor purchased tender documents for other works, if so, no. of works for which he submitted the tenders. | |
| 18. If he did not submit the tenders, reasons for non- tendering | |
| 19. Is the contractor solvent for continuing the present class of registration. If not, give reasons. | |
| 20. Is the contractor recommended for continuance in the existing class of registration/ promotion to higher class/ demotion to a lower class. | |
| 21. Remarks | |

(Remarks shall be recorded by the AEE and/ or EE in charge of the work in their own handwriting)

Signature of the
Assistant Executive Engineer
Name and seal:

Signature of the
Executive Engineer
Name and seal:

Date:

Date:

REGISTER FOR INSPECTION OF PUBLIC BUILDINGS (Para 297)

| Sl No | Name of the building | Place | Capital cost of the building | Maintenance and repair charges | Date of inspection | Name of the inspecting officer | Remarks |
|--------------|-----------------------------|--------------|-------------------------------------|---------------------------------------|---------------------------|---------------------------------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | | | | | |

**REGISTER OF IMMOVABLE GOVERNMENT PROPERTIES IN CHARGE OF THE PUBLIC WORKS, PORTS & I.W.T.
DEPARTMENT (Para 298)**

| Register No. with Sub No. | Particulars of property | | Year of construction or purchase and of subsequent additions etc. | Recorded value | | | Funds from which | | Object of construction | | Record plans maintained | | Name & designation of officer by whom and when | | | In the case of churches, the No. of seats will be recorded here |
|---------------------------|--|---|---|--------------------------------|------------------------------------|-------------------|--------------------------|------------|------------------------|----------------------|--|--|--|-------|--------|---|
| | Description with details of every attached structure (*) | Nature and descriptions of the different component parts of each structure (**) | | Original (separately for land) | Subsequent additions or reductions | Progressive total | Constructed or purchased | Maintained | Original | How used at pre-sent | Material with dimensions (drawing mounted, etc., or tracing) | Nature of drawing, site elevation, section etc., | Scale | Drawn | Signed | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | | | | | | | | | | | | | | | | |

(*) Subsidiary structures e.g., out-houses, compound wall, well, tennis courts, approach roads as distinct from the main one in the case of buildings, pumping station, tanks, pipe-line mains etc., in case of water supply installations, electric plant, engine house, transmission lines, etc., in the case of electric supply

(**) Walls, roofs, floor, etc., in the case of buildings; the nature of plant, sizes and length of pipes in the case of water supply schemes; the description of ports, wires, brackets etc., in the case of electric installations; the weight of rails, description of sleepers, plants and other materials used in railway lines and so on

REGISTER OF BUILDINGS (Para 298)

| Sl.No of Building | Sl.No. of subsidiary structure | Name of building | Locality | Source of funds from which purchased or erected | Date of erection or purchase. If purchased, enter also date of erection as nearly as can be ascertained | cost of original construction | Total capital expenditure to end of | By whom and when occupied | Nature of building | | | | No. of stories | Superficial plinth area & also floor area (Sqmt) | Cubical contents (Cum) | Remarks |
|-------------------|--------------------------------|------------------|----------|---|---|-------------------------------|-------------------------------------|---------------------------|--------------------|------|------|-------|----------------|--|------------------------|---------|
| | | | | | | | | | walls | Roof | Wood | Floor | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | | | | | | | | | | | | | | | | |

REGISTER OF ALL LANDS IN THE POSSESSION OF THE PUBLIC WORKS, PORTS & I.W.T. DEPARTMENT (Para 298)

| Register No | Name of road, i town, village or other area | Reference to records of acquisition | | | | | Amount of compensation actually paid | Area in acres etc. | How used | Materials with dimensions (drawings, mounted or un-mounted or tracing) | Scale | Name & designation of officer by whom & when | | Remarks (As to abandonment etc. of any portion) |
|-------------|---|-------------------------------------|-------------------------|----------------------------|---------------------------------|---|--------------------------------------|--------------------|----------|--|-------|--|--------|---|
| | | Site or locality | Notification No. & Date | Award statement No. & Date | Voucher in which paid No & Date | Divisional Accounts in which adjusted (Month) | | | | | | Drawn | Signed | |
| | | | | | | | | | | | | | | |

LEASE LAND REGISTER (Para 298)**Name of Division:****Name of Sub Division:**

| Sl.No. | Name of the property | Sy.No | Place | Area | Purpose such as NE NS | Lease agreement No. And Date | Lease Period | Lease Rent | Periodical renewal of rent | Remarks |
|---------------|-----------------------------|--------------|--------------|-------------|------------------------------|-------------------------------------|---------------------|-------------------|-----------------------------------|----------------|
| | | | | | | | | | | |

REGISTER OF BRIDGES AND CULVERTS IN CHARGE OF THE PUBLIC WORKS DEPARTMENT (Para 298)

| Particulars and brief description of bridge or culvert | | | | | | | | | Records value | | | |
|--|--------------|---------------------------------|----|------|--|----------|-----------------|-------------------|---|----------|----------------------|-------------------|
| Register No.with Sub No | Name of road | No.of name of bridge of culvert | No | Size | Width of road way between wheel guards | Supports | Super structure | Maximum safe load | Year of construction & subsequent additions | Original | Subsequent additions | Progressive total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| | | | | | | | | | | | | |

| Funds from which | | Record plans maintained | | Nature of drawings (site elevation, section etc.) | Scale | Drawn | Signed | Remarks |
|------------------|------------|--------------------------------|---|---|-------|-------|--------|---------|
| Constructed | Maintained | Rate Per meter run of waterway | Material With dimensions (Drawing mounted etc., or tracing) | | | | | |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| | | | | | | | | |

IMPORTANT: Forms prescribed in this code as Public Works Forms, as PWF in short are given serial numbers in the order in which they have appeared in this Code. The Karnataka Public Works Accounts Code is being revised and a number of forms prescribed therein are to be used in addition to the forms prescribed in this code. However all these forms need to be examined afresh after the KPWAC is approved, and a new set of forms with the prefix PWF pertaining to the PWD, compatible with e-governance shall be evolved.

ABBREVIATIONS

| | |
|--------|--|
| AA | Administrative Approval |
| AG | Accountant General of Karnataka |
| BIS | Bureau of Indian Standards |
| BOT | Build Operate Transfer |
| BOOT | Build Own Operate Transfer |
| BOQ | Bill of Quantities |
| CBR | California Bearing Ratio |
| CSR | Current Schedule of Rates |
| DBT | Design Build Transfer |
| DPR | Detailed Project Report |
| DRB | Dispute Resolution Board |
| EIA | Environment Impact Assessment |
| EIM | Environment Impact Management |
| EIRL | Extra Items Rate List (Variation) |
| EPC | Engineering Procurement Construction |
| EOI | Expression of Interest |
| EP | Electronic Procurement |
| GIS | Geographic Information System |
| GPS | Global Positioning System |
| HDM | Highway Design and Maintenance |
| HFL | High Flood Level |
| HRMS | Human Resource Management System |
| IFT | Invitation for Tendering |
| IRC | Indian Roads Congress |
| IRI | International Roughness Index |
| IT | Information Technology |
| JMC | Joint Measurement Certificate |
| KPWA | Karnataka Public works Accounts Code |
| KRDCL | Karnataka Road Development Corporation Limited |
| KSHIP | Karnataka State Highway Improvement Project |
| KTPP | Karnataka Transparency in Public Procurement |
| LAP | Land Acquisition Plan |
| MB | Measurement Book |
| MORTH | Ministry of Roads Transport and Highways |
| NHAI | National Highways Authority of India |
| PCI | Pavement Condition Index |
| PDF | Portable Document File |
| POL | Petrol Oil Lubricants |
| PMS | Pavement Management System |
| PPP | Public Private Partnership |
| PRED | Panchayat Raj Engineering Department |
| PWF | Public Works Forms |
| RA | Running Account Bill |
| RFP | Request for Proposal |
| RFQ | Request for Qualification |
| RIS | Road Information System |
| ROMDAS | Road Measurement and Data Acquisition System |
| ROW | Right of Way |

| | |
|-----|---|
| R&R | Rehabilitation and Resettlement |
| RTI | Right to Information |
| SD | Security Deposit / Performance Security |
| SMB | Standard Measurement Book |
| SR | Schedule of Rates |
| STD | Standard Tendered Documents |
| TS | Technical Sanction |
| TIA | Tender Inviting Authority |

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