



Patna Smart City Limited (PSCL)

NOTICE INVITING TENDER FOR

DEVELOPMENT OF MANDIRI NALA (REMAINING WORK)
UNDER PATNA SMART CITY, PATNA (BIHAR) - Retender

(Through e-procurement mode only- www.eproc2bihar.gov.in)


NIT No. – 20/MD/PSCL/2022-23

Date:-02.02.2023

1. Patna Smart City Limited (PSCL) invites bids from eligible experienced Firms/ /Contractors / Agencies / Bidders registered in appropriate category in any Government Organization/PSUs for execution of works as given below :-

Name of Work	Estimated Cost	Bid Document (Non-Refundable)	Bid Security (EMD)	Bid Processing Fee	Time for completion
Development of Mandiri Nala (remaining work) under Patna Smart City, Patna (Bihar)-Retender	Rs. 90.55 Cr.	Rs. 11800.00	1.006 Cr.	As per Eproc2 website	12 Months.
2. Date of Downloading of Bid Document	:	From 02.02.2023 to 23.02.2023 up to 03:00 P.M. Through website : www.eproc2bihar.gov.in			
3. Place & Date of pre-bid meeting	:	Date: 11.02.2023, Time 03.00 P.M.; Patna Smart City Limited, 4th Floor, ICC -cum- PSCL Building, SSP Office Campus, Gandhi Maidan, Patna-800001			
4. Last date of Receiving Queries (e-mail/offline)	:	Date: 11.02.2023, Time 05.00 P.M.			
5. Last Date and time for uploading of bid.	:	Date: 23.02.2023 up to 03.00 P.M. Through website : www.eproc2bihar.gov.in			
6. Last Date and time for submission of hard copy of bid	:	Date: 23.02.2023, Time 04.00 P.M			
7. Time & Date of opening technical bids	:	Date: 24.02.2023, Time 02.00 P.M			
8. Time & date of opening financial bids	:	To be communicated later on			
9. Place of opening of Bid	:	Through website : www.eproc2bihar.gov.in			
10. Periods of bids validity	:	120 Days.			
11. Officer inviting bids	:	Managing Director, PSCL, Patna.			
12.	For participation in E-tendering proc. the contractor shall have to get themselves registered to get User ID, Password & digital signature. This will enable accessing the website www.eproc2bihar.gov.in & download/participate in E-tender.				
13.	The tender documents can be obtained through our website www.eproc2bihar.gov.in & http://www.smartpatna.co.in .				
14.	(i) Bid processing fees to be paid through online mode i.e. Internet payment gateway (Credit/Debit Card), Net Banking, NEFT/RTGS. (ii) Bids along with necessary online payments must be submitted through e-procurement portal www.eproc2bihar.gov.in before the date & time specified in (iii) the NIT. The department does not take any responsibility for the delay/Non availability of internet connection, Network Traffic/Holidays or any other reasons"				
15.	Bid document cost should be paid as per www.eproc2bihar.gov.in				
16.	Earnest Money should be in the form of Bank Guarantee of any scheduled banks payable in favour of Managing Director, Patna Smart City Ltd, on or before 04:00 PM on 23.02.2023 failing which the tender will be rejected. The Estimated Cost may increase or decrease. All the information/corrigendum /addendum related to the project shall be published on the website www.eproc2bihar.gov.in & http://www.smartpatna.co.in .				
17.	The authority shall have the right to reject the bid without assigning any reason what so ever. For any information department Contact No. 0612-2219180 may be used				
18.	Estimate amount may vary. So EMD will be deposited as per technical Sheet uploaded on the website www.eproc2bihar.gov.in				
19.	For queries & Clarifications, if any, send e-mail to patnasmartcity.pscl@gmail.com .				

ज्ञापक:- 90 / पटना स्मार्ट सिटी लिमिटेड, पटना, दिनांक- 31 / 01 / 2023 ई०.


Managing Director,
Patna Smart City Limited

ज्ञापक:- 90 / पटना स्मार्ट सिटी लिमिटेड, पटना, दिनांक- 31 / 01 / 2023 ई०.

प्रतिलिपि:- निदेशक, सूचना एवं जन-संपर्क विभाग को राष्ट्र/राज्य स्तरीय हिन्दी के समाचार पत्रों, एवं राष्ट्र स्तरीय अंग्रेजी के समाचार पत्रों में प्रकाशित करने हेतु समर्पित।


Managing Director
Patna Smart City Limited



PATNA SMART CITY LIMITED

REQUEST FOR PROPOSAL

FOR

**THE DEVELOPMENT OF MANDIRI NALA (REMAININGWORK)
UNDER PATNA SMART CITY, PATNA (BIHAR)**

**UNDER
SMART CITY MISSION (SCM) IN PATNA
ON
ITEM RATE BASIS**

Through website : www.eproc2.bihar.gov.in.

ESTIMATED COST- Rs. 90.55 CRORES

DISCLAIMER

The information contained in this Standard Bidding document ("SBD") document whether subsequently provided to the bidders, ("Bidder/s") verbally or in documentary form by Patna Smart City Limited (henceforth referred to as "PSCL" in this document) or any of its employees or advisors, is provided to Bidders on the terms and conditions set out in this Tender Document and any other terms and conditions subject to which such information is provided.

This SBD is not an agreement and is not an offer or invitation to any party. The purpose of this SBD is to provide the Bidders or any other person with information to assist the formulation of their financial offers ("Bid"). This SBD includes statements, which reflect various assumptions and assessments arrived at by PSCL in relation to this scope. This Tender document does not purport to contain all the information each Bidder may require. This Tender document may not be appropriate for all persons, and it is not possible for the Managing Director (MD), PSCL, and their employees or advisors to consider the objectives, technical expertise, and particular needs of each Bidder.

The assumptions, assessments, statements, and information contained in the Bid documents, may not be complete, accurate, adequate or correct. Each Bidder must therefore conduct its own analysis of the information contained in this SBD or seek its own professional advice from appropriate sources.

Information provided in this Tender Document to the Bidder is on a wide range of matters, some of which may depend upon the interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. PSCL accepts no responsibility for the accuracy or otherwise for any interpretation of opinion on law expressed herein. PSCL and their employees and advisors make no representation or warranty and shall incur no liability to any person, including the Bidder under law, statute, rules or regulations or tort, the principles of restitution or unjust enrichment or otherwise for any loss, cost, expense or damage which may arise from or be incurred or suffered on account of anything contained in this SBD or otherwise, including the accuracy, reliability or completeness of the SBD, and any assessment, assumption, statement or information contained therein or deemed to form part of this SBD or arising in any way in this Selection Process. PSCL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this SBD. PSCL may in its absolute discretion, but without being under any obligation to do so, can amend or supplement the information in this SBD.

The issue of this Tender document does not imply that PSCL is bound to select a Bidder or to appoint the Selected Bidder (as defined hereinafter), for implementation and PSCL reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by PSCL, or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and PSCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation for submission of the Bid, regardless of the conduct or outcome of the Selection process or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and PSCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation for submission of the Bid regardless of the conduct or outcome of the Selection process.



Patna Smart City Limited (PSCL)

NOTICE INVITING TENDER FOR

DEVELOPMENT OF MANDIRI NALA (REMAININGWORK) UNDER PATNA SMART CITY, PATNA (BIHAR) RETENDER

(Through e-procurement mode only- www.eproc2bihar.gov.in)

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13.	The tender documents can be obtained through our website www.eproc2bihar.gov.in & http://www.smartpatna.co.in .				
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19.	For queries & Clarifications, if any, send e-mail to patnasmartcity.psc@gmail.com .				
ज्ञापक:- 06 /पटना स्मार्ट सिटी लिमिटेड, पटना, दिनांक- 01/02/2023 ई0. प्रतिलिपि:- निदेशक, सूचना एवं जन-संपर्क विभाग को राष्ट्र/राज्य स्तरीय हिन्दी के समाचार पत्रों, एवं राष्ट्र स्तरीय अंग्रेजी के समाचार पत्रों में प्रकाशित करने हेतु समर्पित।					
Sd/- Managing Director Patna Smart City Limited					

INSTRUCTIONS FOR ONLINE BID SUBMISSION

- i. PSCL as implementing agency intends to undertake a competitive bidding process in order to shortlist and qualify suitable Bidders, who shall be eligible for evaluation of their price bids towards the selection of the successful bidder in terms of the SBD for the award of the project.
- ii. The SBD document containing the project profile, invitation for qualification and criteria for evaluation may be obtained from the website: www.eproc2.bihar.gov.in
- iii. For support related to the e-tendering process, bidders may contact “eProc 2.0 Help Desk Address: m junction services limited RJ Complex, 2nd Floor, Canara Bank Campus, Khajpura, Ashiana Road, P.S. - Shastri Nagar, Patna 800 014, Bihar, Contact No: 1800 572 6571”.
- iv. PSCL as implementing agency will not be responsible, in case of any delay, due to any reason whatsoever, in receipt of Bid Documents.
- v. The Owner reserves the right to reject any or all Bids or cancel/withdraw the Invitation for Bids (IFB) without assigning any reason whatsoever and in such case, no Bidder/ intending Bidder shall have any claim arising out of such action.
- vi. For participating in e-tendering process, the contractor shall have to get themselves registered to get user ID, Password and digital signature. This will enable them to access the website www.eproc2.bihar.gov.in and download/participate in e-tender.
- vii. The bidder must have the Class II/III Digital Signature Certificate (DSC) and e-Tendering User-id of the e-Procurement website before participating in the e-tendering process. The bidder may use their DSC if they already have the DSC. They can also take DSC from any of the authorized agencies. For user-id they have to get registered themselves on the e-procurement website <https://www.eproc2.bihar.gov.in/BELTRON> and submit their bids online on the same. Offline bids shall not be entertained by the Tender Inviting Authority for the tenders published in the e-procurement platform.
- viii. The detail of the bidding process and summary of the scope of construction works for the project is included in the SBD document.
- ix. Any clarifications may be sought online through the tender site, through the contact details or during pre-bid meeting if any. Bidder should take into account the corrigendum if any published before submitting the bids online.
- x. In the unlikely event of the server for www.eproc2.bihar.gov.in being down for more than two consecutive hours (in the period from midnight to closing time for receipt of tenders) on the last date of receiving of bid, the last date of the same shall be extended by concerned authority only to the next working day till the last receiving time stipulated in the original NIT.
- xi. The bidders are requested to check the file size of uploaded documents at the time of submission & they should ensure that the work file is uploaded. If they feel that the complete file is not uploaded, then they should click on cancel & update the same before submission. The bidders should satisfy themselves of download ability/ visibility of the scanned & uploaded file by them.
- xii. The bidders must use MS Office-2003 version. File size should be less than 5MB and should be in M.S. word, M.S. Excel, PDF and JPEG Formats.
- xiii. The bidders shall submit their eligibility and qualification details, Technical bid, Financial bid etc., in the online standard formats given for respective tenders in e-Procurement website (www.eproc2.bihar.gov.in) at the respective stage only. The bidders shall upload the scanned copies of all the relevant certificates, documents etc., in support of their eligibility criteria / technical bids and other certificate /documents in the e-Procurement website. The bidder shall sign on the supporting statements, documents, certificates, uploaded by him, owning responsibility for their correctness /authenticity.

- xiv. Bidder must submit the EMD and Tender Fee (online and original hard copy as well) and the Technical and Financial Bid in online only as per Clause of this SBD. The Financial bid submitted in hard copy shall be treated as non-responsive and eligible for rejection. The original hard copy (EMD and Tender Fee) must submit to the Tender Inviting Authority within bid submission due date and time as indicated in the tender. Scanned copy of the instrument should be uploaded as part of the offer.
- xv. The bidder has to select the payment option as online to pay the Tender Fee as applicable and enter details of the instruments.
- xvi. The details of the DD/any other accepted instrument, physically delivered, should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise submitted bid shall not be acceptable or liable for rejection.
- xvii. A bid processing fee (Non-Refundable) to be paid only through e-Payment modes i.e., Internet Payment Gateway (Master or Visa Card) /Internet Banking/NEFT or RTGS towards charges for online processing charges of e-procurement website.
- xviii. In exceptional circumstances, the competent authority, PSCL may solicit the Bidder's Consent to an extension of the period of validity.
- xix. Corrigendum/ Addendum, if any, will be published on the website itself.
- xx. For any queries regarding Tendering process, the bidders may contact at the address as provided in the tender document.
- xxi. Bids that are rejected during the bid opening process shall not be considered for further evaluation, irrespective of the circumstances.

INTRODUCTION

About PSCL

Patna Smart City Limited (PSCL) is a Special Purpose Vehicle created under the Patna Municipal Corporation to deliver several Pan City and Area Based Development initiatives with a focus on infrastructure and ICT advancements at strategic locations in the city.

Introduction to Project

The Ministry of Housing and Urban Development (MoHUA), Government of India (GoI) has initiated Smart Cities Mission (SCM), under which selected cities are being developed as smart cities with a focus on improving citizen services with ICT intervention. Smart Cities Mission (SCM) is an urban renewal and retrofitting program by the Government of India with a mission to develop 100 cities all over the country making them citizen-friendly, sustainable and investment destinations. Under the smart city scheme, the Government has emphasized to improve the basic civic amenities of the cities on one hand and the provision of modern technological advances for ease of living on the other hand.

The Smart City Proposal for Patna envisions to implementing a number of projects categorized into Area Based Development (ABD) projects and Pan City components. The ABD projects focuses on physical infrastructure components, whereas the Pan City components focus on the ICT interventions in the city.

To achieve Patna's vision for a smart city, large numbers of measures are required to be implemented. Considering the priorities echoed by stakeholders during the consultative process and practical feasibility, one of the initiatives shortlisted is "DEVELOPMENT OF MANDIRI NALA" (REMAINING WORK).

The structure design of RCC box drain is vetted by NIT Patna and approved by PSCL. The site work for 72m from the starting point has already been constructed. Remaining work to be done as per approved design.

SECTION 1
INSTRUCTION TO BIDDERS (ITB)

Section 1: Instructions to Bidders

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A. GENERAL

1. Scope of Bid

- 1.1 The Employer (named in Appendix to ITB) invites bids for the construction of works (as defined in these documents and referred to as "the works") detailed in the table given in NIT. The bidders may submit bids for any one group or all groups of the works detailed in the table given in NIT.
- 1.2 The successful bidder will be expected to complete the works by the intended completion date specified in the Contract data.
- 1.3 Throughout these bidding documents, the terms 'bid' and 'tender' and their derivatives (bidder / tenderer, bid/tender, bidding/tendering, etc.) are synonymous.
- 1.4 Regarding PERCENTAGE RATE OR ITEM RATE, tender shall be as per Appendix to ITB and accordingly the non-relevant sections of this document must be crossed.

2. Sources of Funds

- 2.1 The expenditure on this project will be met from SCM of Patna Smart City.

3 Eligible Bidders

- 3.1 This *Invitation for Bids* is open to all bidders.
- 3.2 All bidders shall provide in Section 2, Forms of Bid and Qualification Information, a statement that the Bidder is neither associated, nor has been associated, directly or indirectly, with the Consultant; Engineer-in-Charge or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Executive Engineer for the Contract or involved in supervision of the contract. A firm that has been engaged by PSCL to provide consulting services for the preparation or supervision of the works, and any of its affiliates shall not be eligible to bid.
- 3.3 Bidders shall not be under a declaration of ineligibility for delay, failure, or corrupt and fraudulent practices by any of the State Govt. or Central Govt. or Public Undertaking or any Autonomous Body.

4. Qualification of the Bidder

- 4.1 All bidders shall provide in Section 2, Forms of Bid and Qualification Information, a preliminary description of the proposed work method and schedule, including drawings and charts indicating milestones to complete the project on time.
- 4.2 All bidders shall also furnish the following information in Section 2.
 - (i) Evidence of access to or availability of credit facilities (minimum 10% of estimated cost) certified by the bankers.
 - (ii) Undertaking that bidder would be able to invest a minimum of cost up to 25% of the contract value of work, during the implementation of contract.
 - (iii) Proposals, if any, for sub-contracting of elements of work, costing more than 10% of the bid amount.
 - (iv) Power of attorney, if any.
- 4.3 If the Employer has not undertaken prequalification of potential bidders, all bidders shall include the following information and documents with their bids in Section 2:
 - (a) copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bidder;
 - (b) total monetary value of construction work performed for each of the last five years;
 - (c) experience in works of a similar nature and size for each of the last five years, and details of works underway or contractually committed; and clients who may be contacted for further information on those contracts;
 - (d) major items of construction equipment proposed to carry out the Contract or evidence of arrangement; of possessing them on hire/ lease/ buying as defined therein;
 - (e) qualifications and experience of key site management and technical personnel proposed for contract;

- (f) reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years;
- (g) evidence of access to line(s) of credit and availability of other financial resources facilities (10% of contract value), certified by the Bankers (Not more than 3 months old)
- (h) Undertaking that the bidder will be able to invest minimum cash up to 25% of contract value of work, during implementation of work.
- (i) authority to seek references from the Bidder's bankers;
- (j) information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned and dispute amount;
- (k) proposals for subcontracting components of the Works amounting to more than 10% of the Bid Price (for each, the qualifications and experience of the identified sub-contractor in the relevant field should be annexed);
- (l) the proposed methodology and programme of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones.

4.4 Bids from Joint ventures are acceptable for projects costing Rs. 10 crores or more. Eligibility for Joint Venture will be as per Road Construction department, Government of Bihar, Letter no. 02/2010-8131 (S) w dated 24-07-2012.

4.5 A. To qualify for award of the contract, each bidder in its name should have in the last five years as referred to in Appendix:-

- (a) Achieved in any one year a minimum annual financial turnover (in all classes of civil engineering construction works only) volume of construction of at least the amount equal to the 50% (fifty percent) estimated cost of works for which bid has been invited. The turnover will be indexed at the rate of 8% for a year.
- (b) Satisfactorily completed as a prime contractor (or as a nominated subcontractor, where the subcontract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied) at least

One Similar work of 80% of the estimated cost

OR

Two Similar work of 60% of the estimated cost

OR

Three Similar work of 40% of the estimated cost

where similar work means. RCC box drain of minimum 3m width and 2.6m depth/RCC storm water drainage of minimum 3m width and 2.6m depth.

- (C) Also the bidder should have Executed in any one year, the minimum quantities of the following items of work as indicated in Appendix.

(i) Cement Concrete (including RCC and PSC) not less than 24,200 Cum

(ii) Earthwork in Excavation & Embankment not less than 52,000 Cum

(iii) Electrical Work of value not less than 2.23 Crores.

- (d) For specialized work of electrical/PHE, the bidder should submit work experience certificate issued in the name of his subcontractor proposed by the bidder along with its technical bid. Bidder will also attach the consent of nominated subcontractor to perform the work of nominated subcontractor and MOU signed between the bidder and its sub-contractor on notarized affidavit along with bid.
- (e) The contractor or his identified sub-contractor should possess required valid electrical license for executing the building electrification works.

B. Each bidder should further demonstrate:

- (a) Availability (either owned or leased or by procurement against mobilization advances) of the following key and critical equipment for this work:

Based on the studies, carried out by the Engineer the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule are shown in the Annexure-I.

Availability of the testing equipment required for establishing field laboratory to perform mandatory tests e.g. those stated in Appendix to ITB.

The bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and calculations (detailed) as stated in clause 4.3(i) above to allow PSCL to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

- (b) Availability for this work of personnel with adequate experience as required; as per Annexure-II.

- (c) Liquid assets and/or availability of credit facilities of no less than amount indicated in Appendix to ITB

(Credit lines/letter of credit/certificates from Banks for meeting the funds requirement etc. - usually the equivalent of the estimated cash flow for 3 months in peak construction period.)

To qualify for a group of contracts made up of this and other contracts for which bids are invited in the IFB, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual groups.

- 4.6 Sub-contractors' experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria except to the extent stated in 4.5(A) above.

- 4.7 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:

$$\text{Assessed Available Bid capacity} = (A * N * 3 - B)$$

Where

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

N = Number of years prescribed for completion of the works for which bids are invited.

B = Value (updated to the price level of the year indicated in Appendix) of existing commitments and on-going works to be completed during the next 2 Years (period of completion of the works for which bids are invited)

Note : *The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in*

charge, not below the rank of an Executive Engineer or equivalent. (Notorised / CA Certified Certificate for existing commitments and on-going works declaration will be considered.)

- 4.8** Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:
- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
 - have record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc; and/or
 - participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

5. One Bid per Bidder

- 5.1 Each bidder shall submit only one bid for any work or one package. A bidder who submits or participates in any work or package with more than one bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified. Under this NIT Bidders can participate in either one or more than one Catchment Area.

6. Cost of Bidding

- 6.1 The bidder shall bear all costs associated with the preparation and submission of his Bid and PSCL will in no case be responsible and liable for those costs.

In case of cancellation of tender, cost of bidding document will be charged each time.

7. Site Visit

- 7.1 The Bidder, at the Bidder's own responsibility and risk must visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

- 7.2. Tender documents are not transferable.

B.BIDDING DOCUMENTS

8. Content of Bidding Documents

8.1 The set of bidding documents comprises the documents listed below and addendum issued in accordance with Clause 10;

Section	Particulars	Volume No.
	Notice Inviting Tender	I
1	Instructions to Bidders	
2	Qualifications of Bidders	
3	Conditions of Contracts	
4	Contract Data	
5	Special condition of Contract	
6	Technical Specifications	
7	Bill of Quantities	
8	Securities and other forms	
9	Drawings	

8.2 Bidders will have to download each of the volumes I, II, III and IV in compliance to section 2 and completed documents will be uploaded as Volume- V in two parts (refer clause 12).

8.3 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, bill of quantities, forms, Annexes and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 25 hereof, bids which are not substantially responsive to the requirements of the Bid Documents shall be rejected.

9. Clarification of Bid documents

9.1 Pre-bid meeting

9.1.1 The bidder or his official representative is invited to attend a pre-bid meeting which will take place at the address, venue, time and date as indicated in appendix.

9.1.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.1.3 The bidder is requested to submit any questions in writing or by fax or through E-Mail to reach PSCL not later than one week before the pre-bid meeting.

9.1.4 Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all through eproc2 website. Any modification of the bidding documents listed in Sub-Clause 8.1 which may become necessary as a result of the pre-bid meeting shall be made by PSCL exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting. All bidders have to download any addendum from the website. Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

9.1.5 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

10.1 Before the deadline for submission of bids, PSCL may modify the bidding documents by issuing addendum.

10.2 Any addendum thus issued shall be part of the bidding documents and shall be downloaded by all the bidders.

10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, PSCL may, at its discretion, extend as necessary the deadline for submission of bids, in accordance with Sub-Clause 20.2.

C. PREPARATION OF BIDS

11. Language of the Bid

11.1 All documents relating to the bid shall be in English/Hindi.

12. Documents Comprising the Bid

12.1 The bid to be uploaded by the bidder as Volume V of the bid document (refer Clause 8.1) shall be in two separate parts;

Part I shall be named "Technical Bid" and shall comprise

- (i) Earnest money in the form specified in Section 8
- (ii) Qualification Information and supporting documents as specified in Section- 2
- (iii) Certificates, undertakings, affidavits as specified in Section 2
- (iv) Any other information pursuant to Clause 4.2 of these instructions
- (v) Undertaking that the bid shall remain valid for the period specified in Clause 15.1
- (vi) An affidavit affirming the information he has furnished in the bidding document is correct to the best of his knowledge and belief.

Part II shall be named "Financial Bid" and shall comprise

- (i) Form of Bid as specified in Section 6
- (ii) Priced Bill of Quantities for items specified in Section 7

12.2 Deleted.

12.3 Following documents, which are not submitted with the bid, will be deemed to be part of the bid.

Section	Particulars	Volume No.
1	Invitation for Bids (IFB)	
2	Instructions to Bidders	Volume I
3	Conditions of Contract	
4	Contract Data	
5	Specifications	Volume II
8	Drawings	Volume II

13. Bid Prices

- 13.1 The contractor shall bid for the whole work as described in Sub-Clause 1.1 based on the priced Bill of Quantities submitted by the Bidder.
- 13.1.1 The bidder shall adopt the item rate method as specified in the appendix to ITB; only the same option is allowed to all the bidders. Item rate method requires to quote rates and prices and line item total (both in figures and words) for all items of the Works described in the Bill of Quantities along with total bid price both in figure and words. Items for which no rate or price is entered by the bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.
- 13.1.2 All duties, taxes, and other levies payable by the contractor under the contract or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder.
- 13.2 The rates and prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions clause 10CA & 10CC clause Conditions of Contract.
- 13.3 The rate should include the cost of all seen and unseen expenditure. No claim, whatsoever, will be entertained due to non-inclusion of any such event necessary for the completion of the item of work.

14. Currencies of Bid and Payment

- 14.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

15. Bid Validity

- 15.1 Bids shall remain valid for a period not less than 120 days after the deadline date for bid submission specified in Clause 20. A bid valid for a shorter period shall be rejected by the Employer as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking pursuant to Clause 12.1 (v) and the Form of Bid submitted by the bidder, the latter shall be deemed to stand corrected in accordance with the former and the bidder has to provide for any additional security that is required.
- 15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid.

16. Earnest Money

- 16.1 The Bidder shall furnish, as part of his Bid, a Bid security in the amount as per NIT for this particular work. This bid security shall be in favor of **Managing Director, Patna Smart City Limited, Patna Bihar**.
- I. Demand Draft of any scheduled Indian Bank.
 - II. Unconditional bank guarantee from any scheduled Indian bank issued within the state in the standard format (If issued from any bank outside state will be converted to any bank within the state before executing the agreement).
- 16.2 Unconditional bank guarantees (and other instruments having fixed validity) issued as surety for the bid shall be valid for 45 days beyond the validity of the bid.
- 16.3 Any bid not accompanied by an acceptable Bid Security and not secured as indicated in Sub-Clauses 16.1 and 16.2 above shall be rejected by the Employer as non-responsive.
- 16.4 The Earnest money of unsuccessful bidders will be returned within 28 days of the end of the bid validity period specified in Sub-Clause 15.1.
- 16.5 The Earnest money of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security.
- 16.6 The Earnest money may be forfeited
- (a) if the Bidder withdraws the Bid after Bid opening during the period of Bid validity;
 - (b) if the Bidder does not accept the correction of the Bid Price, pursuant to Clause 26; or
 - (c) in the case of a successful Bidder, if the Bidder fails within the specified time limit to
 - (i) sign the Agreement; or
 - (ii) Furnish the required Performance Security.

17. Alternative Proposals by Bidder

- 17.1 Bidders shall submit offers that fully comply with the requirements of the bidding documents, including the conditions of contract (including mobilization advance or time for completion), basic technical design as indicated in the drawing and specifications. Conditional offer or alternative offers will not be considered further in the process of tender evaluation.
- 17.2 Conditional tender will be rejected forthwith.

18. Format and Signing of Bid

- 18.1 The Bidder shall upload Technical bid and financial bid comprising of the documents as described in clause 12 of ITB at the eproc2 site (www.eproc2.bihar.gov.in)
- 18.2 The Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder, pursuant to Sub-Clause 4.3. All pages of the bid where entries or amendments have been made shall be initialed by the person or persons signing the bid and a certificate of corrections must be given by PSCL.
- 18.3 The Bid shall contain no alterations or additions, except those to comply with instructions issued by PSCL, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

D.SUBMISSION OF BIDS

(Only on website: www.eproc2.bihar.gov.in)

(Sl.No. 19 To 21.1, shall be done through e-tendering Process)

19. Sealing and Marking of Bids

- 19.1 The bidder shall download the bid document from the site website: www.eproc2.bihar.gov.in and upload the scanned copy of required documents together with filled up documents on the website.: www.eproc2.bihar.gov.in
The contents of Technical and Financial Bids will be as specified in clause 12.1

20. Deadline for Submission of the Bids

- 20.1 Complete Bids (including Technical and Financial) must be uploaded at www.eproc2.bihar.gov.in not later than the date indicated in appendix.
- 20.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21. Late Bids

- 21.1 Late bids will be rejected

E. BID OPENING AND EVALUATION

(Only on website: www.eproc2.bihar.gov.in)

(Sl.No. 22 To 27.5, All Process shall be done through e-tendering Process)

22. Bid Opening

- 22.1 PSCL or their authorized representative will open all the Bids submitted on www.eproc2.bihar.gov.in at the time and date specified in Appendix in the manner specified in Clause 20 and 22.3.
- 22.2 Deleted.
- 22.3 The "Technical Bid" shall be opened on the website www.eproc2.bihar.gov.in. The amount, form and validity of the Earnest money furnished with each bid will be verified. If the bid security furnished does not conform to the amount and validity period as specified in the Invitation for Bid (ref. Column 6), and has not been furnished in the form specified in Clause 16, the technical bid will not be opened.
- 22.4 (i) Subject to confirmation of the bid security by the issuing Bank, the bids accompanied with valid security will be taken up for evaluation with respect to the Qualification Information and other information furnished in Part I of the bid pursuant to Clause 12.1.
- (ii) After receipt of confirmation of the bid security, the bidder will be asked in writing (usually within 10 days of opening of the Technical Bid) to clarify or modify his technical bid, if necessary, with respect to any rectifiable defects.
- (iii) The bidders will respond in not more than 7 days of issue of the clarification letter.
- (iv) Immediately (usually within 3 to 4 days), on receipt of these clarifications the Evaluation Committee will finalize the list of responsive bidders whose financial bids are eligible for consideration.
- 22.5 The Financial bids of only those bidders will be opened on the website www.eproc2.bihar.gov.in, who qualifies in the technical evaluation. The remaining bids will not be opened. The responsive Bidders' names, the Bid prices, the total amount of each bid, any discounts, Bid Modifications and withdrawals, and such other details as PSCL may consider appropriate, will be announced by PSCL at the opening. Any Bid price or discount, which is not read out and recorded will not be taken into account in Bid Evaluation.
- 22.6 In case bids are invited in more than one package, the order for opening of the "Financial Bid" shall be that in which they appear in the "Invitation For Bid".
- 22.7 PSCL shall prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Sub-Clause 22.5

23. Process to be Confidential

- 23.1 Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence PSCL's processing of Bids or award decisions may result in the rejection of his Bid.

24. Clarification of Financial Bids

- 24.1 To assist in the examination, evaluation and comparison of Bids, PSCL may, at his discretion, ask any Bidder for clarification of his Bid, including breakdowns of unit rates. The request for clarification and the response shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by PSCL in the evaluation of the Bids in accordance with Clause 26.
- 24.2 Subject to sub-clause 24.1, no Bidder shall contact PSCL on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of PSCL, it should do so in writing.
- 24.3 Any effort by the Bidder to influence PSCL in PSCL's bid evaluation, bid comparison, or contract award decisions may result in the rejection of the Bidders' bid.

25. Examination of Bids and Determination of Responsiveness

- 25.1 During detailed evaluation of "Technical Bids", PSCL will determine whether each Bid (a) meets the eligibility criteria defined in Clause 3 and 4; (b) has been properly signed; (c) is accompanied by the required securities and; (d) is

substantially responsive to the requirements of the Bidding documents. During the detailed evaluation of the "Financial Bid", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications, and drawings.

- 25.2 A substantially responsive "Financial Bid" is one which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality or performance of the Works; (b) which limits in any substantial way, inconsistent with the Bidding documents, PSCL's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.
- 25.3 If a "Financial Bid" is not substantially responsive, it will be rejected by PSCL, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

Note: As per Notification of Road Construction Department, Bihar letter no. p/mk/02-25-2022 – 7635(e) me/patna, dated 23/12/2022 and Honb. High Court order Patna CWJC no. 9941, BSEIDC letter no. BSEIDC/NIT/2022-23-152 dated 05/01/2023, the maximum limit of bid price should not be below 10% of the project cost value and bid further below this will be liable to be rejected.

26. Correction of Errors

26.1 "Financial Bids" determined to be substantially responsive will be checked by PSCL for any arithmetic errors. Errors will be corrected by PSCL as follows:

- (a) Where there is a discrepancy between the rates in figures and in words, the rate in words will govern; and
- (b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quality, the unit rate as quoted will govern.

26.2 The amount stated in the "Financial Bid" will be corrected by PSCL in accordance with the above procedure and the bid amount adjusted with the concurrence of the Bidder in the following manner:

- (a) If the Bid price increases as a result of these corrections, the amount as stated in the bid will be the 'bid price' and the increase will be treated as rebate;
- (b) If the bid price decreases as a result of the corrections, the decreased amount will be treated as the 'bid price'

Such adjusted bid price shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount the Bid will be rejected, and the Earnest money may be forfeited in accordance with Sub-Clause 16.6(b).

27. Evaluation and Comparison of Financial Bids

27.1 PSCL will evaluate and compare only the Bids determined to be substantially responsive in accordance with Sub-Clause 25.2.

27.2 In evaluating the Bids, PSCL will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:

- (a) making any correction for errors pursuant to Clause 26; or
- (b) making an appropriate adjustment for any other acceptable variations, deviations.

27.3 PSCL reserves the right to accept or reject any variation or deviation. Variations and deviations and other factors, which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for PSCL, shall not be taken into account in Bid evaluation.

27.4 If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, PSCL may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, PSCL may require that the amount of the performance security set forth in Clause 31 be increased at the expense of the successful Bidder to a level sufficient to protect PSCL against financial loss in the event of default of the successful Bidder under the Contract.

27.5 A bid, in the opinion of employee which contains several items in the Bill of Quantities which are unrealistically priced low and which cannot be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

F. AWARD OF CONTRACT

28. Award Criteria

- 28.1 Subject to Clause 29, PSCL will award the Contract to the Bidder whose Bid has been determined
- (i) to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid Price; and
 - (ii) to be within the available bid capacity adjusted to account for his bid price which is evaluated the lowest in any of the packages opened earlier than the one under consideration.

In no case, the contract shall be awarded to any bidder whose available bid capacity is less than the evaluated bid price, even if the said bid is the lowest evaluated bid. The contract will in such cases be awarded to the next lowest bidder at his evaluated bid price.

29. PSCL's Right to Accept any Bid and to Reject any or all Bids

Notwithstanding Clause 28, PSCL reserves the right to accept or reject any Bid, and to cancel the Bidding process and reject all Bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for PSCL's action.

30. Notification of Award and Signing of Agreement

- 30.1 The Bidder whose Bid has been accepted will be notified of the award by PSCL prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the *General Conditions of Contract* called the "Letter of Acceptance") will state the sum that PSCL will pay the Contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").
- 30.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of the performance security in accordance with the provisions of Clause 31.
- 30.3 The Agreement will incorporate all agreements between PSCL and the successful Bidder. It will be signed by PSCL and the successful Bidder, after the performance security is furnished.

31. Performance Security

- 31.1 Within 10 (Ten) days of receipt of the Letter of Acceptance, the successful Bidder shall deliver to PSCL a Performance Security in any of the forms given below for an amount equivalent 2% of the Contract price.
- 31.2 If the performance security is provided by the successful Bidder in the form of Bank Guarantee, it shall be issued either (a) at the Bidder's option, by a Nationalized/ Scheduled Indian bank within state or (b) acceptable to PSCL.
- 31.3 Failure of the successful Bidder to comply with the requirements of Sub-Clause 31.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

32. Advance Payment and Security

- 32.1 PSCL will provide an Advance Payment on the Contract Price as stipulated in the General Conditions of Contract, subject to maximum amount, as stated in the Contract Data.

33. Corrupt or Fraudulent Practices

- 33.1 PSCL will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract with PSCL or any other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor, or in execution.
- 33.2 Furthermore, Bidders shall be aware of the provision stated in Sub-Clause and Sub-Clause 14 of the General Conditions of Contract.

G. APPENDIX to ITB

Clause Reference with respect to Section-I.

1.	Name of the Employer: Patna Smart City Ltd. (PSCL).	[Cl. 1.1]
2.	The last five years means for this tender <u>2017 - 2018</u> <u>2018 - 2019</u> <u>2019 - 2020</u> <u>2020 - 2021</u> <u>2021 - 2022</u>	
3.	The required annual financial turn over amount is Rs. 45.275 Crores	[Cl. 4.5A(a)]
4.	Value of work is Rs. 90.55 Crores (Ninety-One Crores and Fifty Five Lakhs Only)	[Cl. 4.5A(b)]
5.	Quantities of work are (i) Cement Concrete (including RCC and PSC) not less than 24,200 Cum (ii) Earthwork in Excavation & Embankment not less than 52,000 Cum (iii) Electrical Work of value not less than 2.23 Crores.	[Cl. 4.5A(c)]
6.	Liquid assets and/or availability of credit facilities is 10% Of Estimated Cost.	[Cl. 4.4B(c)]
7.	Price level of the financial year RCD 2022 & BCD 2022	
8	The pre -bid meeting will take place at PSCL office at 03:00 PM on Date 11-02-2023	[Cl. 9.1]
9.	The technical bid will be opened at 02:00 PM on 24-02-2023 through website www.eproc2.bihar.gov.in .	
10.	Address of the Employer <u>Managing Director,</u> Patna Smart City Limited. 4 th floor, ICCB Building, near SSP Office, Patna-800 001	[Cl. 4.5(a)]

11.	Identification: Bid for: Development of Mandiri Nala (remaining work) under Patna Smart City.	[/cl. 19.2(b)]										
12.	Bids may be submitted only in <u>Item Rate Method of BOQ</u>											
13.	Schedule of rate applicable for Item Rate Method is BCD/RCD SOR 2022.											
14.	The bid should be submitted (Upload) latest by 23-02-2023 upto 03:00 PM through website: www.eproc2.bihar.gov.in only.	[Cl. 20.1(a)]										
15.	The technical bid will be opened at 02:00 PM on 24-02-2023 through website www.eproc2.bihar.gov.in .	[Cl. 23.1]										
16.	The Bank Draft in favor of Managing Director, Patna Smart City Limited. Patna.	[Cl. 34.1]										
17.	<p>Escalation factors @10% (for the cost of works executed and financial figure to a common base value for works completed)</p> <p>Year before Multiply factor</p> <table> <tr> <td>One</td> <td>1.10</td> </tr> <tr> <td>Two</td> <td>1.21</td> </tr> <tr> <td>Three</td> <td>1.33</td> </tr> <tr> <td>Four</td> <td>1.46</td> </tr> <tr> <td>Five</td> <td>1.61</td> </tr> </table>	One	1.10	Two	1.21	Three	1.33	Four	1.46	Five	1.61	
One	1.10											
Two	1.21											
Three	1.33											
Four	1.46											
Five	1.61											

List of Key Plant & Equipment to be deployed during Construction.
[Ref Cl. 4.5 (B) (a)]

Details of construction and equipment/indicative likely to be used in carrying out the work

Sl.No.	Name of Equipment	No.	Capacity	Age	Condition	Ownership Status		Remarks
						Owned	Leased	
1	2	3	4	5	6	7	8	9
1	Hot mix plant batch type 100/120 TPH	1						
2	Batching Plant - 60 cum/hr	1						
3	Motor grader for grading @100 cum/hr	1						
4	Vibratory roller 8-10 tonnes @100 cum/hr	2						
5	JCB/Back Hoe	4						
6	Hydraulic Excavator 0.90 cum bucket capacity @36 cum/hr	1						
7	Tipper 5.5 cum capacity	4						
8	Tipper 10 tonne capacity	2						
9	Hydraulic Excavator 0.60 cum bucket capacity	1						
10	Concrete Kerb making/laying Machine	1						
11	Transit Mixers for concrete	4						
12	Hydra	02						
13	Welding Machine and Generator	2						
14	Dewatering Pumps (15HP)	10						At least two pumps of 60 HP capacity.
15	Genset (10 KVA)	1						

List of Key Personnel to be deployed on Contract Work (Indicative)

[Reference Cl. 4.4(B) (b)]

Sl. No.	Personnel*	Qualification	Contract Package Size						More than 50 Crores
			Rs. 5-30 Lacs	Rs. 30 Lacs to 70 Lacs	Rs. 70 Lacs to 2 Crores	Rs. 2-10 Crores	Rs. 10-30 Crores	Rs. 31-50 Crores	
1.	Project Manager	B.E Civil engineering with 15 years of experience in executing similar works							1
2.	Design Engineer	Post-Graduate in Highway/Transportation engineering with 15 years of experience in designing similar works							1
3.	Hydraulic design engineer	Post-Graduate in water resources/environmental engineering with 15 years of experience the in design of hydraulic structures/water retaining structures)							1
4.	Quantity Surveyor	B.E Civil Engineering with 5-8 years of experience							1
5.	Quality Control Engineer	B.E Civil Engineering with 8-10 years of experience							1
6.	Sr. Site Engineer	B.E Civil Engineering with 10 Years of Experience in executing similar works							1
7.	Site engineer	B.E Civil Engineering with 5 Years of Experience							4
8.	Site Engineer	B.E Electrical Engineering with 5 Year of experience							1
9.	Health safety engineer	B.E Safety Engineering with 5 years of experience							1
10.	Surveyors (Total Station)	Diploma in Civil Engineering							2
11.	Site Supervisors	Fresh Graduate in Civil Or Diploma Civil+03 years Exp Or Retired I.T.I Holder							4
	Total								18

* The designation and no. of the personnel has to be decided by the department concerned as per the requirement.

SECTION 2

QUALIFICATION INFORMATION

(To be filled in by Bidder)

QUALIFICATION INFORMATION

The information to be filled in by the Bidder in the following pages will be used for purposes of post qualification as provided for in Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract.

1. For Individual Bidders

1.1 Constitution or legal status of Bidder
(Attach copy)

Place of registration:

Principal place of business:

Power of attorney of signatory of Bid
(Attach)

1.2 Total value of Civil Engineering construction work performed in the last five years**
(in Rs. Million)

20_____	20_____
20_____	20_____
20_____	20_____

1.3.1 Work performed as prime contractor, work performed in the past as a nominated sub- contractor will also be considered provided the sub-contract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied (in the same name) on works of a similar nature over the last five years.**

Project Name	Name of the Employer *	Description of work	Contract No.	Value of Contract (Rs. In Crores)	Date of issue of work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay & work completed)

* Attach certificate(s) from the Engineer(s)-in-Charge
 ** Immediately preceding the financial year in which bids are received.
 β Attach certificate from Chartered Accountant

1.3.2. Quantities of work executed as prime contractor, work performed in the past as a nominated sub-contractor will also be considered provided the sub-contract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied (in the same name and style) in the last five years.

Year	Name of the work	Name of the Employer *	Quantity of work performed (cum) @ Remarks				Remarks* (indicate contract Ref)
			Cement Concrete (including RCC & PCC)	Earth works	HYSD Bars Reinforcement	Construction of RCC drain having minimum depth of 2.0m or more than 2.0m	
20__20__							
20__20__							
20__20__							
20__20__							
20__20__							

1.4 Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

(A) Existing commitments and on-going works:

Description of works	Place & State	Contract No.	Name & Address of Employer	Value of Contract (Rs Cr)	Stipulated Period of Completion	Value of works* remaining to be completed (Rs Cr)	Anticipated date of completion
1	2	3	4	5	6	7	8

* Attach certificate(s) from the Engineer(s)-in-Charge

@ The item of work for which data is requested should tally with that specified in ITB clause 4.5A (c)

** Immediately preceding the financial year in which bids are received.

Delete, if prequalification has been carried out.

(B) Works for which bids already submitted:

Description of works	Place & State	Name & Address of Employer	Estimated value of works (Rs Cr)	Stipulated period of completion	Date when decision is expected	Remarks, if any
1	2	3	4	5	6	7

1.4 Availability of key items of Contractor’s Equipment essential for carrying out the Works [Ref. Clause 4.5(B)(a)]. The Bidder should list all the information requested below. Refer also to Sub Clause 4.3 (d) of the Instruction to Bidders.

Description of works	Requirement		Availability proposals			Remarks (from whom to be purchased)
	No.	Capacity	Owned/Leased to be procured	Nos./Capacity	Age/Condition	
1	2	3	4	5	6	7

1.6 Qualifications and experience of key personnel required for administration and execution of the Contract [Ref. Clause 4.5(B)(b)]. Attach biographical data. Refer also to Sub Clause 4.3 (e) of instructions to Bidders and Sub Clause 9.1 of the Conditions of Contract.

Position	Name	Qualification	Year of Experience (General)	Years of experience in the proposed position
Project Manager				
Etc.				

1.7 Proposed sub-contracts and firms involved. [Refer ITB Clause 4.3(k)]

Sanction of the works	Value of Sub-contract	Sub-contractor (Name & Address)	Experience in similar work
1	2	3	4

Attach copies of certificates on possession of valid license for executing water supply/ sanitary work/ building electrification works [Reference Clause 4.5(d) & Clause 4.5(e)]

*1.8 Financial reports for the last five years: balance sheets, profit and loss statements, auditors' reports (in case of companies/corporation), etc. List them below and attach copies.

1.9 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copies of support documents.

1.10 Name, address and telephone, telex and fax numbers of the Bidders' bankers who may provide references if contacted by PSCL.

1.11 Information on litigation history in which the Bidder is involved.

Other Party(ies)	Employer	Cause of Dispute	Amount involved	Remarks showing Present Status

1.12 Statement of compliance under the requirements of Sub Clause 3.2 of the instructions to Bidders. (Name of Consultant engaged for project preparation is **)

1.13 Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents. [Refer ITB Clause 4.1 & 4.3(1)]

1.14 Programme

1.15 Quality Assurance Programme

2. Additional Requirements

2.1 Bidders should provide any additional information required to fulfill the requirements of Clause 4 of the Instructions to the Bidders, if applicable.

(i) Affidavit

(ii) Undertaking

*** (iii) Update of original prequalification application

*** (iv) Copy of original prequalification application

*** (v) Copy of prequalification letter

** *Fill the Name of Consultant.*

*** *Delete, if prequalification has not been carried out.*

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR
AVAILABILITY OF CREDIT FACILITIES**

(CLAUSE 4.2 (i) OF ITB)

BANK CERTIFICATE

This is to certify that M/s. _____ is a reputed company with a good financial standing.

If the contract for the work, namely _____ is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. _____ to meet their working capital requirements for executing to the above contract during the contract period.

(Signature)

Name of Bank

Senior Bank Manager

Address of the Bank

AFFIDAVIT

1. **I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.**

2. **The undersigned also hereby certifies that neither our firm M/s_____ has been blacklisted nor has abandoned any work in any government department, India nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.**

3. **The undersigned hereby authorizes and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by PSCL to verify this statement or regarding my (our) competence and general reputation.**

4. **The undersigned understands and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of PSCL.**

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

DATE

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s _____ would invest a minimum cash up to 25% of the value of the work during implementation of the Contract.

(Signed by an Authorised Officer of the Firm)

Title of Officer

Name of Firm

DATE

SECTION 3
GENERAL CONDITIONS OF CONTRACT

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GENERAL GUIDELINES

- 1. This book of "General Conditions of Contract" is applicable to both types of tenders i.e. "Percentage rate tenders" and "Item rate tenders". Accordingly alternative provisions for conditions Nos. 4, The appropriate alternatives will be applicable in specific cases depending on whether this is used for percentage rate tender or item rate tender.**
- 2. Schedules A to F, special conditions/ specifications and drawing only will be issued to intending bidders. The standard form shall form part of the agreement to be drawn and signed by both parties after acceptance of tender.**
- 3. All blanks are confined to Notice Inviting Tender and Schedules A to F.**
- 4. Authority approving the Notice Inviting Tender (NIT) shall fill up all the blanks in 6 and in Schedules B to F before issue of Tender Papers.**
- 5. The intending bidders will quote their rates in Schedule A.**
- 6. The Performa for registers and Schedules A to F are only for information and guidance. These are not to be filled in the Standard Form. The Schedules with all blanks, duly filled shall be separately issued to all intending tenderers.**

Patna Smart City Limited

1. Tender on the behalf of Government of Bihar invites Item rate bids from the eligible and approved contractor registered with State other State & Central Government / PSU or any Agency of National or International repute for each of the following works.

District	Name of work	Estimated cost in Rs.	Earnest money in Rs.	Time allowed for completion	Last date and time for receipt of application for issue of tender forms	Time and date of opening of tender	Place of sale and submission of tender
1	2	3	4	5	6	7	8
As per NIT							www.eproc2.bihar.gov.in <i>only</i>

The bidders who download the bidding documents from the internet site www.eproc2.bihar.gov.in would have to pay the cost of bid documents and submit it in a separate envelope marked cost of bidding document downloaded from internet.

Criteria of eligibility for issue of tender document

- 1.1 Issue of Tender to any Contractor registered with Central Government / any State Government or any PSU or an agency of international or national repute may be submitted without the registration. However, registration with the concerned works department will be essential after issue of L.O.A.

Following documents duly attested by a gazetted officer and photocopied are required at the time of submission of bid (In case of other State PWD/ CPWD/ any PSU eligible contractors or Agencies of National/ International repute following documents (from a to c) have to be submitted after letter of acceptance).

- (a) Registration paper (renewed) of appropriate class and deptt.
 - (b) Latest sales tax clearance/ sales tax registration in State of Bihar.
 - (c) Latest labour license (renewed) in State of Bihar.
 - (d) Power of attorney/ partnership deed/ MoU of private limited company.
 - (e) Bank Draft for B.O.Q. cost.
 - (f) Tools & plans ownership/ lease certificate required in aforesaid work duly verified from Executive Engineer / other State PWD / CPWD Contractor will provide definite proof from appropriate authority for tools & Plant and Undertaking to install it on works site after getting letter of acceptance.
2. Agreement shall be drawn with the successful tenderer on Agreement Form attached. Tenderer shall quote his rates as overall percentage above/below for SOR Items where as for Non SOR items bidder should quote item wise rate. The amount of B.O.Q. as per various terms and conditions of the said form which will form part of the agreement.
3. The amount of Estimated Cost or B.O.Q. Cost of the work may vary.
4. The earnest money will be applicable on the sanction cost of B.O.Q. only.

5. The time allowed for carrying out the work will be from the same day after the date of written orders to commence the work or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents.
6. The site for the work is available.

OR

The site for the work shall be made available in parts as specified below :-

7. Deleted
Tender documents consisting of plans, specifications, the schedule of quantities of the various classes of work to be done and the set of terms & conditions of contract to be complied with by the contractor whose tender may be accepted and other necessary documents can be seen at the site of the www.eproc2.bihar.gov.in. Tender documents, including standard form, will be **Downloaded** from www.eproc2.bihar.gov.in during the **Dates** specified in Appendix to ITB.
8. Original Draft of Cost of B.O.Q and Earnest Money in Prescribed form, which should always be placed in sealed envelope, with the name of work and due date written on the envelopes, will be received by the Managing Director, PSCL
9. The Contractor shall be required to deposit an **amount equal to 2% of the tendered** value of the work as performance guarantee in the form as mentioned in Bihar Financial Rules. For works costing more than one Crore, bank guarantee is acceptable.
10. The description of the work is as follows: -

As per NIT

Copies of other drawings and documents pertaining to the works will be open for inspection by the tenderers at the office of the above-mentioned officer.

Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tool & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by PSCL and local conditions and other factors having a bearing on the execution of the work.

11. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
12. The competent authority on behalf of Governor of Bihar reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall bound to perform the same at the rate quoted.
13. The contractor shall not be permitted to tender for works in the PSCL(responsible for award and execution of contracts) in which his near relative is posted as **Accountant** or as an officer in any capacity between

the grades of Superintendent Engineer and Assistant Engineer(both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any **officer** in PSCL. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of **PSCL**.

14. No Engineer of Gazetted rank or other Gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the Government of Bihar is allowed to work as a contractor for a period of two years after his retirement from Government service, without the previous permission of the Government of Bihar in writing. This contract is liable to be cancelled if either the contractor or any of his employee is found any time to be such a person who had not obtained the permission to the Government of Bihar as aforesaid before submission of the tender or engagement in the contractors service.
15. The tender for the works shall remain open for acceptance for a period of 120 days from the date of opening of tenders. If any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit **100%** of the said earnest money as aforesaid.
17. PSCL has right to cancel or postpone any work without given any notice or clarification.
18. PSCL may add or delete any of the condition required for execution of any work.
19. This Notice Inviting Tender shall form a part of the contract document. The successful tenderer/contractor, the **Competent Authority**, shall issue the letter of acceptance and will sign the contract within 15 days after submitting the performance guarantee.

Patna Smart City Limited

STATE - BIHAR

Organization: Patna Smart City Limited

Item Rate tender & Contract for Works

- (A) Tender for the work of: -
As per NIT
- (i) To be submitted (Upload) by DATE **up to TIME 4.00 PM**
- (ii) To be opened at.....**Through website** www.eproc2.bihar.gov.in

T E N D E R

I/We have read and examined the notice inviting tender, schedule, A,B,C,D,E & F. Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the Governor of Bihar within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all in respects with the specifications, designs, drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect in accordance with, such conditions so far as applicable.

We agree to keep the tender open for one hundred twenty (120) days from the due date of submission thereof and not to make any modifications in its terms and conditions.

Bid cost (Non Refundable) and EMD for one or all groups as mentioned in NIT shall be submitted by the bidder. If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/we agree that the said Governor of Bihar or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if/we fail to commence work as specified, I/we agree that Governor of Bihar or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived therefrom to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated

Signature of Contractor
Postal Address

Witness :

Address :

Occupation :

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the Governor of Bihar for a sum of Rs.....(Rupees.....)

The letters referred to below shall form part of this contract Agreement :-

- a)
- b)
- c)

For & on behalf of the Governor of Bihar.

Signature

Dated



GOVERNMENT OF BIHAR ALL WORKS DEPARTMENT

1. All work proposed for execution by contract will be notified in a form of invitation to tender pasted in public places and signed by the officer inviting tender or by publication in Newspapers and the internet as the case may be.

General Rules & Directions

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 the security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.

2. In the event of the tender being submitted by a firm, it must be signed separately either by one or all the partners or person duly authorized by the partners, it must be signed on behalf of the firm by a person holding the requisite authorizations, such authorizations to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.

3. Receipts for payment on account of work done, when executed by a firm, must also be signed by one or all the partners or a duly authorized signatory of the firm.

4. Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to 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 single tender shall include more than one work, but contractors who wish to tender two or more works shall submit separate tenders for each; with the nature and number of works to which they refer on the envelope.

The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paise and less and considering more than fifty paise as rupee one.

- 4A. In case of Percentage Rate Tenders, tenderer shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule- A, he will be willing to execute the work Tenders, which propose any alteration in the work 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 single tender shall include more than one work but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelope.

If for any special reasons, the contract provides for the payments for work done to be made at a specified percentage below or above the rates entered in the sanctioned estimate of the work (or the Scheduled of Rates), it should be stated in clear terms in the contract that the deductions or additions, as the case may be of the percentage, will be calculated on the gross, and not the net amounts of the bills for work done and in fixing the percentage it should be borne in mind that the calculations will be made.

5. The officer inviting tender or his duly authorized assistant will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amount of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money forwarded therewith shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the specifications and other documents mentioned in Rule-I. In the event of a tender being rejected, the earnest money forwarded with such unaccepted tender shall thereupon be returned to the contractor remitting the same, without any interest.

6. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.

Applicable for Item Rate Tender only (PWD- 3)

Applicable for Percentage Rate Tender only (PWD - 2)

7. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as an acknowledgment or payment to the officer inviting tender and the contractors shall be responsible for seeing that he procures a receipt signed by the office inviting tender or a duly authorized person.
8. The memorandum of work tendered for and the schedule of materials to be supplied by the department and their issue-rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his tender.
9. For works of sensitive nature the tenderers shall sign a declaration under the Official Secrets Act 1923, for maintaining secrecy of the tender documents drawing or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawing given to them.

10. In the case of Item Rate Tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy if any discrepancy found or the rates which correspond with the amount worked out of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount.

Applicable for Item Rate Tender only (PWD - 3)

- 10A. In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy. However if the contractor has worked out the amount of the tender and if any discrepancy is found in the percentage quoted in words and figures, the percentage which corresponds with the amount worked out by the contractor shall, unless otherwise proved, be take as correct. If the amount of the tender is not worked out by the contractor or it does not correspond with the percentage written either in figures or in words then the percentage quoted by the contractor in words shall be taken as correct. Where the percentage quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the percentage quoted by the contractor will, unless otherwise proved, be taken as correct and not the amount.

Applicable for Percentage Rate Tender only (PWD - 2)

11. In the case of any tender where unit rates of any item/items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation such a tender is liable to be disqualified and rejected.

12. All rates shall be quoted on the tender form. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs 2.15 P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written in the end. Unless the rate is in whole rupee and followed by the word 'only' it should invariably be up to two decimal places. While quoting the rate in schedule of quantities, the word 'only' should be written closely following the amount and it should not be written in the next line.

Applicable for Item Rate Tender only

- 12A. In Percentage Rate Tender, the tenderer shall quote percentage below/above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word 'Rs' should be written before the figure of rupees and word P after the decimal figures, e.g. 'Rs 2.15 P' and in case of words, the word 'Rupees' should precede and the word 'paise' should be written at the end.

Applicable for Percentage Rate Tender only (PWD- 2)

The Quoted rate less than x % below the BOQ cost will be unworkable and bid will be rejected where x = 10 %; if materials will not be issued by PSCL. And if materials will be issued by PSCL then

$$X = (A - B) / A \times 10 \%$$

Where A = BOQ Cost

B = Cost of materials stipulated to be issued by PSCL.

Where the value of X will not be less than 10% in other words it will be within 10%.

13. (i) The contractor whose tender is accepted, will be required to furnish performance guarantee of 2 (two percent) including earnest money of the tendered amount within specified period. This guarantee shall be in the form of Govt. Securities or fixed deposit receipt of any scheduled bank, guarantee bonds of any scheduled bank or State Bank of India or Bank guarantee from any schedule bank in the State for works of more than one crore.
- (ii) The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 8 % of the tendered value of the work. The security deposit will be collected by deductions from the running bills of the contractor at the rates mentioned above
14. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated in writing to the Engineer-in-Charge.
15. Sales-tax, purchase tax, turnover tax, service tax, entry tax royalty or any other tax on material in respect of this contract shall be payable by the Contractor and Government will not entertain any claim whatsoever in respect of the same.
16. The contractor shall give a list of both gazetted and non-gazetted P.W.D. employees related to him posted in the division, if any.
17. The tender for the work shall not be witnessed by a contractor or contractors who himself/themselves has/have tendered or who may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.
18. The tender for composite work includes in addition to building work all other works such as sanitary and water supply installations drainage installation, electrical work, horticulture work, roads and paths etc. The tenderer apart from being a registered contractor (B&R) of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for sanitary and water supply drainage, electrical and horticulture works in the composite tender.
19. The contractor shall submit list of works which are in hand (progress) in the following form:-

Name of Work	Name of Particular of Div. where work is	Value of Work	Position of work in Progress	Remarks
1	2	3	4	5

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20. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintendent Engineer/ Executive Engineer may in his discretion without prejudice to any other right or remedy available in law cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CONDITIONS OF CONTRACT

- Definitions :**
1. The contract means the document forming the tender and acceptances thereof and the formal agreement executed between the competent authority on behalf of the Governor of Bihar and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time form one contract and shall be complementary to one another.
 2. In the contract, the following expressions shall, unless the context otherwise requires have the meanings, hereby respectively assigned to them :-
 - i) The expression works or work shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
 - ii) The site shall mean the land/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
 - iii) The Contractor shall mean the individual, firm or company, whether incorporate or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm of company.
 - iv) The Engineer-in-Charge means the Engineer officer who shall supervise and be in-charge of the work and who shall sign the contract on behalf of the Governor of Bihar as mentioned in Schedule 'F' hereunder.
 - v) Government or Government of Bihar shall mean the Governor of Bihar.
 - vi) Excepted Risk are risks due to riots (other than those on account of contractor employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, any act of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority Provided that the contractor is also to show that he has taken all due precautions to avoid / un minimise any adverse after / damage from the above or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a caused solely due to Government's faulty design of works.
 - vii) Bill of quantity means the price and completed Bill of Quantities forming part of the Bid.
 - viii) The Defect liability certificate is the certificate issued by Engineer-in-Charge after defect liability period has ended and upon correction of defects by the contractor.
 - ix) The defect liability period will be decided by PSCL for different nature of works from date of completion of the work and must be mentioned in the agreement.

It will be decided by the department for different nature of work from time to time as mentioned in contract Data.
 - x) The intended completion date is the time intended to complete the work by the contractor.
 - xi) The start date is given in the contract data. It is the date when the contractor shall commence execution of the works. It does not necessarily coincide with any of the site possession date.
 - xii) A subcontractor is a person or corporate body who has a contract with the contractor to carry out a part of the construction work in the contract, which includes work on the site.
 - xiii) Temporary works are works designed, constructed, installed and removed by the contractor that are needed for construction or installation of the works.
 - xiv) Market Rate shall be the rate as decided by the competent authority on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits.

- xv) Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Government mentioned in Schedule 'F' hereunder, with the amendments thereto issued up to date of receipt of the tender.
- xvi) Department means any department of Government of Bihar, which invite tenders on behalf of Governor of Bihar as specified in schedule 'F'.
- xvii) Specifications means the specifications followed by relevant department of the Government of India / State Government.
- xviii) Tender value means the value of the entire work as stipulated in the letter award.

Scope and Performance

- 3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
- 4. Heading and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
- 5. The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Schedule of Rates and such other printed and published documents, together with all drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

Works to be carried out:

- 6. The work to be carried out under the Contract shall, except as otherwise provided these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities (Schedule - A) shall unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

Sufficiency of Tender

- 7. The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

Discrepancies and Adjustments

- 8. The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions.
- 8.1 In the case of discrepancy between the schedule of Quantities, the Specifications and/or the Drawings, the following order of preference shall be observed :-
 - i) Description of Schedule of Quantities.
 - ii) Particular Specification and Special Condition, if any
 - iii) Drawings.
 - iv) MORT & H specification.
 - v) Indian Standard Specifications of B.I.S.
- 8.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.
- 8.3 Any error in description, quantity or rate in Schedule of Quantities or any omission therefrom shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

Signing of Contract

- 9. The successful tenderer/contractor, after submitting the performance guarantee i.e. within 15 days of receipt of letter of acceptance shall attend the office of the Engineer-in-Charge for authentication signing and completion of the contractor document and execute the agreement consisting of :-

- i) the notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
- ii) Standard P.W.D. Form as mentioned in Schedule 'F' consisting of :
Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexure thereto.
- iii) Drawing.

CLAUSE OF CONTRACT

CLAUSE 1

Performance Guarantee

- (i) The contractor shall submit an irrevocable PERFORMANCE GUARANTEE of 2% (Two percent) of the tendered amount including earnest money in the shape as mentioned in the Bihar Financial Rules or Bank Guarantee (for work costing more than one crore) or any other deposits mentioned for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in scheduled 'F' from the date of issue of letter of acceptance. This period can be further extended by the Engineer-in-Charge up to a maximum period as specified in schedule 'F' on written request of the contractor stating the reason for delays in procuring the Bank Guarantee, to the satisfaction of the Engineer-in-Charge. This guarantee shall be in the form of N.S.C. of Post Office/ Pledged in favour of department; D.D. of any Scheduled Bank or State Bank of India or Bank Guarantee (for work costing more than Rupees one Crore.
- (ii) The performance Guarantee shall be initially valid up to 28 days beyond the defect liability.
- (iii) The Engineer-in-Charge shall not make a claim under the Performance guarantee except for amounts to which the Governor of Bihar is entitled under the contract (notwithstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
 - (a) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance guarantee.
 - (b) Failure by the contractor to pay Governor of Bihar any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer-in-Charge.
 - (c) Failure by the contractor to rectify any defects as defined in the defect liability clause in the schedule - F of contract data to the satisfaction of the Engineer incharge.
- (iv) In the event of the contract being determined or rescinded under provisions of any of the clause/condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Governor of Bihar. ...

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CLAUSE 1 A

Recovery of Security Deposit

The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit PSCL at the time of making any payment to him for work done under the contract to deduct a sum at 8 % (eight percent) from the gross amount of each running bill till full amount of security deposit 10% (ten percent) of agreement value or value of work (whichever is higher) is reached. If value of work exceeds the agreement value, security deposit (10%) will be recovered for the exceeded work.

All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due to or may become due to the contractor by Government on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by Scheduled Banks or Government Securities (if deposited for more than 12 months) endorsed in favour of the Engineer-in-Charge, 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 shall be collected from the running bills of the contractor at the rates mentioned above and the earnest money at the time of tenders will be treated a part of the Security Deposit.

CLAUSE 2

Compensation for Delay (Liquidated Damage) If the contractor fails to maintain the required progress in terms of clause 5 or to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the Superintending Engineer (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day/month (as applicable) that the progress remains below that specified in Clause 5 or that the work remains incomplete.

This will also apply to items or group of items for which a separate period of completion has been specified.

i) *Compensation for delay of work -@ 2 % per month of delay to be computed on per Day basis*

Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the Tendered Value of work or to the Tendered Value of the item or group of items of work for which a separate period of completion is originally given.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the PSCL. In case, the contractor does not achieve a particular milestone mentioned in schedule- F, or the rescheduled milestone(s) in terms of Clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of extension of time. Withholding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

CLAUSE 2A

Incentive for early completion In case, the contractor completes the work ahead of scheduled completion time, a bonus @ 1% (one percent) of the tendered value per month computed on per day basis, shall be payable the contractor, subject to a maximum limit of 5% (five percent) of the tendered value. The amount of bonus, if payable, shall be paid along with final bill after completion of work. Provided always that provision of the Clause 2A shall be applicable only when so provided in 'Schedule F'.

CLAUSE 3

When Contract can be Determined / Resigned Subject to the other provisions contained in this clause the Engineer-In-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- ii) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wind up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- iii) if the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date of completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- iv) If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of

completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.

- v) If the contractor persistently neglects to carry out his obligations under the contract and/or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- vi) If the contractor commits any acts mentioned in Clause 21 hereof:
- vii) If the work is not started by the contractor within 1/8th of the stipulated time subject to the maximum of 45 days.

When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the Governor of Bihar shall have powers:

- a) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of Engineer-in-Charge shall be conclusive evidence). Upon such determination or rescission the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Government.
- b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined or rescinded as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above course(s) being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

CLAUSE 3A

In case, the work cannot be started due to reasons not within the control of the contractor as decided by Chief Engineer within ¼th of the stipulated time for completion of work, either party may close the contract. In such eventuality, the Earnest Money deposit and the Performance Guarantee of the contractor shall be refunded, but no payment on account of interest, loss of profit or damages etc. shall be payable at all. the reasons shall be examined by the Superintending Engineer and his decision shall be final and binding.

CLAUSE 4

Contractor liable to pay compensation even if action not taken under Clause 3 In any case in which any of the powers conferred upon the Engineer-in-Charge by Clause- 3 thereof, shall have become exercisable and the same are not exercised the non-exercise thereof shall not constitute a waiver 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 and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work. or any part thereof, paying or allowing for the same in account at the contract rates or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor, clerk of the works, foreman or other authorized agent to remove such tools, plant,

materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

CLAUSE 5

Time and Extension for Delay

The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in letter of acceptance or from the date of handing over of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, Government shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the security deposit absolutely.

- 5.1 As soon as possible after the contract is concluded the Contractor shall submit a Time & Progress Chart for each milestone and get it approved by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the work. It shall indicate the forecast of the dates of commencement and completion of various trades or sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and Contractor within the limitations of time imposed in the contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate Programme has been agreed upon) complete the work as per milestone given in schedule 'F'.
- 5.2 If the work(s) be delayed by.
- i) force majeure, or
 - ii) Serious loss or damage by fire, or
 - iii) Civil commotion, local.
 - iv) delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or
 - v) Non-availability of stores, which are the responsibility of Government to supply or
 - vii) Non-availability or break down of tools and Plant to be supplied or supplied by Government or
 - vii) any other cause which, in the absolute discretion of the authority mentioned in Schedule 'F' is beyond the Contractor's control.

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

- 5.3 Request for the rescheduling of Milestones and extension of time, to be eligible for consideration, shall be made by the contractor in writing within fourteen days of the happening of the hindering event causing delay on the prescribed form. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.
- 5.4 In any such case the authority mentioned in Schedule 'F' may give a fair and reasonable extension of time and reschedule the milestones for completion of work. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, within 3 months of the date of receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-Charge and this shall be binding on the contractor.
- 5.5 The basic centerlines, reference points and benchmarks will be fixed by the department. The contractor shall established at his own cost at suitable points, additional reference lines and bench marks as may be necessary and instructed by the engineer-in-charge. The contractor shall remain responsible for the sufficiency and accuracy of all the bench marks and reference lines.

CLAUSE 5A

The Engineer may require the contractor to attend a progress review meeting during execution of work.

The Engineer shall record the minutes of the meeting and provide a copy to the Contractor for compliance. These minutes will be a part of evidence in case of any request for extension of time or impunitive action against the contractor.

CLAUSE 6

Measurement of Work Done Engineer-in-Charge shall, except as otherwise provided, ascertain and determine measurement and the value in accordance with the contract of work done.

All measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works perform under the contract.

All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative at bast once in a month during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor.

The contractor shall, without extra charge, provide all assistance with every appliance labour and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of India Standards and if for any item no such standard is available then a mutually agreed method as approved by the department shall be followed.

The contractor shall give not less than seven days notice to the Engineer-in-Charge or his authorized representative 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 dimension thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-n-Charge or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement defects noticed till completion of the defects liability period.

CLAUSE 7

Payment on Intermediate Certificate to be Regarded as Advances

No payment shall be made for work for less than the estimated work of Rs. 2.5 Lacs till the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rs. 2.5 Lacs the interim or running account bill shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the Department in triplicate on or before the date of every month fixed for the same by the Engineer-in-Charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. The Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in-Charge shall prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge. The amount admissible shall be paid by 10th working day after the day of presentation of the bill by the Contractor to the Engineer-in-Charge or his Assistant Engineer together with the account of the material issued by the department, or dismantled materials, if any. In the case of works outside the headquarters of the Engineer-in-Charge the period of ten working days will be extended to fifteen working days.

All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-Charge relating to the work done or materials delivered forming part of such payment may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer-in-Charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion interim payments shall continue to be made as herein provided as per clause - 2, without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

CLAUSE 8

Completion Certificate and Completion Plans

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within fifteen days of the receipt of such notice the Engineer-in-Charge shall inspect the work and if there is no defect in the work shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of execution thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary

arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-Charge may at the expense of the contractor remove such scaffolding surplus materials and rubbish etc. and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realised by the sale thereof.

CLAUSE 8A

Contractor to Keep Site Clean

When the annual repairs and maintenance of works are carried out, the splashes and droppings from white washing, color washing, painting etc. on walls, floor, windows etc. shall be removed and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc. where the work is done without waiting for the actual completion of all the other items of work in the contract. In case the contractor fails to comply with the requirements of this clause, the Engineer-in-Charge shall have the right to get this work done at the cost of the contractor either departmentally or through any other agency. Before taking such action, the Engineer-in-Charge shall give ten days notice in writing to the contractor.

CLAUSE 8 B

Completion Plans to be Submitted by the Contractor

The contractor shall submit completion plan as required vide General Specifications for Electrical works (Part-I internal) 1972 and (Part-II External) 1974 as applicable within thirty days of the completion of the work.

In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the value of the work subject to a ceiling of Rs. 15,000 (Rs. Fifteen thousand only) as may be fixed by the Superintending Engineer concerned and in this respect the decision of the Superintending Engineer shall be final and binding on the contractor.

CLAUSE 9

Payment of Final Bill

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within the period specified herein under, the period being reckoned from the date of receipt of the bill by the Engineer-in-Charge or his authorized Assistant Engineer, complete with account of materials issued by the Department and dismantled materials.

i) If the Tended value of work is up to Rs. 1 crores : 2 months

ii) If the Tended value of work exceeds Rs. 1 crores : 4 months

CLAUSE 9 A

Payment of Contractor's Bills to Banks

Payments due to the contractor may, if so desired by him, be made to his bank instead of direct to him provided that the contractor furnishes to the Engineer-in-Charge (1) an authorisation in the form of a legally valid document such as a power of attorney conferring authority on the bank to receive payments and (2) his own acceptance of the correctness of the amount made out as being due to him by PSCL or his signature on the bill or other claim preferred against PSCL before settlement by the Engineer-in-Charge of the account or claim by payment to the bank. While the receipt given by such banks shall constitute a full and sufficient discharge for the payment, the contractor shall wherever possible present his bills duly receipted and discharges through his bankers.

Nothing herein contained shall operate to create in favour of the bank any rights or equities vis-a-vis the Governor of Bihar.

CLAUSE 10

Materials supplied by PSCL

Materials which PSCL will supply in rare case are shown in schedule 'B' which also stipulates quantum, place of issue and rate(s) to be charged in respect thereof. The contractor shall be bound to procure them from the Engineer-in-Charge.

As soon as the work is awarded, the contractor shall finalise the programme for the completion of work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings/or schedule of quantities of the work. The Contractor shall give in writing his requirement to the Engineer-in-Charge which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in-Charge, in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement.

Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills the contractor shall certify that balance of materials supplied is available at site in original good condition.

The contractor shall submit along with every running bill (on account or interim bill) material wise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section-wise in the case of steel) and resulting variations and reasons therefore. Engineer-in-Charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory.

The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as directed by the engineer-in-charge. Notwithstanding anything to the contrary contained in any other clause of the contract and (or the PWD Code) all stores/materials so supplied to the contractor or procured with the assistance of the PSCL shall remain the absolute property of PSCL and the contractor shall be the trustee of the stores/materials, and the said stores/materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open to inspection by the Engineer-in-Charge or his authorized agent. Any such stores/materials remaining unused shall be returned to the Engineer-in-Charge in as good a condition in which they were originally supplied at a require, but in case it is decided not to take back the stores/materials the contractor shall have no claim for compensation on any account of such stores/materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to in such stores/materials.

On being required to return the stores/materials, the contractor shall hand over the stores/materials on being paid or credited such price as the Engineer-in-Charge shall determine, having due regard to the condition of the stores/materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the storage charge, if any. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to the throwing himself open to account for contravention of the terms of the licenses or permit and/or for criminal breach of trust, be liable to Government for all advantages or profits resulting or which in the usual course would have resulted to him by reason or such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non-supply thereof all or any such materials and stores provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the Government within the original scheduled time for completion of the work plus 50% thereof or schedule time plus 6 months whichever is more if the time of completion of work exceeds 12 months but if a part of the materials only has been supplied within the aforesaid period then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the aforesaid period. For the completion of the rest of the work, the contractor shall be entitled to such extension of time as may be determined by the Engineer-in-Charge whose decision in this regard shall be final and binding on the contractor.

The contractor shall see that only the required quantities of materials are got issued. Any such material remaining unused and in perfectly good/original condition at the time of completion or determination of the contract shall be returned to the Engineer-in-Charge at the stores from which it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading, transporting, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place of issue. Quantities issued in excess of requirement with respect to work done and not returned back to the department, recovery will be made of double of issue rate.

CLAUSE 10 A

Materials to be provided by the Contractor

The contractor shall, at his own expense, provide all materials, required for the works other than those, which are stipulated, to be supplied by the PSCL.

The contractor shall, at his own expense and without delay, supply to the Engineer-in-Charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply. The Engineer-in-Charge shall within fifteen days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether sample are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-Charge shall be issued after the test results are received.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in-Charge or his authorized representative shall at all time have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.

The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss for damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full powers to require other proper materials to be substituted thereof and in case of default the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall borne by the Contractor.

CLAUSE 10 B

Secured Advance on Non-perishable Materials

- i) The contractor, on signing an indenture in the form to be specified by the Engineer-in-Charge, shall be entitled to be paid during the progress of the execution of the work up to 75% of the assessed value of any materials which are in the opinion of the Superintending Engineer nonperishable, non-fragile and noncombustible and are in accordance with the contract and on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which advance has been made under this sub-clause are incorporated in the work the amount of such advance shall be recovered/deducted from the next payment made under any or the clause or clauses of this contract.

- ii) Mobilization advance not exceeding 10% of the tendered value may be given, if requested by the contractor in writing within one month of the order to commence the work. In such a case the contractor shall execute a Bank Guarantee/ Bond from a Scheduled Nationalised Bank as specified by the Engineer-in-Charge for the full amount of such advance before it is released. Such advance shall be in two or more installments to be determined by the Engineer-In-charge at his absolute discretion. The first installment of such advance before shall be released by the Engineer-in-Charge to the contractor on a request made by the contractor to the Engineer-in-Charge in this behalf. The second and subsequent installment shall be released by the Engineer-in-Charge only after the contractor furnishes a proof of the satisfactory utilisation of the earlier installment to the entire satisfaction of the Engineer-In-Charge.

**Plant &
Machinery &
Shuttering
Material
Advance**

- iii) An advance for plant machinery required for the work and brought to site by the Contractor may be given if requested by the contractor in writing within one month of bringing such plant and machinery to site. Such advance shall be given on such plant and machinery which in the opinion of the Engineer-in-Charge will add to the expeditious execution of work and improve the quality of work. The amount of advance shall be restricted to 5% of the tender value. In the case of new plant and equipment to be purchased for the work the advance shall be restricted to 85% of the price of such new plant and equipment paid by the contractor for which the contractor shall produce evidence satisfactory to the Engineer-in-Charge and approval from Engineer-in-Charge. In the case of second hand and used plants and equipment, the amount of such advance shall be limited to 50% of the depreciated value of plant and equipment as may be decided by the Engineer-in-Charge. The contractor shall, if so required by the Engineer-in-Charge, submit the statement value of such old plant and equipment duly approved by a Registered Value recognized by the Central Board of Direct Taxes under the Income-Tax Act, 1961. No such advance shall be paid on any plant and equipment of perishable nature and on the plant and equipment of a value less than Rs. 50,000/- Seventy five percent of such amount of advance shall be paid after the plant & equipment is brought to site and balance twenty five percent on successfully commissioning the same only after approval from Engineer-in-Charge.

Leasing of equipment shall be considered at par with purchase of equipment and shall be covered by tripartite agreement with the following:

1. Leasing company which gives certificate of agreeing to lease equipment to the contractor.
2. Engineer in Charge, and
3. The contractor.

This advance shall further be subject to the condition that such plant and equipment (a) are considered by the Engineer-in-Charge to be necessary for the works; (b) and are in and are maintained in working order; (c) hypothecated to the PSCL as specified by the Engineer-in-Charge before the payment of advance is released. The contractor shall not be permitted to remove from the site such hypothecated plant and equipment without the prior written permission of the Engineer-in-Charge. The contractor shall be responsible for maintaining such plant and equipment in good working order during the entire period of hypothecation falling which such advance shall be entirely recovered in lump sum. For this purpose steel scaffolding and from work shall be treated as plant and equipment.

The contractor shall insure the Plant and Machinery for which mobilization advance is sought and given, for a sum sufficient to provide for their replacement at site. Any amounts not recovered from the insurer will be borne by the contractor.

- iv) The mobilization advance and plant and machinery advance in (ii)&(iii) above bear simple interest and should be equal to the prevailing rate of interest charged by the bank as mentioned in contract date schedule 'F' and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the contractor's bills commencing after first ten per cent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty per cent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of the installment.

**Interest &
Recovery**

- v) If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance and plant and equipment advance may be extended in the discretion of the Chief Engineer.
- vi) The said bank guarantee for advances shall initially be made for the full amount and valid for the contract period, and be kept renewed from time to time to cover the balance amount and likely period of complete recovery together with interest.
- vii) Any materials including tools plants equipments etc brought to the site shall not be removed from the sites without the written permission of the Engineer-in-charge.

CLAUSE 10 C

Payment on Account of Increase in Prices/Wages due to Statutory Order(s)

If after submission of the tender the price of any material incorporated in the works (not being a material supplied from the Engineer-in-Charge's stores in accordance with clause 10 thereof) and/or wages of labour increases as a direct result of the coming into force of any fresh law, or statutory rule or order (but not due to any changes in sales tax) and such increase in the price and/or wages prevailing at the time of the last stipulated date for receipt of the tenders including extensions if any for the work, and the contractor thereupon necessarily and properly pays in respect of that material (incorporated in the works) such increased price and/or in respect of labour engaged on the execution of the work such increased wages, then the amount of the contract shall accordingly be varied and provided further that any such increase shall not be payable if such increase has become operative after the stipulated date of completion of the work in question.

If after submission of the tender, the price of any material incorporated in the works (not being a material supplied from the Engineer-in-Charge's stores in accordance with clause 10 thereof) and/or wages of labour is decreased as a direct result of the coming not force of any law or statutory rules or order (but not due to any changes in sales tax) and such decrease in the prices and/ or wages prevailing at the time of receipt of the tender for the work. The government shall in respect of materials incorporated in the works (not being materials supplied from the Engineer-in-Charge's stores in accordance with Clause-10 hereof) and/or labor engaged on the execution of the work after the date of coming into force of such law statutory rule or order be entitled to deduct from the dues of the contractor such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any for the work and the price of materials and/or wages of labour on the coming into force of such law, statutory rule or order.

The contractor shall, for purpose of this condition, keep such books of account and other documents as are necessary to show the amount of any increase claimed or reduction available and shall allow inspection of the same by a duly authorised representative of PSCL, and further shall, at the request of the Engineer-in-Charge may require any documents so kept and such other information as the Engineer-in-Charge may require.

The contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such material and/or wages of labour, give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply.

CLAUSE 10 CA

Payment on Account of Increase/decrease in Prices of construction materials after receipt of tender.

If after submission of the tender, the price of cement or steel reinforcement bars / bitumen incorporated in the works (not being a material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) increase(s) beyond the price(s) prevailing at the time of the last stipulated date for receipt of tenders (including extensions, if any) for the work, then the amount of the contract shall accordingly be varied and provided further that any such increase shall not be payable if such increase has become operative after the stipulated date of completion of work in question.

If after submission of the tender, the prices of cement and/or steel reinforcement bars / bitumen incorporated in the works (not being a material stipulated from the Engineer-in-Charge's stores in accordance with the Clause 10 thereof) is decreased, Government shall in respect of these materials incorporated in the works (not being materials supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) be entitled to deduct from the dues of the

contractor such amount as shall be equivalent to the difference between the prices of Cement and/or Steel reinforcement bars/ bitumen as prevailed at the time of last stipulated date for receipt of tenders including extensions if any for the work and the prices of these materials on the coming into force of such base price of cement and/or steel reinforcement bars/ bitumen issued under authority of Schedule of Rate Committee.

The increase/decrease in prices shall be determined by the All India Wholesale Price Indices for Cement and Steel (bars and rods) as published by Economic Advisor to Government of India, Ministry of Commerce and Industry and base price for cement and/or steel reinforcement bars / bitumen as issued under authority of Schedule of Rate Committee as valid on the last stipulated date of receipt of tender, including extension if any and for the period under consideration.

The amount of the contract shall accordingly be varied for cement or steel reinforcement bars / bitumen and will be worked out as per the formula given below:-

Adjustment for cement component

- (i) Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula:

$$V_0 = 0.85 \times P_c / 100 \times R \times (C_1 - C_0) / C_0$$

V_0 = increase or decrease in the cost of work during the month under consideration due to changes in rates for cement.

R = Value of the work.

C_0 = The all India wholesale price index for cement on 28 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi.

C_1 = The all India average wholesale price index for cement for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_c = Percentage of cement component of the work.

Adjustment for Steel component

- (ii) Price adjustment for increase or decrease in the cost of steel procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s / 100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for steel.

S_0 = The all India wholesale price index for steel (Bars and Rods) on 25 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India New Delhi.

S_1 = The all India average wholesale price index for steel (Bars and Rods) for the month under consideration as published by Ministry of Industrial Development, New Delhi.

P_s = Percentage of Steel component of the work.

Note : For the application of this clause, index of Bars and Rods has been chosen to represent steel group.

Adjustment of bitumen component

- (iii) Price adjustment for increase or decrease in the cost of bitumen shall be paid in accordance with the following formula:

$$V_b = 0.85 \times P_b / 100 \times R \times (B_1 - B_0) / B_0$$

V_b = Increase or decrease in the cost of work during the month under consideration due to changes in rates for bitumen.

B_0 = The office retail price of bitumen at the IOC depot at nearest center on the day 28 days prior to date of opening of Bids.

B_1 = The official retail price of bitumen of IOC depot at nearest center for the 15th day of the month under consideration.

P_b = Percentage of bitumen component of the work.

CLAUSE 10 CC

Payment due to increase / Decrease in Prices / Wages after receipt of tender (Time of completion more than 18 months)

Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with the following principles and procedures and as per formula given in the contract data :

(a) The price adjustment shall apply for the work done from the start date given in the contract data upto end of the initial intended completion date or extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor.

(b) Following expressions and meanings are assigned to the work done during each month:

R = Total value of work done during the month. It would include the amount of secured advance granted, if any, during the month, less the amount of secured advance recovered, if any during the month. It will exclude value for works executed under variations for which price adjustment will be worked separately based on the terms mutually agreed.

(c) To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

The formula (e) for adjustment of prices are:

Adjustment for labour component

(i) Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:

$$V_L = 0.85 \times P_1 / 100 \times R \times (L_1 - L_0) / L_0$$

V_L = increase or decrease in the cost of work during the month under consideration due to changes in rates for local labour.

L_0 = the consumer price index for industrial workers for the State on 28 days preceding the date of opening of Bids as published by Labour Bureau, Ministry of Labour, Government of India.

L_1 = The consumer price index for industrial workers for the State for the under consideration as published by Labour Bureau, Ministry of Labour, Government of India.

P_1 = Percentage of labour component of the work.

Adjustment for cement component

(ii) Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula:

$$V_0 = 0.85 \times P_0 / 100 \times R \times (C_1 - C_0) / C_0$$

V_0 = increase or decrease in the cost of work during the month under consideration due to changes in rates for cement.

C_0 = The all India wholesale price index for cement on 28 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi.

C_1 = The all India average wholesale price index for cement for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_c = Percentage of cement component of the work.

Adjustment for Steel component

(iii) Price adjustment for increase or decrease in the cost of steel procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s / 100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for steel.

S_0 = The all India wholesale price index for steel (Bars and Rods) on 25 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India New Delhi.

S_1 = The all India average wholesale price index for steel (Bars and Rods) for the month under consideration as published by Ministry of Industrial Development, New Delhi.

P_1 = Percentage of labour component of the work.

Note : For the application of this clause, index of Bars and Rods has been chosen to represent steel group.

Adjustment of bitumen component

(iv) Price adjustment for increase or decrease in the cost of bitumen shall be paid in accordance with the following formula:

$$V_b = 0.85 \times P_b / 100 \times R \times (B_1 - B_0) / B_0$$

V_b = Increase or decrease in the cost of work during the month under consideration due to changes in rates for bitumen.

B_0 = The office retail price of bitumen at the IOC depot at nearest center on the day 28 days prior to date of opening of Bids.

B_1 = The official retail price of bitumen of IOC depot at nearest center for the 15th day of the month under consideration.

P_1 = Percentage of bitumen component of the work.

Adjustment of POL (fuel and lubricant) component

(v) Price adjustment for increase or decrease in the cost of POL (fuel and lubricant) shall be paid in accordance with the following formula.

$$V_f = 0.85 \times P_f / 100 \times R \times (F_1 - F_0) / F_0$$

V_f = Increase or decrease in the cost of work during the month under consideration due to changes in rates for fuel and lubricants.

F_0 = The official retail price of High Speed Diesel (HSD) at the existing consumer pumps of IOC at nearest center on the day 28 days prior to the date of opening of Bids.

F_1 = The official retail price of HSD at the existing consumer pumps of IOC at nearest center for the 15th day of month of the under consideration.

P_1 = Percentage of fuel and lubricants component of the work.

Note : For the application of this clause, the price of High Speed Diesel oil has been chosen to represent fuel and lubricants group.

Adjustment for Plant and Machinery Spares component

- (vi) Price adjustment for increase or decrease in the cost of plant and machinery spares procured by the Contractor shall be paid in accordance with the following formula :

$$V_p = 0.85 \times P_p / 100 \times R \times (P_1 - P_0) / P_0$$

V_p = Increase or decrease in the cost of work during the month under consideration due to changes in rates for plant and machinery spares.

P_0 = The all India wholesale price index for heavy machinery and parts on 28 days preceding the date of opening of Bids as published by the Ministry of Industrial Development Government of India, New Delhi.

P_1 = The all India average wholesale price index for heavy machinery and parts for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_1 = Percentage of plant and machinery spares component of the work.

Note : For the application of this clause, index of Heavy Machinery and Parts has been chosen to represent the Plant and Machinery Spares group.

Adjustment of other materials component

- (vii) Price adjustment for increase or decrease in cost of local materials other than cement, steel, bitumen and POL procured by the contractor shall be paid in accordance with the following formula:

$$V_m = 0.85 \times P_m / 100 \times R \times (M_1 - M_0) / M_0$$

V_m = Increase or decrease in the cost of work during the month under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL.

M_0 = The all India wholesale price index (all commodities) on 28 days preceding the date of opening of Bids, as published by the Ministry of Industrial Development, Government of India, New Delhi.

M_1 = The all India wholesale price index (all commodities) for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_1 = Percentage of local material component (other than cement, steel, bitumen and POL) of the work.

The following percentages will govern the price adjustment for the entire contract:

1.	Labour - P_1	25 %	}
2.	Cement - P_c	5 %	
3.	Steel - P_s	5 %	
4.	Bitumen - P_b	10 %	
5.	POL - P_f	5 %	
6.	Plant & Machinery Spares - P_p	5 %	
7.	Other materials - P_m	45 %	
	Total	100%	

- (viii) In contract where clause 10CA is applicable, this clause 10CC will not be applicable and in contract where this clause 10CC is applicable previous clause 10CA will not be applicable.

CLAUSE 10 D

Dismantled Material Govt.

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as Government's property and such materials shall be disposed off to the best advantage of Government according to the PWD codal provision.

CLAUSE 11

Work to be Executed in Accordance with Specifications, Drawings, Orders etc

The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge and the contractor shall be furnished free of charge one copy of the contract documents together with specification, designs, drawings and instruction as are not included in the standard specifications of Public Works Department specified in Schedule 'F' or in any Bureau of Indian Standard or any other, published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

CLAUSE 12

Deviations/ Variations Extent and Pricing

The Engineer-in-Charge (As per codal provision) shall have power (i) to make alternation in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge after approval from competent authority and such alterations omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

12.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered be extended, if requested by the contractor, as follows:

- i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus.
- ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge after approval from competent authority

12.2 In the case of extra item(s) the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the Engineer-in-Charge after approval from competent authority shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates as per power delegated in PWD Code and on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

In the case of substituted items, the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the aforesaid para.

- (a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- (b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent

of the difference between the market rates of substituted item and the agreement item (to be substituted).

**Deviation,
Deviated
Quantities,
Pricing**

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in Schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis, for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates as per power delegated in PWD Code and on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

- 12.3 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule 'F' and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of receipt of the notice, revise the rates as per power delegated in PWD Code for the work in question within one month of expiry of the said period of fifteen days having regard to the market rates or current schedule of rate.
- 12.4 The contractor shall send to the Engineer-in-Charge once every three months an up to date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge after approval from competent authority which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Superintending Engineer is authorized for consideration of such claims on merits.
- 12.5 For the purpose of operation of Schedule 'F' the following works shall be treated as works relating to foundation :
- i) For buildings, compound walls plinth level or 1.2 meters (4 feet) above ground level whichever is lower excluding items of flooring and D.P.C. but including base concrete below the floors.
 - ii) For abutments, piers, retaining walls of culverts and bridges, walls of water reservoirs the bed of floor level.
 - iii) For retaining walls where floor level is not determinate 1.2 meters above the average ground level or bed level.
 - iv) For Roads all items of excavation and filling including treatment of sub-base.
- 12.6 Any operation incidental to or necessary has to be in contemplation of tenderer while filing tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

CLAUSE 13

**Foreclosure of
Contract due to
Abandonment
or Reduction in
Scope of Work**

If at any time after acceptance of the tender Government shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Engineer-in-Charge shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates for works executed at site only.

CLAUSE 14

**Cancellation of
contract in full or
part**

If the contractor :

- i) at any time makes default in proceeding with the works or any part of the work with due diligence and continues to do so after a notice in writing of 7 days from the Engineer-in-Charge; or
- ii) Commits default to comply with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or
- iii) Fails to complete the works or items of work with individual dates of completion, on or before the date(s) of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or
- iv) Shall offer or give or agree to give to any person in Government service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Government; or
- v) Shall enter into a contract with Government/ PSCL in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Accepting Authority/Engineer-in-Charge; or
- vi) Shall obtain a contract with Government / PSCL as a result of wrong tendering or other non-bonafide methods of competitive tendering; or
- vii) Being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or
- viii) Being a company, shall pass a resolution or the Court shall make an order for the winding up of the company, or a receiver or manager on behalf of the debenture holders or otherwise shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or
- ix) Shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days; or
- x) Assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Competent Authority;

The Competent Authority may, without prejudice to any other right or remedy which shall have accrued or shall accrue hereafter to Government, by a notice in writing to cancel the contract as a whole or only such items of work in default from the Contract.

The Engineer-in-Charge shall on such cancellation by the Competent Authority have powers to :

- (a) Take possession of the site and any materials, constructional plant, implements stores, etc., thereon; and/or
- (b) Carry out the incomplete work by any means at the risk and cost of the contractor.

On cancellation of the contract in full or in part, the Engineer-in-Charge shall determine what amount, if any, is recoverable from the contractor for completion of the works or part of the works or in case the works or part of the works is not to be completed, the loss of damage suffered by Government. In determining the amount, credit shall be given to the contractor for the value of the work executed by him up to the time of cancellation, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor.

Any excess expenditure incurred or to be incurred by PSCL in completing the works or part of the works or the excess loss or damages suffered or which may be suffered by PSCL as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to PSCL in law be recovered from any moneys due to the contractor on any account, and if such moneys are not sufficient the contractor shall be called upon in writing and shall be liable to pay the same within 31 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days the Engineer-in-Charge shall have the right to sell any or all of the contractors unused materials, constructional plant, implements, temporary buildings, etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the contract and if thereafter there be any balance is outstanding from the contractor, it shall be recovered in accordance with the provisions of the contract.

Any sums in excess of the amounts due to PSCL and unsold materials, constructional plant, etc., shall be returned to the contractor, provided always that if cost or anticipated cost of completion by PSCL of the works or part of the works is less than the amount which the contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the contractor.

CLAUSE 15

Suspension of Work

i) The contractor shall, on receipt of the order in writing of the Engineer-in-Charge (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof, for any of the following reasons :

- a) on account of any default on the part of the contractor or;
- b) for proper execution of the works or part thereof for reasons other than the default of the contractor; or
- c) for safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.

ii) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above, the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;

CLAUSE 16

Action in case Work not done as per Specifications

All works under or in course of execution or executed in pursuance of the contract shall at all times be open and accessible to the inspection and supervision of the Engineer-in-Charge, his authorized subordinates in charge of the work and all the superior officers, officer of the Quality Control Organization of the Department and of the Cabinet (Technical) Vigilance, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it shall appear to the Engineer-in-Charge or his higher authority or his authorised subordinates in charge of the work or to the Cabinet (Technical) Vigilance or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or article provides by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract the contractor shall, on demand in writing which shall be made within the period specified in schedule – F of contract data from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as

the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the contractor failing to do so within a period specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non-completion of the work in time) for this default.

In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the competent authority may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure and incidental items rectified, or removed and re-executed at the risk and cost of contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

CLAUSE 17

**Contractor
Liable for
Damages,
defects during
maintenance
period**

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road curb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wired, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within defect liability period after a certificate final or otherwise of its completion shall have been given by the Engineer-in-Charge as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit except for the portion pertaining to asphaltic work which is governed by sub-para (iii) of clause 35 or the proceeds of sale thereof or of a sufficient option thereof. The security deposit of the contractor shall not be refunded before the expiry of defect liability period after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

In case of Maintenance and Operation works of Electrical & Mechanical services, the security deposit deducted from contractors shall be refunded within one month from the date of final payment or within one month from the date of completion of the maintenance contract whichever is earlier.

CLAUSE 18

**Contractor to
Supply Tools &
Plants etc.**

The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-Charge's stores), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specification or other document forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing the same may be provided by the Engineer-in-Charge at cost to the contractor, under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.

CLAUSE 18 A

**Recovery of
Compensation
paid to Workman**

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, Government is obliged to pay compensation to a workman employed by the contractor, in execution of the works, Government will recover from the contractor the amount of the compensation so paid; and without prejudice to the right of the Government under sub-section (2) of section 12, of the said Act, Government shall be at liberty to recover such

amount or any part thereof by deducting it from the security deposit or from any sum due by Government / PSCL to the contractor whether under this contract or otherwise. Government / PSCL shall not be bound to contest any claim made against it under sub-section (1) Section 12, of the said Act, except on the written request of the contractor and upon his giving to Government / PSCL full security for all costs for which Government / PSCL might become liable in consequence of contesting such claim.

CLUASE 18 B

Ensuring Payment and Amenities to Workers if Contractor fails In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, PSCL is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19H or under the P.W.D. Contractor's Labour Regulations, or under the Rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by P.W.D. Contractors, PSCL will recover from the contractor the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the PSCL under sub-section (2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, PSCL shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government/PSCL to the contractor whether under this contract or otherwise PSCL shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the PSCL full security for all costs for which Government/PSCL might become liable in contesting such claim.

CLAUSE 19

Labour Laws to be complied by the Contractor The contractor shall obtain a valid license under the State Labour Act, and the Contract Labour (Regulation and Abolition) Central rules 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) ACT, 1986.

The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) ACT, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfill these requirements shall attract the penal provisions of the contract arising out of the resultant non-execution of the work.

The bidder should registered in EPF.

The bidder should submit the Project Insurance and professional liability insurance documents after award of the contract.

CLAUSE 19 A

No labour below the prescribed age shall be employed on the work.

CLAUSE 19 B

Payment of Wages Payment of wages :

- i) The contractor shall pay to labour employed by him either directly or through sub-contractors, wages not less than fair wages as defined in P.W.D. Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- ii) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.

- iii) In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the Public Works Department contractor's Labour Regulations made by Government from time to time in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorisedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation And Abolition) Central Rules, 1971, wherever applicable.
- iv) a) The Engineer-in-Charge concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of nonfulfilment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.
- b) Under the provision of Minimum Wages (Central) Rules 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at same rate as for duty. In the event of default the Engineer-in-Charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-Charge concerned.
- v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Act, 1970, or the modifications thereof or any other laws relating thereto and the rules made hereunder from time to time.
- vi) The contractor shall indemnify and keep indemnified PSCL against payments to be made under and for the observance of the laws aforesaid and the P.W.D. Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.
- vii) The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.
- viii) Whatever is the minimum wage for the time being, or if the wage payable higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.
- ix) The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

CLAUSE 19 C

In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per P.W.D. Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid he shall be liable to pay a penalty of Rs. 200/- for each default and in addition the Engineer-in-Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE 20

The contractor shall at least pay and comply with all the provisions of the Minimum wages Act s and rules framed there under other labour laws related to contract labour .

Minimum wages Act to be complied with.

CLAUSE 21

Work not to be sublet. Action in case of insolvency

The contract shall not be assigned or sublet without the written approval of the Engineer-in-Charge. And if the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, 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 agent to any public officer or person in the employment of PSCL in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-Charge on behalf of the Governor of Bihar shall have power to adopt the courses specified in Clause 3 hereof in the interest of PSCL and in the event of such course being adopted the consequences specified in the said Clause 3 shall ensue.

CLAUSE 22

Compensation

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of PSCL without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

CLAUSE 23

Changes in firm's Constitution to be intimated

Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 thereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause 21.

CLAUSE 24

Approval of Engineer In charge

All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-Charge who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

CLAUSE 25

Settlement of Disputes & Arbitration

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in-before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim right matter or thing whatsoever in any way arising out of or relating to contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter.

- i) If the contractor considered any work demanded of him to be outside the requirements of the contract, or dispute any drawings, record or decision given in writing by the Engineer-in-Charge on any matter in connection with or arising out of the contract or carrying out of the contract or carrying out of the work, to be unacceptable, he shall promptly within 7 days request the Superintending Engineer, PSCL in writing for written instruction or decision. Thereupon, the Superintending Engineer, PSCL shall give his written instructions or decision within a period of fifteen days from the receipt of the contractor's letter.

If the Superintending Engineer, PSCL fails to give his instructions or decision in writing within the aforesaid period or if the contractor is dissatisfied with the instructions or decision of the Superintending Engineer, PSCL the contractor may, within 15 days of the receipt of Superintending Engineer's decision, appeal to the Chief Engineer, PSCL who shall afford an opportunity to the contractor to be heard, if the latter so desires, and to offer evidence in support of his appeal. The Chief Engineer, PSCL shall give his decision

within 30 days of receipt of contractor's appeal. If the contractor is dissatisfied with this decision, the contractor shall within a period of 30 days from receipt of the decision, give notice to the Chief Engineer, for reference of the same to arbitration tribunal failing which the said decision shall be final binding and conclusive and not referable to adjudication by the arbitrator.

- ii) Except where the decision has become final, binding and conclusive in terms of Sub Para (i) above disputes or difference shall be referred for adjudication through Arbitration Tribunal already established by the state government under Bihar Public Work Contract Disputes arbitral Tribunal Act 2008.

It is also a term of this contract that if the contractor does not make any reference to the arbitration Tribunal in respect of any claims in writing as aforesaid within 45 days of receiving the intimation from the Engineer-in-Charge that the final bill is ready for payment, the claim of the contractor shall be deemed to have been waived and absolutely barred and the PSCL shall be discharged and released of all liabilities under the contract in respect of these claims.

The arbitration shall be conducted in accordance with the provisions of the Bihar Public works contract Dispute Arbitration Tribunal Act 2008 or any statutory modifications or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

All arbitration shall be held at PATNA and at no other place.

CLAUSE 26

Contractor to indemnify Govt. against Patent Rights

The contractor shall fully indemnify and deep indemnified the Governor of Bihar against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under the action brought against Government in respect of any such matter as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise therefrom, provided that the contractor shall not be liable to indemnify the Governor of Bihar if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

CLAUSE 27

Lumpsum Provisions in Tender

When the estimate on which a tender is made includes lump sum in respect of parts 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 such items, or if the part of the work in question is not, in the opinion of the Engineer-in-Charge capable of measurement, The Engineer-in-Charge may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the clause.

CLAUSE 28

Action where no Specifications are specified

In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications, Indian Road Congress for road works and Indian Building Congress for building works or any central government agency. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers specifications. If not available then as per Department Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.

CLAUSE 29

**With-holding and
lien in respect of
sums due from
contractor**

- i) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-Charge or the Government shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in-Charge or the Government shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalisation or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Engineer-in-Charge or the Government shall be entitled to withhold and have a lien to retain to the extent of payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-Charge of the Government or any contracting person through the Engineer-in-Charge of the Government or any contraction person through the Engineer-in-Charge pending finalisation of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or PSCL will be kept withheld or retained as such by the Engineer-in-Charge or PSCL till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) or by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the PSCL shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

- ii) PSCL shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for PSCL to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by PSCL to the contractor, without any interest thereon whatsoever.

CLAUSE 29 A

**Lien in respect of
claims in other
Contracts**

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or the PSCL or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or PSCL or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or the PSCL or with such other person or persons.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-in-Charge or the PSCL will be kept withheld or retained as such by the Engineer-in-Charge or the PSCL till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

CLAUSE 30

- Unfiltered water supply** The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.
- i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge.
 - ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor?(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in-Charge, unsatisfactory.

CLAUSE 31

- Return of surplus material** Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of PSCL either by issue from PSCL stocks or purchase made under orders or permits or licences issued by PSCL the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the PSCL and return, if required by the Engineer in Charge, all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as the Engineer in Charge shall determine having due regard to the condition of the materials. The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer in Charge shall be final and conclusive. In the event of breach of the aforesaid condition the contractor shall in addition to throwing himself open to action for contravention of the term of the licence or permit and/or for criminal breach of trust, be liable to PSCL for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

CLAUSE 32

- Hire of Plant & Machinery**
- i) The contractor shall arrange at his own expense all tools, plant machinery and equipment (hereinafter referred to as T & P) required for execution of the work except for the Plant & Machinery listed in Schedule 'C' and stipulated for issue to the contractor. If the contractor requires any item of T & P on hire from the T & P available will, if such item is available, hire it to the contractor at rates to be agreed upon between him and the Engineer-in-Charge. In such a case all the conditions hereunder for issue of T & P shall also be applicable to such T & P as is agreed to be issued.
 - ii) Plant and Machinery when supplied on hire charges shown in Schedule 'C' shall be made over and taken back at the departmental equipment yard/shed shown in Schedule 'C' and the contractor shall bear the cost of carriage from the place of issue to the site of work and back. The contractor shall be responsible to return the plant and machinery in the condition in which it was handed over to him, and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation and otherwise during transit including damage to or loss of plant and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Executive Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
 - iii) The plant and machinery as stipulated above will be issued as and when available and if required by the contractor. The contractor shall arrange his programme of work according to the availability of the plant and machinery and no claim, whatsoever, will be entertained from him for any delay in supply by the Department.
 - iv) The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over up to and inclusive of the date of the return in good order even though the same may not have been working for any cause except major breakdown due to no fault of the contractor or faulty use requiring more than three working days continuously (excluding intervening holidays and Sundays) for bringing the plant in order. The contractor shall immediately intimate in writing to the Engineer in Charge when any plant or machinery gets out of order requiring major repairs as aforesaid. The Engineer in Charge shall record the date and time of receipt of such intimation in the log sheet of the plant or machinery. Based on this if the breakdown occurs before lunch period or major breakdown will be computed considering half a day's

breakdown on the day of complaint. If the breakdown occurs in the post lunch period of major breakdown will be computed starting from the next working day. In case of any dispute under this clause the decision of the Superintending Engineer shall be final and binding on the contractor.

- v) The hire charges shown above are for each day of 8 hours (inclusive of the one-hour lunch break) or part thereof.
- vi) Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying PSCL against any loss or damage caused to the plant and machinery either during transit or at site of work.
- vii) Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer in Charge may, at his discretion, allow the plant and machinery to be worked for more than normal period or 8 hours a day. In that case the hourly hire charges for overtime to charge (1/8)th of the daily charges) subject to a minimum of half day's normal charges on any particular day. For working out hire charges for over time a period of half an hour and above will be charged as one hour and a period of less than half an hour will be ignored.
- viii) The contractor shall release the plant and machinery every seventh day for periodical servicing and/or wash out which may take about three to four hours or more. Hire charges for full day shall be recovered from the contractor for the day of servicing/Wash out irrespective of the period employed in servicing.
- ix) The plant and machinery once issued to the contractor shall not be returned by him on account of lack of arrangements of labour and materials, etc. on his part, the same will be returned only when they are required for major repairs or when in the opinion of the Engineer in Charge the work or a portion of work for which the same was issued is completed.
- x) Log Book for recording the hours of daily work for each of the plant and machinery supplied to the contractor will be maintained by the Department and will be countersigned by the contractor or his authorised agent daily. In case the contractor contests the correctness of the entries and/or fails to sign the Log Book the decision of the Engineer in Charge shall be final and binding on him. Hire charges will be calculated according to the entries in the Log Book and will be binding on the contractor. Recovery on account of hire charges for road rollers shall be made for the minimum number of days worked out on the assumption that a roller can consolidate per day and maximum quantity of materials or area surfacing as noted against each in the annexed statement (see attached annexure).
- xi) In the case of concrete mixers, the contractors shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion.
 - a) In case rollers for consolidation are employed by the contractor himself, log book for such rollers shall be maintained in the same manner as is done in case of departmental rollers, maximum quantity of any item to be consolidated for each roller day shall also be same as in Annexure to Clause 34(x). For less use of rollers recovery for the less roller days shall be made at the stipulated issue rate.
- xii) The contractor shall be responsible to return the plant and machinery in the condition in which it was handed over to him and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation or otherwise or during transit including damage to or loss of parts, and for all losses due to him failure to return the same soon after the completion of the work for which it was issued. The Executive Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
- xiii) The contractor will be exempted for levy of any hire charges for the number of days he is called upon in writing by the Engineer in Charge to suspend execution of the work

provided by PSCL plant and machinery in question have, in fact remained idle with the contractor because of the suspension.

- xiv) In the event of the contractor not requiring any item of plant and machinery issued by PSCL though not stipulated for issue in Schedule 'C' any time after taking delivery at the place of issue, he may return it after two days written notice or at any time without notice if he agrees to pay hire charges for two additional days without in any way affecting the right of the Engineer in-Charge to use the said plant and machinery during the said period of two days as he likes including hiring out to a third party.

CLAUSE 33

Contractors Superintendence, Supervision, Technical Staff & Employees

Employment of Technical Staff and employees

- i) The contractor shall provide all necessary superintendence during execution of the work and as along thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The contractor along with bidding of the tender, intimate in writing to the Engineer-in-Charge the name, qualifications, experience, age, address and other particulars along with certificates, of the technical representative to be in charge of the work. If there is any change then the new incumbents qualifications and experience shall not be lower than specified in Schedule in I.T.B. (Annexure – 2). The Engineer-in-Charge shall within 15 days of issue of letter of acceptance intimate in writing his approval or otherwise it is deemed to be approved. Any such approval may at any time be withdrawn and in case of such withdrawal the contractor shall appoint another such representative according to the provisions of this clause. Decision of the tender accepting authority / Superintending Engineer shall be final and binding on the contractor in this respect. Technical staff shall be available at site within fifteen days of start of work.

If the contractor (or any partner in case of firm/company) himself has such qualifications, it will not be necessary for the said contractor to appoint such a principal technical representative but the contractor shall designate and appoint a responsible agent to represent him and to be present at the work whenever the contractor is not in a position to be so present. All the provisions applicable to the principal technical representative under the Clause will also be applicable in such a case to contractor or his responsible agent. The principal technical representative and/or the contractor or his responsible authorised agent shall be actually available at site at least two working days every week, these days shall be determined in advance and also during recording of measurement of works and whenever so required by the Engineer-in-Charge by a notice as aforesaid and shall also note down instructions conveyed by the Engineer-in-Charge or his designated representative in the site order book and in token of acceptance of measurements. There shall be no objection if the representative/agent looks after more than one work and not more than three works in the same station provided these details are disclosed to the Engineer-in-Charge and he shall be satisfied that the provisions and the purpose of the clause are fulfilled satisfactorily.

If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative or agent is effectively appointed or is effectively attending or fulfilling the provision of this clause, a recovery shall be effected from the contractor as specified in Schedule 'F' and the decision of the Engineer-in-Charge as recorded in the site order book and measurement recorded in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint a suitable technical representative or responsible agent and if such appointed persons are not effectively present or do not discharge their responsibilities satisfactorily, the Engineer-in-Charge shall have full powers to suspend the execution of the work until such date as a suitable agent is appointed and the contractor shall submit a certificate of employment of the technical representative/responsible agent along with every on account bill/fixed bill and shall produce evidence if at any time so required by the Engineer-in-Charge.

- ii) The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work.

The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work.

The Engineer in Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer in Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer in Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

Levy/Taxes payable by Contractor

CLAUSE 34

- i) Sales Tax or any other tax on materials in respect of this contract shall be payable by the contractor according to law in effect.
- ii) The contractor shall deposit royalty and obtain necessary permit for supply of the red earth, moorum, sand chips bajri, stone, kankar, etc. from local authorities.
- iii) If pursuant to or under any law, notification or order any royalty, cess or the hike becomes payable to the Government of India and does not at any time become payable by the contractor to the State Government/ Local authorities in respect of any material used by the contractor in the works then in such a case, it shall be lawful to the Government of India and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from the dues of the contractor.

CLAUSE 35

Conditions for reimbursement of levy/taxes if levied after receipt of tenders

- i) All tendered rates shall be inclusive of all taxes and levies payable under respective statutes. However, pursuant to the Constitution (46th Amendment) Act. 1982, if any further tax or levy is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of the Chief Engineer (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.
- ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorised representative of the Government and/or the Engineer-in-Charge and further shall furnish such other information/document as the Engineer-in-Charge may require from time to time.
- iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy, pursuant to the Constitution (Forty Sixth Amendment) Act 1982, give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

CLAUSE 36

Imprisonment of Contractor

If the contractor is imprisoned, becomes insolvent compound with his creditors, has a receiving order made against him or carries on business under a receiver for the benefit of the creditors or any of them, or being a partnership firm becomes dissolved, or being a company or corporations goes into liquidation or commences to be wound up not being a voluntary winding up for the purpose only of amalgamation or reconstitution the department shall be at liberty.

- (a) To give such liquidator, receiver, or other person in whom the contract may become vested, the option of carrying out the contract or a portion thereof to be determined by PSCL, subject to his providing an appropriate guarantee for the performance of such contract or.
- (b) To terminate the contract, forthwith by notice in writing to the contractor, the liquidator, the receiver or person in whom the contract may become vested and take further action as provided in the relevant clauses of the contract.

CLAUSE 37

Termination of Contract on death of contractor

Without prejudice to any of the rights or remedies under this contract if the contractor dies, the Divisional Officer on behalf of the Governor of Bihar shall have the option of terminating the contract without compensation to the contractor after the affidavit of his/ their legal heir/heirs that they are not going to be in this profession in future.

CLAUSE 38

If relation working in PWD then the contractor not allowed to tender

The contractor shall not be permitted to tender for works in the P.W.D. Division (responsible for award and execution of contracts) in which his near relative is posted as Accountant or as an officer in any capacity between the grades of the Superintending Engineer and Assistant Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted Officer in the P.W.D. or in PSCL. Any breach of this condition by the contractors of PSCL shall lead to blacklisting. If the contractor is registered in any other department, he shall be debarred from tendering in PSCL for any breach of this condition.

NOTE : By the term "near relatives" is meant wife, husband, parents and grand parents, children and grand children, brothers and sisters, uncles, aunts and cousins and their corresponding in law.

CLAUSE 39

No-Gazetted-Engineer to work as Contractor within two years of retirement

No engineer of gazetted rank of other gazetted officer employed in engineering of administrative duties in an engineering department of the Government of Bihar shall work as a contractor or employee of a contractor for a period of two years after his retirement from government service without the previous permission of State Government in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained said permission prior to engagement in the contractor's service, as the case may be.

CLAUSE 40

Return of material and recovery for excess material issued

i) After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, consumed and in balance (see Clause 10) theoretical quantity of materials issued by the PSCL for use in the work shall be calculated on the basis and method given hereunder.

a) Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required different items of work as shown in the Schedule of Rates mentioned in-Schedule 'F'. In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the above mentioned schedule/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer in Charge.

b) Theoretical quantity of steel reinforcement of structural steel sections shall be taken as the quantity required as per design or as authorised by Engineer in Charge, including authorized lappages, chairs etc., plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section wise and category wise separately.

c) For any other material as per actual requirements.

ii) Over the theoretical quantities of materials so computed a variation shall be allowed as specified in Schedule 'F'. The difference in the net quantities of material actually issued to the contractor and the theoretical quantities including such authorised variation, if not returned by the contractor or if not fully reconciled to the satisfaction of the Engineer in Charge within fifteen days of the issue of written notice by the Engineer in Charge to this effect shall be recovered at the rates specified in Schedule 'F' without prejudice to the provision of the relevant conditions regarding return of materials governing the contract. Decision of Engineer in Charge in regard to theoretical quantities of materials, which should have been actually used as per the Annexure of the standard schedule of rates and recovery at rates specified in Schedule 'F', shall be final & binding on the contractor

For non scheduled items, the decision of the Superintending Engineer regarding theoretical quantities of materials, which should have been actually used, shall be final and binding on the contractor.

iii) The said action under this clause is without prejudice to the right of PSCL to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

CLAUSE 41

Release of Security deposit

On completion of the whole of the work, half of the total amount of security shall be repaid to the contractor after six months of completion. However, the balance half of the total amount of security will be returned after completion of defect liability period and after the Engineer has certified that all defects notified by him to the contractor before the end of this period have been corrected and also after recovery of any dues.

CLAUSE 42

Responsibility of Technical Staff and employees

Technical officers / staff deployed by the Contractor at any construction site will also be responsible for inferior quality / poor performance of any work and his name will be circulated to all works Sites of PSCL to debar from any other site, if his name is being proposed by other contractor.

CLAUSE 43

Contractor's Risks

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

CLAUSE 44

Insurance

The Contractor shall provide, in the joint names of PSCL and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks :

- (a) loss of or damage to the Works, Plant and Materials ;
- (b) loss of or damage to Equipment;
- (c) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and
- (d) personal injury or death.

Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

If the Contractor does not provide any of the policies and certificates required, PSCL may effect the insurance which the Contractor should have provided and recover the premiums PSCL has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

Alteration to the terms of an insurance shall not be made without the approval of the Engineer.

Both parties shall comply with any conditions of the insurance policies.

CLAUSE 45

Cash Flow Estimate to be Submitted

The Contractor shall, within the time stated in special Conditions of contract after the date of the Letter of Acceptance, provide to the Engineer for his information a detailed cash flow estimate, in quarterly periods, of all payments to which the Contractor will be entitled under the Contract and the Contractor shall subsequently supply revised cash flow estimates at quarterly intervals, if required to do so by the Engineer. in charge

CLAUSE 46

Safety, Security and Protection of the Environment

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein :

- (a) have full regard for the safety of all persons entitled to be upon the Site and keep the Site (so far as the same is under his control) and the Works (so far as the same are not completed or occupied by PSCL) in an orderly state appropriate to the avoidance of danger to such persons,
- (b) Provide and maintain at his own cost all lights, guards, fencing, warning signs and watchmen and where necessary or required by the Engineer or by any duly constituted authority, for the protection of the Works or for the safety and convenience of the public or others, and
- (c) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

CLAUSE 47

Cost of Samples All samples shall be supplied by the Contractor at his own cost if the supply thereof is clearly intended by or provided for in the Contract.

CLAUSE 48

Cost of Tests The cost of making any test shall be borne by the Contractor if such test is :

- (a) clearly intended by or provided for in the Contract, or
- (b) particularized in the Contract (in case only of a test under load or of a test to ascertain whether the design of any finished or partially finished work is appropriate for the purposes which it was intended to fulfill) in sufficient detail to enable the Contractor to price or allow for the same in his Tender.

CLAUSE 49

Cost of Tests not Provided for If any test required by the Engineer which is :

- (a) not so intended by or provided for,
- (b) (in the cases above mentioned) not so particularized, or
- (c) (though so intended or provided for) required by the Engineer to be carried out at any place other than the Site or the place of manufacture, fabrication or preparation of the materials or Plant tested,

shows the materials, Plant or workmanship not to be in accordance with the provisions of the Contract to the satisfaction of the Engineer, then the cost of such test shall be borne by the Contractor, but in any other case department will bear the cost.

CLAUSE 50

Commencement of Works The contractor shall commence the Works as soon as is reasonably possible after the receipt by him of a notice to this effect from the Engineer, which notice shall be issued within the time stated in the Appendix to Tender after the date of the Letter of Acceptance. Thereafter, the Contractor shall proceed with the Works with due expedition and without delay.

CLAUSE 51

Substantial completion of parts If any part of the Permanent Works has been substantially completed and has satisfactorily passed any Test on Completion prescribed by the Contract, the Engineer may issue a Taking-Over Certificate in respect of that part of the Permanent Works before completion of the Works and, upon the issue of such Certificate, the Contractor shall be deemed to have undertaken to complete with due expedition any outstanding work in that part of the Permanent Works during the Defects Liability Period.

CLAUSE 52

Force Majeure

Force Majeure Neither party shall be liable to the other for any loss or damage occasioned by or arising out of acts of GOD such as Unprecedented flood, Volcanic eruption, Earthquake or other convulsion of nature and other acts such as general/ partial strikes by a section of government employees/ invasion, the act of foreign countries/ hostilities or war like operations before or after

declaration of war, rebellion/ military or usurped power which prevent performance of the contract and which could not have been foreseen or avoided by a prudent person.

CLAUSE 53

Recovery

Force Majeure

Any amount found recoverable from the contractor shall be recovered as public demand under the Bihar Public Demand Act. without prejudice to any other mode of recovery.

SECTION 4

CONTRACT DATA

(PROFORMA OF SCHEDULES)

PROFORMA OF SCHEDULES

(Operative Schedules to be supplied separately to each intending tenderer)

SCHEDULE 'A'

Schedule of quantities

Sl. No.	Description of Item (with brief specification and reference to book of specification)	BILL OF QUANTITY				Amount
		Quantity	Unit	Rate		
				In figure	In words	
1	2	3	4	5	6	7
<h1>Attached</h1>						

SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

S. No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of Issue
1	2	3	4	5
<h1>NIL</h1>				

SCHEDULE 'C'

Tools and plants to be hired to the contractor

Sl. No.	Description	Hire charge per day	Place of Issue
1	2	3	4
		<h1>NIL</h1>	

SCHEDULE 'D'

Extra schedule for specific requirements/ document for the work, if any.

SCHEDULE 'E'

Schedule of component of Cement, Steel, other Materials, Labour etc. for price escalation.

CLAUSE 10 CC - As per SBD, GoB

**Component of Cement-
expressed as percent of total value of work. Pc**

**Component of Steel-
expressed as percent of total value of work. Ps**

**Component of civil (except cement & steel)/
Electrical construction Materials expressed as
percent of total value of work- Pm**

**Component of Bitumen -
expressed as percent of total value of work. Pb**

**Component of Labour-
expressed as percent of total value of work. P1**

**Component of P.O.L. -
expressed as percent of total value of work. Pf**

**Component of Plant & Machinery -
expressed as percent of total value of work. Pp**

SCHEDULE 'F'

Reference to General Condition of Contract

Name of work	As per NIT
Estimated cost of work	As per NIT
Earnest money	As per NIT
Performance Guarantee	2% of tendered value
Security Deposit	8% of tendered value (to be deducted from RA Bill)
Defect Liability period	3 Year from the date of completion of project.
Rate of Interest	<u>Prevailing lending rate of interest floated by RBI at the time of first installation of Mobilization Advance</u>

GENERAL RULES AND DIRECTIONS : **Managing Director, PSCL.**
Maximum percentage for quantity of items of work to be executed beyond Which rates are to be determined in Accordance with Clauses 12.2 & 12.3 See below

Definitions:

2(v)	Engineer-in-Charge	To be given in the letter for award of work by PSCL
2(x)	Percentage on cost of materials and labour to cover all overheads and profits.	10 %
2(xi)	Standard Schedule of Rates	<u>As published & issued by BCD & RCD 2022</u>
2(xii)	Department & Employer	Managing Director Patna Smart City Ltd. (PSCL) (A Govt. of Bihar Undertaking)
9(ii)	Standard PWD Contract Form	PWD 2/3 as modified & corrected upto _____

Clause 1

- i) Time allowed for submission of performance Guarantee from the date of issue of letter of acceptance, in days **15 days**
- ii) Maximum allowable extension beyond the period provided in i) above in days **7 days**

Clause 2

Authority for fixing compensation under clause 2. **Managing Director, PSCL**

Clause 2A

Whether Clause 2A shall be applicable **N/A**

Clause 5

Number of days from the date of issue of notice to start. **07 days**

Mile stone(s) as per table given below:

Table of Mile Stone(s)

Sl. No.	Description of Milestone (Physical)	Time allowed in days (from date of start)	Amount to be with-held in case of non-achievement of milestone
1.	1/4 TH (of whole work)	90 Days	As mentioned below
2.	2/4 TH (of whole work)	180 Days	
3.	3/4 TH (of whole work)	270 Days	
4.	4/4 TH (of whole work)	365 Days	

OR/AND

Sl. No.	Financial Progress	Time allowed (from date of start)	Amount to be with-held in case of non-achievement of milestone
1.	1/4 TH (of whole work)	90 Days	In the event of not achieving the necessary progress as assessed from the running payments, 1% of the tendered value of work will be withheld for failure of each milestone.
2.	2/4 TH (of whole work)	180 Days	
3.	3/4 TH (of whole work)	270 Days	
4.	4/4 TH (of whole work)	365 Days	

Time allowed for execution of work 12 Months

Authority to give fair and reasonable extension of time for completion of work. Competent Authority, PSCL.

Clause 7

Gross work to be done together with net payment/ adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment Not Applicable

Clause 10CC

Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column As per SBD, GoB

Clause 11

Specifications to be followed for execution of work Bihar PWD/ CPWD

Clause 12

Deviation, variation Extent and pricing. As per P.W.D. Code clause 182A, 292XII, 293XVII & 294XVI

Clause 16

Competent Authority for deciding reduced rates. Competent Authority, PSCL

- The following document also forms part of the contract. *Special Condition attached.*
- The law, which applies to the contract, is The Law of Union of India.
- The court of jurisdiction Patna, Bihar
- The Language of contract document English
- The limit of sub-contracting Nil
- The Currency of the Contract is Indian Rupees
- Place of Arbitration Patna

Volume- II

SECTION 5
SPECIAL CONDITION OF CONTRACT
(Condition of Particular Application)

1. PROTECTION OF ENVIRONMENT:

The contractor shall take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operations. During continuance of the contract, the contractor shall abide at all times by all existing enhancements on environmental protection and rules made there under, regulations, notifications and bye-laws of the state or central government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the state or central government or the local authority.

Environmental Mitigation Measures during Construction

Sl.No	Environmental Impact/Issues	Mitigation/Management Measures	Responsibility	
			Implementation	Supervision
1	Removal of Trees	Trees will be removed from the corridor of impact (or site) before the commencement of construction with prior clearance from the forest department.	Contractor	Authority
2	Generation of debris	Debris generated due to dismantling of the existing structure shall be suitably reused in the proposed construction, subject to the suitability of the material and the approval of the engineer. Un utilized debris material shall be disposed of by the contractor; either for the filling up of borrow area created for the project or at pre-designated dump location.	Contractor	Authority
3	Loss of topsoil	The topsoil from all areas of cutting and all areas to be permanently covered shall be stripped to a specified depth of 150mm and stored in stockpiles (maximum slope 1:2 and maximum height 2m). to retail soil and to allow percolation of water, the edges of the stockpile shall be protected by silt fencing. (b) Stockpiles will not be surcharges or otherwise loaded and multiple handling will be kept to a minimum to ensure that no compaction will occur. It shall be ensured by the contractor that the topsoil will not be unnecessarily trafficked either before stripping or when in stockpiles. (c) Such stockpiled topsoil will be returned to cover the disturbed area and cut slopes. Residual	Contractor	Authority

		topsoil will be distributed on adjoining/proximate barren/rocky area as identified in a layer of thickness of 75-150mm. topsoil shall also be utilized for redevelopment of borrow areas, landscaping along slopes, medians, incidental spaces etc.		
4	Construction wastes & their disposal	Soil from excavation shall be managed and disposed of as directed by the engineer. No new disposal site shall be created as part of the project, which is not redeveloped. All waste material shall be completely disposed as desired and the site shall be fully cleaned before handing over.	Contractor	Authority
5	Sanitation and waste disposal in construction camps	Construction labourers camps shall be located at least 200m away from the nearest habitation and as approved by the authority. The sewage system for a construction laborer's camp shall be designed, built and as per the factories Act, 1948 and the building and other construction workers (Regulation of employment and conditions of service) Act, 1996	Contractor	Authority
6	Generation of Dust	All vehicles delivering materials to the site shall be covered to avoid slippage of materials. Clearance shall be affected by manual sweeping and removal of debris, or if so directed by the authority, by mechanical sweeping and cleaning equipment, an all dust, mud and other debris shall be removed completely.	Contractor	Authority
7	Emission from Hot-Mix Plants and Batching Plants	Hot mix plants and batching plants shall be located sufficiently away from habitation, agricultural operations, or industrial establishments. Where possible such plants will be located at least 1000m downward from the nearest habitation. The exhaust	Contractor	Authority

		gases, and operation of the plants shall comply with the requirements of the relevant current emission control rules (as per BSPCB).		
8	Emission and noise from Vehicles & Equipment	All vehicles, equipment and machinery used for construction shall conform to the relevant Bureau of Indian Standard (BIS) norms. All vehicles equipment and machinery used for construction shall be regularly maintained to ensure that pollution emission levels comply with the relevant requirements of BSPCB.	Contractor	Authority
9	Pollution from Crusher	All Crusher used in construction shall conform to relevant dust emission control rules. Clearance for sitting shall be obtained from the BSPCB. Alternatvely, only crushers already licensed by the BSPCB shall be used.	Contractor	Authority
10	Traffic Control and Safety	The contractor shall take all necessary measures for the safety of traffic during construction and provide, erect and maintain such barricades, including signs, markings, flags, lights, and flagmen as may be required by the authority for the information and protection of traffic approaching pr passing through the section of the road under improvement.	Contractor	Authority
11	Risk from Construction Operations	The contractor is required to comply with all the precautions as required for the safety of the workmen as per the International Labour Organization (ILO) convention no. 62 as far as those are applicable to this contract. The contractor shall also comply with the national building code for this purpose.	Contractor	Authority
12	Potable water and Hygiene	Potable water supply will be provided, at every workplace, as per the factory rules of Bihar. All requirements as per standards set by the building and other construction workers (Regulation of Employment and Conditions of Service) Act, 1996 shall be fulfilled.	Contractor	Authority
13	Protection of Cultural Heritage/ property.	All the necessary and adequate care shall be taken to minimize impact on cultural properties (which includes cultural sites and remains, places of worship, graveyards, monuments and any other important properties/sites/remains notified	Contractor	Authority

		under the Ancient Sites and remains Act)		
14	Chance found Archaeological Property	All fossils, coins, articles of value of antiquity and structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government. The contractor shall all work within 100 m in all directions from the site. The authority shall seek direction from the Archaeological Society of India (ASI) before instructing the contractor to recommence work on the site.	Contractor	Authority
15	Risk from Explosives	Except as may be provided in the contract or ordered or authorized by the authority, the contractor shall not use explosives. Where the use of explosives is so provided, or ordered or authorized, the contractor shall comply with the requirements of the explosives Act. First aid and medical care shall be provided, as per the factory rules of Bihar.	Contractor	Authority

2. POWER SUPPLY

The contractor shall make his own arrangement for obtaining power from the power distribution company at his own cost for execution of the work and for his establishments at work site. The contractor will pay the bills for the cost of power consumed by him during construction period.

3. WORK ADJACENT TO ROAD

The contractor shall take all necessary measures for the safety of traffic during construction and provide erect and maintain such barricades, including signs, markings, flags, lights, information, and protection of traffic approaching or passing through the section of the road adjacent to the work site. Warning lights shall be mounted on the barricade at night and keep lit throughout from sunset to sunrise.

4. MONSOON DAMAGES

Damages due to rain or flood either in cutting or in banks shall have to be made good by the contractor till the work is handed over to the department. The responsibility of diluting and making good the damages due to rain or flood rests with contractor. No extra payment is payable for such operations and the contractor shall therefore, have to take all necessary precautions to protect the work done during the construction period.

5. WATER SUPPLY

The contractor has to make his own arrangement for water required for the work and to the colonies and work site, which are to be established by the contractor. No separate or additional payments are admissible in this regard.

6. CONTRACTOR NOT TO DISPOSE OF SOIL ETC.

The contractor shall not dispose of or remove for the purpose of fulfilment of this contract, sand, stone, clay, ballast, earth, trees and shrubs or other materials obtained in the excavation made or lying on the site of the work, and all such materials and produce shall remain property of the government. The authority may upon request from the contractor, or if so stipulated in the conditions of the contract allow the contractor to use any of the above materials for the works either free of cost or after payment as may be specifically mentioned or considered necessary during the execution of the work.

7. LAYOUT OF MATERIALS STACKS

The contractor shall deposit materials for the purpose of the work on such parts only of the ground as may be approved by the authority before starting of work. A detailed survey, clearly indicating position and areas where materials shall be stacked and sheds built is to be conducted by the contractor at his own cost and only after obtaining necessary approval of the plan for use of sites by the authority, the contractor can use the sites accordingly.

8. AWARENESS & CLEANLINESS

The contractor and his staff shall maintain a high degree of awareness during construction and defect liability period and should follow all relevant safety codes and procedures. The contractor should take all the necessary steps to avoid any accident or damage on site during project implementation and defect liability period.

9. MANPOWER

The contractor shall provide experienced managerial, technical, supervisory and non-technical personnel, security personnel and labor necessary during construction and allied works to execute the project properly, safely and efficiently. While doing so due consideration shall be given to the labor laws in force.

The qualification and capability of contractor's personnel shall be appropriate for the tasks that are assigned to perform. The staff provided shall be fully trained in the respective work before being given responsibility. If, in opinion of the authority, a member of contractor's staff is considered to be insufficiently skilled or otherwise inappropriate for the assigned task, and authority informs the contractor in writing the contractor shall replace him with a person of appropriate skills and experience for the task, approved by the authority, within one month of being so informed.

The technical staff should be available at site and take instructions from the authority or other supervisory staff.

10. SAFETY

The contractor shall be responsible for safety of his staff during construction and shall procure, provide and maintain all safety equipment necessary for satisfactory execution such as gasmasks, gloves, boots, mats etc

1. The contractor shall utilize safety awareness procedures in every element of work.
2. The contractor shall emphasize site safety including adoption of
 - a. Safe working procedures
 - b. Cleanliness and care of the work premises as a whole
 - c. Accident and hazardous conditions prevention and reporting.

The contractor shall impart safety training to all members at regular intervals, especially for newcomers. The contractor shall provide notice boards and display boards at appropriate locations detailing precautions to be taken by personnel to work in conformity to regulation and procedures and by the visitors to the area.

The contractor shall notify the authority representative immediately if any accident occurs whether on-site or off site in which contractor is directly involved and results in any injury of any person, whether directly concerned with the site or third party. Such initial notification may be verbal and shall be followed comprehensive report within 24hrs of the accident.

11. REPORTING

The contractor shall prepare consolidated weekly reports of ongoing construction works and developments and submit it to the authority. The weekly reports are to be submitted within first working hour of the next week.

The monthly reports shall be submitted on the first week of the next month and within working hours with monthly record data. Overall reporting formats shall be approved by the authority and may have to be notified from time to time as required and approved by authority. Contractor may have to prepare and submit additional reports on particulars matters and incidents as and when required by the authority for each significant occurrence

12. GENERAL INSTRUCTIONS

The following general instructions are not exclusive and the same are issued for general guidance of the bidder and shall in no way continue any promise or convention on part of Patna Smart City Limited but shall be binding obligations for all intents and purposes, the same are included in the Bid.

12.1 Planning and Execution of Works

12.1.1 Site Responsibility Chart

The contractor shall submit within 15 days after the date of commencement of the contract, a site responsibility chart to show the functions and responsibilities of various personnel from the manager to the workmen responsible for executing the works as well as their functions and responsibilities.

12.1.2 Setting out and Existing Levels

The contractor shall take levels and set out for the whole of the works. The information on existing level as shown on the drawings is provided in good faith for the general guidance of the contractor. The contractor is to note that accuracy of information shown on the drawings is not guaranteed. The contractor shall visit the site and carry out filed surveys if he considers it necessary to ascertain the full extent of the works. Within one week after the commencement of the works, the contractor shall submit to the authority for his verification and endorsement records of levels of the existing site condition. Such records shall be certified and endorsed by a registered surveyor engaged by the contractor at his own cost. All levels shall be transferred to the existing PBM at Patna Railway Station.

12.1.3 Contractor has to provide site office as well as laboratory along with one site vehicle.

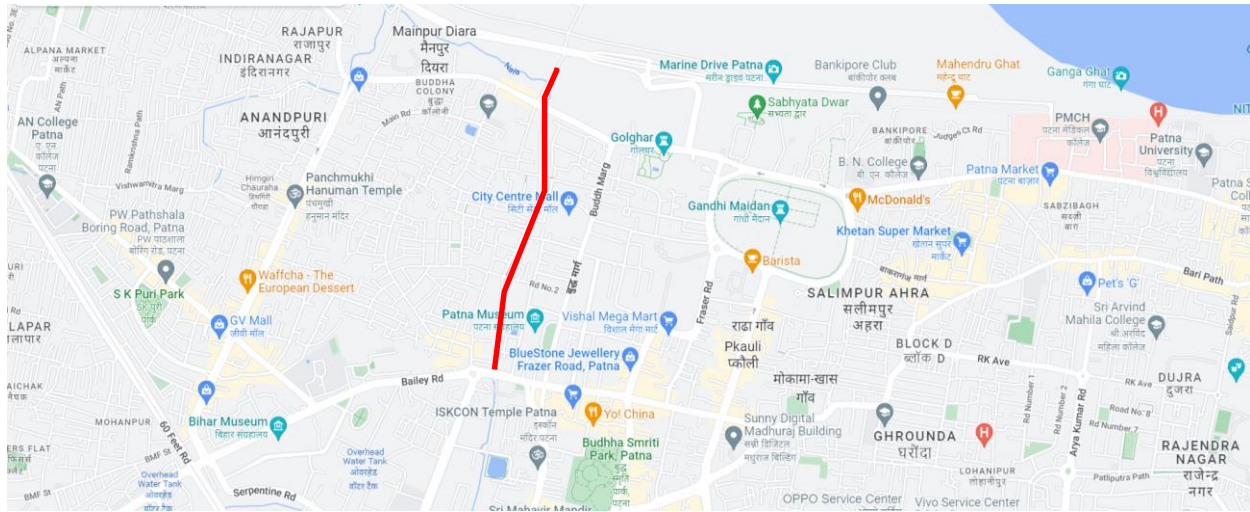
SECTION-6:
TECHNICAL SPECIFICATIONS

1. LOCATION

Mandiri Nala is the main city drainage line connecting the government administrative area and housing to the Ganga River with settlement on both sides of the drain. The drain is Kutcha in construction and carries discharge of Ward nos. 21 (P), 24 (P), 25 (P) 26 and 27

(P). Due to heavy solid waste deposition and heavy encroachments, the Nala has been fully choked/closed which have resulted in a very irregular shape of the Nala at some stretches. Moreover, the sewage from households of the area located along the alignment of the drain is also discharged in the Nala.

The Mandiri Nala originates behind R-Block and continues upto the outfall at Bans Ghat. However, the stretch considered for development in this project is between Income Tax Golamber (A) till Danapur-Bankipore Main Road (8). A total length of 1.289 km has been considered under this project.



Mandiri Nala is a Kutcha drain with an existing section of average width and depth of 10 m and 3 m respectively. The two sides of Nala have an existing retaining wall which is built in brickwork and it is a very old construction.

The LHS and RHS of Nala are marked by boundaries of private buildings, institutions such as Arts college, government buildings (Police Line), shops and at places encroachment is there in the form of slums which has reduced the right of way. RoW varies from 18 m to 30 m throughout the stretch of Nala. A service road exists on the LHS of Nala originating from the entrance near Income Tax Golamber and it continues till the screen of pump house and is discontinued from there. The RHS of Nala has a service road from Vidyapati Marg to the originating point of Bihar men's Police Association Building.

The development of Mandiri Nala has been identified as a project under Smart City Project because of the following criterion:

Mandiri Nala is a main city drainage line and carries a considerable amount of storm water discharge. The existing storm water drain is around 10 m in width and open throughout this stretch. This has made it vulnerable and it has become a dumping ground for solid wastes which has led to an alarming situation. Development of link road between Income Tax Golamber and Danapur Bankipore Main Road.

Due to this, some of the traffic from Income Tax Golamber to Gandhi Maidan shall be diverted onto this link road. Availability of Right of Way for proposed interventions in the form of pedestrian pathways, streetscaping zones, buffer zones etc.

Existing ROW width with chainage length is provided below as reference. At present, the work being taken up is between chainage 0+0 m to 1+289m as project.

0+0 to 0+41m:	ROW between 24m to 27m
0+41m to 0+192m:	ROW between 21m to 22m
0+192m to 0+254m:	ROW between 19m to 21m
0+254m to 0+446m:	ROW between 26m to 30m
0+446m to 0+581m:	ROW between 23m to 28m
0+581m to 0+668m:	ROW between 23m to 25m
0+668m to 0+760m:	ROW between 30m to 31m
0+760m to 0+910m:	ROW between 29m to 31m
0+910m to 0+962m:	ROW between 29m to 30m
0+962m to 1+183m:	ROW between 19m to 23m
1+183m to 1+289m:	ROW between 23m to 24m

2. NEED OF THE PROJECT

Mandiri Nala is the main-city drainage line connecting the government administrative area and housing to the Ganga River with settlement on both sides of the drain. The drain is Kutcha in construction and carries discharge of Ward nos. 21 (P), 24 (P), 25 (P) 26 and 27 (P).

At present, the waste from households also joins the Nala at various points and it has become a dumping ground for all solid wastes of the adjoining areas. This is leading to a deterioration in the condition of Nala day by day. A box drain shall be constructed as per the calculated capacity of the drain. Moreover, the road along the LHS of Nala is already being used for vehicular traffic with junctions at various points and residential colonies along both sides of the Nala. However, due to discontinuity in the alignment, the road is not sufficiently serving the purpose as it terminates some distance behind the pump house and is not connected to Danapur-Bankipore road. Development of Nala shall also provide opportunity to create a new road for vehicular traffic and provide a connecting link between two major junctions i.e. Income Tax and Gandhi Maidan Area.

The following points well describe the urgent need for development of Mandiri Nala:

- i) **Rehabilitation of drain:-** At present, the condition of drain is deteriorating day by day. The drain is open throughout and created an unhygienic atmosphere throughout. The construction of drain is very old and requires remodeling by construction of box drain.
- ii) **Elimination of encroachment:-** With time, the edges of Nala have been encroached and unplanned development of squatters have taken place along the edges. Encroachment in the form of shops also exist along the Nala at some places. For overall development, these encroachments need to be removed.
- iii) **Dumping of solid wastes:-** At present, due to open cross section of the Nala, the Nala has become a dumping ground of solid wastes and the situation is worsening day by day. The implementation of this project shall ensure that this condition is removed as the cross section would be covered throughout.
- iv) **Connectivity:-** The road along the LHS of Nala is not connected to the Danapur- Bankipore road due to termination of road behind the end point. The implementation of this project shall create a link road between Income Tax and Bans Ghat.
- v) **Quality of Life:-** The implementation of the project shall enhance the aesthetic view of the area due to creation of public place making, pedestrian zones and lead to an enhancement in the quality of life.
- vi) **Health and Hygiene:-** The dumping of solid wastes and development of slums along the Nala leads to serious health and hygiene problem and increases the sickness rate significantly. The implementation of this project shall improve the health and hygiene conditions in the area.

3. GENERAL SCOPE OF WORK

Scope of work mainly includes conversion of existing Kutcha and open section of drain into an RCC twin box drain. The top of the box drain shall act as a two-lane road and the existing spaces on the LHS and RHS which are now discontinuous roads shall be developed as service roads, pedestrian pathways, green buffer zones, and streetscape areas as per the existing RoW available. The Contractor shall also be responsible for the maintenance of the project during the Defect Liability Period. Design if required shall be got vetted by the contractor from NIT/IIT (based on mutual consent of PSCL) on his own cost. Contractor shall also be responsible for all necessary approvals from concerned departments/authorities on its own cost

The work includes, but not limited to:

Cleaning of existing drain.

Shifting all required services like **sewer, drainage, water pipelines & electrical etc.**

Cutting/Shifting of trees if required.

Dismantling of existing retaining wall of drain and construction of new RCC box drain.

Development of two-lane road over RCC box drain.

Demolition & restoration work of service roads, approaches & building if required.

Construction of underground RCC utility corridor.

Hardscape & softscape & other finishing work which includes development of new service roads, pedestrian pathways, streetscaping zones, and green buffer zones.

Necessary **Signage's & road accessories**

Traffic diversion & safety measures

Contractor has to setup individual lab with all testing equipment's required for material testing at site and as directed by engineer in charge

The on-site execution scope of work comprises of full, final and entire construction and completion of RCC box drain including development of a two lane road over the drain which shall act as a link road between Income Tax Golamber and Danapur-Bankipore Road to a 'best practice standard' for such works (inclusive of construction, services including shifting of existing services & construction of new proposed services like electrical services, exterior signage and lighting) and associated landscape services (levelling, drainage, landscape & irrigation, etc.) based on the detailed design developed by the Contractor and handing over of the same in full accordance with the Employer's requirements. The base wide construction works within the site to include all elements necessary to complete the project aligned with the Indicative concept design and to include described and/or inferred works associated with the completion of the project.

4. SCOPE OF WORK

Scope of work includes applying the design principles, objective and expected outcomes illustrated in drawings. The Implementing Agency shall review the design and details for betterments or improvements if any which may be incorporated to better achieve the employer's goals and objectives. These betterments, if any, shall be submitted by the Implementing Agency to the Employer for review and for the approval before the commencement of on ground working stage. The Implementing Agency must make itself aware of general and specific site conditions, topography and any existing landscape prior to commencement of any works on site. The on-site execution scope of work comprises of preparation of detailed engineering design execution drawings, full, final and entire installation and completion of drain and road works to a 'best practice standard' for such works, (inclusive of box drain, road surface, road section elements, hardscape, soft-scape, street furniture, signage and lighting) and associated landscape services (levelling, drainage etc.) based on the proposal design developed by the Employer and Implementing Agency's good for construction drawings and handing over of the same in full accordance with the Employer's requirements.

The scope of work which shall be adhered during construction activities would include:

Storm Water Drain:

- Geo technical investigations if required as per site conditions.
- Identification of factors affecting the inundation of certain areas and suitable measures for addressing the problem.
- Prioritization of works and project scheduling.

- Cleaning of entire stretch of existing drain which may include dewatering and dredging.
- Removal of encroachments along the drain edges.
- Dismantling of retaining wall of existing drain on both sides, construction of new box RCC drain and related works.
- Dismantling of existing culvert.

Road. Electrical and other components:

- Dismantling of existing road along LHS side near building line and construction of new service lane and paved area at/along the opening of property line.
- Construction of 2 lane road over the drain. Alignment shall follow the alignment of drain.
- Required earthwork excavation. Excavation of buffer zone having trees along drains. The excavation to be done in a manner that existing trees are not damaged or uprooted. However, some trees need to be removed wherever required.
- Installation and commissioning of light fixtures.
- Works and activities for underground and overhead utilities and related fixtures during execution and fixing them as per directions provided by Engineer-in-Charge during execution, if any. This shall include, but not limited to, OFC cables, Electrical Cables and Lines and related fixtures like junction boxes, transformers etc.
- Landscaping, streetscaping and beautification work alongside road.
- Construction of new road elements such as service lane, Footpath, green zone & LHS of pumping station etc. as per specifications and approved design.
- Construction of utility ducts as per specifications and approved design.
- The Implementing Agency would also submit a complete timeline for scope of work to be carried out.
- The Employer will supervise and monitor the progress and Implementing Agency will provide necessary coordination.
- The Implementing Agency will do necessary coordination with various government departments and agencies related to road works like RCD, BSPHCL, PESU, BSNL, Forest Dept., PMC etc. on timely basis to ensure successful project implementation.
- The details of the manpower deployment for the project are to be monitored on regular basis.
- Implementing agency should ensure that there is least disturbance to the existing traffic flow, nearby structures and also ensure safety of the workers while working. Safety of workers and their timely payment, their on-site accommodation arrangements to be done as per law.

The further details of site location are given in this RFP. The bidders are suggested to make their own survey of location mentioned in order to acquaint themselves of the actual site conditions and conduct field survey before submitting their bid, if they consider it necessary.

General Scope and Specifications

Scope of work includes applying the design principles, Objective and expected outcomes illustrated in drawings. The Implementing Agency shall review the design and details for betterments or improvements if any which may be incorporated to better achieve the Employer's goals and objectives. These betterments, if any, shall be submitted by the Implementing Agency to the Employer for review and for the approval before the commencement of on ground working stage. The Bihar Building Construction Department (BCD) and Bihar Road Construction Department (RCD) specifications must be adhered to as laid down in the schedule of rates. Proper care must be adopted while execution to adhere to the specifications and details to preserve the ecological and historical values of the area. The Implementing Agency must be aware of general and specific site conditions, topography and any existing landscape prior to commencement of any landscape works on site.

The materials have been selected strategically with considerations of climate, design requirement and aesthetical value of Patna and surrounding region. The following table will explain the different section of materials used in the proposal. The specifications and approved make shall be as per Bihar BCD SOR,2022and Bihar RCD SOR 2022.

The list of approved makes/agency of materials will be as per Bihar BCD and RCD SOR. The general specification for works will be as follows:

CIVIL WORKS: The civil works consist of works such as dismantling, excavation, site cleaning; trenching, Plain Cement and Reinforced cement concrete works, bituminous concrete works, and Reinforcement steel works, centering and finishing works etc. as per the approved drawings by the Engineer-in-charge.

ELECTRICAL WORKS: Testing at manufacturer's works or at any accredited agency, supply, packing, forwarding and delivery from manufacturer's works/ place of storage to erection site including transit insurance, unloading, storage at site, assembly, erection, testing, installation, commissioning & performance demonstration and handing over of electrical works as per the direction of the engineer, new wiring and illumination of entire area (Landscape Lighting) related to the landscape development within the project area as of original ratings & specifications.

LANDSCAPE WORKS: Develop Landscape for the road comprising execution of Architectural, Landscape work (including Softscape/Horticulture and Hardscape) complete in all respect. The softscape works consist of works such as restoring top soil, excavation, site cleaning, Grading & drainages, mound & slope preparation, designing and planting shrub, trees & ground covers, designing and planting of lawn, street furniture's, dustbins, etc. as per the approved drawings by Employer.

DLP Obligation of Contractor: Correction and removal of any defect arising within three years after successful completion of the above work including repair works, provision of manpower & original spares, replacement with original or better component in case one turns faulty/ damaged/ defective during the course of entire DLP period in order to maintain the upkeep intact

**Cross Section
Elements Carriageway**

Parameter	Details
Design Speed	30 to 40 km/h
Row	Varies from 10 to 15 m and 35 to 50 m
Camber	2 to 2.5%
Carriageway width	5.5m continuous on both sides of central median

Median

The Central Median Width is 0.5 m with landscaping and street light poles.

Pedestrian Pathway

Component	Recommendations
Gradient	1:20
Maximum height from road level	150mm

Landscaping/Green belt/Planter

The median green buffer of 0.5 m is throughout the street and green buffer on both sides of main carriageway ranging from 1 - 2 m is to be incorporated as per the existing RoW available.

Other Features- Street Furniture & Support Facilities

- Street furniture comprising of light poles, bollards, traffic signs, seating, trash bins, sign boards etc. are planned at appropriate locations as per design.
- This road being a major arterial road street vending will be allowed with restriction in this road.

Road Signs

To ensure safe and efficient flow of traffic in the project corridor, traffic shall be regulated through system guidance and control systems. Accordingly, traffic signs, both post and gantry-mounted, of retro-reflective types, as per IRC: 67:2012 shall be provided as follows: -

Mandatory Regulatory signs

Violation of these signs is legal offence e.g. stop signs, speed limits near schools, villages etc.

Warning / Cautionary signs

These signs are to warn the road users of existence of certain restrictions / hazardous conditions.

Informatory signs

These signs are for information purposes e.g. petrol pump, hospitals, direction signs, route number etc.

Road Markings

Road markings with thermoplastic paint shall be adopted for traffic lane markings, edge markings, arrows, kerbs etc. as per IRC 35-1997.

Electrical Works and Other Utilities

The scheme covers the complete Electrification in form of street lights, side walkway lights and High mast light in the proposed development The utility shifting and electric works will be done as per approved estimate and specifications of Bihar electricity department i.e. South Bihar power Distribution Company limited. (SBPDCL) All Electrical work shall be done as per code of practice for Electrical installations and meeting the requirements of Indian Electricity

Rules/Act, applicable I.S. Codes/Rules and relevant I.S. Specifications as below.

- Indian Electricity act
- Indian Electricity Rules
- IS:732 Code of practice for Electrical Wiring Installations
- IS:4648 Guide for Electrical Layout in residential building
- CPWD Specifications for Internal Electrical Installation Works
- Special requirements of Bihar State Electricity board.

The Implementing Agency shall review the existing underground and overhead utilities situation in terms of 33KV, 11 KV and LT lines, OFC cables, Gas Line, Water Supply Line, Sewer Line, Telephone Cables and Lines etc. and supporting infrastructure on site. The Agency will carry out the activities and tasks related to dismantling, shifting and relaying of utilities and related infrastructure on site during execution in coordination with concerned department and agencies and implement the recommendations on ground as per directions received from concerned department and agencies.

Streetlights

Modern lighting technology and fixtures will be used by maximizing road components and making it easier to adopt energy-efficient, cost-saving strategies. Use of LED lights and energy star rated lighting fixtures are to be used for saving energy in the median street lights. Necessary indoor and outdoor lighting arrangements will be covered as per the prevailing rules within the project area. Electric supply for the road shall be received from Bihar on 11 KV from the nearest Grid Sub-Station through Underground Cable upto the 11 KV HT meter room from the existing substation as decided by SBPDCL. The types of lights proposed in the project are as below:

S. No.	Type	specifications	Areas
1	Ll-Street Post Top lights	LED light above 8m high MS post with two arms, 120 Watt	Along the median at 30m C/C

2	L2-LED post top lights	6m high on pole LED post top made in cast aluminum with decorative clear opal acrylic diffuser and IP65.	Alongside footpath
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Street Furniture

- **Signage's:** The signage's will be embedded and camouflaged with surrounding materials. The signages will be integrated into its structures like benches, pillars of kiosks or boundary walls. The modern signage would be metal finish pre-fabricated to be as per the landscape of the site. The samples and design shall be approved by PSCL before execution.
- **Sitting Benches:** 3-seater FRP benches with cast iron side support of approved make and quality or cement concrete benches.
- **Dustbins:** Dustbins are to be provided at places as required which will be harmonized with design of the areas. The dustbins would be of pre-cast or metal to be as per the landscape of the site. The samples and design shall be approved by PSCL before execution.

Description	Employer's Requirements- Design parameter
Drain Works	Construction of Twin section RCC box drain as per the approved design and drawings. The invert levels of drain should be properly matched at all points. Silt traps shall be provided at as per the approved design and drawings. The top level of the drain should act as a road surface with a double carriageway of 5.5 m each and a median of 0.5 m in middle. The alignment of new box drain shall be same as the existing alignment of Mandiri Nala. Providing and laying Non- Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc. complete (450 mm dia). There will be provision of RCC service drains on both sides of road alongwith electrical duct will be provided on LHS as per the approved design and drawings.
Carriageway and Traffic Calming Measures	Main Carriageway (RCC) and Service road (bitumen) with layers as per approved design and drawings. Raised pedestrian crossings (table top crossings) at certain locations to reduce vehicle speeds and enable safe pedestrian crossing. As per IRC 103-2012, recommended width of table top crossings is minimum 3m. Provision of speed breakers of bitumen at specified locations in the main road (at spots where U-turn is provided with cut in central median) Recommended slope of ramps 1:10 with 10 KMPH target speed for motorized vehicles. Ensuring a barrier free access with ramps at a reasonable grade or level grade to facilitate easy crossing for all including wheelchair users and pedestrians with disability. Pedestrian refuge island wherever necessary. Intersection design (as per IRC SP 41-1994) considering safety, ease, discipline and visibility.

Road Works (Service road)	Dismantling of existing service road on LHS. Providing and laying bituminous course, granular course, wet mix macadam, Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means, Providing and applying Tack Coat by using bituminous emulsion complying to IS: 8887 over prepared surface with all leads and lifts etc., Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder@ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects, Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder@ 5.4 to 5.6 % of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects
Pedestrian Pathway	Maximum height from ground level to be 150mm and as per approved design.
Access to existing private properties	To access to the private properties from road sides to be made in form of vehicular ramps to have max. slope of 1:10
Street furniture	To provide street furniture of high aesthetic value, comfort and quality to include comfortable seating designed for permanent fixing using exterior grade material, waste bins using exterior grade material, bollards of precast concrete, concrete tree grates, tress guards etc key considerations while locating street furniture is that to integrate multiple elements like light poles, signages, trees, street furniture like benches and waste bins, into cohesive layout scheme. First priority to be given to functional elements like light poles, statutory sign boards, trees etc.
Seating bench	To be located as per approved design. To maintain 500mm separation from movement corridor.
Waste Bins	Each bin to have two separate containers for liquid and solid waste (green and blue color) finished with a lid to ensure hygiene and aesthetics. Bins may be provided at every 200-300m. bins to be located such that they do not obstruct the movement area and are easily accessible by waste collection vehicles.
Bollards	Bollards to act as safety element to separate pedestrians or streetscape elements from vehicular traffic. Provision of bollards may be considered at intersection corners, sidewalks adjacent to service road or main road, on either side of vehicular access ramp to properties, near median pedestrian refuge islands and kerb extension, alternate bollards may be proposed at locations like plazas and pedestrian oriented area etc.
Road signage	As per IRC 67-2010. The sign boards should not obstruct footpath and clear movement area for pedestrians. Sign boards to be installed in the buffer zone and edges. Use of high-quality material with durability in the public realm is required.
Street lighting	Street lighting (combined vehicular and pedestrian) to achieve a combined lighting lux level of 35 and a minimum uniformity factor of 0.4. pathway lighting horizontal luminance for average 15lux should be maintained throughout. Street lighting average 25 Lux should be maintained. To guarantee identification of pedestrians from all directions, minimum 5 Lux of vertical, illumination is needed. Pathway lighting uniformity (ratio of min, luminance, and average luminance) should not be less than 0.5 and the ratio of min and max. luminance should not be less than 0.6 and ratio of min. to max. luminance should not be less than 0.33. light beam control is very important in pathway/street lighting as precise beam control reduces wastage of light. Precise beam control also increases the intensity of light within the pathway by directing more light within the appropriate area. S, LED luminaire with very good lens system should be used

	to make the light beam more precise for pathway. There should be no luminous intensity above 90 deg(pathway) and 95 deg (road)
Utility Services	Improvement of below grade infrastructure with introduction of utility ducts to reduce unnecessary road cutting for utility maintenance. Existing connectors for sewer and storm water drain to be retained and made good. Electrical up-gradation works include undergrounding of electric cables, removal/shifting of existing transformers, junction boxes, installation & commissioner of new compact substations etc.
Paving (for footpaths)	Providing and laying of 60mm thick factory-made cement concrete paver block of M-60 grade made by block making machine with strong vibratory compaction and of approved size and design/shape and laid in pattern over and including 40mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per directions of Engineer-in-Charge. Anti-Skid Concrete Tactile Paver of size 300mm (L) x 300mm (W) x 9.8mm (D) matching adjacent paving color for visually impaired pedestrians having water absorption less than 0.5% and confirm to IS 15622 of approved make in all colors and shade for outdoor application such as footpath laid on 20mm thick base of cement mortar 1:4 in all shapes and patterns including grouting the joints with white cement mixed with matching pigments.
Cement Concrete	(for vehicular entrances, slopes etc.) construction of unreinforced plain cement concrete in M-30 Mix design over a prepared sub base with cement contents 350kg per cum and coarse and fine aggregates confirming to IS:383 mixed with concrete mixer using weight batcher, laid in position over 125 micron thick polythene sheet, compacted with needle vibrator, screed vibrator and plate vibrator, dewatering of free water with vacuum pump, finishing the surface with power floater, including provision of contraction and expansion joints as required, finishing to required lines and grades. Broom finish, color pigment grey or as per approval. CC ramps to be laid over slab thickness 125mm or relevant structural standards. Slump of concrete should be maximum 110mm. slab length should not be larger than 9m in any direction. Construction joints at 2m c/c.
Raised Kerb	Smooth material PCC curbstone of size 300mm (L) x 150mm (W) x 300mm (H). Providing and fixing or near ground level precast cement concrete kerbs, edging etc. as per approved pattern and setting in position with cement mortar 1:3 including the cost of required centering and shuttering. Grade M20 1:2:4 grey colour, smooth finish M30 grade concrete. Kerbs shall be laid on firm foundation of granular layer/base course of pavement, it shall be fixed with bounding of bituminous crust and median filled materials.
Kerbs	Construction of Median and Island with Soil Taken from Roadway Cutting (Construction of Median and Island above road level with approved material deposited at site from roadway cutting and excavation for drain and foundation of other structures, spread, graded and compacted, Kerb-Stone Block- M30 Grade as per approved design.
Cement OPC	As Specified in Bihar SOR
Acrylic paint	As Specified in Bihar SOR
White Cement	As Specified in Bihar SOR
Steel	As per approved design, drawing and specification
Benches	As per approved design, drawing and specification
Bollards	As per approved design, drawing and specification
Tree Grating	As per approved design, drawing and specification
Light Poles- Median. Design & costing with M-20 cement concrete foundation suitable for octagonal poles considering safe soil	Supply and erection of 8-meter height Hot-dip galvanized octagonal street light pole with following arm with top dia 70 mm and bottom dia A/F 130 mm, made of 3 mm thick sheet along with base plate of size 260x 260 x 16 mm, small door opening for junction box mounting and suitable size foundation bolts with template and all complete as required. (but without pole caller), double arm 1500mm. Supply and fixing of 120-watt type LED street light with die cast

bearing capacity at site IOT/Sqm at 2 mtr. Depth i.e. excavation, foundation, nut & bolts in approved manner.	aluminum housing for ingress protection of IP65 and complete with all accessories etc. on pole/building including connection with FR PVC insulated copper conductor cable and earthing the body etc. as required
Light Poles- Footpath	Supply and erection of 6-meter height Hot-dip galvanized octagonal street light pole with following a ram with top dia 70 mm and bottom dia A/F 130 mm, made of 3 mm thick sheet along with base plate of size 260x 260 x 16 mm, small door opening for junction box mounting and suitable size foundation bolts with template and all complete as required. (but without pole caller), single arm 1500mm. Supply and fixing of LED post top made in cast aluminum with decorative clear opal acrylic diffuser and IP65 and complete with all accessories etc. on pole/building including connection with FR PVC insulated copper conductor cable and earthing the body etc. as required
Road Marking	(Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes.) for center line, edge line, stop line, zebra crossing, rumble strip, directional arrows, reflectors, text etc.
Traffic Signs	Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing. Direction and Place Identification signs upto 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.)
Kerb-Median Painting	Painting two coats using 1st quality synthetic paint over one coat of appropriate primer of approved brand, colour, and shade over the concrete surface as per the approved pattern etc., complete for finished item of work, as directed by Engineer-in-Charge and MORT&H specification no.803
Cross Duct	As per approved design, drawing and specification

All above material should be as per relevant IS Code and work completed as per direction of E/I. Design Mix/Lighting material/Landscaping. Etc. related work first approved by the client then it will be used for construction and work completed as per direction of E/I.

Provisions of Screening

- The provision of grating to be made at appropriate intervals for cleaning as per approved drawings.
- The provision for release of harmful gases of drain to be made at proper intervals.
- The process of mechanical cleaning by using suction/super-sucker machine is to be tested at site and manhole opening has to have provisions for the same.
- Provision of sill trap to be provided as per approved drawings as per the site feasibility to avoid siltation in drain.

Details of Landscaping

A focus on year-round colour and interest is a focus of all our schemes, with typical favorites in shades of Red, Yellow and Whites, or specific colour-themed planting. Planting is designed such a way that can perform as a function of shading in hot summer, adding colour to the space..

Different plants have been used to create sense of enclosure in some places, define boundaries and create canopies for other shade loving plants. Hedges been created to have a soft material for dividing internal spaces. Tree and shrubs along boundary wall are proposed to create visual barrier for the surrounding settlements and chaotic areas.

Large trees are used to provide shade for sitting areas as no hard structures has been propped as a shading structure. Establishing buffer zones takes minimal effort and requires little maintenance. These specific plants are proposed to have aesthetic purpose which will be planted as per site conditions/approved drawings/approval of engineer-in-charge.

EVERGEN TREES (Ht- 3000mm)
<i>Azadarichata indica</i>
<i>Markhamia lutea</i>
<i>Terminalia mentaly</i>
<i>Wodyetia bifurcata</i>
DECIDUOUS TREES (Ht- 3000mm)
<i>Cassia fistula</i>
<i>Lagerstomia speciosa</i>
<i>Delonix regia</i>
<i>Jacaranda mimosfolia</i>
SHRUBS (Ht- 300mm)
<i>Lantana sellowiana</i>
<i>Acalypha red</i>
<i>Acalypha green</i>
<i>Ficus panda</i>
GROUND COVERS (Ht-200mm)
<i>Iresene herbstii</i>
<i>Alternenthra red</i>
<i>Dianella tasmanica</i>

The plantations are planned in the median and buffer zone covering the entire road as per the existing RoW available. Apart from that, intermittent plantations are planned on both sides of the road.

GENERAL INSTRUCTIONS FOR WORK

1. Indian Standard Specifications

The particular Specifications for the work is as detailed in this RFP. These specifications shall be read in conjunction with the relevant Indian Standard Specifications, PWD specification (latest revision) and the obtainable local practice as detailed in various regional handbooks of practice and the work shall be executed accordingly. Where the specifications in any of the standards are at variance with the specifications detailed herein, the specifications herein shall govern.

In case of any ambiguity/contradiction among different specification, the decision of Authority shall be final and binding on the Contractor

2. Quality of materials & General Standards of work

The Contractor under this contract commits himself to use first class materials and assumes full responsibility for the quality of all material incorporated or brought for incorporation in the work. The work shall be executed in accordance with best engineering practice and as per direction of Authority /any Agency deputed by Authority. In all possible cases, sample approval shall be ensured by the Contractor from Authority /any Agency deputed by Authority before bringing in the materials in bulk at site and the approved sample shall be well preserved at site at the risk and cost of the Contractor as a ready reference. Over and above, the submission of test certificate by the manufacturer, Authority may instruct further sample testing from Government laboratories / testing houses at the risk and cost of the Contractor for submission of test reports to become eligible for payment for those particular items used at work.

In all possible cases, where the warranty of manufacturers is sought for by the Authority, the Contractor shall submit the cross warranty in the form as directed and in manner including workmanship etc. along with the manufacturer's warranty certificate.

The relevant IS and PWD specification shall have to be complied for all possible cases. The relevant clauses of GCC shall also be applicable and should be read in conjunction with technical specification of this contract.

In case of any anomaly / contradiction, decision of Authority shall be final and binding on Contractor.

No extra claim shall be admissible for sample testing, sample approval, testing of sample at site etc. to the Contractor and shall be considered as deemed to have been included in the rates quoted by the Contractor.

All works shall be carried out strictly according to the drawings and instructions of Authority /any Agency deputed by Authority. If, in the opinion of the Authority /any Agency deputed by Authority/ Architects, any portions of the work are found to be defective or unsound the same shall be pulled down and reconstructed at no extra cost to the employer. Defective materials shall not be brought to the work site by the contractor.

3. Acquaintance with Site Condition

The intending tenderer is deemed to have visited the work site and acquainted himself of the nature of the sub-soil to be executed. No claim or extra will be allowed as a result of any misunderstanding or incorrect assessment or misinformation or ignorance of the contractor on the prevailing site conditions or soil strata.

4. Measurements

The mode of measurements, wherever possible, is specifically mentioned in these documents, where it has not been mentioned, it shall be as per provision of the relevant Indian Standards IS 1200 or PWD Specification or Standard Practice as applicable. All the measuring equipment's, labour, manpower and other accessories necessary, shall be provided by the Contractor at his own risk and cost.

5. Surveying

It is the express responsibility of the Contractor to bring to site all surveying instruments necessary for the marking out, fixation of levels, etc. and conduct these survey operations himself with utmost accuracy. The Contractor shall put-up stable bench marks etc. as necessary for the work. Representative (s) of Authority may

be present when this work is being carried out and will inspect all these operations with the Contractor's assistance. The Contractor shall be entirely responsible for accurate setting out of the work and he shall at his own expense make good any defects arising from errors in line and levels. Before commencement of excavation, spot levels on an approved grid covering the work area shall be taken by the Contractor in consultation with the Authority and a proper record of these levels shall be kept jointly signed by the Contractor and the Authority.

6. Concreting Materials

Unless otherwise stated herein all aspects of the concrete work including materials, specifications, preliminary mix designs, workmanship and inspection testing stipulated in specifications of "plain and reinforced concrete" shall apply.

Cement shall be ordinary Portland cement conforming to IS 8112, IS 12269 unless specified otherwise. Maximum size of aggregates shall be 20 mm.

Concrete, for piles cast in situ shall have sufficient slump (125 to 175 mm) to give it a self- compacting consistency. The water cement ratio including the water contained in the aggregates shall be limited to 0.55 unless otherwise stipulated. Plasticizing agents may be used by the contractor to improve the workability but the Authority shall be furnished with proof that the proposed plasticizing agent has no adverse effects on the hardened concrete or reinforcement.

One set of test cubes (6 Nos.) should be taken for testing strength of concrete. Three of the six cubes constituting one test shall be tested on the 7th day from casting the cubes and the remaining three cubes shall be tested on the 28th day after casting.

Authority reserves the right to reject any pile of deficient concrete strength. Such rejected piles shall be replaced by the contractor at his own cost who shall also bear the additional costs of widening the pile caps resulting from the grouping of the piles as a result of replacement of piles.

Authority also reserves the right to order change in the mix design and/or water cement ratio to obtain the specified strength or workability.

7. Boring Operations

Boring may be done by direct mud circulation, reverse mud circulation or by bailer using drilling mud to stabilize the bore hole from collapsing.

A protective steel casing of suitable length both above the ground and below it shall be installed for protection of personnel and to prevent cavities and displacement of the earth and for retention of the surface water.

In direct mud circulation method entire hole should then be kept full with the fluid which should be kept in motion. The density and composition of the fluid should be such as to suit the requirements of ground conditions and to maintain the fine materials from the borings in suspension. The bottom of the boreholes shall be cleaned of all the spoils and sediments before placing of concrete.

Consistency of the drilling mud suspension shall be controlled throughout the boring as well as concreting operation in order to keep the hole stabilized as well as to avoid concrete getting mixed up with the thicker suspension of mud.

8. Concreting

Concreting of boreholes shall start as quick as possible after its completion. Should a bore hole be left un-concreted for more than two hours, it shall again be cleaned thoroughly before placing of concrete. The concrete shall be freshly mixed and poured in sufficient quantities in the casing so that during the withdrawal, a sufficient head of concrete is maintained to prevent the inflow of soil and subsoil water. The entire portion shall be concreted in one operation without stoppage.

All concreting operation shall be carried out during day time only. Exposed portions of concrete work shall be cured for at least 10 days from the date of casting.

When installing the piles in groups, sufficient time shall be allowed for freshly poured concrete in pile to set before installing adjacent piles. Authority in consultation with the Contractor shall determine the installation sequence and time schedule to ensure that freshly concreted piles are not damaged due to installation of adjacent piles. Consecutive piles in a group within 0.5 m of each other shall however not be constructed before a lapse of 2 days after the installation of the previous pile.

All care shall be taken to prevent formation of voids in the piles by pockets of air trapped within. Particular attention shall be paid to this during the withdrawal of casing. The volume of concrete placed in the pile shall be checked with the theoretical volume of the pile, and any shortfall in the actual volume concreted shall be reported to the Authority.

After the boring has been flushed and approved and with the reinforcement in place, the pile shaft shall be concreted by the help of tremie pipe. It should however be ensured that concrete entering the tremie pipe shall not get mixed up with the slurry, as described above for lined bored piles. Before concreting the bore shall be flushed once again with bentonite slurry through the tremie pipe to ensure that the bottom is cleaned after placing the reinforcement. The tremie pipe shall always be maintained a minimum 2 to 2.5 m inside the concrete.

9. Earthwork

(a) Excavation

Excavation for trenches over areas and for pits, etc. shall be done to widths, lines and levels as indicated in drawings or to such lesser or greater widths lines and levels as directed. The bottom and side of excavation shall be trimmed to required levels, profile, etc. watered and thoroughly rammed. Where the Contractor excavated below required level in good ground inadvertently or carelessly they shall make up the void in concrete (1:5:10) at his own expense. During excavation the Contractor shall take necessary precaution to retain earth (viz sal ballah piling, shoring etc) so that the earth will not slide or fall down to avoid any accident and hamper the progress of work at his own risk, responsibilities and cost. They will take necessary step to prevent the damage the adjacent structure or existing services. They shall repair and make good any such damage at their own expense to the satisfaction of the Authority. A suitable path for men and materials around the excavated pit should be maintained throughout the work.

(b) Shoring

The sides of excavation should be supported in such a way as is necessary to secure these from falling in and the shoring shall be maintained in position as long as necessary. The Contractor shall be responsible for the proper design of the shoring to be approved by the Engineer - in - Charge to hold the sides of the excavation in position and ensure safety of persons and properties. The shoring shall be removed as directed after the items for which it is required are completed. Unless otherwise mentioned in the schedule of quantities, no extra payment will be made for shoring.

(c) Local sand filling

Filling local sand may be silver sand having silt content less than 5% by weight and 300mm compacted thick layers will be spread, wetted & saturated to achieve the compaction. However, for any special case, Authority may instruct filling by sand other than silver sand which the Contractor shall comply. The specification etc. shall be guided by relevant IS code

(d) Disposal of excavated materials

All materials excavated shall be removed from the site of excavation and disposed off during excavation with prior written permission of Authority from the site in an approved manner with the approval of local authority. No extra claim on any account will be entertained. The Contractor must also secure the approval of the Authority regarding the quantity of surplus materials to be removed prior to commencement of this item of work.

10. Cement

Cement for the work shall be either of ordinary Portland Cement conforming to the latest Indian Standards IS:8112 - 1989 for 43 grade and IS 12269 -- 1987 for 53 grade or Portland Pozzolana Cement conforming to IS1489 (Part 1) 1991- specification (fly ash based) IS1489 (Part 2) 1991, - specification (Calcined clay based) and of the best normal setting quality unless a quick setting quality is expressly instructed in the specifications

or otherwise during the course of the work by Authority. If directed the Contractor shall purchase Portland cement as fresh as possible after manufacture and where there is reason to believe the cement has been long stored, Authority may demand a Laboratory Test Certificate regarding the character of cement and the Contractor shall furnish the same at no extra cost. Authority shall reject any cement which in its opinion does not meet the required standards.

The list of manufactures for cement as per the list of BOQ or as instructed in writing by Authority.

Any field or laboratory test for cement, if asked for by Authority shall be carried out at the risk and cost of the Contractor as per provision of relevant IS codes.

All bags and containers in which cement is packed shall be stored in a dry, weather-tight, properly ventilated structure with adequate provision against prevention and absorption of moisture. The Contractor shall at all times maintain for the inspection of Authority, a logbook indicating the receipt of cement, brand and agent from whom obtained and the age of cement which has caked or perished by being wet or otherwise, shall on no account be used on the work. Cement shall be consumed on the works in the same sequence as that of their receipt at site. Cement reclaimed from cleaning of bags or from spillage from containers or otherwise shall on no account be used. The cement is to be stacked in an orderly and accessible way to permit Authority physical verification of existing stock at all points of time. The Contractor has to ensure furnishing a copy of manufacturer batch test certificate along with every lot of supply.

If so felt, Authority may instruct the Contractor for further testing of cement in Govt. laboratories/testing houses has been detailed in the relevant clause of GCC, over and above the/ submission of test certificates at the risk and cost of the Contractor.

11. Fine Aggregate

Fine aggregate shall generally conform to latest Indian Standards (IS:383). Sand shall be natural sand, crushed gravel sand or crushed stone sand at the discretion of Authority. Use of sea sand is prohibited. It shall be composed of hard siliceous material and shall be clean and of sharp angular grit type. Sand shall be properly graded minimizing all voids.

Its grading shall fall within the limit of grading zone I , II for non-plastering work and Zone III for plastering work

Allowance for bulking of sand shall be made. Silt content shall not be more than 5%. Laboratory equipment such as measuring jars etc. are to be kept at site for time to time checking of bulkage and silt content.

For sand testing periodicity may be given at the rate of every 150 cum of concrete work of all kinds (apart from RMC) and part thereof. For plastering work however, a separate periodicity of testing in term of every 500 SQM of plastering of any thickness irrespective of number of coats and part thereof is to be adopted. For brick masonry one test for 100 cum or part thereof for masonry may be adopted. The tests so mentioned shall have to be carried out through reputed Central/State Government registered testing house/ laboratory and not from site testing facilities.

All tests, to carry out field as well as laboratory tests shall be borne by the Contractor.

12. Coarse Aggregate

Coarse aggregate shall be approved hard aggregate generally conforming to latest Indian Standards: IS- 383. The following tests should be carried out for every new lot of supply: ---

- Crushing value
- Impact value
- Sieve analysis
- Deleterious material - Flakiness index

For every 150 cum of concrete work of all kinds (apart from RMC) and part thereof one test shall be carried out.

All costs to carry out field as well as laboratory tests shall be borne by the Contractor.

13. Water

Water conforming to IS 456 - 2000 for all concrete work shall be clean, free from deleterious matter such as oils, acids, alkalis, sugar and vegetable matter. Every attempt shall be made to use water which is fit for drinking purposes. Water storages facilities provided by the Contractor shall be maintained properly to preclude contamination of water by any of the harmful substances. Authority may instruct the Contractor to carry out test of water sample as per provision of relevant IS code in Govt. laboratories and the Contractor shall comply the same at his risk and cost. The quantity of water to be added to concrete for mixing shall be such as to afford workability consistent with strength. Water/cement ratio shall be recorded in every batch of concrete. Arrangement for slump cone test shall be kept at site to arrive workability whenever Authority wants to check at site. The periodicity of testing may be conducted as once in every batch of concrete and part thereof.

14. Tests for determination of strength of Reinforced concrete

Contractor shall make every effort to obtain the specified strengths by good quality control. In case of concrete which does not obtain the specified strength at 28 days, such work shall be demolished and reconstructed to obtain the requisite strengths all as directed by Authority. To determine whether concrete in any particular part of the work is of the requisite strength or not, test cubes (works test cubes) shall be made from samples collected from the concrete being poured for the particular part and determined as per acceptance criteria detailed hereinafter. The salient features for the collection of samples is as indicated below:

The size of cubes to be prepared and tested shall be 15 x 15 x 15 cm.

All costs for sampling and field as well as laboratory testing shall be borne by the Contractor.

The number of cube tests in a work shall be entirely at the discretion and as directed by the Authority. Cubes shall generally be collected for various structural members and also for works at various levels. It shall also be collected whenever the usual quality for a particular strength is in suspect. The number of cubes may at most be twelve or even more as instructed by Authority and as per provisions of relevant IS code on any given day in a particular work. However, in case other important casting works are running in parallel with a major concreting work, additional cubes in the range of six or twelve shall be taken for each of them as well.

15. Batch Mixed Concrete

Concrete shall always be mixed in a mechanical mixer unless specially approved by Authority. Hoppers for weighing cement, mineral admixtures, aggregates and water and chemical admixture (if measured by mass) shall consist of suitable container freely suspended from a scale or other suitable load-measuring device and equipped with a suitable discharging Mechanism. The method of control of the loading mechanism shall be such that, as the quantity required in the weighing hopper is approached the material may be added at controllable rate and shut off precisely within the weighing tolerances as specified. The weighing hoppers for cement, mineral admixtures aggregate shall be capable of receiving their rated load, without the weighed material coming into contact with the loading mechanism. Where the rated capacity of a batching plant, mixing cycle is less than 2.0 m³, additional precautions shall be taken to ensure that the correct number of batches are loaded into the truck mixer. The weighing hoppers shall be constructed so as to discharge efficiently and prevent the build-up of materials. A tare adjustment, up to 10 percent of the nominal capacity of the weigh scale, shall be provided on the weighing mechanism so that the scale can be adjusted to zero at least once each day. Dust seals shall be provided on cement hoppers between the loading mechanism and the weigh hopper, and shall be fitted so as to prevent the emission of cement dust and not affect weighing accuracy. The hopper shall be vented to permit escape of air without emission of cement dust. Before loading concrete materials or mixed concrete into either a stationary mixer or truck mixer any water retained in the mixing drum for washing out purposes shall be completely discharged. The mixing time shall be measured from the time all the materials required for the batch, including water, are in the drum of the mixer. The mixing time shall not be less than that recommended by the manufacturer. Where a continuous mixing plant is used, the complete mixing time shall be sufficient to ensure that the concrete is of the required uniformity.

Concrete shall be handled from the place of mixing to the place of final deposit as quickly as practicable, by method which will prevent the segregation or loss of any of the ingredients. If segregation occurs during transport, the concrete shall be remixed before use. The concrete shall be placed in position and compacted before the initial set of cement has commenced and shall not be subsequently disturbed. Concrete shall not be dropped into position from a height greater than 1.50 metre.

16. Slump

If in the opinion of Authority, slump cone tests are required to be performed to establish workability the same shall be carried out at free of cost. Slump tests are however, to serve as guide only.

17. Ready Mixed Concrete

The Contractor shall buy the RMC from approved manufacturer only. The Contractor in association with the manufacturer will make a suggested trial mix with correct water cement ratio, slump and workability. The tests results will determine the cement content and water cement ratio that produces the required strength. The design mix as per stipulated strength of concrete mentioned in this technical specification shall be approved by the Consultant or any other designated authority as directed by Authority.

The Contractor should arrange a material hoist to carry the wheelbarrow to the floors under construction for transferring of concrete and a smooth runway is to be provided for their travel to avoid any segregation or concrete mix may be carried by head load for placing of concrete as directed by Authority from the point of transfer of concrete at upper floors. During transferring of concrete to walls or deep beams baffle board, downspout or chute to be used for prevention of segregation. It is essential to closely supervise the discharging of concrete to prevent segregation at all points. The alternative approach can be to pump out the ready mixed concrete to the location. The method of pumping/placing, the W/C ratio and the plasticizer used need to be approved before commencing the operation as defined herein above in this clause.

Regular mandatory tests on the consistency and workability of the concrete after transferring from transit mix trucks at job site shall be done to achieve the specified compressive strength of concrete. The frequency of testing and the acceptability criteria will be according to I.S: 456 and I.S:516. A register of work test of concrete shall be maintained at site by the Contractor. Cube testing register in standard CTE format is to be kept at site. Authority shall decide whether a particular set of cubes would be tested at site or at a reputed central/state government registered testing house/laboratory. In any case, at least 20% of the testing would be carried out at such laboratories. The Contractor shall undertake the entire cost of transporting of cubes to such testing facilities outside the site and testing charge therein.

In general payment for RMC shall be made on the basis of actual measurement or as per drawing, whichever is less, for different reinforced concrete elements at site. If any deviation from the original drawing is required as per decision of the Authority, the Contractor shall comply to the same during execution. In such case, the payment will be made based on the actual measurement of different reinforced concrete elements or as per revised drawing issued subsequently whichever is less. No extra payment will be made for wastage during transfer of RMC at site or extra concreting done by the Contractor at his own. The rate includes the cost of materials and labour for carrying of RMC to upper floors, placing, consolidating, finishing, curing & testing etc.

The Contractor shall submit the design mix report and its further corroboration through trial cube tests (both 7 days and 28 days) from a reputed institute like NABL Approved Lab or Govt. Institution for approval by Authority and adoption at site. All related cost would be borne by the Contractor.

No RCC work shall be taken up till such time final test report of trial design mix is not available with Authority. In case any admixture is used in RMC it shall conform to IS : 9103 latest edition and after obtaining necessary approval from Authority.

For RMC concreting, regular cube tests in the multiple of six (three for 7 days and three for 28 days respectively) are to be carried out as per IS :456 (latest revision) and the works to be carried out as per stipulations laid down in IS codes and clearance by Authority. The decision of Authority shall be deemed as final in this regard

18. Transporting, Placing and Compaction of Concrete

No mixing of concrete shall be started unless the situation where they are to be poured are prepared and kept ready. Concrete shall be poured immediately on preparation. Transporting of concrete shall be done as speedily as possible and also in a manner to prevent segregation of aggregates. No retempered concrete shall be allowed to be used on the works. No concrete shall be allowed to fall through a height more than 1.20 M. where the concrete to be placed from more height it should be done through chute as per specification and relevant IS as directed by Authority.

Before fresh concrete is placed against an already cast and hardened section, such surfaces shall be roughened, swept clean, moistened with water and treated with cement slurry. Fresh concrete shall then be poured as required. Under no circumstances, concrete mixed more than stipulated initial setting time as per IS code shall be used. Dewatering of excavations for concreting where necessary shall be carried out by the Contractor as directed and the rates quoted by the Contractor are deemed to be inclusive of such dewatering. No concreting shall be done in adverse weather condition, except exigencies with proper precautions or prior approval from Authority.

19. Cover for reinforcement

Where not specifically indicated in the drawings, concrete cover for reinforcement shall be as per the latest Indian Standards IS 456 - 2000 and as per directions at site from time to time. Proper concrete cover blocks adequately cured to suit various covers as required shall be provided in adequate numbers sufficiently ahead of the work.

20. Construction joints

Construction joints in concrete work shall be generally avoided to the maximum extent possible and may only be provided only at predetermined places as per direction and in consultation with Authority. Joints shall be provided as specified in latest Indian Standards or as directed by Authority.

21. Curing

It is very important that all cement concrete work shall be cured properly. All concrete work shall be kept continuously in a damp or wet condition by pouring or by covering with a layer of moist sack, canvas, hessian or similar material for a period as stipulated in the relevant IS codes and specifications from the date of concreting. Water used for curing shall also be free from any deleterious substances and shall generally be fit for drinking. The work shall be adequately protected from drying, winds and direct sun rays. The Contractor should arrange at his own cost a temporary water supply line with provision of centrifugal pump, valves etc. for curing and constructional purpose at higher level.

22. Damp Proof Course

The damp proof course shall consist of a layer of 40mm thick PCC (1:2:4) type BO and shall be mixed with water proofing compound conforming to IS: 2645 liquid grade as per manufacturer specification and as per standard MES specification. Water proofing compound shall conform to IS2645. It shall be mixed with concrete in the proportion and in the manner as given in manufacturer's instructions.

Deviations if any shall be on the basis of water proofing compound actually incorporated in the work. Damp proof course shall be provided on all brick walls, PCC walls and brick pillars for their full length and width at the ground floor. Damp proof course shall also be provided under openings/door opening at depressed level

including vertical faces of depressed level and including vertical faces of depressed portion of opening as per requirement of clause 5.8.1.3 of IS - 2212. However, damp proof course shall not be provided over dwarf walls/RCC columns.

23. Cleaning and Treatment of Forms

All rubbish, particularly chippings, shavings and saw dust, shall be removed from the interior of the forms before the concrete is placed and the form work in contact with the concrete shall be cleaned and thoroughly wetted or treated with an approved composition. Care shall be taken that such approval composition is kept out of contact with the reinforcements. Interior of all moulds and boxes must be thoroughly washed out with a hose pipe or otherwise so as to be perfectly clean and free from all extraneous matter previous to the deposition of concrete.

Prior approval of the form work should be taken from Authority before placing reinforcements on form work. No concrete shall be commenced until Authority has inspected the form work and until his approval is obtained. A notice of at least 24 hours shall be given to the opinion of Authority any materials is not accordance with the specification or the form work, is wrongly done or otherwise defective the Contractor shall immediately remove such materials from site and replace the same and rectify any other defects in accordance with the instruction of Authority and to his entire satisfaction.

The lines, levels, form work, reinforcement etc shall be checked by the Contractor with subsequent approval / checking by Authority prior to allowing of concreting, by Authority. However, the cost, labour etc. for such checking shall be borne by the Contractor and this will not relieve any of the obligations under this contract.

24. Reinforcement

High strength deformed steel bars produced by Thermo Mechanical Treatment process (TMT steel bars of grade Fe 500) shall be used for reinforcement work unless otherwise mentioned. This shall conform to the standard and quality in accordance with IS:1786 (Latest edition) and other relevant IS Codes. Bending and cutting of reinforcing steel bars shall conform to IS: 2502. Lapping of bars where necessary shall be done as per IS specifications.

➤ Storage

The reinforcement shall not be kept in direct contact with the ground but stack on top of an arrangement of timber sleepers or the like. Reinforcement shall be coated with cement wash before stacking to prevent scale and rust. Fabricated reinforcement shall be carefully stored to prevent damage, distortion corrosion and deterioration.

➤ Quality

All steel shall be of Grade I quality unless specifically permitted by the Engineer. Re-rolled material is generally not permitted. However, only approved / authorized re-rolling manufacturer can be allowed to supply only at the discretion of Authority. With each lot, contractor shall submit the manufacturer's test certificate for steel. Random tests on steel supplied by Contractor may be performed by owner as per relevant Indian Standards. All cost incidental to such tests shall be at "Contractor's Expense". Steel not conforming to specification shall be rejected.

All reinforcement shall be clean, free from grease, oil, paint, dirt, loose mill scale, loose rust, dust, bituminous material or any other substances that will destroy or reduce the bond. All bars shall be thoroughly cleaned before being fabricated. Pitted and defective bars shall not be used. All bars shall be rigidly held in position before concreting. No welding of rods to obtain continuity shall be allowed unless approved by the Engineer. If welding is approved, the work shall be carried out as per IS-2751 and according to best modern practices and as directed by the Authority. In all cases of important connections, strength of bars welded Special precautions, as

specified by the Authority shall be taken in the welding of cold worked reinforcing bars and bars other than mild steel.

Laps and splices for reinforcement shall be as shown on the drawings. Splices in adjacent bars shall be staggered and the locations of all splices, except those specified on the drawings, shall be approved by the Engineer. The bars shall not be lapped unless the length required exceeds the maximum available lengths of bars at site.

➤ **Bending**

All bars shall be accurately bent according to the sizes and shapes shown on the approved detailed working drawings / bar bending schedules. They shall be bent gradually by machine or other approved means. Reinforcing bars shall not be straightened and rebind in a manner that will injure the material, crack or split. Bar of over 25 mm in diameter shall be bent cold, except bar specifically approved by the Engineer. Bars, which depend for their strength on cold working, shall not be bent hot. Bars bent hot shall not be heated beyond red colour (not exceeding 645°C) and after bending shall be allowed to cool slowly without quenching. Straightening and rebinding be such as shall not in the opinion of Engineer injure the material. No reinforcement shall be bent when in position in the work without approval, whether or not it is partially, embedded in hardened concrete. Bars having kinks or bends other than those required by design shall not be used.

➤ **Fixing**

Reinforcement shall be accurately fixed by any approved means and maintained in the correct position shown in the drawings by the use of blocks, spacers and chairs as per I.S. 2502 to prevent displacement during placing and compaction of concrete. Bars intended to be in contact at crossing point shall be securely bound together at all such points with 16 gauge annealed soft iron wire. The vertical distances required between successive layers of bars in beams or similar members shall be maintained by the provision of mild steel spacer bars at such intervals that main bars do not perceptibly sag between adjacent spacer bars.

➤ **Inspection**

Erected and secured reinforcement shall be inspected and approved by Authority prior to placement of concrete.

➤ **Sampling & Testing**

Sampling & testing for following physical test of steel shall be carried out as per relevant IS Codes.

- Tensile strength / Proof Stress.
- Nominal Mass
- Bend / Rebind Test
- Elongation Test

The frequency of testing shall be as per relevant code or as directed by Authority depending on the source of materials, previous test results etc.

25. Paving on footpath

The work shall be carried out in places where vehicular traffic is not likely to use, only pedestrian traffic to use the surface.

The interlocking precise concrete tiles should be of at least M60 grade manufactured by approved manufacturer of approved cour / pattern as approved by Authority laid over 50mm thick sand cushion over rammed earth

26. Reflectorized Paint

Reflectorized paint shall be laid in compliance with this Specification and with the manufacturer's recommendations with a minimum marking thickness of 0.5 millimeter. Reflectorized glass beads for use in conjunction with reflectorized paint shall conform to the requirements of Clause - 803.4.4 of IRC.

The reflectorized paint (thermoplastic paint) shall readily get scudded / exuded at temperature specified by manufacturer for respective method of application to produce a line of specified thickness which shall be continuous and uniform in shape having linear and sharp edges. The material upon heating to application temperature shall not exude fumes which are toxic, obnoxious and injurious to persons and property. All precautionary measures should be taken by the Contractor.

27. Horticulture and Land Scaping

a) Horticulture Work

Horticultural operations shall be started on ground previously levelled and dressed to required formation levels and slopes. In case where unsuitable soil is met with, it shall be either removed or, replaced or it shall be covered over to a thickness decided by the Authority with good earth. In the course of excavation or trenching during horticultural operations, any walls, foundations, etc. met with shall not be dismantled without pre measurement and prior to the written permission of the Authority.

b) Trenching in Ordinary Soil

Trenching is done in order to loosen the soil, turn over the top layer containing weeds etc. and to bring up the lower layer of good earth to form a proper medium for grassing, regressing, hedging and shrubbery. Trenching shall be done to the depth ordered by the Engineer-in-charge. The depth is generally 30 cm for grassing and 60 cm for regressing in good soil. The trenched ground shall, after rough dress, be flooded with water by making small kiaries to enable the soil to settle down. Any local depression unevenness etc. shall be made good by dressing and/or filling with good soil. Weeds or other vegetation which appear on the ground are then uprooted and removed and disposed of and paid. In excavating and depositing care shall be taken that the top soil with all previous plant growth including roots, get buried in the bottom layer of trenched area, the dead plants so buried incidentally being formed into humus. The excavated soil shall be straight away dumped into the adjoining sections so that double handling otherwise involved in dumping the excavated stuff outside and in back filling in the trenches with leads is practically eliminated.

28. Manhole Covers

- a. The covers and frames shall conform to IS 1726 for cast Iron and IS 12592 for pre-cast concrete/steel covers as per approved design and drawing followed by following grades and types.

Grades	Grade Designation	Type/shape of cover
Light Duty	LO - 2.5	Rectangular, Square, Circular
Medium Duty	MD-10	Rectangular, Circular and Square (for pre- cast concrete manhole covers)
Heavy Duty	HD-20	Circular-Square, Rectangular, (Scrapper Manhole)
Extra Heavy Duty	EHD - 35	Circular, Square, Rectangular, (Scrapper Manhole)

b. Cast Iron Manhole Covers and Frames

- i. Manhole covers and frame shall be manufactured from appropriate grade of grey cast iron not inferior than FG150 grade of IS 210.
- ii. They shall be cleanly cast and shall be free from air and sand holes, cold shuts and warping.
- iii. Covers shall have on its operative top a raised chequered design to provide for an adequate no-slip grip. The rise of chequers shall be not less than 4mm.
- iv. Key holes, keys and lifting devices shall be provided in the manhole covered to facilitate their placement in the frames and their operative maintenance.
- v. Manhole covers and frames shall be coated with materials having base with a black bituminous composition. The coating shall be smooth and tenacious. It shall not flow when exposed to temperature of 63°C and shall not be so brittle as to chip off at temperature of 0°C.
- vi. Size and shape and performance requirement of manhole covers and frames shall conform to JS 1726.
- vii. Each manhole covers and frame shall have cast on them the following information:
 - (a) Manufacturer's name or trademark
 - (b) Grade designation
 - (c) Date of manufacturer
 - (d) The words SWD to denote storm water drain'
 - (e) Identification marks as required by Authority.
- viii. The cover shall be gas tight and watertight.
- ix. The sizes of covers specified shall be taken as the clear internal dimensions of the frame.
- x. The approximate weight of the various type of manhole covers and frames shall be as per IS 1726.
- xi. The cover shall be capable of easy opening and closing and it shall be fitted in the frame in workmanship like manner.

29. Opening to Traffic

No vehicular traffic (including the Contractor's vehicles) shall be allowed on the finished surface until a field flexural strength of minimum 4.0 MPa has been achieved. It is the responsibility of the Contractor to produce a sufficient number of series of test specimens to verify the field flexural strength.

Each series of test specimens for measurement of field flexural strength shall consists of minimum 3 test specimens. The specimens shall be cured at conditions similar to the field conditions. The method for curing and storing of the test specimens in order to imitate field conditions shall be proposed by the Contractor and approved by the Engineer. The required minimum field flexural strength of 4.0 MPa is achieved when the average flexural strength of minimum 3 specimens exceed $4.5 + 1.65*s$, wheres is the standard deviation of the group.

Prior to opening to traffic the joints shall be sealed and areas adjacent to the pavement shall be completed to a degree that will ensure traffic safety. Opening to traffic shall not constitute a final acceptance of the pavement

SECTION 7
BILL OF QUANTITY
(Attached)

BILL OF QUANTITIES

Preamble

- 1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Technical Specifications and Drawings.**
- 2. The quantities given in the Bill of Quantities are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.**
- 3. The rates and prices tendered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the Contract, include all constructional plant, labour supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.**
- 4. The rates and prices shall be quoted entirely in Indian Currency.**
- 5. A rate whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no Items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.**
- 6. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no Items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.**
- 7. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. References to the relevant sections of the contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.**
- 8. The method of measurement of completed work for payment shall be in accordance with the specification issued by the department time to time.**
- 9. Errors will be corrected by PSCL for any arithmetic errors pursuant to Clause 29 of the Instructions to Bidders.**

BILL OF QUANTITIES

Sl. No.	Description of Item (with brief specification and reference to book of specification)	Quantity	Unit	Rate		Amount
				In Figure	In Words	
<h1>Attached</h1>						

Note :

1. **Item for which no rate or price has been entered in will not be paid for by PSCL when executed and shall be deemed covered by the other rates and prices in the bill of quantities**
2. **Unit rates and prices shall be quoted by the bidder in Indian rupee**
3. **Where there is a discrepancy between the rate in figures and words, the rates in words will govern.**
4. **Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by quantity, the unit rate quoted shall govern**

SECTION 8
SECURITIES AND OTHER FORMS
(to be filled by Bidder/Employer)

BID SECURITY (BANK GUARANTEE UNCONDITIONAL)

WHEREAS, _____ [name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated _____ [date] for the construction of _____ [name of Contract hereinafter called "the Bid"].

KNOW ALL PEOPLE by these presents that We _____ [name of Bank] of _____ [name of country] having our registered office at _____ (hereinafter called "the Bank") are bound unto PSCL. Ltd. (hereinafter called "the Employer") in the sum of _____ *for which payment well and truly to be made to the said Employer by the Bank itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____, 20____.

THE CONDITIONS of this obligation are:

(1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in the Form of Bid;

OR

(2) If the Bidder having been notified to the acceptance of his bid by the Employer during the period of Bid validity :

- (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
- (b) fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders; or
- (c) Does not accept the correction of the Bid Price pursuant to Clause 27.

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him as due to him owing to the occurrence of one or any of the three conditions, (specifying the occurred condition or conditions).

This Guarantee will remain in force up to and including the date _____ ** days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be

extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE _____

SIGNATURE _____

WITNESS _____

SEAL _____

[Signature, name and address]

- * **The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1 of the Instructions to Bidders.**
- ** **45 days after the end of the validity period of the Bid. Date should be inserted by the Employer before the Bidding documents are issued.**

PERFORMANCE BANK GUARANTEE

To

_____ [name of Employer]
_____ [address of Employer]

WHEREAS _____ [name and address of Contractor] (hereafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee :

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of _____ [amount of guarantee]* _____ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between your and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of expiry of the Defect Liability Period.

Signature and Seal of the guarantor _____
Name of Bank _____
Address _____
Date _____

* *An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.*

UNCONDITIONAL BANK GUARANTEE FOR ADVANCE PAYMENT

To

_____ [name of Employer]
_____ [address of Employer]
_____ [name of Contractor]

Gentlemen :

In accordance with the provisions of the Conditions of Contract, sub-clause 51.1 ("Advance payment") of the above-mentioned Contract, _____ [name and address of Contractor] (hereinafter called "the Contractor") shall deposit with _____ [name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____ [amount of Guarantee]* _____ [in words].

We, the _____ [bank of financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ [name of Employer] on his first demand without whatsoever right of obligation on our part and without his first claim to the Contractor, in the amount not exceeding _____ [amount of guarantee]* _____ [in words].

We further agree that no change or addition to or other modification of the terms of the Contractor or Works to be performed there under or any of the Contract documents which may be made between _____ [name of Employer] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until _____ [name of Employer] receives full repayment of the same amount from the Contractor.

Yours truly,

Signature and Seal : _____

Name of Bank /Financial Institution _____

Address : _____

Date : _____

* *An amount shall be inserted by the Bank or Financial Institution representing the amount of the Advance Payment, and denominated in Indian Rupees.*

INDENTURE FOR SECURED ADVANCES

FORM 31

(for use in case in which the contract is for finished work and the contractor has entered into an agreement for the execution of a certain specified quantity of work in a given time)

This indenture made the _____ day of _____, 20____ BETWEEN _____ (hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his executors, administrators and assigns) or the one part and the Employer of the other part.

Whereas by an agreement dated _____ (hereinafter called the said agreement) the contractor has agreed.

AND WHEREAS the contractor has applied to the Employer that he may be allowed advance on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the construction of such of the works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges)

AND WHEREAS the Employer has agreed to advance to the Contractor the sum of Rupees _____ on the security of materials the quantities and other particulars of which are detailed in Accounts of Secured Advances attached to the Running Account bill for the said works signed by the Contractor on _____ and the Employer has reserved to himself the option of making any further advance or advances on the security of other materials brought by the Contractor to the site of the said works.

Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees _____ on or before the execution of these presents paid to the Contractor by the Employer (the receipt where of the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as a for said the Contractor doth hereby covenant and agree with the President and declare as follows :

- (1) That the said sum of Rupees _____ so advanced by the Employer to the Contractor as aforesaid and all or any further sum of sums advanced as aforesaid shall be employed by the Contractor in or towards expending the execution of the said works and for no other purpose whatsoever.
- (2) That the materials details in the said Account of Secured Advances which have been offered to and accepted by the Employer as security are absolutely the Contractor's own propriety and free from encumbrances of any kind and the contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnified the Employer against all claims to any materials in respect of which an advance has be made to him as aforesaid.
- (3) That the materials detailed in the said account of Secured Advances and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereafter called the said materials) shall be used by the Contractor solely in the Execution of the said works in accordance with the directions of the Engineer.
- (4) That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the

Contractor's custody and on his own responsibility and shall at all times be open to inspection by the Engineer or any officer authorized by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same required by the Engineer.

- (5) That the said materials shall not be any account be removed from the site of the said works except with the written permission of the Engineer or an officer authorized by him on that behalf.
- (6) That the advances shall be repayable in full when or before the Contractor receives payment from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the Employer will be at liberty to made recovery from the Contractor's bill for such payment by deducting there from the value of the said materials that actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.
- (7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing of the Employer shall immediately on the happening of such default be repayable by the Contractor to be the Employer together with interest thereon at twelve per cent per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs, charges, damages and expenses incurred by the Employer in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the Employer to reply and pay the same respectively to him accordingly.
- (8) That the Contractor hereby charges all the said materials with the repayment to the Employer of the said sum of Rupees _____ and any further sum of sums advanced as aforesaid and all costs, charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the power contained therein if and whenever the covenant for payment and repayment here in before contained shall become enforceable and the money owing shall not be paid in accordance there with the Employer may at by time thereafter adopt all or any of the following courses as he may deem best :
 - (a) Seize and utilise the said materials or any part thereof in the completion of the said works on behalf of the contractor in accordance with the provisions in that behalf contained in the said agreement debiting the contractor with the actual cost of effecting such completion and the amount due to the contractor with the value of work done as if he has carried it out in accordance with the said agreement and at the rests thereby provided. If the balance is against the contractor, he is to pay same to the Employer on demand.
 - (b) Remove and sell by public auction the seized materials or any part there of and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the Employer under these presents and pay over the surplus (if any) to the Contractor.
 - (c) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.

- (9) That except in the event of such default on the part of the contractor as aforesaid interest on the said advance shall not be payable.**
- (10) That in the event of any conflict between the provisions of these present and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been here-in-before expressly provided for the same shall be referred to the Employer whose decision shall be final and the provision of the Indian Arbitration Act for the time being in force shall apply to any such reference.**

Letter of Acceptance
(Letterhead paper of PSCL)

_____ (Date)

To

_____ (Name and address of the Contractor)

Dear Sirs,

This is to notify you that your Bid dated _____ for execution of the _____ (name of the contract and identification number, as given in the Instructions to Bidders) for the Contract Price of Rupees _____ (_____) (amount in words and figures), as corrected and modified in accordance with the Instructions to Bidders¹ is hereby accepted by our agency.

We accept/ do not accept that _____ be appointed as the Adjudicator². You are hereby requested to furnish Performance Security, in the form detailed in Para 31.1 of ITB for an amount equivalent to Rs. _____ within 15 days of the receipt of this letter of acceptance valid up to 28 days from the date of expiry of defects Liability Period i.e. up to _____ and sign the contract, failing which action as stated in Para 31.3 of ITB will be taken.

Yours faithfully,

Authorized Signature
Name and title of Signatory
Name of Agency

¹Delete "corrected and" or "and modified" if only one of these actions applies. Delete as corrected and modified in accordance with the Instructions to Bidders, if corrections or modifications have not been affected.

²To be used only if the Contractor disagrees in his Bid with the Adjudicator proposed by the Employer in the "Instructions to Bidders".

**Issue of Notice to proceed with the work
(Letterhead of PSCL)**

_____ (Date)

To

_____ (Name and address of the Contractor)

Dear Sirs,

Pursuant to your furnishing the requisite security as stipulated in ITB Clause 34.1 and signing of the
Contract for the construction of _____
_____ at a Bid Price of Rs. _____.

You are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of signatory authorized
to sign on behalf of Employer)

Agreement Form

Agreement

This agreement, made the _____ day of _____ between _____ (name and address of Employer) [hereinafter called "the (name and address of contractor) hereinafter called "the Contractor" of the other part.]

Whereas PSCL is desirous that the Contractor execute

(name and identification number of Contract) (hereinafter called "the Works") and PSCL has accepted the Bid by the Contractor for the execution and completion of such works and the remedying of any defects therein, at a cost of Rs. _____

NOW THIS AGREEMENT WITNESSETH as follows :

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by PSCL to the Contractor as hereinafter mentioned, the Contractor hereby covenants with PSCL to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the contract.
3. PSCL hereby covenants to pay the Contractor in consideration of the Execution and completion of the Works and the remedying the defects wherein Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be ready and construed as part of this Agreement viz.
 - (i) Letter of Acceptance
 - (ii) Notice to proceed with the works;
 - (iii) Contractor's Bid
 - (iv) Condition of Contract : General and Special
 - (v) Contract Data
 - (vi) Additional condition
 - (vii) Drawings
 - (viii) Bill of Quantities and
 - (ix) Any other documents listed in the Contract Data as forming part of the Contract.

In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of _____ was hereunto affixed in the presence of :

Signed, Sealed and Delivered by the said _____

in the presence of :

Binding Signature of Employer _____

Binding Signature of Contractor _____

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s _____ agree to abide by this bid for a period _____ days for the date fixed for receiving the same and it shall be binding on us and may be accepted at any time before the expiration of that period.

(Signed by an Authorised Officer of the Firm)

Title of Officer

Name of Firm

DATE

**SECTION 9
DRAWINGS
(Attached)**