

ZILLA PARISHAD NANDED

ZILLA PARISHAD (W) DEGLOOR DIVISION

NANDED

TENDER DOCUMENTS FOR THE WORK OF

AS PER NOTICE INVITING TENDER

DISTRICT: NANDED

Executive Engineer (Works)
DEGLOOR DIVISION
ZILLA PARISHAD NANDED

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NAME OF WORK: As per Notice inviting tenders

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Issued to Shri / M/s

As per DD No..... dated

Name of Bank.

**Executive Engineer, (works)
Degloor Division
Zilla Parishad Nanded**

Tender Notice

INSTRUCTIONS FOR THE TENDERER

Sr. No.	Particulars
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PLEASE ATTACH SCANNED COPIES OF FOLLOWING DOCUMENTS

1. Declaration of the Contractor on Contractor's Letter Head in pdf format.
- 2-a. cost of tender document as mentioned in notice inviting tender.
- 2-b. Earnest Money Deposit as per mentioned in notice inviting tender.
- 3-a. A certificate or Photostat copy of valid Registration Certificate zilla parishad.
- 3-b. Attested Photostat copy of Partnership deed and power of attorney.
- 3-c. A list of work of similar type and magnitude carried out (Statement No. I)
- 3-d. A list of works tendered for and in hand (Statement No. II)
- 3-e. Photostat copy of Valid Income Tax Clearance Certificate .and pan card
- 3-f. Goods and service tax (G.S.T) Certificate is compulsory .
- 4-a. List of machinery and plants available with the tenderer for immediate use on this work (Statement No. 3) and details thereof.
(Exemption For Labour co-op society and Un Employed Engineers if Tender is reserved to Labour co-op society and Un Employed Engineers)
- 4-b. Details of Technical Personnel on the roll of the tender (Statement No. 4)
(Exemption For Labour co-op society and Un Employed Engineers if Tender is reserved to Labour co-op society and Un Employed Engineers)
- 5-a. For Unemployed engineers as per govt. resolution date-05-04-2023, Parishistha-2 (BANDHAPATRA) ON 100/- RUPEES STAMP PAPER must be attach with tender in technical envelope 1.If not attached tender will be rejected.**

Important Note :

Please note that omission to attach any document is likely to invalidate the tender.

TENDERING PROCEDURE.

A) ISSUE OF BLANK TENDER FORMS

Tender documents (Bidding document, Bill of Quantities, drawings etc.) can be seen and downloaded from the website. <http://mahatenders.gov.in>

B) Pre - Bid Conference : There will be no pre bid in this tender.

i) The tender submitted by tenderer shall be based on the clarification, additional facilities offered (if any) by the Department, and this tender shall be unconditional. **Conditional tender will be summarily REJECTED.**

ii) Tenderers are cautioned that the tender containing any deviation from the contractual terms and conditions, and specifications or other requirements, such type of tender will be rejected as non responsive.

C) MANNER OF SUBMISSION OF TENDER AND ACCOMPANIMENTS.

The tenderer shall submit the tender with documents online through website <http://mahatenders.gov.in> in two covers. The guidelines to the contractors are available on website <http://mahatenders.gov.in>

a) Technical cover

The Technical Cover shall contain the following documents.

1) Declaration of contractor

Declaration of the Contractor (in prescribed format) on Contractor's Letter Head ie(in .pdf format).

2) Tender fees & EMD

The Tender fee and Earnest Money Deposit (EMD) must be deposited through net banking. A certificate in specified format (As part of e-Tendering document and process) of tender fee and E.M.D. deposited on or before date of closing in above account mentioned in 4(a) through net banking must be uploaded in technical envelope scanned together in a single file (in .pdf format). Exemption for payment of Earnest Money is not applicable.

3) Registration & Qualification

3.a Certificate in original or photostate copy thereof duly

attested by Gazetted officer as Registered Contractor with the Rural Development department of Government of Maharashtra in appropriate class as may be applicable.

3.b. Photostat copy of Partnership deed and power of attorney if any.

3.c. Details of works of similar type and magnitude carried out by the contractor (Statement No. 1)

3.d. Details of the other works tendered for and in hand with the value of work in progress on the last date of submission of tender (in the pro forma of statement No. 2) The certificate from the Heads of the offices under whom the work in progress & completed should be enclosed.

3.e Valid Registration certificate under Maharashtra Value Added Tax Act 2005 under Rule No. 8 and 9 and

3.f Valid upto date I.T. Clearance Certificate in original or Photostat copy.

4) Technical papers

4.a The list of owned machinery and plants immediately available with the tenderer for use on this work and list of those machinery-proposed to be utilized in this work, but not immediately available and the manner in which it is proposed to be procured. (In the pro forma of statement No. 3).

4.b Details of Technical personnel on the roll of the tenderer (in the pro forma of Statement no. 4)

All Scanned copies submitted in connection with the tender shall be attested by a Gazetted officer, the originals may be called for verifications.

b) FINANCIAL Cover

The second envelope marked as "**Financial Bid**" shall contain only the Bill of Quantities (BOQ). The same file downloaded from the website must be duly quoted with company details filled up. The contractor shall upload the same BOQ only, duly filled and quoted percentage with digital signature. The contractor need not upload the B-1 form i.e. Detailed conditions of contract along with BOQ.

If Bidder quoted rate is below than estimated cost attach Demand Draft in the Favour Of Executive Engineer (works) Degloor Div. Zilla Parishad Nanded as per G.R. of P.W.D. State Govt. Date 12/02/2016 in financial Cover.

This tender shall be unconditional.

c) SUBMISSION OF TENDER

The contractor shall, before final submission of bid, confirm all the required files, papers are attached properly in the respective covers i.e. in Technical cover and financial cover.

Contractor may attach the documents asked in the bidding document by selecting from those which are already available in "my documents" section in his login.

a) **OPENING OF TENDER**

Contractor have to submit the original instruments i.e. Originals of scanned Fixed deposit receipt towards EMD and Demand Draft towards tender fees in between time & date of bid submission and the time & date of opening of technical cover as specified in the detailed tender notice. On the date specified in the tender notice following procedure will be adopted for opening of the tender.

1. Technical Cover

First of all , Envelope No. 1 of the tender will be opened to verify its contents as per requirements. The documents so attached by the bidder will be verified by the tender evaluation committee of the department. If the various documents contained in this Envelope do not meet the requirements of the Department, a note will be recorded accordingly by the tender opening authority and the said bidder's financial Bid will not be considered for further action.

The summary of technical bid opening will be mailed to all concerned contractors automatically by the system. The scheduled date & time for financial bid opening will be mailed to those contractors whose technical bids are accepted by the tender evaluation committee.

2. Financial Cover

This envelope shall be opened on the date & time specified and communicated to concerned bidder through mail. The tendered rates or percentage above or below the estimated rates shall then be read out.

If Bidder quoted rate is below than estimated cost attach Demand Draft in the Favour Of Executive Engineer (works) Degloor Div. Zilla Parishad Nanded and Submitted original D.D. in envelop within 5 working days from Date of submission in office of as per Executive Engineer (works) Degloor Div. Zilla Parishad Nanded G.R. of P.W.D. State Govt. Date 12/02/2016 in financial Cover.

14	The contractor will have to sign the original copy of the tender papers and the drawings according to which the work is to be carried out, he shall also have to give a declaration to the effect that he has fully studied the plans, specifications, local conditions, and availability of labour and materials and that he has quoted his rates with due consideration to all these factors.
15	The right is reserved to revise or amend the contract documents prior to the date notified for the receipt of tenders or extended date. Such deviations, amendments or extensions, if any, shall be communicated in the form of corrigendum through website http://mahatenders.gov.in
16	The bidders shall be disqualified if they have made misleading or false

	representations in the forms, statement and attachments submitted in proof of the qualification, requirements; and / or record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.
17	<p><u>EXAMINATIONS OF DRAWINGS AND SITE CONDITIONS :</u></p> <p>The bidder shall in his own interest carefully examine the drawings, conditions of contract, specifications etc. He shall also inspect the site and acquaint himself about the climate, physical and all other conditions prevailing at site, the nature, magnitude, special features practicability of the works, all existing and required means of communications and access to site, availability of housing and other facilities, the availability of labour and materials, labour camp site, stores and godown etc. He shall obtain all necessary information as to the risk, contingencies and other circumstances which may affect and influence the tender. No claims on any of the above or any other factors will be entertained by the Government, Should there be any discrepancy or doubt or obscurity the contractor shall submit the same to the Executive Engineer (Works) , Z.P.Nanded concerned for elucidation as soon as possible.</p>
18	The tender submitted by the contractor shall remain valid for a period of 90 days from the date of opening of financial bid.
19	The contractor (s) whose tender is accepted is required to note that no foreign exchange will be released by the Department.
20	Tenders, which do not fulfill all or any of the conditions or are incomplete in any respect are liable to summary rejection.
21	Right to reject tender without assigning reasons thereof is reserved. The acceptance power of the tender lies with the Addl.Chief Executive Officer Zilla Parishad Nanded and Executive Engineer (works) Z.P.Nanded.
22	The notice inviting tender shall form part of the tender agreement.
23	The successful tenderer will be required to produce to the satisfaction of the specified concerned authority a valid and concurrent license issued in his favor under the provisions of the contract Labour (Regulation and Abolition) Act 1970, before starting the work, failure to do so acceptance of the tender shall be liable to be withdrawn and earnest money forfeited.
24	<p>Instructions to Contractor :</p> <p>1. In case the contractor, whose offer is found to be lowest, is requested to negotiate and reduce the offer, does not respond within a period of 7 days, the tender accepting authority without issuing any reminder reserves the right to reject such tender.</p> <p>2. In case the contractor, who is informed of acceptance of his tender, does not remit the initial Security Deposit within a period of 10 days, the tender accepting authority reserves the right to forfeit the earnest money deposit without issuing</p>

	any reminder to take further action according to the tender provision.
25	Right to reject or cancel any or all the tenders without assigning any reason thereof is reserved by the Adil. C.E.O. and undersigned.

Executive Engineer (Works)
Degloor Div.Zilla Parishad Nanded.

To,
Tender Inviting Authority
Executive Engineer (Works)
Degloor Div.
Zilla Parishad Nanded

STATEMENT NO.1

DETAILS OF WORKS OF SIMILAR TYPE AND MAGNTUDE CARRIED OUT BY CONTRACTOR

Name of contractor :

Sr no	Name of work	Name and address of organization for whom the work has done	Place	Agreement No. and Date	Date of starting	Tendered cost	Total cost of work Done	Stipulated date of completion	Actual date of completion	Principal features in brief
1	2	2	3	4	5	6	7	8	9	10

STATEMENT NO. 2

STATEMENT OF LIST OF WORKS IN HAND AND WORKS TENDERED FOR AS ON THE DATE OF SUBMISSION OF THIS TENDER

Name of contractor :

(I) Works in Hands

Sr. No	Name of works	Agreement No. and Date	Tender Amount	Date of Commencement	Stipulated date of completion	Value of works already done	Value of balance work	Probable date of completion	Remarks
1	2	3	4	5	6	7	8	9	10

(II) Works Tendered for

Sr. No	Name of work	Name and address of organization	Tendered amount	Time limit	Probable date when decision is expected	Other relevant details if any
1	2	3	4	5	6	7

Note This is only a standard form details are to be furnished in this format in the form of type written statements (in .pdf format) which shall be enclosed in cover No.1

STATEMENT NO. 3

DETAILS OF TOOLS AND PLANTS AND MACHINERY

(As per registration class requirements)

IMMEDIATELY AVAILABLE WITH THE CONTRACTOR FOR THIS WORK

NAME OF TENDERER:

Sr. No	Name of Equipment	No. of Units	Kind & Make	Capacity	Age and Condition	Present location	Remarks
1	2	3	4	5	6	7	8

Note :-Contractor should possess with him the following machinery, (Owned or Hired)

List of Machinery (As per registration class requirements)

For B.T. Works

S.N.	Machinery	Number/ Remark
1	Truck/Tipper (Owned or Hired)	2
2	Diesel Road Roller 8-10 T(Owned or Hired)	1
3	Water Tanker with spinker (Owned or Hired)	1
4	Tar Boiler (Owned or Hired)	1

For which contractor should produce the proof thereof

List of Machinery (As per registration class requirements)

For C.C. and WBM Works

S.N.	Machinery	Number/ Remark
1	Truck/Tipper (Owned or Hired)	2
2	Water Tanker with Sprinkler (Owned or Hired)	1
3	Vibrator	1
4	Diesel Road Roller 8-10 T(Owned or Hired)	1
5	Concrete mixer with lift and weigh batcher	1

For which contractor should produce the proof thereof

Statement No. 4

DETAILS OF TECHNICAL PERSONNEL AVAILABLE WITH THE CONTRACTOR WHICH CAN BE SPARED EXCLUSIVELY FOR THIS WORK

NAME OF THE CONTRACTOR:

Sr. No	Name of person	Qualification	Whether working in field or office	Experience of execution of similar works	Period for which the person is working with the tenderer	Consent of employee.
1	2	3	4	5	6	7

परिशिष्ट-२

सुशिक्षित बेरोजगार अभियंत्यांनी/ई-निविदेत भाग घेताना प्रत्येक कामासोबत सादर करावयाचे बंधपत्र

" बंधपत्र "

मी,-----शपथ पत्र लिहून देतो की, माझी सुशिक्षित बेरोजगार अभियंता अंतर्गत वर्ग-४ मधील नोंदणी दि. / / पर्यंत ग्राह्य आहे. सद्यःस्थितीत मी कोणत्याही शासकीय / निमशासकीय / खाजगी संस्थेत कार्यरत नाही. तसेच मी कोणतेही पुढील शिक्षण घेत नसून सदर काम मी स्वतः करणार आहे.

उपरोक्त बाबतीत असत्यता आढळून आल्यास होणाऱ्या कार्यवाहीस मी व्यक्तिशः जबाबदार राहील.

असत्यतेमुळे माझी सुशिक्षित बेरोजगार अभियंता म्हणून नोंदणी रद्द करण्यात आल्यास माझी कोणतीही हरकत असणार नाही.

स्वाक्षरी.

नाव :-

दिनांक :-

ठिकाण :-

ADDITIONAL GENERAL CONDITIONAL AND SPECIFICATION

1. These are to apply as additional specifications and conditions unless otherwise already provided for contradictorily elsewhere in the contract.
2. CONTRACTOR TO INFORM HIMSELF FULLY.

The contractor shall be deemed to have carefully examined the work and site condition including labor, the general and the special conditions, specifications, schedules and drawings and shall be deemed to have visited the site of the work and to have fully informed himself regarding the local conditions and carried out his own investigations to arrive at the rate quoted in the tender . In this regard, he will be given necessary information available with the best of knowledge of Department but without any guarantee about it.

If he shall have any doubt as to the meaning of any portion of these general condition of the special conditions, or the scope of the work or the specifications and drawing or any other matter concerning the contract, he shall in good time, before submitting his tender, set forth for the particulars there of and submit them to the **Executive Engineer, (works) Degloor Division, Z P Nanded**, In charge of the work in writing in order that such doubt may be clarified authoritatively before tendering. Once a tender is submitted, the matter will be decided according to the tender condition in the absence of such authentic pre clarification.

3. DECLARATION OF THE CONTRACTOR.

The contractor should sign the declaration form on Page No.10

4. INDEMNITY.

The contractor shall indemnify the Government against all actions , suits claims and demands brought or made against him in respect or anything done or committed to be done by the contractor in execution of or in connection with the work of this contract and against any loss or damage to **Zilla Parishad,Nanded** in consequence of any action for suit being brought against the contractor for any thing done or committed be done in the execution of the work of this contract.

5. DEFINITIONS.

Unless excluded by or repugnant to the context.

- (a) The expression "Government" as used in the tender papers shall Mean the **Zilla Parishad,Nanded** of the Government of Maharashtra.
- (b) The expression "**C.E.O.Z.P.Nanded** " as used anywhere in the tender paper shall mean **C.E.O.Z.P.**of Maharashtra who is designated as such.
- (c) The expression "Executive Engineer" as used in the tender paper shall mean Officer or Executive Engineer Ranks (by whatever designated may be known) under whose control the work lies for the time being.
- (d) The expression "Engineer" as used in the tender paper shall mean the Authorized Authority, in charge of the work for this time being.

- (e) The expression contractor as used in the tender paper shall mean the successful tenderer whose tender has been accepted, and who has been authorized to proceed with the work.
- (f) The Expression contract used in the tender paper shall mean the deed of contract together with its original accompaniment and those letters incorporated in it by mutual consent.
- (g) The expression Plant as used in the tender paper shall mean every temporary and necessary or considered necessary by the Engineer to execute, construct, complete and maintain the work and used in altered, modified, substituted and additional work ordered in the time and the manner here in provided and all temporary materials and special and other articles of application of every sort, kind and description whatsoever intended or used thereof.
- (h) Drawing shall mean the drawing referred to in the specification and any modifications of such drawings approved in writing by Engineer and such other drawings as may from time to time be furnished or approved in writing by the Engineer.
- (i) Engineer's representative shall mean an assistant of the Engineer notified in writing to the contractor by the Engineer.
- (j) Provisional items shall mean an assistant of which approximate quantities have been included in the tender document.
- (k) The site shall mean the lands/and or other places, on under in or through which the work is to be executed under the contractor including any other lands or places which may be allotted by Government or used for the purpose by the contractor.
- (l) The work shall mean the work or sub-work to be executed in accordance with the contract or part thereof as the case may be and shall include all extra or additional altered or substituted works as required for performance of the contract.
- (m) The contract sum shall mean the sum for which the tender is accepted.
- (n) The Accepting Authority shall mean the Authority/Officer competent to accept the tender.
- (o) The Day shall mean day of hours from midnight to midnight irrespective of the number of hours worked in any day in that week.
- (p) Temporary work shall means all temporary works of every kind required in or about the execution, completion or maintenance of the work.
- (q) Urgent work shall mean any measure which, in the opinion of the Engineer In charge, become necessary during the progress of the work to obviate any work or accident or failure of which become necessary for security of the work of the persons working thereon.

- (r) The Expression “Deputy Chief Architect” as used in tender paper shall mean the Deputy Chief Architect, P.W.D. of this work at Nanded.

Where the context so requires, words importing the singular only Also include the plural or and vice versa.

Heading and marginal notes if any, to the general conditions shall not be deemed too from party thereof or be taken into consideration in the interpretation hereof the contract.

Wherever there is mention of “Schedule of rates” of the Division or simply D.S.R. in this tender, it will be taken to mean as “ the Schedule of the rate of the Division in whose jurisdiction the work lies”.

6. ERRORS, OMISSION AND DISCREPANCIES:

- (a) In case of errors, omissions and/or disagreement between written and scaled dimension on the drawing or between drawings and specifications etc., the following order of preference shall apply.
- i) Between actual scaled and written dimensions or descriptions on drawing the latter shall be adopted.
 - ii) Between the written or shown description or dimension in the drawing and corresponding one in the specifications, the latter shall apply.
 - iii) Between the quantities shown in the schedule of quantities And those arrived at from the drawings. The latter shall prefer.
 - iv) Between the written description of the item, I the schedule of Quantities and the detailed descriptions in specification of the same items latter shall be adopted.
- (b) In the discrepancy between percentage rate quoted in Figure and words, the lowest of the two will be considered for acceptance of tender.
- (c) In all cases of omissions and or doubts or discrepancies in the Dimensions or description of any items or specifications, a reference shall be made to the Executive Engineer, **(works) Degloor Division, Z P Nanded** whose elucidation elaboration or decision shall be considered authentic. The contractors shall be held responsible for any errors that may occur in the work through lack of such reference and precaution.
- (d) The special provision in detailed specification and wording of any item shall gain precedence over corresponding contradictory provision (if any) in the standard specifications of Public works Department Hand Book where reference to such specification is given without reproducing the details in contract

7 (A) CONSTRUCTION EQUIPMENT.

The contractor shall be required to give a trial run of the equipment for establishing their capability to achieve the laid down specification and tolerance to the satisfaction of the Engineer before commencement of the work. All equipment provided shall be of prove efficiency and shall be operated and maintained at all times, in a manner acceptable to the Engineer and no equipment or personnel will be removed from site without permission of the Engineer.

7 (B) PROGRESS SCHEDULE.

(i) The contractor shall furnish the programme of work in CPM/PERT chart within the period of one month of the start of work, in quadruplicate including the date of actual start, the monthly progress expected to be achieved and the anticipated completion date of each major item of work to be done by him, also indicating dates of procurement and setting up of materials, plant and machinery. The schedule is to be such as practicable or achievement towards the completion of whole work in the time limit and of the particular item if any on the due date specified in the contract and shall have the approval of the Engineer in charge. No revised schedule shall be operative without such acceptance in writing. The Engineer in charge is further empowered to ask more detailed schedule or schedule say, weekly for any item or items, in any case of urgency of work as will be directed by him and the contractor shall supply the same as and when asked for.

(II) The contractor shall furnish the sufficient plant, equipment and labor as may be necessary to maintain the progress of schedule. The working and shift hours restricted to one shift a day for operations to be done under the Government supervision shall be approved by the Engineer in Charge Night work which requires supervision shall not be permitted except when specifically allotted by Engineer in charge each time, if requested by the contractor. The contractor shall provide necessary lighting arrangement etc for night work as directed by Engineer in charge without extra cost.

(III) Further the contractor shall submit the progress report of work in prescribed forms and chart etc. at periodical intervals, as may be specified by the Engineer in charge. Schedule shall be in the work of progress charts, forms, progress statement and /or report as may be approved by the Engineer in charge. The contractor shall mention performance, charts, details regarding machinery, equipment, labor, materials, personnel's etc. as may be specified by Engineer and submit periodically return thereof as may be specified by the Engr in charge.

8 AGENDA AND WORK ORDER BOOK:

The contractor shall himself manage the work engage the work or engage an authorized all time agent on the work capable of managing and guiding the work and understanding the specification and contract conditions. A Qualified and experienced, Engineer shall be provided by the contractor as his agent

for the technical matter in case the Authorized Authority consider this is essential for the work and so directs contractors. He will take orders as will be given by the Authorized Authority or his representative and shall be responsible carrying them out. This agent shall not be changed without prior intimation to the Authorized Authority and his representative on the work site. The contractor shall supply to the Executive Engineer, the details of all supervisory and other staff, employed by the contractor And notify changes when made, and satisfy the Authorized Authority, regarding the quantity and sufficiency of the staff Employed. The Engineer will have the unquestionable right to ask for changes in the quantity and numbers of contractor's supervisory staff and to order removal from work of any of such staff. The contractor shall comply with such order and effect replacement to the satisfaction of the Engineer.

A work order book shall be maintained on the site of each sub-work separately and it shall be the property of the **Zilla Parishad, Nanded**. and the contractor shall promptly sign order given therein by Executive Engineer or his representative and his superior officers and comply with them. The compliance shall be reported by the contractor to the engineer in good time so that it can be checked. The blank work order book with machine numbered pages will be provided by the Department free of charges for this purpose. The contractor will be allowed to copy out instruction therein from time to time.

SETTING OUT

9. (i) SETTING OUT FOR BUILDING WORKS:

The Engineer in charge shall furnish the contractor with only the four corners of the works site and a level bench mark and the contractor shall set out the works and shall provide an sufficient staff for the purpose and shall be solely responsible for accuracy of such setting out.

The contractor shall provide, fix and be responsible for the maintenance of all stacks, templates, level marks, profiles and other similar things and shall take all necessary precaution to prevent their removal or disturbance the same take place and for the maintenance of all existing survey or supplied and fixed by the contractor. The work shall be set out to the satisfaction of the Engineer in charge. The approval there of joining with the contractor of any of his responsibilities. Before begging of the work, the contractor shall at his own cost provide all necessary reference and level posts, bomboos, flags, ranging rods, strings and other material for proper lay out or the work in accordance with the scheme for marks acceptable for the Engineer in charge. The center, longitudinal or face lines and cross lines shall be marked by means of small masonry pillars. Each pillar shall have distinct mark at the center to enable the adulate to be set over it. No work shall be started until all these points are checked and approved by the Engineer in charge in writing but such approval shall not relieve the contractor of any of his responsibilities.

The contractor shall also provide all labor, material and other facilities, as necessary, for the proper checking of layout and inspection of the point during construction.

Pillars bearing geodetic marks located at the sites of units of work under construction should be protected and fenced by the contractor. On completion of works, the contractor must submit the geodetic documents according to which the work was carried out.

ii) **SETTING OUT FOR BRIDGE WORK**

Immediately on receipt of the work order, the contractor shall at his own expenses clean the site and take up a provisional and final setting out and lining out of the work under the supervision of his responsible representative and shall provided necessary materials, labor, tools instruments etc. required for the same.

One tentative abutment location will be indicated by the Engineer in charge and center line of the bridge shall be defined by him,. The contractor will then have to fix up the location of the other abutment. The abutment locations will then be verified by the Department and may be adjusted once the final location of abutments is so finalized, it will be the contractors responsibility to line out and locate the remaining foundations of piers.

The contractor shall be responsible for true and proper setting out of the work and for the correctness of the positions, level dimensions and arrangements of all parts of works and for providing all necessary instruments appliances and labours in connections there with at his own cost.

Officers may assist the contractor in proper setting out. Government instruments may be allowed to be used for setting out of work for which no cost shall be recovered from the contractor, if at any time during the progress of work, any errors arise in regard to levels or dimensions or alignment of any part of the work , rectification there of on being required to do so, will be carried out by the contractor at his own cost, unless such errors are based on incorrect data, supplied in writing , by the Engineer or his authorized representative in which case the expenses of the rectification shall be refunded by Government .

The checking of nay setting out or checking of levels by the Engineer or his authorized representative shall not in any way relieve the contractor of his responsibility for the correctness there of .The contractor shall carefully protect and preserve all benchmarks, site rails, pages and other things used in setting out of works.

iii) **SETTING OUT FOR ROAD WORK**

a) The contractor shall establish working benchmarks in the area soon after

taking possession of the site. The reference benchmarks for the area shall be as indicated in the contract document. The working benchmarks shall be at the rate of four per km. And also at or near all drainage structures, over bridge and under passes, The working bench marks / levels should be got approved from the Engineer, Checks must be made on these bench marks once in every month and adjustment if any got agreed with the Engineer and recorded. An up-to date record of all bench marks including approved adjustment, if any, shall be maintained by the contractor and also a copy supplied to the Engineer for his record.

- b)** The lines and levels of formations, side slopes, drainage, carriageways and shoulders shall be carefully set out and frequently checked, care being taken to ensure that correct gradients and cross sections are obtained every where.
- c)** In order to facilitate the setting out of the works, the centerline of the carriageways or highway must be accurately established by the contractor and approved by the Engineer. It must then be accurately referenced in a manner satisfactory to the Engineer at every 50 m. intervals in plane and rolling terrain and 20 m. intervals in hilly terrain and at all curve points as directed by the Engineer with marker pegs and change boards set in or near the fence line, and a schedule of reference dimension shall be prepared and supplied by the contractor to the Engineer. These markers shall be maintained until the works reach finished formation level and are accepted by the Engineer.
- d)** On construction reaching the formation level stage, the center line shall again be set out by the contractor and when approved by the Engineer shall be accurately referenced in a manner satisfactory to the Engineer by marker pegs set at the outer limits of the formation.
- e)** No reference peg or marker shall be removed or withdrawn without the approval of the Engineer and no earthwork or structural work shall be commenced until the center line been referenced.
- f)** The contractor will be the sole responsible party for safe guarding all survey monuments, bench marks beacons etc. The Engineer will provide the contractor with the data necessary for the setting out of the center line.

All dimensions and levels shown on the drawings or mentioned in document forming part or issued under the contract shall be verified by the contractor on the site and he shall immediately inform the Engineer or any apparent errors or discrepancies in such dimension or levels. The contractor shall after or in connection with the setting out of the center line, survey the terrain along the road and shall submit to the Engineer , for his approval, a profile along the road center line and cross sections at intervals as required by the

Engineer.

- g)** After obtaining approval of the Engineer , earthwork can commence and profile and across section shall form the basis for measurements and payments. The contractor is responsible for checking that all the basic traverse points are in place at the commencement of the contract and if any are missing , or appear to have been disturbed, the contractor shall make arrangements to re-establish these points. A Survey File” containing the necessary data will be made available for this purpose. If in the opinion of the Engineer design modifications of the center line or grade are advisable , the Engineer will issue detailed instructions to the contractor and the contractor shall perform the modifications in the field as required and modify the ground levels on the cross sections accordingly as many times as required . There will be no separate payment for any survey work performed by the contractor . The cost of these services shall be considered as being included in the cost of the items of work in the bill of quantities.
- h)** The work of setting out shall be deemed to be a part of general works preparatory to the execution of work and no separate payment shall be made for the same.

(IV) RESPONSIBILITIES FOR LEVEL AND ALLIGNMENT:

The contractor shall be entirely and exclusively responsible for the horizontal and vertical alignment the level and correctness of every part of the work and shall rectify errors or imperfection therein, such rectification shall be that effect by the Authorized Authority.

10. LEVELLING INSTRUMENTS.

If measurement of items of the work are based on volumetric measurements, calculated from levels taken before and after construction of the item, a large number of leveling staff, types etc. will have to be kept available by the contractor at the site or work for this purpose. Lack or such leveling instruments, staves, tapes etc. in required numbers may cause delay in measurement of the work. The contractor will have therefore to keep sufficient number of these instruments readily available at the work site and in good working condition.

11. AUTHORITIES OF THE EXECUTIVE ENGINEER’S REPRESENTATIVE:

The duties of the representative of the Executive Engineer are to watch and supervise the work and to test examine any material to be used or workmanship employed in connection with the work.

The Executive Engineer may from time to time, in writing delegate to his representative any powers and authorities vested in the Executive Engineer

and shall furnish to contractor , a copy of all such delegation of powers and authorities. Any written instruction of approval given by the representative of the Executive Engineer to contractor within the terms of such delegations (but no otherwise) shall bind the contractor within the terms of such delegations (but no otherwise) shall bind the contractor and the department as though it had been given by the Executive Engineer disapprove any work or materials shall not prejudice, the power of the Authorized Authority thereafter to disapprove such work or materials and so order the putting down, removal or breaking up thereof.

12. CO-ORDINATION.

Where several agencies for different sub-works of the project are to work simultaneously on the project site, there must be full co-ordination and co-operation between different contractors to ensure timely completion of the whole project smoothly. The schedule dates for completion specified in each contract shall therefore, be strictly adhered to each contractor may make his independent arrangement for water, power, access housing, etc. if they so desire. On the other hand, the contractors are at liberty to mutual agreement in this behalf and make joint arrangement with the approval of the Executive Engineer. No single contractor shall take or cause to be taken any steps or action that may cause destruction, discontent, of disturbance of work, labor or arrangement etc. of the other contractor in the project localities. Any action by any contractor which the Executive Engineer in his unquestioned discretion may consider in figment or the above code would be considered as a breach contract condition and shall be dealt with as such. In case of any dispute, disagreement between the contractor, the Executive Engineer decision regarding the co-ordination, co-operation and facilities to be provided by any of the contractor shall be final and binding on the contractors concerned and such a decision or decisions shall not vitiate any contract not absolve the contractors or his/other obligation under the contract nor consider for the grant of any claim or compensation.

13. ASSISTANCE IN PROCURING PRIORITIES, PERMITS ETC.

The Executive Engineer, on written request by the contractor, will , if in his opinion, the request is reasonable and in the interest of work and its progress, assist the contract in securing , the priorities for deliveries transport permits for controlled, materials, permits for quarries and other similar permits etc. where such are needed. The **Z. P.Nanded** will not however be responsible for the non availability of such failure or delays.

The contractor shall have to make his arrangement for machinery required for the work. However, such machinery conveniently available with the Department may be spared as per rules in force on recovery of necessary security deposit and rent with agreement in the prescribed form. Such an Agreement shall be independent of this contract and the supply or non-supply of machinery shall not form a ground for any claim or extension of time limit for this work.

14. QUARRIES.

- 14.1 The contractor(s) shall have to arrange himself/themselves to procure the material from approved quarries.
- 14.2 The quarrying operation shall be carried out by the contractor with proper equipment such compressors, Jack hammers, drill bits, explosives etc. and sufficient number of workman shall be employed so as to get required out turn.
- 14.3 The contractor shall carry out works in the quarries in conformity with all the rules and regulations already laid down from time to time by Govt. The cost incurred by Authorized authority due to non compliance of any rules or regulations or due to damages by the contractor shall be the responsibility of the contractor. The Authorized authority or his representative shall be given full facilities by the contractor for inspection at all times of the working of the quarry, records maintained , the stocks of the explosives and detonators etc. so as to enable him to check that the working records and storage are all in accordance's with relevant rules. The Authorized Authority or his representative shall at any time be allowed to inspect the work , and equipment at the quarries.
- 14.4 The contractor shall maintain at his own cost the books, registers etc. required to be maintained under the relevant rules and regulation and as directed by the Executive Engineer. The books shall be open for inspection at all times by the Executive Engineer or his representative and the contractor shall furnish the copies of extracts of books or registers as and when required.
- 14.5 All quarrying operation shall be carried out by the contractor in organized and expeditious manner, systematically and with proper planning. The contractor shall engage licensed and adopt electric blasting and / or any other approved method which would ensure complete safety to all the men engaged in the quarry and its surroundings. The designs and the location shall be got approved in advance from the chief inspector of Explosives and the rules and regulations in this connection as laid down by the Chief Inspector of Explosive as modified from time to time shall be strictly adhered by the contractor. It generally experienced that it takes time to obtain the necessary license for blasting and license for storage of blasting materials from the concerned authorities. The contractor must therefore take timely advance action for procuring all such license so that the work progress may not be hampered.
- 14.6 The approaches to the quarrying place from the existing public roads shall have to be arranged by the Contractor at his own cost and the approaches shall be maintained by the contractor at his own cost till the work is over.
- 14.7 The quarrying operations shall be carried out by the Contractor to the entire satisfaction of the Executive Engineer and the development of the quarry shall be made efficiently so as to avoid wastage of stones. Only such stones as the quality required shall be used on the work. Any stone which is in the opinion of the Executive Engineer not in accordance with specifications or of required quality will be rejected at any times, at the quarry or at the site of work. The rejected stones shall not be used on the work and such rejected materials shall be removed to the place shown, at the contractors cost.

- 14.8 Since all stones quarried from Government quarry (if made available) by the Contractor including the excavated over burden are the property of the Govt. No stones or earth shall be supplied by the contractor to any other agencies quarried materials, not required for the work under this contract shall be the property of the Government and shall be handed over by the contractor to Government free of cost at quarry site duly heaped at the spots indicated by the Executive Engineer. The contractor will be entitled to refund of royalty, if any, paid by him for such quantity handed over to the Government for which necessary certificate will be issued by the Executive Engineer as per usual procedure. If, however the Government does not require such surplus material, the contractor may be allowed to dispose off or use such material elsewhere with prior written permission of the Executive Engineer. Leaving off a quarry face or opening as a new quarry face shall be done only on the approval of the Executive Engineer.
- 14.9 Quarrying permission will have to be directly obtained by the Contractor from the Collector of the District concerned for which the department will render necessary assistance. All quarry fees, royalty charges, control duties, ground rent for stacking materials etc. if any to be paid , shall be paid directly, by the contractor as per rules in force.
- 14.10 The contractor will however be entitled to a refund of part of such charge as are admissible under rules as mentioned elsewhere in this contract, after obtaining certificate from the Engineer in charge that the materials were required for use of Government work.
- 14.11 The contractor will be permitted to erect at his own risk and cost at the quarry site if suitable vacant space Govt. area is available for the purpose of his own structure for stores, offices, etc. at places approved by the Authorized Executive Engineer. On completion of the work, contractor shall remove all the structure for use of Government work.

15. COLLECTION OF MATERIAL

- i. Where suitable and approved P.W. Department quarries exist, the contractor or

Piece worker will be allowed if otherwise there is no objection to obtain the material to the extent of required for the work from the quarry. He will be however, liable to pay, compensation, if any damage is caused to the quarry either deliberately or through negligence or for wastage of materials himself or his staff or labor. The contractor shall pay necessary amount in advance and claim refund according to rules, if admissible, and shall submit detailed account of materials from quarries as directed.

- ii. Where no suitable P.W. Departments quarries, exist or when the quantity of the material required cannot be obtained from a Departments quarry, the contractor may open new quarry in Government waste land, private land or land to belonging to other states or talukas etc. After opening the quarry but before starting collection, the quarry shall be got approved by the Authorized Authority or his representative etc. No claim or responsibility on account of any of private land owners will be entertained.

- iii. The rates in the tender includes all incidental charges such as opening of a new quarry, opening out a new portion in an existing

quarry, removing top soil and the unsuitable materials, dewatering a quarry, cost of blasting powder and fuse line, lead, repairs to existing cart tracks, making new cart tracks, control charge of Central/State Government or Municipal taxes.

- iv. The rates in the tender are for the delivery of the approved material on road side properly stacked at the places specified by the Executive Engineer and are inclusive of conveyance charges in respect of the lead and lifts. No claim on account of charges in lead will be entertained.
- v. No material shall be removed from the land within the road boundary or from the Land, touching it, without the written permission of the Executive Engineer or his Authorized agent, if any material is unauthorized obtained from such place the Contractor or piece worker shall have to make good the damages and pay such Compensation, in addition as may be decided by the Executive Engineer and will have to stop the further collection.
 - vi. Any material that falls on any P.W.D. Road from the cart etc. during conveyance shall be immediately picked up and removed by the contractor or piece worker, failing which, it will be got removed departmentally at his cost, no heap shall be left prior to stacking even temporarily on the road surface or in any way so as to cause any obstruction or danger to traffic. The contractor or the piece worker shall be liable to pay for any claim of compensation etc. arising out of any accident etc. and such materials causing obstruction or danger etc. will be got removed departmentally at his cost and no claim for any loss or damage to the material, thus removed, will be entertained. The Contractor shall also be responsible for the damage or accident etc. arising out of any material that falls on the road or track, not in charge of the Dep't. And shall attend to any complaint which may receive.
 - vii. The material shall not be stacked in place where it is liable to be damaged or lost due to traffic passing over it to be washed away by rain or floods, to be buried under land slide etc. or slip down an embankment or hill side etc. No claims for any loss due to these and similar cause be entertained.
 - viii. Before stacking the materials shall be free from all earth, rubbish vegetable matter and other extraneous substance and in the case of metal, screened to gauge, if so directed when ready. It shall be collected/stacked entirely clear of the road way on ground which has been cleaned of vegetation and leveled. On high banks, ghat road etc. where it may not be practicable to stack it entirely clear of the road way it shall cause minimum danger and obstruction to the traffic or as may be directed by him.
 - ix. The size of the stacks for materials other than rubble shall be 1mx1mx0.5m or such other size as may be directed by the Executive Engineer and all except one stack in each 200meter shall be of the same uniform size and shall be uniformly distributed over whole length. One stack (at the end) in each 200meter may be of length different from the rest in order to adjust total quantity to be required, but its width and height will be the same as those of the rest.
 - x. The Sub Divisional Officer shall supply the contractor with statement showing 200m wise quantities that will be required and the order in which the collection is to be done. No materials in excess of

requirements in that 200m shall be stacked. Any excess quantity shall be removed at the expenses of the contractor or piece worker to where it is required before the materials in that 200m is finally measured.

- xi. In stacking materials the deposition shall commence at the end of the Km farthest from the quarry and be carried continuously to the other end (unless otherwise directed by the Executive Engineer) . Stacking in a 200m shall be completed before it is started another, unless directed otherwise, in writing by the Executive Engineer. Collection and spreading shall not be carried out at the same time in one and the same Km or in two adjoining Km except with the written permission of the Executive Engineer.
- xii. Unless otherwise directed, the materials shall be collected in the following order according to availability of space :- (1) Rubble (if included in tender) (2) Metal (3) Soft Murom and (4) Hard Murom. Hard Murom shall be stacked on the side opposite to that on which soft Murom has been stacked. Similarly initial collected for petty repairs shall be stacked on the site opposite to metal for each layer shall be stacked on the opposite sides of the road.
- xiii. All road material shall be examined before it is spread. The labour for measurements (and check measurements wherever carried out) shall be supplied by the contractor or piece worker. Immediately after the measurements are recorded, the stacks shall be marked by the contractor or piece worker by white wash or otherwise as may be directed by the Authorized Executive Engineer to prevent from any possibility of the same material being measure and recorded over again and to prevent any unauthorized tampering with the stack.
- xiv. If the contractor or the piece worker fails to attend measurements of materials after receiving the notice from the Sub Divisional Officer or his subordinate stating the date and time of the intention to measure the work, the same shall be measured nevertheless and no complaint in this respect will be entertained latter on. If the contractor or piece worker fails to supply sufficient labour required at the time of measurements of check measurements employing departmental labour or material etc. shall be charged against his account.
- xv. No deduction will be made for voids.

16. TEMPORARY QUARTERS AND SITE OFFICE

- i. The contractor shall at his own expenses maintain experienced staff etc. required for the work and shall make his own arrangement provided housing for them with all necessary arrangements, including fire preventive measures etc. as directed by the Executive Engineer.
- ii. The contractor shall provide, furnish, maintain and remove on completion of the work, suitable office on the work site for the use of Executive Engineer or representative. The covered area exclusive of verandah should not be less than 40 Square meters. It may have brick walls and asbestos or corrugated iron roof; paved floors should be 45cm above ground level. He should provide a basket type or suitable latrine, urinal and keep them clean daily. This will be supposed to be included in his rate.

17. TREASURE-TROVE

In the event of discovery by the contractor or his employees during the progress of the any treasure, fossils, minerals or any other articles 0 value or inters, the contractor shall give immediate intimation thereof to the Executive

Engineer and forthwith hand over to the Executive Engineer such treasure or things which shall be the property of Z. P. Nanded.

18. PATETED DEVICE

Whenever the contractor desires to use any designated devices, materials or process covered by the letter of patent of patent or copy right for such shall be secured by suitable legal arrangement and agreement with patent owner and the copy of their agreement shall be filed with the Executive Engineer if so desired by the latter.

19. EXPLOSIVES

The contractor shall at his own expense construct and maintain proper magazines if such are required for the storage of explosives for use in connection with the work and such magazine being situated, constructed and maintained in accordance with the Government rules applicable in that behalf. The contractor shall at his own expense obtain such license or licenses as may be necessary for storing and using explosive. Notwithstanding that the location etc. or storage of the explosive are approved by the Executive Engineer Z.P. (Works) Division Nanded, shall not be incurring any responsibility whatever in connection with storage and use of explosive on the site of any accident or occurrence whatever in connection, therewith all operation in or for which explosive are being employed at the risk of the contractor and upon his whole responsibility and the contractor hereby gives to DRDA Nanded an absolute immediately in respect thereof.

20. DAMAGE BY FLOODS OR ACCIDENT

The contractor shall take precautions against damage by floods or like or from accident etc., No compensation will be allowed to the contractor on this account or for correcting and repairing any such damage to the work during the construction. The contractor shall be liable to make good at his cost, any plant or materials belonging to the Z.P. Nanded lost or damaged by floods or from any other cause which is in his charge.

21. POLICE PROTECTION

For special protection or camp and for the contractors work , the Department Will help the contractor so far as possible to arrange for such protection with the concerned authorities , if so required by the contractor in writing . The full cost of such protection shall be borne by the contractor.

22. SUPERVISION AND INSPECTION OF WORK AND QUALITY CONTROL.

22.1. SUPERVISION

The contractor shall either himself supervise the execution of the works or shall appoint the competent agent approved by the Executive Engineer to act on his behalf if in the opinion the Executive Engineer, the contractor has himself no sufficient knowledge and experience of receiving instructions or cannot give his full attention to the works, the contractor shall at his own expenses employ as his accredited agent a qualified engineer as approved by the Executive Engineer. Order given to the contractor's agent shall be considered to have the force as if these had been given to the contractor himself. If the contractor fails to appoint suitable agent as directed by the

Executive Engineer, the Executive Engineer shall have full power to suspend the execution work until such date, a suitable agent is appointed and the contractor shall be responsible for the delay so caused to the work and the contractor shall not be entitled for any compensation on this behalf.

22.2 INSPECTION.

The contractor shall inform the Executive Engineer in writing when any portion of the work is ready for inspection giving him sufficient notice to enable him to inspect the same without affecting the further progress of the work. The work shall not be considered to have been completed in accordance with terms of the contract until the Executive Engineer shall have certified in writing to that effect. Approval of materials or workmanship or approval is part of the work during the progress of execution shall not bind the Executive Engineer in any way affect him even to reject the work which is alleged to be completed and to suspend the issue of his certificate of completion till such alteration and modification or reconstruction have been effected at the cost of the contractor as shall enable him to certify that work has been completed to his satisfaction.

The Contractor shall provide at his cost necessary facilities and assistance for proper inspection of all parts of the work at his own cost.

23. INITIAL MEASUREMENTS FOR RECORD

Where for proper measurement of the work, it is necessary to have an initial set of level or other measurements taken, the same as recorded in the authorized filed book or measurement book of Z.P. Works Division, Nanded issued by the Executive Engineer or his authorized representative will be signed by the contractor who will be entitled to have a true copy of the same made at his cost. Any failure on the part of the contractor to get such levels, etc. recorded before starting the work will render him liable to accept the decision of the Executive Engineer as to the basis of taking measurements. Likewise the contractor will not cover any work which will render its subsequent measurement difficult or impossible without first getting, the same jointly measured by himself and the authorized representative of the Executive Engineer. The record of such measurements of the Executive Engineer, Nanded side will be signed by the contractor and he will be entitled to have a true copy of the same made available at his cost.

24. SAMPLES AND TESTING OF MATERIALS.

- i) All materials to be used on work shall be got approved in advance from the Executive Engineer and shall pass the test and/or analysis required by him which will be:
 - a) As specified in the specification for the items concerned and/or
 - b) I.S.I. Specifications (whichever and wherever applicable)
- c) Such recognized specifications acceptable to Executive Engineer as equivalent thereto or in absence of such authorized specifications.
- d) Such requirement test and /or analysis as may be specified by the Engineer-in-charge in order of procedure given above.
- ii) The contractor shall at his risk and cost make all arrangements and/ or shall provide for all such facilities as the Executive Engineer may require for collecting, preparing required number of samples for test or

analysis at such time and to such place or place as may be directed by the Executive Engineer and shall bear all charges and cost of testing. Such samples shall also be deposited with the Executive Engineer.

- iii) The contractor shall if when required, submit at his cost the samples of materials to be tested or analyzed and, if so directed, shall not make use, or incorporate in the works any materials represented by the samples until the required test or analysis have been made and the materials, finally accepted by the Executive Engineer.
- iv) The contractor shall not be eligible for any claim or compensation either arising out of delay in the work or due to any corrective measures required to be taken on account of and as a result of the testing of materials.
- v) The contractor or his authorized representative will be allowed to remain present in the departmental laboratory while testing. Samples furnished by him. However the results of all the test carried out in the departmental laboratory in the presence or absence of the contractor or his authorized representative will be binding on the contractor.
- vi) The contractor shall at his own cost set up laboratory to carry out the routine tests of materials which are to be used on the work. The tests will have to be carried out either in his field laboratory or in an approval laboratory. In case tests are carried out in field laboratory, at least 20% tests should be carried out in nearest quality control laboratory of the Department.
- vii) In case of materials procured by the contractor, testing as required by the codes and specifications shall be arranged by him at his own cost testing shall be done in the presence of authorized representative of the Executive Engineer, at the nearest upproved laboratory. If additional testing other than as required by specification is ordered, the testing charges shall be borne by the Department if the test result are satisfactory and by the contractor if the same are not satisfactory.
- viii) In case of materials supplied by the Zilla Parishad, Nanded. if the contractor demand certain testing, the charges there of shall be paid by the contractor if the testing results are satisfactory and the Department if the same are not satisfactory.
- ix) Contractor should have his own weighing equipment & he should check the weight of the hot mix load with this equipment.

25. CHANGE OF CEMENT CONTENT ETC.

The tendered rates for any items, involving the use of cement, shall apply to the quality of cement specified for the mix for that items in the specifications. If for any reason except those required for compensating the deficiencies in the components the cement content and properties are altered by the Executive Engineer at any time or from time to time that tendered rates for the particular items and quality

or quantities, shall be duly enhanced or reduced only to account for the addition or reduction in cost of the cement content from that laid down in the specification at the rates of cement in the Schedule A of the contract or in its absence the basic rate of cement in the prevailing DSR Plus 10% to cover all other incidental charges whatever. Likewise if any additives, compounds, water proofing material etc. are ordered by the Executive Engineer to be added to the mortar or concrete, no extra rates shall be payable for this change which will be carried out as per directions of the Executive Engineer provided cost of such additives etc. is borne by ZP, Nanded or these are supplied free of cost to contractor at site by the ZP Nanded.

26. CEMENT CONCRETE

26.1 GENERAL:

a) All concrete shall be controlled concrete and machine mixed, unless Otherwise directed by Executive Engineer. For controlled or grade concrete, the grading of aggregates shall be got approved from the Executive Engineer.

b) The correct proportions and the total amount of water for mix will be determined by the means of preliminary test and shall be got approved by the Executive Engineer . However, such approval does not relieve the contractor from his responsibility regarding the minimum works strength requirements or test shall be taken in accordance with relevant codes and specifications.

All proportioning aggregates shall be done by weight if so ordered by the Executive Engineer.

c) All mixing shall be done by mechanical means in approved mixers. The Executive Engineer may at his discretion allow in writing hand mixing of concrete for minor items where small quantities are involved but in that case contractor shall increase the cement content of the mixture by 10% without any extra cost.

d) The form work used shall be made preferably of steel or with lining of steel. Wooden shutters may be allowed at the discretion of the Executive Engineer e.g. Intel's, approved by the Executive Engineer. The concrete shall be mechanically vibrated for proper compaction by method approved by the Authorized Authorities.

e) The concrete shall be cured only by the sweet potable water for fully 21 days after or the time of the period specified in the detailed specification or as may be directed by Executive Engineer.

26.2 Reinforced Concrete Work:

a) The work included in this contract shall be carried out in addition to this specified detailed herein, in accordance with specifications and regulations as laid down in the following standard specifications. Standard specification published by Government of Maharashtra 1985 Edition.

I. S. 8112-1989- Specification for 43 grade ordinary Portland Cement
S. 1786-1985- Specification for cold twisted bars.
I.S 383-1976- Specification for coarse and fine aggregate for natural Coursed for concrete.
I.S. 432-1982- Specification for mild steel and medium steel bar.
I. S. 456- 1978 Code of practice for plain and reinforced Concrete
If the standard specification quoted above fall short for the Items quoted in these schedules of this concrete, reference shall be made to the latest British Standard Specifications.
If any the items of contract do not fall in reference quoted above, the decision and specifications of the engineer shall be final.

LOAD TEST OF BULDING SUPERSTRUCTURE

In the event of there reasonable doubts as to the quality of workmanship or of

materials used in unit of the same preferably the very first of it to be cast, as directed by the Engineer in order to satisfy the department about the strength of the structure, the adequacy of the procedure of working and the sufficiency of methods followed and results obtained. The load test shall be carried out as per specifications.

The test shall be carried out for the full dead load and 12 percent live load including impact by observation of deflections a salient point and comparing them with those computed ones. The two should closely agree with residual deflection after removal of live load after 24 hors and the difference between the two shall not be more than 20% of the maximum ones.

In case there is any deficiency, the same shall be made good by the Contractor by necessary strengthening of the un tested (please see the para 7 of the chapter 6 item 24) and necessary improvements shall be made in the units to be constructed next as warranted by their results of the test.

The next unit will again be tested and process reported until absolutely satisfactory results are obtained and the rest of the work will be carried out according to the procedure giving such results.

This testing will entirely be at the risk and cost of the Contractor, its cost being considered to be covered by the rates for the concerned items of the work under this contract and shall form a part of routine testing as far as materials and concrete else where.

27. ADDITIONAL,GENERAL SPECIFICATION FOR ORDINARY AND HIGH GRADE CONCRETE.

1. If the concrete strength falls below that specified for the items and if the use can be permitted under clause 303.3.7 of the IRC Bridge code Section III given below, the unit (Bridge component) may be accepted at the discretion of the Superintending Engineer concerned as a substandard work at a suitable reduced rate. Reduced rate will be determined by the Authorized Authority concerned according to circumstances of the case and the concerned Superintending Engineers approval to the reduced rate as mentioned above is

necessary “ standard specification and code of practice for road, Bridge Section III Cement concrete 303.3.7 Standard of acceptance.”.

- i) Fully payment should be made when 75% of the test cube result are equal and above specified strength, Cases failing outside the above limit should be examined and decided by the Engineer in charge on merits of each case.
- ii) The test specimen should be taken by representative of the contractor in presence of a responsible officer of the rank of, not lower than an Assistant Engineer/Deputy Engineer.
- iii) The Test Specimen should be formed carefully and no claim shall be entertained later on, on the ground that the casting of the test specimen where faulty and that the result of the test specimen did not give correct indication of the actual quality of concrete.
- iv) The minimum quantity of cement per one cubic meter of M15 grade and above concrete should be as per Standard specification Book specifications BV.7.4 on page 39 (1979 Edition)
- v) Payment (a) The payment of such concrete work will not be made till the strength are ascertained.
- vi) The payment of reinforcement of such affected items will not be made till the strength of the concrete are ascertained.
- vii) The centering to be used for execution of any concrete item shall be strictly in accordance with specification for formwork and steel centering given on Page No.85 to 89 of this document. No concerting shall be executed without prior approval to the centering from the Engineer in charge

28. MISCELENEOUS

- 28.1 Rate shall be inclusive of S.T., General tax and other taxes etc.
- 28.2 For providing electric wiring or water lines etc. recesses shall be provided if necessary through walls, slabs, beams etc. and latter on refilled up with bricks or stone chipping, cement mortar without any extra cost.
- 28.3 In case it becomes necessary for the due fulfillment of contract for the contractor to occupy land outside Dep't. Limits, the contractor will have to make his own arrangement with the land owner and to pay such rents if any are payable as mutually agreed between them.
The Department will offer the contractor all the reasonable assistance to enable him to obtain Govt. Land for such purpose on usual terms and conditions as per rules of Government, if such details in contract.
- 28.4 The specimen provision in detailed specifications or wording of any time shall gain precedence over corresponding contradictory provision (if any) in the standard specifications or P.W.D. Hand book where reference to such specifications is given without reproducing the details in contract.

- 28.5 Suitable separating barricades and enclosures shall be provided to separate material brought by the contractor and material issued by government to contractor under Schedule "A" same as applied for the material obtained from different sources of supply.
- 28.6 It is presumed that the contractor has gone carefully through the standard specifications of P.W.D. Hand Book and the Schedule of Rate of Division and studied the site conditions before arriving at rate quoted by him.
- 28.7 The stacking and storage of construction material at site shall be in such a manner as to prevent deterioration or infusion of foreign matter and to ensure the preservation of their quality, properties and fitness for the work. Suitable precautions shall be taken by the Contractor to protect the material against atmospheric actions, fire and other hazards. The materials likely to be carried away by wind shall be stored in suitable stress or with suitable barricades shall be stored on paved platforms. The contractor shall at his own expenses engage watchman for guarding the material and plant & machinery and the working during day and night against any pilferage or damage and also prohibiting trespassers.
- 28.8 The contractor shall be responsible for making good the damages done to the existing property work during construction by his men.
- 28.9 If it is found necessary from safety point of view to test any part of the structure, the test shall be carried out by the contractor with the help of the dep't. at his own cost.
- 28.10 The contractor shall provide maintain, furnish and remove on completion temporary shed for office on work site for the use of Executive Engineer representatives.
- 28.11 Defective work is liable to be rejected at any stage. The contractor, on no account can refuse to rectify the defects merely on reasons that further work has been carried out. No extra payment shall be made for rectification.
- 28.12 .In the schedule "B" the work has been divided into sections but notwithstanding this, every part of it shall be deemed supplementary to and complementary or every other part.
- 28.13 .General directions or detailed description or work, materials and items coverage of rates given in the specification are to the appropriate repeated in the Bill of quantities. Reference is however, drawn to the appropriate section clauses (s) of the General specifications in accordance with which, the work is to be carried out.
- 28.14 .In the absence of specific direction to the contrary, the rates and prices inserted in the items are to be considered as the full inclusive rates and prices for the finished work described there under and are to

cover all labour, materials, wastage, temporary work, plant, overhead charges and profiles, as well as the general liabilities, obligations and risks arising out of the General conditions of contract.

- 28.15 .The quantities set down against the item in the schedule "B" are only estimated quantities of each kind of work included in the contract and not to be taken as a guarantee that the quantities scheduled will be carried out or required or that they will not exceeded.
- 28.16 .All measurements will be made in accordance with the methods indicated in the specifications and read in conjunction with General conditions of contract.
- 28.17 . The details shown on drawings and all other information pertaining to the work shall be treated as indicative and provisional only and are liable to variation as found necessary. While preparing working drawing which will be supplied by the Z.P.Nanded during execution. The contractor shall not , on account of such variation be entitled to any increase over the once quoted in the tender which on quantity basis.
- 28.18 .The recoveries if any due from contractor will be effected as arrears of land Revenue through collector of the district.

29. PROTECTION OF UNDERGROUND TELEPHONE CABLE AND ARIAL, TELEPHONE WIRES AND POLES, TRANSMISSION TOWERS,ECTRICITY CABLES AND WATER SUPPLY LINES.

During the execution of work, it is likely that the contractor may meet with telephone cables, electrical cables, water supply lines, etc. it will, therefore be the responsibility of the contractor to protect them carefully. All such cases should be brought to the notice of the executive Engineer by the contractor also to the concerned Department. Any damage what-so-ever come to these cables and pipe lines by the contractor shall be made good by him at his cost.

30. MEDIAL AND SANITARY ARRANGEMENT TO BE PROVIDED FOR LABOUR EMPLOYED IN THE CONSTRUCTION BY THE CONTRACTOR.

- a. The contractor shall provide and adequate supply of potable water for the use of labors on work and in camps.
- b. The contractor shall construct trench or semi permanent latrine for the use of the Labors, separate latrines shall be provided for man and women.
- c. The contractor shall be sufficient numbers of huts on a suitable plot of land for use of the labors according to the following Specifications.
1. Huts of Bamboos and Grass may be constructed.

2. A good site liable to submergence shall be selected on high ground remote from jungle but well provided with trees, shall be chosen wherever it is available. The neighborhood of tank, jungle, grass or wood should be particularly avoided. Camps not be established close to large cutting of earth work.
3. The lines of huts should open space at least ten yards between rows. When a good natural site cannot be procured, particular attention should be given to the drainage.
4. There should be no overcrowding. Floor space at the rate of 10 sqm. Per Heads should be provided. Care should be taken to see that the huts are kept clean and in good order.
5. The contractor must find his own land and if he wGovernment land, he should apply for it and pay assessment files for it, if available by government.
6. The contractor shall construct a sufficient number of bathing places, washing places should also be provided for the purpose of washing clothes.
7. The contractor shall make sufficient arrangements for draining away the surface and sludge water as well water from the bathing and washing places and shall dispose of this waste water in such way not to cause any nuisance.
- d. The contractor shall engage a Medical Officer with a traveling dispensary for a camp containing 500 or more persons if there is no Govt. or other private dispensary situated within 8 Kilometers from the Camp. In case of emergency the contractor shall arrange at his cost for transport for quick medical help to his sick worker.
- e. The contractor shall provide the necessary staff or effecting a satisfactory drainage system and cleanliness of the camp to the satisfaction of the Executive Engineer. At least one sweeper per 200 should be engaged.
- f. The Assistant Director of public Health shall be consulted before opening a labour camp and his instructions on matters such as water supply, sanitary conveniences, the camp site, accommodation and food supply shall be followed by the Contractor.
- g. The contractor shall make arrangement for all anti malaria measures to be provided for the labour employed on the work. The anti malaria measure shall be provided as directed by the Assistant Director of public Health.
- h. Where workers are required to work near machine and are liable to meet With accident they should not be allowed to wear loose clothes the like dhoti, ghabba etc.

31.

SAFETY MEASURES AND AMENITIES.

The Contractor shall take all necessary precautions for the safety of the workers and preserving their Health while working in such job as require special protection and precaution. The following are some of the requirements listed, though not exhaustive. The contractor shall also comply with the directions issued by the Executive Engineer in this behalf from time to time and at all times.

1. Providing protective foot-wear to workers, in situations like mixing and placing of mortar or concrete, in quarries and places where his work is done under too much wet conditions as also for movements over surfaces infected with oyster growth etc.
2. Providing protective headwear to workers, working in quarries etc. to protect them against accidental falls of materials from above.
3. Taking such normal precautions like providing hand rails at the edges of the floating platform or barrages, not allowing mains or metal part or such less timber to spread around etc.
4. Supporting workmen with proper belts, ropes etc. when working on any masts, cranes, grabs, hoist, dredgers etc.
5. Taking necessary steps towards taking the workers concerned in the use of machinery before, they are allowed to handle independently and taking all necessary precaution in and around the area where machines hoists and similar units are working.
6. Providing adequate numbers of boats (if at all required for playing water) to prevent overload and overcrowding.
7. Providing life belt to all men working in such situation from where they may accidentally fall into in to the water, equipping the boats with adequate number life belts etc.
8. Avoiding bare live-wires etc. as would electrocute workers.
9. Making a platforms, staging and temporary structures sufficiently strong so as not cause inconvenience and risk to the workman and supervisory staff.
10. Providing sufficient first aid trained staff and equipment to be available quickly at the work site to render immediately first aid treatment in case of accident due to suffocation, drawing and other injuries.
11. Take all necessary precaution with regard to use of divers.
12. Providing full length gum boots, leather hand gloves with fire proof apron to cover the chest and back reaching up to the knee and protective progress for the eyes to the laborers working with hot asphalt handling vibrator in cement concrete and also where use of any or all these items in beneficial in the interest of health and well being of the laborers in the opinion of the Engineer.
13. Suitable scaffolds shall be provided for workman for all works that cannot safely be done from the ground or from solid construction except such short period work as can be done safely from ladders. When ladder is used, an extra mazoor shall be engaged for holding the

ladder and if the ladder is used for carrying materials as well, suitable footholds shall be provided on the ladder and ladder shall be given an inclination not steeper than 1:4 (1 horizontal to 4 vertical)

14. Scaffolding or staging more 3.25 meters above the ground or floors, swing or suspended from the overhead support or erected with stationary supports shall have a guard rail properly attached, bolted, braced and otherwise assured at less one meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
15. Working platform, gangways and stairways shall be so constructed that they do not sag unduly or more than 3.25 meters above ground level or floor level, it shall be closely boarded, have adequate width and be suitably fenced as described in 14 above.
16. Every opening in floor of the building or in working platform shall be provided with suitable protection to prevent fall of person or materials by providing suitable fencing or railing with minimum height of 1 meter.
17. Safe means of access shall be provided to all working platform shall be provided places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 meters length; with between sides run in hung ladder shall increase may be less than 30cm. For ladders up to and including 3 meters in length for longer ladders, this width shall be increased at least 3mm for each additional 30cm of length. Uniform step spacing shall not exceed 30cms.
18. Adequate precautions shall be taken to prevent danger from electric equipment. No material on any of the sites shall be stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect public from accident. And proceeding law that may be brought by any person for injury sustained owing to neglect of the above precaution and to pay any damages and costs which may be awarded in any such suit or proceedings to any such person or which may with the contractor, to be paid to compromise any claim by any such person.
19. All necessary personal safety equipment considered adequate by the Engineer in charge shall be available for use person employed on the site and maintained in a condition suitable for immediately use and the contractor shall take adequate steps to ensure proper use of equipment by those concerned.
 - a. Workers employed on mixing asphalt materials, cement or lime mortars concrete shall be provided with protective footwear and protective goggles.
 - b. Those engaged in handling any materials, which injurious to eyes shall be provided with protective goggles.
 - c. Those engaged in welding works shall be provided with welders protective eye shields.

- d. Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- e. When workers are employed in sewers and manholes which are in use, the contractor shall ensure that manhole covers are depended and manholes are ventilated at least for an hours before workers are allowed to get into them. Manholes spend shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to public.
- f. The contractor shall not employ, men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above age 18 are employed on the work if lead painting, the following precaution shall be taken.
No paint containing lead or lead product shall be used except in the form of past or readymade paint. Suitable faces makes shall be supplied for used by workers when paint is applied in the form of spay or a surface having lead paint, dry rubbed and scrapped.
Overalls shall be supplied by the contractor to workman and adequate facilities shall be provided to enable working painters to have wash during and on cessation of work.
- g. Have wash during and on cessation of work. When work in done wear any place where there is risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision made for prompt. First aid treatment of all injuries likely to be sustained during the course of the work.

20. Use of hoisting machines and shackle including their attachment Anchorage, sup ports shall conform to the following:

- a. i) these shall be good mechanical construction, round materials ad adequate strength and free patent defects and shall be kept in good working order.
ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be on durable quality and of adequate strength and free from patent defects.

b. Every can driver or housing appliance operator shall be property qualified and no person under the age 21 year shall be in charge of any hosting machine including any scaffolding.

c. In case of every hosting machine and of every chain, book, shackle & pulley block used in hoisting or lowering or means of suspension, safe and working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be clearly marked with safe working load.

In case of departmental machines safe working load shall be notified by the Engineer in charge. As regard contractor shall notify safe working load of each machine to the Engineer in charge whenever, he brings it to site of work and get it verified by the Engineer in charge.

Motors, gearing transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with such means as will reduce the minimum risk of the accidental descent of load adequate precaution shall be taken to reduce the minimum the risk of any part of suspended load becoming accidentally displaced, when workers are employed. On electrical installation which is already energized insulation wearing materials approved such as gloves sleeves and coats as may be necessary, shall be provided. Workers shall not wear any rings, watches, and carry keys and other materials which are good conductors of electricity. All scaffolds, ladders and other safety device mentioned of described here in shall be maintained in a safe condition and on scaffold ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at near places of work.

d. These safety provisions shall be brought to the notice of all concerned by display on a notice board at a prominent place at the work spot, persons responsible for ensuring compliance with the safety code shall be named there in by the contractor.

i) To ensure effective enforcement of the rules and regulation relating to safety precautions, arrangements made by the contractor shall be open to in section by the Engineer in charge or his representative and the inspecting officer.

ii) Failure to comply with the provisions here under shall make the contractor liable to pay to the department penalty an amount not exceeding Rs.50/- for each default and decision of the Engineer in charge shall be final and binding. Notwithstanding the above conditions, the contractor is not exempted from the operation of any other act or rules in force.

32. EXCAVATION AND TRENCHING:

All trenches, 1.5 meters or more in depth, shall at all times be supplied with at least one ladder for each 30 meters in length or fraction thereof. Ladder shall be extended from the bottom of trench to at least one meter above surface of the ground, sides of a trench which are 1.5meter or more in depth shall be stopped back to give suitable, slope or security held by timber breaking, so as placed within 1.3 meter or edge of trench or half of the depth of trench whichever is more. Cutting shall be done from top to bottom under no circumstances shall undermining or undercutting be done.

33. DEMOLITION:

Before any demolition work is commenced and also during the process of the work:

a. All roads and open areas adjacent to the work site shall either be closed or suitably protected.

- b. No electric cable or apparatus which is liable to be source of danger or cable or apparatus used by operator shall remain electrically charges.
- c. All practical steps shall be taken to prevent danger to person employed, from risk of fire or explosion or hooking. No floor, roof or other part of building shall be so over loaded with debris of materials as to render it unsafe.

34. SCOPE OF RATES FOR DIFFERENT ITEM OF WORK

For item rate contracts, the contact unit rates for different item of work shall be paid in full for completing the work to the requirements of specifications including full compensation for all the operation detailed in to the relevant sections of these specification under rates in absence of any direction to the contrary all labors, materials, wastages, temporary work, plant, equipments, overhead charges and profits as well as the general liabilities, obligation and risk arising out of the general conditions of the contract.

**The item rates quoted by the contractor shall, unless
Otherwise specified, also include compliance with
supply of the following.**

- i. General works such as setting out, clearance of the site before setting out and clearance of works after completion.
- ii. A detailed programmer for the construction and completion of the work (using CPM/PERT technique) giving in addition to the construction activities, detailed network activities for the submission and approval of materials, procurement of critical materials and equipment, fabrication of the special product/ equipment and their installation and testing and for all activities of the employer that are likely to effect the progress of work etc. including updating of all such activities on the basis of the decisions taken at the periodic site review meeting or as directed by the Engineer.
- iii. Samples of various materials proposed to be used on the work for conducting tests thereon required as per the provision of the contract.
- iv. Design of mixes as per the relevant clause of the specifications giving proportions of ingredients, sources of aggregates and binders along with accompanying trial mixes as per the relevant clauses of these specifications to be submitted to the Engineer of his approval before use of the works.
- v. Detailed design calculation and drawing for all temporary work (such as formwork staging, centering, specialized constructional handling and launching equipment and the like);
- vi. Detailed drawing for templates support and anchorage, details for pre-stressing, cable profile, bar bending and cutting schedule for reinforcement materials, lists for fabrications, of structural steel etc.
- vii. Mill reports for all mild and high tensile steel and cast steel and cast steel per the relevant provision of the specifications,
- viii. Testing of various finished item and materials including bitumen, cement, concrete, bearing as required under these specifications and furnishing test reports, certificate.
- ix. Inspection report in respect of formwork, slanting, reinforcement and other item of work as per the relevant specifications.
- x. Any other data which may be required as per these specifications of the conditions of contract of any other annexure/schedules forming part of the contract.
- xi. Any other times of work which is not specifically provided in the bill of quantities but which is necessary for complying with provision of the contract and all temporary works, from works and false works.
- xii. Portion of road works beyond the limits and any other works may be Govt. constructed by the employer directly through other agencies. Accordingly other agencies employed by the employer may be working in the vicinity of work being executed by the contractor. The contractor shall liaise with such agencies and adjust his construction programmer for the completion of

work accordingly and no claim or compensation due to any reason whatsoever will be entertained to this account. The employer will be indemnified by the contractor for any claims from other agencies on this account. From all prevailing taxes lived by the Government and as amended time to time.

35. PAYMENT:

The contractor must understand clearly that the rates quoted are or completed work and included all costs due to labour, scaffolding, plant, machinery, supervision, power, royalties, octroi taxes etc. and should also include all expenses to cover the cost of night work if and when required and no claim for additional contractor will be entitled for refund or royalties paid by him vide clause 36 of B1 tender work. The mode of measurement has been indicated in the specification if there is any ambiguity or doubt in this respect, the decision of Superintending Engineer will be final.

a) **RUNNING BILLS:**

One payment in a month with generated by the Engineer in charge if the progress is satisfactory. Contractor should submit bills to the Engineer in charge in appropriate forms.

b) **FINAL BILLS :**

The contractor should submit final bill within one month after completion of the work and the same will be paid within 3 months if it is order. Disputed items and claims if any shall be excluded from the final bill and settled separately later on.

The income tax @ 2.34% or percentage in force from time to time at the rates as intimated by the competent income tax authority shall be deducted from bill amount whether measure bill. Advance payment or secured advance.

36. CLAIMS :

Bills for extra work or for any claim shall be paid separately part from the interim bill for the main work. The payment of bills for the main work shall not be withheld for want of decision on the extras or claims not covered in the appendices.

Claims for extra work shall be registered within 30 days of occurrence of the event. However bills for these claims including supporting data / details may be submitted subsequently.

37. PRIORITIES OF WORK TO BE EXECUTED:

Priorities for items to be executed shall be determined by the department periodically keeping in view the final time limit allowed

for the work and all the time schedule fixed for intermediate stages of work.

38 WAGES ACT:

The contractor shall comply with provisions of payment of Wages Act 1936 Minimum wages Act 1948, Employees liability Act 1937, Workmen Compensation Act, 1932. Industrial Dispute Act 1947, Maternity Benefit Act, 1967 Contract Labor (R & A) Act 1970, Migrant Workmen (Regulation of Employment and condition of Service) Act 1979 or dedications thereof or any other law relating thereto and rules made there under from time to time .

39. DISPUT AND ARBITRATION:

No arbitration is allowed.

40. ELECTRICITY:

Arrangements for obtaining electric power connection will have to be made by the contractor at his own cost.

41. PRELIMINARY ARRANGEMENTS

The contractor shall have to make at his own cost all preliminary arrangement for labor, water, electricity and materials etc. Immediately after getting the work order. No claim for any extra payment of application for extension of time on the grounds of any difficulty in connection with the above matter will be entertained.

The contractor shall at his own expenses, engage watchman for guarding the materials and plant and machinery and work during day and night against any pilferage or damage and also for prohibiting trespassers of damage to them.

The contractor shall have to make his own arrangements for water required for any purpose on the work.

The contractor after completion of work shall have to clean the site of all debris and remove all unused material other than those supplied by the Department and all plant and machinery, equipments, tools etc, belonging to him within one month from the date of completion of work, or otherwise the same shall be removed by the Department at his cost and the contractor shall not be entitled for payment of any compensation for the same.

42. ACCIDENTS:

In the event of an accident involving serious injuries or damage to human life or death of any of his employee and or laborers or trespassers the same shall be liability of the contractor.

43. PLANT:

In the constructional plant, provided by the contractor shall when brought on to the site be deemed to be exclusively intended for the construction of this work and the contractor shall not remove the same or any part there of (save for the purpose of moving it from the

part of the site to another or for repairs etc.) without the consent in writing of the Engineer in charge which shall not be unreasonably withheld.

44. PUBLIC UTILITIES:

In addition clause 110 M.O.S.T. (RW) specification for Road and Bridge works (Second Edition) 1988 following should be added para 11.6 Public utility services like H.T. Lines telephone lines etc. which are visible at site should be taken notice of by the contractor while planning their works. It shall be the contractor's responsibility to inspect such service proper to the commencement of any work.

While executing the work, the contractor should take care to see that these services are not disturbed or damaged during the execution. The Government will not be held liable or responsible for any delay in completion of the job under this contract which may occur due to any damage occurred to such service in consequence of the contractors operations delayed completion of execution of the same.

45. DRAWINGS:

a) The contract drawings provided for tendering purpose with the tender documents shall be issued as a reference copy. Contractor should visualize the nature of type of work completed and to ensure that the rates and prices quoted by him in the bill of quantities take due to consideration of the complexities of work involved during actual execution / construction as experienced contractor in the field.

The tendered rates / prices for the work shall be deemed to include too cost of preparation, supply and delivery of all necessary drawings, paints, tracing and negatives, which the contractor is required to provide in accordance with the contract.

b) Completion for drawings.

The contractor shall submit the Engineer within 2 (two) months of actual completion "Completion" drawing as specified below and operations and maintenance instruction for the whole of work.

The drawings shall be accurate and correct in all respect and shall shown to and approved by the Engineer earlier. For "Completion" drawings 2 (two) prints and one polyester film of quality approved by the Engineer or his representatives shall supplied.

46. HANDING OVER THE WORK:

All the work and materials before finally taken over by Z.P.Nanded will be the entire liability of the contractor for guarding, maintaining and making good any damages of, any magnitude. Interim payments made for such work will not alter this position. The handing over by the contractor taking over by the Executive

Engineer or his authorized representative will authorize representative and the contractor, it is however, understood that before taking over such work Z.P.Nanded will not put it into regular use as distinct from casual or incidental one. Except as specifically mentioned elsewhere in this contract, or as mutually agreed to.

47. RELATION WITH PUBLIC AUTHORITIES:

The contractor shall comply with all rules, regulations, bylaws and directions given from time to time by any local or public authority in connection with this works and shall himself pay all charges which are livable on him without any extra cost to the Z.P. Nanded.

48. DOCUMENTATION:

If so ordered by Engineer in charge, the contractor will prepare drawings of the work as constructed and will supply original and three copies of the Engineer who will verify and clarify these drawings. Final as constructed drawings shall then be prepared by the contractor and supplied in triplicate to the Engineer for record and reference purpose at the contractors cost.

49. CLAUSE IN THE CONDITION OF CONTRACT:

a) All materials and workmanship shall be of the reprehensive type described in the contract and in accordance with the Engineer and shall be subjected from time to time such tests as the Engineer may direct at the place of manufacture of fabrication, or on the site.

All samples shall be supplied by the contractor.

b) No work is to be covered up or put out of view without the approval of the Engineer for his examination and measurements.

c) During the progress of the work, the Engineer shall have the power to order, the removal any unsuitable material from the site, substitution of proper and suitable material and the removal of proper re erection notwithstanding any previous test or interim payment therefore, and of any work which is respect of materials or workmanship is not, in the opinion of the Engineer in accordance with the contract.

50. INSPECTION OF OPERATION:

The Engineer and any person authorized by him shall at all times have access to the works and to all workshops and places. (Including required document) where work is being prepared or from where material manufactured articles or machinery are being obtained for the work and the contractor shall afford facility for and every assistance in or in obtaining the right to such access.

51. CONTRACTORS FACILITIES:

According to the contract, the contractor is responsible for the quality of entire construction work. To meet this requirement.

- a) The contractor shall set up his own laboratory at location (s) approved by the Engineer. The laboratory shall be equipped with modern and sufficient equipment with sufficient. Standbys, suitable to carry out the tests prescribed for different materials and work according to the specifications. The lost of equipment to procured and the facilities to be approved shall be got approved by the Engineer. The equipment shall be maintained in a workable condition to the satisfaction of the Engineer.
- b) Sampling and testing procedures shall be in accordance with the relevant standards of BIS (Previously called ISI) of IRC. Frequency of testing shall be as per laid down in the Ministry's Specifications for Roads and Bridge work (2nd Revision). In the absence of relevant Indian Standards, sampling and testing procedures shall be approved by the Engineer.
- c) The laboratory should be manned by a qualified engineer assisted by the Material Inspector / Technicians, and the set up should be got approved by the Engineer.
- d) The contractor should prepare and get printed proforma for recoding results of each type of test after getting the formats of the performance approved from the Engineer. He should keep a daily record of all the test conducted by him. Two copies of the test results should be submitted to the Engineer for his examination and after approval, of which one copy will be returned to the contractor for being kept at site of work.
- e) The material Engineer of the Contractor should keep close liaison with the Quality Control unit of the Engineer and keep the latter informed of the sampling and testing programmed so that Engineers representative could be present during this activity, if considered necessary.

52. DAY TO DAY QUALITY CONTROL OPERATION:

The day to day control to be exercised by the Contractor and Engineer enumerated in the below paragraphs.

53. ALIGNMENT AND LEVEL, CONTROL:

- a) The contractor should locate the center line of the building from the page, pillars of reference points fixed during the location survey and from the information furnished in the contract drawings. Any discrepancy between the reference points on the ground and those on the drawings should immediately be brought to the notice of the Engineer for recociliatich.

- b) Based on the approved center line, the contractor should set up batter pegs (do delineate the limits of embankment / cutting and cleaning stack (to determine limits of cleaning and grubbing) and have these got checked and approved by the Engineer.
- c) The contractor should check the reduced level of bench marks set up along the alignment. Any discrepancy in the reduced level of those at site and as indicated in the drawings should immediately be brought to the notice of the Engineer for reconciliation. The contractor should re establish those bench marks which are found missing at site, and should establish additional bench marks as needed, for ensuring effective level control.
- d) The contractor shall be responsible for the true and proper setting out of the works in relation to original survey points, lines and levels of reference given by the Engineer in the drawings should immediately be brought to the notice of the Engineer In writing. If at any time during the progress of the works, any error shall appear or arise in the position levels dimensions or alignment of any part of the works, the contractor on being required to do so by the Engineer, unless such error is based on incorrect data supplied in writing by the Engineer.
- e) The contractor shall carefully protect and prepare all bench marks, reference pillars and pegs used in setting out the works till final take over by the Engineer.

54. IN CASE OF CEMENT CONCRETE WORKS :

- a) Besides manufactures test certificate for quality of cement at least one set Of physical and chemical test should be conducted for each source of supply for verification. Where the quality is in doubt, or where the cement had been stored for long period or in improper condition, the Engineer shall call for testing the cement at more frequent intervals without any extra cost to the Government.
- b) Job mix formula on trials carried in the contractor laboratory should be got approved by the Engineer.
- c) The mineral aggregates should be tested for their properties; Water to be used for mixing should be tested for chemical impurities.
- d) Checking for stability and sturdiness of form work.
- e) Ensuring that the crucial equipment like mixers and vibrators are in working order before start the work.
- f) Control on water cement ratio.
- g) Control on workability and time elapsed between mixing and placing of concrete.
- h) Control on compaction and finishing.
- i) Test cube sample at 7 and 28 days.
- j) Checks on provision for adequate curing.

54.1 In case of masonry work, control should be exercised on the quality of the materials (e.g. stone, brick, sand, cement etc.) as also mortar proportions.

54.2 For R.C.C. work, quality of steel in each batch may be approved on the basis of test certification. The reinforcement layout should be checked for conformity with approved drawings and bar bending schedule. All laps should be checked for conformity with specifications. The reinforcement should be free from oil and loose rust scale, should be properly tied with binding wire.

As per Executive Engineer (Works) **Z.P.Nanded** Guidelines, Payments cannot be made to Contractors unless these conditions are satisfactory fulfilled and work program approved.

55. TRAFFIC REGULATION

55.1 Unless separately provided for in the contract. The contractor shall have to make all necessary arrangement for regulating traffic, day to night during the period of construction to the entire satisfaction of the Engineer. This includes the construction and maintenance to diversion if necessary. The contractor shall have to provide necessary caution boards, barricades, flags, lights and watchmen etc. so as to comply with the latest Motor Vehicles Rules and Regulation and for traffic safety and he shall be responsible for all claim from accidents which may arise due to his negligence whether in regulating the traffic or in stacking materials on the roads or due to any other reasons.

55.2 It is to be clearly understood that whatever work carried out by the contractor the construction of diversion road including earthwork, W B. M bituminous surface dressing. R.C.C. pipe drains etc. will be paid for only once if due to flow of traffic, due to floods or due to any other cause, this diversion road and/or the R.C.C. drain gets damaged it shall be repaired and maintained by the contractor in good condition till completion of the whole work at his own expenses.

55.3 The contractor's have to make own arrangements for temporary acquisition of land if required for diversion.

56. INCOME TAX:-

The income tax **@2.34%** and surcharge thereon or at the rates amended from time to time as intimated by competent Income Tax Authority shall be deducted from bill amount, whether measured bill, advance payment or secured advance.

57.

BUILDING & OTHER CONSTRUCTION WORKERS WELFARE CESS:

Building & other construction workers welfare cess at **one percent** or at the rates amended from time to time as intimated by the competent authority of Building and other construction workers welfare Act, 1996 shall be deducted form bill amount, whether measured bill, advance payment or secured advance.

Royalty: Contractor should submit Royalty Clearance Certificate with challan obtained from concerned Revenue Authority along with each bill. If the certificate from Revenue Authority is not submitted, amount of Royalty will be recovered from contractor's bill in hand.

CONDITIONS RELATING TO INSURANCE OF CONTRACT WORK:

The Contractor shall take out necessary insurance Policy/ Policies (viz. Contractor's All Risks Insurance Policy. Erection All Risks Insurance Policy etc. as decided by the Directorate of Insurance) so as to provide adequate insurance cover for execution of the awarded contract work for total contract value and complete contract period **COMPULSORILY** from the "Directorate of Insurance, Maharashtra State, Mumbai" only. Its postal address for correspondence" 264, MHADA, First Floor, Opposite Kalanagar, Bandra (East), Mumbai- 400 051." (Telephone Nos.022- 265 90 403/ 265 90 690 and Fax No. is 022- 265 92 4661/ 265 90 690). Similarly all workmen's appointed to complete the contract work are required to insure under workmen's compensation Insurance Policy. Insurance Policy/ Policies taken out from any other company will not be accepted. If any Contractor has effected Insurance with any Insurance Company the same will not be accepted and the amount of premium calculated by the Government Insurance Fund will be recovered directly from the amount payable to the Contractor for the executed contract work and paid to the Directorate of Insurance Fund, Maharashtra State, Mumbai. The Director of Insurance reserves the right to distribute the risks of insurance among the other insurers. [If the Contractor fails to produce the documents of insurance done before payment of 1st R.A. bill, one percent of the contract amount will be recovered from Contractor's 1st R.A. bill].

59 **ADDITIONAL CONDITION ABOUT AVAILABILITY OF FUNDS:**

The budget provision for this work is less at present. The payment of bills will be as per the availability of funds. No claims will be entertained for delayed payments .If situation arises, the work will be stopped at safe stage and will be withdrawn under Clause-15 for which no compensations will be allowed.

60. **Maharashtra Value Added Tax :-**

If the contractor having Valid Registration certificate under Maharashtra Value Added Tax Act 2005 under Rule No. 8 and 9 then 2% amount will be deducted from their bill otherwise 4% amount will be deducted from the bill.

General Description of work

Name of Work : -----

LOCATION AND SITE CONDITIONS

The contractor shall go through all drawings specifications general conditions, location and site conditions, quarries, construction material and got truly well conversant with the contract work before submitting the tender.

The contractor shall deemed to have carefully examined the work site condition including labour, the general and special conditions, specification , schedule and drawing and shall be deemed to have visited and site of the work and have fully informed himself regarding the local conditions and carried out his own investigation to arrive at rates quoted in the tender. In this regard he will be given necessary information available with the best of knowledge of debarment but without any guarantee about it.

AGGREEMENT B-1 FORM

FORM-1
PERCENTAGE RATE TENDER AND CONTRACT OF WORKS

DEPARTMENT : ZILLA PARISHAD, **NANDED**
CIRCLE : PWD CIRCLE NANDED
DIVISION : Z.P.WORKS DEGLOOR DIVISION, **NANDED**
NAME OF WORK : -----

GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS

1. All works proposed to be executed by the contract shall be notified in a form pasted on a board hung up in the office of the Executive Engineer and signed by the Executive Engineer. In this case the Executive Engineer is the same i.e. **Executive Engineer, Z.P. (Works)Degloor Division, Nanded.**

This form will state the work to be carried out as well as the date for submitting and opening tenders, and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender and the amount of security deposit to be deposited by the successful tender, and the percentage, if any, to be deducted from bills. It will also state whether a refund of quarry fees, royalties, dues and ground rents will be rented or not, copies of the specifications, designs and drawing, estimated rates, schedule and any other documents required in connection with the works shall be signed by the Executive Engineer for the purpose of identification and shall also be open for inspection by contractors at the office of the Executive Engineer during office hours.

Where the works are proposed to be executed according to the specification recommended by a contractor and approved by a competent authority on behalf of the Government of Maharashtra such specifications with designs and drawings shall form part of the accepted tender.

2. In the event of the tender being submitted by a firm, it must be signed by each partner there for, and in the event of the absence of any partner, it shall be signed. In his behalf by a person holding a power of attorney authorizing his to do so.
 - i) Contractor shall pay along with the tender the sum of **Rs. As payment of earnest money.** The contractor may pay the said amount by crossed DD of Nationalized Bank. In favor of **Executive Engineer Works Degloor Z.P. Nanded.**
 - ii) In the event of his tender being accepted, subject of the provision of sub clause (iii) below, the said amount of earnest money shall be appropriated to words the amount security deposit payable by him under conditions of General Conditions of Contract.
 - iii) If, after submitting the tender, the contractor withdraws his offer, or modifies the same of it after the acceptance of his tender the contractor fails or neglects to furnish the balance of security deposit without prejudice to any other right and power of the **Z.P. Nanded**, here under, of in law **Z.P. Nanded**, shall be entitled to the full amount of the earnest money deposited by him.

- iv) In the event of his tender not being accepted, the amount of earnest money deposited by the Contractor shall, unless it is prior therefore forfeited under the provision of sub-clause (iii) above, refunded to him on his passing receipt therefore.
3. Receipts for payments made on account of any work, when executed by a firm, should also be signed by all the partners, except where the Contractors are described in their tender as a firm, in which case the Receipt shall be signed in the name of firm by one of the partners or by Some other person having authority to give official receipts for the firm.
4. Any person who submits a tender shall fill up the usual printed form stating at what percentage above or below the rates specified in Bill of Quantity (memorandum showing items of work to be carried out) he is willing to undertake the work. Only one rate or such percentage on all the estimated rates/Scheduled rates shall be named. Tenders who propose any alteration in the works specified in the said form of invitation tender, or in the time allowed for carrying out the work, or which contain any other conditions, of any sort will be liable to rejection. No printed form of tender shall include a tender for more than one works but if contractor who wish to tender two of more works, they shall submit separate tender for each. Tender shall have the name and number of the work to which they refer, written outside the envelope.
5. The Executive Engineer Nanded, or his duly authorized Assistant shall open tenders in the presence of contractors who have submitted tenders of their representatives who may be present at the time, and he will enter the amounts of the several tenders in a comparative statement in a suitable form
In the event of tender being accepted, the contractor shall for the purpose of identification, sign copies of the specifications and other documents mentioned in Rule. In the event of tender being rejected, the competent officer shall authorize the Chief Accounts and Finance Officer, **Z.P. Nanded** concerned to refund the amount of earnest money deposited to the contractor making the tender, on his giving a receipt for the return of the money.
6. The officer competent to dispose of the tender shall have the right of rejecting all or any of the tender.
7. No receipt for any payment alleged to have been made by contractor in regard to any matter relating to his tender or the contract shall be valid and binding on **Z.P. Nanded** unless it is signed by the Executive Engineer.
8. The memorandum of work to be tendered for the schedule of material to be supplied by **Z.P. Nanded** and their rates shall be filled in and completed by the office of the Executive Engineer, before the tender form is issued. If a form issued to an intending tender has not been so filled in and completed, he shall request the said office to have this done before he completes and delivers his tender.
9. All works be measured net by standards measure and according to the rules and customs of the Public Works Department and their rates shall be without reference to any local custom.
10. Under no circumstances shall any contractor be entitled to claim enhanced rates for items in this contract.

11. Every registered contractor should produce along with his tender certificate of registration as approved contractor in the appropriate class and renewal of such registration with date of expiry.
12. All corrections and additions or pasted slips should be initialed.
13. The measurements of work will be taken according to the usual methods in use in the Public Works Department the Executive Engineer decision as to what is the usual method in use Department will be final.
14. The tendering contractor shall furnish a declaration along with the tender showing all works for which he has already entered into contract and the value of work that remain to be executed in each case on the date of submitting the tender. The reference to the number of assessment year, and a valid Income Tax Clearance certificate, or true copy thereof duly attested by a Gazette Officer,
15. In view of the difficult position regarding the availability of foreign exchange no foreign exchange would be released by the department for the purchase of plant and machinery required for the execution of the work contracted for.
16. The contractor will have to construct shade for storing controlled and valuable materials issued to him under Schedule A of agreement, at th work site, having double locking arrangement. The materials will be taken for use in the presence of the departmental person. No material will be allowed to remove from the site of works.
17. The contractor shall also give a list of machinery and their possession & which they propose to use on the work in the form of Statement no III
18. Successful tendere will have to produce to the satisfaction of the accepting authority a valid and current license issued in his favour under the provision of Contract Lenoir (Regulation and Abolition Act, 1973) before starting work failing which acceptance of the tender will be liable for withdrawal and earnest money will be forfeited to E.E.works Z.P. Nanded.
19. The contractor shall comply with the provision of Apprentices Act, 1961 and rules and orders issued there under from time to time. If he fails to do so, his failure will be breach of the contract and Executive Engineer may in his discretion cancel the contract. The contractor shall also be liable, for any pecuniary liability arising on account of any violation by this and the provisions of the Act.

TENDER FOR THE WORKS

<p>In figures as well as in words</p>	<p>1. I/We hereby tender for the execution, for the Government of Maharashtra (herein before and hereinafter referred to as Governments) of work specified in the underwritten memorandum within the time specified in such memorandum at percent. Below/above the estimated rates entered in Bill of Quantity (memorandum showing items of work to be carried out) and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule 1 hereof and in clause 12 of the annexed conditions of the work contract and agree that when materials for the work are provided by the Government , such materials and the rate to be paid for them be as provided in Schedule A here to</p>
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(a) If several sub works are included they should be detailed in separate list	a) General Description
	b) Estimated Cost : Rs. /-
(b) This Deposit shall be in accordance with Rule No.141 of the Z.P. & P.S. Account Code 1968	c) Earnest Money : Rs. /-
	d) SECURITY DEPOSIT
	(I) Cash (not less than to Amount of earnest money) Rs; /- (II) To be deducted from bills Total Rs. /-
(c) This percentage where in security deposit is taken will vary from 4 percent to 10 percent according to the requirement of the case where security deposit is taken see note 1 to condition of contract	e) Percentage. If any to be deducted from bills so as to make up to the total amount required and security deposit by the time, half the work as measured by the cost is done.
(d) Give Schedule where necessary showing dates by which the various items are to be completed.	f) Time allowed for the work is ----- Calendar Months including Monsoon. From the date of written order to commence.
	2. I/We agree that the offer shall remain open for a acceptance for a minimum period of 07 days from the date fixed for opening the same and here after until it is withdrawn by me / us by notice in writing duly addressed to the authority opening the tenders and sent by registered post AD or otherwise delivered at the office of such authority. Cross

CONDITIONS OF CONTRACT

Security Deposit
PWD Resolution
No.CAT/1087/CR-
94/Bldg.2
Dt.14/06/1989

Clause 1: The person/persons whose tender may be accepted hereinafter called the contractor, which expression shall unless excluded by or repugnant of the contest include his heirs, executors, administrator, and assignee) shall (A) Within 10 days (which may be extended by the **Add.C.E.O.Z.P.Nanded** concerned up to 15 days if the **Add.C.E.O.Z.P.Nanded** thinks fit to do so) of the receipt by him of the notification of the acceptance of his tender 2% deposit with the Executive Engineer, in **Challan of State Bank of Hyderabad Branch Nanded or Fixed Deposit Receipt of any Nationalized bank in the name of E.E.(Works) Degloor Div.Z.P.Nanded endorsed to the Executive Engineer** before work order and remaining 2% thorough bills. If the 2% security amount is not deposited with Z.P. within time limit, 1% earnest money deposited with tender will be forfeited.

All compensation or other sums of money payable for the contractor to Government under terms of his contract may be deducted from or paid by the sale of sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due or may become due by Government to the contractor under any other contract or transaction of any nature on any account whatsoever and in the event of the security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall within 10 days there after, make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from or raised by sale of his security deposit or any part thereof. The security deposit referred to when paid in cash may, at the cost of the depositor, be converted into interest bearing securities provided that the depositor has expressly desired this in writing.

The amount of the security deposit lodged by a contractor shall be refunded after one year from the date of completion of work in the event of the contractor failing or neglecting to complete rectification work within the period up to which the contractor has agreed to maintain all the sub-work in good order, then, subject to provisions of clauses 17 and 20 thereof the amount of security Deposit retained by Government shall be adjusted towards the excess cost incurred by the department on rectification work.

Clause 2: The time allowed for carrying out the work as entered In the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the work order to commence work is given to the contractor. The work shall throughout the stipulated period of the contract be proceeded with, all due diligence as per the bar chart attached on page No.----- (time being deemed to be to the essence of the contract on the part of the contractor) and the contractor shall pay as compensation an amount equal to one percent or such smaller amount the Add.C.E.O. (whose decision in writing shall be final) may decide, of the amount of the estimated cost of the whole work as shown by the tender for every day that the work remain uncompleted, or unfinished after the proper dates And further to ensure good progress during execution of the work, the contractor shall be bound in all cases in which the time allowed for any work exceeds one month to complete.

The program for completion of work is attached in the form of bar

	<p>chart. The contractor is supposed to carry out work and keep the progress as per bar chart on page no.----- the contractor should complete the work as per phase period given below which is arrived from bar chart.</p> <p> $\frac{1}{4}$ of work in $\frac{1}{4}$ of the time $\frac{1}{2}$ th of work in $\frac{1}{2}$ th of the time $\frac{3}{4}$th of work in $\frac{3}{4}$th of the time </p> <p>Full work will have to be completed in ----- including monsoon also M.Z.O. A/c code page 149 will also apply.</p> <p>Note: The quantity of the work to be done within a particular time to be specified above shall be fixed and inserted in the bank except for the purpose by the officer competent to accept the contract after taking into consideration the circumstances of each case add abide by the program of detailed progress laid down by the Executive Engineer. In the event of the contract failing to comply with this condition he shall be liable to pay compensation. The Add. C.E.O. (whose decision in writing shall be final) may decide of the estimated cost of the whole work for every day that the due quantity of work remains. Amount of compensation to be paid under the provision of the clause shall not exceed 10 percent of the estimated cost of the work as shown in the tender</p>
<p>Action when whole Security Deposit is forfeited</p>	<p>Clause 3: In any case in which under any clause of this contract, the contractor shall have rendered himself liable to pay compensation amounting to the whole of this in security deposit whether paid in the case of abandonment of the work owing to serious lines death of the contractor or any other cause the Executive Engineer, on behalf of the Governor of the Maharashtra, shall have power to adopt any of the following courses, as he may deem suited to the interest of the Government.</p> <ol style="list-style-type: none"> a) To rescind the contract (for which rescission notice in, writing to the contractor under the hand of Executive Engineer shall be conclusive evidence) and in that case, the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of Government. b) To carry out the work or any part of the work departmentally debiting the contractor with the plant, and charges on additional supervisory staff including the cost of work charged establishment employed for getting the unexecuted part of the work completed and crediting him with the value of the work done departmentally in all respects in the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer, as to the costs and other allied expenses so incurred and as to the value of the work so done departmentally shall be final and conclusive against the contractor. c) To order that the work of contractor be measured up to and take such part thereof as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case will expenses incurred on advertisement for fixing a new contracting agency additional supervisory staff including the cost of work charged establishment and the cost of the work

	<p>executed by the new contract agency will be debited to the contractor and the value of the work done or executed through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certification of the Executive Engineer, as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work done by the new contractor and as to the value of the work so done shall be final and conclusive against the contractor.</p> <p>In case the contractor shall be rescinded under clause (a) above the contractor shall not be entitled to recover or be paid, any sum for any work therefore actually performed by him under this contract unless and until the Executive Engineer, shall have certified in writing the performance of the such work and the amount payable to him in respect thereof and he shall only be entitled to be paid the amount so certified. In the event of either of the courses referred to in clause (b) or (c) being adopted and the cost of the work executed departmentally or through a new contractor and other allied expenses exceeding the value of such work credited to the contractors the amount of excess shall be deducted from any money due to contractor, by Z.P.Nanded event if the certified value of the work done departmentally or through a new contractor exceeds the certified cost of such work and allied expenses provided always that whichever of the three courses mentioned in clause (a), (b) or (c) is adopted by the Executive Engineer, the contractor shall have not claim to compensation for any loss sustained by him by reason of his having purchases or procured any materials, or with a view to the execution of work or the performance of the contract.</p>
<p>Action when the progress of any particular portion of work is unsatisfactory.</p>	<p>Clause 4: If the progress of any particular portion of the work unsatisfactory, the Executive Engineer, shall notwithstanding, that the general progress of mentioned in clause 2, be entitled to take action and of clause 3(b) after given the contractor 10 days notice in writing. The contractor will have no claim for compensation, for any loss sustained by him owing to such action.</p>
<p>Contractor remains liable to pay compensation of action not taken under clause 3a and 4 Power to take possession of or required removal of or sell contractors plant.</p>	<p>Clause 5: In any case in which any of the powers conferred upon the Executive Engineer by clause 3 and 4 hereof shall have become exercisable and the same shall not have been exercised, the non exercise thereof shall not constitute a waving of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor for which under any clause hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Authorized Authority taking action under sub-clause a) or (c) of clause 3, he may, if he so desires, take possession of all or</p>

	<p>any tolls and, plant, materials and stores in or upon the work of the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part there of playing or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable at current market rates to be certified by Authorized Authority whose certificate thereof shall be final. In the alternative the Executive Engineer, may, after giving notice in writing to the contractor or his clerk of the work, foreman or other authorize agent require him to remove such tolls and plants, materials, or stores from the premises within a time to be specified in such notice, and in the event of contractor failing to comply with any such requisition, the Authorized Executive Engineer, may remove them at the contractors expense or sale them by auction or private sale on account of the contractor and at his risk in all respects and the certificate or the Executive Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final & conclusive against the contractor.</p>
<p>Extension of time. As per Z.P. & P.S. A/c Code 1968 Page 148</p>	<p>Clause 6 : If the contractor shall desire an extension of time for completion of an individual sub work on the ground of his having been unavoidably hindered in its execution or on any other ground he shall apply in writing to the Additional C.E.O. Z.P.Nanded. before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered as aforesaid or on which the cause for asking for extension accrued whichever is earlier and the Executive Engineer, or in the opinion of Additional C.E.O. that there were reasonable grounds for granting an extension will grant such extension, as he thinks necessary or proper. The decision of the Additional C.E.O. Z.P.Nanded in this matter shall be final. While granting such extension a revised mile stone shall be fixed and communicated to the contractor by the Executive Engineer. The contractor shall have to complete the balance sub work within such extended period according to the revised mile stone. In the event of the contractor failing to comply with this condition he shall be liable to pay compensation mentioned in the revised miles stone. M.Z.P. & P.S. A/c code 1968 page No.148 will also apply.</p>
<p>Final completion certificate.</p>	<p>Clause 7: On the completion of the sub- work, the contractor shall be furnished with a certificate by the Executive Engineer (hereinafter called the Engineer-in-charge) of such completion but no such certificate shall be given nor shall have the work be considered to be completed until the contractor shall have been executed, all scaffolding, surplus materials and rubbish and shall have cleaned of, the dirt from all wood work, doors, windows, walls, floor or other parts of any building in or upon which the work has been executed or which he may have had possession for the purpose of executing the work, not until the work shall have been measured by the Executive Engineer or where the measurements have been taken by his subordinates until they have received approval from the Executive Engineer, the said measurements being binding and conclusive against contractor. If the contractor shall fail to comply with requirements of this clause as to removal of scaffolding surplus materials and rubbish and the cleaning of dirt or before the date fixed for the completion of the work the Executive Engineer may at the expense of the contractor remove such scaffolding, surplus material and rubbish and dispose of the same as he thinks fit and clean off such dirt as aforesaid and the contractor</p>

	shall of twitch pay amount of all expanses so incurred, but shall have not claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the thereof.
<p>a) Payments of reduced rates on account of items of work not accepted as completed, to be at the discretion of the Engineer-in-charge</p> <p>b) Payment on intermediate certificate to be regarded as advances.</p>	<p>Clause 8: a) The rates for several items of work estimated to cost more than Rs.1000/- agreed to within shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specification. In case, where the times of work are not accepted as so contemplated by the Executive Engineer, he may pass the bills on account of such items at such reduced rates as he may consider reasonable in the preparation of final or on account bills.</p> <p>b) No payment shall be made for any work estimated to cost less than rupee on thousand till after the whole of work shall have been completed and a certificate of completion given but in the case of works estimated to cost more than rupees one thousand the contractor shall on submitting a monthly bill thereof, be entitled to receive payment proportionate to the part of the work then approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. All such intermediate payments shall be regarded as a payment by way of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the Engineer-in-charge from requiring any bad, unsound imperfect or unskillful work to be removed or taken away and reconstructed or re-erected nor shall any such payment be considered as an admission of the due performance of the contractor any part thereof in any respect or the occurring of any claim nor shall it conclude, determine or affect in any other way the powers of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or effect the contract. The final bill shall be submitted by the Contractor within one month of the date fixed for the completion of the work, otherwise the Engineer-in-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all the parties.</p>
Bills to be printed forms.	<p>Clause 9: A bill shall be submitted by the Contractor in each month or before the date fixed by the Executive Engineer, for all work executed in the previous month, and the Engineer-in-charge shall take or cause to be taken the requisite measurements for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Executive Engineer may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorized agent whose counter signature to the measurements list shall be sufficient warrant, and Executive Engineer may prepare a bill from such list which shall be binding to the contractor in all respects.</p>
	<p>Clause 10 : The contractor shall submit all bills of the printed forms to be had on application at the office of the Executive Engineer The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender at the rates hereinafter provided for such work.</p>
Stores supplied by	Clause 11: Nil

Government .	
Works to be executed in accordance with specifications, drawings orders etc.	Clause 12; The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner, and both as regards materials and every other respect in strict accordance with specifications, The contractors shall also conform exactly, in fully and faithfully to the designs drawings and instructions in writing relating to the work signed by the Executive Engineer and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office, or on the site of the work during office hours .The contractor will be entitled to receive three sets of contract drawings and working drawings as well as one certified copy of the accepted tender along with the work order free of cost. Further copies of the contract drawings and working drawings if required by him shall be supplied at the rate of Rs.--- per set of contract drawings and Rs.--- per working drawing except where otherwise specified.
Alteration in specification and design not to invalidate contracts.	Clause 13: The executive Engineer with due permission of S.E. shall have power to make any alteration in or additions to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with any instruction in this connection which may be given to him in writing signed by the Executive Engineer and such alteration shall not invalidate the contract, and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same condition in all respects on which he agreed to do the main work, and if the additional and altered work includes any class of work for which no rate is specified in his contract, then such class of work shall be carried out at the rates entered in the schedule of Rates of the Division or at the rates mutually agreed upon between the Executive Engineer and contractor whichever are lower, If the additional or altered work for which no rate is entered in the schedule of rates of division is ordered to be carried before the rates are agreed upon then the contractor shall within seven days of the date of receipt by him of the order to carry out the work inform the Executive Engineer of the rate which it is his intention to charge for such class or work. And if the Executive Engineer it does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out in such manner as he may consider advisable provided always that if the contractor shall commence work or incurred any expenditure in regard there to before the rates shall have be determined as lastly here in before mentioned, then in such case no shall only be entitled to be paid respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Executive Engineer, in the event of dispute, the decision of the Additional Chief Executive Officer Z. P.Nanded with be final.
Rates for works not entered in estimate or schedule of rate of the district	
Extension of time limit in consequence of additions or alterations.	Clause 14 : The time limit for the completion of the work shall be extended in the proportion that the increase in its cost occasioned by alterations or additions bears to the cost of the original contract work, and the certificate of the Executive Engineer as to such proportion shall be conclusive.
No claim to any	Clause 15 (1): If at any time after the execution of the contact

<p>payment of compensation for alteration in or restriction of work</p>	<p>documents the Executive Engineer shall for any reason what so ever (other than default on the part of the contractor for which the Z.P. Nanded is entitled to rescind the contract) desire that the whole or any part of the work specified in the tender should be suspended for any period or that the whole or part of the work should not be carried out at all, he shall give to the contractor a notice in writing of such desire and upon the receipt of such notice the contractor shall forthwith suspend or stop he work wholly or in part as required, after having due regard to the over rotate state at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety there of, provided that the decision of the Engineer as to the stage at which the work or any part of it could have been safely stopped or suspended shall be final and conclusive against the contractor. The contractor shall have no claim to any payment or compensation whatsoever by the reason of or in pursuance of any notice aforesaid, on account of any suspension stopped or curtailment except to the extent specified hereinafter.</p> <p>(2) Where the total suspension of the work ordered as aforesaid continued for a continuous period exceeding 90 days, the contractor shall be at liberty to withdraw from the contractual obligations under the contract so far as it pertains to the unexecuted part of the work by giving a 10 days prior notice in writing to the Executive Engineer, within 30 days of the expiry of the said period of the 90 days, of such intention and requiring the Engineer to record the final measurements of the work already done and to pay final bill. Upon giving such notice the contractor shall be deemed to have be discharged from his obligations to completed the remaining unexecuted work under his contract. On receipt of the such notice the Engineer shall proceed to complete the measurements and make such payment as may be finally due to the contractor within a period of 90 days from the receipt of such notice in respect of the work already done by the contractor. Such payment shall not in any matter prejudice the right of the contractor to any further compensation under the remaining provision of these clause.</p> <p>(3) Where the Engineer required the contractor to suspend the work for a period in excess of 30 days at any time or 60 days in the aggregate, the contractor shall be entitled to apply to the Engineer within 30 days of resumption of work after such suspension for payment of compensations to the extent of pecuniary loss suffered by him in respect of working machinery remained idle on the site or on the account of his having and to pay the salary or wages of labor engaged by him during the said period of suspension provided always that the contractor shall not be entitled to any claim in respect or any such working machinery salary or wages for the first 30 days whether consecutive or in the aggregate or such suspension or in respect or any suspension whatsoever occasioned unsatisfactory work or any other default on his part. The decision of the Engineer in this regard shall be final and conclusive against the contractor.</p>
<p>No</p>	<p>claim (4) In the event of</p>

<p>compensation on account or loss due to delay in supply</p>	<p>(i) Any total stoppage of work on notice from Engineer under sub clause (i) in that behalf.</p> <p>(ii) Withdrawal by the contractor from the contractual obligation complete the remaining unexecuted work under sub clause (2) on the account of continued suspension of work for a period exceeding 90 days.</p> <p>OR</p> <p>(iii) Curtailment in the quantity of item or items originally tendered on account of any alteration, omission or substitution in the specifications, where such curtailment exceeds 25 percent at the rates for the items specified in the tenders is more than Rs.5000/-</p> <p>It shall be open to the contractor, within 90 days from the service of</p> <p>(i) the notice of stoppage of work or</p> <p>(ii) the notice of withdrawal from the contractual obligations under the contract on (iii) notice under clause 14(1) resulting in such curtailment to produce to the Engineer satisfactory documentary evidence that he had purchased or agreed to purchase material for use in the contracted work, before receipt by him of the notice of stoppage suspension or curtailment and require the Z.P. Nanded to take over on payment of such material at the rates determined by the Engineer, provided, however, such rates shall in no case exceed the rates at which the same was acquired by the contractor. The Z.P. Nanded shall thereafter take over the Material so offered, provided quantities offered are not in excess of the requirement of the unexecuted work as specified in the accepted tender and are of quality and specification approved by the Engineer.</p>
<p>No claim to compensation on account of loss due to delay in supply of material by Government.</p>	<p>Clause 15 A : Nil</p>
<p>Time limit for unforeseen claims.</p>	<p>Clause 16: Under no circumstances whatever shall the contractor be entitled to any compensation from Z.P. Nanded on any account unless the contractor shall have submitted a claim in writing to the Engineer-in-charge within one month of the case of such claim occurring.</p>
<p>Action and compensation payable in case of bad work</p>	<p>Clause 17: If at any time before the security deposit or any part thereof is refunded to the contractor it shall appear to the Executive Engineer or his subordinate in charge of the work, that any work has been executed with unsound, imperfect or skillful workmanship or with materials of inferior quality, or that any materials or articles provided</p>

<p>PWD Resolution No.CAT-1087/CR- 94/Bld-2 dt.14/06/1989</p>	<p>by him for the execution of the work are unsound, or of a quality inferior to that contract for, or ate otherwise not in accordance with the contract, it shall be bound forthwith to rectify, or remove and reconstruct the work so specified in whole or in part, as the case require or if so required, shall remove the materials or articles so specified and providing other proper and suitable materials or articles at his own charge and cost and in the event to his failing to do so within a period to specified by the Authorized Authority in the written intimation aforesaid the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding 10 days, during which the failure so continues and in the case of remove and re-execute the work or remove, and replace the materials or articles complained of as the case may be at the risk and expense in all respects of the contractor. Should the Executive Engineer consider that any such inferior work or materials as described above may be accepted or made use of it shall within his discretion to accept the same at such reduced rates as he may fix there for.</p>
<p>Work to be open to inspection. Contractor or responsible agent to be present.</p>	<p>Clause 18 : All works under or in course of execution of Executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Executive Engineer and his subordinates, and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Executive Engineer and notice of the to visit the work shall have been given to the contractor, either himself be present to receive orders and instructions or have responsible agent duly accredited in writing present for that purpose. Orders given to the contractors duly authorized agent shall be considered to have the some force and effect as if they had been given to the contractor himself.</p>
<p>Notice to be given before Work is covered up.</p>	<p>Clause 19: The contractor shall give not less than five days Notice in writing to the Executive Engineer or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof taken before the same is so covered or placed beyond the reach of measurement any work without the consent in writing of the Executive Engineer or his subordinate in charge of the work, and if any work shall be covered shall be covered up or placed beyond the reach of measurement, without such notice having been given consent obtained the same shall be uncovered at the contractors expenses, and in default thereof, no payment or allowance shall be made for such work for the materials with which the same was executed.</p>
<p>Contractor liable for damage done and for imperfections</p> <p>PWD Resolution No.CAT-1087/CR- 94/Bld-2 dt.14/06/1989</p>	<p>Clause 20 : If during the period of ----- months from the date of completion as certified by the Executive Engineer pursuant to clause-7 of the contract or ----- months after commissioning the work, whichever is earlier in the opinion of the Executive Engineer, the said work is defective in any manner whatsoever, the contractor shall forthwith on receipt of notice in that be half from the Executive Engineer, duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying and setting right the defects specified then including dismantling and reconstruction of unsafe portions strictly in accordance with and in the manner prescribed and under the supervision of the Executive</p>

	<p>Engineer. In the event of the contractor failing or neglecting to commence execution of the said rectification work within the period prescribed therefore in the said notice and or complete the same as aforesaid as required by the said notice, the Executive Engineer get the same executed and carried out departmentally or by any other agency at the risk on account and at cost of the contractor. The contractor shall forthwith on demand pay to the Z.P. Nanded, the amount of such costs, charges and expenses sustained or incurred by the Government of which the certification of the Executive Engineer shall be final and binding on the contractor, such costs, charges and expenses shall be deemed to be arrears of land revenue and in the event of the contractor failing or neglecting to pay the same on demands as aforesaid without prejudice to any other rights and remedies of Z.P. Nanded shall also be entitled to deduct the same from any amount which may then be payable or which may thereafter become payable by the Z.P. Nanded to the contractor either in respect of the said work or any other work whatsoever from the amount of security deposit retained by Z.P. Nanded. The defect liabilities period in particular for water proofing treatment (Building works) shall be 7 years.</p>
<p>Contractor to supply plants, ladder, scaffolding etc.</p> <p>And is liable for damage arisen from non provision of light fencing etc.</p>	<p>Clause 21 : The contractor shall supply at his own cost all material (except such special materials if any as may in accordance with the contract, be supplied from the Z.P. Nanded stores), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works requisite or proper for the proper execution of the work, whether, in the original, altered or substituted form, and whether included in the specifications or other documents forming part of the contractor referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirement or the Executive Engineer as to which under these conditions he is entitled to satisfied or which he is entitled to be required together with the carriage therefore to and without charge the requisite number of persons with the means and materials necessary for the purpose of setting out woks and counting, weighing and assisting in the measurement or examination at any time and from time to time of work or the failing which the same may be provided by the Executive Engineer at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the public from accident and shall also be bound to bear the Executive Engineer of every suit, action or other legal proceeding, that may be brought by any person for unbury sustained owing to neglect of the above precautions, and to pay any damages and cost which may be awarded in any such suit action or proceedings to any such person or which may with consent of the contractor be aid for compromising any claim an any such person.</p> <p>List of machinery in contractor's possession and which they propose to use on the works should be submitted along with the tender.</p>

Clause 21 A: The contractor shall provide scaffolds and working platforms, gangways and stairways and shall comply with the following regulations in connections therewith.

- (a) Suitable scaffolds shall be provided for workman for all works that cannot be safely done from a ladder or by other means.
- (b) A scaffold shall not be constructed, taken down or substantially altered except altered except.
 - (i) Under supervision of a competent and responsible person; and
 - (ii) As far possible by competent workers possessing adequate experience in the kind of work.
- (c) All scaffolds and appliances connected therewith and ladders shall
 - (i) Be of sound material.
 - (ii) Be adequate strength having regard to the loads and strains to which they will be subjected, and
 - (iii) Be maintained in proper condition.
- (d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
- (e) Scaffolds shall not be over loaded and so far a practicable the load shall be evenly distributed.
- (f) Before installing lifting gear on scaffolds, special precaution shall be taken to ensure the strength and ability of the scaffold.
- (g) Before allowing a scaffold to be used by his workmen, the contractor shall, whether the scaffold has been erected by his workmen, or not, take steps to ensure that in complies fully with the regulations here-in-specified.
 - I) Working platform, gangways stairways shall
 - (i) be so constructed that no part thereof can sag unduly or unequally.
 - ii) be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risk or persons tripping or slipping and
 - iii) be kept free from any unnecessary obstruction.
- (h) In the cases of working platform gangway, working place and stairways at a height exceeding 2 meters (to be specified)
 - i) Every work platform and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety.
 - ii) Every working platform and every gangway shall have adequate width and
 - iii) Every working platform , gangway, working place and stairway shall be suitably fenced.
- (i) Every opening in the floor a building or in working platform shall except for the time land to the extent required to allow the excess or persons or the transport shifting of materials be provided with suitable means to prevent the fall persons materials.
- (j) When persons are employed on a roof where there is a danger

	<p>of falling from a height exceeding 3 meters suitable precautions shall be taken to prevent the fall of persons or materials, (to be prescribed)</p> <p>(k) Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffolds or other working places.</p> <p>(l) Safe means of access shall be provided to all working platforms and other working places</p> <p>(m)The contractor will have to make payments to the laborers as per minimum wages Act.</p>
	<p>Clause 21 B : The contractor shall comply with following regulations as regards the Hoisting Appliances to be used by him.</p> <p>(a) Hoisting Machine and tackle, including the attachments, anchorages and support shall</p> <p>(i) Be of good mechanical construction, sound material and adequate strength and free from patent defect; and</p> <p>(ii) Be kept in good repair and in good working order</p> <p>(b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.</p> <p>(c) Hoisting machine and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by the Government.</p> <p>(d) Every chain, ring, hook, shackle, swivel and pulley block used, in hoisting or lowering materials or as a means or suspension shall be periodically examined.</p> <p>(e) Every crane drive or hoisting appliances operator shall be properly qualified.</p> <p>(f) No person who is below the age of 21 years shall be control of any hosting machine, including any scaffold which, or give signals to the operator,</p> <p>(g) In the case of every hoisting machine and of every chain, ring, hook, shackle, swivel pulley block used in hosting or lowering or as means of suspension, the safe working load shall be ascertained by adequate means.</p> <p>(h) Every hoisting machine and all gear referred to in preceding regulation shall be plainly marked with the safe working load.</p> <p>(i) In the case of hoisting machine having a variable safe working load, each safe working, load and the conditions under which it is applicable shall be clearly indicated.</p> <p>(j) No part of any hoisting machine or any gear referred to I regulation (g) above shall be loaded beyond the save working load except for the purpose of testing.</p> <p>(k) Motors, gearing transmissions, electric writing and other dangerous part of hoisting appliances shall be provided with efficient safeguards.</p> <p>(l) Hoisting appliances shall be provided with such means as will reduce to minimum the risk of the accidental decent of the load.</p> <p>(m)Adequate precaution shall be taken to reduce to a minimum, the risk of any part of a suspended load becoming accidentally displaced.</p>
Measure for	Clause 22: The contractor shall not set fire to any standing jungle,

prevention of fire	trees brush-wood or grass without a written permit from the Executive Engineer. When such permit is given, and also in all cases when destroying cut or dug trees brushwood, grass prevent such fire spreading to or otherwise damaging surrounding property. The contractor shall make his own arrangements for drinking water for the labor employed by him.
Liability of contractor for any damage done in or outside work area	Clause 23: Compensation for all damages done intentionally or unintentionally by contractors labor whether in or beyond the limits of Government property including any damage caused by spreading of fire mentioned in clause 22 shall be estimated by the Executive Engineer or such other officer as they may appoint and the estimate of the Executive Engineer subject to the decision of the standing committee of Zilla Parishad,Nanded on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation demand, failing which, the same will be recovered from the contractor as damages in the manner prescribed in the clause 1 or deducted by the Executive Engineer from any sums that may be due or become due from Zilla Parishad,Nanded to contractor under this contract or otherwise. The contractor shall bear the expenses of defending any action or other legal proceeding that may be brought by any persons for injury sustained by him owing to neglect of precautions to prevent the spread of fire and he shall pay any damages and cost that may be awarded by the court in consequences.
Employment of female labor	Clause 24: The employment of female labors on works in neighborhood of soldiers barracks should be avoided as far as possible. The contractor shall employ the labors with the nearest Employment Exchange.
Work on Sunday	Clause 25 : No work shall be done on a Sunday without the sanction in writing of the Engineer in Charge.
Work not to sublet Contractor may be rescinded and security deposit forfeited for subletting it without approval or for bribing a public officer or if contractor become in solvent.	Clause 26 : The contractor shall not be assigned or sublet without the written approval of the Executive Engineer and if the contractor shall assign or sublet his contract, or attempt to so far become insolvent or commence any proceedings to get himself adjudicated and insolvent or make any composition with his creditors, or attempt to do so or if brief, gratuity, gift loan, perquisite, reward or advantage, pecuniary or otherwise shall either directly or indirectly be given, promised or offered by the contractor or any of his servants or agents to any public officer or person in the employment of Government in any way relating to his office of employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Executive Engineer may there upon by notice in writing rescind the contract, and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of Z.P. Nanded , and the same consequences shall ensure as if the contract had been rescinded under clause 3 thereof and in addition the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract.
Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss.	Clause 27 : All sums payable by a contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of Zilla Parishad,Nanded without reference to the actual loss or damage sustained, and whether any damage has or has not been sustained.
Change in	Clause 28 : In the case of tender by partners, any change in the

constitution of firm to be notified.	constitution of a firm shall be forthwith notified by the contractor to the Authorized Authority for his information.
Direction and control of the, Z.P.	Clause 29 : All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Authorized Authority of the Zilla Parishad, Nanded for the time being, who shall be entitled to direct, at what point of points and in what manner they are to be commenced, and from time to time carried on.
Direction and control of the, Z.P.	Clause 30 : 1) Except where otherwise specified in the contract and subject to the powers delegated to him by Government under the code, rules then in force, the decision of the Add. C.E.O.Z.P.Nanded for the time being shall be final, conclusive, and binding on all parties of the contract upon all questions relating to the meaning of the specification, design, drawing, and instructions, hereinbefore mentioned and as to the work, or relating to the contract designs, drawings, specifications, estimates, instructions, orders, or these conditions, or failure to execute same whether arising, during the progress of the work, or after the completion or abandonment thereof. 2) (A) The contractor may within thirty days of receipt by him of any order passed by Authorized Authority as aforesaid appeal against it to the Add. C.E.O.Z.P.Nanded concerned with the contract work or project provided that. b) The accepted value of the contract exceeds Rs.10.00 lakhs (Rupees Ten Lakhs only) c) Amount of claim is not less than Rs. 1.00 Lakh (Rupees One Lakh) 3) If the contractor is not satisfied with the order passed by the Add. C.E.O.Z.P.Nanded as aforesaid, the contractor may, within thirty days of receipt by him of any such order, appeal against it to the Z.P. Nanded who if convinced that prima facie the contractors claim rejected by Add. C.E.O.Z.P.Nanded , is not frivolous and that there is some substance in the claim of the contractor as would merit a detailed examination and decision by the Add. C.E.O. shall put up to the General Body for suitable
Stores of European or American manufacture to be obtained from the Government	Clause 31 : The contractor shall obtain from the Departmental stores. All stores and articles of European or American manufacture which may be required for the work, or any part thereof or in making up any articles required thereof or in connection therewith unless he has obtained permission in writing from, the Z.P. to obtain such stores and articles elsewhere. The value of such stores and articles as may be supplied to the contractor by the Z.P. will be debited to the contractor in his account at the rates shown in the schedule, form attached to the contract, and if they are not entered in the said schedule, they shall be debited to him at cost price which for the purpose of this contract, shall include the cost of carriage and other expenses whatsoever, which shall have been incurred in obtaining delivery of the same at the stores aforesaid.
Lump Sum in estimates	Clause 32 : When the estimate on which a tender is made includes sums in respect of part of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for each item, or if the part of work in question is not in the opinion of the Z.P. capable of

	measurement the Executive Engineer may at his discretion pay the lump sum amount entered in the estimate and certificate in writing of the Executive Engineer shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provision of this clause.
Action where no specifications	Clause 33 : In the case of any class of work for which there is no such specification as is mentioned in rule 1 of form B-1, Such work shall be carried out in accordance with the Divisional specification, and in the event of there being no Divisional specifications, then in such case the work shall be carried out in all respects in accordance with all instructions and requirement of the Executive Engineer.
Definition of Work	Clause 34 : The expression “ Work” or “works” where used in these conditions, shall unless there something in the subject of context repugnant to such condition, be construed, to mean the work or sub-work or works contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original, altered, substituted or additional.
Contractor’s percentage whether applied to net or Gross Amount of bill	Clause 35 : The percentage referred to in the tender shall be deducted from/added to the gross amount of the bill before deducting the value of any stock issued.
Quarry fees and Royalties.	Clause 36 : All quarry fees, Royalties, Octroi dues and ground rent for stocking materials, if any should be paid by contractor.
Compensation under Workmen’s compensation Act	Clause 37 : The contractor shall be responsible for and shall pay any compensation to his workmen payable under the Workmen’s Compensation Act, 1923 (VIII of 1923), (hereinafter called the said Act) for injuries caused to the workmen, if such compensation is payable / paid by the Government as principal under sub-section (1) off Section 12 of the said act n behalf of the contractor, it shall be recoverable by the Government from the Contractor under sub-section (2) of the said section. Such compensation shall be recovered in the manner laid down in Clause 1 above.
	Clause 37 (A) The contractor shall be responsible of and shall pay the expenses of providing medical aid to any workman who may suffer a bodily injury as a result of an accident. If such expenses are incurred by Zilla Parishad, Nanded the same shall be recoverable from the Contractor forthwith and be deducted without prejudice to any other remeyed of the Ex.Engg.Nanded from any amount due or that may become due to the Contractor.
	Clause 37 (B) : The contractor shall provided all necessary personal safety equipment and first aid apparatus available for the use of the persons employed on the site and shall maintain the same in condition suitable for immediate use at any time shall comply with the following regulations in connection therewith.
	<p>(a) The workers shall be required to used the equipments so provided by the contractor and the contractor shall take adequate steps to ensure proper use of the equipment by those concerned.</p> <p>(b) When work is carried on in proximity to any place where there is a risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.</p> <p>(c) Adequate provision shall be made for prompt first aid treatment</p>

	of all injuries likely to be sustained during the course of the work.
Government Circular No.PWD CAT-6076/3336/(400)/Bld-2 dt.16/08/1985	Clause 37 (C) : The contractor shall duly comply with the provisions of "The Apprentices Act, 1961" (III of 1961). The rules made there under and orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so, he shall be subjected to all the liabilities and penalties provided by said Act and tender rate.
Claim for quantities entered Is the tender or estimates.	Clause 38 (1) : The quantities in respect of the several items shown in the tender are approximate and no revision in the tendered rates shall be permitted in respect of any of the items at the tender rate. Neither any Item nor extra Item will permit ed without permission of Ex. Engg. Z.P. Nanded . (2) This clause is not applicable to extra items.
Employment of famine Labor etc.	Clause 39 : The contractor shall employ any famine, convict or other labor of a particular kind or class if ordered in writing to do so by the Executive Engineer claim for compensation.
Claim for compensation For delay in starting the work	Clause 40 : No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or in the case of clearance works, on account of any delay in according to sanction of estimates.
Claim for compensation for delay in execution of work	Clause 41 : No compensation shall be allowed for any delay in the execution of the work on account of water standing in Borrow pits or compartments. The rates are inclusive for hard or cracked soil. Excavation in mud, sub soil, water standing in borrow pits and no claim for an extra rate shall be entertained, unless otherwise expressly specified.
Entering upon commencing any portion of Work.	Clause 42 : The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of Executive Engineer or of his subordinate in charge of the work. Failing such authority, the contractor shall have no claim to ask for measurements of or payments for work.
Minimum age of persons employed, the employment of donkeys and or other any animals wages.	Clause 43 : (i) No contractor shall employ any person who is under age of 18 years. (ii)No contractor shall employ donkeys or other animals with breaching of string or thin rope. The reaching must be at least three inches wide and should he of tape (Newer). (iii)No animal suffering from sores, lameness or emaciation or which is immature shall be employed on the work. (iv)The Executive Engineer of his Agent is authorized to remove from the wok, any person of animal found working which does not satisfy these conditions and no responsibility shall be accepted by the DRDA, Nanded for any delay caused in the completion of the work by such removal. (v)The contractor shall fair and reasonable wages to the workmen employed by him in the contract undertaken by him. In the event of any despot arising between the contractor and his workmen on the grounds that the wages paid are not fair and reasonable, the dispute shall be referred without delay to the Executive Engineer, Who shall decide the same. The decision of the Executive Engineer shall be conclusive and binding on the contractor, but such decision shall not in any way affect the conditions in the contract regarding the payment to be made by the Z.P. Nanded at the sanctioned tender rates.

	<p>(vi) Contractor shall provide drinking water facilities to the works. Similar amenities shall be provided to the workers engaged on large work in urban areas.</p> <p>(vii) Contractor to take precaution against accidents which take place on account of labor using loose garments while working machinery.</p>
Method of payment	Clause 44 : Payment to contractor shall be made by crossed cheque drawn on concerned Bank.
Acceptance of condition Compulsory before tendering for work	Clause 45 : Any contractor who does not accept these conditions shall not be allowed to tender for works.
Employment of Scarcity labor	Clause 46 : If Government declares a state of scarcity or famine to exist in any village situated within 10 miles of the work, the contractor shall employ upon such parts of the work, as are suitable for unskilled labor, by person certified to him by the Executive Engineer, or be any person to whom the Executive Engineer may have delegated his quay in writing to be in need of relief and shall be bound to pay to such person wages not below the minimum which Government may have fixed in this behalf. Any disputes which may arise in connection with the implementation of this clause shall be decided by the Executive Engineer whose decision shall be final and binding on the contractor.
	Clause 47 : The price quoted by the contractors shall not in any case exceed the control price, if any, fixed by Govt. or reasonable price which it is permissible for him to charge a private purchase for the same class and description, the controlled price or the price permissible under provisions of Hoarding and Profiteering Prevention Ordinance, 1948 as amended from time to time if the price quote exceeds the controlled price of the price permissible under Hoarding and Profiteering Prevention ordinance, the contractor will specifically mention this fact in his tender along with the reasons for quoting such higher prices. The purchaser at his discretion will in such case exercise the right of revising the price at any stage so as to conform to the controlled price permissible under Hoarding and Profiteering Ordinance. This discretion will be exercised without prejudice to any other action that may be taken against the contractor.
Maharashtra XIX of 1985 clause regarding Turnover Tax Vide PWD Circular No. CAT-1086/CR-330 Bld.2 dated 10/06/1987	Clause 47 (A) : The tendered rates shall be inclusive of all taxes, rates and cases and shall also be inclusive of the tax livable respect of works contract under provision of the Maharashtra Sales Tax on transfer of property in goods involved in the execution of work contract Act, 1985 (Maharashtra Act No. XXXVI of 1989, and as amended from time to time will be applicable.
2) Maharashtra state PWD Govt. Resolution No. (BGT) -2005 Bld.2 Mumbai-32 Dt.03/03/2006	Clause 48 : In case of materials that may remain surplus with the contractor from those issued for the work contracted for, the date of ascertainment of the materials being surplus will be taken as the date of swale for the purpose of sales tax and he will be recovered on such sale.
	Clause 49 : The contractor shall employ the unskilled, labor to be employed him on the said work only from locally available labor's and shall give preference enrolled under Maharashtra Government and Self Employment Departments Scheme Provided, however, that if the required unskilled labor are not available locally, the contractor shall in the first instance employ such number of persons as is available and thereafter may with previous permission, in writing of the Executive

	Engineer of the said work, obtain the rest of requirements of unskilled labor from outside the above scheme.
	<p>Clause 50 : Wages to be paid to the skilled and unskilled laborers engaged by the contractor. The contractor shall pay the labors skilled and unskilled according to the wages prescribed by the Minimum Wages Act of 1948 Applicable to the area in which the work of the Contractor is located. The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer, may in his discretion may cancel the contract. The contractor shall also be liable, for any pecuniary liability arising out on account of any violation by him of the provision of the Act.</p>
	<p>Clause 51 : All amounts whatsoever which the contractor is liable to pay to the Z.P. Nanded in connection with execution of the work including the amount payable in respect of (i) materials and or stores supplied / issued hereunder by the Z.P. Nanded to contractor (ii) hire charges in respect of heavy plant, machinery and equipment given or hire by the Z.P. Nanded to contractor for execution by him of work and / or which advances have been given by the Z.P. Nanded to contractor shall be deemed to be arrears of the Land Revenue and the Z.P. Nanded may without prejudice to any other rights and remedies of the Z.P. Nanded recover the same from the contractor as arrears of Land Revenue.</p>
Government Circular No. –CAT 1284(120)/Bld.2 Mumbai-32 Dt.14/08/1985	<p>Clause 52 : The contractor shall duly comply with all the provision of the Contract Labor (Regulation and Abolition) Act 1970(37 of 1970) and the Contract Labor (Regulation and abolition) Rules,1971 as amended from time to time and all other relevant statues and statutory provisions concerning payment of wage particularly to workmen employed by the contractor shall pay wages to each worked employed by him on the site of the work at the rates prescribed under the Maharashtra contract Labor (Regulation and oblation) Rules, 1971. If the contractor fails or and the Government makes such payment of wages in full or part thereof less paid by the Contractor as the case may be, the amount so paid by the Government to such workers shall workers shall be deemed to be arrears of Land Revenue and the Government shall be entitled to recover the same as such form the contractor or deduct same from the amount payable by the Government to the contractor hereunder or from any other amounts payable to him by the Government.</p>
	<p>Clause 53 : The contractor shall engage apprentices such as brick layer carpenter, wiremen, plumber, as well as back smith recommend by the State Apprenticeship Advisor Director of Technical Education, Dhobi, Talao / Mumbai- 400 001 in the construction work. (As per Government of Maharashtra, Education Department No.TSA/5170/T/65689, dated.07/07/1972)</p>
Condition for malaria	<p>Clause 54 : (Government of Maharashtra PWD Resolution No. CAT/1086/CR-243 IV Bldgd.32 Dt.11/08/1987)</p>

<p>eradication anti malaria and other health measures.</p>	<p>(a) The anti-malaria and other health measures shall be as directed by the Joint Director (Malaria and Filario) of Health Services, Pune.</p>
	<p>(b) The contractor shall see that mosquito genie conditions are not create</p> <p>(c) The contractor shall carry out anti-malaria measures in the area as per guidelines prescribed under National Malaria Eradication Programmer and as directed by the Joint Director (Malaria and Filarial of Health Services, Pune).</p> <p>(d) In case of default in caring out prescribed anti-malaria measures resulting in increase in malaria incidence, contractor shall be liable to pay Government the amount spent by the Government on anti-malaria measures to control the situation in the addition to fine.</p> <p>(e) RELATION WITH PUBLIC AUTHORITIES The contractor shall make sufficient arrangements for draining away the sewerage water as well as water coming from the bathing and washing places and shall dispose off this water in such a way as not cause any nuisance. He shall also keep the premised clean by employing sufficient number of sweepers, the contractor shall comply with rules, regulations, bye-laws and direction given from time to time by any local or public authority in connection with this work and shall pay fees or charge which are livable on him without any extra cost to Government.</p>
	<p>Clause 55 : No final bill will be paid to contractor in respect of this work until the contractor has submitted a certificate from the competent authority of the Labor Department stating that the contractor has paid wages to the labors according to the provisions of Minimum Wages Act. Enforce and Government order being issued from time to time and labor's have no complaint in regard to the wages payable and paid to them.</p>
	<p>Clause 56 : The tenderer should produce insurance cover note from director of insurance Govt. of Maharashtra Mumbai within one month of work order otherwise as per Govt. Resolution F.D.No.VIMAS/1098/PRAKRU-28/98/SHASAN HAMI/MANTRALAY DATED 19/08/1998 @ One percent of tender amount will be deducted from first bill.</p>
	<p>Clause 57 : Price variation is not applicable to this work .</p> <p>Note:- In Tender clause where Project Director is used the word Authorized Authority If any dispute is released in the matter the Authorized Authorities decision will be final and binding to the Contractor.</p>

ADDITIONAL SPECIFICATION

SPECIFICATION FOR BITUMINOUS BOUND MACADAM

Item: Providing and laying 50/75 millimeter thick bituminous bound macadam on road surface including supplying all materials, preparing the existing road surface, spreading 40mm stone metal layers, heating and spraying the bitumen spreading 12mm size chips compacting with power roller.

1. Including picking of existing WBM surface.
2. Including applying tack coat at the rates of 30 Kg/100 Sqm. on existing bitumen surface.

1) General :

The mark consists of supply of materials and labor required for providing and laying bituminous bound macadam surface for compacted thickness of 50/75 mm. This item includes preparing the existing road surface to receive the bituminous bound macadam course i.e. picking the existing W.B.M. surface or application of tack coat on existing B.T. surface spreading of 40mm. size metal layer in required thickness with compaction with power roller heating and spraying bitumen with sprayer etc. spreading key aggregates 12mm chips and final compaction with power roller etc. complete and finishing in accordance with the requirement in close conformity with grades lines, cross sections and thickness as per approved drawings etc. complete.

2) Diversions :

Temporary diversions shall be constructed and maintained by the contractor at his own cost. Diversion shall be watered if dust is likely to blow on the road being bitumenized.

3) Materials :

A) Aggregates:

The aggregates for providing B.B.M. surface shall comply with specification Nos. RD-41 for 40mm size metal and 12mm size metal and shall normally comply with the following regarding size and quantity of aggregates and grade quantities for bitumen.

Description	Rate of application for 100 Sq. Mtr.			
	75mm		50mm	
	On asphalt surface	On W.B.M. surface	On asphalt surface	On W.B.M. surface
a) 40mm.size broken metal	9.00 Cum.	9.00 Cum.	6.00 Cum.	-
b) 12mm.size chips	1.8 Cum.	1.8 Cum.	1.8 Cum.	-
c) Bitumen for grouting Grade 835 with 30/40 Penetration or 865 with 60/70 penetration	200 Kg.	200 Kg.	175 Kg.	-
d) Tack coat for existing Bituminous surface	30 Kg.	-	30 Kg.	-

Note:- Hand broken metal is preferred, However up to 30% of total quantity of 40mm size metal, 40mm crusher broken metal can be used.

B) Bitumen:

The bitumen shall be paving bitumen of suitable penetration grade with the range S35 to S65 or A35 to 65 (30/40 to 60/70) as per Indian Standard Specifications for "Paving bitumen" IS:73-1972.

C) Preparing the base :

Any pothole in the existing bituminous road surface and broken edges shall be patched well in advance and the surface shall be brought to correct level and camber with additional metal and bitumen as required which will be paid separately. Before starting the work the bituminous surface shall be swept clean of the entire dirt mud cakes and animal dropping other loose foreign material.

If so required by the Engineer the contractor shall keep the side width and nearby diversion watered to prevent dust from blowing over the surface to be bituminized.

Existing water bound macadam surface shall be picked for and surface loosened for a depth of 2.5 cm. and the picked surface shall be brought approximately to the correct camber and section edge line shall be correctly marked by the dog belling the surface to form a continuous V notch.

There shall always be sufficient length of prepared surface ahead of the bituminous surfacing operation as directed by the Engineer to keep these operations continuous.

5) Tack coat on Bitumen Surface :

Applying tack coat for existing B.T. surface only at the rate of 30Kg/100 m² as per Specification No.RD.47.3.3

6) Picking of existing W.B.M. Surface :

Picking of existing W.B.M. surface for receiving Bituminous Bound Macadam as per RD 33.

7) SPREADING and COMPACTION :

7.1) Spreading of 40mm Metal :

40mm size metal to be spread evenly at the specified rate of 9cubic meter/100Sqm of area so as form a layer over the width of road with correct camber super elevation as required. Any foreign matter, organic matter, dust, grass etc. shall be removed immediately. The sections shall be checked with camber broad and straight edge batten etc. Any irregularities shall be made good by adding aggregates in case of depressions and removing aggregates from high spots checking with camber broad and straight edge batten etc.

7.2) The surface of 40mm metal layer after bringing it to necessary grades and sections shall be rolled with the use of 8 to 10 tons power roller. Rolling shall commence from the edges and progress towards center longitudinally except on super elevated portion it shall progress from the lower to upper edge parallel to the center line of pavement. When the roller has passed over the whole area any high spots or depressions which become apparent shall be corrected by removing or adding aggregates. The rolling shall then be continued till the entire surface has been rolled to desired compaction such that there is no crushing of aggregates and all roller marks have been eliminated. Each pass of roller shall uniformly overlap not less than one third of the track made in the preceding pass

8) Application of Bitumen :

Bitumen of IS grade S 35 or S 65 supplied for the work shall be heated to temperature of 177 degree Celsius (350 F to 375 F) in a bitumen boiler and temperature shall be maintained at the time of actual application. The hot bitumen shall be applied through a pressure sprayer on the road surface uniformly at the rate of 200Kg/sq.mt. Or 175Kg/sqmt. The road surface shall be divided into suitable rectangles marked by chalk so as to ensure correct rate of application of the bitumen.

9) Key aggregates :

On completion of bitumen application, 12mm size key aggregate shall be spread immediately at a uniform rate of 1.8 cubic meter/ 1.8 cubic meter per 100 square meter of area when entire surface is in hot condition. Brooms shall be used to ensure even distribution of key aggregate.

10)Final Compaction :

Immediately after spraying of bitumen and spreading of key aggregates, the surface shall be rolled with a power roller to obtain full compaction and to force the blind age of key aggregate in the interstices of the coarse aggregates. The rolling shall continue till the asphalt surface hardens and key aggregates stop moving under power roller.

11)Surface finish and quality control :

The surface finish shall conform to requirement of clause 902 of specification for Road and Bridges by Ministry of surface Transport (copy enclosed). Quality Control Test and their frequencies shall be as per table below.

Sr. No.	Test	Frequency
1	Quality Binder	Two samples per lot to be subjected to all or some test as directed by the Engineer
2	Aggregate Impact Value	One test per 200 cubic meter of aggregate
3	Flakiness Index and Elongation Index	One test per 200 cubic meter of aggregate
4	Stripping value	Initially one test of three representative specimens for each source of supply subsequently when warranted by changes in the quality of aggregate.
5	Water absorption of aggregate	Initially one test of three representative specimens for each source of supply subsequently when warranted by changes in the quality of aggregate.
6	Aggregate grading	One test per 100 cubic meter of aggregate.
7	Temperature of binder at application	At regular close intervals.
8	Rate of spread of binder	One test per 500 square meter of aggregate.

12)Items to include

- i) Diversion unless separately provided in the Tender.
- ii) Preparing the road surface.
- iii) Applying tack coat on existing BT or Picking the existing WBM surface.
- iv) Supply spreading and compaction of 40mm aggregates.
- v) Supplying, heating and spraying bitumen.
- vi) Supplying, spreading and compaction of 12mm size chips.

13)Mode of Measurement:

The contractor rates shall be for 100 square meters. The measurements shall be for the width of the road as executed, limiting it to the width specified or as ordered by the Engineer and the length measured along the centerline. The measurement or dimension shall be recorded correct up to two decimals of a meter and the area worked out correct up to one place of decimal of a square meter.

509 OPEN GRADED PREMIX CARPET

509.1) Open graded Premix Carpet using Bitumen.

509.1.1) Scope

This work shall consist of laying and compacting an open graded carpet of 20mm thickness in a single course composed of suitable small sized aggregates premixed with a bituminous binder on a previously prepared base, in accordance with the requirements of these specifications to serve as a wearing course.

509.1.2) Materials

509.1.2.1) Binder:

The binder shall be bitumen of a suitable grade appropriate to the region, traffic, rainfall and other environmental conditions, as directed by the Engineer and satisfying the requirements of IS 73, 217, 454 or other approved cutback as applicable. Guidance in this regard may be taken from Appendix-4

509.1.2.2) Aggregates:

The coarse aggregates shall conform of Clause 504.2.2.1 The Stone Polishing Value as measured by BS: 812 (part 114) shall not be less than 55.

The aggregates shall satisfy the quality requirements set forth in Table 500-3 except that the water absorption shall be limited to a maximum of 1 percent.

509.1.2.3) Proportioning of materials

The materials shall be proportioned as per quantities given in table

TABLE 500-16 ; QUANTITIES OF MATERIALS REQUIRED FOR 10M2 OF ROAD SURFACE FOR 20MM THICK OPEN GRADED PREMIX CARPET USING BITUMEN.

Aggregates for Carpet

A	Stone Chippings- 13.2mm size: Passing 22.4mm sieve and Retained on 11.2 mm sieve	0.18m ³
B	Stone chipping- 11.2mm size: Passing 13.2mm sieve and Retained on 5.6mm sieve.	0.09m ³
	Total	0.27m ³
Binder for premixing (Quantities in terms of straight run bitumen)		
A	For 0.18m ³ of 13.2mm size stone chipping at 52Kg/m ³	9.5 Kg.
B	For 0.09m ³ of 11.2 mm size stone chipping at 56Kg/m ³	5.1 Kg.
	Total	14.6Kg.

509.1.3) Construction operations

509.1.3.1) Weather & Seasonal limitations : Clause 504.3.1 shall apply.

509.1.3.2) Preparation of base: The under lying base on which the bituminous carpet is to be laid shall be prepared, shaped and conditioned to the specified lines, grade and cross section in accordance with Clause 501. A prime coat where needed shall be applied in accordance with clause 502 as directed by the Engineer.

509.1.3.3) Tack coat: A tack coat complying with Clause 503 shall be applied over the base preparatory to laying of the carpet.

509.1.3.4) Preparation of pre-mix: Hot mix plant of appropriate capacity and type shall be used for the preparation of mix material. The hot mix plant shall have separate dryer arrangement for heating aggregates and pug mill for mixing aggregates and binder. The temperature of binder at the time of mixing shall be in the rate of 150⁰ C and that of the aggregates in the range of 155⁰ C to 163⁰ C provided that the difference in temperature between the binder and aggregate at no time exceeds 14⁰ C. Mixing shall be thorough to ensure that a homogeneous mixture is obtained in which all particles of the aggregates are coated uniformly and the discharge temperature of mix shall be between 130⁰ C and 160⁰ C.

509.1.3.5) **Spreading and rolling:**

The mixed material shall be spread by suitable means. As soon as sufficient length of bituminous material has been laid, rolling shall commence with 80-100 KN rollers preferably of smooth wheel tandem tire or other approved equipment. Rolling shall begin at the edge and progress towards the center longitudinally, except that on the super elevated and unidirectional cambered portion, it shall progress from the lower to upper edge parallel to the center line of the pavement. When the roller has passed over the whole area once, any high spots or depressions, which become apparent, shall be corrected by removing or adding premixed materials. Rolling shall then be continued until the entire surface has been rolled to compaction and, all the roller marks eliminated. In each pass of the roller, preceding track shall be overlapped uniformly by at least 1/3 width. The roller wheels shall be kept damp to prevent the premix from adhering to the wheels and being picked up. In no case shall fuel/ lubricating oil be used for this purpose. Excess use of water for this purpose shall be avoided. Rollers shall not stand on newly laid

material whole day there is a risk that it will be deformed thereby. Rolling operations shall be completed in every respect before the temperature of the mix falls below 150° C.

The edges along and transverse of the carpet laid and compacted earlier shall be cut to their full depth so as to expose fresh surface which shall be painted with a thin surface coat of appropriate binder before the new mix is placed against it.

509.1.3.6 **Seal Coat:** A seal coat conforming to Clause 513 shall be applied to the surface immediately after laying the carpet.

509.1.4 **Opening to traffic:** No traffic shall be allowed on the road till the seal coat has been laid. After the seal coat is laid, the road shall be opened to traffic according to Clause 513.4.

509.1.5 **Surface finish and quality control of work:** The surface finish of construction shall conform to the requirements of clause 902. Control on the quality of materials and works shall be exercised by the Engineer in accordance with Section 900.

509.1.6 **Arrangements for Traffic:** During the period of construction, arrangement of traffic shall be done to Clause 112.

509.1.7 **Measurements for payment:** Open graded premix carpet shall be measured as finished work in square meters.

509.1.8 **Rate:** The contract unit rate for open graded premix carpet shall be paid in full for carrying out the required operation including full compensation for all components listed in clause 504.8

Extract from Specification of Road & Bridges work by M.O.R.T.& H

902 Control of alignment, level and surface regularity.

902.1 **General:** All works performed shall conform to the lines, grades, cross section and dimensions shown on the drawings or as directed by the Engineer, subject to the permitted tolerances described hereinafter.

902.2 **Horizontal alignment:** Horizontal alignments shall be reckoned with respect to the center line of the carriage way as shown on the drawings. The edges of the carriage way as constructed shall be correct with a tolerance of # 10 mm there from. The corresponding tolerance for edges of the roadway and lower layers of pavement shall be # 25mm.

902.3 **Surface level:** The levels of the sub-grade and different pavement courses as constructed shall not vary from those calculated with reference to the longitudinal and cross profile of the road shown on the drawings or as directed by the Engineer beyond the tolerance +0.6 mm. Provided, however, that the negative tolerance for wearing course, shall not be permitted in conjunction with the positive tolerance for base course, if the thickness of the former is there by reduced by more than 6mm for fixable pavement and 5mm for concrete pavement.

For checking compliance with the above requirement for sub grade, sub base and base course measurements of the surface level shall be taken on a grid of points placed at 6.25mm longitudinally and 3.5mm transversely. For any 10 consecutive measurements taken longitudinally or transversely, not more than one measurement shall be permitted to exceed the tolerance as above, this one measurement being not excess of 5mm above permitted tolerance.

For checking compliance with the above requirement for sub-grade, sub-base and base course measurements of the surface shall be taken on a grid of points 6.25mm along the length and at 0.5mm from the edges and at the center of the pavement. In any

length of pavement, compliance shall be deemed to be met for the final road surface, only if the tolerance given above is satisfied for any point on the surface.

902.4 Surface Regularity of Pavement Courses: The longitudinal profile shall be checked with a 3 meter long straight edge/moving straight-edge as desired by the Engineer at the middle of each traffic lane along a line parallel to the center line of the road. The maximum permitted number of surface irregularities shall be as per Table 200-2

Irregularity	Surface of carriageway and paver shoulder				Surface of laybys, service areas and all bituminous base courses.			
	4mm		7mm		4mm		7mm	
Length (m)	300	75	300	75	300	75	300	75
National High ways	20	9	2	1	40	18	4	2
Express ways								
Roads of lower category	40	18	4	2	60	27	6	3

Category of each section of road as described in the contract.

The maximum allowable difference between the road surface and underside of a 3m straight edge when placed parallel with or at right angles to the center line of the road at points decided by the Engineer shall be :

For pavement surface (bitumen and cement concrete)	3mm
For bituminous base courses	6mm
For granular sub-base course	8mm
For sub base under concrete pavement	10mm

902.5 Rectification: Where the surface regularity of sub grade and various pavement courses fall outside the specified tolerances, the contractor shall be liable to rectify these in the manner described below and to the satisfaction of the Engineer.

Bituminous Construction : For bituminous other than wearing course, where the surface is low, the deficiency shall be corrected by adding fresh material over a suitable tack coat if needed and re compacting to satisfaction. Where the surface is high, the full depth of the layer shall be removed and replaced with the fresh material and compacted to specification.

Abstract from Standard specification for Roads & Bridges of Government of Maharashtra

RD 33 Picking the road surface including sectioning complete.

RD 33.1 General: The item provides for the picking and sectioning of the road surface for receiving the new metal surface.

RD 33.2 Road Diversion: If the traffic cannot be allowed to pass over the roadside shoulders during the picking, spreading and compacting operations, diversions shall be taken out and maintained as specified under Item No. BR-1

Where specified, the work may be done in half width provided proper section is obtained and suitable arrangement for traffic is made if allowed to pass over the beams or a lane of the road. Watchmen and signalers shall be employed as directed by the Engineer.

Red lights shall hung during night time to indicate the

danger. If the picked up road surface cannot be completely surfaced and rolled at the end of the day, red lights shall be put up at the each end to warn the traffic.

RD 33.3 Picking : All the caked mud, slush, animal droppings, vegetation and all other rubbish accumulated on the road surface shall be removed. Where the section of the road surface is good, the road surface shall be picked

lightly only, to loosen the surface stones. Where the section is uneven picking shall be done a little deeper to enable the sectioning to be done to the required shape with the picked up material. The picking always is ahead of the spreading of metal and compaction by about 100 meters. The edges of the picking shall be truly in a line or curve as the case may be. This can be achieved by tying strings to nails driven on the road edges and ranging for a sufficiently long length.

The picked surface shall be sectioned to the required grade and camber, super elevation or transition action. Template shall be used to obtain correct and uniform camber, super elevation or transition section as the case may be.

RD 33.4 Item to be includes:

- a) Picking
- b) Watering if require
- c) Sectioning and grinding
- d) Diversions, including barricading, warning signal lights, etc. unless separately provided in the tender.
- e) All labor materials, use of tools, etc. for carrying out the works satisfactory.

RD 33.5 Mode of measurement and payment: The contract rate shall be for one Square Meter. The width shall be limited to the width specified or as ordered by the Engineer. The length shall be measured along the center line of the road. The dimensions shall be recorded correct up to one place of decimal of a meter increased width on curves shall be measured.

RD 41.1 General : The item provides for the supply of stone aggregate of the specified types and size at the road side including obtaining the stones of the specified quality from approved sources, crushing them in mechanical crushes, conveying to the road side with all leads and lifts stacking in regular heaps as specified uniformly along the road side.

RD 41.2 Stone aggregates'

RD 41.3.1 Quality: The aggregates shall be obtained by crushing approved stones of specified type in a mechanical crusher and shall be clean, strong, tough, dense, and durable, close grained and free from soft, decayed and weathered portion and from coating of dust, dirt or other objectionable matter. They shall preferably have well hydrophobic.

Characteristics': They shall generally satisfy the following physical requirements.

	For light or Medium traffic	For Heavy Traffic
Los Angles abrasion test: percent fines maximum	25	17
Aggregate crushing test: percent fines maximum	23	17
Water absorption by weight after 24 hours Immersion: percent not more than	1	1

Tests shall be carried out according to I.S. 383-1970

Tests considered necessary shall be carried out in an approved laboratory when the Engineer tests consider the quality to be doubtful or there is a dispute about the quality. If the results are satisfactory, the cost of tests shall be borne by the Department and if unsatisfactory by the contractor.

RD 41.32.2 : Size :- Size of the metal and chips shall be as under :-

Standard Size	Wholly passing through square Mesh of internal dimension	Wholly retained on square Mesh of internal dimension
40mm (about 1.5")`	50mm (about 2")	25mm (about 1")`
22mm (about 1")	40mm (about 1.5")	20mm (about 0.75")
20mm (about 0.75")	25mm (about 1")	12mm (about 0.50")
12mm (about 0.50")	20mm (about 0.75")	10mm (about 0.45")
10mm (about 0.45")	12mm (about 0.50")	6 mm (about 0.25")
6 mm (about 0.25")	10mm (about 0.45")	5 mm (about 3/16")

Note :- Not more than 20% of any sample shall exceed in its greatest dimension size plus 25 mm, for 40 mm standard size, standard size plus 12 mm, for 25 mm, 20mm and 12mm standard size and standard size plus 6mm for 10 mm standard size.

- RD 41.3.3 Conveyance: According to specification No. RD 19.3.30
- RD 41.3.4 Stocking of two or re standard sizes is specified for the work each of aggregates shall be stacked separately and entirely clear of the carriageway and where possible clear of the shoulders also. They shall be stacked in such a manner as to prevent mixture deteriorations of contamination.
- RD 41.4 Special points – According to specification No. RD 19.4
- RD 41.5 Item to include- Crushing aggregates in the specified size from approved rubble and other item included in specification No. RD 19.5
- RD 41.6 Mode of measurement and payment - According to specification NO. RD 20.6.

DECLARATION OF THE CONTRACTOR
(To be submitted by contractor on contractors letter head in .pdf format)

Name of work :

Tender Notice No :

I/We hereby declare that

1. I/We are interested in the above named work in the tender notice.
2. I/We have submitted a bid for the said work.
3. I/We have made myself /ourselves thoroughly conversant with the local conditions regarding all materials and labour on which I/We have based my/our rates for this tender. The specifications and leads on this work have been carefully studied and understood before submitting this tender. I/We undertake to use only the best materials approved by Executive Engineer, or his duly authorized assistant during execution of the work and to abide by the decisions.
4. I/We accept all the terms and conditions laid down in the tender document; which I will sign at the time of agreement.
5. The rate quoted by me/us is unconditional; I/we are well known that conditional tender is liable for rejection.

Signature
(Contractor)

(Draft of Proposed condition relating to Insurance of Contract Works)

Contractor shall take out necessary Insurance Policy/Policies so as to provide adequate insurance cover for execution of the awarded contract work for total contract value and complete contract period from the "Directorate of Insurance, Maharashtra State, Mumbai" only. Its postal address for correspondence is "264, MHADA, First floor; Opp. Kalanagar, Bandra (East) : Mumbai – 411051." (Telephone No. 6438690/6438746 and Fax No. 6438641). Similarly, all workmen's appointed to complete the contract work are required to insure under workmen's compensation Insurance Policy. Insurance policy/policies taken out from any other company will not be accepted. If any contractor have effected insurance with any Insurance company, the same will not be accepted and the amount of premium calculated by the Directorate of Insurance will be recovered directly from the amount payable to the contractor for the executed contract work.

QUALITY CONTROL TESTS
ANNEXURE A & B

Annexure-A
Quality Control Tests

Sr. No.	Material	Tests	
01	Masonry Stone	01	Compressive Strength
		02	Crushing Value
02	Metal	01	Crushing Value
		02	Impact Value
		03	Abrasion Value
		04	Water Absorption
03	Cement	01	Compressive Strength
		02	Initial Setting Time
		03	Final Setting Time
		04	Specific Gravity
		05	Soundness
		06	Fineness
		07	Standard Consistency
04	Steel	01	Weight per meter
		02	Ultimate Tensile Stress
		03	Yield Stress
		04	Elongation
05	Granular sub-base	01	Density of Compacted Layer
		02	C. B. R.
06	Lime / Cement Stabilized Soil sub base	01	Quality of lime / cement
		02	Degree of Pulverization
		03	Lime / Cement Content
		04	CDR or uncontained, composite test on a set of 3 specimens
		05	Density of Compacted layer
07	Water Bound Macadam	01	Aggregate impact value
		02	Flakiness index & Elongation index
08	Wet Mix Macadam	01	Impact Value
		02	Flakiness index and Elongation index
		03	Density of compacted of layer
09	Prime coat / Surface Dressing	01	Quality of Binder
10	Seal coat / Surface Dressing	01	Quality of Binder
		02	Impact Value / Loss Angles Abrasion Value
		03	Flakiness index and Elongation index
		04	Water Absorption
11	Open graded Premix of	01	Quality of Binder
		02	Impact Value / Abrasion Value
		03	Flakiness index and Elongation index
		04	Water Absorption
12	Bituminous Macadam	01	Quality of Binder
		02	Impact Value / Abrasion Value
		03	Flakiness index and Elongation index
		04	Water Absorption
		05	Water Sensitivity of Mix
		06	Density of Compacted layer

Sr. No.	Material	Tests	
13	Bituminous Penetration, Built up spray grout.	01	Quality of Binder
		02	Impact Value / Abrasion Value
		03	Flakiness index and Elongation index
		04	Water Absorption
14	Dense Bituminous Macadam, Semi dense Bituminous Concrete / Bituminous concrete	01	Quality of Binder
		02	Impact Value / Abrasion Value
		03	Flakiness index and Elongation index
		04	Water Absorption
		05	Stability of Mix
		06	Density of Compacted layer
		07	Job Mix Design
15	Mastic Asphalt	01	Quality of Binder
		02	Impact Value / Abrasion Value
		03	Flakiness index and Elongation index
		04	Water Absorption
16	Slurry Seal	01	Quality of binder
17	Modified binder	01	Softening point
		02	Penetration at 25 C and 4 C
18	Thermoplastic paint	01	Glass bed contents and grading analysis
		02	Reflectance and Yellowness Index
		03	Flow-ability
		04	Drying Time
19	Interlocking concrete paving block	01	Compressive strength
		02	Flexural test
		03	Resistance to wear
20	Cement Concrete	01	Mix design
21	Asphalt Concrete	01	Design with all tests on basic materials
22	Reinforcement steel bars	01	Tensile strength
		02	% Elongation

Annexure-B**Quality Control Tests and their Frequencies**

Sr. No.	Material	Test	Frequency of Testing	Remarks	
01	Sand	1	Fineness Modulus	At the beginning and if there is change in source	
		2	Silt Contents		
02	Masonry Stone	1	Compressive strength	A set of 5 stone for each quarry and for doubtful quantity	
		2	Specific gravity		
		3	Water absorption		
03	Metal	1	Crushing value	One test per 200 cubic meter or part thereof	PWD Hand Book P.No.58 Part-II
		2	Impact value		
		3	Abrasion value		
		4	Water absorption		
		5	Flakiness index		
		6	Gradation		
04	Cement Concrete	1	Compressive strength	Up to 5 cum- 1 set	MORT & H specification on 1716
				6-15 cum – 2 sets	
				16-30 cum – 3 sets	
				31-50 cum – 4 sets	
				51 and above 4 sets +1 additional set for each additional 50 cum or part thereof	
05	Cement	1	Compressive Strength	One Test for each Consignment of 50 One Metric Ton (1000 bags) or part thereof	IS-269-12269
		2	Initial setting time		
		3	Final setting time		
		4	Specific gravity		
		5	Soundness		
		6	Fineness		
06	Steel	1	Weight per meter	One Test for every 5.00 Metric Ton or Part thereof for each diameter	IS-432
		2	Ultimate Tensile Stress		
		3	Yield Stress		
		4	Elongation		
07	Granular sub-base	1	Gradation	One Test per 200 cum	MORT & H Specification Table 900.3
		2	Aterberg limits	One Test per 200 cum	
		3	Moisture content prior to compaction	One Test per 250 cum	
		4	Density of compacted layer		
08	Lime / Cement	1	Quality of lime / cement	One Test for each Consignment	MORT & H Specification
		2	Degree of pulverization		
09	Stabilized soil with base	3	Lime/cement content	One Test for each Consignment Min 1 test per 5 M.Ton Periodically as considered necessary Regularly through Procedural checks As required.	MORT & H Specification On Table 900.3
		4	CDR or uncontained composite test on a set of 3 specimens		
		5	Moisture content prior To compaction		
		6	Density of compacted		

10	Water Bound Macadam	1	Average Impact value	One Test per 200 cum	MORT & H Specification On Table 900.3
		2	Gradation	One Test per 200 cum	
		3	Flakiness index and Elongation Index	One Test per 200 cum	
		4	Attenberg limits of Binding materials	One Test per 20 cum For binding material	
		5	Attenberg limits of Portion of aggregates Passing 425 Micron	One Test per 100 cum	
11	Wet Mix Macadam	1	Impact value	One Test per 200 cum	MORT & H Specification On Table 900.3
		2	Gradation	One Test per 200 cum	
		3	Flakiness and Elongation Index	One Test per 200 cum	
		4	Attenberg limits of Portion of aggregates Passing 425 Micron	One Test per 100 cum	
		5	Density of compacted of Layer	One Test per 500 cum	
12	Prime coat / Tack coat / Fog spray	1	Quality of binder	No. of samples per lot And test as per IS-73, IS-217, IS-8887 as applicable	MORT & H Specification On Table 900.4
		2	Binder Temperature	At regular close Intervals	
		3	Rate of spread of binder	1 test per 500 sqm And not less than two test per day	
13	Seal coat Of surface dressing	1	Quality of binder	Same as mentioned Under Sr.No.12	MORT & H Specification On Table 900.4
		2	Impact value / Los angles Abrasion value	One Test per 50 cum	
		3	Flakiness and Elongation Index	One Test per 50 cum	
		4	Stripping value of Aggregate (immersion try Test)	Initially one set of 3 Representative samples for each Source of supply.	
		5	Water absorption		
		6	Water sensitivity of Mix		
		7	Gradation	One Test per 25 cum.	

		8	Soundness	Initially one determination by each method For each source of Supply then as Warranted by change in the quality of Aggregate.	
		9	Temperature of Binder	At regular close Intervals	
		10	Rate of spread of Materials	1 test per 500 sqm. & Not less than 2 test For per day	
		11	Percentage of fractured Faces	When gravel is used' One test per 50 cum.	
14	Open graded Premix or Close Graded Premix surfacing	1	Quality of binder	Same as per Sr.No.13	MORT & H Specification On Table 900.4
		2	Impact of fractured faces		
		3	Flankness and Elongation Indeed		
		4	Stripping value		
		5	Water absorption		
		6	Gradation		
		7	Water sensitivity of Mix		
		8	Soundness		
		9	Temperature of binder	At regular close Intervals	
		10	Binder content	1 test per 500 sqm. & Not less than 2 test Per day	
		11	Rate of spread of Materials	Regular control Through check of Layers	
				12	
15	Bituminous Macadam	1	Quality of binder	Same as per Sr.No.12	MORT & H Specification On Table 900.4
		2	Impact value / Abrasion Value	Same as per Sr.No.13	
		3	Flankness and Elongation Indeed		
		4	Stripping value		
		5	Water Sensitivity of Mix		
		6	Water absorption		
		7	Soundness		
		8	Percentage of fractured Faces		
		9	Gradation	2 tests per day per Plan both on individual constituents & mixed	

				Aggregates from layer	
		10	Binder content and Aggregate grading	Periodical subject to Minimum of 2 tests/per Day per plant	
		11	Control of temperature of Binder & aggregate for Mixing & of premix at the Time of laying & rolling	At regular close Intervals	
		12	Rate of spread of mixed Material	Regular control Through check of Layer thickness	
		13	Density of compacted Layer	1 test per 250 sqm.	
16	Bituminous Penetration Macadam	1	Quality of binder	Same as per Sr. No.15	MORT & H Specification On Table 900.4
		2	Impact value / Abrasion value	One test per 200 cum.	
		3	Flakiness and Elongation Index	One test per 200 cum.	
		4	Stripping value	Same as per S.No.15	
		5	Water sensitivity of mix	Same as per S.No.15	
		6	Water absorption	Same as per S.No.15	
		7	Soundness	Same as per S.No.15	
		8	Percentage of fractured faces	Same as per S.No.15	
		9	Gradation	2 tests per day per plan Both on individual Constituents and mixed Aggregate from dryer	
		10	Temperature of Binder	At regular close intervals	
		11	Rate of spread of mixed Material	Same as per Sr. No.	
17	Dense Bituminous Macadam/Semi Dense Bituminous Concrete/ Bituminous concrete	1	Quality binder	Same as per Sr. No.	MORT & H Specification On Table 900.4
		2	Impact value / Abrasion value	Same as per Sr. No.	
		3	Flakiness and Elongation Index	Same as per Sr. No.	
		4	Stripping value	Same as per Sr. No.	
		5	Water sensitivity of mix	Same as per Sr. No.	
		6	Water absorption	Same as per Sr. No.	
		7	Soundness	Same as per Sr. No.	
		8	Percentage of fractured faces	Same as per Sr. No.	
		9	Sand equivalent test	As required	
		10	Plasticity index	As required	
		11	Mix grading	One set of test on	

				individual constituents and mixed aggregate from dryer for each 400 tones of mix subject to minimum tests per plant per day	
		12	Binder content	For	
		13	Stability of Mix	For each 400 tones of mix Products	
		14	Water sensitivity of Mix	Same as per S. N.15	
		15	Swell test of Mix	As required for Bituminous Concrete	
		16	Control of temperature binder In boiler, aggregate in dryer and Mix at the time of laying and Rolling	As regular close intervals	
		17	Rate of spread of mixed Material	Regular control through Checks on the weight of 'mixed material and Layer thickness	
		18	Density of compacted layer	One test per 250 sqm area	
18		1	Quality binder	Same as per S.No.15	MORT & H Specification On Table 900.4
		2	Impact value / Abrasion value	Same as per S.No.15	
		3	Flakiness and Elongation Index	Same as per S.No.15	
		4	Stripping value	Same as per S.No.15	
		5	Water sensitivity of mix	Same as per S.No.15	
		6	Water absorption	Same as per S.No.15	
		7	Soundness	Same as per S.No.15	
		8	Percentage of fractured faces	Same as per S.No.15	
		9	Gradation of aggregate	2 tests per day per plant Both on the individual Aggregate and mixed Aggregate from the layer	
		10	Binder content and grading of Aggregate	Periodic, subject to Minimum 2 tests per day Per plant	
		11	Control of temperature	At regular close	

			binder In boiler, aggregate in dryer and Mix at the time of laying and Rolling	intervals	
		12	Rate of spread of mixed Material	Regular control through Checks on the weight of 'mixed material and Layer thickness	
19	Slurry seat	1	Quality binder	Same as per S.No.15	MORT & H Specification On Table 900.4
		2	Film stripping test	Initially one se of 3 representative specimen for each source of supply then as warranted by the Changes in quality of Aggregates.	
20	Modified Binder	1	Softening point	Initially on submission the Rafter daily in site blended, Weekly if pre blended	MORT & H Specification On Table 900.4
		2	Penetration of 25 degree C and 4 degree C	Initially on submission the Rafter daily in site blended, Weekly if pre blended	
		3	Elastic Recovery	Initially on submission the Rafter daily in site blended, Weekly if pre blended	
		4	Ductility	Initially on submission the Rafter daily in site blended, Weekly if pre blended	
		5	Viscosity	Initially on submission	
		6	Thin film even test penetration, Softening point Elastic Recovery of residue loss on Heating	Initially on submission	

24	Thermo plastic Paint	1	Glass bed contents and Grading analysis	One test for 3 Km. work	
		2	Reflectance and Yellowness Index	One test for 3 Km. work	
		3	Flow ability	One test for 3 Km. work	
		4	Softening point	One test for 3 Km. work	
		5	Drying time	One test for 3 Km. work	
25	Interlocking Concrete paving block	1	Compressive Strength	A set of 8 block for every 10000 blocks	
		2	Water absorption	A set of 8 block for every 10000 blocks	
		3	Flexural test	A set of 8 block for every 10000 blocks	
		4	Resistance to wear	A set of 8 block for every 10000 blocks	

QUALITY ASSURANCE CLAUSE

1. To ensure the specified quality of work which will also include necessary survey , temporary works etc, The contractor shall prepare a quality control plan and get the same approved by the Engineer –in –charge within one month from the date of work order .For this the contractor shall submit an organization chart of his technical personnel to be deployed on the work along with their qualifications, job descriptions defining the functions defining the functions of reporting supervising inspecting and approving. The contractor shall also submit the list of tools, equipment and the machinery and instrumentation which he propose to use for the construction and for testing in the field and / or in the laboratory and monitoring. The contractor shall modify / supplement the organization chart and the list of machinery, equipments etc. as per the direction of the Superintending Engineer and shall deploy the personnel and equipment on the field as per the approved chart and list respectively. The contractor shall submit written method statements detailing in exact proposals or execution of the work in accordance with the specification. He will have to get these approved from the Engineer –in-charge. The quality of the work shall be properly documented through certificates, records, check-lists and log books of results, etc. Such records shall be compiled from beginning of the work and be continuously updated and supplemented and this will be the responsibility of the contractor. The forms should get approved from the Executive Engineer-in-charge.
2. The contractor shall prepare detailed completion drawing after completion of the work. He shall prepare and submit a maintenance manual giving procedure for maintenance, with the periodicity of maintenance works including inspection tools & equipments to be used means of accessibility for all parts of structure. He shall also include in the manual the specifications for the maintenance work that would be appropriate for the technique of construction. This manual shall be submitted within the contract period.

SCHEDULE- A

SCHEDULE - A

Schedule showing (approximately) the materials to be supplied from the departmental stores for contract work to be executed and preliminary and ancillary works and the rates at which they are to be charged for.

Particullar	Quantity	Unit	Rate at Which material will be charged to the contractor		Remarks
			In Fig.	In Words	
-----Nil-----	-----Nil-----	---Nil---	-----Nil-----	-----Nil-----	(Material are to be brought by the contractor at his own cost at the site)

SCHEDULE- B

Separately Attached

CONDITION OF MATERIAL TO BE BROUGHT BY CONTRACTOR

ADDITIONAL CONDITIONS FOR MATERIALS (CEMENT , MILD STEEL, TMT BARS, BULK ASPHALT ETC.) BROUGHT BY CONTRACTOR

1. All material with quantity such as cement , mild steel , TMT steel bars , bulk asphalt etc. required for execution of work shall be procured by the contractors at his own cost.
2. The contractor shall maintain the record of these material (Cement, steel, etc.) in the prescribed pro forma registers as directed by engineer in charge. The sample of pro forma is attached at the end of page No. 168 to 168.

3. The material required only for this work shall be kept in the contractor godown at site No material shall be shifted outside the godown except for the work without prior approval of the engineer in charge.
4. The material i.e. cement , steel etc. brought on the work site shall be accompanied with the necessary company / manufacturing firm's test certificate In addition these material shall be tested as per frequency prescribed by the department and the cost of such testing shall be bore by the contractor. If the test result are satisfactory, then and then only the material shall be allowed to be used on the work. If the test results are not as per standards, this material shall be immediately removed from the work site at contractor's cost. In case of cement, if so requested by the contractor in writing material will be allowed to be used before receipt of the test results but this will be entirely at the risk and cost of the contractor.
5. The contractor shall produce sufficient documentary evidence i.e. bill for the purchase, Octroi receipts etc. for the purpose of material brought on the work site otherwise the Authorized Authority will not make payment of bills of work if such paid vouchers are not produced.
6. All these materials i.e. cement steel etc. Shall be protected from any damage, rains by the contractor at his own cost.
7. The contractor will have to erect temporary shed of approved specifications for storing of above material at work site at contractor cost having double lock arrangement (by Double lock it means that godwon shall always be locked by two locks, one lock being owner and operated by contractor) and other by Engineer in charge or his authorized representative and the doors shall be open able only after both locks opened.
8. If required the weightment of cement bags / steel etc. brought by the contractor shall be carried out by the contractor at his own cost.
9. The contractor shall be not used cement and other material for the item to be executed outside the scope of this contract except for such ancillary small item as are connected and absolutely for necessary execution of this work as may be decided by the engineer in charge.
10. The government shall not be responsible for the loss in cement and steel during transit to work site. The cement brought by the contractor at the work site store shall mean 50 kilogram. Equivalent to 0.0347 cubic meters per bag by weight. The rate quoted should correspond to this method of reckoning. In case of ordinary / controlled concrete, if cement is found short, the shortage / shortages will be.
11. Indemnity:- The condition regarding indemnity as defined page - - - - will apply mutatis mutandis in case of material brought by contractor at the site for the execution of the work being executed under this contract.
12. In case the material brought by the contractor become surplus owing to the change in the design of the work, the material should be taken back by the contractor at his own cost after prior permission of Engineer in charge.
13. All the empty cement bag / empty asphalt drums shall be the property of the contractor and shall be removed immediately after completion of the work.

प्रमाणपत्र

प्रमाणित करण्यात येते कि, जिल्हा परिषद नांदेड अंतर्गत बांधकाम विभागाच्या कामांसाठी B-१ करारनामा पृष्ठ ०१ ते १०६ तयार करण्यात आला असून सदर करारनाम्यातील सर्व बाबी ई निविदा मसुदा समितीने तपासून पहिल्या असून, त्या बरोबर आहेत.

करिता ई निविदा साठीचा B-१ करारनाम्याचा मसुदा (B- 1 Agreement Draft) प्रमाणित करण्यात येत आहे.

कार्यकारी अभियंता (बांधकाम)
तथा
सचिव ई निविदा समिती
जिल्हा परिषद नांदेड

मुख्य लेख व वित्त अधिकारी
तथा
सदस्य ई निविदा समिती
जिल्हा परिषद नांदेड

अति.मुख्य कार्यकारी अधिकारी
तथा
सदस्य ई निविदा समिती
जिल्हा परिषद नांदेड