

TENDER DOCUMENT

Name of work : Expansion of Apron and associated works at Prayagraj Airport (Recall).

Tender ID : 2021_AAI_75882_2



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**AIRPORTS AUTHORITY OF INDIA
ENGINEERING WING
PRAYAGRAJ AIRPORT, PRAYAGRAJ**

AIRPORTS AUTHORITY OF INDIA
PRAYAGRAJ AIRPORT, PRAYAGRAJ-211012

Name of work: “Expansion of apron and associated works at Prayagraj Airport (Recall)”. Tender id: 2021_AAI_75882_2

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Certified that this Tender Document contains pages 256 serially numbered from 1 to 256 (including Cover page & this index page) in chronological order.

Asstt. Gen. Manager (Engg-C)
AAI, Prayagraj Airport

AIRPORTS AUTHORITY OF INDIA
PRAYAGRAJ AIRPORT, PRAYAGRAJ-211012
NOTICE INVITING E-TENDER

Tender reference no: AAI/PRG/AGM(E-C)/CW-01/

Dated: 09.05.2022

ई-निविदा 01/2021-22 (2-बी.ओ.टी-2 लिफाफा खुलनेवाली निविदा)

E-TENDER NOTICE- 01/2021-22 (2 BOT -2 Envelope Open Tender)

BID ID No: 2021_AAI_75882_2

Ref No.:- AAI/PRG/Engg/ Apron-Exp./2022

Date : 09.05.2022

1. Item rate e-tenders are invited through the e-tendering CPP portal by **Asstt. Gen. Manager (Engg-Civil)**, (Bid Manager) on behalf of Chairman, AAI from the eligible contractors for the composite work of **“Expansion of Apron and associated works at Prayagraj Airport (Recall)”** at an estimated cost of **Rs. 505.37 Lacs (Excluding GST)** with period of completion **365 (Three Hundreds Sixty Five) days (including 60 days monsoon period for 1 rainy season)**.

The tendering process is online at CPP-portal URL address <https://etenders.gov.in/eprocure/app> or www.aai.aero. Prospective tenderers may download and go through the tender document.

Prospective Tenderers are advised to get themselves register at CPP-portal, obtain 'Login ID' and 'Password' and go through the instructions available in the Home Page after log in to the CPP-portal <https://etenders.gov.in/eprocure/app> or www.aai.aero. They should also obtain Digital Signature Certificate (DSC) in parallel which is essentially required for submission of their application. The process normally takes 03 days' time. The tenderer may also take guidance from AAI Help Desk Support through path [aai.aero/tender/e-tender /help desk support](http://aai.aero/tender/e-tender/help%20desk%20support).

- (i) For any technical related queries please call the Helpdesk. The 24 x 7 Help Desk details are as below: -

Tel: 0120-4200462, 0120-4001002, Mobile: 918826246593,

E-mail: support-eproc@nic.in

Tenderers are requested to kindly mention the URL of the Portal and Tender ID in the subject while emailing any issue along with the contact details.

For any further technical assistance with regard to functioning of CPP portal the tenderer may contact to the following AAI help desk numbers on all working days only between

- (ii) 08.00 hrs to 20.00 hrs (Mon-Sat)-
011-24632950, Ext-3512 (Six Lines), E-Mail: -eprochelp@aai.aero
- (iii) 09.30 hrs to 18.00 hrs (Mon-Fri)-
011-24632950, Ext-3523, E-Mail:-etendersupport@aai.aero,
sanjeevkumar@aai.aero and snita@aai.aero
- (iv) 09.30 hrs to 18.00 hrs (Mon-Fri)-
011-24657900, E-Mail:- gmitichq@aai.aero

Tender Processing fee of **Rs. 1770/-** (i/c GST) Non-refundable will be required to be paid by way of online through Payment Gateway on CPP portal, through Net banking (SBI & other bank) & NEFT/RTGS payment gateway Integrated/mapped with Central Procurement Portal (CPP Portal).

- Following 2 envelopes shall be submitted through online at CPP-portal by the tenderer as per the following schedule: -

CRITICAL DATA SHEET

Publishing Date	09.05.2022 at 09:00 hrs
Bid Document Download/Sale Start Date (Next Day of Publishing Date)	10.05.2022 from 09:30 hrs
Clarification Start Date	10.05.2022 from 09:30 hrs
Clarification End Date	23.05.2022 up to 17:00 hrs
Bid Submission Start Date	10.05.2022 from 09:30 hrs
Bid Submission End Date	01.06.2022 up to 17:00 hrs
Last Date and Time of submission of Original BG against EMD along with undertaking as per Appendix – XIA page no. 138 and cover message as per Annexure –IV at page no. 162	06.06.2022 up to 17:00 hrs
Bid opening Date (Envelope – I)	07.06.2022 at 11:00 hrs
Bid Opening Date (Envelope – II)	To be intimated later on through CPP portal
Tender Processing Fee (Non-refundable, to be paid online through State Bank of India Payment Gateway in CPP Portal)	Rs. 1770/- (i/c GST) Non-refundable.
Earnest Money Deposit (EMD)	EMD amounting to Rs. 10,10,740.00 (Rs. Ten Lacs Ten Thousands Seven Hundreds Forty only) will be accepted online through CPP portal. The Bidders can also submit the EMD in the form of Bank Guarantee (BG) Appendix - 1A page no. 123, along with undertaking as per Appendix – XIA page no. 138 and cover message as per Annexure –IV at page no. 162.

Envelope-I (Tender Processing Fee, EMD, Technical Bid & Prequalification)

Bid containing following:

A. Tender Processing fee, EMD.

Tender Fee of Rs. 1770/- (non-refundable) & **EMD amounting to Rs. 10,10,740.00 (Rs. Ten Lacs Ten Thousands Seven Hundreds Forty only)** will be accepted online through CPP portal. Scanned copy of online payment proof for EMD & Tender Fee to be uploaded.

The Bidders can also submit the EMD in the form of Bank Guarantee (BG) Appendix - 1A page no. 123, along with undertaking as per Appendix – XIA page no. 138 and cover message as per **Annexure –IV** at page no. 162 and duly signed. The original EMD BG shall reach to Bid manager along with above documents on or before due date and time as per NIT.

B. Technical bid containing following :

- i) Scanned copy of duly signed and stamped Unconditional Acceptance of AAI's Tender Conditions on Company's letter head. **(As per Annexure I, Page 157)**
- ii) Scanned copy of duly signed and stamped 'Undertaking' regarding Blacklisting / Debarment on Company's Letter head. **(As per Annexure-II, page no. 158)**
- iii) Tenderer should deploy sufficient plant and machinery as per the requirement of work in Consultation with the Engineer-in-charge (EIC) to achieve the milestones / targets and overall completion within the time period. Tenderer shall submit scanned copy of undertaking on Company's letter head. **(As per Annexure-V, Page 163).**
- iv) Scanned copy of Permanent Account Number (PAN) and GST Registration Number.
- v) Companies other than proprietary / Partnership firm shall submit, scanned copy of Authorization Letter / Power of Attorney along with copy of Certificate of Incorporation of the Company under Companies Act showing CIN/LLPIN/ Name of Directors of the Company & Copy of Board Resolution regarding Authority to assign Power of Attorney.
- vi) Proprietary firm shall submit scanned copy of Authorization Letter / Power of Attorney only if the tender is processed by a person other than proprietor.
- vii) Partnership firm shall submit scanned copy of Authorization Letter / Power of Attorney duly signed by all partners only if the tender is processed by a person other than partners of the firm.
- viii) Digitally signed tender document including Corrigendum, if any.
- ix) Scanned copy of GST Undertaking. **(As per Annexure VIII, Page 166)**
- x) Scanned copy of duly signed and filled up check list as per **Performa at Page 9 to 12.**
- xi) Scanned copy of duly signed and stamped integrity pact as per **APPENDIX -XVIII Page no. 145 to 153.**
- xii) Scanned copy of duly notarized affidavit on Non-Judicial stamp paper of Rs. 100 regarding compliance of minimum wages **(As per Annexure IX, Page 167).**

C. Qualifying requirements of contractors/tenderers containing the following: -

- i) Should have satisfactorily completed (# Phase/ Part completion of the scope of work in a contract shall not be considered, however pre-determined phasing of the work will be accepted) three works each of **Rs. 202.15 Lacs (excluding GST)** or two works, each of **Rs. 252.69 lacs (excluding GST)** or one work of **Rs. 404.30 Lacs (excluding GST)** in a single contract of similar nature of works i.e. **concrete pavement works in roads, runways or apron etc.,** during last seven years ending on last date (extended date if any) of submission of bid (excluding GST).

"The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of submission of bid".

Note: The experience certificate of works completed pre-GST era, completion amount will be divided by 1.12 (to executed pre-GST tax of VAT 12%) to make it at par with experience certificate of post GST era but excluding GST.

Client certificate for experience should show the nature of work done, the value of work, date of start, date of completion as per agreement, actual date of completion and satisfactory completion of work. **Tenderers showing work experience certificate from non-government / non-PSU organizations should submit copy of tax deduction at sources (TDS) certificate(s) along with a certificate issued by registered Chartered Accountant, clearly specifying the name of work, total payment received against the work and TDS amount for the work.**

- i) Should have annualized average financial turnover of **Rs. 178.90 Lacs (including GST)** against works executed during last three years ending 31st March of the previous financial year. As a proof, copy of Abridged Balance Sheet along with Profit and Loss Account Statement of the tenderer should be submitted along with the application. Tenderers showing continuous losses during the last three years in the balance sheet shall be summarily rejected.
- ii) The tenderer should have a minimum net worth of **Rs. 89.45 Lacs (including GST)** issued by certified Chartered Accountant. **(As per Performa Annexure VI, Page 164).**

Envelope-II: - The Financial e-Bid through CPP portal.

All rates shall be quoted in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the tenderers. Tenderers are required to download the BOQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details {such as name of the tenderer}. No other cells should be changed. Once the details have been completed, the tenderer should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the tenderer, the bid will be rejected.

3. Bid Submission: -

The tenderer shall submit their application only at CPP Portal : **<https://etenders.gov.in/eprocure/app>**. Tenderer/ Contractor are advised to follow the instructions provided in the tender document for online submission of bids. Tenderers are required to upload the digitally signed file of scanned document as per Para 2. Bid documents may be scanned with 100 dpi with Black and white option which helps in reducing size of the scanned document.

Uploading of application in location other than specified above shall not be considered. Hard copy of application shall not be entertained.

4. Not more than one tender shall be submitted by one tenderer or tenderers having business relationship. Under no circumstances will father and his son(s) or other close relations who have business relationship with one another (i.e. when one or more partner (s) / director(s) are common) be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both parties liable to rejection.
5. Tenderer who has downloaded the tender from Central Public Procurement Portal (CPPP) website <http://etenders.gov.in/eprocure/app>, shall not tamper/ modify the tender form including downloaded price bid template in any manner. In case if the same is found to be tampered/ modified in any manner, tender will be completely rejected and tenderer is liable to be banned from doing business with AAI.

6. Bids Opening Process is as below: -

Envelope-I

(Tender processing Fee, EMD Declaration, Technical Bid and Pre-qualification):

Envelope-I containing documents as per para 2 (A), (B) & (C) (uploaded by the tenderers) shall be opened on date & time mentioned in CRITICAL DATA SHEET.

If the bidder has any query related to the Bid Document of the work, they should use 'Seek Clarification' on CPP portal to seek clarifications. No other means of communication in this regard shall be entertained.

If any clarification is needed from the tenderer about the deficiency in his uploaded documents in Envelope –I, he will be asked to provide it through CPP Portal or email if required. The tenderer shall upload the requisite clarification / documents within time specified by AAI failing which it shall be presumed that bidder does not have anything to submit and bid shall be evaluated accordingly. The intimation regarding acceptance /rejection of their bids will be intimated to the tenderers through CPP portal.

For verification of Bank Guarantee received by AAI from the agencies shall be done through Structured Financial Messaging System (SFMS) of ICICI Bank. The bidder is required to submit BG in accordance with following Bank details.

Name of Account Holder: Airports Authority of India

Name of Bank: ICICI Bank

IFSC Code: ICIC0000007

**BG Advising message: IFN760COV (BG issue)
: IFN767COV (Amendment)**

Unique Identifier Code: AAICATC

The agency shall also be required to submit letter to the BG issuing bank as per Performa on Page 138 (Appendix XI-A). The agency is also advised to submit the copy of SFMS BG confirmation message sent by the BG issuing bank to ICICI Bank while submitting the original BG document. (Ref Annexure IV Page No: 162)

Envelope – II (Financial Bid) :

Envelope-II containing financial bid of the tenderers found to be meeting the technical criteria and qualifying requirements shall be opened on date & time mentioned in CRITICAL DATA SHEET. (In case the date and time for opening of Envelope-II (financial bid) is required to be changed, the same shall be intimated through CPP Portal).

7. AAI reserves the right to accept or reject any or all applications without assigning any reasons. AAI also reserves the right to call off tender process at any stage without assigning any reason.
8. AAI reserves the right to disallow issue of tender document to working agencies whose performance at ongoing project (s) is below par and usually poor and has been issued letter of restrain/Temporary/Permanent debar by any department of AAI or Central / State Govt. Depts./ PSUs/World Bank/ ADB etc. **AAI reserves the right to verify the credential submitted by the Tenderer at any stage (before or after the award the work). If at any stage, any information /documents submitted by the applicant is found to be incorrect/false or have some discrepancy which disqualifies the tenderer then AAI shall take the following action:**
 - a) **Forfeit the entire amount of EMD submitted by the firm.**
 - b) **The tenderer shall be liable for debarment from tendering in AAI, including termination of the contract apart from any other appropriate contractual/legal action.**
9. Consortium /JV companies shall not be permitted.

10. Purchase preference to Central Public Sector Undertaking shall be applicable as per the directive of Govt. of India prevalent on the date of acceptance.
11. The MSME concession is not applicable on this tender being construction work.
12. **Tenderers have to submit UDIN generated documents like Balance Sheet/Turnover certificate, Working Capital Certificate (works done during last 5 financial years & works in hand), Net worth Certificate, Tax Deduction at Source (TDS) Certificates for Non- Govt. works etc. as per NIT conditions duly certified by CA and having UDIN. The documents submitted by bidders without UDIN shall not be entertained.**

13. NOVIATION

Notwithstanding anything contained in this Tender/ Agreement, the Parties agree that the Airports Authority of India / AAI / Authority shall have the right to assign / novate this Tender / Agreement in favour of any person or entity appointed or selected by Airports Authority of India / AAI /Authority for operation, maintenance and/or management of the airport or any part thereof without obtaining any further consent from the bidder and upon such assignment/novation, the assignee / novatee shall : (a) have all the rights of Airports Authority of India/AAI/Authority under this Tender / Agreement and, (b) have the right to terminate this Tender / Agreement by giving seven day's notice and without incurring any liability and/or cost for such termination.

**Asstt. Gen. Manager (Engg. – C)
Airports Authority of India
(For and on Behalf of Chairman, AAI)**

PRE-QUALIFICATION PERFORMA

1. Name of work: -“Expansion of Apron and associated works at Prayagraj Airport. (Recall)”

1	2	3	4
Ref No.	Qualifying criterion/parameter/ supportive document	Supporting Document must have the following salient information which AAI would like to note	Reference to the Documents submitted in support of Column 3
1.	General		
1.1	Name and address of the firm / contractor		Copy enclosed YES/NO
	Telephone, Fax, Email		
1.2	Authorized Signatory (Name and Designation)		Copy enclosed YES/NO
2.	Envelope – I Shall Contain scanned copy of		
	Ref.to Performa with tender documents		
2.1	Details of tender fee	Documents as per NIT to be uploaded	Copy enclosed YES/NO
2.2	EMD of Rs. 10,10,740/-	Documents as per NIT to be uploaded	Copy enclosed YES/NO
2.3	Duly filled, signed & Stamped Unconditional acceptance of AAI Tender Conditions	Documents as per NIT to be uploaded	Copy enclosed YES/NO
2.4	Permanent Account No.(PAN)	Documents as per NIT to be uploaded	Copy enclosed YES/NO
2.5	GST registration Number	Documents as per NIT to be uploaded	Copy enclosed YES/NO
2.6	Undertaking from agency regarding GST	Documents as per NIT to be uploaded	
2.7	Undertaking from agency regarding debarment/blacklisting on Company's letter head.	Documents as per NIT to be uploaded	
2.8	Whether the firm is proprietorship or partnership or company	Documents as per NIT to be uploaded	Copy enclosed YES/NO
2.9	Registered with: Category of Registration : Valid Up to:		Registration copy Enclosed : YES/NO
2.10	Authorization of signature by the Directors of company as per Company act.	Documents as per NIT to be uploaded	Copy enclosed YES/NO
2.11	Integrity pact	Documents as per NIT to be uploaded	Copy enclosed YES/NO
2.12	Affidavit For Minimum Wages	Documents as per NIT to be uploaded	Copy enclosed YES/NO
2.13	Experience details		
	i) Three separate works each costing not less than Rs. 202.15 Lacs (excluding GST)	Work No. 1 -Name of work :	Copy of certificates enclosed :

		<p>Work Order/Agreement No. & Dt.:</p> <p>-Contract Cost:</p> <p>-Stipulated Date of completion as per contract agreement:</p> <p>-Actual Date of Completion:</p> <p>-Actual Completion Cost:</p> <p>-EOT granted (if any) up to with/ without levy of compensation.</p> <p>-Completion Certificate Issuing authority name and Designation</p>	<p>YES/NO</p> <p>Details of EOT case</p>
		<p>Work No. 2</p> <p>-Name of work:</p> <p>-Work Order/Agreement No. & Dt.:</p> <p>-Contract Cost:</p> <p>-Stipulated Date of completion as per contract agreement:</p> <p>-Actual Date of Completion:</p> <p>-Actual Completion Cost:</p> <p>-EOT granted (if any) up to with/ without levy of Compensation.</p> <p>-Completion Certificate Issuing authority name and Designation</p>	<p>Copy of certificates enclosed:</p> <p>YES/NO</p> <p>Details of EOT case</p>
		<p>Work No. 3</p> <p>-Name of work:</p> <p>-Work Order/Agreement No. & Dt.:</p> <p>-Contract Cost:</p> <p>-Stipulated Date of completion as per contract agreement:</p> <p>-Actual Date of Completion:</p> <p>-Actual Completion Cost:</p> <p>-EOT granted (if any) up to with/ without levy of Compensation.</p> <p>-Completion Certificate Issuing authority name and Designation</p>	<p>Copy of certificates enclosed:</p> <p>YES/NO</p> <p>Details of EOT case</p>
	<p>ii) Two separate works each costing not less than Rs. 252.69 Lacs (excluding GST)</p>	<p>Work No. 1</p> <p>-Name of work:</p> <p>-Work Order/Agreement No. & Dt.:</p> <p>-Contract Cost:</p> <p>-Stipulated Date of completion as per contract agreement:</p> <p>-Actual Date of Completion:</p> <p>-Actual Completion Cost:</p> <p>-EOT granted (if any) up to with/</p>	<p>Copy of certificates enclosed:</p> <p>YES/NO</p> <p>Details of EOT case</p>

		without levy of Compensation. -Completion Certificate Issuing authority name and Designation		
		Work No. 2 -Name of work: -Work Order/Agreement No. & Dt.: -Contract Cost: -Stipulated Date of completion as per contract agreement: -Actual Date of Completion: -Actual Completion Cost: -EOT granted (if any) up to with/ without levy of Compensation. -Completion certificate Issuing authority name and Designation	Copy of certificates enclosed: YES/NO Details of EOT case	
	ii) One work each costing not less than Rs. 404.30 Lacs (excluding GST)	Work No. 1 -Name of work: -Work Order/Agreement No. & Dt.: -Contract Cost: -Stipulated Date of completion as per contract agreement: -Actual Date of Completion: -Actual Completion Cost: -EOT granted (if any) up to with/ without levy of Compensation. -Completion certificate Issuing authority name and Designation	Copy of certificates enclosed: YES/NO Details of EOT case	
(b)	In case of experiences from private clients, TDS certificates have to be enclosed?	Copy of TDS certificates from Private clients to be enclosed In support of experience.	TDS certificate enclosed: YES/NO	
2.14	TURNOVER: Annualized average financial turnover of not less than Rs. 178.90 Lacs against works executed during last three financial years. As a proof, copy of Abridged Balance Sheet of the firm with profit and loss account shall be submitted along with the application.	Year	Turnover (In lacs)	Proof of turn over enclosed (Abridged balance sheet & profit & loss A/C) Copy enclosed:
		2018-19		
		2019-20		
		2020-21		
		Average :		YES/NO
2.15	Net Worth : Minimum net worth issued by certified chartered accountant as per Annexure VI	Certificate issued from Chartered Accountant is to be uploaded.	Copy enclosed YES/NO	

	for Rs. 89.45 Lacs with other relevant information.		
3.	EPF & ESIC Registration	Copy of Registration to be uploaded.	Copy enclosed YES/NO
4.	Proof of owning or lease basis ownership for required machineries	Copy of documents for owning or lease basis ownership for required machineries as per NIT to be submitted	Copy enclosed YES/NO
5.	Details of any other information		

Note: Tenderers have to submit UDIN generated documents like Balance Sheet/Turnover certificate, Working Capital Certificate (works done during last 5 financial years & works in hand), Net worth Certificate, Tax Deduction at Source (TDS) Certificates for Non- Govt. works etc. as per NIT conditions duly certified by CA and having UDIN. The documents submitted by bidders without UDIN shall not be entertained.

Place:

Date:

Signature

Authorized Signatory of the contractor/ Firm

DECLARATION

I () hereby declare that the documents submitted / enclosed are true and correct. In case any document at any stage found fake / incorrect, action as deemed fit by AAI can be taken against me including debarment in participating AAI tenders.

Place:

Date:

Signature

Authorized Signatory of the contractor/ Firm

Procedure for Online Collection of EMD and Tender Fee from Bidders

1. Bidder will login to the portal <https://etenders.gov.in/> with valid User ID (i.e. User ID mapped with Digital Signature Certificate) and follow the process of participation to the tender.
2. After Login search the tender in “Search Active Tender” tab with different criteria after that click on “set as favorite” to move on “My Tender”. Then click on “My tender” and view the tender details and click on proceed for Bid Submission.
3. For submission of online Tender Fee and EMD, click on Button as “Pay Online”
4. **In case of Tender Fee:** If the Bidder is exempted from the tender fee payment, then select the option to “Yes” other wise “NO” as per below screenshot:

 Yes ☒ No'. A 'Next' button is visible at the bottom right." data-bbox="173 270 799 466"/>

5. **In case of EMD:** If Bidder is paying EMD through any of below options, Select the option “Yes” (as per below screenshot) and provide the details and upload copy as a proof.
 - Bank Guarantee (BG)/Swift Transfer (ST)
 - Exempted from EMD Payment,

Note: For submitting “EMD through BG/ST” or “Exemption from EMD payment” bidder must select “Yes” otherwise bidders will not have the option to pay EMD through Bank Guarantee. Once proceeded it is not possible to revert the option.

6. Select option “NO” (as per below screenshot) for proceeding for Online EMD payment.

 Yes ☒ No'. A 'Next' button is visible at the bottom right." data-bbox="173 628 792 823"/>

After selecting the option, click on “Next” Button as per above screenshot. Further process to be followed as per subsequent screen.

STEPS FOR MAKING TENDER PAYMENTS IN ETENDERS SYSTEM VIA SBI BANK GATEWAY

(SBI AND NON SBI ACCOUNT HOLDERS)

Home Page.

Login as a bidder into etenders.gov.in to proceed for payment.



Step 1) Click “Pay Online” when you reach below page while Online Bid Submission.

User Management

My Accounts

My Documents

Auction Management

My Auctions

Live Auctions

View Auction History

Bid Management

Search Active Tenders

My Tenders

Clarification

My Active Bids

Bid Opening (Live)

Short fall Documents

Online Payment Status

My Bids History

Short Fall Documents History

Archived Clarification

Tender Status

My Withdrawn Bids

BID MANAGEMENT

My Tenders

2018_LSGD_204397_1

Transaction Message

Organization Chain : NIC||NIC Contracts

Tender Reference Number : PW3/23401/18

Tender ID : 2018_LSGD_204397_1

Tender Title : PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Bid Process List

S.No	Bid Process	Action
1	Profile	

Bid Payment Details

S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid	Paid Fee
1	Tender Fee	2500.00 (INR)	0.00	2500.00 (INR)	0.00
2	Emd Fee	37500.00 (INR)	0.00	37500.00 (INR)	0.00

Pay Online

Encrypt&Upload

Version:1.09.06 04-Feb-2015

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Step 2) Click “Confirm to Pay” to proceed with the payment gateway, as below.

Note: Please ensure that you have availed Tender Fee / EMD Exemption, if eligible. Further, there would not be any provision to change back, under any circumstances.

User Management

My Accounts

My Documents

Auction Management

My Auctions

Live Auctions

View Auction History

Bid Management

Search Active Tenders

My Tenders

Clarification

My Active Bids

Bid Opening (Live)

Short fall Documents

Online Payment Status

My Bids History

Short fall Documents History

Archived Clarification

Tender Status

My Withdrawn Bids

BID MANAGEMENT

Offline/OnLine Payment Confirmation

Organization Chain : NIC||NIC Contracts

Tender Reference Number : PW3/23401/18

Tender ID : 2018_LSGD_204397_1

Tender Title : PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Bid Payment Details

S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid
1	Tender Fee	2128.00 (INR)	0.00	2128.00 (INR)
2	Emd Fee	23100.00 (INR)	0.00	23100.00 (INR)

Portal Alert :

Beyond this stage, you will not be able to edit Fee or Exemption details.

Please confirm that the exemption and amount to be paid are correct.

I hereby confirm that the above payment details are correct.

Back

Confirm to Pay

Version:1.09.06 04-Feb-2018

(c) 2008 Tenders NIC, All rights reserved.

Step3) Verify that the Tender fee and EMD shown are correct, as per tender document. Then, select the payment option **SBI MOPS** and Submit, as below.

Note: In case of any mismatch in tender payments, with reference to tender documents, please contact TIA for clarifications.

User Management

My Accounts

My Documents

Auction Management

My Auctions

Live Auctions

View Auction History

Bid Management

Search Active Tenders

My Tenders

Clarification

My Active Bids

Bid Opening (Live)

Short fall Documents

Online Payment Status

My Bids History

Short Fall Documents History

Archived Clarification

Tender Status

My Withdrawn Bids

BID MANAGEMENT

Online Payment Gateway

Organization Chain : NIC||NIC Contracts

Tender Reference Number : PW3/23401/18

Tender ID : 2018_LSGD_204397_1

Tender Title : PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Bid Payment Details

Fee Type	Actual Fee	Exempted Fee	Fee To be Paid
Tender Fee	2,500	0	2,500
Emd Fee	37,500	0	37,500
Total Fee			40,000

Choose Payment Option

☒ SBI MOPS

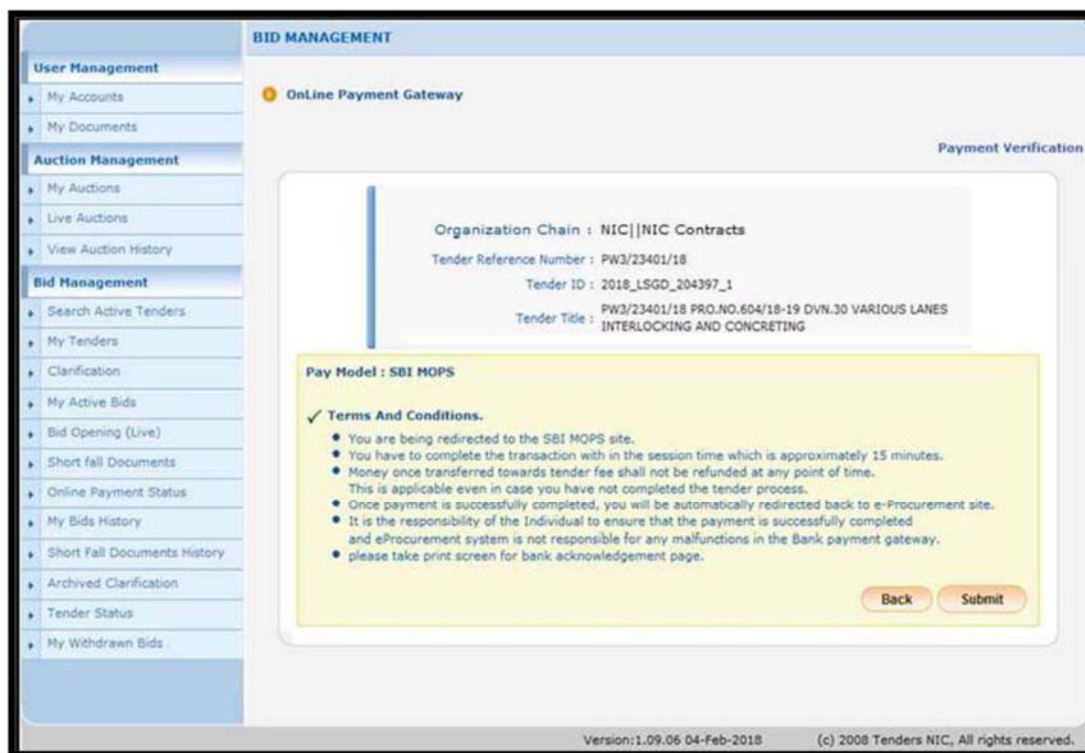
Back

Submit

Version:1.09.06 04-Feb-2018

(c) 2008 Tenders NIC, All rights reserved.

Step 4) Check and Follow the **Terms and Conditions**, and then **Submit**, as below.



BID MANAGEMENT

OnLine Payment Gateway

Payment Verification

Organization Chain : NIC||NIC Contracts
Tender Reference Number : PW3/23401/18
Tender ID : 2018_LSGD_204397_1
Tender Title : PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Pay Model : SBI MOPS

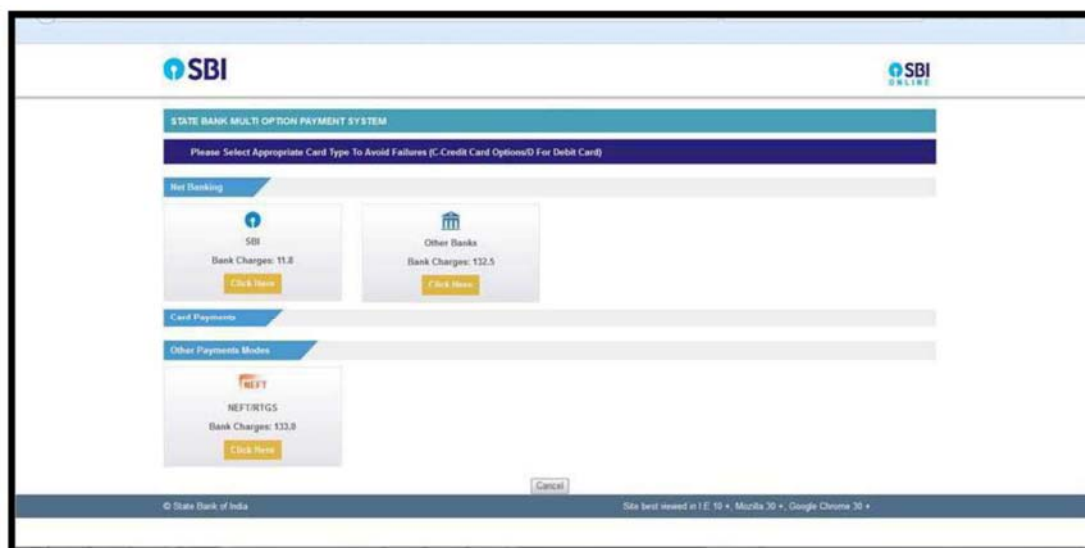
Terms And Conditions.

- You are being redirected to the SBI MOPS site.
- You have to complete the transaction with in the session time which is approximately 15 minutes.
- Money once transferred towards tender fee shall not be refunded at any point of time. This is applicable even in case you have not completed the tender process.
- Once payment is successfully completed, you will be automatically redirected back to e-Procurement site.
- It is the responsibility of the Individual to ensure that the payment is successfully completed and eProcurement system is not responsible for any malfunctions in the Bank payment gateway.
- please take print screen for bank acknowledgement page.

Back **Submit**

Version:1.09.06 04-Feb-2018 (c) 2008 Tenders NIC, All rights reserved.

Step 5) Bidders may choose the type of transaction and proceed for payment.



SBI ONLINE

STATE BANK MULTI OPTION PAYMENT SYSTEM

Please Select Appropriate Card Type To Avoid Failures (C-Credit Card Options/D For Debit Card)

Net Banking

SBI
Bank Charges: 11.8
Click Here

Other Banks
Bank Charges: 122.5
Click Here

Card Payments

Other Payments Modes

NEFT/RTGS
Bank Charges: 133.8
Click Here

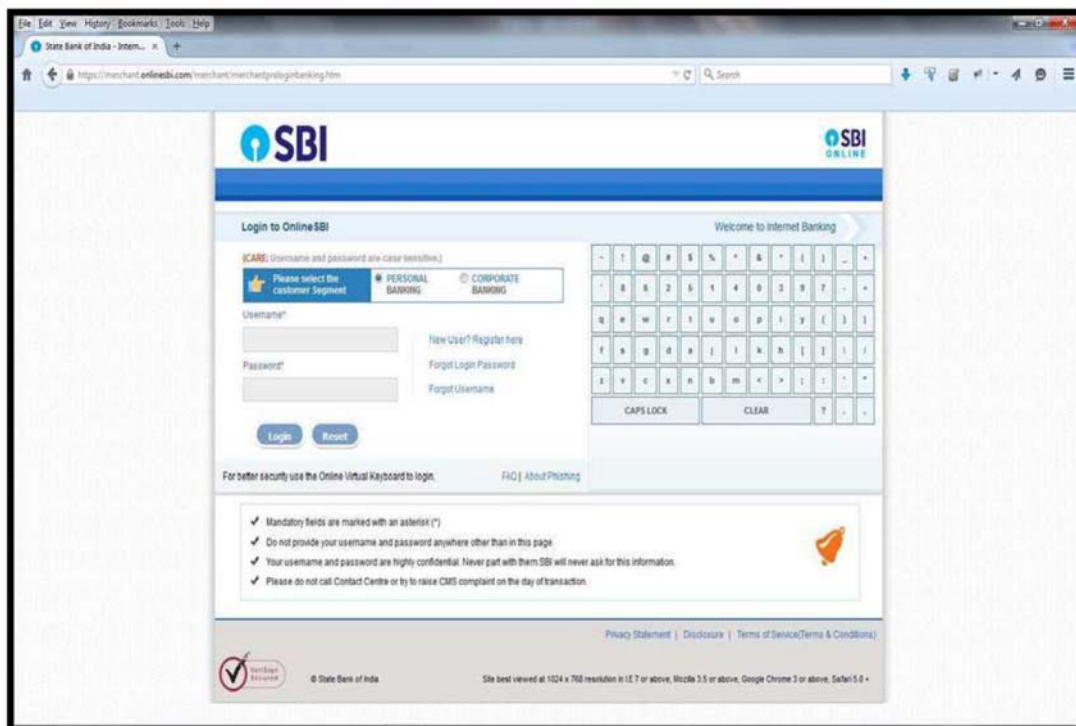
Cancel

© State Bank of India Site best viewed in I.E. 10 +, Mozilla 36 +, Google Chrome 36 +

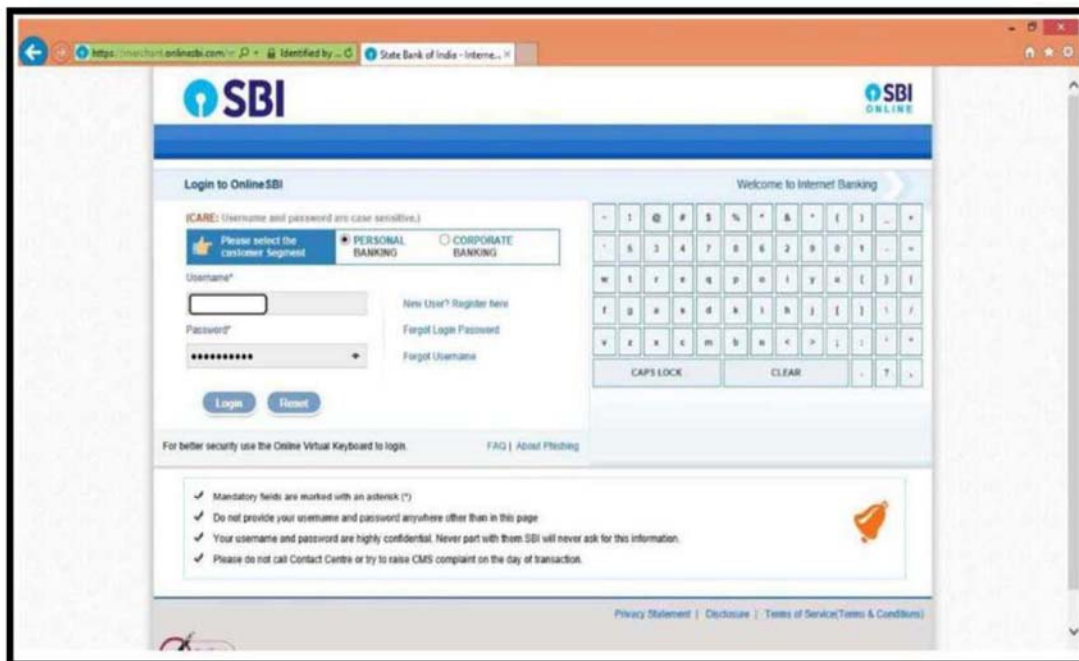
Step 6) Once the Payment type is selected it navigates to the respective landing page.

a) SBI

i. Bidders with SBI account may click **SBI** option to proceed to its Net Banking Page

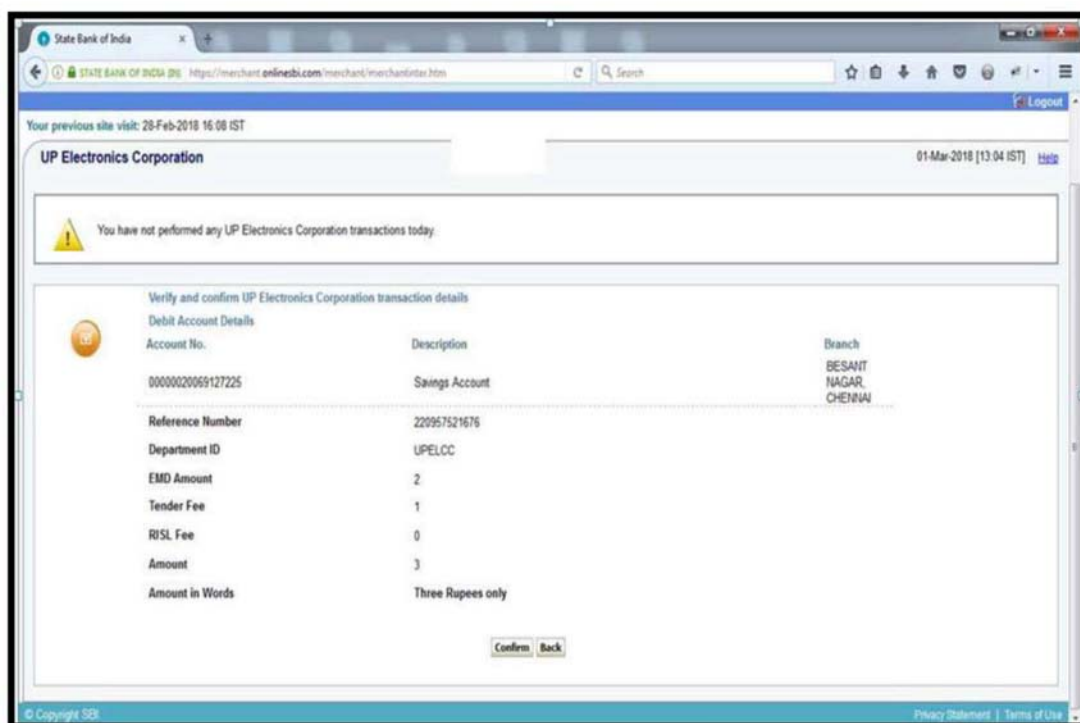


ii. Bidders may enter SBI Net banking user ID and Password and Click on **Login** to proceed.



The screenshot displays the SBI Online Banking login interface. At the top, there's a navigation bar with the SBI logo and 'SBI ONLINE' text. Below this, the main heading is 'Login to OnlineSBI'. A note states 'ICARE: Username and password are case sensitive.' There are two tabs: 'PERSONAL BANKING' (selected) and 'CORPORATE BANKING'. The login form includes fields for 'Username*' and 'Password*', both marked with an asterisk to indicate they are mandatory. There are links for 'New User? Register here', 'Forgot Login Password', and 'Forgot Username'. A 'Login' button is present, along with a 'Forgot' link. To the right of the login form is a 'Welcome to Internet Banking' message and a virtual keyboard with buttons for numbers, letters, and special characters. Below the login form, there's a security notice: 'For better security use the Online Virtual Keyboard to login.' and links for 'FAQ' and 'About Pinning'. At the bottom, there are four security tips: 'Mandatory fields are marked with an asterisk (*)', 'Do not provide your username and password anywhere other than in this page', 'Your username and password are highly confidential. Never part with them. SBI will never ask for this information.', and 'Please do not call Contact Centre or try to raise CMS complaint on the day of transaction.' There is also a small orange bell icon and links for 'Privacy Statement', 'Disclosure', and 'Terms of Service/Terms & Conditions'.


iii. Please ensure that your account has sufficient balance, before proceeding further. After checking the same, Click **Confirm** button as below, to transfer payment. After account debit, MOPS gateway will automatically re-direct to the eProcurement System, with the Success transaction.



State Bank of India x +
STATE BANK OF INDIA [IN] https://merchant.online.sbi.com/merchant/merchantindex.htm Search

Your previous site visit: 28-Feb-2018 16:08 IST

UP Electronics Corporation 01-Mar-2018 [13:04 IST] [Help](#)

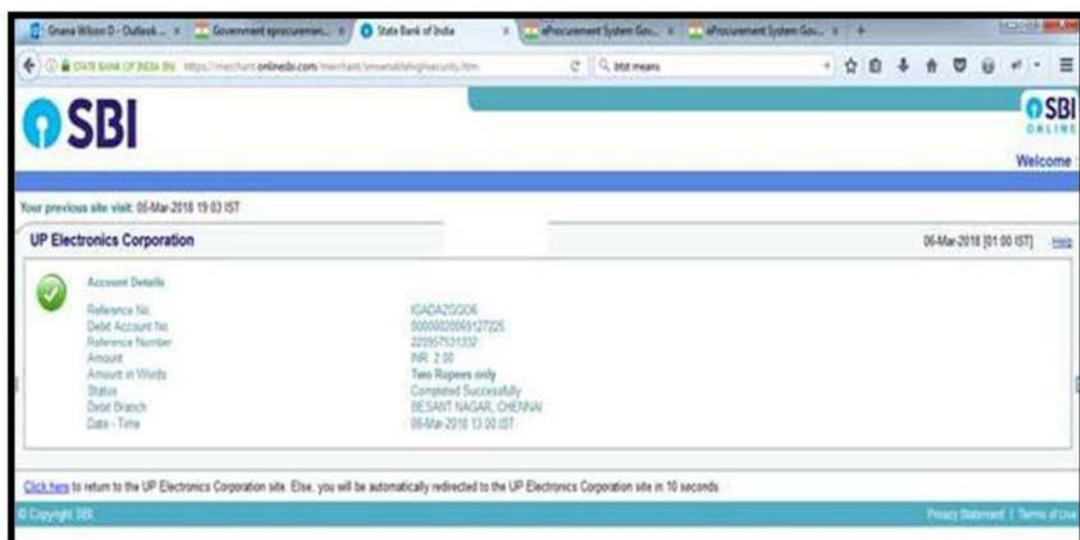
 You have not performed any UP Electronics Corporation transactions today.

Verify and confirm UP Electronics Corporation transaction details

Debit Account Details	Description	Branch
Account No.	Savings Account	BESANT NAGAR CHENNAI
Reference Number	220957521676	
Department ID	UPELCC	
EMD Amount	2	
Tender Fee	1	
RISL Fee	0	
Amount	3	
Amount in Words	Three Rupees only	

[Confirm](#) [Back](#)


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State Bank of India x +
STATE BANK OF INDIA [IN] https://merchant.online.sbi.com/merchant/merchantindex.htm Search

Your previous site visit: 05-Mar-2018 13:03 IST

UP Electronics Corporation 05-Mar-2018 [13:03 IST] [Help](#)

 Account Details

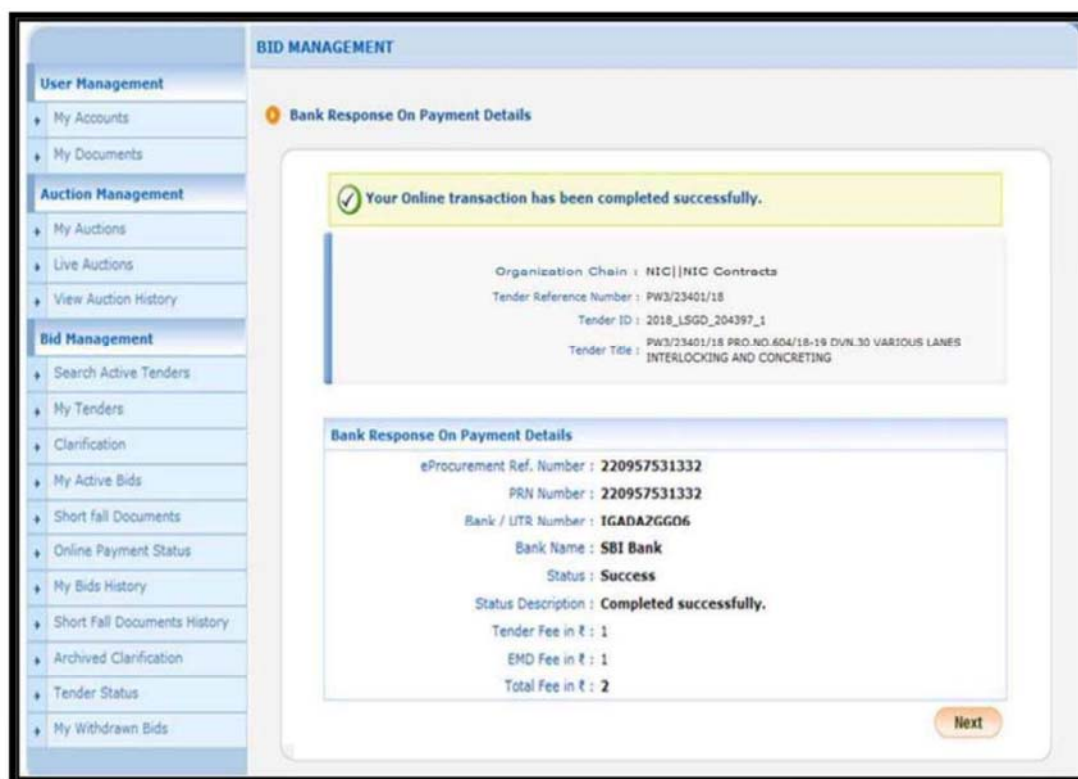
Reference No.	ICAGA202006
Debit Account No.	0000020069127225
Reference Number	220957531332
Amount	INR 2.00
Amount in Words	Two Rupees only
Status	Completed Successfully
Debit Branch	BESANT NAGAR, CHENNAI
Date - Time	05-Mar-2018 13:03 IST

[Click here](#) to return to the UP Electronics Corporation site. Else, you will be automatically redirected to the UP Electronics Corporation site in 10 seconds.

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iv. As in below, you will receive bank response immediately by verifying the payment status, whether **Success** or not. In case, payment was debited from account and further, **Payment Failure** is shown, immediately contact the eProcurement helpdesk, for resolution, before tender closing time.

Click **Next** to go to Bid Preparation details, as in screenshot.



BID MANAGEMENT

Bank Response On Payment Details

✓ Your Online transaction has been completed successfully.

Organization Chain : NIC||NIC Contracts
Tender Reference Number : PW3/23401/18
Tender ID : 2018_LSGD_204397_1
Tender Title : PW3/23401/18 PRO.NO.604/18-19 CIVIL 30 VARIOUS LANES INTERLOCKING AND CONCRETING

Bank Response On Payment Details

eProcurement Ref. Number : 220957531332
PRN Number : 220957531332
Bank / UTR Number : IGADA2GG06
Bank Name : SBI Bank
Status : Success
Status Description : Completed successfully.
Tender Fee in ₹ : 1
EMD Fee in ₹ : 1
Total Fee in ₹ : 2

Next

v. Please ensure that the **Pay Online** option is not shown after successful payment, as below, for confirmation. From here, you may proceed with **Encrypt and Upload** to upload tender documents, and further submission process.

User Management

My Accounts

My Documents

Auction Management

My Auctions

Live Auctions

View Auction History

Bid Management

Search Active Tender's

My Tenders

Clarification

My Active Bids

Bid Opening (Live)

Short fall Documents

Online Payment Status

My Bids History

Short Fall Documents History

Archived Clarification

Tender Status

My Withdrawn Bids

BID MANAGEMENT

My Tenders

2018_KSITHM_203916_2

Transaction Message

Organization Chain : NIC||NIC Contracts

Tender Reference Number : PW3/23401/18

Tender ID : 2018_LSGD_204397_1

Tender Title : PW3/23401/18 PRO.NO.604/18-19 DYN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

Bid Process List

S.No	Bid Process	Action
1	Profile	

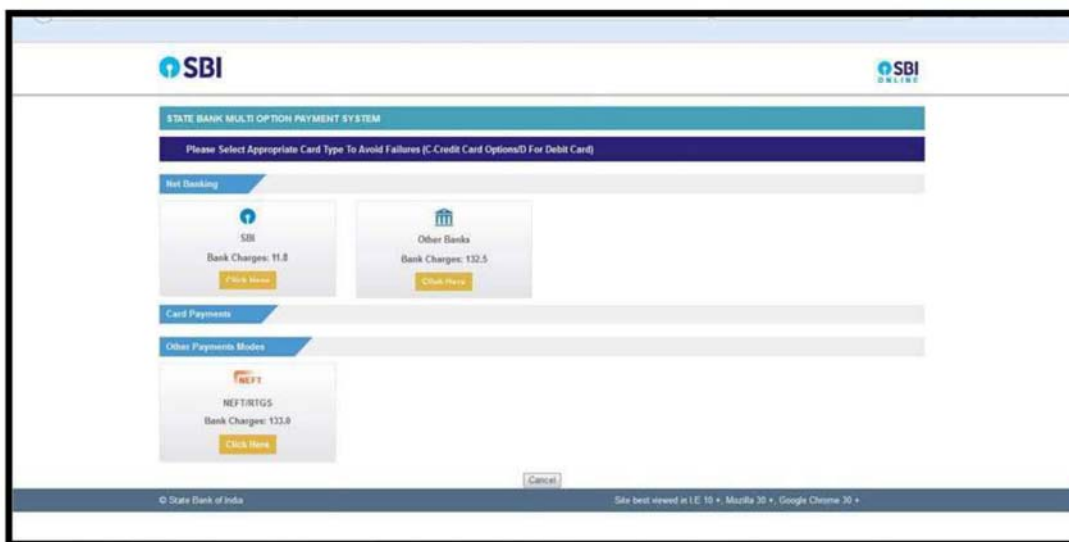
Bid Payment Details

S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid	Paid Fee
1	Tender Fee	1.00 (INR)	0.00	0.00	1.00 (INR)
2	Emd Fee	2.00 (INR)	0.00	0.00	2.00 (INR)

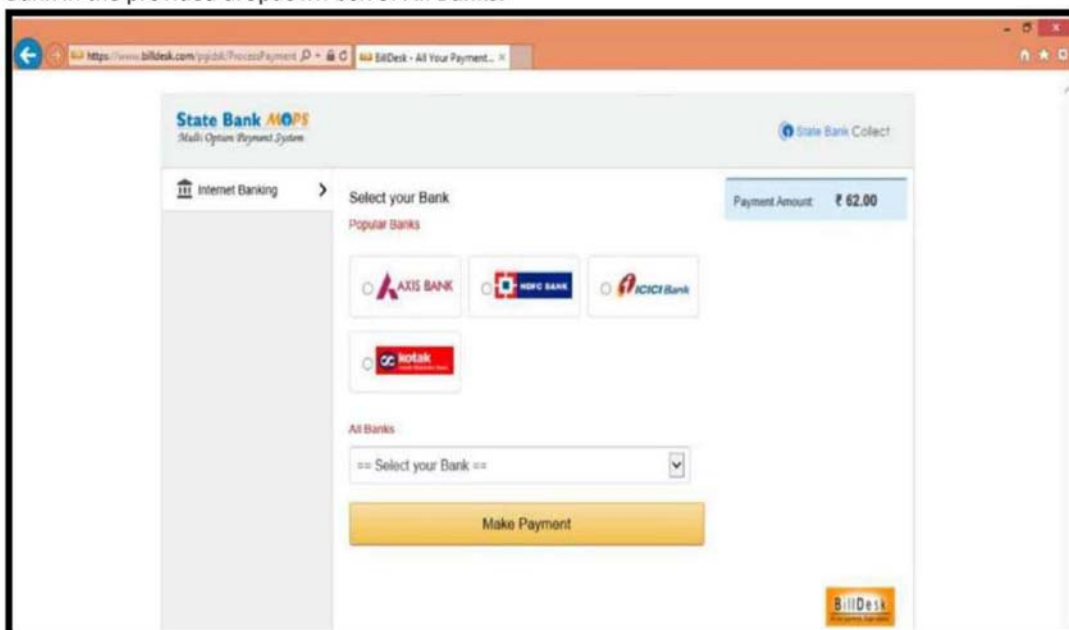
Encrypt&Upload

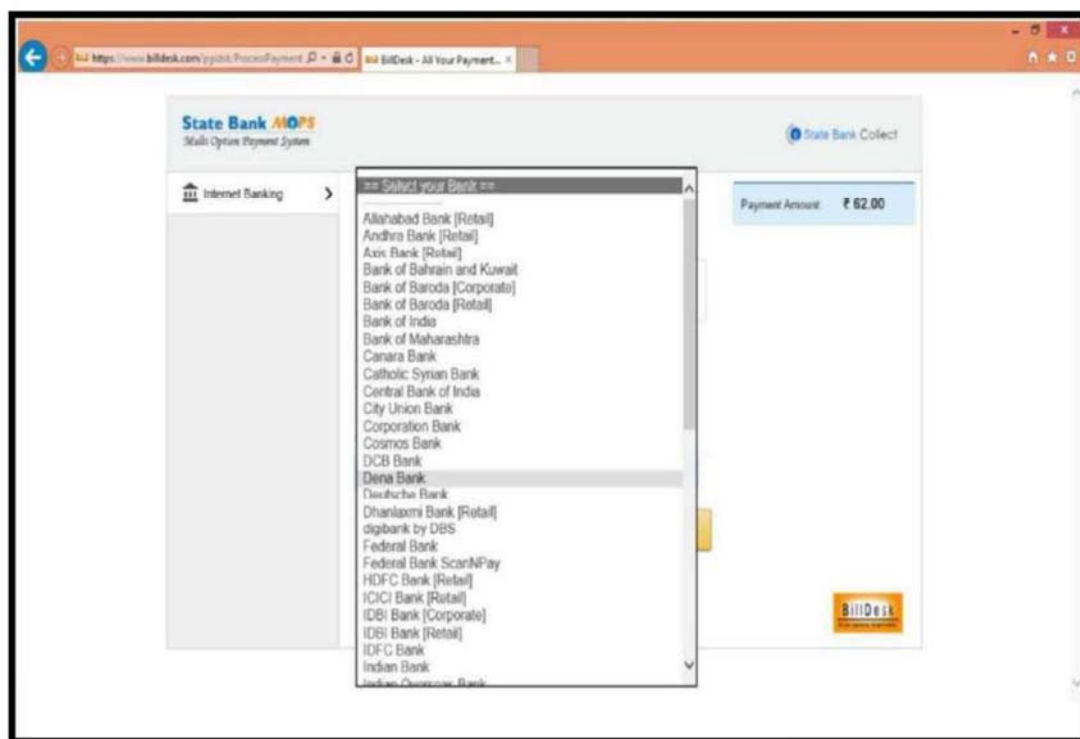
b) OTHER BANKS :

- i. Bidders with other bank account may click **Other Banks** option to proceed to SBI Net Banking Page

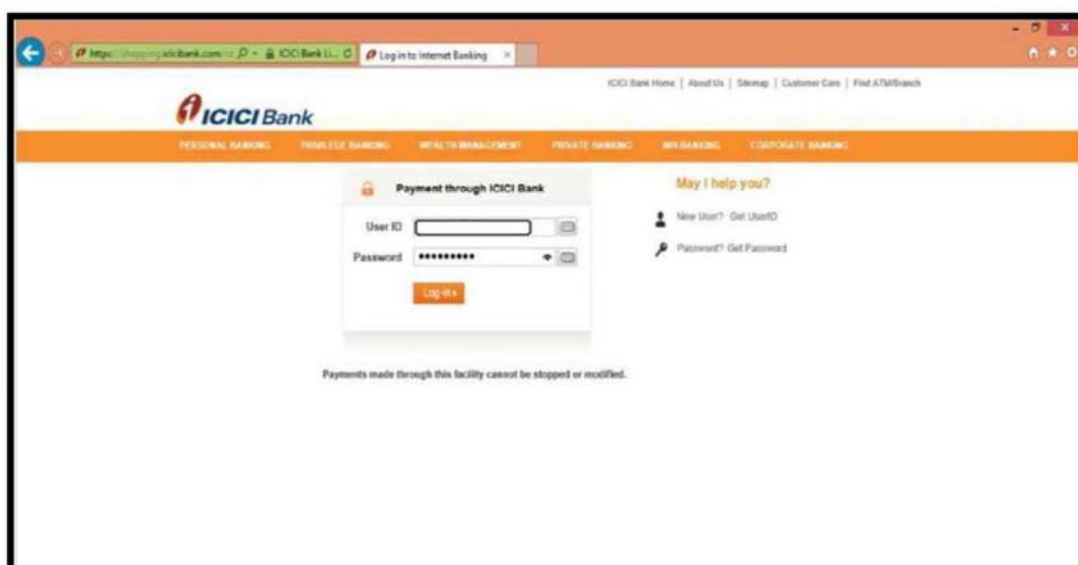
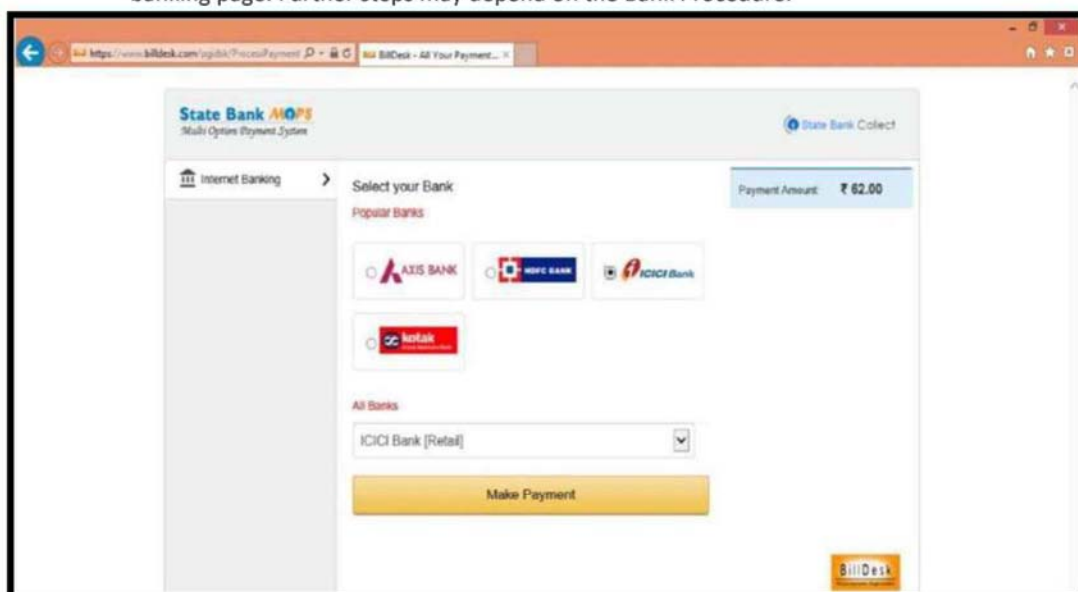


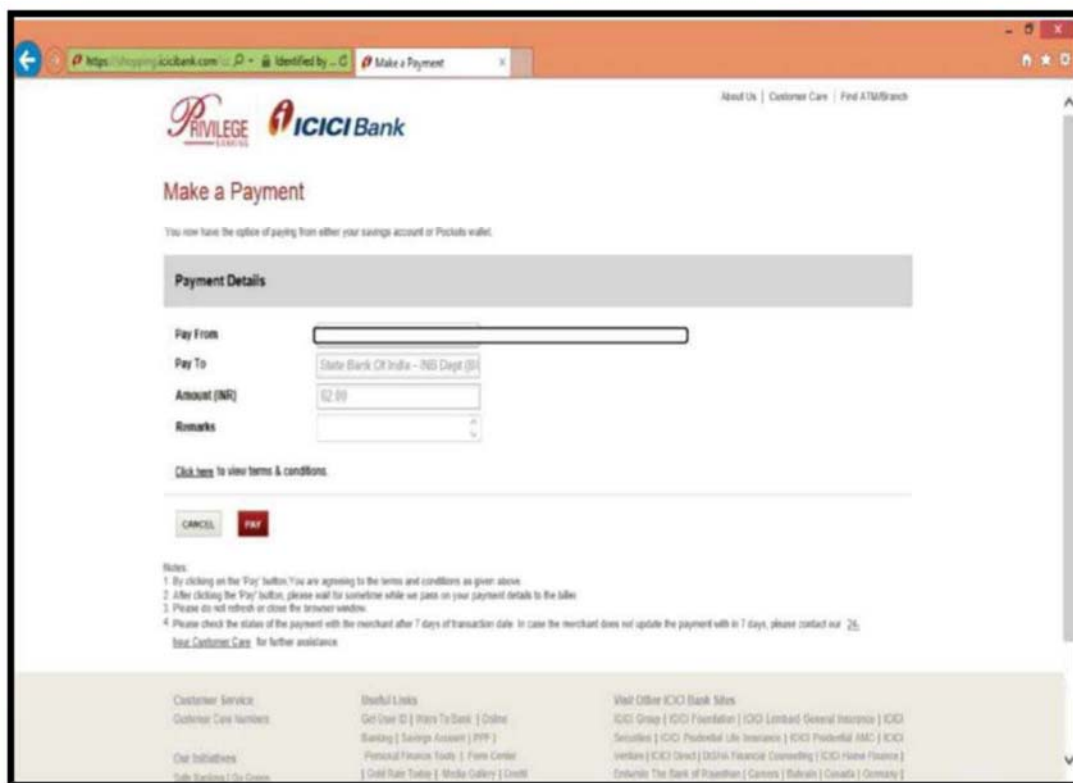
You may select the appropriate Bank from selection page. As an example, we are proceeding with ICICI Bank in the provided dropdown box of **All Banks**.





- ii. After selecting ICICI Retail Banking, Click **Make Payment** Button to proceed to its internet banking page. Further steps may depend on the Bank Procedure.





Make a Payment

You now have the option of paying from either your savings account or Payco's wallet.

Payment Details

Pay From:

Pay To: State Bank of India - NIS Dept (SI)

Amount (INR): 62.89

Remarks:

[Click here to view terms & conditions.](#)

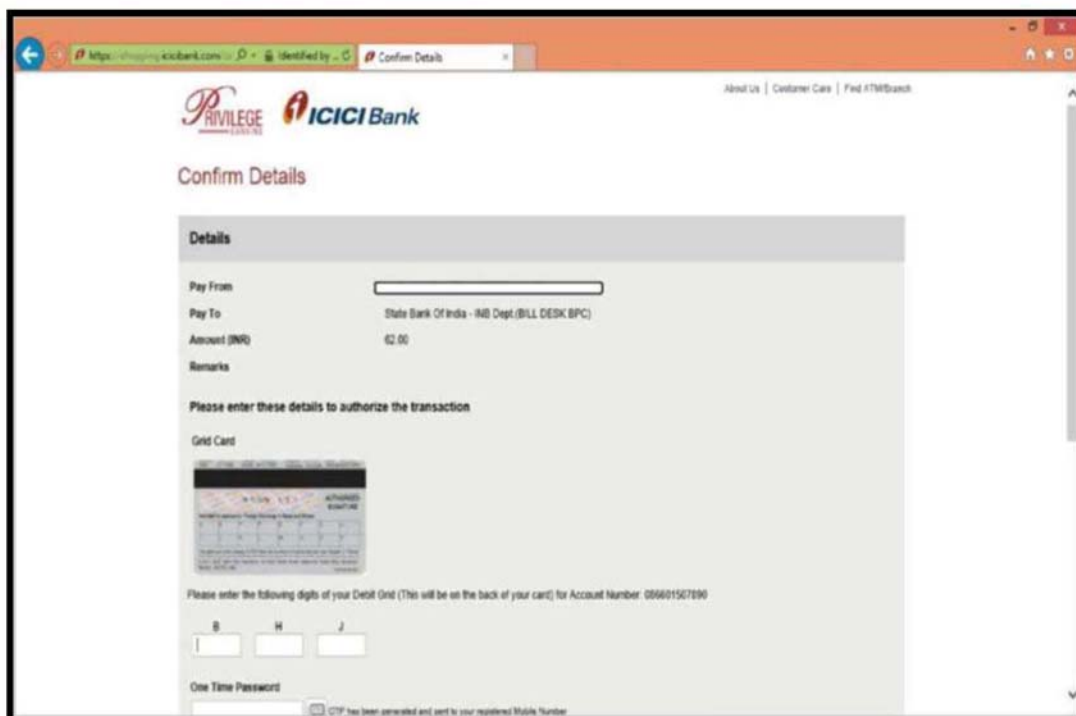
Notes:

1. By clicking on the 'Pay' button, you are agreeing to the terms and conditions as given above.
2. After clicking the 'Pay' button, please wait for sometime while we pass on your payment details to the biller.
3. Please do not refresh or close the browser window.
4. Please check the status of the payment with the merchant after 7 days of transaction date. In case the merchant does not update the payment with in 7 days, please contact our [24x7 Customer Care](#) for further assistance.

Customer Service
Customer Care Numbers

Useful Links
Get Over ID | Return To Bank | Online Banking | Savings Account | PPF | Personal Finance Tools | Fint Center | Gold Rate Tracker | Media Gallery | Credit

Visit Other ICICI Bank Sites
ICICI Group | ICICI Foundation | ICICI Lombard General Insurance | ICICI Securities | ICICI Prudential Life Insurance | ICICI Prudential AMC | ICICI Ventures | ICICI Direct | ICICI Finance Corporation | ICICI Home Finance | ICICI The Bank of Rajasthan | Canara | Bahrain | Canada | Germany |



Confirm Details

Details

Pay From

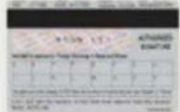
Pay To State Bank Of India - INB Dept.(BILL DESK BPC)

Amount (INR) 62.00

Remarks

Please enter these details to authorize the transaction

Grid Card



Please enter the following digits of your Debit Grid (This will be on the back of your card) for Account Number: 086801507890

One Time Password

OTP has been generated and sent to your registered Mobile Number



Payment Successful

Your payment of INR 62.00 has been made successfully to State Bank Of India - INB Dept.(BILL DESK BPC)

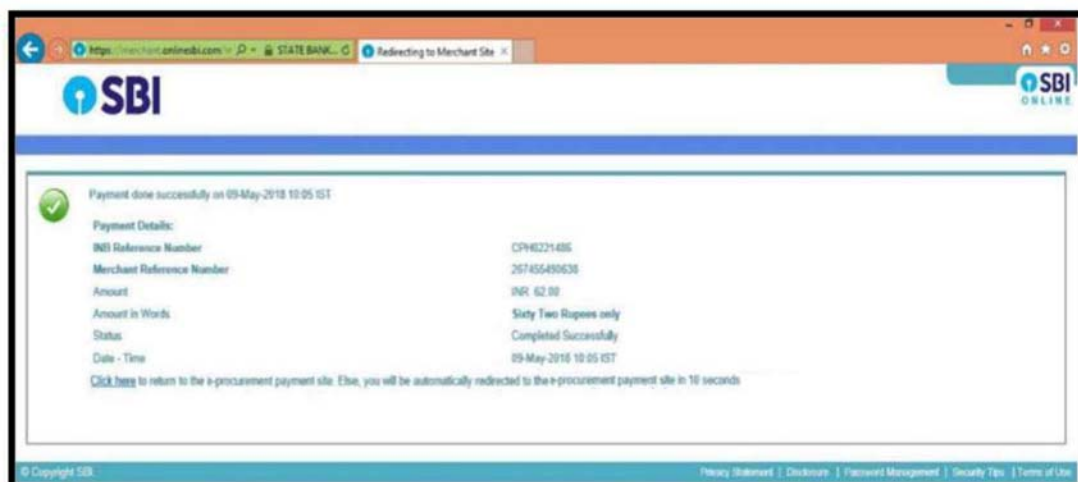
Your Merchant Reference Number is NIC6285234178

Your Transaction Reference Number is 1448563549

Kindly wait while we pass on your payment confirmation to State Bank Of India - INB Dept.(BILL DESK BPC)

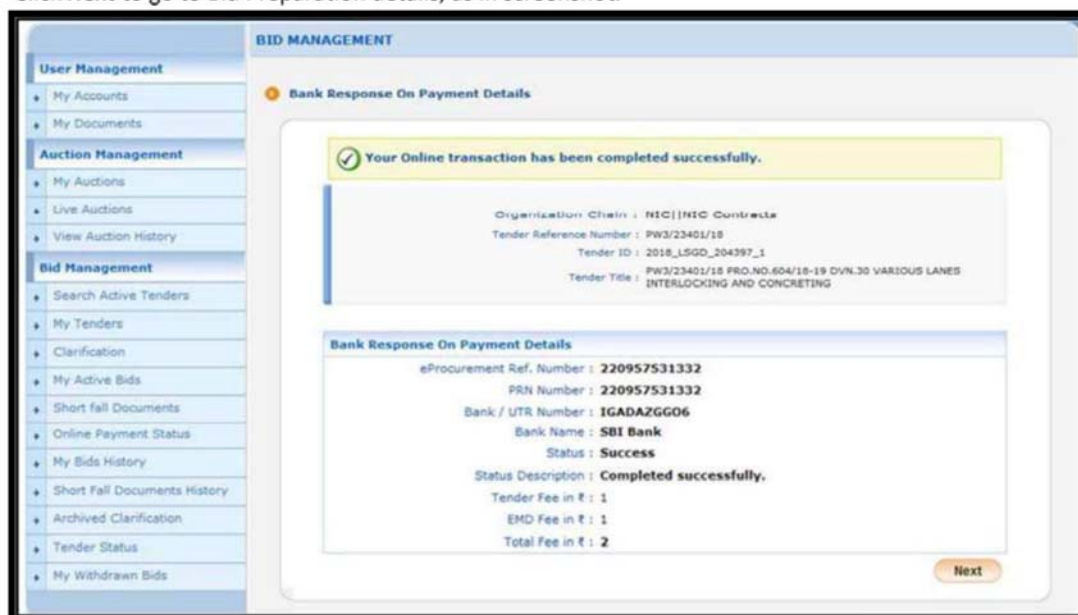
Please Note : For any transaction related queries, please contact the merchant and quote the Merchant Reference Number mentioned above

- iii. After, successful payment, system will direct you to payment confirmation page.

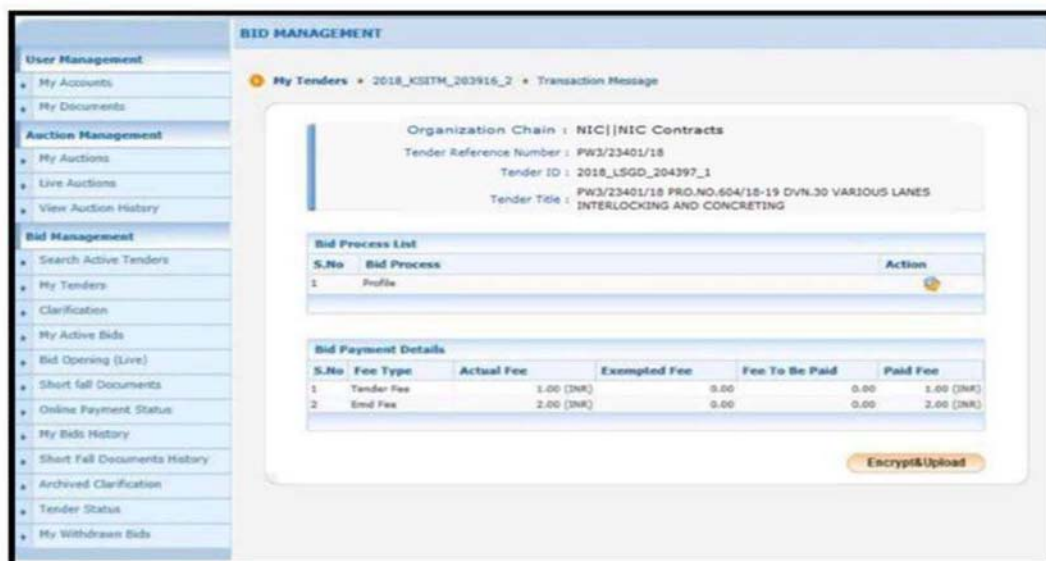


- iv. As in below, you will receive bank response immediately by verifying the payment status, whether Success or not. In case, payment was debited from account and further, **Payment Failure** is shown, immediately contact the eProcurement helpdesk, for resolution, before tender closing time.

Click **Next** to go to Bid Preparation details, as in screenshot.



v. Please ensure that the **Pay Online** option is not shown after successful payment, as below, for confirmation. From here, you may proceed with **Encrypt and Upload** to upload tender documents, and further submission process.



BID MANAGEMENT

My Tenders • 2018_KSITH_203916_2 • Transaction Message

Organization Chain : NIC|NIC Contracts
Tender Reference Number : PW3/23401/18
Tender ID : 2018_LSGD_204297_1
Tender Title : PW3/23401/18 PRO.NO.604/18-19 DVN.30 VARIOUS LANES INTERLOCKING AND CONCRETING

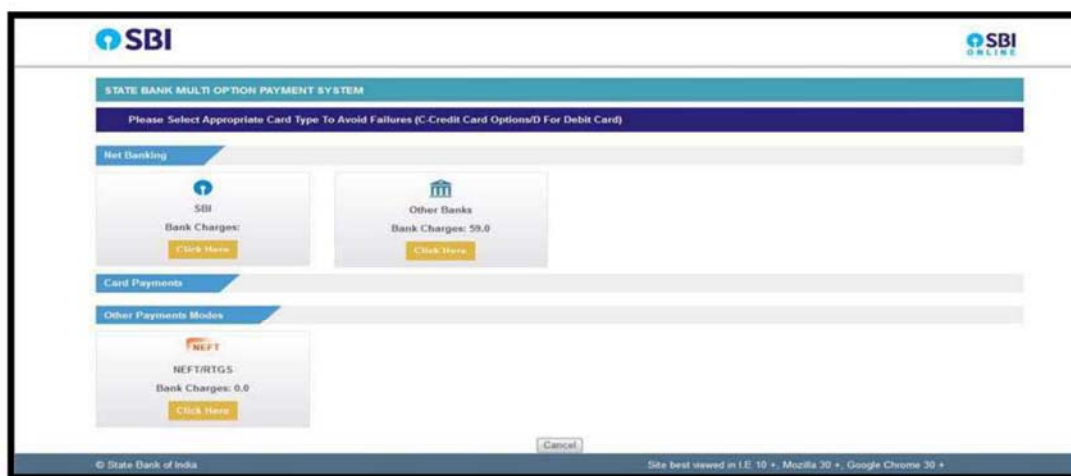
S.No	Bid Process	Action
1	Profile	

S.No	Fee Type	Actual Fee	Exempted Fee	Fee To Be Paid	Paid Fee
1	Tender Fee	1.00 (INR)	0.00	0.00	1.00 (INR)
2	Emd Fee	2.00 (INR)	0.00	0.00	2.00 (INR)

[Encrypt&Upload](#)

C) NEFT/RTGS

- (i) Bidders may choose the type of transaction and proceed for payment.



SBI ONLINE

STATE BANK MULTI OPTION PAYMENT SYSTEM

Please Select Appropriate Card Type To Avoid Failures (C Credit Card Options/D For Debit Card)

Net Banking

SBI Bank Charges: [Click Here](#)

Other Banks Bank Charges: 59.0 [Click Here](#)

Card Payments

Other Payments Modes

NEFT/RTGS Bank Charges: 0.0 [Click Here](#)

[Cancel](#)

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- (ii) Please click the check Box to proceed to the payment and click on the Confirm Button.



Disclaimer Clause

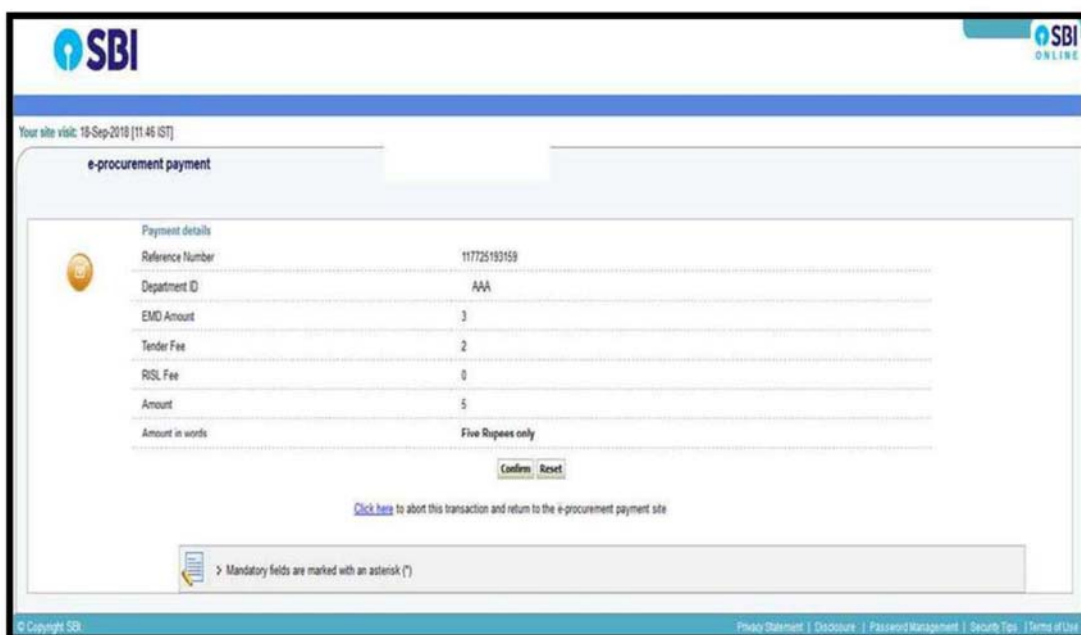
SBI does not have any control over third party websites and accepts no responsibility or liability for any of the material contained on those servers. You will be using such third party websites at your own risk and responsibility and SBI will not be responsible for any loss, damage, costs & charges, direct or indirect incurred by you, arising out of or in connection with your access to the external website or for any deficiency in the products and services of the third party or for the failure or disruption of the website of the third party.

SBI is not in any way liable for the contents of any linked websites or webpages, by integrating with an external website or web page, SBI shall not be deemed to endorse, recommend, approve, guarantee, indemnify or introduce any third parties or the services/products they provide on their websites. Please note SBI is only facilitating the online transaction and will not be a party to any contractual arrangements entered into between you and the provider of the external website unless otherwise expressly specified or agreed to by SBI. Such external websites are governed by their respective policies.

☐ I have read and accepted the terms and conditions stated above.
(Click Check Box to proceed for payment)

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- (iii) Please ensure that your account has sufficient balance, before proceeding further. After checking the same, Click **Confirm** button as below, to transfer payment.



SBI ONLINE

Your site visit: 18-Sep-2018 [11:46 IST]

e-procurement payment

Payment details	
Reference Number	117725193159
Department ID	AAA
EMD Amount	3
Tender Fee	2
RISL Fee	0
Amount	5
Amount in words	Five Rupees only

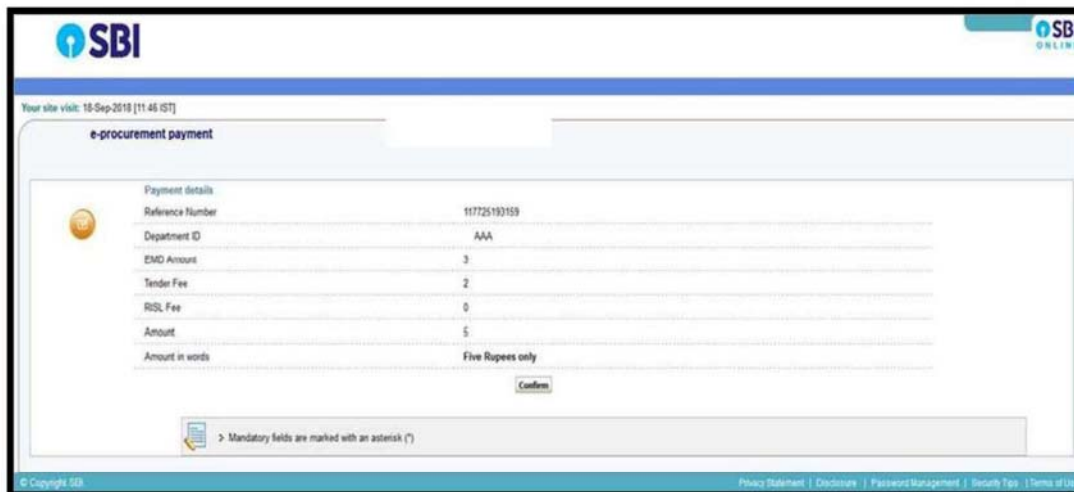
[Click here](#) to abort this transaction and return to the e-procurement payment site

> Mandatory fields are marked with an asterisk (*)

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(iv) Click **Confirm** button as below, to transfer payment.



SBI ONLINE

Your site visit: 18-Sep-2018 [11:46 (IST)]

e-procurement payment

Payment details	
Reference Number	117725193159
Department ID	AAA
EMD Amount	3
Tender Fee	2
RSL Fee	0
Amount	5
Amount in words	Five Rupees only

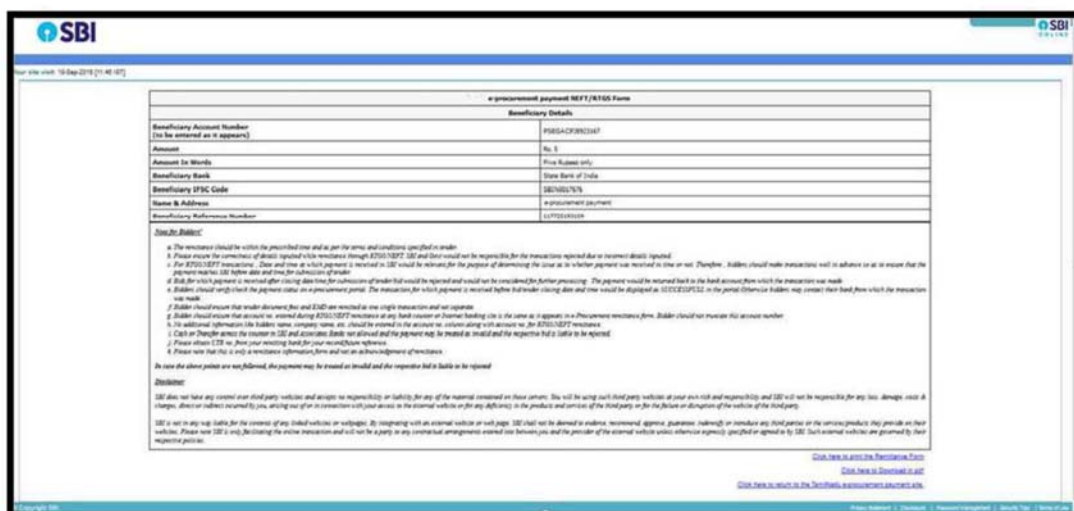
Confirm

> Mandatory fields are marked with an asterisk (*)

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(v) The challan is generated after successful transaction.



SBI ONLINE

Your site visit: 18-Sep-2018 [11:46 (IST)]

e-procurement payment RECEIPT (Challan)

Beneficiary Details	
Beneficiary Account Number (To be entered as it appears)	117725193159
Amount	Rs. 5
Amount in Words	Five Rupees only
Beneficiary Bank	State Bank of India
Beneficiary IFSC Code	SBIN0017675
Name & Address	e-procurement payment
Transaction Reference Number	117725193159

Important Instructions:

- The transaction should be within the prescribed time and as per the terms and conditions specified in tender.
- Please ensure the correctness of details reported while generating through RTGS/NEFT/LLP and User would not be responsible for the transactions reported due to incorrect details reported.
- The RTGS/NEFT transactions - Date and time at which payment is received in SBI should be entered for the purpose of determining the time as to whether payment was received in time or not. Therefore, Bidders should make transactions well in advance so as to ensure that the payment reaches SBI before date and time for submission of tender.
- Bidder who is required to receive the payment should ensure that the payment is received before the closing date and time. The payment should be received in the bank account from which the transaction was made.
- Bidder should verify that the payment is received in the correct bank account and the amount is correct. The transaction for which payment is received before the closing date and time would be displayed as 'SUCCESSFUL' in the portal. Otherwise Bidders may contact their bank from which the transaction was made.
- Bidder should ensure that the transaction details and RTGS/NEFT are received as one single transaction and not separate.
- Bidder should ensure that the account is entered during RTGS/NEFT transactions at any bank counter or internet banking site is the same as it appears in the Procurement documents form. Bidder should not make any account number.
- In additional information like bidder name, company name, etc., should be entered in the account no. column along with account no. for RTGS/NEFT transactions.
- Cash or Demand Draft for the amount in SBI and a/c number. Bank not allowed and the payment may be treated as invalid and the response bid is liable to be rejected.
- Please ensure that the RTGS/NEFT is received in the correct bank account and the amount is correct.
- Please note that this is only a transaction information form and not an acknowledgment of receipt.

Disclaimer:

SBI does not have any control over third party website and accepts no responsibility or liability for any of the material contained on these website. It will be using such third party website at your own risk and responsibility and SBI will not be responsible for any loss, damage, error & change, direct or indirect, incurred by you, arising out of or in connection with your access to the internet website or the any deficiency, in the product and service of the third party or the delay or disruption of the website of the third party.

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[Click here to view the Transaction Data](#)
[Click here to Download a PDF](#)
[Click here to view the Transaction Receipts](#)

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(vi) The Downloaded challan of the e-procurement RTGS/NEFT Remittance Information

e-procurement payment RTGS/NEFT Remittance Information Form	
Beneficiary Details	
Beneficiary Account Number (to be entered as it appears)	PSEGACPJ8923167
Amount	Rs. 5
Amount In Words	Five Rupees only
Beneficiary Bank	State Bank of India
Beneficiary IFSC Code	SBIN0017676
Name and Address	e-procurement payment
Beneficiary Reference No	117725193159
Instructions for remitting Bank: a. This form is valid for remittance through non-SBI branches. b. Beneficiary account no. is alpha-numeric and case sensitive. It should be entered as it appears above. c. Amount to be remitted should not be higher or lesser and should be the same as shown above.	
Note for Bidders: a. Bidder should ensure that account no. entered during RTGS/NEFT remittance at any bank counter or Internet banking site is the same as it appears in this remittance form. Bidder should not truncate or add any other detail to the above account number. b. No additional information like bidder name, company name, etc. should be entered in the account no. column along with account no. for RTGS/NEFT remittance. c. Account to Account transfers or Cash payments are not allowed and are invalid mode of payments. Hence, this remittance form is to be used only for RTGS or NEFT payment. d. Bidder should ensure that tender document fees and EMD are remitted as one single transaction and not separate. The remittance should be within the prescribed time and as per the terms and conditions specified in tender. e. Please ensure the correctness of details inputted while remittance through RTGS/NEFT. Please also ensure that your banker keys in the Account Number (which is case sensitive) as displayed in this form. SBI and Merchant Bankers should ensure that the details are correctly inputted. f. For RTGS/NEFT remittance, the purpose of payment should be relevant for the purpose of the tender. Therefore, bidders should ensure that the purpose of payment is correctly inputted before date and time for submission of tender. g. Bids for which Payment is received after closing date/time for submission of tender/bid would be rejected.	

AIRPORTS AUTHORITY OF INDIA

GUIDANCE FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal. More information useful for submitting online bids on the CPP Portal may be obtained at: <http://etenders.gov.in/eprocure/app>.

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <http://etenders.gov.in/eprocure/app>) by clicking on the link **“Online bidder Enrolment”** on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders shall be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders shall be required to register their valid Digital Signature certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudra etc.), with their profile.
- 5) Only one valid DSC shall be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder shall then log in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters may include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail, in case there is any corrigendum issued to the tender document.

- 3) The bidder shall make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder shall take into account any corrigendum published on the tender document before submitting their bids.
- 2) Bidder shall go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, shall get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they may be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Space” or “Other Important Documents” area available to them to upload such documents and keep it as a repository.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

SUBMISSION OF BIDS :

- 1) Bidder shall log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

- 5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
- 6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers' public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) Upon the successful and timely submission of bids (ie after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.
- 11) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.
- 12) Queries / Clarifications, if any, may be sought through e-tendering portal only. **No queries / clarification will be entertained by Department received after Last date of clarification mentioned in Notice Inviting Tender.**

- 13) Tenderers are requested to get themselves acquainted for e-tendering participation requirement at “Bidder Manual Kit” and register themselves at NIC CPP Portal, obtain ‘User ID’ & ‘Password’ and go through the ‘Help for Contractors’ available in the Home Page before login to the NIC-CPP Portal www.etenders.gov.in and obtain digital signature certificate as specified in the guidelines for bidders at the e-tendering portal. The tenderer may also take guidance from AAI Help Desk Support given at page no **HDS-1** of this tender document.
- 14) AAI is not responsible for any postal delay or delay due to link failure/ internet problem etc. in respect of submission /receipt of any documents or in submission of e-Bid. Bidders who are intending to submit responsive e-Bids are requested to submit the same well in advance before the due date & time. It is the responsibility of the Bidder to make sure that the required documents / e- Bid is submitted in time.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated below:
Deep Prakash Yadav
AGM (E-C)
AAI, Prayagraj Airport,
Prayagraj.
Contact no. 0532-2288154
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.
- 3) Tenderer should download the Tender Documents from the e-tendering portal of NIC, fill up the required information and upload the same after digitally signing well in time along with authorization letter / power of attorney, if any, required.

AIRPORTS AUTHORITY OF INDIA
NOTICE INVITING TENDER
GENERAL GUIDELINES FOR THE BIDDER.

1. Item rate e-tenders are invited on behalf of the Airports Authority of India for the work as mentioned at **Page No. 3** of Tender Document. The estimated cost of the work is mentioned at **Page No. 3** of Tender Document. This estimate, however, is given merely as rough guide.
2. The Tenders shall be in the prescribed Form.
3. The works are required to be completed within the period as mentioned at Page No. 3 of Tender Document.
4. Not more than one Tender shall be submitted by a contractor or by a firm of contractors.

No two or more concerns in which an individual is interested, as Proprietor and/or partner shall tender for the execution of the same works. If they do so, all such Tenders shall be liable to be rejected.

5. The Accepting Authority as mentioned in **Schedule “F”/2 (viii)**, shall be the accepting officer hereinafter, referred to as such for the purpose of this contract.
6. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner it must be signed on his behalf by a person holding a power-of attorney authorizing him to do so. Such power of attorney to be uploaded with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
7. Tender documents consisting of plans, specifications, Schedule(s) of quantities of the various classes of work to be done, the conditions of contract and other necessary documents will be open for in section in the office of the **Bid Manager (Asstt. Gen. Manager (Engg-Civil), Airports Authority of India, Prayagraj Airport, Prayagraj – 211012)**, between hours of 11.00 am & 4.00 pm every day except Saturday, Sunday and public holidays. Tender document can be downloaded from the NIC CPP e-procurement portal without paying any tender fees. However, to participate in the tender, the Bidders must pay tender processing fee through Online as mentioned in WNIT.
8. 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 nature of the site, the means of access to the site, the accommodation they may require, working conditions including space for stacking of materials, installation of T&P, rates of various materials to be incorporated in works, conditions affecting accommodation and movement of labours etc. and in general shall themselves obtain all necessary information as to risks, contingencies and other

circumstances which may influence or effect 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.

9. 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 works to be done and of conditions and rates at which land for stores, tools and plant, etc. will be arranged by contractor.
10. **All rates shall be quoted in the CPP e-tendering portal exclusive of GST (Price bid i.e. Envelope-II) and no other format is acceptable.**
11. As this tender is an Item rate Tender, rates for all items quoted shall only be considered. Any Tender containing percentage below/above the total estimated cost is liable to be rejected. Tenderers which propose any alteration in the works 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 including conditional rebates will be summarily rejected. Any Tender containing percentage below/above the rates quoted is liable to be rejected.
12. Tenders shall be received through CPP Portal upto the date and time as mentioned in e-NIT and shall be opened on the date and time as mentioned in e-NIT. Any change or extension of date shall be intimated through e-tendering portal.
13. **EMD amounting to Rs. 1010740.00 (Rs. Ten Lacs Ten Thousands Seven Hundreds Forty only)** will be accepted online through CPP portal. The Bidders can also submit the EMD in the form of Bank Guarantee (BG) Appendix - 1A pg. 123, along with undertaking as per Appendix – XIA pg. no. 138 and cover message as per **Annexure –IV** at pg. no. 162 from a Nationalized or any schedule bank (but not from co-operative or Garmin Bank) in favour of Airports Authority of India. The requisite Original / Hard copy of the Bank Guarantee and undertaking is required to be submitted to the **Asstt. Gen. Manager (Engg-Civil), Airports Authority of India, Prayagraj Airport, Prayagraj – 211012.**
14. Notification of Award of contract will be made in writing to the successful bidder by the Accepting Authority or his representative. The contract will normally be awarded to the qualified and responsive Bidder offering lowest evaluated bid in conformity with the requirements of the specifications and contract documents and the Accepting Authority shall be the sole judge in this regard. The Accepting Authority does not bind himself to accept the lowest or, any tender or to give any reason for his decision.

A **responsive bidder** is one who submits priced Tender and accepts all terms, conditions and specifications of the contract documents.

A major modification is one which affects in any way the quality, quantity and period of completion of the work or which limits in any way the responsibilities or liabilities of the Bidder or any right of AAI, as required in the specifications and contract documents.

Any modification in the terms and conditions of the Tender which are not acceptance to AAI shall also be treated as a major modification.

Tenderer shall submit a responsive bid, failing which his Tender will be liable to be rejected.

15. The Accepting Authority reserves to himself the right of accepting the whole or any part of the Tender and Tenderer shall be bound to perform the same at his quoted rates. No claim whatsoever will be entertained on this account.
16. Canvassing in connection with Tenders is strictly prohibited and the Tenders submitted by the Tenderers who resort to canvassing will be liable to be rejected.
17. The Tenderer shall not be permitted to tender for works in Airports Authority of India Engineering Department, responsible for award and execution of contracts, in which his near relative is posted as Manager Finance & Accounts or Sr. Officer or as an Engineer in any capacity. 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 relative to any officer in Airports Authority of India. Any breach of this condition by the contractor would render him liable to be debarred from Tendering in AAI. The contractor shall give a list of AAI Employees related to him.
18. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of Airports Authority of India/Govt. of India is allowed to work as a contractor for a period of two years of his retirement from Airports Authority of India/Government service, without the previous permission of Airports of India/Govt. of India. The 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 the permission of Airports Authority of India/Govt. of India as aforesaid before submission of the Tender or engagement in the contractor's service.
19. The tender for the works shall remain open for acceptance for a period of **90 days** from the date of opening of financial bid of tenders. If any tenderer withdraws his tender before the said period or makes any modifications in the terms and conditions of the tender which are not acceptable to the department then Airports Authority of India shall without prejudice to any other right or remedy, be at liberty to take action against tenderer.
20. 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 to the Engineer-in-Charge.
21. A tenderer shall submit the tender which satisfies each and every condition laid down in this notice failing which the Tender will be liable to be rejected. Also if the credential submitted by the firm found to be incorrect or have some discrepancy which disqualifies the firm then the AAI shall take the following action:

- a) Forfeit the Performance guarantee and security deposit whichever is available with AAI.
 - b) Debar the firm from tendering in AAI, apart from any other appropriate contractual / legal action including but not limited to cancelation of his tender/ work order/ contract agreement, as the case may be.
22. The tendered rate shall be inclusive of all taxes, duties, cess, fee and charges levied under any statute but **exclusive of GST. In every bills agency shall submit the invoice indicating bifurcation of GST.**
23. (a) All tendered rates shall be inclusive of all taxes and levies but **exclusive of GST** payable under respective statute. 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 Engineer-In-Charge (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.
- b) 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 authorized representative of Airports Authority of India and / or Engineer-In-Charge and further shall furnish such other information / document as the Engineer-In-Charge may require from time to time.
 - c) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy, pursuant to the Constitution (46th 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.
24. The site for the work is available.
25. **MODE OF SUBMISSION OF TENDERS:**
- 25.1 Following 2 Envelopes shall be submitted through online at e-portal by the bidder. Last date and time of submission of bids (Envelope I & II) is date & time mentioned in CRITICAL DATA SHEET at page WNIT-2.
- Envelope-I** Containing scanned copies of EMD and Unconditional Acceptance of AAI's Tender Conditions, Technical Bid and Qualifying requirements of Contractors/ firms:- Date of opening of Envelope-I shall be opened on date & time mentioned in CRITICAL DATA SHEET at page WNIT-2.
- If any clarification is needed from the bidder about the deficiency in his uploaded documents in Envelope-I, he will be asked to provide it through "Shortfall of Documents" option in NIC CPP e-tendering portal. The bidder shall upload the requisite clarification/documents within time specified by AAI, failing which tender will be liable for rejection.

Envelope -II (Financial Bid): The Financial e-Bid through e-portal.

- (i) The Bidders shall quote their item rates online through e-tendering portal only.
 - (ii) The Price Bids / Financial Bids of those Bidders who are fulfilling the criteria Envelope-I shall be opened.
 - (iii) All rates shall be quoted in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
 - (iv) In event no rate has been quoted for any item(s) leaving space both in figure(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this / these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.
 - (v) All rates shall be quoted online in the CPP portal in Indian Rupees only in the Envelope-II (Financial Bid Folder).
 - (vi) AAI does not give any concessional forms / certificates / permits towards any taxes, duties & other levies like GST, entry taxes etc.
- 25.2 This Notice Inviting Tender shall form part of the contract documents. The successful Tenderer/contractor, on acceptance of his Tender by the Accepting Authority, shall within 15-days from the date of award of work sign the contract consisting of Notice inviting Tenders, General conditions of contract, special/additional condition, General and particular specifications, drawings, Tender conditions as issued at the time of invitation of Tender and acceptance thereof with any correspondence leading there to.
26. **PROCEDURE FOR OPENING OF TENDER**
Following steps shall be followed for opening of tender documents.
- Envelope-I:** Envelope-I shall be opened as mentioned in WNIT.
- Envelope-II:** Date of opening of Envelope – II shall be intimated to the eligible bidders through CPP Portal.
- 26.1 Rates to be quoted in the “Item” Section only.
- 26.2 Once the contractor has uploaded the digitally signed file of tender document along with unconditional acceptance as an attachment, he is not permitted to upload any additional file or put any remark(s)/ conditions(s) in / along with the Tender Document.
- 26.3 In case, the condition 28.1 to 28.3 above is found violated, the tender shall be rejected.
27. **Queries, Replies and Clarifications:**
If the bidder has any query related to the Tender Document of the work they should use ‘Query/ Reply’ tab in e-tendering portal to seek clarifications. No other means of communication in this regards shall be entertained.
28. This notice of Tender shall form part of the contract documents. The successful Tenderer/contractor, on acceptance of his Tender by the Accepting Authority, shall

within 15-days from the date of award of work sign the contract consisting of Notice inviting Tenders, General conditions of contract, special/additional condition, General and particular specifications, Tender conditions as issued at the time of invitation of Tender and acceptance thereof with any correspondence leading thereto.

29. Purchase to the Central Public Sector Undertakings shall be given, as applicable, on the date of opening of tender.

30. Implementation of Integrity Pact

- 30.1 Signing of Integrity Pact is mandatory for every bidder participating in this tender and for the contractor who is awarded the work. The Pact signed on each page by the person authorized by the bidder / sub – contractor /associate to sign the bid for submission or the person authorized to sign the contract on behalf of successful bidder. The scanned copy of the same shall be uploaded by the bidder (along with unconditional acceptance of AAI's tender conditions) in Envelope – I / shall be enclosed with the agreement by the contractor.
- 30.2 Updates with regard to Integrity Pact may please be seen on AAI website by following the access path [www aai.aero](http://www.aai.aero)>vigilance>Integrity Pact or www.aai.aero >Vigilance>vigilance Events>Integrity Pact”
- 30.3 The Independent External Monitor (IEM) for this work shall be
- i) Shri J.K. Khanna, IPS (Retd.), A-102, Sector-55, Noida- 201307 (UP) E-mail: jkkhannaips@yahoo.com
 - ii) Shri Ramabhadran Ramanujam, IAS (Retd.), 44/24, Third trust Cross Street, Mandavelipakkam, Chennai – 600028 E-mail: raamaanuj@gmail.com

For and on behalf of
Airports Authority of India
Signature:
Designation:
Date:



Airports Authority of India
Item Rate Tender & Contract for Work

Airport: Prayagraj
Branch: Civil Engg

Division: Prayagraj
Sub-Division: I

Tender for the work of: **“Expansion of apron and associated works at Prayagraj Airport.(Recall)”**

(A) Tender to be uploaded up to, 1800 HRS on CPP Portal.

(i) To be opened in presence of tenderers who may be present on

Envelope I at 1100 Hrs.
Envelope II at 1600 Hrs.

Documents as per NIT to be uploaded In the office of **Asstt. Gen. Manager Engg. (Civil), Airports Authority of India, Prayagraj Airport.**

TENDER

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 Rates & 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 Airports Authority of India within the time specified in Schedule “F”, viz. schedule of quantities and in accordance in all respects with the Rules and Directions and in Clause 11 of the Conditions of contract and with such material as are provided for, by and in respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for Ninety (90) days from the date of opening of financial bid in 3/2 bid system and not to make any modifications in its terms and conditions.

I/ We undertake and confirm that for eligibility of similar work(s) has / have not been got executed on back to back basis through another contractor. Further that, if such a violation comes to the notice of AAI, then I/We shall accept the decision of AAI if we are debarred for tendering in AAI in future works. Also, if such a violation comes to the notice of AAI before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit / Performance Guarantee.

I/ We further undertake and confirm that information/ documents submitted by us are genuine, and if at any stage such documents/ information found false, then we shall be liable for debarment from tendering in AAI, and any other appropriate legal action.



A sum of Rs. 10,10,740.00 (Rs. Ten Lacs Ten Thousands Seven Hundreds Forty only) is here by submitted as Bank Transfer/ RTGS/BG* in the format prescribed in tender documents as earnest money (Appendix-IA). If I/we, fail to furnish the prescribed performance bank guarantee within prescribed period, I/we agree that the said Chairman, A.A.I. or his successors in office shall without prejudice to any other right or remedy, be at liberty to take appropriate action as per terms of contract. Further, if I/ we fail to commence work as specified, I/we agree that Chairman, A.A.I. 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 absolutely, otherwise the said earnest money shall be retained by AAI 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, upto 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. Further, I/We agree that in case of forfeiture of earnest money or Performance Guarantee or both Earnest Money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

Date: _____

Signature of the Contractor

Witness: _____

Postal Address

Address: _____

Occupation: _____

AIRPORTS AUTHORITY OF INDIA
General Rules & Directions

1.	General Rules & Directions	<p>All work proposed for execution by contract are notified in a form of invitation to tender pasted in public places /NIC CPP Portal and signed by the officer inviting tender or by publication in Newspapers and posted on AAI web-site and NIC CPP Portal http://etenders.gov.in and www.aai.aero (for reference only).</p> <p>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 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.</p>
2.		<p>In the event of the e-tender being submitted by a firm, it must be digitally signed. Such tender will be treated as signed tender. For physical tender it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of-attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.</p>
2. (A)		Provisions Deleted
3.		<p>Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm. Bank details shall be furnished by the firm through an application duly signed by all partners for payment to the firm through bank transfer.</p>
4.	Applicable for item Rate Tender only.	<p>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. Tenderers, 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, including conditional rebates, will be summarily rejected. 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 envelopes.</p> <p>The rate(s) must be quoted in decimal coinage. Amount must be quoted in full Rupees by ignoring 50 paise and considering more than 50 paise as Rupee one. In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors will be asked to submit revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, but the revised quoted rate of each item of schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.</p> <p>If the revised tendered amount (worked out on the basis of quoted rate of</p>

		<p>individual items) of two or more contractors received in revised offer is again found to be equal, then the lowest tender, among such contractors, shall be decided by draw of lots in the presence of Jt. GM (Engg)/ DGM (Engg)/ AGM (Engg)/ Sr Manager (Engg) in-Charge of major and minor component(s) work and the lowest contractors those have quoted equal amount of their tenders.</p> <p>In case of any such lowest contractor in his revised offer quotes rate of any item more than their respective original rate quoted earlier at the time of submission of tender, then such revised offer shall be treated invalid. Such case of revised offer of the lowest contractor or case of refusal to submit revised offer by the lowest contractor shall be treated as withdrawal of his tender before acceptance and 50% of his earnest money shall be forfeited.</p> <p>In case all the lowest contractors those have same tendered amount (as a result of their quoted rate of individual items), refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each lowest contractors.</p> <p>Contractor, whose earnest money is forfeited because of non-submission of revised offer, or quoting higher revised rate(s) of any item(s) than their respective original rate quoted already at the time of submission of his bid shall not be allowed to participate in the retendering process of the work.</p> <p>Note: Till the time software supports the above provisions, revised offers from tenderers forming the tie shall be obtained and procedure prescribed for “Restricted call of tenders” shall be adopted (for e-tenders).</p>
4. (A)	Applicable for Percentage Rate Tender only.	Provisions Not Applicable
5.		<p>The officer inviting tender or his duly authorized representative will open tenders in the presence of any intending bidders who may be present at the time, and will enter the amounts 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 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.</p> <p>In the event of a tender being rejected, the earnest money shall thereupon be returned to the contractor remitting the same, without any interest.</p>
6.		The officer inviting tenders shall have the right of rejecting all or any of the tenderers and will not be bound to accept the lowest or any other tender.
7.		The receipt of an accountant or clerk for any money paid by the bidder towards tender fee will not be considered as any acknowledgement or payment to the officer inviting tender and the bidder shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized cashier.
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 bidder 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.		The bidders shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. The unsuccessful bidders shall return all the drawings given to them.
9(A).		Use of correcting fluid or any correction anywhere in tender document is not permitted. Such tender is liable for rejection.
10.	Applicable for Item Rate Tender Only.	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 bidder in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the bidder has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.
	Applicable for percentage rate tender only.	Provisions Not Applicable
11.		In the case of any tender where unit rate 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.	Applicable for Item Rate Tender only.	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 at the end. Unless the rate is in whole rupees 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.
12(A).	Applicable for percentage rate tender only.	Provisions Not Applicable
13	Acceptance of abnormally low quoted bid (Capital & Revenue Expenditure Contract)	Provisions Not Applicable
14.		<p>i. The bidder, whose tender is accepted, will be required to furnish performance guarantee of 3% (Three Percent) of the tendered amount within the period specified in Schedule F. This guarantee shall be in the form of Bank Guarantee from any Scheduled Bank but not co-operative or Gramin Bank, in accordance with the prescribed form, provided confirmatory advice is enclosed.</p> <p>ii. The bidder, whose tender is accepted, will also be required to furnish by way</p>

		<p>of Security Deposit for the fulfillment of his contract, an amount equal to 5% (Five Percent) of the contract amount of the work.</p> <p>iii. In works where condition of submission of Performance Guarantee is not applicable, the security deposit @ 10% of the tendered value shall be deducted.</p> <p>iv. The Security deposit (under ii & iii above) will be collected by deductions from the running bills of the contractor at the rates mentioned above and the earnest money deposited at the time of tenders, will be treated as a part of the Security Deposit.</p>
15.		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.
16.		<ol style="list-style-type: none"> 1. Rates to be quoted by the parties, should be inclusive of all taxes, duties, CESS, fee, royalty charges etc. levied under any statute but exclusive of GST for all the items. 2. However GST, as applicable, shall be paid to the contractor, for any taxable supply/services/construction rendered by the agency to AAI, against a valid GST invoice as per terms and conditions of the contract. 3. In case supplies/services/works involve imports; the same should be identified separately. Basic Custom Duty & IGST will be paid directly by AAI by utilizing EPCG license/ Duty Credit Scrip under Service Export from India Scheme (SEIS) of Government of India.
17.		The contractor/ bidder shall give a list of AAI employees related to him.
18.		The tender for the work shall not be witnessed by a contractor or contractors/ bidders 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.
19.		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.
20		Provisions Not Applicable
21		The contractor/bidder shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Executive Director (Engg.) 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.
22		If complete site is available for work, the work shall be completed in the manner specified here in special condition of contract and NIT specifications.

		<p>If complete site is not available for taking up the work, the same shall be made available in phases. The scope of work covered in each phase, time for completion of work in each phase and methodology of taking over completed work in phased manner has been specified under special conditions of contract. The completion time for each phase shall be applicable as indicated in tender documents. The work shall also be taken over by Engineer-In-Charge in phases. The warranty for the works executed in each phase shall be applied independently w.e.f. date of completion / taking over of individual phase.</p>
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CONDITIONS OF CONTRACT

Definitions :

1.		The contract means the documents forming the tender and acceptance thereof and the formal agreement /agreements executed between the competent authority(s) on behalf of the Chairman, Airports Authority of India and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract / two contracts and shall be complimentary to one another. Contractor has to sign two agreements, one consisting BOQ for Civil works and another one for SITC and O&M /AMC/AICMC part. Engineer-in charge could be common for both the agreements. Separate invoices for the civil/construction works and SITC/O&M/AICMC/AMC works have to be raised by the agency referring to the respective agreements to facilitate AAI to claim input tax credit on such SITC/O&M/AICMC/AMC works as mentioned in Schedule 'F' para 2(v).
2.		In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them :-
		<ul style="list-style-type: none"> 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/tenderer/bidder shall mean the individual, firm or company whether incorporated or not, Joint Venture / Consortium undertaking the works and shall include the legal personal representative of such individual or the persons constituting such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company. iv. The Chairman means the Chairman Airports Authority of India and his Successors. v. The Engineer-in-Charge means the Engineering Officer who shall supervise and be in-charge of the work and who shall sign the contract on behalf of the Chairman, Airports Authority of India as mentioned in Schedule 'F' hereunder. vi. AAI or Airports Authority of India shall mean the Chairman Airports Authority of India. vii. The terms Member (Planning) means the head of Department of Engineering, Airports Authority of India. viii. Accepting Authority shall mean the authority mentioned in Schedule 'F'. ix. Excepted Risk are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, terrorism, military or usurped power, any acts of Airports Authority of India, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor

		<p>has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Airports Authority of India of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Airports Authority of India's faulty design of works.</p> <p>x. Market Rate shall be the rate as decided by the Engineer-in-Charge on the basis of the prevailing 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. Provided that no extra overheads and profits shall be payable on the parts of works assigned to other agency(s) by the contractor as per terms of contract.</p> <p>xi. Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates of the government mentioned in Schedule 'F' hereunder, with the amendments thereto issued up to the date of receipt of the tender.</p> <p>xii. Department means Airports Authority of India, which invites tender on behalf of Chairman, Airports Authority of India.</p> <p>xiii. Tendered value means the value of the entire work as stipulated in the letter of award.</p>
3.	Scope and Performance	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.		Headings 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.
6.	Works to be carried out	The work to be carried out under the Contract shall, except as otherwise provided in 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.
7.	Sufficiency of Tender	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.
8.	Discrepancies and Adjustment of Errors	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/ technical Specification and Special Condition, if any. iii. Drawings. iv. C P W D Specifications. v. Indian Standard Specifications of B I S./ IRC Code of Practice / ASTM standards. vi. Sound Engineering practice as directed by the Engineer-in-charge, whose decision in this regard shall final and binding on the contractor.
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 there-from 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.
8.4	Payment for similar items with different quoted rates in different subheads of the contract agreement	Provisions Not Applicable
9.	Reverse Auction for purchase tenders	AAI may opt for reverse auction in case of purchase tender if value of supplies put to tender is more than Rs.2Cr.
10.	Signing of Contract	The successful tenderer / contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, shall sign either single or Two agreements , as the case may be, one consisting BOQ for Civil works and another one for SITC and O&M / AMC / AICMC part :
i)		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 AAI Form as mentioned in Schedule 'F' consisting of: <ol style="list-style-type: none"> Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexures thereto. AAI Safety Code. Model Rules for the protection of health, sanitary arrangements for workers employed by AAI or its contractors. AAI Contractor's Labour Regulations. List of Acts and omissions for which fines can be imposed. iii. No payment for the work done will be made unless contract in form of agreement is signed by the contractor.

CLAUSES OF CONTRACT

CLAUSE 1

	Performance Guarantee	<p>i. The contractor shall submit an irrevocable Performance Guarantee of 3% (Three percent) of the Tendered amount in addition to other deposits mentioned elsewhere in the contract 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 Schedule 'F' from the date of issue of award letter. This guarantee shall be in the form of Demand Draft or Guarantee Bonds of any Scheduled bank but not Co-operative or Gramin bank in accordance with the form annexed hereto (Appendix-XI). In case a Bank Guarantee of any Bank is furnished by the contractor to the AAI as part of the performance guarantee and the Bank is unable to make payment against the said Guarantee Bonds, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to make good the deficit.</p> <p>ii. Performance guarantee should be furnished within 30 days of issue of award letter. In case the contractor fails to deposit performance guarantee within the stipulated period, no payment will be released to the contractor for the work done in respect of 1st running account bill. Moreover, interest @10% per annum on performance guarantee amount would be levied (non-refundable) for delayed period of submission.</p> <p>iii. The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 180 days beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest. However, in case of contracts involving maintenance of buildings and services / any other work thereafter, 50% of Performance Guarantee shall be retained as Security Deposit as per contract conditions. The same shall be returned on successful completion of commitment year wise proportionately.</p> <p>iv. The Engineer-in-Charge shall not make a claim under the performance guarantee except for amounts to which the AAI is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:</p> <p style="padding-left: 20px;">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.</p> <p style="padding-left: 20px;">b. Failure by the contractor to pay the Chairman, AAI 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.</p> <p>v. In the event of the contract being determined or rescinded under provision 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 Chairman, AAI.</p>
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CLAUSE 1 A

	Recovery of Security Deposit	<p>The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit AAI at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 10% of the gross amount of each running and final bill till the sum deducted will amount to security deposit of 5% (Five percent) of the tendered value of the work. Such deductions will be made and held by way of Security Deposit unless he/they has/have deposited the amount of Security at the rate mentioned above in</p>
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		<p>the form of guarantee bonds of any Scheduled Bank but not Co-operative or Gramin Bank. In case a Guarantee Bonds of any Bank is furnished by the contractor to the AAI as part of the security deposit and the Bank is unable to make payment against the said Guarantee Bond, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the AAI to make good the deficit.</p> <p>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 AAI 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 Guarantee Bonds tendered by the Scheduled Banks (but not any Co-operative or Gramin bank) (if deposited for more than 12 months) endorsed in favour of the Airports Authority of India, 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. The security deposit as deducted above can be released against bank guarantee issued by any Scheduled Bank (but not from Co- operative / Gramin Bank), on its accumulations to a minimum of Rs. 5.00 lakh subject to the condition that amount of such bank guarantee, except last one, shall not be less than Rs. 5.00 lacs.</p> <p>Note : Provided further that the validity of Bank Guarantee including the one given against the earnest money shall be in conformity with provisions contained in the clause 17 which shall be extended from time to time depending upon extension of contract under provision of Clause 2 & Clause 5.</p>
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Clause 2

	<p>Compensation for Delay</p>	<p>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 AAI on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the authority specified in schedule 'F' (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.</p> <p>(i) Compensation for delay of work shall be 0.5% (half percent) of contract value Per week of delay.</p> <p>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 of the Tendered Value of the Sectional part of work as mentioned in schedule 'F' for which a separate period of completion is originally given.</p> <p>In case no compensation has been decided by the authority in Schedule 'F' during the progress of work, this shall be no waiver of right to levy</p>
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		<p>compensation by the said authority if the work remains incomplete on final justified extended date of completion. If the Engineer in Charge decides to give further extension of time allowing performance of work beyond the justified extended date, the contractor shall be liable to pay compensation for such extended period. If any variation in amount of contract takes place during such extended period beyond justified extended date and the contractor becomes entitled to additional time under clause 12, the net period for such variation shall be accounted for while deciding the period for levy of compensation. However, during such further extended period beyond the justified extended period, if any delay occurs by events under sub clause 5.2, the contractor shall be liable to pay compensation for such delay.</p> <p>Provided that compensation during the progress of work beyond the justified extended date of completion for delay under this clause shall be for non-achievement of sectional completion or part handing over of work on stipulated/justified extended date for such part work or if delay affects any other works/services. This is without prejudice to right of action by Engineer in-Charge under clause 3 for delay in performance and claim of compensation under that clause.</p> <p>In case action under clause 2 has not been finalized and the work has been determined under clause 3, the right of action under this clause shall remain post determination of contract but levy of compensation shall be for days the progress is behind the schedule on date of determination, as assessed by the authority in schedule 'F', after due consideration of justified extension. The compensation for delay, if not decided before the determination of contract, shall be decided after of determination of contract.</p> <p>The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with AAI. In case, the contractor does not achieve a particular milestone mentioned in schedule F, or the re-scheduled milestone(s) in terms of Clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied as above. With-holding 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.</p>
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Clause 2A

Incentive for early completion	Provisions Not Applicable
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Clause 2B

Release of withheld amount against compensation for delay.	Withheld amount towards compensation for delay over and above Rs. 50.00 Lacs, can be released against Bank Guarantee (on the format given at Appendix-1) or in the form of guarantee bonds of any Scheduled Bank but not Co-operative or Gramin Bank, pending finalization of case of extension of time by competent authority as per delegation of powers. Concerned Executive Director (Engg) will authorize such action on receipt of proposal from the Engineer-In-Charge through proper channel.
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Clause 3

	<p>When Contract can be Determined</p>	<p>Subject to 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:</p> <ul style="list-style-type: none"> i. If the contractor having been given a notice by the Engineer-in-Charge in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter. ii. If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence and continues to do so after a notice in writing of seven days from the Engineer- in-Charge. iii. If the contractor fails to complete the work or section of work with individual date of completion on or before the stipulated or justified extended date on or before such date of completion, and the Engineer in Charge without any prejudice to any other right or remedy under any other provision in the contract has given further reasonable time in a notice given in writing in that behalf as either mutually agreed or in absence of such mutual agreement by his own assessment making such time essence of contract and in the opinion of Engineer in Charge, the contractor will be unable to complete the same or does not complete the same within the period specified. iv. 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. v. If the contractor shall offer or give or agree to give to any person in AAI 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 AAI. vi. If the contractor shall enter into a contract with Airports Authority of India 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 Engineer-in-charge. vii. If the contractor shall obtain a contract with AAI as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits any breach of Integrity Pact. viii. If the contractor 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
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		<p>estate or if a trust deed be executed by him for benefit of his creditors.</p> <p>ix. If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound 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.</p> <p>x. If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.</p> <p>xi. If the contractor assigns (excluding part(s) of work assigned to other agency(s) by the contractor as per terms of contract), 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 Engineer-in-Charge. When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the Chairman, AAI shall have powers :</p> <p>a. To determine the contract as aforesaid so far as performance of work by the Contractor of work by the Contractor is concerned (of which determination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, 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 AAI.</p>
		<p>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 or any other means to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work. In the event of above courses 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.</p>

CLAUSE 3 A

		<p>In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work or one month whichever is higher, either party may close the contract by giving notice to the other party stating the reasons. In such eventuality, the Earnest Money Deposit and the Performance Guarantee of the contractor shall be refunded within 30 days.</p> <p>Neither party shall claim any compensation for such eventuality. This clause is not applicable for any breach of the contract by either party.</p>
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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 authorised 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.
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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 schedule 'F' 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, AAI shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.
5.1		After the Contract is concluded, within 15 days, the Contractor shall submit a Time and Progress Chart for each mile stone 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 works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Officer-in-Charge and the 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 mile stones given in Schedule 'F'.

5.2		<p>If the work(s) be delayed by :</p> <ul style="list-style-type: none"> i. Force majeure, or an act of terrorism ii. Abnormally bad weather or Serious loss or damage by fire, or iii. Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or iv. Delay on the part of other contractors or tradesmen engaged by Engineer- in-Charge for executing work not forming part of the Contract, or v. Non-availability of stores, which are the responsibility of AAI to supply or vi. Non-availability or break down of tools and Plant to be supplied or supplied by AAI or vii. Any other cause which, in the absolute discretion of the Engineer-in-Charge 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. <p>The contractor shall also sign the hindrance register at appropriate place for each hindrance.</p>
5.3		<p>Request for 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 event causing delay on the prescribed form to the authority indicated in schedule 'F'. The contractor may also, if practicable, indicate in such a request the period for which extension is desired.</p>
5.4		<p>In any such case the Engineer-in-Charge with the approval of authority indicated in Schedule 'F' may give a fair and reasonable extension of time and reschedule the Milestones for completion of work. Such extension or re-scheduling of the milestone shall be communicated to the contractor by the Engineer-in-charge in writing, within 1 month or 4 weeks of the date of receipt of such request respectively. Non-application by the contractor for extension of time/ re-scheduling of milestones shall not be a bar for giving a fair and reasonable extension / re-scheduling of milestones by the Engineer-in-charge with the approval of authority indicated in schedule 'F' and this shall be binding on the contractor.</p>

CLAUSE 6

	<p>Measurements of Work done</p>	<p>Engineer-in-charge shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done.</p> <p>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 performed under the contract.</p> <p>All measurements and levels shall be taken jointly by the authorised representative of Engineer-in-Charge and by the contractor or his authorised representative from time to time 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 of 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.</p> <p>If for any reason the contractor or his authorised representative is not available and the work of recording measurements is suspended by the representative of Engineer-in- Charge, the Engineer-in-Charge and the</p>
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		<p>Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorised representative does not remain present at the time of such measurements after the contractor or his authorised 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.</p> <p>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 Indian Standards and if for any item no such standard is available, then a mutually agreed method shall be followed.</p> <p>The contractor shall give, not less than seven days' notice to the Engineer-in-Charge or his authorised 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 dimensions 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-in-Charge or his authorised 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.</p> <p>Engineer-in-Charge or his authorised 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.</p> <p>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 or defects noticed till completion of the defects liability period.</p>
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Clause 6 A

	Computerized Measurement Book	<p>Computerized measurement is mandatory for works costing more than Rs 5.00 Lacs. However in case of works costing lesser than Rs. 5.00 Lacs Engineer-in-Charge may decide for adopting computerized measurement if required, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract. All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book having pages of A-4 size as per the format of the department so that a</p>
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		<p>complete record is obtained of all the items of works performed under the contract. All such measurements and levels recorded by the contractor or his authorised representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge or his authorised representative as per interval or program fixed in consultation with Engineer-in- Charge or his authorised representative. After the necessary corrections made by the Engineer-in- Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.</p> <p>Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in-Charge and/or his authorised representative would thereafter check this MB, and record the necessary certificates for their checks/test checks.</p> <p>The final, fair, computerized measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or overwriting in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the records of Engineer-in-charge, and allotted a number as per the Register of Computerized MBs. This should be done before the corresponding bill is submitted to the Engineer-in-charge for payment. The contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the department.</p> <p>The contractor shall also submit to the department separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the "bill. Thereafter, this bill will be processed by the Engineer-in-charge and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.</p> <p>The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements / levels by the Engineer-in-charge or his representative.</p> <p>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 Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.</p> <p>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 checking and / or test</p>
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		<p>checking the measurement of any work in order that the same be checked and / or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and / or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-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 checking and / or test checking 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.</p> <p>Engineer-in-charge or his authorised representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.</p> <p>It is also a term of this contract that checking and/or test checking the measurements of any item of work in the measurement book and/or its payment in the interim, on account of 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 or defects noticed till completion of the defects liability period.</p>
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CLAUSE 7

	<p>Payment on Intermediate Certificate to be regarded as Advances</p>	<p>No payment shall be made for work, estimated to cost Rs. One Lac or less till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rs. One lac, the interim or running account bills 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. 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</p>
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		<p>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 Asstt. Manager / Manager (Engg.) 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.</p> <p>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.</p> <p>Pending consideration or extension of date of completion, interim payments shall continue to be made as herein provided 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.</p> <p>The Engineer-in-Charge in his sole discretion on the basis of a certificate from the Asstt Manager / Manager (Engg) to the effect that the work has been completed up to the level in question make interim advance payments without detailed measurements for work done (other than foundations, items to be covered under finishing items) up to lintel level (including sunshade etc.) and slab level, for each floor working out at 75% of the assessed value. The advance payments so allowed shall be adjusted in the subsequent interim bill by taking detailed measurements thereof.</p>
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CLAUSE 8

	<p>Completion Certificate and Completion Plans</p>	<p>Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty 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 for 'Civil Construction Works' 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</p>
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		purpose of the 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 arrangement 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.
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CLAUSE 8 A

	Contractor to keep site clean	<p>When the annual repairs and maintenance of works are carried out, the splashes and droppings from white washing , colour 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.</p> <p>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.</p>
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CLAUSE 8 B

	Completion Plans to be Submitted by the Contractor	<p>The contractor shall submit completion plan as required vide General Specifications for Electrical works (Part-I internal) 2005 and (Part -II External) 1994 or latest available specifications, as applicable within thirty days of the completion of the work.</p> <p>The contractor shall submit completion plan for building works, all services, and obtain occupancy certificate from local bodies on the basis of completion drawings within a period of 30 days from the date of completion.</p> <p>The contractor shall also submit catalogues of all equipment's and maintenance manual for the complete E & M systems. If contractor fails to submit completion plans of all works, he shall be liable to pay compensation @ 0.5% of the tendered value of works costing up to Rs. 5 Crores subject to maximum of Rs. 1.00 Lac and 0.25% for works costing more than Rs. 5 crores subject to maximum of Rs. 1.5.Lac. The decision of Project-in-charge in this regard shall be final and binding on the contractor.</p>
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CLAUSE 9

	Payment of final bill	The corrected 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 authorised Asstt. Manager / Manager (Engg.), complete with account of materials issued by the Department and dismantled materials.		
		Sl	Value of work	Time limit
		1	If the Tendered value of work is up to Rs. 50.00 Lac	2 months
		2	If the Tendered value of work is more than Rs. 50 Lac and up to Rs. 2.5 Crore	3 months
		3	If the Tendered value of work exceeds Rs. 2.5 Crore	6 months

In case of delay in payment of final bills after prescribed time limit, a simple interest @ 5% per annum shall be paid to the contractor from the date of expiry of prescribed time limit which will be compounded on yearly basis, provided the final bill submitted by the contractor found to be in order.

The Final bill shall be prepared for both L1 & L2 bidders for all tendered items (excluding Extra Items based on market rate) and payment shall be made on the basis of lower of the two.

CLAUSE 9 A

	Payment of contractor's bills to Banks	<p>Payments due to the contractor and refund of various nature may, if so desired by him and wherever possible in banks be made through electronic payment mechanism instead of direct to him, provided that the contractor furnishes to the Engineer-in- Charge.</p> <ol style="list-style-type: none"> Information as per Performa attached. An authorisation in the form of a legally valid document such as power of attorney conferring authority on the bank to receive payments. His own acceptance of the correctness of the amount made out as being due to him by Authority or his signature on the bill or other claim preferred against Authority 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 whenever possible present his bills duly receipted and discharged through his bank. <p>Nothing herein contained shall operate to create in favour of the bank any rights or equities vis-à-vis the Airports Authority of India.</p>
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CLAUSE 10

	Materials supplied by Authority	Deleted
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CLAUSE 10 A

	<p>Materials to be provided by the contractor and Mandatory Tests</p>	<ol style="list-style-type: none"> 1. 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 Authority. 2. 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 thirty days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples 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. 3. The contractor shall at his risk and cost submit the samples of materials to be tested or analyzed 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. 4. If any additional tests apart from mandatory tests specified in the contract are required to be carried out at the instance of AAI or any other advisory body, to ensure conformity of the item to the contract specifications, the cost of such tests shall be borne by AAI. In case the material / equipment fails in the above tests, the expenditure incurred by AAI on testing of such material or equipment along with incidental charges borne by AAI (if any) shall be recovered from the dues of the contractor and action shall be taken under Clause 16 and other relevant clauses of the contract. 5. 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. 6. 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 times 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. 7. 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 or damage that may happen or arise to such materials. The Engineer-in-
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		<p>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 be attracted for such removal and substitution shall be borne by the Contractor.</p> <p>8. The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in Schedule F.</p> <p>9. Details in respect of all mandatory tests shall be maintained in the desired format and attached with each Running Account Bill.</p>
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CLAUSE 10 B

(I)	Secured Advance on Nonperishable materials	<p>1. 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 Engineer-in-charge nonperishable, non-fragile and noncombustible and are in accordance with the contract and which have been brought 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 time of advance been incorporated in the works when materials on account of which an 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 of the clause or clauses of this contract.</p> <p>Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-in-charge provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-in-charge shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.</p> <p>The secured advance shall also be payable against items brought at site for use in electrical and mechanical systems. Such secured advance shall be paid on submission of Collateral Bank Guarantee submitted by the vendor against the payment in case equipment/system fails to perform on testing and commissioning. Normally secured advance is paid up to 75% of the assessed value of items but in any case it shall not exceed 80% of cost of items indicated for supply of equipment.</p>
(II)	Mobilization Advance	<p>2. Mobilisation advance not exceeding 10% of the tendered value shall be paid for the works costing more than Rs 5.00 Cr, subject to the availability of funds and if requested by the contractor in writing within period as indicated below.</p> <p>a. For the works costing between Rs. 5 crores – Rs.100 crores the application for the issue of mobilization advance must be received in writing within 30 days of handing over of the site.</p> <p>b. For the works costing more than Rs. 100 crores the application for the issue of mobilization advance must be received in writing within 45 days of handing over of the site.</p> <p>c. The contractor shall execute a Bank Guarantee Bond from any Scheduled Bank but not Co-operative or Gramin Bank as specified by Engineer-in-charge for 110% of value of installment of mobilisation advance before such advance is released. The first Installment should not exceed Rs.</p>

		<p>20.00 Cr. for the work for which the estimated cost is kept as Rs. 500.00 Cr. or more. The No. of Installment shall be decided by AAI depending on progress of work and availability of funds.</p> <p>d. The second and subsequent installments 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. Provided provision of Clause 10B(II) shall be applicable only when so provided in Schedule 'F'. The contractor shall accordingly submit Bank Guarantee in parts for release of corresponding mobilisation advance and validity of BG shall be for an extended period of 3 months beyond stipulated date of completion.</p>
	Interest on mobilization advance	<p>3. The mobilisation advance bear simple interest at the rate of 10% per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance.</p> <p>a. However, in rare cases, wherein progress of work is delayed beyond stipulated period of completion due to reasons beyond control of contractor, deferment in recovery of mobilization advance with accumulated interest thereon may be considered by AAI. In such case of deferred recovery, an enhanced rate of interest i.e 15% per annum shall be payable with recovery of outstanding mobilization amount @ 50% of gross value of running account bill(s), subject to Engineer-In-Charge certifying that deferment towards recovery of outstanding advance is proposed in the overall interest of the project and is necessitated to improve the progress of work..</p>
	Recovery of mobilization advance	<p>4. Recovery of such advanced of sums against above and the interest thereon shall be made by deduction from (the contractor's bill) the on-account payments in suitable percentage in relation to the stipulated period of completion as detailed below :</p> <p>a. 25% of the amount advanced plus interest due upto 1/4th of the stipulated period of the completion.</p> <p>b. 60% of the amount advanced plus interest due upto ½ of the stipulated period of the completion.</p> <p>c. 100% of the amount advanced plus interest due upto 3/4th of the stipulated period of the completion or 80% of the progress of work whichever is earlier.</p> <p>d. Wherein progress of work is delayed beyond stipulated period of completion due to reasons beyond control, deferment in recovery of mobilization advance with accumulated interest thereon may be considered at an enhanced rate of interest i.e. 15% per annum with recovery of outstanding mobilization advance @50% of gross value of running account bill.</p> <p>e. In case requisite amount as recoverable above is not available in on-account payments mentioned above, the agency shall deposit the same within 7 days of its due otherwise all Bank Guarantees submitted by the agency towards mobilization advance shall be encashed by the Engineer-in-charge.</p>

CLAUSE 10 C

Payment on Account of Increase in Prices/	<p>If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and 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</p>
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	Wages due to Statutory Order(s)	<p>coming into force of any fresh law or statutory rule or order (but not due to any variation of rates in GST applicable on such materials being considered under this clause) beyond the prices / wages prevailing at the time of last stipulated date for receipt of the tenders including extensions, if any, for the work, during contract period including the justified period extended under the provisions of the Clause 5 of the Contract without any action under Clause 2, then the amount of the contract shall accordingly be varied.</p> <p>If after submission of the tender, the price of any material incorporated in the works (excluding the material covered under clause 10CA and not being a material supplied from the Engineer-in-charge's stores in accordance with clause 10 thereof) and / or wages of labour as prevailing at the time of last stipulated date of receipt of tender including extensions, if any, is decreased as a direct result of the coming into force of any fresh law or statutory rule or order (not due to any changes in GST /Custom duty). Authority shall in respect of materials incorporated in the works (excluding the material covered under clause 10CA and not being materials supplied from the Engineer-in-charge's stores in accordance with Clause 10 hereof) and/ or labour 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 prices of materials and/ or wages of labour on the coming into force of such law, statutory rule or order. This will be applicable for the contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2.</p> <p>Engineer-in-charge shall call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of materials and wages. The contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such materials 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.</p> <p>For this purpose, the labour component of 85% of the value of the work executed during period under consideration shall not exceed the percentage as specified in Schedule F, and the increase / decrease in labour shall be considered on the minimum daily wages in rupees of any unskilled mazdoor, fixed under any law, statutory rule or order.</p>
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CLAUSE 10 CA

	Payment due to variation in prices of materials after receipt of tender	<p><u>Payment due to variation in prices of materials after receipt of tender</u></p> <p>If after submission of the tender, the price of materials specified in Schedule-F increases / decreases beyond the price(s) prevailing at the time of the last stipulated date for Receipt of tenders (including extensions, if any) for the work, and then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of contract including the justified period extended under the provisions of clause 5 of the contract without any action under Clause 2.</p> <p>However, for work done during the justified period extended as</p>
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		<p>above, it will be limited to indices prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less.</p> <p>The increase / decrease in prices of cement, steel reinforcement and structural steel shall be determined by the Price indices issued by the Director General (Works), CPWD, for Bitumen and other items provided in the Schedule 'F', this shall be determined by the All India Wholesale Price Indices of materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry. Base price for cement, steel reinforcement and structural steel as issued under authority of Director General (Works) CPWD applicable for Delhi including Noida, Gurgaon, Faridabad and Ghaziabad and for other places as issued under the authority of Zonal Chief Engineer, CPWD and base price of other materials issued by concerned Zonal Chief Engineer and base price of Bitumen shall be taken as basic price + excise issued at nearest delivery point of Govt. refinery, as indicated in Schedule 'F' as valid on the last stipulated date of receipt of tender, including extension if any and for the period under consideration. In case, price index of a particular material is not issued by Ministry of Commerce and Industry then the price index of nearest similar material as indicated in Schedule F shall be followed.</p> <p>The amount of the contract shall accordingly be varied for all such materials worked out as per the formula given below for individual material:</p> $V = P \times Q \times \frac{CI - Clo}{Clo}$ <p>Where</p> <p>V = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered</p> <p>P = Base price of material as issued under authority of DG(W), CPWD or concerned Zonal Chief Engineer CPWD and for Bitumen base price shall be taken as basic price + excise issued at nearest delivery point of Govt. refinery as indicated in Schedule F valid at the time of the last stipulated date of receipt of tender including extensions if any,</p> <p>Q = Quantity of material brought at site for bonafide use in the works since previous bills</p> <p>Clo = Price index for cement, steel reinforcement bars and structural steel as issued by the DG (W), CPWD as valid on the last stipulated date of receipt of tenders including extensions, if any. For Bitumen and other items, if any provided in Schedule F, All India Wholesale Price Index for the material as published by the Economic Advisor to Government of India, Ministry of Commerce and Industry as valid on the last stipulated date of tenders including extensions, if any,</p> <p>CI = Price index for cement, steel reinforcement bars and structural</p>
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		<p>steel as issued under the authority of DG(W), CPWD for period under consideration. For Bitumen and other items if any, provided in Schedule 'F' All India Wholesale Price Index for the material for the period under consideration as published by Economic Advisor to Government of India, Ministry of Industry and Commerce for period under consideration.</p> <p>Note:</p> <p>(i) In respect of justified period extended under the provisions of Clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.</p> <p>Provided always that provisions of the preceding Clause 10 C shall not be applicable in respect of materials covered in this Clause.</p> <p>(ii) If during progress of work or at the time of completion of work, it is noticed that any material brought at site is in excess of requirement, then amount of escalation if paid earlier on such excess quantity of material shall be recovered on the basis of cost indices as applied at time of payment of escalation or as prevailing at the time of effecting recovery, whichever is higher.</p> <p>(iii) If actual purchase price of material is less than base price P and $CI \geq CI_0$ then, this clause shall not be applicable.</p>
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Clause 10CC

Payment due to Increase/Decrease in Prices / wages (excluding material covered under clause 10CA) after Receipt of Tender for works.	Provisions Not Applicable.
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CLAUSE 10 D

Dismantled Material AAI Property	The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work etc. as property of AAI and such materials shall be disposed off to the best advantage of Authority according to the instructions in writing issued by the Engineer-in-charge.
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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 to 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 specifications, designs, drawings and instructions as are not included in the standard specifications of Central Public Works Department specified in Schedule F or in any Bureau of
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		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.
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CLAUSE 12

	Deviations / variations extent and pricing	The engineer-in-charge shall have power (i) to make alteration 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 Engineering- charge 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 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.
12.2	Deviation, Extra Items and Pricing	In the case of extra item(s) (items that are completely new, and in addition to the items contained in the contract) 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 shall within Six weeks 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 on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.
	Deviation, substituted items pricing	In the case of substituted items, (items that are taken up with partial substitution or in lieu of items of work in the contract) the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following 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 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 Six weeks of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates 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 the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.
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, which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Executive Director Engineering may authorise 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 unless & otherwise defined in the contract: <ul style="list-style-type: none"> i. For Buildings: All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower. ii. For abutments, piers and well staining: All works up to 1.2 m above the bed level. iii. For retaining walls, wing walls, compound walls, chimneys, overhead reservoirs/tanks and other elevated structures: All works up to 1.2 m above the ground level. iv. For roads, apron, runway & taxi track all items of excavation, filling GSBC and including treatment of sub-base. v. For reservoirs/tanks (other than overhead reservoirs/tanks): All works up to 1.2 metres above the ground level. vi. For basement: All works up to 1.2 m above ground level or up to floor 1 level whichever is lower.

12.6		Any operation incidental to or necessarily 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.
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CLAUSE 13

	Foreclosure of contract due to Abandonment or Reduction in Scope of Work	<p>If at any time after acceptance of the tender or during the progress of work the purpose or object for which the work is being done changes due to any supervening cause and as a result of which the work has to be abandoned or reduced in scope the Engineer-in-Charge shall give notice in writing to that effect to the contractor and the contractor stating the decision as well as the cause for such decision 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, full amount for works executed at site and, in addition, a reasonable amount as certified by the Engineer-in-Charge for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure;</p> <ol style="list-style-type: none"> Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks. AAI shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however AAI shall be bound to take over the materials or such portions thereof as the contractor does not desire to retain. For materials taken over or to be taken over by AAI, cost of such materials as detailed by Engineer-in- Charge shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor. If any materials supplied by AAI are rendered surplus, the same except normal wastage shall be returned by the contractor to AAI at rates not exceeding those at which these were originally issued, less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition, cost of transporting such materials from site to AAI stores, if so required by AAI, shall be paid. Reasonable compensation for transfer of T & P from site to contractor's permanent stores or to his other works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable. Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary. <p>The contractor shall, if required by the Engineer- in-Charge, furnish to him, books of account, wage books, time sheets and other relevant</p>
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		<p>documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.</p> <p>The reasonable amount of items on (i), (iv) and (v) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the AAI as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Engineer- in-Charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the AAI from the contractor under the terms of the contract.</p> <p>iv. In the event of action being taken under clause 13 to reduce the scope of work, the contractor may furnish fresh Performance Guarantee on the same conditions, in the same manner and at the same rate for the balance tendered amount and initially valid upto the extended date the completion or stipulated date of completion if no extension has been granted plus 180 days beyond that. Wherever, such a fresh Performance Guarantee is furnished by the contractor, the Engineer in Charge may return the previous Performance Guarantee.</p>
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CLAUSE 14

	<p>Carrying out part Work at risk & cost of contractor</p>	<p>a. If contractor:</p> <p>i. At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or</p> <p>ii. Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer- in-Charge; or</p> <p>iii. Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge.</p> <p>b. The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to AAI, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to:</p> <p>i. Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or</p> <p>c. Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor. The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item(s) taken out of his hands and executed at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by AAI because of action under this clause shall not exceed 10% of the tendered value of the work.</p> <p>d. In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in</p>
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		<p>the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.</p> <p>e. Any excess expenditure incurred or to be incurred by AAI in completing the part work/ part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by AAI as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to AAI in law or per as agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.</p> <p>f. 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 building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract/ provisions of law.</p> <p>In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.</p>
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CLAUSE 15

	Suspension of Work	<p>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:</p> <ol style="list-style-type: none"> on account of any default on the part of the contractor or; for proper execution of the works or part thereof for reasons other than the default of the contractor; or for safety of the works or part thereof. <p>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.</p> <p>ii. If the suspension is ordered for reasons (b) and (c) in sub-para (i) above (but not attributed to contractor :</p> <ol style="list-style-type: none"> 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; If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-Charge may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto
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		<p>2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in- Charge within fifteen days of the expiry of the period of 30 days.</p> <p>c. If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reasons (a) in sub-para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-Charge requiring permission within fifteen days from receipt by the Engineer-in- charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by AAI or where it affects whole of the works, as an abandonment of the works by AAI, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer- in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by AAI, he shall have no claim to payment of any compensations on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in- Charge within 30 days of the expiry of the period of 3 months.</p>
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CLAUSE 15 A

	<p>Compensation in case of delay due to late supply of stipulated material by AA</p>	<p>The contractor shall not be entitled to claim any compensation from AAI for the losses suffered by him on account of delay by AAI in the supply of materials in Schedule 'B' where such delay is covered by the difficulties relating to supply of wagons, force majeure or any reasonable cause beyond the control of AAI.</p> <p>This clause 15 A will not be applicable for works where no material is stipulated for issue by AAI.</p>
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CLAUSE 16

	<p>Action in case Work not done as per Specifications</p>	<p>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 authorize subordinates in charge of the work and all the superior officers, officer of the Quality Assurance Unit of the AAI or any organization engaged by the Department of Quality Assurance and of the Chief technical Examiner's Office, 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.</p> <p>If it shall appear to the Engineer-in -charge or his authorized subordinates in charge of the work or to the Executive Director-In-charge of quality assurance or his subordinate officers or the officers of the organization engaged by the AAI for quality Assurance or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound,</p>
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		<p>imperfect, or unskillful workmanship, or with materials or articles provided 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 twelve months (six months in the case of work costing Rs.10 lac and below except road work) of the completion of the work 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 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.</p> <p>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 authority specified in schedule 'F' may considered 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 or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the 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.</p>
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CLAUSE 17

	<p>Contractor Liable for Damages, defects during maintenance period</p>	<p>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 kerb fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, 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 Six months 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 or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor after adjustment of the amount if any due to reasons as above, shall not be refunded before the expiry of Six months 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.</p>
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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) machinery, tools & plants as specified in Schedule F. in addition to this, appliances, implements, other plants, 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 specifications or other documents 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 there for 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 the expense of the contractor and the expenses may be deducted, from any money due 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.
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CLAUSE 18 A

	Recovery of Compensation paid to Workmen	In every case in which by virtue of the provisions sub-section(i) of Section 12, of the Workmen's Compensation Act, 1923, AAI is obliged to pay compensation to a workman employed by the contractor, in execution of the works, AAI will recover from the contractor, the amount of the compensation so paid, and, without prejudice to the rights of the AAI under sub-section(2) of Section 12, of the said act, AAI 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 AAI to the contractor whether under this contract or otherwise. AAI shall not be bound to contest any claim made against it under subsection(1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to AAI full security for all costs for which AAI might become liable in consequence of contesting such claim.
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CLAUSE 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 the Contract Labour (Regulation and Abolition) Central Rules, 1971, AAI 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 AAI Contractor's Labour Regulations or under the Rules framed by AAI from time to time for the protection of health and sanitary arrangements for workers employed by AAI Contractors, AAI 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 AAI under sub section (2) of Section 20, sub section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, AAI 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 AAI to the contractor whether under this contract or otherwise AAI 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 AAI full security for all costs for which AAI might become liable in contesting such claim.

CLAUSE 19

	Labour laws to be complied by the Contractor	<p>The contractor shall obtain a valid license under the contract labour (R&A) Act, 1970 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.</p> <p>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 this contract arising out of the resultant non execution of the work.</p>
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CLAUSE 19 A

	No labour below the age of fourteen years shall be employed on the work.
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CLAUSE 19 B

	Payment of wages	<p>Payment of wages:</p> <ol style="list-style-type: none"> 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 the AAI Contractor's Labour Regulation 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 Airports Authority of India contractor's Labour Regulations made by AAI from time to time in regard to payment of wages wage period, deductions from wages recovery of wages not paid and deductions un-authorisedly 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. The following deductions shall be permissible to be made by the Engineer-in- Charge. <ol style="list-style-type: none"> a. The Engineer-in-charge concerned shall have the right to deduct from the moneys due to the contractor or any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non fulfillment 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) Rule 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 the 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 nay labours and pay the same to the persons entitled
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		<p>thereto from any money due to the contractor by the Engineer-in-charge concerned.</p> <p>In the case of Union Territory of Delhi, however, as the all inclusive minimum daily wages fixed under Notification of the Delhi Administration No.F.12(162) MWO/DAB/43884-91, dated 31.12.1979 as amended from time to time are inclusive of wages for the weekly day of rest, the question of extra payment for weekly holiday would not arise.</p> <p>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 Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rule made there under from time to time.</p> <p>vi. The contractor shall indemnify and keep indemnified Authority against payments to be made under and for the observance of the laws aforesaid and the AAI Contractor's Labour Regulations with prejudice to his right to claim indemnity from his sub-contractors.</p> <p>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.</p> <p>viii. Whatever is the minimum wage for the time being, or if the wage payable is 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.</p> <p>ix. The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wages of workmen.</p>
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CLAUSE 19 C

		<p>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 AAI 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.</p>
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CLAUSE 19 D

		<p>The contractor shall submit by the 4th and 19th of every month, to the Engineer- in-charge a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively:</p> <ol style="list-style-type: none"> the number of labourers employed by him on the work, their working hours, the wages paid to him, the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and <p>the number of female workers who have been allowed maternity benefit according to Clause 19F and the amount paid to them Failing which the contractor shall be liable to pay to AAI, a sum not exceeding Rs. 200/- for each default or materially incorrect statement.</p>
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		The decision of the Engineer- in-charge shall be final in deducting from any bill due to the contractor; the amount levied as fine and shall be binding on the contractor.
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CLAUSE 19 E

		In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by AAI from time to time for the protection of health and sanitary arrangements for workers employed by the AAI and its contractor.
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CLAUSE 19 F

		<p>Leave and pay during leave shall be regulated as follows:</p> <ol style="list-style-type: none"> 1. Leave: <ol style="list-style-type: none"> i. In the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day. ii. In the case of miscarriage – up to 3 weeks from the date of miscarriage. 2. Pay: <ol style="list-style-type: none"> i. In the case of delivery – leave pay during maternity leave will be at the rate of women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater. <p>In the case of miscarriage – leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage.</p> 3. Conditions for the grant of Maternity Leave: No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave. 4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in appendix – III and IV, and the same shall be kept at the place of work.
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CLAUSE 19 G

		<p>In the event of the contractor (s) committing a default or breach of any of the provisions of the Airports Authority of India Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filling any statement under the provisions of the above Regulations and Rules which is materially incorrect, he / they shall, without prejudice to any other liability, pay to the AAI a sum not exceeding Rs.200/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.200/- per day for each day of default subject to a maximum of 5 per cent of the estimated cost of the work put to tender. The decision of the Engineer-in-Charge shall be final and binding on the parties.</p> <p>Should it appear to the Engineer-in-Charge that the contractor (s) is / are not properly observing and complying with the provision of the AAI Contractor's Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R&A)</p>
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		<p>Central Rules 1971, for the protection of health and sanitary arrangements for work – people employed the contractor (s) (hereinafter referred as “the said Rules”) the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice.</p> <p>If the contractor (s) shall fail within the period specified in the notice to comply with and/ observe the said Rules and to provide the amenities to the work-people as aforesaid, the Engineer-in-Charge shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor (s). The contractor (s) shall erect, make and maintain at his / their own expense and to approved standards all necessary huts and sanitary arrangements required for his / their work –people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-in-Charge shall have power to give notice in writing to the contractor (s) requiring that the said huts and sanitary arrangements be remodeled and / or reconstructed according to approved standards, and if the contractor (s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-in-Charge shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor (s).</p>
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CLAUSE 19 H

		<p>The contractor (s) shall at his / their own cost provided his / their labour with a sufficient number of huts (hereinafter referred to as the camp) on the following specifications on a suitable plot of land to be approved the Engineer-in-Charge.</p> <p>i. Facility to be provided</p> <ol style="list-style-type: none"> The minimum height of each hut at the eaves level shall be 2.10m (7ft.) and the floor area to be provided will be at the rate of 2.7 sqm. (30 sq.ft.) for each member of the worker’s family staying with the labourer. The contractor shall in addition construct suitable cooking places having a minimum area of 1.80m x 1.50m (6’ x 5’) adjacent to the hut for each family. The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women. The contractor (s) shall construct sufficient number of bathing and washing places one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened. <p>ii. Specifications</p> <ol style="list-style-type: none"> All the huts shall have walls of sun-dried or burnt-bricks laid in mud mortar or other suitable local materials as may be approved by the Engineer-in-Charge in case of sun-dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be kutcha but plastered with mud gobri and shall be at least 15 cm (6”) above the surrounding ground. The roofs shall be laid with the thatch or any other materials as may be approved by the Engineer-in-Charge and the contractor shall ensure that throughout the period of their occupation, the roofs remain water – tight. The contractor (s) shall provide each hut with proper ventilation.
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		<p>c. All doors, windows and ventilators shall be provided with suitable leaves for security purposes.</p> <p>d. There shall be kept an open space of at least 7.2 m (8 yards) between the rows of huts which may be reduced to 6m (20 ft.) according to the availability of site with the approval of the Engineer-in-Charge. Back to back construction will be allowed.</p> <p>iii. Water Supply The contractor (s) shall provide adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provide. The contractor (s) shall also at his / their own cost make arrangements for laying pipe lines for water supply to his / their labour camp from the existing mains wherever available and shall pay all fees and charges therefor.</p> <p>iv. The site selected for the camp shall be high ground, removed from jungle.</p> <p>v. Disposal of Excreta: The contractor (s) shall make necessary arrangement for the disposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor (s) shall make arrangements for the removal of the excreta through the Municipal Committee / authority and inform it about the number of labourers employed so that arrangements may be made by such Committee / authority for the removal of excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality / authority. The contractor shall provide one sweeper for every eight seats in case of dry system.</p> <p>vi. Drainage The contractor (s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.</p> <p>vii. The contractor (s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.</p> <p>viii. Sanitation The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.</p>
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CLAUSE 19 I

		<p>The Engineer-in-Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labour have an easy access to the individual work premises, the contractor shall issue identity cards to the labourers, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labour. Assistant Manager/Junior Executive will display a list of contractors working in the colony/Blocks on the notice board in the colony and also at the service centre, to apprise the residents about the same.</p>
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CLAUSE 19 J

		<p>It shall be the responsibility of the contractor to see that the building under</p>
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		construction is not occupied by anybody unauthorized during construction, and is handed over to the Engineer-in-Charge with vacant possession of complete building. If such building though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as the delay in completion and for such delay, a levy upto 5% of tendered value of work may be imposed by the General Manager Engg. Whose decision shall be final both with regard to the justification and quantum and be binding on the contractor. However, the Executive Director Engg., through a notice may require the contractor to remove the illegal occupation any time on or before construction and delivery.
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CLAUSE 19 K

	Employment of skilled / semiskilled workers	The contractor shall at all stages of work deploy skilled / semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute / Industrial Training Institute/National Institution of Construction Management and research (NICMAR) National Academy of Construction, CIDC or any similar reputed and recognized Institute managed / certified by State / Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled / semi-skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer in charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer –in- Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs.100 per such tradesman per day. Decision of Engineer in Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding. Provided always, that the provision of this clause, shall not be applicable for works with estimated cost put to tender being less than Rs.5 crores.
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CLAUSE 19 L

	Registration with EPFO and ESIC	The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by the contractor shall be reimbursed by the Engineer-in-charge to the contractor on actual basis.
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CLAUSE 19 M

	Compliance of NGT guidelines	The contractor is required to follow latest NGT guidelines at the construction site and any violation of such guidelines will be in his account.
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CLAUSE 20

	Minimum Wages Act to be Complied with	The contractor shall comply with all the provision of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970 amended from time to time and rules framed thereunder and other labour laws affecting contract labour that may be brought into force from time to time.
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CLAUSE 20(A)

	Employees Provident Fund & Miscellaneous Provident Act 1952/Jammu & Kashmir Employees Provident Funds (and Miscellaneous Provisions) Act, 1961 and State Insurance (ESI) Act, 1948.	<p>The Contractor shall comply with all the provisions of the Employees Provident Fund & Misc. Provisions Act, 1952/ Jammu & Kashmir Employees Provident Funds (and Miscellaneous Provisions) Act, 1961 and ESI Act, 1948, amended from time to time and rules framed thereunder. Some of the provisions are given below:</p> <ol style="list-style-type: none"> The contractor shall intimate his PF Account Code No. allotted by Regional PF Commissioner and ESI Registration No. allotted by ESI Corporation after award of work and shall continue to have valid PF Account Code No. and ESI Registration No. till actual completion of the contract. The contractor shall provide a list of contract Workers engaged for contract work along with their PF Account No. & ESI Registration No. The contractor by 20th of every month shall provide a monthly statement showing recoveries of contribution and proof of remittance of provident fund contribution to RPFC and ESI contributions to ESI Corporation in respect of Workers engaged in contract work. <p>The contractor shall provide copies of PF & ESI challans of monthly contributions in respect of contract workers engaged for contract work on month to month basis. AAI reserves the right to withhold minimum amount as detailed under, from the running account payments, if PF / ESI contributions are not paid by the contractor and proof to that effect have not been produced regularly on due dates.</p> <p>To withhold 3% for building work & 1.5% for road/pavement work of the total amount of work done during the period considered. ESI & EPF amount of employer part paid to the statutory authorities by the contractor shall be reimbursed on actual basis on submission of documentary evidence.</p>
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CLAUSE 21

	Work not to be sublet. Action in case of insolvency	<p>The contract shall not be assigned or sublet without the written approval of 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 employ of AAI 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 Engineers in Charge on behalf of the AAI shall have power to adopt the course specified in Clause 3 hereof in the interest of AAI and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensue.</p>
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CLAUSE 22

		<p>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 AAI without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.</p>
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CLAUSE 23

	Changes in firm's Constitution to be intimated	<p>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</p>
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		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 hereof and the same action may be taken and the same consequences shall ensue as provided in the said Clause 21.
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CLAUSE 24

		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.
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CLAUSE 25

	Dispute Resolution Mechanism and Arbitration	<p>Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instruction 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 the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the work 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:</p> <p>i. If the contractor considers any work demanded of him to be outside the requirement of the contract, or disputes any drawing, record or decision given in writing by the Engineer-in-Charge or if the Engineer in Charge considers any act or decision of the contractor on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable and is disputed such party shall promptly within 15 days of the arising of the disputes request the Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI as the case may be, who shall refer the dispute to Dispute Redressal Committee (DRC) within 15 days along with a list of disputes with amounts claimed if any, in respect of each such disputes. The Dispute Redressal Committee (DRC) shall give the opposing party two weeks for written response, and give its decision within a period of 60 days extendable by 30 days by consent of both the parties from the receipt of reference from the Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI. Provided that no party shall be represented before the Dispute Redressal Committee by an advocate / legal counsel etc.</p> <p>If the Dispute Redressal Committee (DRC) fails to give its decision within aforesaid period or any party is dis-satisfied with the decision of Dispute Redressal Committee (DRC) or expiry of time limit given above, then either party may within a period of 30 days from the receipt of the decision of Dispute Redressal Committee (DRC), give notice to the Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI as the case may be for appointment of Arbitrator on prescribed proforma as per Appendix-XVII. Under intimation to the other party.</p> <p>It is also a term of contract and each party invoking Arbitration must exhaust the aforesaid mechanism of settlement of claims/disputes prior to invoking Arbitration.</p>
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		<p>The Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI shall in such case appoint the sole arbitrator or one of the three arbitrators as the case may be within 30 days of receipt of such a request and refer such disputes to arbitration. Wherever the Arbitral Tribunal consists of three Arbitrators, the contractor shall appoint one arbitrator within 30 days of making request for arbitration or of receipt of request by Engineer in Charge to Executive Director (Engg.)/Regional Executive Director/Member (Plg) /Chairman, AAI for appointment of arbitrator, as the case may be, and two appointed arbitrators shall appoint the third arbitrator, who shall act as the presiding arbitrator. In the event of :</p> <ol style="list-style-type: none"> a. A party fails to appoint the second arbitrator, or b. The two appointed arbitrators fail to appoint the Presiding Arbitrator, then Member (Plg)/Chairman AAI shall appoint the second or Presiding Arbitrator as the case may be. <p>ii. Disputes or difference shall be referred for adjudication through arbitration by a Tribunal having Sole Arbitrator where tendered amount is Rs. 100.00 Cr or less. Where tendered value is more than Rs. 100.00 Cr., Tribunal shall consist of three arbitrators as above. The requirements of the arbitration and the conciliation act, 1996 (26 of 1996) and any further statutory modifications or reenactment thereof and the rules made there under and for the time being in force shall be applicable.</p> <p>It is a term of this contract that the party invoking Arbitration shall give a list of disputes with amounts, claimed, if any, in respect of each such dispute along with the notice for appointment of Arbitrator and giving reference to the decision of the DRC.</p> <p>It is also term of this contract that any member of Arbitration Tribunal shall be a graduate engineer with experience in handling public works, engineering contracts at a level not lower than Chief Engineer. This shall be treated as mandatory qualification to be appointed as Arbitrator.</p> <p>Parties, before or at the time of appointment of Arbitral Tribunal may agree in writing for fast track arbitration as per the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015.</p> <p>Subject to provision in the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015 whereby the counter claims if any can be directly filed before the arbitrator without any requirement of reference by the Appointing Authority, the Arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each disputes and claim referred to him and in all cases where the total amount of the claims by any party exceed Rs. 1,00,000/-, the Arbitrator shall give reasons for the award.</p> <p>It is also a term of the contract that if any fees are payable to the arbitrator, these shall be paid as per the Act. It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims.</p> <p>The place of the arbitration shall be mentioned in schedule 'F'. In case there is no mention of place of arbitration, the Arbitral Tribunal shall determine the place of arbitration. The venue of the arbitration shall be such place as may be fixed by the Arbitral Tribunal in consultation with both the parties. Failing any such agreement, then the Arbitral Tribunal shall decide the venue.</p>
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CLAUSE 26

	Contractor to indemnify AAI against Patent Rights	The contractor shall fully indemnify and keep indemnified the Chairman AAI 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 and 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 or action brought against AAI in respect of any such matters 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 there from, provided that the contractor shall not be liable to indemnify the AAI 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.
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CLAUSE 27

	Lump sum 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 in the estimate for the work in question at the same rates as are payable under the contract for such items, or if the part of work in question is not, at the option of the Engineer-in-Charge payable 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 provision of the clause.
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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. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' 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.
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CLAUSE 29

	With-holding and lien in respect of sums due from contractor	<p>i. Whenever any 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 AAI 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 AAI 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 finalization 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 AAI shall be entitled to withhold and have lien to retain to the extent of such claimed amount or amounts referred to above from any sum or sums found 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 AAI or any contracting person through the Engineer-in-Charge pending finalization of adjudication of any such claim.</p> <p>ii. 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 AAI will be kept withheld or retained as such by the Engineer-in-</p>
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		<p>Charge or AAI till the claim arising out of or under the contract is determined by the arbitrator. (if the contract is governed by the arbitration clause) 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 AAI 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.</p> <p>iii. AAI 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 contractor under the contract or any work claimed to have been done by the 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 AAI 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 AAI to the contractor, without any interest thereon whatsoever.</p> <p>iv. Provided that the AAI shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Executive Director Engineering / General Manager Engineering on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Executive Director Engineering / General Manager Engineering.</p>
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CLAUSE 29 A

	Lien in respect of claims in other Contracts	<p>i. Any sum of money due and payable to the contractor (including the security deposit refundable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or the AAI or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or AAI 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 AAI or with such other person or persons.</p> <p>ii. 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 AAI will be kept withheld or retained as such by the Engineer-in-Charge or the AAI or 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.</p>
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CLAUSE 30

	Employment of coal mining or controlled area labour not permissible	<p>i. The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted.</p> <p>ii. Where ceiling price for imported labour has been fixed by State or Regional Labour Committees not more than that ceiling price shall be paid to the labour by the contractor.</p> <p>The contractor shall immediately remove any labourer who may be pointed out by the Engineer-in-Charge as being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to AAI a sum calculated at the rate of Rs.10/- per day per labourer. The certificate of the Engineer-in -Charge about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract.</p> <p>iv. It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872.</p> <p>Explanation :- Controlled area mean the following areas: Districts of Dhanbad, Hazaribagh, Jamtara- Sub-Division under Santhal Pargana Commissionery, District of Bankuara, Birbhum, Burdwan, District of Bilaspur. Any other area which may be declared a Controlled Area by or with the approval of the Central Government.</p>
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CLAUSE 31

	Unfiltered water supply	<p>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.</p> <p>i. That the water used by the contractor (s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge.</p> <p>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.</p>
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CLAUSE 31A

	Departmental water supply, if available	<p>Water if available, may be supplied to the contractor by the department subject to the following conditions:-</p> <p>i. The water charges @1% shall be recovered on gross amount of the work done.</p> <p>ii. The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply</p>
		<p>The Department do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor (s) to make alternative arrangements for water at his/their own cost in the event of any temporary break down in the AAI's water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such break down.</p>

CLAUSE 32

	Alternate water arrangements	<p>i. Where there is no piped water supply arrangement and the water is taken by the contractor from the wells or hand pump constructed by the AAI, no charge shall be recovered from the contractor or that account. The contractor shall, however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and well are intended. He will also be responsible for all damage and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. The Engineer-in-Charge shall be the final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor.</p> <p>ii. The contractor shall be allowed to construct temporary wells in AAI land for taking water for construction purposes only after he has got permission of the Engineer-in-Charge in writing. No charges shall be recovered from the contractor on this account but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.</p>
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CLAUSE 33

	Return of Surplus materials	<p>Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of AAI either by issue from AAI stocks or purchase made under orders or permits or licenses issued by AAI, 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 AAI 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 prices 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 terms of the license or permit and / or for criminal breach of trust, be liable to AAI for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.</p>
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CLAUSE 34

	Hire of plant & Machinery	<p>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 with the AAI over and above the T&P stipulated for issue, the AAI 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.</p> <p>ii. Plant & Machinery when supplied on hire charges shown in Schedule 'C'</p>
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		<p>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 with 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 Engineer-in-charge 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.</p> <p>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.</p>
		<p>iv. The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over upto 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 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 Executive Director (Engg) /General Manager (Engg) shall be final and binding on the contractor.</p> <p>v. The hire charges shown above are for each day of 8 hours (inclusive of the one hour lunch break) or part thereof.</p> <p>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 the Department against any loss or damage caused to the plant and machinery either during transit or at site of work.</p> <p>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-incharge may, at his discretion, allow the plant and machinery to be worked for more than normal period of 8 hours a day. In that case, the hourly hire charges for overtime to be borne by the contractor shall be 50% more than the normal proportionate hourly charges (1/8th of the daily charges) subject to a minimum of half day's normal charges on any</p>

		<p>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.</p> <p>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.</p> <p>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.</p> <p>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).</p> <p>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 items 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.</p> <p>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 his failure to return the same soon after the completion of the work for which it was issued. The Engineer-in-charge 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.</p> <p>xiii. The contractor will be exempted from 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 AAI's plant and machinery in question have, in fact, remained idle with the contractor because of the suspension.</p> <p>xiv. In the event of the contractor not requiring any item of plant and machinery issued by AAI 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</p>
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		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.
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CLAUSE 35

	Condition relating to use of asphaltic materials	<p>i. The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.</p> <p>ii. The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting is started and shall hypothecate it to the Engineer-in-Charge. If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution of for reasons other than authorised changes of specifications and abandonment of portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by the Engineer-in-Charge shall be made and the material return to the contractors. Although the materials are hypothecated to AAI, the contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of the Engineer-in-Charge in writing.</p> <p>iii. The contractor shall be responsible for rectifying defects noticed within a year from the date of completion of the work and the portion of the security deposit relating asphaltic work shall be refunded after the expiry of this period.</p>
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CLAUSE 36

	Employment of Technical Staff and employees	<p>Contractors Superintendence, Supervision, Technical staff & Employees</p> <p>i. The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract.</p> <p>The Contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-Charge, the name (s), qualifications experience, age, address (s) and other particulars along with certificates, of the principal technical representative to be charge of the work and other technical representative (s) who will be supervising the work. Minimum requirement of such technical representative (s) and their qualifications and experience shall not be lower than specified in schedule 'F'. The Engineer-in-Charge shall within 3 days of receipt of such communication intimate in writing his approval or otherwise of such a representative (s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative (s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative (s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-charge and shall be available at site before start of work.</p> <p>All the provisions applicable to the principal technical representative under the clause will also be applicable to other technical representative(s). The principal technical representative and other technical representative (s) shall be present at the site of work for</p>
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		<p>supervision at all times when any construction activity is in progress and also present himself/themselves, as required to the Engineer-in-Charge and / or his designated representative to take instructions. Instructions given to the principal technical representative or other technical representative (s) shall be deemed to have the same force as if these have been given to the contractor. The Principal Technical Representative and other technical representatives shall be actually available at site fully during all stages of execution work, during recording / checking / test checking of measurements of works whenever so required by the Engineer-in-Charge and shall also note down instructions conveyed by the Engineer-in-Charge or his designated representative (s) in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements / checked measurements / test checked measurements. The representative (s) shall not look after any other work. Substitutes, duly approved by engineer – in-Charge of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative (s) by more than two days. If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative (s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) 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 checked/test checked in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint suitable technical Principal technical representative and / or other technical representative (s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibility satisfactorily, the Engineer-in-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative (s) is / are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative (s) (in the form of copy of Form- 16 or CPF deduction issued to the Engineer employed by him) along with every running account bill / final bill and shall produce evidence if at any times so required by the Engineer-in-Charge.</p> <p>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, semi-skilled 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.</p> <p>iii. The contractor shall not change his engineer/supervisory staff after approval of the Engineer-In-Charge. If Contractor wants to replace any of</p>
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		his staff due to unavoidable circumstances, he will seek permission of Engineer-In- Charge indicating reasons for such change, qualification and experience of the alternative employee suggested by him. The qualification and experience of the alternative staff shall not be inferior to the person employed earlier.
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CLAUSE 37

	Levy/Taxes/ Royalty/ Land License fee payable by Contractor	<p>1. Taxes:</p> <p>a) Rates to be quoted by the parties, should be inclusive of all taxes, duties, CESS, fee, royalty charges etc. levied under any statute but exclusive of GST for all the items.</p> <p>b) However, GST, as applicable, shall be paid to the contractor, for any taxable supply/services/construction rendered by the agency to AAI, against a valid GST invoice as per terms and conditions of the contract.</p> <p>c) In case supplies/services/works involve imports; the same should be identified separately. Basic Custom Duty & IGST will be paid directly by AAI by utilizing EPCG license/ Duty Credit Scrip under Service Export from India Scheme (SEIS) of Govt of India.</p>
		<p>2. Royalty:</p> <p>a. The contractor shall at his own expense, provide all materials required for the works other than those which are to be supplied by AAI. The contractor shall deposit royalty and obtain necessary permit for collection of stone, sand, red bajri, kankar etc. from the local authority in the matter and will abide by the notification issued by Central Govt. / State Government / Local State Authorities as applicable from time to time in this regard. The contractor is also bound to allow deduction from his bills any difference in statutory taxes/royalty and penalty proposed by Local State Authorities to AAI till finalization of settlement of all demands in this regard by Central / State Govt.</p> <p>b. This will also be applicable to forest produce.</p> <p>c. If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the AAI and does not 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 AAI and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.</p> <p>3. License fee for land</p> <p>a. The contractor shall be liable to pay license fee for the land allotted by AAI for installation of plants, labour camp, cement godown and site office at AAI prevailing rates of license fee for unpaved land at the time of call of tender.</p> <p>b. In addition, a security deposit at the rate of Rs. 500/- per sqm in the form of DD/BG shall also be deposited by the contractor. In case contractor does not deposit security deposit same shall be deducted from 1st Running Account Bill.</p> <p>c. Such security deposit shall be released only after allotted land has been fully vacated by the contractor to entire satisfaction of Engineer-in-Charge.</p>

CLAUSE 38

	Conditions for reimbursement of levy/taxes if levied after receipt of tenders	<ol style="list-style-type: none"> 1. Rates to be quoted by the parties, should be inclusive of all taxes, duties, CESS, fee, royalty charges etc. levied under any statute applicable on last stipulated date of receipt of tender including extension if any but exclusive of GST. No adjustment i.e. increase or decrease shall be made for any variation in the rate of GST, Building and Other Construction Workers Welfare Cess or any tax, levy or cess applicable on inputs. However, effect of variation, as per Govt. order after the last date of receipt of tender including extension if any, in rates of GST or Building and Other Construction Workers Welfare Cess or imposition or repeal of any other tax, levy or cess applicable on output of the works contract shall be adjusted on either side, increase or decrease. Provided further that for Building and Other Construction Workers Welfare Cess or any tax (other than GST), levy or cess varied or imposed after the last date of receipt of tender including extension if any, any increase shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes/levies/cess. Provided further that such increase in tax/levy/cess including GST shall not be reimbursed if made in the extended period of contract for which the contractor alone is responsible for delay as determined by authority for extension of time under Clause 5 in Schedule F. 2. 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 MI or the Engineer-in-Charge and further shall furnish such other information /document as the Engineer-in- Charge may require from time to time. 3. The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a written notice thereof to the Engineer-in-charge that the same is given pursuant to the condition, together with all necessary information / documents relating thereto.
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CLAUSE 39

	Termination of contract on death of contractor	Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Engineer-in-charge on behalf of the AAI shall have the option of terminating the contract without compensation to the contractor.
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CLAUSE 40

	If relative working in AAI then the contractor not allowed to tender.	<p>The contractor shall not be permitted to tender for works in AAI wherein his near relative is posted as an Officer responsible for award and execution of work. 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 of AAI. Any breach of this condition by the Contractor would render him, the contract liable to be rejected at any stage.</p> <p>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-laws.</p>
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CLAUSE 41

	No any officer in Department of Engineering to work as contractor within one year of retirement	Engineer or any officer employed in engineering or administrative duties in an engineering department of AAI shall not work as a contractor or employee of contractor for a period of one year after his retirement from AAI service without the prior permission of AAI 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 the permission of AAI as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.
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CLAUSE 41(a)

Integrity Pact and Independent External Monitor.	<p>Signing of Integrity Pact (As per Appendix XVIII) is mandatory for every bidder/contractor if provided so in Schedule F.</p> <p>All tenderers shall have to submit an undertaking as per Appendix XVIII along with tender documents. AAI shall appoint Independent External Monitor(s) to oversee effective implementation of Integrity Pact for such works/supplies. For this purpose, a panel of Independent External Monitors shall be constituted by the Authority in concurrence with Central Vigilance Commission (CVC).</p> <p>i. The Contractor/Supplier shall have to act in accordance with the conditions laid down in the integrity pact.</p> <p>a. Signing of Integrity Pact is mandatory for every Bidder/Contractor in this procurement/bid process the signed original pact to be send to the office of Bid Manager and should reach before the due date mentioned in NIT.</p> <p>b. The Bidder/contractor shall commit itself to ensure taking all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage as specified in section 3 of the integrity pact.</p> <p>c. Any breach of the aforesaid provisions by the Bidder or any one employed by it or acting on its behalf (whether with or without the knowledge of the Bidder) shall entitle the authority to take all or any one of the action as specified in section 6 of the integrity pact.</p> <p>ii. In case any violation of above conduct is established, AAI reserves right to take following actions.</p> <p>a. If contractor commits a violation of its commitments and obligations under the Integrity Pact Program during bidding process, he shall be liable for disqualification from tender process and forfeiture of his Earnest Money Deposit/ Bid Security.</p> <p>b. In case of violation of the Integrity Pact after award of the contract, Authority is entitled to terminate the contract and shall be entitled to demand and recover from the contractor damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit or Performance Bank Guarantee, whichever is higher.</p> <p>c. Authority may initiate appropriate proceedings against the contractor.</p> <p>d. Contractor will be liable to pay damages as determined by the Authority.</p> <p>e. Contractor against whom an action for violation of its commitments and</p>
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	<p>obligations has been taken earlier, again commits a violation, the Authority is entitled to debar such contractor for future tender/ contract processes for a period as deemed fit.</p> <p>f. A violation is considered to have occurred if the Authority is fully satisfied with the available documents and evidence submitted along-with Independent External Monitor's recommendations / suggestions that no reasonable doubt exist in the matter.</p>
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CLAUSE 42

	<p>Return of material and recovery for excess material issued.</p>	<p>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 AAI for use in the work shall be calculated on the basis and method given hereunder;</p> <p>a. Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in Schedule 'F'. In case any item is executed for which standard coefficients 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.</p> <p>b. Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorised by Engineer-in- Charge, including authorised lapping, 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.</p> <p>c. Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables pig lead and G.I. / M.S. sheets shall be taken as quantity actually required and measures plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise.</p> <p>d. For any other material as per actual requirements.</p> <p>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 and binding on the contractor. For non-scheduled items, the decision of the Engineer – in - charge regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor.</p> <p>a. The said action under this clause is without prejudice to the right of the AAI to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.</p> <p>b. For materials brought by the contractor for use in item of work at site, similar theoretical consumption shall be prepared and submitted to the Engineer-in-Charge for verification. If it is found that material consumed in</p>
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		the work is less than the theoretical consumption after taking into account permissible minus variation, the recovery for corresponding material shall be effected as per rates specified in schedule 'F' under Clause 42.
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CLAUSE 43

	Compensation during warlike situations / act of terrorism	<p>The work (whether fully constructed or not) and all materials, machines, tools and plants scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation or act of terrorism, the contractor shall when ordered (in writing) by the Engineer-in-Charge to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-Charge, such payments being in addition to compensation up to the value of the work original executed before being damaged or destroyed and not paid for.</p> <p>In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Engineer-in charge up to Rs. 5,000/- and by the Executive Director Engg. concerned for a higher amount. The contractor shall be paid for the damages / destruction suffered and for restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to this contract.</p> <p>Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operation (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or the Engineer-in-Charge (b) for any material etc. not on the site of the work or for any tools plant, machinery, scaffolding, temporary building and other things not intended for the work.</p> <p>In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Engineer – in - charge.</p>
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CLAUSE 44

	Apprentices Act provisions to be complied with	<p>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 Executive Director Engg. / General Manager (Engg.) may, in his discretion, 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.</p>
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CLAUSE 45

	Release of security deposit after labour clearance	<p>Security Deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer. As soon as the work is virtually complete the contractor shall apply for the clearance certificate to the Labour Officer under intimation to the Engineer-in-Charge. The Engineer-in-Charge, on receipt of the said communication, shall write to the Labour Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months</p>
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		after completion of the work and / or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security Deposit will be released if otherwise due.
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CLAUSE 46

	Contractor's Liability and Insurance of Works	<p>i. From commencement to completion of the Works, the Contractor shall take full responsibility for the case thereof and for taking precautions to prevent loss or damage and to minimize loss or damage to the greatest extent possible and shall be liable for any damage or loss that may happen to the Works or any part thereof and all AA I's T & P from any cause whatsoever (save and except the Excepted Risks) and shall at his own cost repair and make good the same so that at completion, the Works and all AAI's T & P shall be in good order and condition and in conformity in every respect with the requirements of the Contract and instructions of the Engineer-in-Charge.</p> <p>ii. In the event of any loss or damage to the Works or any Part thereof or to any T & P, to any material or articles at the Site from any of the Excepted Risks the following provisions shall have effect:</p> <p>a. The Contractor shall, as may be directed in writing by the Engineer-in-Charge, remove from the Site any debris and so much of the works as shall have been damaged, taking to AAI's store such AAI's T & P, articles and/or materials as may be directed;</p> <p>b. The contractor shall, as may be directed in writing by the Engineer-in-Charge, proceed with the erection and completion of the Works under and in accordance with the provisions and Conditions of the Contract; and</p> <p>iii. Provided always that the Contractor shall not be entitled to payment under the above provisions in respect of so much loss or damage as has been occasioned by any failure on his part to perform his obligation under the Contract or not taking precautions to prevent loss or damage or minimize the amount of such loss or damage.</p> <p>iv. Without limiting its obligations and responsibilities under other clauses of General Conditions of Contracts ,the contractor at his own cost shall insure, in the joint name of AAI and the contractor, against all losses or damages from whatever cause, arising (other than the accepted risks)for which he is responsible under the terms of the contract and in such manner that the AAI and the contractor are covered during the period of construction of works and any loss or damage occasioned by the contractor in the course of any operation carried out by them for the purpose of complying with its obligations of defects liability clause hereof;</p> <p>a. All works including temporary works to their full value executed from time to time.</p> <p>b. The construction materials and equipment to their full value brought on to the site by the contractor.</p> <p>v. The Contractor shall indemnify and keep indemnified AAI against all losses and claims for injuries or damage to any persons or any property whatsoever which may arise out of or in consequence of the construction and maintenance of Works and against all claims, demands proceedings, damage costs, charges and expenses whatsoever in respect of or in relation thereto.</p> <p>vi. Before commencing execution of the work, the Contractor shall, without in any way limiting his obligations and responsibilities under this condition, insure at his own cost against any damage, loss or injury which may occur</p>
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		<p>to any AAI property, or to any person for at least the minimum amount of Rs. 1.00 lac with unlimited number of occurrences (including any employee of AAI) by or arising out of carrying out of the Contract.</p> <p>vii. The contractor shall at all times indemnify AAI against all claims, damages or compensation under the provisions of Payment or Wages Act, 1936, Minimum Wages Act, 1948, Employer's Liability Act, 1938, the Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947 and the Maternity Benefit Act, 1961 or any modifications thereof or any other law relating thereto and rules made there under from time to time or as a consequence of any accident or injury to any workman or other persons in or about the Works, whether in the employment of the Contractor or not, his agents or servants, and also against all costs, charges and expenses of any suit, action or proceedings arising out of such accident or injury and against all sum or sums which may with the consent of the Contractor be paid to compromise or compound any claim. Without limiting his obligations and liabilities as above provided, the Contractor shall insure against all claims, damages or compensation payable under the Workmen's Compensation Act, 1923 or any modification thereof or any other law relating thereto.</p> <p>viii. All insurance mentioned above shall be effected with any subsidiary of the General Insurance Company of India or by a company approved by the Insurance Regulatory Authority of India.</p> <p>ix. The aforesaid insurance policy / policies shall provide that they shall not be cancelled till the Engineer-in-Charge has agreed to their cancellation in writing.</p> <p>x. The Contractor shall prove to the Engineer-in-Charge from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till expiry of the Defects Liability Period. A self-certified copy of such policies is required to be submitted to the Engineer-in-charge.</p> <p>xi. The Contractor shall ensure that similar insurance policies are taken out by his subcontractors (if any) and shall be responsible for any claims or losses to AAI resulting from their failure to obtain adequate insurance protection in connection thereof. The contractor shall produce or cause to be produced by his subcontractor (if any) as the case may be, the relevant policy or policies and premiums receipts as and when required by the Engineer-in-Charge. A self-certified copy of such policies is required to be submitted to the Engineer-in-charge.</p> <p>xii. If the Contractor and/or his subcontractor (if any) shall fail to effect and keep in force the insurance referred to above or any other insurance which he/they may be required to effect under the terms of the Contract then and in any such case AAI may, without being bound to, effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by AAI from any moneys due or which may become due to the Contractor or recover the same as a debt due from the Contractor.</p> <p>xiii. In case contractor takes Contractor All Risk (CAR) Policy in joint name of AAI and Contractor for full tendered value along-with third party liability</p>
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		(max of 10% of tendered value or as applicable as per Insurance Regulatory Authority of India) then there is no requirement for taking separate insurance by sub-contractors. However, workmen compensation policy is required to be taken separately by main contractor and sub-contractor for workers employed by them.
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CLAUSE 47

Composite Contract and responsibilities of main agency	Provisions Not Applicable
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CLAUSE 48

Escrow Account	Provisions Not Applicable
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AIRPORTS AUTHORITY OF INDIA

SAFETY CODE

1. Suitable Scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{4}$ horizontal and 1 vertical).
2. Scaffolding of staging more than 3.6m (12ft.) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3ft.) high above the floor or platform of such scaffolding on staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 m (12ft.) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.
4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm.(3ft.)
5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30ft.) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11 $\frac{1}{2}$ ") for ladder upto and including 3m. (10ft.) in length. For long ladders, this width should be increased at least $\frac{1}{4}$ " for each additional 30cm. (1 foot) of length. Uniform step spacing of not more than 30cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the site or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defense of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person on which may, with the consent of the contractor, be paid to compensate any claim by any such person.
6. a. **Excavation and Trenching** – All trenches 1.2 m. (4ft.) or more in depth, shall at all times be supplied with at least one ladder for each 30m. (100ft.) in length or fraction thereof, Ladder shall extend from bottom of the Trench to at least 90cm (3fts) above the surface of the ground. The side of the trenches which are 1.5 m. (5 ft.) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The

excavated material shall not be placed within 1.5 m. (5 ft.) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances, undermining or undercutting shall be done.

b. Safety Measures for digging bore holes :-

- i. If the bore well is successful, it should be safely capped to avoid caving and collapse of the bore well. The failed and the abandoned ones should be completely refilled to avoid caving and collapse;
 - ii. During drilling, Sign boards should be erected near the site with the address of the drilling contractor and the Engineer-in-charge of the work;
 - iii. Suitable fencing should be erected around the well during the drilling and after the installation of the rig on the point of drilling, flags shall be put 50 Mtr all around the point of drilling to avoid entry of people/animals;
 - iv. After drilling the bore well, a cement platform (0.50 Mtr x 0.50 Mtr x 1.20 Mtr) 0.60 Mtr above ground level and 0.60 Mtr below ground level should be constructed around the well casing;
 - v. After the completion of the bore well, the contractor should kept the bore well properly by Id welding steel plate, cover the bore well with the drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump;
 - vi. After the bore well is drilled the entire site should be brought to the ground level;
7. Demolition – Before any demolition work is commenced and also during the progress of the work,
- i) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
 - ii) No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
 - iii) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
8. All necessary personal safety equipment as considered adequate by the Engineer-in-Charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned. The following safety equipment shall invariably be provided.
- i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
 - ii) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.
 - iii) Those engaged in welding works shall be provided with welder's protective eye-shields.
 - iv) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
 - v) When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be

cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measures are adhered to:-

- a) Entry for workers into the line shall not be allowed except under supervision of the Sr. Superintendent (Engg.) or any other higher officer.
- b) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
- c) Before entry, presence of toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
- d) Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with oxygen kit.
- e) Safety belt with rope should be provided to the workers. While working inside the manholes, such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
- f) The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
- g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.
- h) The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
- i) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-Charge may decide the time upto which a worker may be allowed to work continuously inside the manhole.
- j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
- k) Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 metres away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
- l) The workers engaged for cleaning the manholes / sewers should be properly trained before allowing to work in the manhole.
- m) The workers shall be provided with Gumboots or non sparking shoes bump helmets and gloves non sparking tools safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.

- n) Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
 - o) If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
 - p) The extents to which these precautions are to be taken depend on individual situation but the decision of the Engineer-in-Charge regarding the steps to be taken in this regard in an individual case will be final.
- (vi) The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken:-
- a) No paint containing lead or lead products shall be used except in the form of paste or ready-made paint.
 - b) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
 - c) Overall shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.
9. An additional clause (viii)(i) of AAI Safety Code (iv) the Contractor shall not employ women and men below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:
- i) White lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.
 - ii) Measures shall be taken, wherever required in order to prevent danger arising from the application of paint in the form of spray.
 - iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.
 - iv) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.
 - v) Overall shall be worn by working painters during the whole of working period.
 - vi) Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.
 - vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man appointed by competent authority of AAI.
 - viii) AAI may require, when necessary medical examination of workers.
 - ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
10. When the work is done near any place where there is risk of drowning, all necessary equipment should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.

11. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:
 - i) (a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.
(b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
 - ii) Every crane driver or hoisting appliance operator, shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.
 - iii) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - iv) In case of departmental machines, the safe working load shall be notified by the Electrical Engineer-in-Charge. As regards contractor's machines the contractors shall notify the safe working load of the machine to the Engineer-in-Charge whenever he brings any machinery to site of work and get it verified by the electrical Engineer concerned.
12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
15. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer or Engineer-in- Charge of the department or their representatives.
16. Notwithstanding the above clauses from (1) to (15), there is nothing in these to exempt the contractor from the operations of any other Act or Rules in force in the Republic of India.

**MODEL RULES FOR THE PROTECTION OF HEALTH
AND SANITARY ARRANGEMENTS FOR WORKERS
EMPLOYED BY AAI OR ITS CONTRACTORS**

1. APPLICATION

These rules shall apply to all buildings and construction works in charge of AAI in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contract work is in progress.

2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work on any day during the period during which the contract work is in progress.

3. FIRST-AID FACILITIES

- (i) At every work place, there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.
- (ii) The first-aid box shall be distinctly marked with a red cross on white back ground and shall contain the following equipment.
 - (a) For work places in which the number of contract labour employed does not exceed 50 Each first – aid box shall contain the following equipments:
 - 1. 6 small sterilised dressings
 - 2. 3 medium size sterilised dressings
 - 3. 3 large size sterilised dressings
 - 4. 3 large sterilised burn dressings
 - 5. 1 (30 ml) bottle containing a two per cent alcoholic solution of iodine.
 - 6. 1 (30 ml) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 - 7. 1 snakebite lancet.
 - 8. 1 (30 gms) bottle of potassium permanganate crystals.
 - 9. 1 pair scissors.
 - 10. 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institute, Government of India.
 - 11. 1 bottle containing 100 tablets (each of 5 gms) of aspirin.
 - 12. Ointment for burns.
 - 13. A bottle of suitable surgical antiseptic solution.
 - (b) For work places in which the number of contract labour exceed 50. Each first-aid box shall contain the following equipments.
 - 1. 12 small sterilised dressings.
 - 2. 6 medium size sterilised dressings.
 - 3. 6 large size sterilised dressings
 - 4. 6 large size sterilised burn dressings.
 - 5. 6 (15 gms) packets sterilised cotton wool.
 - 6. 1 (60 ml). Bottle containing two per cent alcoholic solution iodine.
 - 7. 1 (60 ml) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 - 8. 1 roll of adhesive plaster.
 - 9. 1 snake bite lancet.

10. 1 (30 gms) bottle of potassium permanganate crystals.
 11. 1 pair scissors.
 12. 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institute / Government of India.
 13. A bottle containing 100 tablets (each of 5 gms) of aspirin.
 14. Ointment for burns.
 15. A bottle of suitable surgical antiseptic solution.
- (iii) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
- (iv) Nothing except the prescribed contents shall be kept in the First-aid box.
- (v) The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.
- (vi) A person in charge of the First-aid box shall be a person trained in First-aid treatment in the work places where the number of contract labour employed is 150 or more.
- (vii) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance from the works. First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.
- (viii) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

4. DRINKING WATER

- i) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- ii) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- iii) Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and waterproof.
- iv) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. WASHING FACILITIES

- i) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.
- ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.
- iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

- i) Latrines shall be provided in every work place on the following scale namely:

- a) Where female are employed, there shall be at least one latrine for every 25 females.
- b) Where males are employed, there shall be at least one latrine for every 25 males.
- ii) Provided that, where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be upto the first 100, and one for every 50 thereafter.
- iii) Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.
- iv) Construction of latrines: The inside walls shall be constructed of masonry or some suitable heat-resisting nonabsorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.
- v) (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers “For Men only” or “For Women Only” as the case may be. The notice shall also bear the figure of a man or of a woman, as the case may be.
- vi) There shall be at least one urinal for male workers upto 50 and one for female workers upto fifty employed at a time, provided that where the number of male or female workmen, as the case may be exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females upto the first 500 and one for every 100 or part thereafter.
- vii) (a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
- (b) Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities.
- viii) Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.
- ix) Disposal of excreta: Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. Layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).
- x) The contractor shall at his own expense, carry out all instructions issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the contractor’s workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

7. PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 metres (10 ft) from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sq.m. (6 sft) per head. Provided that the Engineer-in-Charge may permit subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8. CRECHES

- i) At every work place, at which 20 or more women workers are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six

years. One room shall be used as a play room for the children and the other as their bedroom. The rooms shall be constructed with specifications as per clause 19 H (ii) a,b & c.

- ii) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.
- iii) The contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the bed room.
- iv) The contractor shall provide one ayaa to look after the children in the crèche when the number of women workers does not exceed 50 and two when the number of women workers exceeds 50.
- v) The use of the rooms earmarked as crèches shall be restricted to children, their attendants and mothers of the children.

9. CANTEENS

- i) In every work place where the work regarding the employment of contractor labour is likely to continue for six months and where in contract labour numbering one hundred or more is ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.
- ii) The canteen shall be maintained by the contractor in an efficient manner.
- iii) The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.
- iv) The canteen shall be sufficiently lighted at all times when any person has access to it.
- v) The floor shall be made of smooth and impervious materials and inside walls shall be lime washed or color washed at least once in each year. Provided that the inside walls of the kitchen shall be lime washed every four months.
- vi) The premises of the canteen shall be maintained in a clean and sanitary condition.
- vii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- viii) Suitable arrangements shall be made for the collection and disposal of garbage.
- ix) The dining hall shall accommodate at a time 30 per cent of the contract labour working at a time.
- x) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square metre (10 sft) per diner to be accommodated as prescribed in sub-Rule 9.
- xi) (a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number. (b) Washing places for women shall be separate and screened to secure privacy.
- xii) Sufficient tables stools, chairs or benches shall be available for the number of diners to be accommodated as prescribed in Sub-Rule 9.
- xiii) (a) 1. There shall be provided and maintained sufficient utensils crockery, furniture and any other equipment necessary for the efficient running of the canteen.
2. The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.
(b) 1. Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
2. A service counter, if provided, shall have top of smooth and impervious material.
3. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning

- of utensils and equipments.
- xiv) The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.
 - xv) The charges for food stuffs, beverages and any other items served in the canteen shall be based on 'No Profit, No loss' and shall be conspicuously displayed in the canteen.
 - xvi) In arriving at the price of foodstuffs, and other article served in the canteen, the following items shall not be taken into consideration as expenditure namely :-
 - a) The rent of land and building.
 - b) The depreciation and maintenance charges for the building and equipments provided for the canteen.
 - c) The cost of purchase, repairs and replacement of equipments including furniture, crockery, cutlery and utensils.
 - d) The water charges and other charges incurred for lighting and ventilation.
 - e) The interest and amounts spent on the provision and maintenance of equipments provided for the canteen.
 - xvii) The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10. ANTI-MALARIAL PRECAUTIONS

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling up of any borrow pits which may have been dug by him.

- 11.** The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contracts.

12. AMENDMENTS

AAI may, from time to time, add to or amend these rules and issue directions - it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.

AIRPORTS AUTHORITY OF INDIA

Contractor's Labour Regulations

1. SHORT TITLE

These regulations may be called the AAI Contractors Labour Regulations.

2. DEFINITIONS

- (i) **Workman** means any person employed by AAI or its contractor directly or indirectly through a subcontractor with or without the knowledge of the AAI to do any skilled, semiskilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied but does not include any person:-
 - a) Who is employed mainly in a managerial or administrative capacity: or
 - b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature : or
 - c) Who is an out worker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up cleaned, washed, altered, ornamental finished, repaired adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer. No person below the age of 14 years shall be employed to act as a workman.
 - (ii) **Fair Wages** means wages whether for time or piece work fixed and notified under the provisions of the Minimum Wages Act from time to time.
 - (iii) **Contractors** shall include every person who undertakes to produce a given result other than a mere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a subcontractor.
 - (iv) **Wages** shall have the same meaning as defined in the Payment of Wages Act.
3. i) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.
- ii) When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week, he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages.
- iii) a) Every worker shall be given a weekly holiday normally on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.
- b) Where the minimum wages prescribed by the Central/State Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.
- c) Where a contractor is permitted by the Engineer-in-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

4. DISPLAY OF NOTICE REGARDING WAGES ETC.

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clear and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers giving the minimum rates of wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wage are earned, wages periods, dates of payments of wages and other relevant information as per Appendix 'VIII'.

5. PAYMENT OF WAGES

- (i) The contractor shall fix wage periods in respect of which wages shall be payable.
- (ii) No wage period shall exceed one month.
- (iii) The wages of every person employed as contract labour in an establishment or by a contractor where less than one thousand such persons are employed shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- (iv) Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- (v) All payment of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
- (vi) Wages due to every worker shall be paid to him direct or to other person authorised by him in this behalf.
- (vii) All wages shall be paid in current coin or currency or in both.
- (viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.
- (ix) A notice showing the wages period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-in-Charge under acknowledgement.
- (x) It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Senior Superintendent Engg or authorised representative of the Engineer-in-Charge who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.
- (xi) The contractor shall obtain from Engineer in charge or the authorised representative of the Engineer-in-Charge a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following form: "Certified that the amount shown in column No. has been paid to the workman concerned in my presence onat....."

Note: In case of payment of wages paid through bank, the contractor shall submit a copy of bank statement for relevant period duly signed by him.

6. FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

- (i) The wages of a worker shall be paid to him without any deduction of any kind except the following:
 - a) Fines
 - b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the

period for which he was absent.

- c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.
- d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.
- e) Any other deduction which the Central Government may from time to time allow.

- (ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.

Note : An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-XII.

- (iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- (iv) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.
- (v) No fine imposed on any worker shall be recovered from him by installment, or after the expiry of sixty days from the date on which it was imposed.
- (vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

7. LABOUR RECORDS

- (i) The contractor shall maintain a Register of persons employed on work on contract in Form XIII of the CL(R&A) Central Rules 1971 (Appendix VI)
- (ii) The contractor shall maintain a Muster Roll register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971 (Appendix VII).
- (iii) The contractor shall maintain a Wage Register in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R&A) Rules 1971 (Appendix VIII)
- (iv) **Register of accident** - The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:
 - (a) Full particulars of the labourers who met with accident.
 - (b) Rate of Wages
 - (c) Sex
 - (d) Age
 - (e) Nature of accident and cause of accident
 - (f) Time and date of accident
 - (g) Date and time when admitted in Hospital
 - (h) Date of discharge from the Hospital
 - (i) Period of treatment and result of treatment
 - (j) Percentage of loss of earning capacity and disability as assessed by Medical officer
 - (k) Claim required to be paid under Workmen's Compensation Act.
 - (l) Date of payment of compensation
 - (m) Amount paid with details of the person to whom the same was paid
 - (n) Authority by which the compensation was assessed.
 - (o) Remarks
- (v) The contractor shall maintain a **Register of Fines** in the Form XII of the CL(R&A) Rules 1971 (Appendix-XIII).

The contractor shall display in a good condition and in a conspicuous place of work the approved list of acts and omissions for which fines can be imposed (Appendix-XII)

- (vi) The contractor shall maintain a **Register of deductions for damage or loss** in Form XX of the CL (R&A) Rules 1971 (Appendix-XIV)
- (vii) The contractor shall maintain a **Register of Advances** in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XV)
- (viii) The contractor shall maintain a **Register of Overtime** in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XVI).

8. ATTENDANCE CARD-CUM-WAGE SLIP

- (i) The contractor shall issue an **Attendance card-cum-wage** slip to each workman employed by him in the specimen form at (Appendix-IX)
- (ii) The card shall be valid for each wage period.
- (iii) The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- (iv) The card shall remain in possession of the worker during the wage period under reference.
- (v) The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- (vi) The contractor shall obtain the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

9. EMPLOYMENT CARD

The contractor shall issue an **Employment Card** in Form XIV of the CL (R&A) Central Rules 1971 to each worker within three days of the employment of the worker (Appendix-X).

10. SERVICE CERTIFICATE

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a **Service certificate** in Form XV of the CL(R&A) Central Rules 1971.

11. PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 & 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-in-Charge or Labour Officer or any other officers authorised by the Ministry of Urban Development in this behalf.

12. POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The Labour Officer or any person authorised by Central Government on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of Fair Wage Clauses and the Provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

13. REPORT OF LABOUR OFFICER

The Labour Officer or other persons authorised as aforesaid shall submit a report of result of his investigation or enquiry to the Engineer-in-Charge concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In

case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to labourers will be made by the Engineer-in-Charge after G.M. Engg. has given his decision on such appeal.

- (i) Engineer-in-Charge shall arrange payments to the labour concerned within 45 days from the receipt of the report from the Labour Officer or the G.M. Engineer as the case may be.

14. APPEAL AGAINST THE DECISION OF LABOUR OFFICER

Any person aggrieved by the decision and recommendations of the Labour Officer or other person so authorised may appeal against such decision to the Engineer-in-Charge concerned within 30 days from the date of decision, but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

15. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

- (i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by :
 - a) An officer of a registered trade union of which he is a member.
 - b) An officer of a federation of trade unions to which the trade union referred to in Clause (a) is affiliated.
 - c) Where the employer is not a member of any registered trade union, by an officer of a registered trade union, connected with the industry in which the worker is employed or by any other workman employed in the industry in which the worker is employed.
- (ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by :
 - a) An officer of an association of employers of which he is a member.
 - b) An officer of a federation of associations of employers to which association referred to in Clause(a) is affiliated.
 - c) Where the employers is not a member of any association of employers, by an officer of association of employer connected with the industry in which the employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.
- (iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

16. INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorised by the Central Government on his behalf .

17. SUBMISSION OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

18. AMENDMENTS

The Central Government/AAI may from time to time add to or amend the regulations and on any question as to the application/interpretation or effect of those regulations the decision of the General Manager (Engg.) concerned shall be final.

**FORM OF BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT & AMOUNT WITHHIELD
AGAINST COMPENSATION FOR DELAY IN INDIVIDUAL CONTRACT
(on Non-Judicial Stamp Paper of Rs.100/-)
[Refer Clause 2B]**

To
The Airports Authority of India

.....
.....

1. In consideration of the Airport Authority of India having its head office at New Delhi [hereinafter called the “AAI” which expression shall unless repugnant to the subject or context include its administrator, successors and assigns) having agreed under the terms and condition of Contract Agreement No. dated..... made between..... and AAI in connection with the work of(hereinafter called the said contract) to accept Deed of Guarantee as herein provided for Rs.....(Rupees.....only) from a Nationalized Bank in lieu of the Security deposit to be made by the contractor or lieu of the amount withheld towards compensation for delay pending final extension of time to be made from the contractors contained in the said Contractor. We, the..... bank (hereinafter referred to as “the said Bank” and having our registered office atdo hereby undertake and agree to identify and keep indemnified AAI from time to time to the extent of Rs.....(Rupees.....only) against any loss or damage, cost,, charges and expenses caused to or suffered by or that may be caused to or suffered by AAI by reason of nay breach or breaches by the said Contractor of any of the terms and condition contained in the said contract and to unconditionally pay the amount claimed by AAI on demand and without demur to the extent aforesaid.
2. We Bank, further agree that AAI shall be the sole judge of and as to whether the said Contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by AAI on account thereof and the decision of AAI that the said Contractor has committed such breach and breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered of that may be caused to or suffered by AAI from time to time shall be final and binding on us.
3. We, the said Bank, further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said contracts and till all the dues of AAI under the said contract or by virtue of any of the terms and conditions governing the said contract including compensation for delay if any as decided by AAI, have been fully paid and its claims satisfied or discharged and till the Accepting Authority of the contract certifies that the terms and condition and accordingly Contract have been fully and properly carried out by the said contractor and accordingly discharges this guarantee subject, however that AAI shall have no claim under this Guarantee after 90(Ninety) days from the date of expiry of the defects Liabilities periods or Final /Extension of Time grated by AAI as provided available in agreements clause no.....as provided in the said Contract, i.e.....(date) or from the date of cancellation of the said contract, as the case may be, unless a notice of the claim under this Guarantee has been served on the Bank before the expiry of the period in which case the same shall be enforceable against the Bank notwithstanding the fact, that the same is enforced after the expiry of the said period.

4. AAI shall have the fullest liberty without affecting in any way the liability of the bank under this Guarantee or Indemnity from time to time to vary any of the terms and conditions of the said contract or to extend time of performance by the said Contractor or to postpone for any time and from time to time any of the powers exercisable by it against the said Contractor and either to enforce or forbear from enforcing any of terms and conditions governing the said contract or securities available to AAI and the said Bank shall not be released from its liability under these present by any exercise by AAI of any liberty with reference to the matters aforesaid or by reason of time being given to the said contractor or any other forbearance, act or omission on the part by AAI or any indulgence by AAI to the said Contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so releasing the Bank from its such liability.
5. It shall not be necessary for AAI to proceed against the contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank, notwithstanding any security which AAI may have obtained or obtain from the Contractor at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.
6. We, the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of AAI in writing and agree that any charge in the Constitution of the said Contract or the said Bank shall not discharge our liability hereunder.

In presence of

WITNESS

- 1.
- 2.

Dated this _____ Day of _____

For and on behalf of (The Bank)

Signature _____

Name & Designation _____

Authorisation No. _____

Name & Place _____

Bank's Seal _____

The above Guarantee is accepted by Airports Authority of India.

For and on behalf of Airports Authority of India

Signature _____

Name _____

Designation _____

Dated _____



APPENDIX-1A

FORM OF BANK GUARANTEE AGAINST EARNEST MONEY DEPOSIT

WHEREAS, contractor _____ (Name of contractor) (hereinafter called “the contractor”) has submitted his tender dated _____ (date) for the construction of “_____” (name of work) (hereinafter called “the TENDER”).

KNOW ALL PEOPLE by these presents that we _____ (name of bank) having our registered office at _____ (hereinafter called “the bank”) are bound unto Airports Authority of India having its head office at Rajiv Gandhi Bhawan, Safdarjung Airport, New Delhi-110003 (hereinafter called “the AAI” which expression shall unless repugnant to the subject or contract includes its administration, successors and assigns) in the sum of Rs. _____ (Rs. In words _____) for which payment well truly to be made to the said Engineer-in-charge the bank binds itself, his successors and assigns by these presents.

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

THE CONDITIONS of this obligation are:

- (1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender.
- (2) If the contractor having been notified of the acceptance of his tender by the engineer-in-charge.
 - a) Fails or refuses to execute the form of Agreement in accordance with the instructions to contractor, if required –
OR
 - b) Fails or refuses to furnish the performance guarantee, in accordance with the provisions of tender document and instructions to contractor,
OR
 - c) Fails or refuses to start the work, in accordance with the provisions of the contract and instructions to contractor,
OR
 - d) Fails or refuses to submit fresh bank guarantee of an equal amount of this bank guarantee against security deposit after award of contract.

We undertake to pay to the engineer-in-charge either up to the above amount or part thereof upon receipt of his first written demand, without the engineer-in-charge having to substantiate his demand, provided that in his demand the engineer-in-charge will note that the amount claimed by him is due to him owing to the concurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including the date _____ * _____ after the deadline for submission of tender as such deadline is stated in the instructions to contractor or as it may be extended by the engineer-in-charge, 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 OF THE BANK

WITNESS

SEAL

(SIGNATURE NAME AND ADDRESS)

Note: * Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.



APPENDIX-II

PROFORMA FOR MANDATORY TESTS TO BE ATTACHED WITH RUNNING ACCOUNT BILLS

Name of work :
Name of Contractor :
Contract Agreement No. and Date :
R/A Bill No :

Sl. No.	Item	Quantities as per Agreement	Frequency as per Specification	No. of Tests Required	Upto date Quantity	No. of Tests Required	No. of Tests actually done	Remarks
1	2	3	4	5	6	7	8	9

Note: If the numbers of tests done are less than required, then reasons shall be recorded.

Signature of

Sudt. (Engg)

Manager / AM (Engg)

Engineer-in-Charge.



APPENDIX-III

REGISTER OF MATERNITY BENEFITS (Clause 19 F)

Name and address of the contractor.....

Name and location of the work.....

Name of the employee	Father's/husband's name	Nature of employment	Period of actual employment	Date on which notice of confinement given
1	2	3	4	5

Date on which maternity leave commenced and ended

Date of delivery/miscarriage	<u>In case of delivery</u>		<u>In case of delivery</u>	
	Commenced	Ended	Commenced	Ended
6	7	8	9	10

Leave Pay paid to the employee

<u>In case of delivery</u>		<u>In case of miscarriage</u>		Remark
Rate of leave pay	Amount paid	Rate of leave pay	Amount paid	
11	12	13	14	15



APPENDIX-IV

**SPECIMEN FORM OF THE REGISTER, REGARDING MATERNITY BENEFIT ADMISSION
TO THE CONTRACTOR'S LABOUR IN
AIRPORTS AUTHORITY OF INDIA WORKS(CLAUSE 19F)**

Name and address of the contractor -----

Name and location of the work -----

- 1) Name of the woman and her husband's name
- 2) Designation
- 3) Date of appointment
- 4) Date with months and years in which she is employed.
- 5) Date of discharge/dismissal, if any
- 6) Date of production of certificates in respect of pregnancy.
- 7) Date on which the woman informs about the expected delivery.
- 8) Date of delivery/miscarriage/death.
- 9) Date of production of certificate in respect of delivery/miscarriage.
- 10) Date with the amount of maternity/death benefit paid in advance of expected delivery
- 11) Date with amount of subsequent payment of maternity benefit
- 12) Name of the person nominated by the woman to receive the payment of the maternity benefit after the death.
- 13) If the woman dies, the date of her death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date in the register.
- 14) Signature of the contractor authenticating entries in the register.
- 15) Remarks column for the use of Inspection Officer.



APPENDIX-V
LABOUR BOARD

Name of Work -----
Name of Contractor-----
Address of Contractor -----
Name and address of A. A. I. Division -----
Name of A. A. I. Labour Officer -----
Address of A. A. I. Labour Officer -----
Name of A.A.I Labour Officer-----

Sl.No.	Category	Minimum wage fixed	Actual wage paid	Number present	Remark
--------	----------	-----------------------	---------------------	-------------------	--------

Weekly holiday -----
Wage period -----
Date of payment of wages -----
Working hours -----
Rest interval-----



Form-XIII
[See rule 2(1)]

APPENDIX-VI

[Part-A: For all Establishments]

Register of Workmen Employed by Contractor

Name and address of contractor.....

Name and address of establishment which contractor is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

Name of the Establishment-----Name of Owner-----LIN-----

Sl. No.	Employee Code	Name	Surname	Gender	Father's/Spouse Name	Date of Birth#	Nationality	Education Level	Date of Joining	Designation
1	2	3	4	5	6	7	8	9	10	11

Category Address *(HS/S/SS/US)	Type of Employment	Mobile	UAN	PAN	ESIC IP	LWF	AADHAAR	Bank A/c Number	Bank	Branch (IFSC)	Present Address	Permanent
12	13	14	15	16	17	18	19	20	21	22	23	24

Servie Book No.	Date of Exit	Reason for Exit	Mark of Identification	Photo	Specimen Signature/Thumb Impression	Remarks
25	26	27	28	29	30	31

*(Highly Skilled/Skilled/Semi Skilled/Unskilled)

#Note: In case the age is between 14 to 18 years, mention the nature of work, daily hours of work and Intervals of rest in the remarks Column.



APPENDIX-VII

Form-XVI
[See Rule 78 (2) (a)]

Muster Roll

Name and address of contractor.....

Name and address of establishment which contractor is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

For the month of fortnight

Sl · 1	Name of work Man 2	S e x 3	Father's/ Husband' s 4	Date					Remark
				1	2	3	4	5	



FORM B

[See Rule 78 (2) (a)]

APPENDIX-VIII

FORMAT FOR WAGE REGISTER

Name and address of contractor.....
 Name and address of establishment which contractor is carried on.....
 Name and location of work.....
 Name and address of Principal Employer.....
 For the month of.....fortnight.....

Rate of Minimum Wages and since the date.....				
	Highly Skilled	Skilled	Semi-Skilled	Un Skilled
Minimum Basic				
DA				
Overtime				

Name of the Establishment _____ Name of Owner _____ LICENSE NO. _____

Wage period From _____ To _____ (Monthly/Fortnightly/Weekly/Daily/Piece Rated)

Sl. No. in Employee register	Name	Rate of Wage	No. of Days worked	Overtime hours worked	Basic	Special Basic	DA	Payments Overtime	HRA	Others	Total
1	2	3	4	5	6	7	8	9	10	11	12
Deduction									Net Payment	Employer Share PF Welfare Found	
PF	ESIC	Society	Income Tax	Insurance	Others	Recoveries	Total				
13	14	15	16	17	18	19	20	21	22		

Receipt by Employee/Bank Transaction ID	Date of Payment	Remarks
23	24	25



FORM C

FORMAT OF REGISTER OF LOAN/ RECOVERIES

Name of Establishment _____ LICENSE NO. _____

Sl. Number In Employee register	Name	Recovery Type (Damage/loss/fine/advance/loans	Particulars	Date of damage/Loss*	Amount
1	2	3	4	5	6

Whether show cause issued*	Explanation heard in presence of*	Number of Installments	First Month/Year	Last Month/Year	Date of Complete Recovery	Remarks
7	8	9	10	11	12	13

*Applicable only in case of damage/loss/fine



Form-XVII

[See Rule 78 (2) (a)]

Register of wages

Name and address of

contractor..... Name and address

of establishment which contractor is carried on..... Name and

location of work..... Name

and address of Principal Employer..... For the month of fortnight.....

							Amount of wages								
S. No	Name of workman	Serial no in the register of workman	Description/ nature of work done	No. of days worked	Units of work done	Daily rates of wages/ piece rate	Basic wages	Dearness Allowance	Over-time	Other cash payment. (indicate nature)	Total	Deduction if any (indicate nature)	Net amount paid	Sig. or thumb impression of the work	Initial contract or his representative
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16



APPENDIX-VIIIA

Obverse (of previous page Appendix VIII)

Wages Card No.....

Name and Address of Contractor.....

Date of issue.....

Name and location of work.....Designation.....

Name of workman.....Month/Fortnight.....

Rate of Wages.....

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Morning

Rate

Evening

Amount

Initial

Received from.....the sum of Rs.....on account of my wages

Signature

The Wage Card is valid for one month from the date of issue



Form-XIX
[See rule 78 (2) (b)]
Wages Slip

APPENDIX-IX

Name and address of contractor.....

Name and Father's/Husband name of workman.....

Name and location of work.....

For the week/Fortnight/Month ending.....

1. No. of days worked.....

2. No. of units worked in case of piece rate workers.....

3. Rate of daily wages/piece rate.....

4. Amount of overtime wages.....

5. Gross wages payable.....

6. Deduction, if any.....

7. Net amount of wages paid.....

Initials of the contractor or his representative



APPENDIX-X

Form-XIV
[See rule 76]
Employment Card

- Name and address of contractor.....
- Name and address of establishment under which is carried.....
- Name of work and location of work.....
- Name & address of Principal employee.....
1. Name of the workman.....
 2. Sl. No. in the register of workman employed.....
 3. Nature of employment/designation.....
 4. Wage rate (with particulars of unit in case of piecework).....
 5. Wage period.....
 6. Tenure of employment.....
 7. Remark.....

Signature of Contractor



Format for Performance Bank Guarantee
Bank Guarantee Bond
(On Non-Judicial Stamp Paper of Rs100/-)

1. In consideration of the Chairman, AAI (hereinafter called “AAI”) having offered to accept the terms and conditions of the proposed agreement between
[hereinafter called the said contractor(s)] for the work
(hereinafter “the said agreement”) having agreed to production of a irrevocable Bank Guarantee for Rs. (Rupeesonly) as a security / guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.
We (Indicate the name of the Bank) (hereinafter referred to as “the Bank”) hereby undertake to pay to the Chairman, AAI an amount not exceeding Rs. (Rupees only) on demand by AAI.
2. We (Indicate the name of the Bank) do hereby undertake to pay the amounts due to payable under this Guarantee without any demure, merely on a demand from AAI stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. (Rupees only).
3. We, the said Bank, further undertake to pay the Chairman, AAI any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.
4. We..... (Indicate the name of bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of AAI under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-In-Charge on behalf of AAI certified that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.
5. We..... (indicate the name of the bank) further agree with AAI that AAI shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by AAI against in the said contractor(s) and to forebear and enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extensions being granted to the said contractor(s) or for any forbearance, act



of omission on the part of AAI or any indulgence by the AAI to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to securities would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
7. We..... (Indicate the name of the bank) lastly undertake not to revoke this guarantee except with the previous consent of AAI in writing.
8. This guarantee shall be valid upto unless extended on demand by AAI. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) and unless a claim in writing is lodged within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

In presence of

Dated this _____ Day of _____

Witness

- 1.
- 2.

For and on behalf of (The Bank)

Signature _____

Name & Designation _____

Authorisation No. _____

Name & Place _____

Bank's Seal _____

The above Guarantee is accepted by Airports Authority of India. For and on behalf of Airports Authority of India

Signature _____

Name _____

Designation _____

Dated _____

Note : * Date of validity should be schedule date of completion + Six months.



APPENDIX-XI-A

Format for Letter of undertaking from the Depositor to Bank

(To be submitted along with Security Deposit / Earnest Money / Performance Guarantee to Airports Authority of India)

(To be submitted in the Letter head of the firm)

The Branch Manager,
.....Bank,
.....

Sub: - My / Our Bank Guarantee bearing No.....dated for amount..... Issued in favor of
Airport Authority of India A/c.....

Sir,

The subject Bank Guarantee is obtained from your bank for the purpose of **Security Deposit / Earnest Money / Performance Guarantee** on account of contract awarded / to be awarded by M/s Airports Authority of India to me / us.

I hereby authorized the Airport Authority of India in whose favour the deposit is made to close the subject Bank Guarantee before maturity/ on maturity toward adjustment of dues without any reference /consent /notice from me / our side and the bank is fully discharged by making the payment to Airport Authority of India.

Signature of the Depositor

Place:

Date:



APPENDIX-XII

LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

In accordance with rule 7(v) of the AAI Contractor's Labor Regulations to be displayed prominently at the site of work both in English and local Language :

1. Willful insubordination or disobedience, whether alone or in combination with other.
2. Theft fraud or dishonesty in connection with the contractors beside a business or property of AAI.
3. Taking or giving bribes or any illegal gratifications
4. Habitual late attendance.
5. Drunkenness lighting, riotous or disorderly or indifferent behaviour
6. Habitual negligence.
7. Smoking near or around the area where combustible or other materials are locked
8. Habitual Indiscipline
9. Causing damage to work in the progress or to property of the AAI or of the contractor.
10. Sleeping on duty.
11. Malingering or slowing down work.
12. Giving of false information regarding name, age, father's name, etc.
13. Habitual loss of wage cards supplied by the employer's
14. Unauthorized use of employer's property of manufacturing or making of unauthorized particles at the work place
15. Bad workmanship in construction and maintenance by skilled workers which is not approved by the Department and for which the contractors are compelled to undertake rectifications.
16. Making false complaints and/or misleading statements.
17. Engaging on trade within the premises of the establishments.
18. Any unauthorized divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money within the premises of an establishment unless authorised by the employer.
20. Holding meeting inside the premises without previous sanction of the employers.
21. Threatening or intimidating any workman or employer during the working hours within the premises.



APPENDIX-XIII

Form-XVII

[See Rule 78 (2) (d)]

Register of Fines

Name and address of contractor.....

Name and address of establishment which contractor is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

Sl. No.	Name of workman	Father's/ Husband's Name	Designation nature of employment	Act or action for which fine imposed	Date of Offence	Whether workman showed cause against fine	Name of person in whose presence employee's explanation was heard	Wage period and wages payable	Amount of the imposed	Date on which fine realised	Remarks
1	2	3	4	5	6	7	8	9	10	11	12



APPENDIX-XIV

Form-XVII
[See Rule 78 (2) (d)]

Register of Deduction for Damage or Loss

Name and address of contractor.....

Name and address of establishment under which contract is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

Sl. No.	Name of workman	Father's Husband's Name	Designation /nature of employment	Particular of Damages or Loss	Date of damages or loss	Whether workman showed cause against deduction	Name of person in whose presence employee's explanation was heard	Amount of deduction imposed	No. of installments	Date of recovery		Remark
										First Instalment	Last Instalment	
1	2	3	4	5	6	7	8	9	10	11	12	13



APPENDIX-XV

Form-XXII [See Rule 78 (2) (d)] Register of Advances

Name and address of contractor.....

Name and address of establishment under which contract is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

Sl. No.	Name of workman	Father's Husband's Name	Designation /nature of employment	Wage period and wages payable	Date and amount of advance paid	Purpose for which advance paid	Number of installmen t by which advance to be repaid	Date and amount of each installment repaid	Date on which last installment was repaid	Remark
1	2	3	4	5	6	7	8	9	10	11



APPENDIX-XVI

Form-XXIII [See Rule 78 (2) (e)] **Register of Overtime**

Name and address of contractor.....

Name and address of establishment under which contract is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

S. N o	Name of workmen	Father's/ Husband s Name	Sex	Designation/ nature of employment	Date on which overtime Worked	Total overtime worked at project in case of piece rate	Normal rate of wages	Overtime rate of wages	Overtime earning	Rate on which overtime paid	Remarks
1	2	3	4	5	6	7	8	9	10	11	1 2



APPENDIX-XVII

NOTICE FOR APPOINTMENT OF ARBITRATOR

[Refer Clause 25]

To

.....
.....
.....

Dear Sir,

In terms of clause 25 of the agreement, particular of which are given below, I/we hereby give notice to you to appoint an arbitrator for settlement of disputes mentioned below:

1. Name of applicant
2. Whether applicant is Individual/Prop. Firm /Partnership Firm/Ltd. Co.
3. Full address of the applicant.
4. Name of the work and contract number in which arbitrator sought.
5. Name of the office which entered into contract.
6. Contract amount in the work.
7. Date of contract.
8. Date of initiation of work.
9. Stipulated date of completion of work.
10. Actual date of completion of work (if completed).
11. Total number of claim made.
12. Total amount claimed.
13. Date of intimation of final bill (if work is completed).
14. Date of payment of final bill (if work is completed).
15. Amount of final bill (if work is completed).
16. Date of request made to ED for decision.
17. Date of receipt of ED's decision.
18. Date of appeal.
19. Date of receipt of decision on our appeal.

Specimen signature of the applicant
(Only the person/authority who
signed the contract should sign)

I/We certify that the information given above is true to the best of my/our knowledge. I/We enclose following documents.

1. Statement of claims with amount of claims.
- 2.
- 3.

Yours faithfully

(Signature)

Copy to:

1. The Engineer-in-charge , AAI, Prayagraj Airport, Prayagraj



APPENDIX -XVIII

INTEGRITY PACT

The integrity pact shall be signed by both the parties in the following format

“This Pact made thisday of between Airports Authority of India, a body corporate constituted by the Central Government under the Airports Authority of India Act,1994 and having its Corporate Office at Rajiv Gandhi Bhawan, New Delhi, and offices atin India, hereinafter called the Authority (which term shall unless excluded by or is repugnant to the context, be deemed to include its Chairman, or Member, Executive Directors, Airport Directors, officers or any of them specified by the Chairman in this behalf, and shall also include its successors and assigns) of the one part

AND

.....represented by of the other part, hereinafter called the “Bidder/Contractor “(which term shall unless excluded by or is repugnant to the context be deemed to include its heirs, representatives, successors and assigns of the Bidder/ Contractor) WHEREAS the Authority intends to award, under laid down organizational procedures, tender/ contract forThe Authority, while discharging its functions on business principles, values proper compliance with all relevant laws and regulations, and the principles of natural ,justice, ethics, equity, fairness and transparency in its relations with the Bidders/ Contractors.

WHEREAS the Authority is desirous to make its business mechanism more transparent, thus to ensure strict adherence of the aforesaid objectives/goals, the Authority hereby adopts the instrument developed by the renowned international non-governmental organization “Transparency International” (T I) headquartered in Berlin (Germany). The Authority will appoint an Independent External Monitor (IEM) who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

AND WHEREAS the Bidder is submitting a tender to the Authority for In response to the NIT (Notice Inviting Tender) dated Contractor is signing the contract for execution ofNOW, therefore, To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to Enabling the Authority to obtain the desired said stores/equipment/execution of works at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and Enabling Authority to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the Authority will commit to prevent corruption, in any form, by its officials by following transparent procedures. The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:



1. Commitments of the Authority;

- 1.1 The Authority undertakes that no official of the Authority, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The Authority will, during the pre-contact stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the Authority will report to the appropriate authority office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- 1.4 In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the Authority with full and verifiable facts and the same is prima facie found to be correct by the Authority, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the Authority and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the Authority the proceedings under the contract would not be stalled.

1. Commitments of Bidders/Contractor.

The Bidder/Contractor commits itself to take all measures necessary to prevent corrupt practice, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following.

- 2.1 The Bidder/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Authority, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 2.2 The Bidder/Contractor further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Authority or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Authority



for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Authority.

- 2.3 The Bidder / Contactor has not entered and will not enter with other bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specification, certifications, subsidiary contracts, submission or non-submission of bids or any actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.4 The Bidder/Contractor shall, when presenting his bid, disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
- 2.5 The Bidder/Contractor shall when presenting his bid disclose any and all the payments he has made or, is committed to or intends to make to agents/brokers or any other intermediary, in connection with this bid/contract.
- 2.6 The Bidder/Contractor further confirms and declares to the Authority that the BIDDER is the original manufacturer/integrator/ authorized government sponsored export entity of the stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Authority or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 2.7 The Bidder/Contractor, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made or has committed to or intends to make to officials of the Authority or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 2.8 The Bidder/Contractor will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 2.9 The Bidder/Contractor will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 2.10 The Bidder / Contactor shall not use improperly, for purposes of competition or personal gain ,or pass on to others, any information provided by the Authority as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder / Contractor also under takes to exercise due and adequate care lest any such information is divulged.
- 2.11 The Bidder/Contractor will inform to the Independent External Monitor.



- i) If he receives demand for an illegal/undue payment/benefit.
 - ii) If he comes to know of any unethical or illegal payment/benefit.
 - iii) If he makes any payment to any Authority's associate(s)
- 2.12 The Bidder/Contactor commit to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 2.13 The Bidder/Contactor shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 2.14 If the Bidder/Contractor or any employee of the Bidder/Contractor or any person acting on behalf of the Bidder/ Contractor, either directly or indirectly, is a relative of any of the officers of the Authority, or alternatively, if any relative of an officer of the Authority has financial interest/stake in the Bidder's/Contractor's firm, the same shall be disclosed by the Bidder/Contractor at the time filing of tender. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.
- 2.15 The Bidder/Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Authority.
- 2.16 That if the Bidder/ Contractor, during tender process or before the award of the contract or during execution of the contract/work has committed a transgression in violation of section 2 or in any other form such as to put his reliability or credibility as Bidder/Contractor into question, the Authority is entitled to disqualify him from the tender process or to terminate the contract for such reason and to debar the BIDDER from participating in future bidding processes.
- 2. Previous Transgression**
- 3.1 The Bidder/Contractor declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify Bidders's exclusion from the tender process.
- 3.2 The Bidder/Contractor agrees that if it makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason and he may be considered for debarment for future tender/contract processes.
- 3.3 That the Bidder/Contractor undertakes to get this Pact signed by the subcontractor (s) and associate(s) whose value of the work contribution exceeds Rs 0.5 Cr. (Rupees zero point five



Cr.) and to submit the same to the Authority along-with the tender document/ contract before contract signing.

3.4. That sub-contractor(s)/ associate(s) engaged by the Contractor, with the approval of the Authority after signing of the contract, and whose value of the work contribution exceeds Rs 0.5 Cr. (Rupees Zero point five Cr.) will be required to sign this Pact by the Contractor, and the same will be submitted to the Authority before doing/ performing any act/ function by such subcontractor(s) / associate(s) in relation to the contract/ work.

3.5. That the Authority will disqualify from the tender process all Bidder(s) who don't sign this Pact or violate its provisions or fails to get this Pact signed in terms of policy of authority

3.6. That if the Contractor(s) does/ do not sign this Pact or violate its provisions or fails to get this Pact signed in terms of policy of authority. Authority will terminate the contract and initiate appropriate action against such Contractor(s).

4. Security Deposit, Bank Guarantee, Draft, Pay order or any other mode and its validity i/c Warranty Period, Performance Guarantee/Bond.

While submitting bid, the BIDDER shall deposit an SD/BG/DRAFT/PAY ORDER etc. i/c WARRANTY PERIOD, PG/BOND, VALIDITY etc. , which is as per terms and conditions and details given in NIT / tender documents sold to the Bidders.

5. Sanctions for Violations/Disqualification from tender process and exclusion from future Contacts.

5.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the Authority to take all or any one of the following actions, wherever required:

- i) To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
- ii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
- iii) If the Authority has disqualified / debarred the Bidder from the tender process prior to the award under section 2 or 3 or 4, the Authority is entitled to forfeit the earnest money deposited/bid security.
- iv) To recover all sums already paid by the Authority, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at



2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the Authority in connection with any other contract or any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

- v) To en-cash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
- vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the Authority resulting from such cancellation/rescission and the Authority shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- vii) To debar the BIDDER from participating in future bidding processes for a minimum period of three years, which may be further extended at the discretion of the Authority.
- viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- ix) In case where irrevocable Letters of Credit have been received in respect of any contract signed by the Authority with the BIDDER, the same shall not be opened.
- x) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- xi) That if the Authority have terminated the contract under section 2 or 3 or 4 or if the Authority is entitled to terminate the contract under section 2 or 3 or 4, the Authority shall be entitled to demand and recover from the contractor damages equivalent to 5% of the contract value or the amount equivalent to security deposit or performance bank guarantee, whichever is higher.
- xii) That the Bidder / Contractor agrees and undertakes to pay the said amount without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish to the satisfaction of the Authority that the disqualification / debarment of the bidder from the tender process or the termination of the contract after award of the contract has caused no damage to the Authority.
- xiii) The Bidder / Contractor signing IP shall not approach the courts while representing the matter to IEMs and he/she will await their decision in the matter.

5.2 The Authority will be entitled to take all or any of the actions mentioned at para 5.1 above.

5.3 (i) to (xii) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as



defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

- 5.4 That if the Bidder/Contractor applies to the Authority for premature revocation of the debarment and proves to the satisfaction of the Authority that he has installed a suitable and effective corruption prevention system and also restored/recouped the damage, if any, caused by him, the Authority may, if thinks fit, revoke the debarment prematurely considering the facts and circumstances of the case, and the documents/evidence adduced by the Bidder/Contractor for first time default.
- 5.5 That a transgression is considered to have occurred if the Authority is fully satisfied with the available documents and evidence submitted along with Independent External Monitor's recommendations/suggestions that no reasonable doubt is possible in the matter.
- 5.6 The decision of the Authority to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent External Monitor(s) appointed for the purpose of this Pact.

6. Allegations against Bidders/Contractors/ Sub-Contractors/ Associates:

That if the Authority receives any information of conduct of a Bidder/ Contractor or Sub-Contractor or of an employee or a representative or an associate of the Bidder, Contractor or Sub- Contractor which constitute corruption, or if the Authority has substantive suspicion in this regard, the Authority will inform the Vigilance Department for appropriate action.

7. Independent External Monitor(s),

- 7.1. That the Authority has appointed competent and credible Independent External Monitor(s) for this Pact.
- 7.2 The task of the Monitor(s) is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact. He will also enquire into any complaint alleging transgression of any provision of this Pact made by the Bidder, Contractor or Authority.
- 7.3. That the Monitor(s) is not subject to any instructions by the representatives of the parties and would perform his functions neutrally and independently. He will report to the Chairperson of the Board of the Authority.
- 7.4 That the Bidder / Contractor accepts that the Monitor(s) has the right to access without restriction to all project documentation of the Authority including that provided by the Bidder/Contractor. The Bidder/Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation including minutes of meeting. The same is applicable to Sub - Contractors and



- Associates. The Monitor is under obligation to treat the information and documents of the Authority and Bidder/ Contractor / Sub- Contractors/ Associates with confidentiality.
- 7.5. That as soon as the Monitor notices, or believes to notice, a violation of this Pact, he will so inform the management of the Authority and request the management to discontinue or heal the violation, or to take other relevant action. The Monitor(s) can in this regard submit his recommendations/ suggestions. Beyond this, the Monitor(s) has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 7.6. That the Authority will provide to the Monitor(s) sufficient information about all meetings among the parties related to the project provided such meetings could have an impact on the contractual relations between the Authority and the Contractor / Bidder. The parties offer to the Monitor(s) the option to participate in such meetings.
- 7.7. That the Monitor(s) will submit a written report to the Chairperson of the Board of the Authority within 2 weeks from the date of reference or intimation to him by the Authority and, should the occasion arise, submit proposals for correcting problematic situations.
- 7.8. That if the Monitor(s) has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti- Corruption Laws of India and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Department, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 7.9. The word 'Monitor' would include singular and plural.
- 8. Facilitation of Investigation.**
- In case of any allegation of violation of any provisions of this Pact or payment of commission, the Authority or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such Examination.
- 9. Law and Place of Jurisdiction.**
- That this Pact is subject to provisions under Indian Law. The place of performance and jurisdiction is the Corporate Headquarter /the Regional Headquarter / office of the Authority, as applicable.
- 10. Other Legal Actions**
- 10.1. That the changes and supplements as well as termination notice need to be made in writing.
- 10.2. That if the Bidder / Contractor are a partnership or a consortium, this Pact must be signed by all the partners and consortium members or their authorized representatives.



11. Pact duration (Validity)

- 11.1 That this Pact comes into force when both the parties have signed it. It expires for the Contractor 12 months after the final payment under the respective contract, and for all other Bidders 3 months after the contract is awarded.
- 11.2. That if any claim is made / lodged during this period, the same shall be binding and continue to be valid despite the lapse of this Pact as specified herein before, unless it is discharged/determined by Chairman of the Authority.
- 11.3 That should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

12. Company Code of Conduct

Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

13. The parties hereby sign this Integrity Pact at _____ on _____

Buyer

Name of the Officer
Designation
Deptt./Ministry/PSU
Witness

1. _____

2. _____

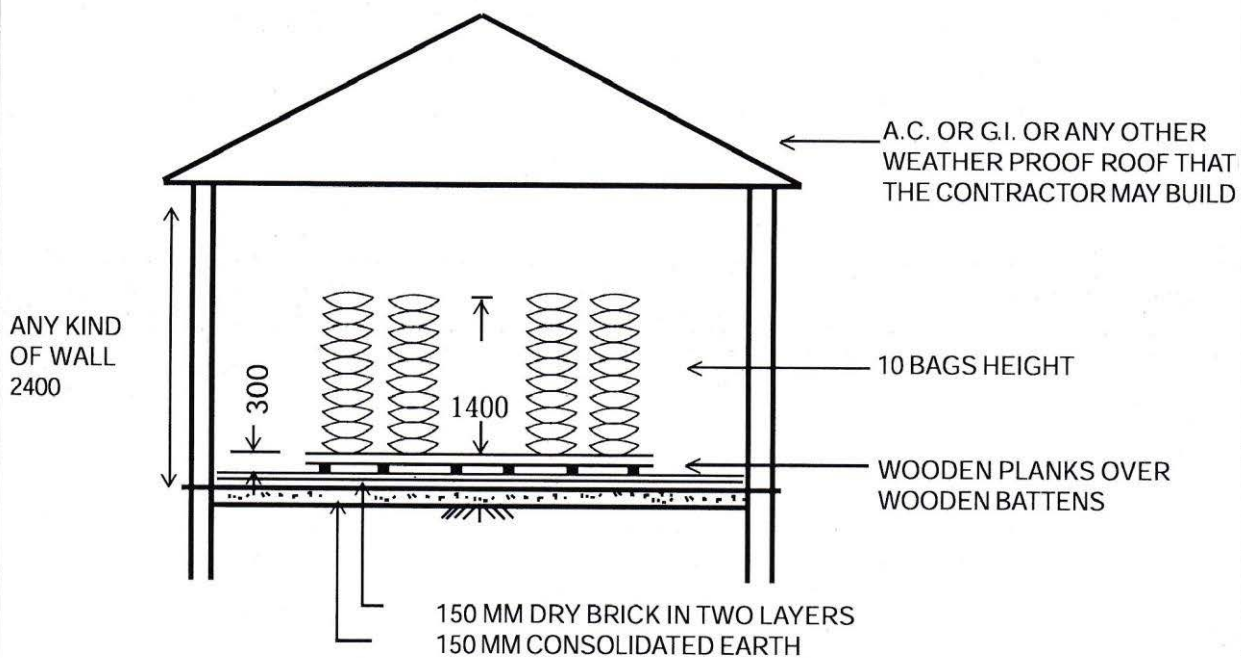
Bidder

CHIEF EXECUTIVE OFFICER
Witness

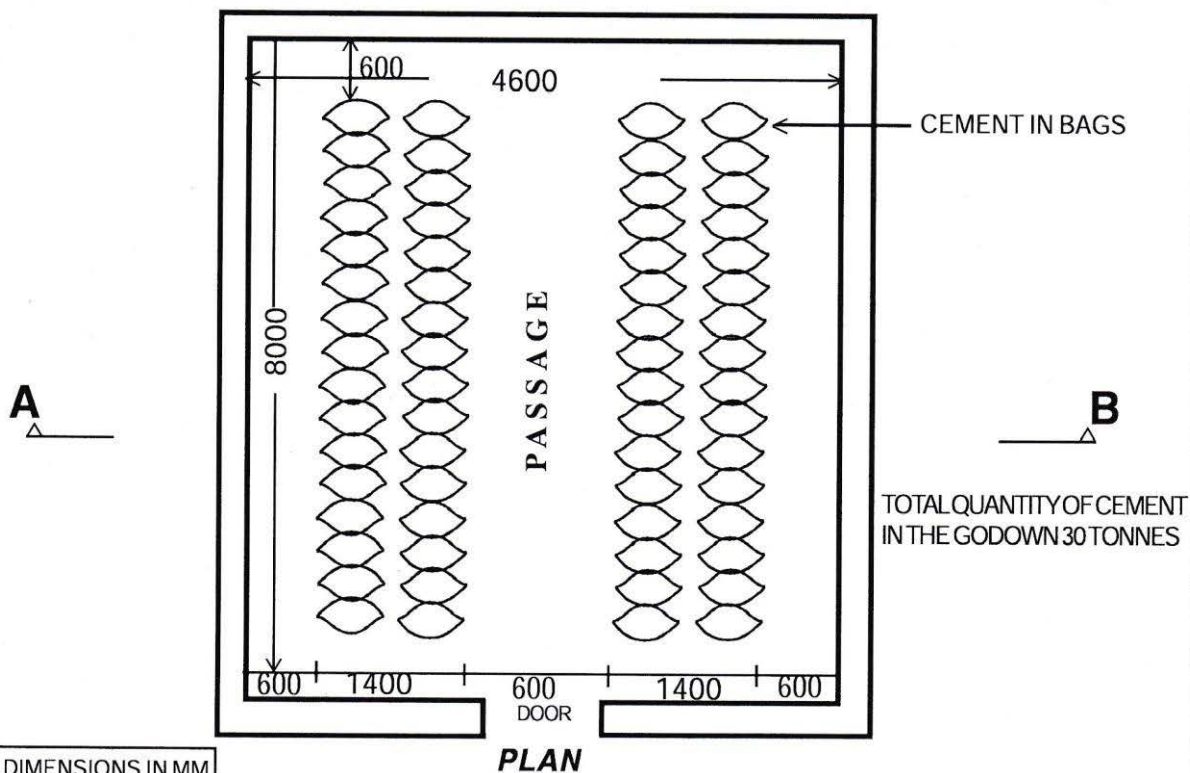
1. _____

3. _____

सीमेन्ट गोदाम का रेखाचित्र / SKETCH OF CEMENT GODOWN



SECTION AB



Annexure to clause 34 (x) showing quantities of materials for areas of surfacing to be considered for working out minimum period for which hire charges of road roller are to be recovered.

Sl. No.	Material of surfacing	Quantity or areas
1.	Consolidation of earth sub-grade	1860 Sqm
2.	Consolidation of stones soling 15 cm to 22.5 cm thick	170 Cum
3.	Consolidation of brick soling 10 cm to 20 cm thick	230 Cum
4.	Consolidation of wearing coat of stone ballast 7.5 cm to 11.5 cm thick	30 Cum
5.	Consolidation of wearing coat of brick ballast 10 cm thick	60 Cum
6.	Spreading and consolidation of red bajri 6mm	1860 Sqm
7.	Painting one coat using stone aggregate 12.5mm nominal size	
	(a) @ 1.65 m ³ per 100 m ² and paving bitumen A-90 or S-90 @ 2.25 Kg per m ² or	
	(b) @ 1.50 m ³ per 100 m ² and bitumen emulsion or Road tar @2.25 Kg per m ²	930 Sqm
8.	Painting two coats using	
	(a) For first coat, stone aggregate 12.5 mm nominal size	
	(i) @ 1.50 m ³ per 100 m ² and paving bitumen A-90 or S-90@2 Kg per m ² or	
	(ii) @ 1.35 m ³ per 100 m ² and bitumen emulsion @2 Kg per m ² 600 Sqm. Or	
	(iii) @ 1.25 m ³ per 100 m ² with road tar @2.25 Kg per m ²	600 Sqm
	(b) For 2nd Coat, stone aggregate 10 mm nominal size 0.9 Cum. per 100Sq.m with	
	(i) 1kg of paving bitumen A-90 or S-90 or bitumen emulsion per Sqm. Or	
	(ii) 1.25 Kg. of road tar, per Sq.m. 600 Sqm.	600Sqm
9.	Re-painting with stone aggregate 10 mm nominal size 0.9 Cum. per 100 Sqm. With	
	(i) 1kg of paving bitumen A-90 or S-90 per Sqm. ;k or	
	(ii)1.25 kg of bitumen emulsion per Sqm. 1670 Sqm.	1670 Sqm
10.	2 cm premix carpet surfacing using 2.4 m ³ of stone aggregate 10 mm nominal size per 100 m ² and binder including tack coat, the binder being hot cut back bitumen or bitumen emulsion in specified quantities.	930 Sqm
11.	2.5 cm premix carpet surfacing using 3 m ³ of stone aggregate 10 mm nominal size per 100 m ² and binder including tack coat, the binder being hot cut back bitumen or bitumen emulsion in specified quantities.	930 Sqm
12.	4 cm thick bitumen concrete surfacing using stone aggregate 3.8 Cum. (60%20mm nominal size and 40% 12.5 mm nominal size) per 100m ² and coarse sand 1.9 Cum. per 100m ² and hot cut back bitumen over a tack coat of hot cut back bitumen.	460 Sqm

13.	5 cm thick bitumen concrete surfacing using stone aggregate 4.8 Cum. (60%25 mm nominal size and 40% 20 mm nominal size) per 100m ² and coarse sand 2.4 Cum. per 100m ² and hot cut back bitumen over a tack coat of hot cut back bitumen.	370 Sqm
14.	6 cm thick bitumen concrete surfacing using stone aggregate 5.8 Cum. (60%40 mm nominal size and 40% 25 mm nominal size) per 100m ² and coarse sand 2.9 Cum. per 100m ² and hot cut back bitumen over a tack coat of hot cut back bitumen.	280 Sqm
15.	7.5 cm thick bitumen concrete surfacing using stone aggregate 7.3 Cum. (60%50 mm nominal size and 40% 40 mm nominal size) per 100m ² and coarse sand 3.65 Cum. per 100m ² and hot cut back bitumen over a tack coat of hot cut back bitumen.	230 Sqm
16.	2.5 cm bitumenastic sheet using stone aggregate 1.65 Cum. (60% 12.5 mm nominal size 40% 10 mm nominal size) per 100 Sqm. and coarse sand 1.65 Cum. per 100 Sq.m. and hot cut back bitumen over a tack coat of hot cut back bitumen.	750 Sqm
17.	4 cm bitumenastic sheet , using stone aggregate 2.6 Cum. (60% 12.5 mm nominal size, 40% 10 mm nominal size) per 100 Sqm. and coarse sand 2.5 Cum. per 100 Sq.m. and hot cut back bitumen over a tack coat of hot cut back bitumen.	560 Sqm
18.	Laying full grouted surface using stone aggregate 40 mm nominal size 6.10 Cum. per 100 Sq.m. with binder, binding with 20 mm to 12.5 mm nominal size stone grit. 1.83 Cum. per 100 Sq.m. and seal coat of binder and stone grit 10 mm nominal size, 1.07Cum. per 100 Sqm., the binder being hot bitumen or tar as specified.	460 Sqm
19.	Laying full grouted surface using stone aggregate 50 mm nominal size 9.14 Cum. per 100 Sq.m. with binder, binding with stone grit 20 mm to 12.5 mm nominal size 1.83 Cum. per 100 Sq.m. and seal coat of binder and stone grit 10 mm nominal size, 1.07Cum. per 100 Sqm., the binder being hot bitumen or tar,	370 Sqm
20.	4cm. thick premix macadam surfacing using stone aggregate 25 mm nominal size 4.57 Cum. per 100 Sq.m. and hot bitumen binding with stone aggregate 12.5 mm nominal size 1.52 Cum. per 100 Sq.m. and seal coat of hot bitumen and stone aggregate 10 mm nominal size 1.07 Cum. per 100 Sqm.	560 Sqm
21.	5cm. thick premix macadam surfacing using stone aggregate 25 mm nominal size 6.10 Cum. per 100 Sq.m. and hot bitumen binding with stone aggregate 12.5 mm nominal size 1.52 Cum. per 100 Sqm. and seal coat of hot bitumen and stone aggregate 10 mm nominal size 1.07 Cum. per 100 Sqm.	460 Sqm

PROFORMA

(UNCONDITIONAL ACCEPTANCE LETTER OF AAI'S TENDER CONDITIONS TO BE UPLOADED IN ENVELOPE-I)
(Refer Clause 25 of Guidance to tenderer)

To
Asstt. General Manager (Engg-Civil),
Airports Authority of India
Prayagraj Airport, Prayagraj

Date: _____

Sub: Expansion of Apron and associated works at Prayagraj Airport (Recall).

Sir,

1. The tender documents for the work "**Expansion of Apron and associated works at Prayagraj Airport (Recall)**" have been sold to me/us by Airports Authority of India and I/we hereby certify that I/we have inspected the site and read the entire terms and conditions of the tender documents made available to me/us in the office of **Asst. General Manager (Engg.-C), AAI, Prayagraj Airport, Prayagraj** which shall form part of the contract agreement and I/We shall abide by the conditions/clauses contained therein.
2. I/We hereby unconditionally accepts the tender conditions of AAI's tender documents in its entirety for the above work.
3. The contents of **Clause 25** of Guidance to Tenderer of the Tender Documents have been noted wherein it is clarified that after unconditionally accepting the tender conditions in its entirety, it is not permissible to upload any additional file or put any remark(s)/conditions(s) (except unconditional rebate on quoted rates if any) in/ along with the Tender Document and the same has been followed in the present case. In case, this provisions of the tender if found violated after opening of tender, I/We agree that the tender shall be rejected and AAI shall without prejudice to any other right or remedy be at liberty to forfeit the full said earnest money absolutely.
4. 'That, I/We declare that I/We have not paid and will not pay any bribe to any officer of AAI for awarding this contract at any stage during its execution or at the time of payment of bills, and further if any officer of AAI asks for bribe/gratification, I will immediately report it to the Appropriate Authority in AAI'.
5. I/We, hereby give undertaking that in case the registration/performance/Completion certificate No..... dt. issued by Is found to be forged/false at any stage, I/We may be debarred from AAI for taking participation in all future AAI works & any other suitable action may be taken against my/our company/firmed as deemed fit by AAI.
6. The required earnest money for this work is enclosed herewith/submitted.

Yours faithfully,

(Signature of the tenderer)

Undertaking Regarding Blacklisting / Debarment

(To be submitted by bidder on company's letter head - in Envelope-I)

I/we _____ (name and post of authorized signatory) on behalf of _____ (name of firm) do hereby solemnly affirm and declare as follows:

- (i) Our firm is not restrained/ debarred/ blacklisted by AAI or central/State Govt. Depts./PSUs/World Bank/ADB etc. and the debarment is not in force as on last date of submission of proposal.
- (ii) None of Proprietor/ Partners/Board Members/Directors of M/s _____ (Name of firm) has remained proprietor/Partner/Board Member/Director in any firm which stands debarred/Blacklisted by AAI or Central /State Govt. Depts./PSUs/World Bank/ADB etc. and the debarment is not in force as on last date of submission of proposal.
- (iii) Our firm understands that at any stage, if above statements are found to be false, our firm shall be liable for debarment from bidding in AAI, apart from any other appropriate contractual legal action including debarment/blacklisting, termination of the contract etc. as deemed fit.

Date:

[Signature and name of the authorized signatory of the firm]

Place:

Note: above undertaking is to be given on company's letter head.

WORK DIARY**PART - A**

1. Name of Work.....
2. Contract Agreement No
3. Date of Acceptance
4. Name and Registered address of Contractor.....
5. Contract Sum and /or percentage on Schedule of Rate.....
6. Period of Contract.....
7. Name and local address of Contractor/ Contractor's Agent
8. Date of First Works order.....
9. Date of handing over the site to contractor
10. Date of Commencement of work
11. Stipulated date of completion of Contract.....
12. Suspension orders showing duration and authority.....
13. Extended date of completion with authority
14. Date of actual completion of work
15. Date of work taken over.....
16. Date of expiry of Maintenance Period

WORK DIARY

PART – B

DAILY RECORD

1. Weather

2. Labour engaged by Contractor

Skilled						Unskilled	
Category	No	Category	No	Category	No	Category	No
Concreter		Paviour		Glazier		Mate	
Bricklayer		Tiller		Plumber		Bhisty	
Mason		Painter				Mazdur (man)	
Carpentar		Polisher				Mazdur	
Joiner						(women)	
						Mazdur (boy)	

3. Important materials brought on site with approximate quantities (rejection, if any, to be stated).

Schedule 'B' materials		Contractor's materials		Rejections	
Materials	Quantity	Materials	Quantity	Materials	Quantity

4. Details of plant, equipment and transport and transport working on site.

	T & P Hired under Schedule 'C'		Contractor's T&P equipment & transport	
T & P	Quantity	Remarks regarding breakdown maintenance etc	Quantity	Remarks regarding breakdown maintenance etc
Road Roller Concrete. Mixer Tar Roller Transport				

5. Brief particulars of work in progress

6. Important stages completed and passed

7. Remarks of Visiting Officer

Dated signature of Engineer-in-charge
or representative

Date of signature of contractor
or his authorized agent

BG Verification through SFMS

Request letter: Transmission of Bank Guarantee Cover Message to be submitted by applicant to BG issuing Bank

Date: _____

The Manager,
(Bank)
(Branch)

Sub: Inclusion of unique identifier code of AAI while transmitting BG cover messages where beneficiary Bank is ICICI Bank (IFSC-ICIC0000007).

Dear Sir/Ma'am,

I We, _____, request you to include unique identifier **AAICATC** in field 7037 of the SFMS cover messages IFN COV 760 (for BG issuance) and IFN COV767 (for BG amendment) while transmitting the same to the beneficiary bank (ICICI Bank- IFSC-ICIC0000007).

Thanking You,

Vendor/Customer/Concessionaire)

Annexure - V

UNDERTAKING

(To be submitted on contractor's letter head - in Envelope-I)

I/We deploy sufficient plant and machineries as per the requirement of work in consultation with Engineer – in – Charge (EIC) to achieve the milestones / targets and overall completion within the time period.

Signature of Director/Proprietor of the company/firm

Date:

Place:

Annexure - VI**CERTIFICATE OF NET WORTH FROM CHARTERED ACCOUNTANT****(To be submitted in Envelope-I)**

“ It is to certify that as per the audited balance sheet and profit & lost account during the financial year _____, the net worth of M/s _____ (Name & Registered Address of Individual / Firm/ Company), as on _____ (the relevant date) is Rs. _____ after considering all liabilities. It is further certified that the Net Worth of the Company has not eroded by more than 30% in the last three years ending on 31.03.2021”.

Signature of Chartered Accountant -----

Name of Chartered Accountant -----

Membership No. of ICAI -----

Date and Seal -----

ANNEXURE -VII

PERFORMA FOR DETAILS OF ACCOUNT FOR E-PAYMENT

Date:

To
ASSTT. GEN. MANAGER (ENGG-CIVIL)
AIRPORTS AUTHORITY OF INDIA
Prayagraj Airport, Prayagraj

Subject: Request for E-Payment

Sir,
The following particulars are given below for effecting E-Payment in respect of our Claim/Bill.

- i) Name of the Company :
- ii) Address :
- iii) Bank A/c No. :
- iv) Bank/Branch Name &Address :
- v) Branch Code :
- vi) IFSC Code of the Bank :
- vii) Permanent A/c No. of the Company :

We also enclosed herewith a Cheque duly cancelled of our above Bank A/c.

Thanking you,

Yours faithfully,

()
Authorized Signatory

ANNEXURE-VIII

**UNDERTAKING OF AGENCY/ FIRMS ON LETTER
HEAD**

- a. That the bidder is registered under GST and compliant of GST provision.
- b. In case of non-compliance of GST provisions and blockage of any input credit, the bidder shall be responsible to indemnify AAI.
- c. That all input credits have been passed onto AAI by the bidder.

Place:

Date:

Signature

Authorized Signatory of the contractor/Firm

ANNEXURE-IX

AFFIDAVIT (For payment of minimum wages)

I.....(Name)aged.....years,.....
.....S/O.....(Name), Proprietor/ Managing Partner/ Managing
Director of..... (Name of the Agency) do hereby solemnly
affirm and state as follows:

I am competent to swear this affidavit on behalf of(Name of
agency) I state that, in the event of work **“Expansion of Apron and associated works
at Prayagraj Airport (Recall)”** is awarded to our agency, the wages to be paid to the
workers engaged shall not be less than the minimum wages determined by
appropriate Govt. Authority from time to time.

Dated this, the day of month year.

Place:

DEPONENT

Date:

Note: -

1. The above Affidavit duly signed has to be submitted on letter head along with tender in Envelope I.
2. The original Affidavit should be submitted in O/o AGM (E-C), AAI, by L1 bidder only.

The original affidavit is to be attested by a First class Magistrate / Notary Public on non - judicial stamp paper of Rs.100/-

SCHEDULES

SCHEDULE 'A'

All rates shall be quoted in the format provided and no other format is acceptable. The sample price bid has been given as a standard BOQ format at page no. **252 to 256** with the tender document and separate price bid in XL format is uploaded in CPP Portal which is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the File name. if the BOQ file is found to be modified by the bidder, the bid will be rejected and EMD shall be forfeited.

SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

Sl. No.	Description of Item	Quantity	Rates in figures & words at which the material will be changed to the Contractor	Place of Issue
1	2	3	4	5
Material shall not be issued to the contractor.				

SCHEDULE 'C'

Tools and plants to be hired to the contractor.

Sl.No.	Description	Hire charges per day	Place of Issue
1	2	3	4
T & P shall not be issued to the contractor.			

SCHEDULE 'D'

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

SCHEDULE 'E'

Reference to General Condition of contract

Name of work	:	“Expansion of Apron and associated works at Prayagraj Airport (Recall)”
Estimated cost of work	:	Rs. 505.37 Lacs
i. Earnest Money deposit	:	Rs. 10,10,740/-
ii. Performance Guarantee	:	3% of contract value
iii. Security deposit	:	5% of contract value

SCHEDULE 'F'

GENERAL RULES & DIRECTION

Definitions:

Office inviting tender	:	O/o DGM (Engg.)-Prayagraj Airport
2(v) Engineer-in-Charge	:	Deputy General Manager (Engg-Civil)
2(viii) Accepting Authority	:	As Per Delegation of powers - AAI
2(x) Percentage on cost of materials & Labour to cover all overheads & Profits	:	15%
2(xi) Standard schedule of rates	:	DSR 2018 and MoRTH with up to date correction slips as on last date of submission of tenders.
2(xii) Department	:	AAI, Civil Engineering Unit
Clause 1	:	3% of tendered amount
Clause 1 A	:	5% of tendered amount

Clause 2

	Authority for fixing compensation under Clause 2	As per Delegation of Powers - AAI
--	--	-----------------------------------

Clause 2A

	Whether Clause 2A shall be applicable	No
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Clause 5

	Number of days from the date of issue of letter of acceptance for reckoning date of start	10 days
--	---	---------

Mile Stone(s) as per table given below:

Sl. No.	Description of Milestones (Physical)	Time allowed in days (from date of start)	
Please refer clauses 3 & 3.1 in Special condition of Contract			

Time allowed for execution of work. : **365 (Three Hundreds Sixty Five) Days (including 60 days monsoon period for 1 rainy season)**

Authority to decide :

- i. Extension of time : As per AAI Delegation of Powers
- ii. Rescheduling of milestone : Engineer-in-Charge
- iii. Shifting of date of start in case of delay in handing over of site : Engineer-in-Charge

Clause 6, 6A

Clause applicable – (6 or 6A) : Provisions of Clause 6A shall be applicable.

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.	Rs. 50.00 Lacs
---	-----------------------

Clause 10A

Testing equipment to be provided by the contractor at site lab

As per clause 6 of special condition of contract, Appendix B in particular specification for Civil works and requirement of Representative of Engineer-in-Charge for conducting test as per CPWD and AAI specifications as applicable.

Clause 10 B(II)

Whether Clause 10B(II) shall be Applicable	Yes
--	-----

Clause 10C : **Applicable**
Component of labour expressed as percent of value of work : **5%**

Clause 10 CA

Materials covered under this clause	Nearest Material (other than cement*, reinforcement bars, structural steel & Bitumen) for which All India Wholesale Price index is to be followed	Base price and its corresponding period of all the materials covered under clause 10CA
Cement		Base price for cement, structural steel and reinforcement steel to be determined as issued under authority of DG (Works), CPWD or concerned Zonal Chief Engineer, CPWD as on last date of receipt of tender. In case base price for cement, reinforcement steel and Structural steel as to be issued by CPWD is not available, concerned ED (Engg) empowered to determine the same.
Structural Steel		

Clause 10 CC

Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	Provisions Not Applicable
--	----------------------------------

Clause 11

Specification to be followed for execution of work	a) "CPWD Specification 2009, Vol. I to II with up to date correction slips, MORTH, AAI or other specification as applicable. b) Technical specification. c) Manufacturer's Specification.
--	---

Clause 12

12.2 & 12.3	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for building work above plinth level or 1.2 Mtrs. Above ground level	30%
12.5	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for foundation work	100%

Clause 16

	Competent Authority for deciding reduced rates	As per Delegation of Powers - AAI
--	--	-----------------------------------

Clause 18

Mandatory machinery, tools & plants to be deployed by the contractor at site

: As per clause 4 of special condition of contract and requirement of Engineer-in-Charge.

Clause 25
Place of Arbitration
: Prayagraj (Uttar Pradesh)
Clause 36(1)
Requirement of Technical Representative(s) and recovery rate

Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36 (In figures & Words)	
1.	Degree	Engg - Civil	Site Supervisor	-	02	Rs. 1500/- per day	Rs. One Thousand Five Hundred Per day
2.	Diploma	Engg - Civil	Lab In-charge	-	01	Rs. 1000/- per day	Rs. One Thousand Per day

- Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.
- Diploma holder with minimum 10 year relevant experience with a reputed construction company can be treated at par with Graduate Engineer for the purpose of such deployment subject to the condition that such diploma holder should not exceed 50% of requirement of degree engineers

Clause 37
License Fee for paved, unpaved land and store : As per provisions in clause 12 and its sub clauses in Special Condition of Contract
Clause 41(b)
Integrity Pact applicable : applicable
Clause 42

(i)	Schedule / statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	DSR 2018 printed by C.P.W.D with up- to-date correction slips till last date of submission of tender, technical specifications & BOQ.
(ii)	Variations permissible on theoretical quantities	
a.	Cement for works with estimated cost put to tender not more than Rs.5 Lacs.	3% plus/minus
	For works with estimated cost put to tender more than Rs.5 Lacs	2% plus/minus
b.	Steel Reinforcement and structural steel section for each diameter, section and category	2% plus/minus
c.	Bitumen	2.5% plus only & NIL on minus side
d.	All other materials	

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No.	Description of items	Rates in figures and words at which recovery shall be made from the contractor	
		Excess beyond permissible Variation	Less use beyond the permissible variation*
1.	Cement	Prevailing market rates i/c taxes + 2% handling charges	
4.	Bitumen		

* Provided work is considered technically sound. Otherwise work has to be re-executed as per direction of Engineer-in-charge

Clause 48

Escrow Account: Not applicable.

SPECIAL CONDITIONS OF CONTRACT

1. General

- 1.1 Special conditions of Contract shall be read in conjunction with General Conditions of Contract, Technical Specifications, Drawings and any other documents forming part of this contract wherever the context so requires.
- 1.2 Notwithstanding the sub-division of the documents into these separate sections and volume every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the CONTRACT so far as it may be practicable to do so.
- 1.3 Where any portion of the General Condition of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, unless a different intention appears, the provisions of the Special Conditions of Contract shall be deemed to over-ride the provisions of the General Conditions of Contract and shall to the extent of such repugnancy, or variations, prevail.
- 1.4 Nothing extra shall be payable on account of various activities to be performed as per special conditions of contract except where so specified.

2. SCOPE OF WORK

Work to be carried out as per the Schedule of Quantities/Structural details and design as approved by AAI and any other related works considered necessary. The brief detail of scope of work is as below:

- a) Construction of Apron and shoulder of rigid pavement as per enclosed plan & cross section in plate no. 1 and 2 respectively.
- b) Construction of drain
- c) Apron marking and Electrical works as per SOQ- Schedule –A

3. COMPLETION SCHEDULE

The clause should be read in conjunction with clause 5 of General Condition of Contract. The works shall be executed strictly as per time schedule mentioned in NIT.

- a) Contractor shall have to plan his construction program and activities so as to complete the work in the stipulated period by working in multiple shifts.
- b) The period of completion given includes the time required for mobilization as well as testing, rectifications, if any, re-testing and completion in all respects to the entire satisfaction of Engineer-in-Charge.
- c) The contractor shall within 15 days of letter of award provide the BAR chart / CPM network chart to the Engineer-in-Charge, showing the mile stone and critical path for completion of work within the stipulated time and as per conditions of the contract. The program should clearly include date of mobilization of Manpower, Material and shall show the date of deployment of Machineries and equipment in working condition under provision of clause 4 of special condition of contract required to carry out the work including any other resources proposed to be deployed for achieving the targeted progress, justification for same based on

machinery output etc. complete. The program shall be subject to the approval of engineer-in-Charge who may order changes in the program. The decision of Engineer-in-Charge shall be final and binding in this regard. In addition to above the contractor shall be liable to establish the site laboratory with all apparatus, T&P etc. as per provisions mentioned in clause 6 of special condition of contract. Failing to provide the requisite resources at site penalty shall be levied as mentioned in the respective clauses.

- d) Contractor is expected to mobilize and deploy sufficient resources as per the agreed program to achieve the progress within the broad frame work of accepted methods of working and safety. Timely deployment of required machineries, equipment's, apparatus and instruments are to be treated as one of the sections of the work.
- e) No additional payment shall be made to the contractor for any multiple shift of working or any other methods contemplated by him in his work schedule even though the time schedule is approved by the Engineer-in-Charge.
- f) During the currency of the work the contractor is expected to adhere to the time schedule on mile stone and total completion and this adherence will be a part of Contractor's performance under the contract.
- g) Contractor shall give everyday report on category wise labor and equipment deployed along with the progress of work done on previous day in Performa as per Annexure- III.
- h) The contractor shall also submit a monthly progress report in 02 copies of the activities with reference to the approved Milestone chart by 7th of every month. Based on the evaluation by the Engineer-in-Charge and / or his representative of the progress reports submitted, the contractor shall take necessary corrective measures to adhere to the program, to achieve the required progress and timely completion. In case the contractor fails to take corrective measures, he shall make himself liable for action under GCC clause 2 and /or clause 3 of the contract.
- i) The Engineer-in-charge can hold the payment till such time, Contractor does not submit Milestone chart, etc. The Contractor will be fully responsible to submit Milestone chart in consultation with Engineer-in-charge.

3.1 FOR MONITORING OF PROJECT

- a) The progress will be reviewed monthly with respect to the BAR chart submitted by agency. Two copies of proposed BAR chart showing activities completed and backlog if any, should be submitted to the Engineer-in-Charge on monthly basis. The revised BAR chart with additional manpower/machinery/ labour deployment scheduled should also be submitted in case regular backlog is observed and revised programme is essential to complete the work within stipulated period and maintain timelines for individual activities.
- b) The approval to the revised schedule resulting in a completion date beyond the stipulated date of completion shall not automatically amount to grant of extension of time to the Contractor.
- c) The extension of time (E.O.T.) shall be applied by the contractor and processed by the Engineer-in-charge and submitted to competent authority for sanction.

- d) Compensation for delay against GCC clause for unjustified period of delay in completion of work shall be worked out on the basis of AAI guidelines / T.I. in vogue for working out the direct losses to be recovered towards compensation for delay.
- e) Failure to submit the monthly progress report by contractor as per clause 3 (h) above shall render agency liable to pay a penalty @ Rs. 5,000/- for each such occurrence.

4. CONSTRUCTION EQUIPMENT

- 4.1 The contractor shall without prejudice to his overall responsibility to execute and complete the work as per specifications and time schedule, progressively deploy adequate equipment, tools, tackles and augment the same as decided by the Engineer-in-Charge depending on the exigencies of the work so as to suit the construction schedule. However, contractor has to deploy following minimum machineries as given below:

Sr. No.	Name of Equipment	Nos.
1	WMM Plant of adequate capacity	1
2	Computerized ready Mix Cement Concrete Batch Mix Plant of capacity 30 Cum / Hr or more.	1
3	Slip form paver or fixed form paver with 300 rmt of PQC shuttering for laying of PQC	1
4	Sensor Paver for WMM and DRLC	1
5	Vibratory roller or static roller of 8-10 tonnes capacity	1
6	Tippers /Dumpers	3
7	Grader	1

The Engineer-in-charge and the contractor shall agree upon a time and progress chart as per clause 2 of special condition of contract. Deployment of machineries and equipment as listed above in this para are to be treated as one of the sections of the work. In case of the delay in deployment of plant, machineries and equipment beyond the period stipulated as per agreed time and progress chart, penalty at the rates mentioned as follows shall be levied :

S. No.	Name of Equipment/ Machinery	Rate of Penalty per day
1	WMM Plant of adequate capacity	Rs. 3000/-
2	Computerized ready Mix Cement Concrete Batch Mix Plant of capacity 30 Cum / Hr or more	Rs. 5000/-
3	Slip form paver or fixed form paver with 300 rmt of PQC shuttering	Rs. 3000/-
4	Vibratory Roller or Static Roller	Rs. 3000/-
5	Tippers or Dumpers	Rs. 1000/- for each tipper
6	Sensor Paver for WMM and DLRC.	Rs. 2000/-
7	Grader	Rs. 2000/-

In case the agency installs the computerized ready mix cement concrete batch mix plant in place of WMM plant as per agreed time line and produce the WMM material from it as per agreed time line in time and progress chart for execution of WMM, the penalty for WMM Plant shall not be applicable.

4.2 EQUIPMENTS FOR NIGHT WORKING:

In case, it appears, at any stage that the project may not be completed within the stipulated period due to restricted working hours in the day, in view of Airport operations, the contractor shall execute the work during the night as and when asked by the Engineer-in-Charge in writing. Nothing extra shall be payable to contractor for working in night time. For proper execution, the work site shall be properly illuminated and the arrangement shall be made by the contractor at his own expenses.

4.3 No Construction equipment shall be supplied by the AAI.

5. SITE ORGANISATION

Subject to the provisions in the tender document and without prejudice to contractors' liabilities and responsibilities to provide adequate qualified and skilled personnel on the work. Contractor shall deploy site organization and augment the same as decided by the Engineer-in-Charge depending on the exigencies of work. No engineering personnel deployed at site shall be removed from the site without prior approval of the Engineer-in-charge.

6. FIELD LABORATORY AND LIST OF EQUIPMENTS:

The contractor at his own cost shall set up a fully furnished and adequately equipped field laboratory at site within 45 days from the schedule date of start of work or as per the work requirement and maintain the same by providing adequate technical and upkeep staff. The laboratory should have office space for engineers to do testing and store for storage of samples. The remaining space shall be provided for the installation of equipment, laboratory tables and cupboards, working space for carrying out tests, besides a wash basin, toilet facility. All the construction equipment used shall be in good conditions & shall have fitness certificate issued by appropriate authority/manufacture. The following minimum equipment shall be provided in the laboratory. In case of the delay in providing the required test apparatus beyond the specified period of 45 days from the schedule date of start of work, penalty at the rates mentioned as follows shall be levied :

S. No.	DESCRIPTION OF ITEMS	Quantity	Rate of Penalty per day in case of default
i	Electronic balance 20 kg capacity 10 gms sensitivity.	2 No.	Rs. 100/-
ii	Electronic Balance 5 kg capacity 0.5 gms sensitivity.	1 No.	Rs. 100/-
iii	electric hot plate / Kerosene or gas stove	1 No.	Rs. 100/-
iv	Set of IS sieves with lid and pan with mechanical shaking arrangement	1 Set	Rs. 100/-
a	450 mm diameter : All size sieves required for grading of Coarse aggregates.	1 Set	Rs. 100/-
b	200mm diameter: 2.36mm, 2.0mm, 1.18mm, 600 micron, 450 micron, 300 micron, 150 micron and 75 micron and any other sieve required at site.	1 Set	Rs. 100/-
v	First Aid Box	1 Set	Rs. 100/-
vi	Aggregate impact value test apparatus	1 Set	Rs. 500/-
vii	Los angles Abrasion test apparatus	1 Set	Rs. 500/-
viii	Flakiness and Elongation Test Gauges	1 No.	Rs. 100/-

ix	Standard measure of 5, 2 and 1 liters capacity along with standard tamping rod.	2 Each	Rs. 100/-
x	Leveling Instrument with staff	2 Sets	Rs. 500/-
xi	Steel Tapes 30 meters, 15 meters and 5 meters	2 Nos Each	Rs. 100/-
xii	Total station	As per requirement	Rs. 1000/- for each default.
xiii	Flexural beam testing machine upto 100 KN.	1 No.	Rs. 500/-
xiv	Flexural moulds	9 Sets	Rs. 100/-
xv	Cube testing machine upto 2000 KN	1 Nos.	Rs. 500/-
xvi	Cube moulds	8 sets	Rs. 100/-
xvii	Surface accuracy test (texture test).	2 Sets	Rs. 100/-
xviii	Slump cone with tamping rod	2 Nos	Rs. 100/-
xix	Screw gauge	1 Nos	Rs. 100/-
xx	Wire brush	Adequate	Rs. 20/-
xxi	Pycnometer	2 Set	Rs. 100/-
xxii	7.1 cms cubes moulds for cement test	6 moulds	Rs. 100/-
xxiii	Specific gravity of coarse and fine aggregate	3 Set	Rs. 100/-
xxiv	3 m straight edge test with wedge scale.	1 No.	Rs. 100/-
xxv	Field density test apparatus of 150 mm and 200 mm dia with compaction rammer, tray and other required T&P for test.	1 set each	Rs. 200/-
xxvi	Graded Silica sand for field density test minimum quantity to be at site all time	25 Kgs each grade	Rs. 100/-
xxvii	Micro Oven, capacity 35 liters, control temperature Up to 200 °c	1 no.	Rs. 200/-
xxviii	Field moisture content test apparatus with chemical	1 No.	Rs. 100/-

In addition to tools, equipment, apparatus and instruments as described above, if any, additional tool equipment apparatus and instrument is required for laboratory and execution of work as per technical specification of NIT the same shall be provided by contractor. Nothing extra shall be payable to contractor on this account.

The Engineer-in-Charge may at his discretion, check the test results obtained at contractors laboratory by independent tests at an approved laboratory. The cost of such material, transport, cost of testing etc. shall be borne by the contractor.

7. DRAWINGS AND DOCUMENTS

The drawings accompanying the tender document are of indicative nature and issued for tendering purpose with the purpose to enable the tenderer to make an offer in line with the requirements of the AAI.

However, no extra claim whatsoever shall be entertained for variation in the “Approved for Construction” and “Tender drawing” regarding any changes. The execution of work shall be as per approved drawings and detailed specifications.

Tender drawing, in addition to preliminary drawings, are available for reference at office of DGM (Engg.-Civil), AAI, Prayagraj Airport, Prayagraj. The Tender shall sign each reference tender drawing on such inspection. However these drawings are purely indicate the scope of work and working and detailed drawings shall be released during the course of construction in a phased manner.

8. SCHEDULE OF QUANTITIES

The Schedule of Quantities shall be read in conjunction with General Conditions of Contract, Special Conditions of Contract, Technical Specifications, Drawings and any other Document forming a part of this tender. The quantities shown against the various items are only approximate and subject to variations as made in General Conditions of the Contract.

9. ROYALTY ON MATERIALS

Royalty at the prevalent rates wherever payable, shall have to be paid by the Contractor on the boulders, metal, shingle, sand, good earth, bajri etc. or any other materials collected by him for the work direct to the revenue authority of the District/States Government concerned.

10. TEMPORARY WORKS

The Tenderer should see the approaches and conditions of the site. If any approach from main road is required at site or existing approach is to be made and maintained for cartage of materials etc. by the Contractor, the same shall be provided, improved and maintained by the Contractor at his own cost.

The contractor shall segregate the site of work from operational area by providing 8 – 10 feet high necessary barricade of G.I. sheet fixed on wooden bellies or angle iron posts, if required and directed by the Engineer-in-charge. The sheets on operational area site shall be painted with red and white squares. After completion of the work these shall be removed and taken away by the contractor cost of providing the barricades/fencing shall be borne by the contractor.

All Temporary and ancillary works including enabling works connected with the work shall be responsibility of the Contractor and the price quoted by them shall be deemed to have included the cost of such works which shall be removed by the contractor at his cost, immediately after completion of the work.

11. Contract Agreement:

The Contract agreement shall be executed on a non-judicial Stamp paper of the value of Rs. 100/- and the cost of the Stamp paper shall be borne by the Contractor. Contractor's tender including the letters of clarifications between the contractor and the AAI prior to the award

of contract shall form a part of the Contract Agreement to the extent they have been accepted by AAI.

12. License Fee for land allotted by AAI

The contractor shall not be permitted to enter in (other than for inspection purpose) or take possession of the site until instructed to do so by the Engineer-in-Charge in writing. The portion of the site to be occupied by the contractor shall be defined and/or marked on the site plan, failing which these shall be indicated by the Engineer-in-Charge at site and the contractor shall on no account be allowed to extend his operations beyond these areas.

- 12.1** (a) The contractor shall arrange at his own expense all tools, plants, machinery and equipment required for the execution of the work. Rent of land to be used for offices, labour huts etc. by the contractor shall be charged as per AAI approved rates valid till 31.03.2022 **@ Rs. 204/- per sqm per annum for unpaved area** from the date of start of work or actual date of taking over of the land by the agency whichever is later. However, at any point of time during currency of contract if, Board AAI, issues the revised rent rates, the contractor shall be liable to pay the revised rates in place of rates mentioned above including arrears if any, becomes due on him from the date of application of revised rates finalized by AAI Board. In addition to above security deposit @ Rs. 500/- per sqm in cash /demand draft or in the form of bank guarantee shall be submitted by the Contractor. This security deposit shall be released only after ensuring that allotted land has been vacated and Officer -in- charge to certify this fact in the final bill. Land used for stacking of material to the extent available is, however, provided at free of cost, with the approval of Project/Airport In- charge.
- 12.2** That such use or occupation shall not confer any right of tenancy of the land to the contractor.
- 12.3** That the contractors shall be liable to vacate the land on demand by the Engineer-in-Charge.
- 12.4** That the contractor shall have no right to any construction over this land without the written permission of the Engineer-in-Charge. In case, he is allowed to construct any structure he shall have to demolish & clear the same before handing over the completed work unless agreed to the contrary.
- 12.5** The contractor shall provide, if necessary or if required on the Site, all temporary access thereto and shall alter, adapt and maintain the same as required from time to time and shall take up and clear them away as and when no longer required and as and when ordered by the Engineer-in-Charge and make good all damage done to the Site.
- 12.6** No Labour camps will be permitted within the Airport Limits and the contractor shall make the necessary arrangements, at his own cost with prior approval of the Officer-in-Charge in sitting the camps. However, if Engineer-in-Charge permits the labour camps shall be allowed on chargeable basis on the conditions mentioned above.
- 13. Stationary for site office:**
All kind of registers and stationaries required for entering data and test results etc. as directed by the Engineer-in-charge shall be provided by the Contractor. No extra payment for these requirements shall be paid by AAI.

14. Stores:

In normal circumstances no stores will be issued by AAI for execution of any work. In case AAI issue any materials, cost of same shall be deducted as per rate of basic material available in market enhanced with 1% WC + 15% CP & OH + 1% Cess.

Necessary guard and storekeeper shall be arranged by the contractor at his own cost for watch and ward of handling of stores.

15. WATER

Contractor shall make his own arrangements of suitable water supply for the work and his staff and workmen at his own cost. The testing charges of water shall be borne by the contractor. Wherever AAI's source of water is used by the contractor, Charges @ 1% shall be charged from the Contractor.

16. Power Supply

Generally power required for the work shall not be given by AAI and same has to be arranged by the Contractor. In case AAI electricity source is available near the work site and electricity can be spared to the Contractor as per discretion of Engineer-in-charge, the Contractor may draw electricity from the AAI source through an electricity meter on unit charges specified by the AAI Prayagraj time to time.

Necessary meter and connection from the source as approved by Engineer-in-charge shall be arranged by the Contractor. No payment towards meter and connection arrangement shall be paid by AAI.

Wherever AAI electricity source is used by the Contractor, Charges will be recovered from the running/final bill of the work, based on the numbers of unit consumed and shown in electricity meter on the rates as fixed by AAI Prayagraj time to time.

17. Manpower

The Contractor shall deploy qualified full time supervisor (with mobile phone for receiving instruction) for the supervision of works which are to be carried out by the agency. For timely attendance of the complaint the contractor shall provide necessary carpenter, plumber, mason, sewer man, beldar etc. as and when required and directed by the representative of E-I-C.

18 INSPECTION OF SITE AND TESTING

- 18.1 The Engineer-in-Charge or his authorized representative shall have full power to inspect any portion of the work, examine the materials and workmanship at the contractor's works or at any other place from where the material is obtained. Acceptance of any material shall in no way relieve the contractor of his responsibility for meeting the requirement of the specifications.
- 18.2 Routine type tests for the various items of material shall be performed at the contractor's works and test certificates furnished. The contractor shall permit the Engineer-in-Charge or his authorized representative to be present during any of or all the tests. After notification to the Engineer-in-Charge that the work has been completed, the contractor shall make under the direction and in the presence of Engineer-in-Charge such tests and inspections as have been specified or as the Engineer-in-Charge shall consider necessary to determine whether or not the full extent of requirements of the plans and specifications have been fulfilled. In case the work does not meet the full extent of the specifications it shall be rectified by the Contractor at no extra cost and the contractor shall bear all the expenses for any further tests considered necessary.
- 18.3 All tools, instruments, plants and labour/operating personnel for the test shall be provided by the contractor at his own cost. The testing facilities should be sufficient to do various routine test of works and as approved by Engineer-in-Charge.
- 18.4 The Engineer-in-Charge may at his discretion, check the test results obtained at laboratory by independent tests at an approved laboratory. The cost of such material, transport, cost of testing etc. shall be borne by the contractor.

19. SITE FOR STACKING OF MATERIALS, MACHINES, INSTALLATIONS OF T&P AND CONSTRUCTION OF TEMPORARY HUTMENTS.

- 19.1 The contractor shall be allowed to install plants and machineries, store and stack the material and construct temporary hutments for labour during construction operation within Airport premises in non-operational area subject to availability. Location selected by Engineer-in-Charge shall be final and binding and nothing extra shall be payable to the contractor for any extra lead involved from the work site.
- 19.2 The contractor shall not be permitted to enter on (other than for inspection purpose) or take possession of the site until instructed to do so by the Engineer-in-charge or his authorised representative in writing. The portion of the site to be occupied by the contractor shall be defined and/or marked on the site plan, failing which these shall be indicated by the Engineer-in-charge or his authorised representative at site and the contractor shall on no account be allowed to extend his operations beyond these areas.

- 19.3 The contractor shall co-operate with any other agency working on the same project, compare plans, specifications and the time schedule and so arrange his work that there will be no interference. The contractor shall forward to the Engineer-in-charge all correspondence and drawings so exchanged, failure to check plans for conditions will render the contractor responsible for bearing the cost of any subsequent change found necessary, contractor should co-ordinate in such a way that on no account there should be any disturbance to the work.

20 Specifications:

The work shall be executed as per the Particular specifications, MoRTH and latest CPWD specifications along with up to date correction slips. For items not covered under Particular specifications, MoRTH and latest CPWD specifications, the decision of the Engineer-in-charge shall be final & binding.

21. Approved Materials:

The Contractor shall use materials of approved brand(s) mentioned in the list of approved make. Material(s) and brand(s) not covered in the said list, approval shall be obtained from the Engineer-in-charge for purchase of Equivalent ISI make. Equivalent ISI make shall only be purchased after approval of Engineer-in-Charge.

22. Quality Control:

The Engineer-in-charge or his authorized representative shall satisfy himself the brand name of approved make printed /posted / engraved on the materials before use. The purchase voucher and company's test certificate for each make to be used in the works shall be produced by the Contractor for verifications as and when directed by the representative of Engineer-in-charge. In case for small magnitude of work it is not feasible to obtain company's test certificate by the Contractor the Engineer-in-charge shall apply his judgment and discretion about the genuineness of material.

23. BYE-LAWS

The contractor shall comply with all bye-laws and regulations of local and statutory authorities having jurisdiction over the works and shall be responsible for payment of all fees and other charges and for giving and receiving of all necessary notices and keeping the Engineer-in-Charge, **informed** of the said compliance with the bye-laws, payments made, notices issued and received.

The contractor shall indemnify the AAI against all claims in respect of patent rights, design, trademarks of name or other protected rights in respect of any plant, machine, work or materials used for or in connection with the work or temporary works and from and against all claims, demands proceedings, cost, charges and expenses whatsoever in respect of or in relation thereto. The contractor shall defend all actions arising from such claims and shall himself pay all royalties license fees, damages, costs and charges of all and every sort that may be legally incurred in respect thereto.

24. ADMISSION TO SITE AND PRECAUTIONS WHILE WORKING

The airport belongs to AIRPORTS AUTHORITY OF INDIA. For the works falling within the restricted area, execution shall be restricted to non-operational hours. However the work in operational hours shall be allowed in portion of apron not affecting operations on discretion of engineer-in-Charge subject to proper barricades tin shed of 8 feet high as per design directed by Engineer-in-Charge. **This shall be the responsibility of contractor to depute the authentic persons on work having police verification. All men and vehicles shall be permitted to enter the aerodrome operational area only on possession of the security passes/tokens issued by Airport Director. The contractor shall apply in writing in advance of the commencement of work for issue of security passes and shall submit a list of personnel concerned along with requisite documents and their addresses and shall satisfy the Engineer-in-Charge who shall, at his discretion, have the right to recommend the issue of passes to control the admission of contractor, his agents, his staff and workmen. The contractor shall ensure that his men shall work in areas/zones allotted to them.** Passes shall be deposited with the Engineer-in-Charge on demand and in any case immediately after completion of work. The contractor's staff / workmen shall observe all the rules promulgated from time to time by the concerned authorities such as prohibition of smoking & lighting, search of persons on entry and exit, keeping to specified routes etc. Any person found violating the security rules laid down by the authorities will be expelled from the area without assigning any reason whatsoever and contractor shall have no claim on this account. In case normal working hours are reduced due to operational / security requirement etc. no extra payment shall be admissible to the Contractor. Nothing extra shall be payable by AAI on account of restricted working conditions and also for arrangement of photo, payment of fees, etc required for entering in operational area by men & machineries.

The contractor shall adhere on following while working in operational area :

- 24.1 The work in operational area shall be executed after taking notam for work in progress in basic strip of apron. The responsibility of obtaining notam from appropriate authorities shall be with AAI.
- 24.2 The area of execution shall be demarcated with visible strips and sign board for “**Caution - work in progress**”.
- 24.3 The workmen and supervisor shall be elaborated rules, regulations and path of movement for working in operational area. Regular review of the misconduct with norms, if any, shall be carried out for the reasons to improve further.
- 24.4 All material and machinery shall be brought at site under lead of “Follow Me” vehicle.
- 24.5 The height of material, machinery if any, required, to be stacked or installed it shall be kept away from the basic strip of apron to such a distance which fulfills permissible height requirement as per CAR.

- 24.6 The contractor shall provide reflective safety jackets and safety helmet, boots while workmen are on work & other safety equipment required specially for working at heights.
- 24.7 A qualified supervisor capable to handle walkie talkie shall be deputed by the contractor on site of work for close watch on each aircraft movement listening instructions of ATC / apron control and to implement them.
- 24.8 Adequate cleaning of worksite shall be carried out by the contractor while closing the day's work and register shall be maintained for handing over properly clean area around work site without any FOD.
- 24.9 On final completion of work the site shall be cleaned by the contractor from all dust, dirt and FOD. Machineries if any installed shall be taken away from the defined route. The site of work shall be handed over to the Engineer-in-Charge.
- 24.10 During movement of flight, the work shall be stopped and workmen shall be kept away from the basic strip of apron.
- 24.11 Prior to each aircraft movement, the surroundings of the site shall be checked by the supervisor of contractor on duty and FOD if any found shall be immediately cleaned.
- 24.12 Any materials or T & P etc. found lying outside the sites approved by the Engineer -in-Charge, shall be removed by the Engineer-in-Charge at the risk and cost of the contractor.
- 24.13 When the contractor's equipment or personnel requires to cross areas which area not close to aircraft operations, the contractor shall provide competent flagmen at locations designated by the Engineer-in-charge to relay signals from airport traffic control to personnel wishing to cross such areas.
- 24.14 Every transport vehicle shall carry a permit issued by the Airport Director of Airport/Aerodrome concerned and shall be produced on demand by him or his authorized agent. All vehicles entering the Airport limits shall follow the routes prescribed by the Airport Director of Airport for entering the airport areas and shall display red flags on top. No vehicle shall be allowed between sunset and sunrise, also during the day when visibility is 500 meter or less, within the airport limits where motor vehicle act does not apply.
- 24.15 With regard to construction safety measures, the contractor shall adhere to various Indian Standard Codes of Practice, requirements of Provincial Government and local Municipal Authority wherever the provisions of the latter two agencies shall be more stringent than the provisions of the former. When these codes do not exist, the contractor shall adhere to such safety measures as directed by the Engineer-in-Charge.
- 24.16 The contractor shall be responsible for any damage, resulting from his operations, either to buildings, structures, airport fixtures etc. The contractor shall restore, replace or repair any

such damage to the complete satisfaction of the Engineer-in-Charge and in default the Engineer-in-Charge may cause the same to be made good by any other means and deduct the expenses from any sums due to contractor.

- 24.17 No payment will be made to the contractor for damage caused by rains or other natural calamities during the execution of the work and no such claim on this account will be entertained.

The work shall be carried out in phases, if required, in such a way that there is least obstruction to the airport working. The phasing shall be decided by the Engineer-in-charge, who will be at liberty to change the phasing to suit the requirements. The contractor shall have to abide by these instructions and nothings extra shall be paid to him on this account.

25. Reduced Rate Payment:

All work shall be carried out strictly as per standard contract specification and the drawings applicable to the contract. Any work found below specification is liable to be rejected. However, if any work is below specification but is technically acceptable as per the discretion of the Officer-in-Charge, the same work will be considered for acceptance and shall be paid at a reduced rate at the sole discretion of the Officer-in-Charge, and his decision will be final in this respect and no claim of the Contractor shall be entertained in this regard at any stage. The decision of the Officer-in-Charge, regarding rejection or acceptance of substandard work and its reduced rate payable shall be beyond the purview of the Arbitration under Clause of this Contract.

26. Minimum Running Payment:

The amount of minimum interim bill against work done for payment to the agency shall not be less than **Rs. 50.00 Lacs.**

27. INCOME TAX, LABOUR CESS AND GST

- (a) Income tax deductions shall be made from all payments made to the contractor as per rules & regulations in force in accordance with the Income Tax Act prevailing from time to time.
- (b) Labour Cess shall be deducted as per rules and regulations in force.
- (c) Wherever required, the below mentioned provisions for GST shall be applicable in respect of contract awarded to the contractor and the contractor shall abide by these provisions:
 - (i) All tendered rates shall be inclusive of all taxes but excluding GST. The contractor shall generate GST invoice for each bill to be raised by him and shall submit the GST invoice along with the bill to be raised by him for the payment against work done. GST shall be reimbursed to the contractor on production of GST invoice for the bill of the work.
 - (ii) The contractor shall provide tax type and tax percentage in his bid.
 - (iii) In case of composite works the bidder shall identify separately with value of goods and services, tax rate, amount of tax so as to enable AAI to claim input tax credit on such items, if permitted under rules as per Government orders.
 - (iv) In case of change in rate of GST or any provision relating to levy of tax resulting in increase in burden of tax on the contractor, the contractor shall be entitled to receive any compensation for such increase in quantum of tax payable by the contractor. Similarly

recovery shall be made from the contractor on account of decrease of rate of tax or any provision relating to levy of tax.

- (v) The contractor is registered under GST and compliant of GST provisions.
- (vi) In case of non-compliance of GST provisions and blockage of any input credit, the contractor shall be responsible to indemnify AAI.
- (vii) All input credits have been passed on to AAI by the contractor, if rules / regulation permit.

28. INSURANCE OF WORK ETC.

Without limiting its obligations and responsibilities under **clause 30** of Special Condition of the Contract, the Contractor shall insure in the joint name of AAI and the contractor against all losses or damages from whatever cause arising (other than the excepted risks) for which he is responsible under the terms of the contract and in such manner that the AAI and the contractor are covered during the period of construction of works and also damage arising from a cause accruing prior to the commencement of the defect liability period any loss or damage occasioned by the contractor in the course of any operation carried out by them for the purpose of complying with its obligations of defect liability clause hereof.

(a) The work and temporary works to full value of such works executed from time to time.

(b) The construction equipment and other things brought on to the site by the contractor to the full value of such materials, construction plant and other things. Also the insurance policies for the workers and staff shall be taken.

29. DAMAGE TO PERSON AND PROPERTY

The contractor shall keep indemnified AAI against all loss and claims for injuries or damage to any person or any property what so ever, which may arise out of or in consequence of the construction and maintenance of the works by them and against all claims, demands, and proceedings of or in relation thereof.

30. THIRD PARTY INSURANCE

Before commencing the execution of the works the contractor (But without limiting his obligations and responsibilities) shall insure against any damage, loss or injury which may occur to any property (including that of the Employer) or to any person including employee of the employer by or arising out of the execution of the works or temporary works or in carrying out of the contract.

Such insurance shall be effected with any subsidiary of the General Insurance Company of India or by a company approved by the insurance Regulatory Authority of India and for at least the minimum amount of Rs. 1.00 Lakh with unlimited number of occurrences. Whenever required the contractor shall produce the AAI the policy or policies of Insurance and the receipt for payments of the premiums.

If the Contractor could not effect a comprehensive insurance cover against risks which he may be required to effect under the terms of this clause then he shall give his attention to get the best insurance cover available and even in case of effecting a wider insurance cover than the one which the subsidiary of the General Insurance Company or by a company approved by the Insurance Regulatory Authority of India could offer such an Insurance is

ought to be done after the AAI's approval, by or through the subsidiary of General Insurance Company.

31. DIFFERENCE BETWEEN FIRST LOWEST AND SECOND LOWEST BIDDER

The total amount of final bill worked out at the accepted tender rates, if found to be more than the amount worked out at the quoted rates of second lowest, the contractor shall be paid lower of the two.

32. SITE ORGANISATION

Without prejudice to contractors' liabilities and responsibilities to provide adequate qualified and skilled personnel on the work subject to the provisions in the tender document. Contractor shall deploy site organization and augment the same as decided by the Engineer-in-Charge depending on the exigencies of work. No engineering personnel deployed at site shall be removed from the site without prior approval of the Engineer-in-charge.

33. PERFORMANCE

The contractor shall perform all works in substantial and acceptable manner in accordance with the plans and specifications and in accordance with such further and explanatory drawings, details and instructions as may from time to time be given by the Engineer-in-Charge. The work must be progressed within such sections and at each time as directed by the Engineer-in-Charge.

The contractor shall provide and do everything necessary for the proper execution of the works according to the true intent and meaning of the drawing and specifications taken together whether the same may or may not be particularly shown on those drawings or described in the schedule of quantities, provided that the same can be reasonably inferred there from. Figured dimensions are to be followed in preference to scale dimensions and all dimension and particulars to be taken from the actual work.

It must be clearly understood that the whole of the conditions are intended to be strictly enforced and that no extra charges in respect of extra work will be allowed unless they are clearly outside the spirit and meaning of the conditions or unless such works shall have been ordered in writing by the Engineer-in-Charge.

34. BILL OF QUANTITIES

The bill of quantities shall be read in conjunction with General Conditions of Contract, special conditions of contract, technical specifications, Drawings and any other Document forming part of this tender. The quantities shown against the various items are only approximate and subject to variations as mentioned in General Conditions of the Contract.

35. STANDARD OF WORKMANSHIP

To determine the acceptable standard of workmanship, the contractor shall execute portion of the item of work as sample for approval of the Engineer-in-Charge, before taking up the actual execution of the particular item of work.

36. MATERIALS AT SITE

- (a) Materials brought to the site by the contractor shall be stored by the contractor in a safe/dry storage space. The contractor shall be responsible for safe custody of materials at site till such time the installation is commissioned and handed over to the Engineer-in-Charge.
- (b) Cement bags shall be stored in separate godown to be constructed by Contractor at his own cost as per sketch of CPWD specifications with weather proof roofs and walls. Each godown shall be provided with a single door with two locks, the keys of one lock shall remain with AAI Engineer-in-Charge of work and that of the other lock with the authorized agent of the contractor at the site of work so that the cement is removed from the godown according to the daily requirement with the knowledge of both the parties and the account maintained in the Performa approved by the Engineer --in-charge.
- (c) The contractor is required to submit the bill receipt for cement, lime, paint, chemical (in liquid, solid & gaseous form) and any other item incorporated in works for which Engineer-in-charge directs.

37. SITE CONDITIONS AND REQUIREMENTS.

- a) The contractor shall be responsible for the true and proper setting out of the work and for the correctness of the positions levels and dimensions and alignments of all parts of the works and for the provisions of all necessary applications and labour in connections therewith.
- b) If any time during the progress of the work any error may appear or arise in the position, levels dimension or alignments of any part of the work the contractor on being required to do so by the Engineer-in-Charge shall at his own expense rectify such errors to the satisfaction of the Engineer-in-Charge.
- c) The checking or any setting out of any line by the Engineer-in-Charge or his representative shall not relieve in any way the contractor of responsibility for the correctness thereof and shall carefully project and preserve all bench mark site rails, pegs and other things used in the set is out of work.
- d) The contractor has to adjust his work and progress to work in co-ordination with other agencies working at site.
- e) No crushing of aggregate will be allowed within AAI premises and its vicinity.

38. APPARTITIONING OF WORK

The Airport Authority of India reserves the right to appartition the work at different levels amongst not more than two contractors, by negotiations if necessary.

39. FINAL BILL PAYMENT

The total amount of final bill worked out at the accepted tender rates, if found to be more than the amount worked out at the quoted rates of second lowest, the contractor shall be paid lower of the two.

40. E- PAYMENT

The payments to the contractor shall be made through RTGS/NEFT. The contractor shall intimate his account number, Name of branch with code number, PAN No. and other relevant details to AAI.

41. SAFETY DEVICES TO FIELD ENGINEERS / TECHNICIANS / WORKERS AT SITE

- a) The agency is also required to provide specific uniforms and safety devices to the manpower deployed on site for the work in Working area as detailed below:-
- i) Jacket and Trousers for male staff and Suitable dress with jacket for female staff of good quality clothes as approved by Engineer-in-charge with illuminated reflective type logo of AAI.
 - ii) An apron of reflective cloth is to be provided to each of the working labour on site.
 - iii) Safety helmets and foot wears are to be provided for each of the workers.
 - iv) Safety belts, protective Goggles, Hand gloves etc are to be provided as per requirement and nature of jobs.
 - v) Helmets shall be provided for Contractor's & AAI Supervisor & Visiting / inspecting officials.

b) RECOVERIES

- i) In case the agency fails to provide the uniform / safety devices as specified above an amount of Rs. 50/- per head per day for uniform and Rs. 100/- per head per day for safety devices shall be debited to the contractor's account.
- ii) The decision of the Engineer-in-Charge as to the period for which the required technical staff was not employed and the uniform / safety devices not provided by the Contractor and as to the reasonableness of the amount to be deducted on this account shall be final and binding on the Contractor as to the amount and the Contractor's liability to pay the said amount.

42. NUISANCE:

The Contractor shall not at any time do, cause or permit any nuisance on the Site or do anything which shall cause unnecessary disturbance or inconvenience to owners, tenants or occupiers of other properties near the Site and to the Public generally.

43. WATCH AND WARD OF SITE:

The Contractor shall be responsible at his own expense for the safety, watch and ward of material/ manpower on the work site.

44. DUTIES AND POWERS OF REPRESENTATIVES OF ENGINEER-IN-CHARGE

The duties of the representative of the Engineer-in-Charge, are to watch and supervise the Works and to test and examine any materials to be used or workmanship employed in connection with the Works. He shall have no authority to order any work involving any extra payment by AAI nor to make any variation in the Works. The Engineer-in-Charge may from time to time in writing delegate to his Representative any of the powers and authorities vested in

the Engineer-in-Charge and shall furnish to the Contractor a copy of all such written delegation of powers and authorities. Any written instruction or written approval given by the Representative of the Engineer-in-Charge to the Contractor within the terms of such delegations shall bind the Contractor and AAI as if it had been given by the Engineer-in-Charge. Failure of the Representative of the Engineer-in-Charge to disapprove any work or materials shall not prejudice the power of the Engineer-in-Charge thereafter to disapprove such work or materials and to order the pulling down, removal or breaking up thereof.

If the Contractor shall be dissatisfied with any decision of the Representative of the Engineer-in-Charge he shall be entitled to refer the matter to the Engineer-in Charge who shall thereupon confirm, reverse or vary such decision.

45. WORK DURING NIGHT OR ON SUNDAYS AND HOLIDAYS:

Subject to any provisions to the contrary contained in the Contract, works shall be carried out during night or on Sundays or on authorized holidays with the permission of the Engineer-in-Charge.

46. DEFECTS LIABILITY PERIOD

Defect liability period shall be Twelve (12) months. This shall be w.e.f. date of successful completion of work.

47. LABOUR LAWS.

Independent contractors with separate PF code Number (covered Establishment)

The Contractor's Establishment employing more than 20 persons are under statutory obligations to obtain independent PF code number from PF Authorities for deposit of PF dues (Employees and employer's contribution) together with EDLI and Administrative charges every month within 15 days of close of the month.

AAI is required to ensure that the PF dues (i/c EDLI and administrative charges) in respect of contract workers engaged for AAI works have been deposited by the contractor every month by a separate challan and the documentary evidence in support of such payments along with employee wise details of the PF contribution (both employee's share and the employer's contribution) needs to be submitted to the officer in charge for the work / contract. The contractor's bill for payment is to be certified by the Engg -in-charge / officer-in-charge for the work only on such compliance by the contractor. A record of these documents should be maintained for each contract for verification by the officers from the office of Regional PF Commissioner / EPFO.

Contractors not having PF Code Number (Uncovered Establishment)

The contractors who are not covered under EPF & MP Act, 1952, but for AAI "obligation as principal employer, are required to ensure compliance from recovery and deposit of PF dues in respect of contract workers engaged for AAI works. Hence, such contractors are required to

obtain PF code against the work order/contract with AAI for necessary compliance as brought out in Para-1 above.

Recovery of Dues from the contractor (sec-8A of PF & MP Act, 1952)

In case the contractor fails to comply with the above statutory compliance, the dues on account of PF construction (both employer's/employee's contribution), EDLI and Administrative charges payable to EPFC may be ascertained as per provisions of the Act and recovered from the dues payable to the contractors, AAI shall be required to make payment of PF dues with PF authority under AAI code no. DL/36478 as un-exempted establishment for contract employees by due date every month to avoid penal action under the act. The details of such deductions when made should be reported to the CPF section at CHQ for further guidance/action in this regard.

Duties of the contractors (Para-36 B of EPF scheme, 1952)

Every contractor shall, within seven days of the close of every month, submit to the AAI (being principle employer) a statement showing recoveries of contribution in respect of employees engaged by the contractor for AAI works and also furnish such information as AAI is required to furnish to PF commissioner.

Hence, the officer-in charge / Engineer-in charge for the work/contract is required to ensure obtaining the details as stated above in accordance with the provision of the Act.

48. MISCELLANEOUS

- 48.1 The Contractor shall be responsible for any damage, resulting from his operation to existing fixtures such as cables, lights, electric or telephone wires or destroy to any part of the building in which they may be working etc. The Contractor shall restore, replace or repair any such damage to the complete satisfaction of the Engineer-in-Charge. All incidental charges of any kind whatsoever including cartage, storage, cutting and wastage, etc. shall be borne exclusively by the Contractor and nothing extra shall be payable to the Contractor on this account.
- 48.2 All areas under scope of the subject work shall be kept clean after completion of each day's work.
- 48.3 The excavated earth, debris & dismantled material shall be removed out of work site immediately and shall be disposed of at the places as directed by representative of Officer-in-charge
- 48.4 The individual quantities of the items allotted by Engineer-in-charge may vary upto any limit, but the deviation in overall amount of the contract shall not deviate beyond 30%.

- 48.5 The work shall be executed without obstructing the operations in the area under scope of subject work.
- 48.6 Proper and elegant direction boards and “Work in Progress in convenience caused is regretted” etc. should be displayed at appropriate places as per the approval of Officer-in-Charge.
- 48.7 All fossils, gold, silver, oil and other minerals, precious stones, coins, article of value, of antiquity and structures and other remains/things of geological or archaeological interest discovered on the site of the works shall be handed over by the contractor immediately to the Officer-in- Charge for onward information to the concerned authorities.
- 48.8 Contractor shall not execute any extra item without written instructions of Engineer-in-Charge or his authorised representative failing which it shall not be measured and recorded for payment purposes.

49. **GUIDELINE FOR ISSUE OF PASSES FOR AIRPORT OPERATIONAL AREA**

These Guidelines have been issued by BCAS (Bureau of civil aviation security) subject to modification time to time for issue of passes for the labors, workers & supervisors etc., to work inside operational area. The issue of passes is sole responsibility of BCAS after due verification of documents of applicant and AAI is restricted only to recommend and forward the pass application.

49.1 **GUIDELINE FOR ISSUE AEP (Airport Entry Pass) :**

1. Immediately after award of work, the Agency/ Contractor has to register themselves with BCAS on e-sahaj portal (<https://esahaj.gov.in>) under ‘Auxiliary Service Provider’ section to fill online application form for security clearance.
2. Printed copy of acknowledgement of security clearance application downloaded from above portal along with following documents in duplicate to be submitted to get temporary pass for initial 30 days in AAI security office.
 - a) Format – A as per Annexure – I (Page No. AEP-03)
 - b) Format – A1 as per Annexure- II (Page No. AEP-04)
 - c) ID and Address proof of owner/ director/ key persons
 - d) Certificate of Incorporation
 - e) Memorandum of association & Articles of Association
 - f) Form 32/ DIR – 12
 - g) Company profile (Brief description about company, Goal of the company, Business plan, Details of Registered office/ corporate office/ branch office, client list)
 - h) Agreement Copy
 - i) Any other security clearance from BCAS
 - j) Authorized signatory Letter
 - k) Declaration regarding no criminal case against company and its directors.

- l) Aviation Security Programme.
3. The person who has to get temporary Entry passes has to mandatory undergo aviation security programme (AVSEC) as and when conducted by the concerned authority.
4. For the initial 30 days temporary airport entry pass shall be issued by AAI security section. Within 15 days the applicant has to submit prescribed application form as per Annexure – III to be submitted to the BCAS along with necessary documents:
 - a) Filled-up Application form (Page No. AEP-05 & 06)
 - b) Police verification form
 - c) Copy of work order
 - d) Appointment letter by the company
 - e) ID and Address proof
 - f) Photograph- 2 no
 - g) AVSEC Training certificate
 - h) Copy of old AEP (if issued earlier)
 - i) Applicable fee (₹ 50 or ₹ 75 depending on duration of pass) subject to revision time to time.

49.2 GUIDELINE FOR ISSUE LABOUR PASSES :

1. Web based temporary entry passes will be issued for casual labour as per following guidelines:-
 - a) Labour form vide Annexure – IV dully filled up to be submitted.(Page No. AEP-8)
 - b) Photograph of casual labour dully attested by the employer with stamp.
 - c) Copy of work order
 - d) Photograph ID proof and address proof of casual worker
 - e) Copy of Pass (if earlier issued)
 - f) Pass fee (₹ 50 for period of 01 to 30 days – subject to revision time to time)
2. Rules to be followed related to labour pass:
 - a) Contractor will hand over labour pass to worker daily and collect it in the evening or end of the day work.
 - b) Agency has to maintain a register of handing over daily labour pass to casual worker which will be checked by security officer time to time.
 - c) The contractor or there supervisor must have valid airport entry pass (AEP) and there will be maximum 20 casual labour pass holder could work under him. All responsibility related to casual labour shall be rest with the contractor.
 - d) Contractor/ Supervisor must follow strictly security and safety norms of operational area and terminal building.

49.3 GUIDELINE FOR ISSUE OF VEHICLE PASSES:

Necessary documents required for vehicle permits along with vehicle form AEP- 10

- a) Copy of notification regarding requirement of vehicle in operational area
- b) Registration copy
- c) Insurance papers
- d) Pollution check

The vehicle shall be inspected by the safety officer before issuance of permit after checking on the following aspects –

- Vehicle in road worthy conditions
- Obstacles light or flag in accordance with airport rules
- Speed governors in the vehicle to restrict speed of vehicle
- Vehicle marking ensured logo of company / agency

Approximate cost of Issue of Airport Entry Permits(AEP) are as below (It is indicative only subject to revision time to time during actual execution of work) –

The charges of temporary vehicle permit for a duration of maximum one year (light commercial vehicle). Calculated pro-rata on monthly basis.	₹ 1000/-
The charges of temporary vehicle permit for a duration of maximum one year (Heavy commercial vehicle). Calculated pro-rata on monthly basis.	₹ 1500/-
The charges for issue of ADP (Airport Driving Permit) for a maximum period of one year.	₹ 200/-

In addition to the aforesaid charges, Taxes, GST etc shall be applicable as per the prevalent rates. The entry of vehicles and manpower will however continue to be regulated as per already laid down norms.

- 49.4 Safety Standard of construction equipment vehicle in operational area. The construction equipment/ vehicle deployed inside operational area shall be accompanied by an initial certificate of pavement/ road worthiness and fitness issued by the manufacturer. Subsequently after expiry of the initial certificate, manufacturer or his authorised agency shall issue fitness certificate including servicing and calibration on yearly basis for the safe operation of the construction equipment in operational area.

Annexure-I

Imposition of Penalties - guidelines regarding

Sl.No.	Offence/Violation	Penalty in (Rs)
1.	Smoking in public area except where designated smoking chambers or areas are established.	300
2.	Spitting in airport premises.	300
3.	Misuse of passenger baggage trolley.	300
4.	Using language likely to cause offence /annoyance.	500
5.	Throwing loose papers, plastic cups or glass etc. in airport premises.	300
6.	Non-display of Photo Identity Cards while entering in to or being in the terminal or operational area.	300
7.	Transportation of overloaded airline baggage containers in operational area.	400
8.	Vehicle/ equipment operating without anti-collision light/ obstruction inside operational area.	400
9.	Parking of vehicle/ equipment in no parking area on Kerb side and city side including approach road within airport premise	500
10.	Un-authorized entry into terminal building or operational area.	500
11.	Rash driving/over speeding in operational area.	500
12.	Driving in operational area while being in a state of intoxication.	500
13.	Causing public inconvenience, unruly behavior or creating nuisance in public area.	500
14.	Organizing or taking part in any public assembly, demonstration, dharnas or procession likely to obstruct or interfere with proper use or orderly functioning of airport	500
15.	Display of banners, flags, posters ,emblems or write slogans in or around terminal.	500
16.	Obstruction of authorized persons in the discharge of his or her duties	500
17.	Dumping garbage in operational area.	400
18.	Vehicle/ equipment left unattended in operational area outside designated parking area/hard stand for ground support equipment/vehicles.	500
19.	Vehicle/equipment not following vehicular lanes on Apron.	500
20.	Vehicle/equipment/ person obstructing aircraft movement.	500
21.	Crossing/operating vehicle/ equipment close to active runway/ taxiway without permission.	500
22.	Vehicle/ equipment operation in the operational area without permit (ADP)	500
23.	Damage, display, deface or alter any building structure or other property of AAI whether movable or immovable. Besides penalty, action to be taken to recover the loss from the defaulter or his/her organization.	500
24.	Photography and film shooting/ videography at airport without permission.	500
25.	Commercial activities at airport without permission.	500

50. Planning and Designing in purview of vulnerability atlas of India

Vulnerability Atlas of India (VAI) is a comprehensive document which provides existing hazard scenario for the entire country and presents the digitized State/UT wise hazard, maps with respect to earthquakes, winds and floods for district-wise identification of vulnerable areas. It also includes additional digitized maps for thunderstorms, cyclones and landslides. The main purpose of this Atlas is its use for disaster preparedness and mitigation at policy planning and project formulation stage.

This Atlas is one of its kind single point source for the various stakeholders including policy makers, administrators, municipal commissioners, urban managers, engineers, architects, planners, public etc. to ascertain proneness of any city/location/site to multi-hazard which includes earthquakes, winds, floods thunderstorms, cyclones and landslides. While project formulation, approvals and implementation of various urban housing, buildings and infrastructures schemes, this Atlas provides necessary information for risk analysis and hazard assessment.

The Vulnerability Atlas of India has been prepared by Building Materials and Technology Promotion Council under Ministry of Housing and Urban Affairs, Government of India and available at their website www.bmtpc.org.

It is mandatory for the bidders to refer Vulnerability Atlas of India for multi-hazard risk assessment and include the relevant hazard proneness specific to project location while planning and designing the project in terms of:

- i) Seismic zone (II to V) for earthquakes,
- ii) Wind velocity (Basic Wind Velocity: 55, 50, 47, 44, 39 & 33 m/s)
- iii) Area liable to floods and Probable max, surge height
- iv) Thunderstorms history
- v) Number of cyclonic storms/ severe cyclonic storms and max sustained wind specific to coastal region
- vi) Landslides incidences with Annual rainfall normal
- vii) District wise Probable Max. Precipitation

Technical specification

1. PREAMBLE

- These technical specifications shall be read in conjunction with the various other documents forming the contract, namely Notice Inviting Tender & Instructions to Tenderers, Conditions of Contract, Special Conditions of Contract, Bill of Quantities and other related documents, together with any addenda thereto issued.
2. The work in general shall confirm to CPWD specifications 2009 Vol-I & Vol – II with upto date correction slips unless otherwise specified in the nomenclature of the individual item or in the technical specifications.
 3. All the materials to be used in the work shall be of best quality available and shall have the approval of the representative of Engineer-in-Charge before use.
 4. The various tests as considered necessary by the Engineer-in-Charge shall be carried out through the laboratory. The Contractor shall bear the entire cost of samples, testing charges, carriage and any other incidental expenditure incurred thereon. The results shall be final and bindings to the Contractor.
 5. Water used for construction work shall be clean and reasonably free from injurious quantities of deleterious materials such as oils, acids, alkaline, salts and vegetable growth. Generally potable water shall be used.
 6. Brick work shall generally confirm to specifications for specified class designation as per specification.
 7. Fine aggregate shall either be sand or crushed stone dust. Percentage of deleterious materials shall not be more than 5%. Maximum quantity of silt as determined shall not be more than 8%. Fine sand shall be confirming to grading zone IV as per IS: 383. Coarse sand shall be either river sand or pit sand. It shall be clean, sharp, strong, angular and composed of hard silicon materials. It shall be confirming to grading zone III as per IS: 383-1970.
 8. Coarse aggregate shall be crushed or broken from hard stone obtained from approved quarry or gravel, (either river bed shingle/ pit gravel). It shall be clean and free front dirt and any other foreign materials and other deleterious materials in the aggregate shall not exceed 5% of its weight.
 9. Timber required for all wood work shall be well seasoned such that the moisture content does not exceed the limits laid down in IS 287-1973.
 10. Steel used shall be mild steel confirming to IS 432 – 1982 or high yield strength deformed Round bars confirming to IS: 1786-1985.

11. Welding iron and steel work shall be done in approved manner specified in IS 816-1969 and IS 823-1964. All steel works shall have joint welded all around. Spot welding shall not be permitted.
12. The Contractor shall make his own arrangement for water supply for the work and his staff and workman otherwise if agency uses water from the sources available within the AAI premises, 1% of the gross value of work done shall be recovered.
13. No defects shall ever be allowed in the work and if due to negligence or other reasons any defects are found in the work, the work shall be rejected and no payments made to the Contractor.
14. No payment will be made to the Contractor for damage caused by rain or other natural calamities during the execution of the work and no such claim on this account will be entertained.

15. **GENERAL**

The works will be executed as indicated in the nomenclature of each item and technical specifications as given hereunder as made applicable to this contract. In the absence of any definite provision in the technical specifications contained herein, reference may be made to the latest CPWD, MOST, IRC, ICAO Specifications and IS codes, in that order. Wherever these are not applicable, the construction and completion of the works shall conform to sound engineering practice and in case of any dispute arising out of the interpretation of the a the decision of the Engineer-in- Charge shall be final and binding on the Contractor. In addition, the abbreviations CPWD, IRC, MOST, IS, BS, ICAO ASTM, AASHTO shall be considered to have the following meaning :

CPWD	:	Central Public Works Department
IRC	:	Indian Road Congress
MOST	:	Ministry of Surface & Transport (Road Wing) Government of India
IS	:	Indian Standard of the Bureau of Indian Standards.
BS	:	British Standard of the British Standard
ICAO	:	International Civil Aviation Organization
ASTM	:	American Standards of the American Society of Testing Materials
AASHTO	:	American Association of State Highway and Transportation Officials.

All the codes of practice, standards and specifications applicable shall be the latest editions with upto date correction slips etc. or as directed by the Engineer-in-Charge.

PARTICULAR SPECIFICATION FOR CIVIL WORKS
SPECIFICATION OF WMM
(ITEM NO. 8 OF SCHEDULE OF QUANTITIES)

Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.

1.1 Scope

This work shall consist of laying and compacting clean, crushed, graded aggregate and granular material, premixed with water, to a dense mass on a prepared sub grade/sub-base/base or existing pavement as the case may be in accordance with the requirements of these Specifications. The material shall be laid in one or more layers as necessary to lines, grades and cross-sections shown on the approved drawings or as directed by the Engineer-in-charge.

The thickness of a single compacted Wet Mix Macadam layer shall not be less than 75 mm. When vibrating or other approved types of compacting equipment are used, the compacted depth of a single layer of the sub-base course may be increased to 200 mm upon approval of the Engineer-in-charge.

1.2 Materials

1.2.1 Aggregates

1.2.1.1 Physical requirements:

Coarse aggregate shall be crushed stone. The aggregates shall conform to the physical requirements set forth in Table below:

PHYSICAL REQUIREMENTS OF COARSE AGGREGATES FOR WET MIX MACADAM FOR SUB-BASE / BASE / BASE COURSE.

Test	Test Method	Requirements
* Los Angeles Abrasion value	IS : 2386 (Part 4)	40 per cent (Max.)
or * Aggregate Impact value	IS : 2386 (Part 4) or IS:5640	30 per cent (Max.)
Combined Flakiness and Elongation indices (Total)	IS : 2386 (Part 1)	30 per cent (Max.) **

* Aggregate may satisfy requirements of either of the two tests.

** To determine this combined proportion, the flaky stone from a representative sample should first be separated out. Flakiness index is weight of flaky stone metal divided by weight of stone sample. Only the elongated particles are to be separated out from the remaining (non-flaky)

stone metal. Elongation index is weight of elongated particles divided by total non-flaky particles. The value of flakiness index and elongation index so found are added up. If the water absorption value of the coarse aggregate is greater than 2 per cent, the soundness test shall be carried out on the material delivered to site as per I S : 2386 (Part 5).

1.2.1.2 Grading requirements

The aggregate shall conform to the grading given in table below:

GRADING REQUIREMENTS OF AGGREGATES FOR WET MIX MACADAM

IS Sieve designation	Per cent by weight passing the IS sieve
53 mm	100
45 mm	95 – 100
26.5 mm	--
22.40 mm	60 – 80
11.20 mm	40 – 60
4.75 mm	25 – 40
2.36 mm	15 – 30
600 micron	8 -- 22
75 micron	0 -- 8

Materials finer than 425 micron shall have Plasticity Index (PI) not exceeding 6

The final gradation approved within these limits shall be well graded from coarse to fine and shall not vary from the low limit on one sieve to the high limit on the adjacent sieve or vice versa.

1.3 Construction operations

1.3.1 Preparation of Base

The surface of the sub grade/sub-base/base to receive the wet mix macadam course shall be prepared to the specified lines and crossfall (camber) and made free of dust and other extraneous material. Any ruts or soft yielding places shall be corrected in an approved manner and rolled until firm surface is obtained if necessary by sprinkling water.

1.3.2 Provision of lateral confinement of aggregates:

While constructing wet mix macadam, arrangement shall be made for the lateral confinement of wet mix. This shall be done by laying materials in adjoining shoulders along with that of wet mix macadam layer and following the sequence of operations as follows:

The sequence of operations shall be such that the construction of paved shoulder is done in layers each matching the thickness of adjoining pavement layer. Only after a layer of pavement and corresponding layers in paved and earth shoulder portion have been laid and compacted, the construction of next layer of pavement and shoulder shall be taken up.

Where the materials in adjacent layers are different, these shall be laid together and the pavement layer shall be compacted first. The corresponding layer in paved shoulder portion

shall be compacted thereafter, which shall be followed by compaction of earth shoulder layer. The adjacent layers having same material shall be laid and compacted together.

1.3.3 Preparation of mix:

Wet Mix Macadam shall be prepared in an approved mixing plant of suitable capacity having provision for controlled addition of water and forced/positive mixing arrangement like pug mill or pan type mixer of concrete batching plant. For small quantity of wet mix work, the Engineer-in-charge may permit the mixing to be done in concrete mixers.

Optimum moisture for mixing shall be determined in accordance with IS : 2720 (Part 8) after replacing the aggregate fraction retained on 22.4 mm sieve with material of 4.75 mm to 22.4 mm size. While adding water, due allowance shall be made for evaporation losses. However, at the time of compaction, water in the wet mix shall not vary from the optimum value by more than agreed limits. The mixed material should be uniformly wet and no segregation shall be permitted.

1.3.4 Spreading of mix:

Immediately after mixing, the aggregates shall be spread uniformly and evenly upon the prepared sub grade/sub-base/base in required quantities. In no case should these be dumped in heaps directly on the area where these are to be laid nor shall their hauling over a partly completed stretch be permitted.

The mix shall be spread either by a paver finisher or motor grader. For portions where mechanical means cannot be used, manual means as approved by the Engineer-in-charge shall be used. The motor grader shall be capable of spreading the material uniformly all over the surface. Its blade shall have hydraulic control suitable for initial adjustments and maintaining the same so as to achieve the specified slope and grade.

The paver finisher shall be self-propelled, having the following features:

- (i) Loading hoppers and suitable distribution mechanism
- (ii) The screed shall have tamping and vibrating arrangement for initial compaction to the layer as it is spread without rutting or otherwise marring the surface profile.
- (iii) The paver shall be equipped with necessary control mechanism so as to ensure that the finished surface is free from surface blemishes.

The surface of the aggregate shall be carefully checked with templates and all high or low spots remedied by removing or adding aggregate as may be required. The layer shall be tested by depth blocks during construction. No segregation of larger and fine particles shall be allowed. The aggregates as spread shall be of uniform gradation with no pockets of fine materials.

1.3.5 Compaction:

After the mix has been laid to the required thickness, grade and crossfall/camber, the same shall be uniformly compacted, to the full depth with suitable roller. If the thickness of single compacted layer does not exceed 100 mm, a smooth wheel roller of 80 to 100 kN weight shall

be used. For a compacted single layer up to 200 mm, the compaction shall be done with the help of vibratory roller of minimum static weight of 80 to 100 KN or equivalent capacity roller. The speed of the roller shall not exceed 5 km/h.

In portions having unidirectional cross fall / super elevation, rolling shall commence from the lower edge and progress gradually towards the upper edge. Thereafter, roller shall progress parallel to the centre line of the road, uniformly over-lapping each preceding track by at least one-third width until the entire surface has been rolled. Alternate trips of the roller shall be terminated in stops at least 1 m away from any preceding stop.

In portions in camber, rolling shall begin at the edge with the roller running forward and backward until the edges have been firmly compacted. The roller shall then progress gradually towards the centre parallel to the centre line of the road uniformly overlapping each of the preceding track by at least one-third width until the entire surface has been rolled.

Any displacement occurring as a result of reversing of the direction of a roller or from any other cause shall be corrected at once as specified and / or removed and made good.

Along forms, kerbs, walls or other places not accessible to the roller, the mixture shall be thoroughly compacted with mechanical tampers or a plate compactor. Skin patching of an area without scarifying the surface to permit proper bonding of the added material shall not be permitted.

Rolling shall not be done when the sub grade is soft or yielding or when it causes a wave-like motion in the sub-base/base course or sub grade. If irregularities develop during rolling which exceed 12 mm when tested with a 3m straight edge, the surface shall be loosened and premixed material added or removed as required before rolling again so as to achieve a uniform surface conforming to the desired grade and crossfall. In no case the use of unmixed material shall be permitted to make up the depressions.

Rolling shall be continued till the density achieved is at least 98 per cent of the maximum dry density for the material as determined by the method outlined in IS : 2720 (Part – 8).

After completion, the surface of any finished layer shall be well closed, free from movement under compaction equipment or any compaction planes, ridges, cracks and loose material. All loose, segregated or otherwise defective area shall be made good to the full thickness of the layer and re-compacted.

1.3.6 Setting and drying:

After final compaction of wet mix macadam course, the pavement shall be allowed to dry for 24 hours.

1.3.7 Opening to Traffic

No vehicular traffic of any kind shall be allowed on the finished wet mix macadam surface till it has dried and the wearing course laid.

1.3.8 Surface Finish and Quality Control of Work

1.3.9 Surface evenness:

The surface finish of construction shall conform to the following requirements.

The maximum allowable difference between the pavement surface and underside of a 3 m straight-edge when placed parallel with, or at right angles to the centre line of the road at points decided by the Engineer-in-charge shall be 8 mm.

1.3.10 Quality Control:

Control on the quality of materials and works shall be in accordance with Specifications for Road and Bridge works Section 900 of Ministry of Road Transport & Highways.

1.4 Rectification of Surface Irregularity

Where the surface irregularity of the wet mix macadam course exceeds the permissible tolerances or where the course is otherwise defective due to sub grade soil getting mixed with the aggregates, the full thickness of the layer shall be scarified over the affected area, reshaped with added premixed material or removed and replaced with fresh premixed material as applicable and re-compacted in accordance with Clause 1.3 above. The area treated in the aforesaid manner shall not be less than 5 m long and 2 m wide. In no case, the depressions shall be filled up with unmixed and ungraded material or fines.

1.5 Measurements for Payment

Wet mix macadam shall be measured as finished work in position in cubic meters by level computation method.

1.6 Rates

Unit rate of the item shall include the cost of labour, materials and equipment, mix design, mixing, transportation, placing, compacting, finishing and other quality control operations, field & lab tests, all royalties, fees, storage, rents, all leads and lifts and any of the incidentals to complete the work as per specifications.

**PARTICULAR SPECIFICATION OF DRLC
(ITEM NO. 9 OF SCHEDULE OF QUANTITIES)**

Construction of dry rolled lean cement concrete (DRLC) sub base over a prepared subgrade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer-in-charge.

Scope

The work shall consist of construction of (zero slump) dry lean concrete sub-base for cement concrete pavement in accordance with the requirements of these specifications and shall conform to the lines, grades and cross-sections shown on the drawings or as directed by the Engineer-in-Charge. The work shall include furnishing of all plant and equipment, materials and labour and performing all operations, in connection with work, as approved by the Engineer-in-Charge.

The design parameters of dry lean concrete sub-base, i.e. width, thickness, grade of concrete, details of joints, if any, etc. shall be as stipulated in the drawings or as directed by Engineer-in-Charge.

Materials

Source of Materials: The contractor shall indicate to the Engineer-in-Charge the source of all materials with relevant test data to be used in the dry lean concrete work sufficiently in advance and the approval of the Engineer-in-Charge for the same shall be obtained before start of the work. If the contractor later proposes to obtain the materials from a different source during execution of work, he shall notify the Engineer-in-Charge for his approval before such materials are to be used.

Cement: Any of the following types of cement may be used with the prior approval of Engineer-in-Charge.

S. No.	Type	Conforming to
i)	Ordinary Portland Cement	IS: 8112
ii)	Portland Slag Cement	IS: 455
iii)	Portland Pozzolana Cement	IS: 1489-Part- I

If the sub-grade is found to consist of soluble sulphates in a concentration more than 0.5 percent, the cement used shall be sulphate resistant and shall conform to IS: 6909.

Supply of Cement shall be obtained either in bulk form or as per clause 3.1.2.5 of CPWD specifications Vol-I, 2009. Cement shall be subjected to acceptance tests prior to its use. Nothing extra shall be paid on this account.

Aggregates

Aggregates for lean concrete shall be natural material complying with IS: 383. The aggregates shall not be alkali reactive. The limits of deleterious materials shall not exceed the requirements set out in table 1 of IS: 383. In case the aggregates are not free from dirt, the same may be washed and drained for at least 72 hours before batching, as directed by the Engineer-in-Charge.

Coarse aggregate: Coarse aggregates shall consist of clean, hard, strong, dense, non-porous and durable pieces of crushed stone or crushed gravel and shall be devoid of pieces of disintegrated stone, soft, flaky, elongated, very angular or splinters pieces. The maximum size of coarse aggregate shall not exceed 26.5mm for lean concrete. No aggregate which has water absorption more than 2 percent shall be used in the concrete mix. The aggregate shall be tested for soundness in accordance with IS: 2386 (Part-5). After 5 cycles of testing, the loss shall not be more than 12 percent if sodium sulphate solution is used or 18 percent if magnesium sulphate solution is used. The Loss Angeles Abrasion value shall not exceed 35. The combined flakiness and elongation index of aggregate shall not be more than 35 percent.

Fine aggregate: The fine aggregates shall consist of clean natural sand or crushed stone sand or a combination of the two and shall conform to IS: 383. Fine aggregate shall be free from soft particles, clay, shale, loam, cemented particles, mica and organic and other foreign matter. The fine aggregates shall have a sand equivalent value of not less than 50 when tested in accordance with the requirement of IS: 2720 (Part 37).

The material after blending shall conform to the grading as indicated in Table 1.

Table 1: Aggregate gradation for Dry Lean Concrete

Sieve Designation	Percentage passing the sieve by weight
26.50 mm	100
19.00 mm	75-95
9.50 mm	50-70
4.75 mm	30-55
2.36 mm	17-42
600 micron	8-22
300 micron	7-17
150 micron	2-12
75 micron	0-10

Water:

Water used for mixing and curing of concrete shall be clean and free from injurious amounts of oil, salt, acid, vegetable matter or other substances harmful to the finished concrete. It shall meet the requirements stipulated in IS: 456.

Storage of materials**Cement:**

The Contractor shall provide adequate storage facilities to prevent deterioration of cement during storage due to climate and other causes. Wherever bulk storage containers are used, their capacity should be sufficient to cater to the requirement at site. The containers shall be cleaned at least once every 3 months. Cement remaining in stores for more than one and half month from the date of manufacture must be retested before use and to be rejected, if it fails to conform to any of the requirements of the specifications.

Aggregates:

- a) Stock piles shall be made immediately on receipt of aggregates at site of work. Aggregates shall be stacked separately according to the nominal sizes of coarse aggregates. For fine aggregates, separate stacks shall be made.
- b) Aggregates shall be stacked on a hard surface so as to exclude the possibility of soil or grass being mixed up. When stacked in close proximity, the stock piles shall be separated by bulk heads to prevent the different sizes of aggregates from mixing together. Special care shall be taken to clean and wash the last layer of aggregates in contact with ground surface before use.
- c) Before batching, the aggregates shall have been stock piled for at least 24 hours to allow for draining of water, if any. The Contractor shall make adequate provision for stock piling aggregates to the extent sufficient to meet the needs of the work taking into account the availability of supplies and rates of delivery etc. and nothing extra shall be paid for necessary double handling and transport of materials from stock piles to mixing plant etc.

Proportioning of Materials for the Mix

The mix shall be proportioned with a maximum aggregate cement ratio of 15:1. The water content shall be adjusted to the optimum as per clause 3.2 for facilitating compaction by rolling. The strength and density requirement of concrete shall be determined in accordance with clause 6 and 7 by making trial mixes.

Moisture Content: The right amount of water for the lean concrete in the main work shall be decided so as to ensure full compaction under rolling and shall be assessed at the time of rolling the trial area. Too much water will cause the lean concrete to be heaving up before the wheels and to be picked up on the wheels of the roller and too little will lead to inadequate compaction, a low in-situ strength and an open-textured surface.

The optimum water content shall be determined and demonstrated by rolling during trial area construction and the optimum moisture content and degree of compaction shall be got approved from the Engineer-in-Charge. While laying the main work, the lean concrete shall have a moisture content between the optimum and optimum + 2 per cent, keeping in view the effectiveness of compaction achieved and to compensate for evaporation losses.

Cement Content: The cement content in dry lean concrete shall be such that the strength specified in clause 3.4 is achieved. For the purpose of tendering, the cement content may be assumed as 150 Kg per cum of finished DRLC.

If the actual quantity of cement required as per laboratory mix design varies from the quantity assumed above, necessary cost adjustment for deviation in the quantity of cement as per mix design, if any, shall be done as per the rate of cement in actual supply voucher from manufacturer /authorized dealer at the time of execution. In the case of authorized distributor the rate may be authenticated by the manufacturer. **See the Note given at the end of specification on page PS-16.** However, under no circumstances the cement content shall fall below 150 Kg per cum.

Concrete Strength: The average compressive strength of each consecutive group of 5 cubes made shall not be less than 10 MPa at 7 days. In addition, the minimum compressive strength of any individual cube shall not be less than 7.5 MPa at 7 days. The design mix complying with the above clauses shall be got approved from the Engineer-in- Charge and demonstrated in the trial length construction.

Construction

General

The pace and programme of the dry lean concrete sub-base construction shall be matching suitably with the programme of construction of the cement concrete pavement over it. The dry lean concrete sub-base shall be overlaid with concrete pavement only after 7 days after sub-base construction.

Batching and Mixing

'A' system approach should be adopted for construction of pavement, and the method statement for carrying out the work, detailing all the activities including indication of time cycle, equipment, personnel etc. shall be got approved from the Engineer-in- Charge before the commencement of work. The above shall include the type, capacity and make of batching and mixing plant beside the hauling arrangement and paving equipment. The capacity of paving equipment, batching plant as well as all the ancillary equipment shall be adequate for a paving requirement for day's work.

Batching and mixing of the concrete shall be done at a central batching and mixing plant of capacity not less than 30 Cum/hr with automatic controls, located at suitable place which takes into account sufficient space for stock piling of cement, aggregate and stationary water tanks. This shall be however, situated at an approved distance, duly considering the properties of the mix and transport arrangements available with the contractor.

Proportioning of a material shall be done in the batching plant by weight, each type of material being weighed separately. The cement from the bulk stock may be weighed separately from the aggregates and water shall be measured by volume. Wherever properly graded aggregate of uniform quality can not be maintained as envisaged in the mix design the grading of aggregates shall be controlled by appropriate blending techniques. The capacity of batching and mixing plant shall be at-least 25 higher than the proposed capacity for the laying/ paving equipment.



The batching plant shall include preferably four bins, weighing hoppers, and scales for the fine aggregate and for each size of coarse aggregate. If cement is used in bulk (after opening bags on platform) a separate scale for cement shall be included. The weighing hoppers shall be properly sealed and vented to preclude dust during operation. Approved safety devices shall be provided and maintained for the protection of all personnel engaged in plant operation, inspection and testing. The batch plant shall be equipped with a suitable non-resettable batch counter which will correctly indicate the number of batches proportioned.

Bins preferably with four adequate separate compartments shall be provided in the batching plant.

Batching plant shall be equipped to proportion aggregates and bulk cement by means of automatic weighing devices using load cells. The weighing device shall have an accuracy within + 1 in respect of quantity of cement and water and + 2 in respect of aggregates and accuracy shall be checked at least once a month.

Mixers shall be pan type, reversible type with single or twin shaft or any other mixer capable of combining the aggregates, cement and water into a thoroughly mixed and uniform mass within the specified mixing period and of discharging the mix without segregation. Each stationary mixer shall be equipped with an approved timing device which will automatically lock the discharge lever when the drum has been charged and release it at the end of the mixing period. The device shall be equipped with a bell or other suitable warning device adjusted to give a clearly audible signal each time the lock is released. In case of failure of the timing device the mixer may be used for the balance of the day while it is being repaired provided that each batch is mixed for 90 seconds or as per the manufacturer's recommendation. The mixer shall be equipped with a suitable non-resettable batch counter which shall correctly indicate the number of batches mixed. The mixer shall be cleaned at suitable intervals. The pickup and throw over blades in the drum or drums shall be repaired or replaced when they are worn down 20mm or more. The contractor shall have available at the job site a copy of the manufacturers design, showing dimensions and arrangements of blades in reference to original height and depth or provide permanent marks on blade to show points of 20mm wear from new conditions. Drilled holes of 5 mm diameter near each end and at mid point of each blade are recommended. Batching plant shall be calibrated for the each ingredients upto its maximum quantity being used in the mix at site in the beginning and thereafter at suitable interval not exceeding one month.

Air-conditioned centralized computer control cabin shall be provided for automatic operation of the equipment.

The design feature of the batching plant should be such that it can be shifted quickly.

Transporting

Plant mix lean concrete shall be discharged immediately from the mixer, transported directly to the point where it is to be laid and protected from the weather by covering with tarpaulin during transit. The concrete shall be transported by tipping trucks, sufficient in number to ensure a continuous supply of material -to feed the laying equipment to work at a uniform speed and in an uninterrupted manner. The lead of the batching plant to the paving site shall

be such that the travel time available from mixing to paving as specified in Para 4.S.2 will be adhered to. Tipping truck shall not have old concrete sticking to it. Each tipping truck shall be washed with water jet before next loading as and when required after inspection.

Placing

Lean concrete shall be laid by a paver with electronic sensor on the sub base layer or as specified. The equipment shall be capable of laying the material in one layer in an even manner without segregation, so that after compaction the total thickness is as specified. The paving machine shall have high amplitude tamping bars to give good initial compaction to the sub-base. One day before placing of the dry lean cement concrete sub- base the surface of the granular sub-base/drainage layer shall be given a fine spray of water and rolled with a smooth wheeled roller.

The Dry Lean Concrete shall be laid in such a way that it is at least 750mm wider on each side than the proposed width including paved shoulders of the concrete pavement. The extra widening beyond 750 mm width on either side shall be decided based on the specification of the paver, such that the crawler moves on the Dry Lean Concrete and the cost of extra width beyond 750 mm on either side, if any, shall be borne by the Contractor. For small works, the laying of concrete with paver may be dispensed with. Where laying of PQC is done by manual method, the extra 750 mm width Dry Lean Concrete on either side for crawler movement is not required.

Compaction

The compaction shall be carried out immediately after the material is laid and leveled. In order to ensure thorough compaction, rolling shall be continued on the full width till there is no further visible movement under the roller and the surface is well closed. The minimum dry density obtained shall be 98 per cent of that achieved during trial length construction in accordance with clause 6. The densities achieved at the edges i.e. 0.5 m from the edge shall not be less than 96 per cent of that achieved during trial construction.

The spreading, compacting and finishing of the lean' concrete shall be carried out as rapidly as possible and the operation shall be so arranged as to ensure that the time between mixing of the first batch of concrete in any transverse section of the layer and the final finishing of the same shall not exceed 90 minutes when the concrete temperature is between 25 and 30 degree Celsius and 120 minutes if less than 25 degree Celsius. The period may be reviewed by Engineer-in-Charge in the light of the results of the trial run but in no case shall it exceed 2 hours. Work shall not proceed when the temperature of the concrete exceeds 30 degree Celsius. If necessary, chilled water or addition of ice may be resorted to for bringing down the temperature. It is desirable to stop concreting when the ambient temperature is above 35 degree Celsius. After compaction has been completed, roller shall not stand on the compacted surface for the duration of the curing period except during commencement of next day's work near the location where work was terminated the previous day.

Double drum smooth-wheeled vibratory rollers of minimum 80 to 100 KN static weight are suitable for rolling dry lean concrete. In case any other roller is proposed, the same shall be got approved from Engineer-in-Charge, after demonstrating its performance. The number of passes required to obtain maximum compaction depends on the thickness of the dry lean

concrete, the compatibility of the mix, and the weight and type of the roller and the same as well as the total requirement of rollers for the job shall be determined during trial run by measuring the in-situ density and the scale of the work to be undertaken.

A preliminary pass without vibration to bed the Dry Lean Concrete down shall be given followed by the required number of passes to achieve the desired density and, a final pass without vibration to remove roller with vibration marks and to smoothen the surface.

Special care and attention shall be exercised during compaction near joints, kerbs, channels, side forms and around gullies and manholes. In case adequate compaction is not achieved by the roller at these points, use of plate vibrator shall be made, if so directed by the Engineer-in-Charge.

The final lean concrete surface on completion of compaction shall be well closed, free from movement under roller and free from ridges, low spots cracks, loose material, pot holes, ruts or other defects. The final surface shall be inspected immediately on completion and all loose, segregated or defective areas shall be corrected by using fresh lean concrete material laid and compacted. For repairing honeycombed/hungry surface, concrete with aggregate of size 10 mm and below shall be spread and compacted as per specification. It is necessary to check the level of the rolled surface for compliance. Any level/thickness deficiency shall be corrected after applying concrete with aggregate of size 10 mm and below after roughening the surface. Strength test shall be carried out, and if deficiency in strength is noticed, at least three (evenly spread) cores of minimum 100 mm dia. per 5000 sqm shall be cut to check deficiency in strength. The holes resulting from cores shall be restored by filling with concrete of the specified strength and compacted by adequate rodding.

Segregation of concrete in the tipping truck shall be controlled by moving the dumper back and forth while discharging the mix into the same or by any appropriate means. Paving operation shall be such that the mix does not segregate.

Joints

Construction and longitudinal joints shall be provided as per the drawings. Transverse butt type joint shall be provided at the end of the construction in a day. Longitudinal construction joint shall be provided only when full width paving is not possible. Transverse joints in Dry Lean concrete shall be staggered from the construction butt type joint in concrete pavement by 800-1000 mm.

Longitudinal joint in Dry Lean Concrete shall be staggered by 300-400 mm from the longitudinal joint of concrete pavement.

At longitudinal or transverse construction joints, unless vertical forms are used, the edge of compacted material shall be cut back to a vertical plane where the correct thickness of the properly compacted material has been obtained.

Curing

After two to three hours i.e. when concrete has started setting /hardening, the exposed surfaces shall be kept damp with moist gunny bags, sand or any other material approved by

the Engineer-in-Charge or by sprinkling water. 24 hours after compaction, the exposed surface shall be kept continuously in damp or wet condition by ponding or by covering with a layer of sacking, canvas, hessian or similar materials and kept constantly wet for at least 7 days from the date of laying where Ordinary Portland Cement is used and this period of curing shall be 10 days from the date of laying when Portland Pozzolana Cement/Portland slag cement is used.

Trial Mixes

The contractor shall make trial mixes of dry lean concrete with moisture contents like 5.0, 5.5, 6.0, 6.5 and 7.0 per cent using specified cement content and the specified aggregate grading but without violating the requirement of aggregate-cement ratio specified in clause 3.1. Optimum moisture and density shall be established by preparing cubes with varying moisture contents. Compaction of the mix shall be done in three layers with vibratory hammer fitted with a square or rectangular foot (as in appendix 'A'). After establishing the optimum moisture, a set of six cubes shall be cast at that optimum moisture for the determination of compressive strength on third and the seventh day. Trial mixes shall be repeated if the strength is not satisfactory either by increasing cement content. After the mix design is approved, the Contractor shall construct a trial section in accordance with clause 6.0.

If during the construction of trial area/patch, the optimum moisture content determined as above is found to be unsatisfactory, the contractor may make suitable changes in the moisture content to achieve the satisfactory mix. The cube specimens prepared with the change mix content should satisfy the strength requirement. Before production of the mix, natural moisture content of the aggregate should be determined on a day-to-day basis so that the moisture content could be adjusted. The mix finally designed should neither stick to the rollers nor become too dry resulting in ravelling of surface.

Trial Length

After finalizing the mix design, trial length/area as decided by the Engineer-in-Charge shall be prepared.

After the construction of the trial length, the in-situ density of the freshly laid material shall be determined by sand replacement method. Three density holes shall be made at locations equally spaced along a diagonal that bisects the trial length average of these densities shall be determined. These main density holes shall not be made in the strip 500 mm from the edges. The average density obtained from the three samples collected shall be the reference density and is considered as 100 per cent. The field density of regular work will be compared with this reference density in accordance with clauses 4.5.1 and A.2 of Appendix 'A'.

The hardened concrete shall be cut over 3m width and reversed to inspect the bottom surface for any segregation taking place. The trial length shall be constructed after making necessary changes in the gradation of the mix to eliminate segregation of the mix. The lower surface shall not have honey combing and the aggregates shall not be held loosely at the edges.

The main work shall not start until the trial length has been approved by the Engineer-in-Charge. After approval has been given, the materials, mix proportions, moisture content, mixing, laying, compaction plant and construction procedures shall not be changed without the approval of the Engineer-in-Charge.

Tolerance for Surface Regularity, Level, Thickness, Density and Strength

Surface Regularity: The maximum allowable difference between pavement surface and underside of a 3 m straightedge when placed parallel with or at right angles to the centre line of pavement at points decided by the Engineer-in-Charge shall not be more exceed 10 mm for dry lean concrete.

Surface level: The tolerance in surface level for dry lean concrete shall not vary ± 6 mm with reference to the longitudinal and cross-profile of the pavement shown on the drawing or as directed by Engineer-in-Charge.

Thickness, density and strength shall be as per Appendix 'A'.

Quality control test on the materials and the work and minimum frequencies shall be as under:

Rectification:

The defective length of the Dry Lean Concrete course shall be removed to full depth and replaced with material conforming to the specification. Before relaying the course, the disturbed subgrade or layer below shall be corrected by leveling, watering and compacting.

Traffic

No heavy vehicles shall be permitted on the lean concrete sub-base after its construction. Light vehicles if unavoidable may, however, be allowed after 7 days of its construction with prior approval of the Engineer-in-Charge.

A.1 Sampling and Testing of Cubes

Samples of dry lean concrete for making cubes shall be taken from the un-compacted material from different locations immediately before compaction at the rate of 3 samples for each 1000 Sqm or part thereof laid each day. The sampling of mix shall be done from the paving site. Test cubes of 150mm size shall be made immediately from each mix sample.

Cubes shall be made in accordance with the methods described in 15:516 except that the cubes shall be compacted by means of a vibratory hammer with the moulds placed on a level and rigid base. The vibrating hammer shall be electric or pneumatic type fitted with a square or rectangular foot having an area of between 7500 to 14000 Sqm. The compaction shall be uniformly applied for 60 + 5 seconds with a downward force of between 300 N and 400 N on to each of the three layers of the lean concrete material placed into the mould. The surface of each compacted layer shall be scarified before the next layer is added to give key for the next layer. The final layer shall be finished flush with the top of the cube mould. The dry lean concrete shall be cured in accordance with 15:516.

A.2 In-Situ Density

The dry density of the laid material shall be determined from three density holes at locations equally spaced along a diagonal that bisects each 2000 sqm or part thereof laid each day and shall comply with the requirements as per Clause 4.5.1. This rate of testing may be increased

at the discretion of the Engineer in case of doubt or to determine the extent of defective area in the event of non-compliance. Density holes at random may be made to check the density at edges.

A.3 Thickness

The average thickness of the sub-base layer as computed by the level data of sub-base and subgrade or lower sub-base shall be as per the thickness specified in the contract drawings. The thickness at any single location shall not be 8mm less than the specified thickness. Such areas shall be corrected as stated in Clause 4.5.5. Areas which cannot be repaired should be replaced over full width. The extent of deficient area should be decided based on cores.

MEASUREMENTS FOR PAYMENT AND RATE

Measurements: The unit of measurement for dry lean concrete pavement shall be cubic meter of concrete placed. This shall be determined from the top levels of the under layer and the final levels of the consolidated dry lean concrete as mentioned below:-

Before laying dry lean concrete, the top levels of under layer shall be taken jointly by the Engineer-in-charge or his representative and the contractor at 3 meters intervals both ways or closer as directed by the Engineer-in-charge. These levels shall be recorded on the plan as well as in the level book and the record shall be signed by the contractor. The levels of the consolidated dry lean concrete shall again be taken and plotted on the plan and recorded in the level book, to determine the average thickness laid, on the basis of these levels. The volume of mix laid consolidated and finished, shall then be the product of the measured surface area and the average thickness laid.

Rate: Unit rate of the item shall include the cost of labour, materials and equipment, mix design, mixing, transportation, placing, compacting, finishing, curing, testing of concrete and other quality control operations, all royalties, fees, storage, rents, all leads and lifts and any of the incidentals to complete the work as per specifications.

Note: For the purpose of tendering, the cement content, may be assumed as 150 kg/cum of finished concrete. If the actual quantity of cement required to be used as a result of the laboratory test is different from that assumed above, necessary adjustment in the cost of extra/less quantity of cement used shall be made on the basis of rate of cement plus 15% for contractors profit and overheads.

**PARTICULAR SPECIFICATION OF PQC
(ITEM NO. 12 OF SCHEDULE OF QUANTITIES)**

Providing and laying Pavement Quality Concrete (PQC) produced in a batching and mixing plant having a Characteristic flexural strength i.e. flexural strength of 4.1 MPa at 28 days using Ordinary Portland cement of 43/53 grade conforming as per relevant IS codes, to be mixed at site, with 0.5% Super plasticizer by mass of cementitious material, fine aggregate, graded stone aggregates of 40 mm nominal size in appropriate proportion as per specification and job mix formula, laid in panels as per drawings/design with form work if any required as approved by the Engineer-In-Charge using Slip Form Paver or Fixed form paver including anti friction layer, joint filler board, making necessary provision for expansion, dummy and construction joint including filling with Polysulphide sealant of approved make, curing and making profile, complete as per direction of Engineer-in-Charge and specifications. The item for execution shall include all operations making pavement for intended use but not limited to following:

- (i) Polyethylene sheet (White in color) of thickness 400 micron conforming to IS: 2508 with 6mm thick fine sand layer.
- (ii) Providing and laying in position for expansion joint, 25mm thick pre-cut Synthetic joint filler board of approved make conforming to IS:1838(part 3)-2011, 45 mm from top (to be removed at the time of filling of Polysulphide sealant).
- (iii) Mechanically cutting dummy joints 3mm wide x 1/3rd thickness of slab which is subsequently widened to 10mm for the top 25mm depth and construction joints 10mm wide x 25mm deep as per specification.
- (iv) Providing and laying in position Polysulphide sealant of approved make conforming to BS-5212-1990 or IS: 11433-1995 in expansion/ construction / dummy joints including rounding off edges, applying 2 coats of approved primer compatible with the brand of Polysulphide and preparing the surface and applying masking tape along the edge of joint to prevent accidental spillage of sealant on top surface and to give neat finish to the sealant and removing the masking tape after application of sealant etc. as per the details below:
 - (a) Expansion Joints of size 25 mm wide and 10 mm deep over 30mm dia expanded closed-cell Polyethylene foam back-up/backer rod of minimum density 22 Kg/Cum, as per manufacturer's specifications and sketch at Appendix-'A'.
 - (b) Construction Joints of size 10 mm wide and 10 mm deep over 12mm dia expanded closed-cell Polyethylene foam back-up/backer rod of minimum density 22 Kg/Cum, as per manufacturer's specifications and sketch at Appendix-'A'.
 - (c) Dummy Joints of size 10 mm wide and 10 mm deep over 12 mm dia expanded closed-cell Polyethylene foam back-up/backer rod of minimum density 22 Kg/Cum, as per manufacturer's specifications and sketch at Appendix-'A'.
- (v) Making profile as per DGCA CAR, panel drawing showing dummy, construction, expansion joints location.

Note:

- (i) Areas inaccessible to paving equipment shall be constructed by manual/hand guided method. Areas in which manual/hand guided methods of construction become indispensable shall be got approved by the Engineer-in-Charge in writing in advance.
- (ii) The quantity of cement, type of cement and super plasticizer for one Cum. of finished concrete specified are for tendering purpose only. The contractor shall quote his rates assuming quantity of OPC cement as 360 Kg/Cum or 400 Kg of Portland Pozzolana Cement/ Portland Slag cement. In addition, if the actual quantity of cement & super plasticizer required as per laboratory mix design varies from the quantity assumed above, necessary cost adjustment for

deviation in the quantity of cement and super plasticizer as per mix design, if any, shall be done as per the rate of cement and super plasticizer in actual supply voucher from manufacturer/authorized dealer at the time of execution. In the case of authorized distributor, the rate may be authenticated by the manufacturer. The rate of cement and super plasticizer exclusive of GST shall only be considered for payment.

1.0 MATERIALS

1.1 Cement

- a) Ordinary Portland Cement 43 Grade conforming to IS: 269-2015.
- b) Ordinary Portland cement 53 grade conforming to IS: 269-2015.
Following extra precautions shall be taken:
 - (i) Proper mix design may be done to account for shrinkage/micro cracking due to higher heat of hydration.
 - (ii) The temperature of aggregate, water and cement should be maintained at the lowest practical levels, so that temperature of concrete is below 300 C at the time of placement.
 - (iii) Aggressive curing of concrete to avoid cracking shall be done keeping surface continuously wet by providing wet hessian cloth etc, before continuous curing i.e. after 24 hours of laying.
 - (iv) Use of 53 grades OPC shall be avoided in case of hot weather concreting.
- c) Factory Produced Portland Pozzolana Cement (Flyash based) conforming to IS: 1489 (Part-I)-2015.
- d) Portland Slag Cement conforming to IS:455-2015.
- e) Sulphate Resisting Portland cement conforming to IS: 12330 (If soluble salt like sulphate in subgrade is more than 0.5%).

Note:

- i) High alumina cement is not permitted to be used.
 - ii) Agency should submit copies of purchase voucher to the Engineer-in- Charge and original to be produced for verification.
- 1.1.1. Supply of Cement shall be obtained either in bulk form or as per clause 3.1.2.5 of CPWD specifications Vol-I, 2009. Tests on cement shall be done as per clause 16.1 under quality control and nothing extra shall be paid on this account.

1.1.2 SUPER PLASTICIZER

Super Plasticizer conforming to IS: 9103 may be used to improve the workability of concrete.

1.2 WATER

Water for mixing and curing concrete will ordinarily be obtained from a source which is used for drinking. Where water from such a source is not available, the contractor shall ensure that it is clean and free from injurious quantities of acid, alkalies, salts, alcohol, silt, oil, organic matter etc. and conforms to IS: 456 (latest revision). In order to ensure that the water does not contain impurities in injurious proportions, the contractor shall get the water tested in one of the approved testing laboratories at his own expense. Nothing extra shall be paid on this account. In such cases, the provisions laid down in clause 5.4 of IS: 456 (latest revision) shall be binding. Test on water should be repeated whenever there is change in the source.

1.3 COARSE AGGREGATES

These shall be natural materials conforming to IS: 383(latest revision) but with Los Angeles Abrasion value not more than 30 per cent. These shall be crushed or broken from hard stones obtained from approved quarry.

These shall be clean, strong, durable of fairly cubical shape and free from soft, friable, thin

elongated and laminated / disintegrated pieces. These shall also be free from dirt, organic, deleterious and any other foreign matter and adherent coatings and shall satisfy the physical requirement laid down in clause 16.1 under quality control. Nothing extra shall be paid for testing of material. Manufactured aggregate shall also be allowed subject to meeting the requirement of IS 383.

1.3.1 Some aggregates may contain ferrous sulfides and iron oxides which can cause stains on exposed concrete surfaces. In areas where staining has been a problem or is suspected, the Engineer should verify that producers and aggregate suppliers have taken steps to prevent the inclusion of any ferrous sulfides or iron oxides in aggregate to be used in the project.

If there is a concern that these may exist, an indicator to identify staining particles is to immerse the aggregate in a lime slurry. If staining particles are present, a blue-green gelatinous precipitate will form within 5 to 10 minutes, rapidly changing to a brown color on exposure to air and light. The reaction should be complete in 30 minutes. If no brown gelatinous precipitate forms, there is little chance of reaction in concrete.

1.4 FINE AGGREGATE

The fine aggregate shall be coarse sand consisting of clean natural sand or crushed stone sand or a combination of the two and shall conform to IS: 383 and clause 3.3.4 of IRC 15-2017 and shall satisfy the physical requirement laid down in clause 16.1 under quality control. Nothing extra shall be paid for testing of material. Fine aggregate shall be free from soft particles, clay, shale, loam, cemented particles, mica, organic and other foreign matter. Manufactured fine aggregate shall also be allowed subject to meeting the requirement of IS 383.

1.5 COMBINED GRADING OF AGGREGATES

The grading of all aggregates (coarse and fine aggregates) to be used on specific job shall be determined in the material testing laboratory (approved by AAI/Govt. Institutions i.e., IITs, NITs, Govt. Engg. Colleges) or in-house by Department of Structure as directed by the Engineer-In-Charge. The coarse and fine aggregates shall be mixed in suitable proportions so that the grading of the mixed aggregates shall be in the range indicated in the table below:

I.S. Sieve Size	%age passing by weight
45 mm	100
22.4 mm	55-60
11.2 mm	45-50
5.6 mm	35-40
2.8 mm	30-35
1.4 mm	20-25
710 micron	15-20
355 micron	8 -14
180 micron	0-5

If the combined aggregate grading calculated thereof does not meet the specified grading requirements, appropriate adjustment shall be made in the proportions of different aggregate fractions. Any deviation to the overall grading shall be made only with the specific approval of Engineer-In-Charge and nothing extra shall be paid for such adjustment. Design of mix shall be redone if there is a

change in the source of coarse or fine aggregates or type of cement as per Para 1.1. Nothing extra shall be paid for such testing and designing.

1.6 ANTI-FRICTION LAYER

1.6.1 Anti-friction layer shall be provided between the concrete slab and the DRLC surface. Before placing the anti-friction layer, the sub-base shall be swept clean of all the extraneous materials and a layer of 6mm fine sand shall be laid. On sand layer, polyethylene sheet (white in colour) of thickness 400 micron conforming to IS: 2508, with overlaps of not less than 300mm longitudinally and 300mm transversely shall be laid. Any damaged sheeting shall be replaced at the contractor's expenses. The anti-friction layer shall be nailed to the lower layer with concrete nails.

1.6.2 COMPOSITION

1.6.2.1 Natural Compound

1.6.2.1.1 The compound used for manufacturing natural film shall consist only of polyethylene resins complying with 1.7.2.1.2. Any additives, such as antioxidants, to impart additional qualities to the films, such as slip, may be added in quantity to the resins, as agreed to between the supplier and the purchaser.

1.6.2.1.2 The polymers for the natural film shall have a melt flow index between 0.10 to 15.0 g/10 min. The density for the compound from which the film is made shall be between 0.913 to 0.923 g/ml at 27°C (0.915 to 0.925 g/ml at 23°C).

1.6.3 **Appearance** - The film shall be uniform in colour, texture and finish. The material shall be substantially free from pin-holes and undispersed raw materials, streaks and particles of foreign matter. There shall be no other visible defects, such as holes, tears or blisters. The edges shall be free from nicks and cuts visible to unaided eye. The natural films shall be free from pin-holes.

1.6.4 **Odour** - The film shall be free from any objectionable odour.

1.6.5 **Density** - The density of the film, when determined in accordance with A-I of IS 2508 or Method 5 of IS: 8543 (Part I/Set 2)-1979 shall be as prescribed in 1.7.2.1.2. However, in case of dispute, the latter shall be the preferred method.

1.6.6 **Melt Flow Index** - The melt flow index of the film when determined in accordance with 7 of IS: 2530-19637 shall be as prescribed in 1.7.2.1.2.

1.6.7 **Tensile Strength at Break** - The tensile strength at break when tested as prescribed in A-4 of IS 2508 for all thicknesses of polyethylene film shall be not less than 11.77 MN/m² (120 kgf/ cm²) in lengthwise direction and 8.33 MN/m² (25 kgf /cm²) in crosswise direction.

2.0 HANDLING AND STORAGE OF MATERIALS

2.1 CEMENT

The Contractor shall provide adequate storage facilities to prevent deterioration of cement during storage due to climate and other causes. Wherever bulk storage containers are used, their capacity should be sufficient to cater to the requirement at site. The containers shall be cleaned at least once every 3 months. Cement remaining in stores for more than one and half month from the date of manufacture must be retested before use and to be rejected, if it fails to conform to any of the requirements of the specifications.

2.2 AGGREGATES

a) Stock piles shall be made immediately on receipt of aggregates at site of work. Aggregates shall be stacked separately according to the nominal sizes of coarse aggregates. For fine aggregates, separate stacks shall be made.

b) Aggregates shall be stacked on a hard surface so as to exclude the possibility of soil or grass being mixed up. When stacked in close proximity, the stock piles shall be separated by bulk heads to prevent the different sizes of aggregates from mixing together. Special care shall be taken to clean and wash the last layer of aggregates in contact with ground surface before use.

c) Before batching, the aggregates shall have been stock piled for at least 24 hours to allow for draining of water, if any. The Contractor shall make adequate provision for stock piling aggregates to the extent sufficient to meet the needs of the work taking into account the availability of supplies and rates of delivery etc. and nothing extra shall be paid for necessary double handling and transport of materials from stock piles to mixing plant etc.

d) Grading of coarse and fine aggregate shall be checked as per clause 16.1 under quality control to ensure that the suppliers are maintaining the uniform grading as approved for samples used in the mix design.

3.0 MIX DESIGN

3.1 The concrete mix shall be got designed by the Contractor in the material testing laboratory (approved by AAI/Govt. institutions i.e., IITs, NITs, Govt. Engg. Colleges) or in-house by Department of Structure as directed by the Engineer-In- Charge so as to obtain the target average flexural strength. The margin over characteristic strength is as below:

Characteristic flexural strength (beam) at 28 days, (f_{cr}) = 4.1 MPa

Normal variate for the desired confidence level, (Z) = 1.65

Assumed value of Standard Deviation, (s) = 0.4 MPa

Target average flexural strength at 28 days, $f'_{cr} = f_{cr} + 1.65 \times s$

$$f'_{cr} = 4.1 + 1.65 \times 0.4$$

$$= 4.76 \text{ MPa}$$

Say, 4.8 MPa

Water cement ratio by weight = 0.45 (Maximum)

Slump = 25 ± 15 mm for slip/fixed form paver

= 40 ± 10 mm for manual method

Any change in the source of materials or mix proportions including change of brand of cement proposed by the Contractor during the course of work shall be assessed by making laboratory trial mixes and same shall be incorporated in work with written approval of concerned Engineer-In-Charge.

In case services of Department of Structure, AAI is utilized for mix design and other testing if any, contractor shall be charged extra as per prevalent charges and same shall be deducted from contractor bills. Contractor quoted rates shall be deemed to be inclusive of same and nothing extra shall be payable.

3.2 The quantity of cement, type of cement and super plasticizer for one Cum. Of finished concrete



specified in the item are for tendering purpose only. Necessary cost adjustment shall be done as per formula laid down below:

3.2.1 OPC 43/53 grade of Cement:

If the actual quantity of OPC 43/53 grade of Cement required as per laboratory mix design varies from 360 Kg/Cum, necessary cost adjustment for deviation in the quantity of OPC 43/53 grade of Cement shall be done as per the rate of OPC 43/53 grade of Cement in actual supply voucher from manufacturer/authorized dealer at the time of execution. In the case of authorized dealer the rate may be authenticated by the manufacturer. The rate of OPC 43/53 grade of Cement exclusive of GST shall only be considered for payment. In no case quantity of OPC 43/53 grade of cement shall fall below 330 Kg/Cum. Extra payable/deductible rate shall be calculated in following manner:

Cost of OPC 43/53 grade of Cement above/below 360Kg/Cum : 'X'

Add 1% Water Charges on 'X'

Add 15% CP & OH on total adding 1% water charges

Add 1% labour Cess on total after adding 15% CP & OH : Say 'A'

3.2.2 Portland Pozzolana Cement or Portland Slag cement:

If the actual quantity of Portland Pozzolana Cement or Portland Slag cement required as per laboratory mix design varies from 400 Kg/Cum, necessary cost adjustment for deviation in the quantity of Portland Pozzolana Cement or Portland Slag cement shall be done as per the rate of Portland Pozzolana Cement or Portland Slag cement in actual supply voucher from manufacturer/authorized dealer at the time of execution. In the case of authorized dealer the rate may be authenticated by the manufacturer. The rate of Portland Pozzolana Cement or Portland Slag cement exclusive of GST shall only be considered for payment. In no case quantity of Portland Pozzolana Cement or Portland Slag cement shall fall below 330 Kg/Cum. Extra payable/deductible rate shall be calculated in following manner:

Cost of Portland Pozzolana Cement or Portland Slag cement above/below
400Kg/Cum : 'X'

Add 1% Water Charges on 'X'

Add 15% CP & OH on total adding 1% water charges

Add 1% labour Cess on total after adding 15% CP & OH : Say 'A'

3.2.3 SUPER PLASTICIZER

If the actual percentage of Super plasticizer by mass of cementitious material varies from 0.5%, Extra payable/ deductible rate shall be calculated in following manner:

Extra/ less cost of super plasticizers over or below 0.5% of cementitious material : 'X'

Add 1% Water Charges on 'X'

Add 15% CP & OH on total adding 1% water charges

Add 1% labour Cess on total after adding 15% CP & OH : Say 'A'

The rate of super plasticizers shall be as per actual supply voucher from manufacturer/authorized dealer at the time of execution. In the case of authorized dealer the rate may be authenticated by the manufacturer. The rate of super plasticizer exclusive of GST shall only be considered for payment.

3.3 At the time of tendering, the Contractor, after taking into account the type of aggregates, plant and method of laying he intends to use, shall allow in his tender for aggregate/cement and water cement ratios which he considers will achieve the specified strength. These ratios shall, however, not exceed the ratios stipulated in para 3.1 and shall produce a workability, which shall enable concrete to be properly compacted to its full depth and finished to the surface tolerance specified.

3.4 No concrete shall be laid nor any payment made thereof unless the concrete mix design is submitted by the Contractor and is approved by the concerned Engineer-In-Charge and communicated in writing. This mix design shall be provisional and subject to obtaining satisfactory results with trial mixes. Final approval shall be issued only after getting the satisfactory test report from trial mixes.

3.5 Laboratory charges for mix design, cost of materials, its cartage and other incidental expenses shall be borne by the Contractor.

3.6 Guidelines for Cement Concrete Mix Design for Pavements can be followed as per IRC: 44 -2017 and SP: 23-1982.

4.0 FIELD TRIAL MIXES

4.1 Preliminary trial mixes shall be made and tested. Trial mixes shall also be made if a change is intended subsequently in the source of supply of materials/quality of materials or in the proportions of the materials to be used.

4.2 Samples of concrete shall be taken at the concrete batching plant and work beams made, cured and tested in accordance with IS: 1199 and IS: 516, as per clause 4.3 given below.

4.3 Representative samples of materials to be used shall be taken and trial mix using the proposed proportions shall be made, two samples each on three different days.

Each sample shall consist of 6 beam specimens, three for testing at 7 days and three at 28 days and a total of 36 beams shall be made in three days. The workability of each of these six trial mixes shall be determined. The test strength of the sample shall be the average strength of 3 specimens but individual variation should not be more than +15%. Otherwise, new trial mix corresponding to the initially approved sample will have to be made. The proposed mix proportion shall not be accepted if the average of 28 days beam strength of 6 trial mixes is not satisfying the provisions as per para 16.4.1. The mix shall be suitably modified if the strength do not meet the criteria as specified.

4.4 The mix design shall be got approved from concerned Engineer-In-Charge. The design mix, thus approved shall be intimated to the Contractor by the Engineer-in-Charge with full data and clear understanding that the mix proportion specified is provisional subject to the verification of level of control at the site.

4.5 30 beams and 30 cubes shall be cast for deriving the relationship between flexural strength and compressive strength i.e. K-value, by the Engineer-In-Charge and the same shall be got approved from concerned General Manager Engg (Project)/work. This K-value shall be used for calculation of required core strength in clause 16.4.3.

4.6 During the progress of work, samples of concrete shall be taken at the concrete batching plant and work beams made, cured and tested in accordance with IS: 1199 and IS: 516. Acceptance criteria for this shall be as per para 16.4.1.

4.7 All samples for tests shall be taken in the presence of the Engineer-in-charge and the contractor or their authorized representatives.

5.0 SLUMP TEST

5.1 Slump tests shall be carried out as per IS: 1199 (latest revision). A slump test shall be carried out as per clause 16.1 under quality control or more and frequently, if directed by the Engineer-in-Charge. Any batch from which slump test is being made shall not be transferred to the place of laying till the slump test has been completed and result approved. Not only the batch which gives a slump in excess of that specified shall be rejected but the concrete already laid immediately preceding the batch tested up to the nearest last transverse joint may be rejected by the Engineer-in-Charge or his representative, if he is satisfied that such preceding batches were sub-standard in this respect. The decision of the Engineer-in-Charge in this respect shall be final and binding on the contractor. Such rejected concrete shall be removed by the Contractor immediately and replaced with proper concrete at his own cost and expense.

6.0 BATCHING AND MIXING OF CONCRETE

6.1 A system approach should be adopted for construction of pavement, and the method statement for carrying out the work, detailing all the activities including indication of time cycle, equipment, personnel etc. shall be got approved from the Engineer-in-Charge before the commencement of work. The above shall include the type, capacity and make of batching and mixing plant beside the hauling arrangement and paving equipment. The capacity of paving equipment, batching plant as well as all the ancillary equipment shall be adequate for a paving requirement for day's work.

6.2 Batching and mixing of the concrete shall be done at a central batching and mixing plant of adequate capacity as per work program with automatic controls, located at suitable place which takes into account sufficient space for stock piling of cement, aggregate and stationary water tanks. This shall be however, situated at an approved distance, duly considering the properties of the mix and transport arrangements available with the contractor.

6.3 Proportioning of a material shall be done in the batching plant by weight, each type of material being weighed separately. The cement from the bulk stock may be weighed separately from the aggregates and water shall be measured by volume. Wherever properly graded aggregate of uniform quality cannot be maintained as envisaged in the mix design the grading of aggregates shall be controlled by appropriate blending techniques. The capacity of batching and mixing plant shall be at least 25% higher than the proposed capacity for the laying/ paving equipment.

6.4 The batching plant shall include preferably four bins, weighing hoppers, and scales for the fine aggregate and for each size of coarse aggregate. If cement is used in bulk (after opening bags on platform) a separate scale for cement shall be included. The weighing hoppers shall be properly sealed and vented to preclude dust during operation. Approved safety devices shall be provided and maintained for the protection of all personnel engaged in plant operation, inspection and testing. The batch plant shall be equipped with a suitable non resettable batch counter which will correctly indicate the number of batches proportioned.

6.5 Bins preferably with four adequate separate compartments shall be provided in the batching plant.



6.6 Batching plant shall be equipped to proportion aggregates and bulk cement by means of automatic weighing devices using load cells. The weighing device shall have an accuracy within + 1% in respect of quantity of cement and water and + 2% in respect of aggregates and accuracy shall be checked at least once a month.

6.7 Mixers shall be pan type, reversible type with single or twin shaft or any other mixer capable of combining the aggregates, cement and water into a thoroughly mixed and uniform mass within the specified mixing period and of discharging the mix without segregation. Each stationary mixer shall be equipped with an approved timing device which will automatically lock the discharge lever when the drum has been charged and release it at the end of the mixing period.

The device shall be equipped with a bell or other suitable warning device adjusted to give a clearly audible signal each time the lock is released. In case of failure of the timing device the mixer may be used for the balance of the day while it is being repaired provided that each batch is mixed for 90 seconds or as per the manufacturer's recommendation. The mixer shall be equipped with a suitable non resettable batch counter which shall correctly indicate the number of batches mixed.

6.8 The mixer shall be cleaned at suitable intervals. The pickup and throw over blades in the drum or drums shall be repaired or replaced when they are worn down 20mm or more. The contractor shall have available at the job site a copy of the manufacturers design, showing dimensions and arrangements of blades in reference to original height and depth or provide permanent marks on blade to show points of 20mm wear from new conditions. Drilled holes of 5mm diameter near each end and at mid-point of each blade are recommended. Batching plant shall be calibrated for the each ingredients upto its maximum quantity being used in the mix at site in the beginning and thereafter at suitable interval not exceeding one month.

6.9 Air-conditioned centralized computer control cabin shall be provided for automatic operation of the equipment.

6.10 The design feature of the batching plant should be such that it can be shifted quickly.

6.11 Concrete mixed as above is not to be modified by the addition of water or otherwise in order to facilitate handling or for any other purpose.

7.0 PAVING EQUIPMENT

7.1 The concrete shall be placed with Slip Form Paver/Fixed form paver (with independent units to spread, consolidate from the mould, screed and float-finish, texture and cure) or Manual method as per the item/as approved by Engineer-in- Charge. If the concrete is to be laid by slip form paver, the paver shall be equipped with electronic controls to control the line and grade from either one side or both sides of the machine.

7.2 Vibrators shall operate at a frequency and spacing recommended by the manufacturer. The variable vibration setting shall be provided in the machine.

7.3 The contractor shall provide adequate no. of concrete saws with sufficient no. of diamond edge saw blades. The saw machine shall be either electric or petrol/ diesel driven type. A water tank with flexible hose and pump shall be made available for this activity on priority basis. The contractor shall have at

least one standby saw in good working condition. The concreting work shall not commence if the saws are not in working condition.

7.4 Guide wires for Slip form Paver

7.4.1 Guide wire shall be provided along both sides of the slab. Each guide wire shall be at a constant height above and parallel to the required edge of the slab as described in the contract/drawing within a vertical tolerance of + 2 mm.

Additionally, one of the wires shall be kept at a constant horizontal distance from the required edge of the pavement as indicated in the contract /drawing with in a lateral tolerance of +10mm.

7.4.2 The guide wires shall be supported on stakes 5-6 meters apart by connectors capable of fine horizontal and vertical adjustment. The guide wire shall be tensioned on the stakes so that a 500 grams weight shall produce a deflection or not more than 20mm when suspended at the midpoint between any pair of stakes.

The ends of guide wire shall be anchored to fixing point or winch and not on the stakes.

7.4.3 The stakes shall be positioned and the connectors maintained at their correct height and alignment 12 hrs. on the day before concreting takes place until 12 hrs. after finishing of the concrete. The guide wires shall be checked and tensioned on the connectors at any section at least 2 hrs. before concreting that section.

7.4.4 The contractor shall submit to the Engineer-In-Charge for his approval of line and level, the stakes and connectors which are ready for use in the length of pavement to be constructed next day. Such approval shall be obtained at least 12 hrs. before commencement of paving operation. Any deficiencies noted by the Engineer-in-Charge shall be rectified by the contractor who shall then reapply for approval of the affected stakes. Work shall not proceed until the Engineer-in-Charge has given his approval. It shall be ensured the stakes and guide wires are not affected by the construction equipment when concreting is in progress.

7.5 Side Forms and Rails for Fixed form paver

7.5.1 All side forms shall be of mild steel channels of depth equal to the thickness of pavement or slightly less to accommodate the surface irregularity of the sub base. The forms can be placed in series of steel packing plates or shims to take care of irregularity of sub base. They shall be sufficiently robust and rigid to support the weight and pressure caused by a paving equipment.

7.5.2 Side forms for use with wheeled paving machines shall incorporate metal rails firmly fixed at a constant height below the top of the forms. The forms and rail shall be firmly secured in position by not less than 3 stakes/pins for every 3 meter length so as to prevent movement in any direction. Forms and rails shall be straight within a tolerance of 3 mm in 3 meter and when in place shall not settle in excess of 1.5 mm in 3 meter while paving is being done. Forms shall be cleaned and oiled immediately before each use.

7.5.3 The forms shall be bedded on a continuous bed of low moisture content lean cement mortar or concrete and set to the line and levels shown on the drawings within tolerances of + 10 mm and + 2 mm respectively. The bedding shall not extend under the slab and there shall be no vertical step between adjacent forms of more than 2 mm. The forms shall be got inspected by the Engineer-in-Charge for his

approval 12 hrs. before construction of the slab and shall not be removed until at least 12 hrs. Afterwards. No concreting shall commence till form work has been approved by the Engineer-in-Charge.

7.5.4 At all times sufficient forms shall be used and set to the required alignment for required length of pavement immediately in advance of the paving operations, or the anticipated length of pavement to be laid within the next 24 hrs.

7.5.5 Forms shall be fixed in advance as per specifications. Before any paving is done the site shall be shown to the Engineer-in-Charge in order to verify the arrangement for paving as per the relevant clauses of this specification. The mixing and placing of concrete shall progress only at such a rate as to permit proper finishing, protecting and curing of the pavement.

7.6 Steel Forms for Manual Method

7.6.1 Manual method may be adopted where execution with slip form paver is not feasible. All side forms shall be of mild steel. The steel forms shall be of mild steel sturdy channels sections and their depth shall be equal to the thickness of the pavement.

7.5.2 The side forms shall have a length of at least 3.0 meters except on curves of less than 45 meters radius where shorter length may be used. When set to grade and stacked in place the maximum deviation of the top surface of any section from a straight line shall not exceed 2 mm in the vertical plane and 5 mm in the horizontal plane. The method of connection between sections shall be such that the joint formed shall be free from difference in level, play or movement in any direction. The use of bent, twisted or worn out forms will not be permitted. At least three stake pickets for each 3.0 m of form and the bracing and support must be ample to prevent springing of the forms under the pressure of concrete or the weight or thrust of machinery operating on the forms.

7.5.3 The supply of forms shall be sufficient to permit their remaining in place for 12 hrs. after the concrete has been placed or longer, if in the opinion of the Engineer-in-Charge, it is necessary.

7.5.4 The top line of the forms is not to vary from the correct level or alignment and the levels and alignment of the forms are to be checked and corrected as necessary immediately prior to the placing of concrete. The top edges and faces of the forms are to be carefully cleaned and maintained in clean condition.

7.5.5 While removing the steel forms, care shall be taken to withdraw them gradually. Any damages to the bull nosed edges shall be made good while the concrete is still green, as directed by the Engineer-in-Charge.

7.5.6 Setting of forms shall be according to the slab plan subject to the approval of the Engineer-in-Charge and concreting shall not commence until the setting of forms is approved.

7.5.7 Forms shall be set at least 50 meters length in advance of the point where the concrete is being laid and shall not be removed until at least 12 hrs. of the placing of concrete or longer if in the opinion of Engineer-in-Charge, it is necessary. After setting, the working faces shall be thoroughly oiled using approved oil but before concrete is placed against them.

7.5.8 Sufficient rigidity shall be obtained to support the forms in such a position during the entire



operation of compaction and finishing that they will not at any time deviate more than 3 mm from a straight edge 3 meters in length.

Forms which show a variation from the required rigidity or the alignment and levels shown on the plans, shall be reset or removed, as directed. The length and number of pins or stakes shall be such as to maintain the forms at the correct line and grade. All forms shall be cleaned and oiled each time before they are used.

8.0 HAULING AND PLACING OF CONCRETE

8.1 Freshly mixed concrete from the central batching and mixing plant shall be transported to the paver site by means of tippers/transit mixers of sufficient capacity and approved design in sufficient numbers to ensure a constant supply of concrete. Cover shall be used for protection of concrete against the weather.

While loading the concrete, truck shall be moved back and forth under the discharge chute to prevent segregation. The tipping trucks shall be capable of maintaining the mixed concrete in a homogeneous state and discharging the same without segregation and loss of cement slurry. The feeding to the paver is to be regulated in such a way that paving is done in an uninterrupted manner with a uniform speed throughout the day's work. Tipping truck shall be washed at a regular frequency as prescribed by the Engineer-in-Charge to ensure that no leftover mix of previous loading remains stuck.

8.2 Concrete mixed in central mixing plant shall be transported to the site without delay and the concrete which in the opinion of Engineer-in-Charge, has been mixed too long before laying will be rejected and shall be removed from the site. The total time taken from the addition of water to the mix until the completion of surface finishing and texturing shall not exceed 120 minutes when concrete temperature is less than 25°C and 90 minutes when concrete temperature is between 25°C to 30°C. Tippers/transit mixers delivering concrete shall not run on completed slabs until after 28 days of placing of concrete.

8.3 In all cases the temperature of the concrete shall be measured at the point of discharge from the delivery vehicle.

8.4 The addition of water to the surface of the concrete to facilitate the finishing operations will not be permitted except with the approval of the Engineer-in-Charge when it shall be applied as a mist by means of approved equipment.

8.5 If considered necessary by the Engineer-in-Charge, the paving equipment shall be provided with approved covers to protect the surface of the slab under construction from direct sunlight and rain or hot wind.

8.6 As soon as the side forms are removed, edges of the slabs shall be corrected wherever irregularities have occurred by using fine concrete composed of 1:1:2, cement: sand: coarse aggregate (10 mm down) with water cement ratio not more than 0.4 under the supervision of Engineer-in-Charge.

8.7 If the requirement for surface regularity fails to be achieved on two consecutive working days then normal working shall cease until the cause of the excessive irregularity has been identified and remedied.

8.8 Construction by Slip Form Paver: The slip form paving train shall consist of power machines which spreads compacts and finishes the concrete in a continuous operation.

8.8.1 The slip form paving machine shall compact the concrete by internal vibration and shape it between the side forms with either a conforming plate or by vibrating and oscillating finishing beams. The concrete shall be deposited without segregation in front of slip form paver across the whole width and to a height which at all times is in excess of the required surcharge. The deposited concrete shall be struck off to the necessary average and differential surcharge by means of the strike off plate or a screw auger device extending across the whole width of the slab. The equipment for striking-off the concrete shall be capable of being rapidly adjusted for changes of the average and differential surcharge necessitated by change in slab thickness or cross fall.

8.8.2 The level of conforming plate and finishing beam shall be controlled automatically for the guide wires installed by sensors attached at the four corners of the slip form paving machine. The alignment of paver shall be controlled automatically from the guide wire by at least one set of sensors attached to the paver. The alignment and level of ancillary machines for finishing, texturing and curing of the concrete shall be automatically controlled relative to the guide wire or to the surface and edge of an adjoining hardened slab.

8.8.3 Slip form paving machines shall have vibrators of variable output with a maximum energy output of not less than 2.5 KW per meter width of slab per 300 mm depth of slab for a laying speed up to 1.5 m per minute or pro-rata for higher speeds. The machine shall be of sufficient mass to provide adequate reaction during spreading and paving operations on the traction units to maintain forward movements during the placing of concrete in all situations.

8.8.4 If the edges of the slip formed slab slump to the extent that the surface of the top edge of the slab does not comply with the requirements, then special measures approved by the Engineer-in-Charge shall be taken to support the edges to the required levels and work shall be stopped until such time as the contractor can demonstrate his ability to slip form the edges to the required levels. The slumped edge shall have to be corrected by adding fresh concrete after roughening the surface.

8.8.5 Upon the instructions of the Engineer-in-Charge, contractor shall scrape the concrete surface when in plastic state with a 3.0 m long tube float fixed with a long and stable handle before texturing. Tube float shall be of an alloy steel tube of 50-60 mm diameter with a long and stable handle. The length of the tube float shall preferably be longer than half the length of slab i.e., half the distance between two transverse contractions joints. This operation shall be done to minimize surface irregularity caused due to varied causes like frequent stoppage of work, surface deformation due to plastic flow etc. The tube float shall be placed at the center of the slab parallel to longitudinal joint and pulled slowly and uniformly towards the edges. After the use of the float tube, it shall be frequently cleaned before further use. The slurry removed shall be discarded. This activity shall be advanced laterally by providing an overlap of half the length of two float. The removal of the cement slurry from the surface shall be sufficient enough such that the texture is formed on a firm surface and is more durable. This operation however, shall be carried out after removing bleeding water.

8.8.6 In the case of construction by slip form paver, areas inaccessible to paving equipment shall be constructed by manual/hand guided method. Areas in which manual/hand guided methods of



construction become indispensable shall be got approved by the Engineer-in-Charge in writing in advance. Work shall be carried out by skilled personnel as per methods approved by the Engineer-in-Charge. For construction by hand guided method in the limited area, no cost adjustment will be made.

8.9 Construction by Fixed Form Paver: The fixed form paving train shall consist of separate powered machines which spread compact and finish the concrete in a continuous operation. The paving train moves on the rails fixed on both sides of the pavement and compacting/finishing is simultaneously carried with the equipment fitted with paving train which moves on the rails.

8.9.1 The concrete shall be discharged without segregation into a hopper of the spreader which is equipped with means for controlling its rate of deposition on to the sub-base. The spreader shall be operated to strike off concrete upto a level requiring a small amount of cutting down by the distributor of the spreader.

The distributor of spreader shall strike off the concrete to the surcharge adequate to ensure that the vibratory compactor thoroughly compacts the layer. If necessary poker vibrator shall be used adjacent to the side forms and edges of the previously constructed slab.

8.9.2 The vibratory compactor shall be set to strike off the surface slightly high so that it is cut down to the required level by the oscillating beam. The machine shall be capable of being rapidly adjusted for changes in average and differential surcharge necessitated by changes in slab thickness or cross fall. The final finisher shall be capable to finish the surface to the required level and smoothness as specified, care being taken to avoid bringing up of excessive mortar to the surface by over working.

8.9.3 In the case of construction by fixed form paver, areas inaccessible to paving equipment shall be constructed by manual/hand guided method. Areas in which manual/hand guided methods of construction become indispensable shall be got approved by the Engineer-in-Charge in writing in advance. Work shall be carried out by skilled personnel as per methods approved by the Engineer-in-Charge.

For construction by hand guided method in the limited area, no cost adjustment will be made.

8.10 SURFACE TEXTURE

8.10.1 Surface of the pavement shall be finished for the newly constructed concrete pavements such that texturing equipment shall not tear or unduly roughen the concrete surface during the operation. The texture shall be uniform in appearance and approximately 2.0mm in depth. Brush shall be applied when the water sheen has practically disappeared and the surface of concrete shall be brush-textured in a direction at right angles to the longitudinal axis of the carriageway to get satisfactory texture.

8.10.2 The texture depth shall be determined by the Sand Patch Test as described below. This test shall be performed at least once for each day's paving and wherever the Engineer-In-Charge consider it necessary at times after construction as under:

Five individual measurement of the texture depth shall be taken at least 2m apart anywhere along a diagonal line across a lane completed between points 50m apart along the pavement. No measurement shall be taken within 300mm of the longitudinal edges of a concrete slab constructed in one pass.

8.10.4 Measurement of Texture Depth – Sand Patch Method

The following apparatus shall be used:

- i) A cylindrical container of 25 ml internal capacity.
- ii) A flat wooden disc 64mm diameter with a hard rubber disc, 1.5mm thick, stuck to one face, the reverse face being provided with a handle.
- iii) Dry natural sand with a rounded particle shape passing a 300micron IS sieve and retained on a 150 micron IS sieve.

Method: The surface to be measured shall be dried, any extraneous mortar and loose material removed and the surface swept clean using a wire brush both at right angles and parallel to the carriageway. The cylindrical container shall be filled with the sand, tapping the base 3 times to the surface on ensure compaction, and striking off the sand level with the top of cylinder. The sand shall be poured into a heap on the surface to be treated. The sand shall be spread over to surface, working the disc with its face kept flat in a circular motion so that the sand is spread into a circular patch with the surface depressions filled with sand to the level of peaks. The diameter of the patch shall be measured to the nearest 5mm. The texture depth of concrete surface shall be calculated from $31000/(D \times D)$ mm where D is the diameter of patch in mm. 8.10.5 Texture depth shall not be less than a minimum required when measurement are taken as given in table nor greater than a maximum average of 1.25 mm.

TABLE : TEXTURE DEPTH

S No.	Time Test	Number of measurements	Required Texture Depth (mm)	
			Specified value	Tolerance
1.	Between 24 Hrs. and 7 days after the construction of the slab or until the slab is first used by vehicles.	An average of 5 Measurements	1.00	±0.25
2.	Not later than 6 weeks before the pavement is opened to traffic.	An average of 5 Measurements	1.00	±0.25

8.10.6 After the application of the brushed texture, the surface of the slab shall have a Uniform appearance.

8.10.7 Where the texture depth requirements are found to be deficient, the Contractor shall make good the texture across the full lane width over length directed by the Engineer-in-Charge, by texturing the hardened concrete surface in an approved manner.

9.0 CONSTRUCTION BY MANUAL/HAND GUIDED METHOD:

The pavement shall be constructed using side forms. The acceptance criteria regarding level, thickness, surface regularity, texture, finish strength of concrete and all other quality control measures shall be the same as in the case of machine laid down.

9.1 Placing of Concrete:

9.1.1 Concrete shall be deposited between the forms. Where a certain amount of redistribution is necessary, it shall be done with shovels and not with rakes. The concrete shall be compacted with the needle vibrator and vibrating screeds. Use of vibrator near side forms is essential to eliminate honey combing. To effect adequate compaction, the concrete shall be placed with appropriate surcharge over the final slab thickness. The amount of surcharge will depend upon the mode of placement of concrete and shall be determined by trial. In general, the required surcharge is about 20% of the required slab thickness.

9.1.2 The concrete is to be deposited and spread to such a depth that when compacted and finished, the slab thickness indicated will be obtained at all points and the surface will not at any point be below the level specified for the finished surface.

9.2 Compaction of Concrete

9.2.1 Compaction shall be carried out by electrically operated needle and screed vibrators as stipulated hereafter. Needle vibrators should be used all over the area for obtaining initial compaction of concrete. These should be of diameter not less than 4.5 cm and if the vibrators are pneumatic, the pressure must not be below 4 kg/sq.cm. If electrically operated, they should have a minimum frequency of 3500 impulses per minute. Minimum number of petrol driven vibrators as specified by the Engineer-in-Charge with minimum frequency of 3500 impulses per minute shall be provided at each work head as a standby arrangement. The screed and internal vibrator shall conform to I.S.:2505 and I.S.: 2506 respectively.

9.2.2 There should be at least three needle vibrators working in one bay. A vibrating screed consisting of a steel or timber section weighing not less than 15 kg per meter with a tamping edge of not less than 7 cm width and having a vibrator mounted thereon shall follow needle vibrators to obtain full compaction. The face of the wooden tamping edge of the screed shall be lined with M.S. plate rigidly fixed by means of counter sunk screws. Where screed vibrators are used for compaction, a standby unit shall always be maintained ready for use, should the other one go out of order. Where electrically driven vibrators are employed, a stand by pneumatic unit shall be kept ready for use in case of power failure. At the discretion of the Engineer-in-Charge, for compaction at edges and joints, vibrators may be supplemented by hand tamping and rodding for securing satisfactory results. Under no circumstances, honey combing of concrete at joints or elsewhere shall be permitted.

9.2.3 When using screed vibrator for compaction, it should not be dragged over the concrete. During the initial passes, it shall be lifted to the adjacent forward position in the steps. Subsequently, it shall be slowly slid over the surface with its axis slightly tilted away from the direction of sliding and the operation repeated until a close, dense surface is obtained.

9.2.4 Work men shall not be allowed to walk on freshly laid concrete. All operations shall be carried out from suitable wooden bridges spanning the lane width.

9.2.5 **IMPORTANT PRECAUTION:** The vibration process shall be restricted just upto the stage of appearance of water/ cement slurry on the surface. After reaching this point vibration should be discontinued. It should be ensured that no over-vibration is resorted, as it leads to formation of thin cement slurry layer over the top surface which tends to peel off with passage of time by movement of traffic.

9.3 Finishing of Concrete

9.3.1 Immediately after compacting of concrete and the construction of joints but before the concrete has hardened and while the concrete is still in a plastic state, the pavement surface shall be inspected for irregularities with a profile checking template and minor irregularities and score marks shall be eliminated by removing surplus material or by adding and working in freshly mixed concrete if necessary by means of long handled floats and scraping straight edges followed by further compaction and finishing. The long handled floats may be used to smoothen and fill in open textured area in the pavement surface, but the final finishing is to be done with scraping straight edges.

9.3.2 The scraping straight edges are to be 3 meters long with flexible handles long enough to reach the other side of the slab when operated from one side of the pavement. They are to be placed parallel to the forms at the side of the pavements and worked backwards and forwards uniformly across the width of the slab. After this operation has been completed and the surface has been brought to the required finish, the straight edge is to be moved forward but not more than half its length and the process repeated.

9.3.3 The straight edge testing and refloating is to continue until the entire surface:

- a) Is free from observable departure from the straight edge.
- b) Conforms to the required levels and cross-section.
- c) Conforms to the specified surface finish when the concrete has hardened.

9.3.4 The foregoing work is to be carried out while the concrete is still plastic and workable and in such time sequence so as to ensure the removal of water and laitance from the surface.

9.4 BELTING

Just before the concrete becomes non-plastic, the surface shall be belted with two ply canvas belt not less than 20 cm wide and at least 1 meter longer than the width of the slab. Hand belts shall have suitable handles to permit controlled uniform manipulation. The belt shall be operated with short strokes transverse to the center line of pavement and with a rapid advance parallel to the concrete line.

9.5 BROOMING

9.5.1 After belting and as soon as surplus water, if any, has risen to the surface, the pavement shall be given a broom finish with an approved steel or fiber broom not less than 45 cm wide. The broom shall be pulled gently over the surface of the pavement from edge to edge. Adjacent strokes shall be slightly overlapped. Brooming shall be perpendicular to the centre line of the pavement and so executed that the corrugations formed will be uniform in character and width and not more than 2.0 mm deep.

9.5.2 Brooming shall be completed before the concrete reaches such a stage that the surface is likely to be torn or unduly roughened by the operation. The broomed surface shall be free from porous or rough spots, irregularities, depressions and small pockets such as may be caused by accidental disturbing of particle of coarse aggregates embodied near the surface. The rate of the contractor for the item of quality controlled concrete pavement includes the provision for belting and brooming operations and nothing extra shall be paid on this account.

9.6 EDGING

After belting/ brooming has been completed but before the initial setting of concrete, the edges of the slab shall be carefully finished with an edging tool of 6 mm radius, and the pavement edges shall be left smooth and true to line.

9.7 HONEY COMBING

As soon as the side forms are removed, any minor honey combed areas shall be filled with mortar composed of one part of cement and two parts of fine aggregate. Major honey combed areas or segregated concrete or other defective work or areas damaged by removal of the forms or concrete damaged by rain or due to any other reason whatsoever shall be considered as defective work and shall be removed and replaced by the contractor at his own expense. The total area of honey combed surface not exceeding 2.5 sq.cm. each, shall not exceed 4% of the area of the slab side. Engineer in charge's decision as to whether the concrete is defective or not shall be final and binding.

10.0 SURFACE ACCURACY

10.1 After the concrete has sufficiently hardened after about 12 hours and not later than 24 hours, the surface shall be tested again for high spots. All high spots shall be marked and those exceeding 3 mm shall be ground down immediately as directed by the Engineer-in-Charge after obtaining his written permission. Care shall be taken to see that the grinding does not in any way damage the concrete surface.

10.2 The final surface finish is to be such that when tested with a profilograph/ roughness indicator/or a 3 meter long straight edge or an equivalent mechanical unevenness indicator placed anywhere within the same or adjoining slab in any direction on the surface, there shall be no variation greater than 3mm.

10.3 If the surface irregularities exceeding 3 mm still remains despite grinding if permitted, as per para 10.1 the concrete shall be removed to its full depth and replaced. The area of concrete to be removed shall be complete slab between the nearest joints. Where the defective slab is less than 4.5 meter from the construction joint, the whole area upto the construction joint shall be removed to the full depth. The concrete so removed shall not be reused in the work. Fresh concrete shall be laid in the manner already described in these specifications and shall again be subjected to test for surface accuracy and other quality control measures. Nothing extra shall be paid for all these operations.

10.4 Every slab shall bear an impression not exceeding 3 mm in depth comprising the number allotted to the slab and the date on which it is laid. This impression shall be formed by the Contractor when the concrete is green so as to leave permanent mark on setting.

11.0 CURING OF CONCRETE

Initial curing shall be done by application of curing compound or by manual method as per clause 16.37.13.5 of CPWD specifications Vol-II, 2009. However nothing extra shall be paid for curing by application of curing compound.

11.1 Initial Curing by application of Curing Compound:

11.1.1 Immediately after the surface texturing, the surface and sides of the slab shall be cured by the application of approved resin-based aluminized reflective curing compound or white pigmented curing compound which hardens into an impervious film or membrane with the help of a mechanical sprayer.

11.1.2 Curing compounds shall contain sufficient flake aluminium in finely divided dispersion to produce a complete coverage of the sprayed surface with a metallic finish. The compound shall become stable and impervious to evaporation of water from the surface of the concrete within 60 minutes of application and shall be of approved type. The curing compounds shall have a water retention efficiency index not less than 90 percent in accordance with BS Specifications No.7542 or as per ASTM C-309-81 Type 2.

11.1.3 The curing compound shall not react chemically with the concrete and the film or membrane shall not crack, peel or disintegrate within three weeks after application. Immediately prior to use, the curing compound shall be thoroughly agitated in its containers. The rate of spread shall be in accordance with the manufacturer's instructions checked during the construction of the trial length and subsequently whenever required by the Engineer-in-Charge. The mechanical sprayer shall incorporate an efficient mechanical device for continuous agitation and mixing of the compound during spraying. Arrangements should be made to spray the curing compound on the sides of the slab. The curing compound shall be sprayed in two applications to ensure uniform spread. In addition to spraying of the curing compound, the fresh concrete surface shall be protected for at least 3 hours by covering the finished concrete pavements with tents supported on mobile truss during adverse weather conditions as directed by the Engineer-in-Charge.

11.2 FINAL CURING

Final curing shall be done either by spreading of wet hessian and moisturing it regularly or by ponding method as given below. However, nothing extra shall be paid for curing by spreading wet hessian method. All joints shall be filled in with temporary filler like sand etc. in order to prevent the edges of joints from being damaged and entry of clay materials into the joints during final curing.

11.2.1 Final curing by spreading of wet hessian method

After two or three hours after application of curing compound, the pavement shall be covered including sides by moist hessian (minimum of two layers) and the same shall then be kept damp for a minimum period of 14 days after which time the hessian may be removed. During the curing period, the hessian shall be kept continuously moist.

All damaged/torn hessian shall be removed and replaced by new hessian on a regular basis.

11.2.2 Final curing by ponding method

After two to three hours after application of curing compound or upon removal of the burlap as the case may be, the slab shall be thoroughly wetted and cured by ponding as follows:

Exposed edges of the slab shall be banked with a substantial berm of earth. Upon the slab shall then be laid a system of transverse and longitudinal height of clay about 50 mm high immediately covered with a blanket of sandy soil free from stones to prevent the drying up and cracking of clay. The rest of slab within these boundaries shall then be covered with sufficient sandy soil so as to produce blanket of earth not less than 40mm deep after wetting. The earth covering shall be thoroughly wetted while it is being place on the surface and against the sides of the slab and kept thoroughly saturated with water for 21 days and thoroughly wetted down during the morning of the 22nd day and shall thereafter remain in place until the concrete has attained the required strength and permission is given by the Engineer-in-Charge. Thereafter the covering shall be removed and the pavement cleaned and swept. If the earth covering becomes displaced during the curing period, it shall be replaced to the original depth and restarted.

11.2.3 The contractor shall be liable at his cost to replace any concrete damaged as a result of incomplete curing or cracked on a line other than that of a joint as per procedure in IRC:SP-83.

11.2.4 The Contractor shall employ his own security personnel to prevent workmen, cattle straying etc., on the pavement concrete.

11.2.5 Concrete shall not be subjected to any load or weight of any plant until at least 28 days after laying, except for cutting the joints as directed by the Engineer-in-Charge.

12.0 CONTRACTION/DUMMY JOINTS

12.1 The spacing of transverse and longitudinal joints shall be 4.5 to 5 meter or as shown in the drawing. It shall be 10 mm wide and shall extend vertically from the surface of the slab to a depth equal to one-third depth of slab. The joint shall be formed by cutting with a joint cutting machine. **The initial cut or slot of not less than 3mm wide is to be formed by sawing the concrete with a joint cutting machine of approved design as soon as the concrete hardens. Normally in summer when ambient temperature is more than 30°C, initial cutting may be carried after 4-8 hrs. of laying and in winter when ambient temperature is less than 30°C, initial cut may be done at 8-12 hrs. of laying.** Top 25mm of this joint groove shall be subsequent widened to 10mm, after 14-16 days of casting concrete pavements. The details of Contraction/dummy joint shall be as given in Appendix –‘A’.

12.2 Before cutting the dummy joints, all necessary precautions shall be taken to ensure that the joint alignment is marked straight and true as per the drawings. The joint cutting machine will be handled only by an experienced person thoroughly familiar with this type of work. The joint should be cut along this alignment only. Any error in the joint cutting alignment shall be rectified by the Contractor at his own expense as directed by the Engineer-in-Charge, preferably using epoxy concrete as approved.

12.3 The groove shall be inserted with 12mm dia closed-cell Polyethylene foam back-up rod, 13mm below from the surface of the concrete and filling with Polysulphide Sealant conforming to grade B.S.: 5212-1990 or IS:11433-1995. Prior to filling with Polysulphide, the joints shall be cleaned by compressed air up to full depth and primed properly with appropriate Polysulphide primer up to back-up rod and masking tape shall be applied along the edges of joint to prevent spillage of sealant on top surface to give neat finish to sealant. The masking tape shall be removed after the sealant has been applied and tooled.

12.4 All joints shall be sealed as soon as practicable after 28 days of placing of slabs. Joints shall be sealed flush with the adjacent pavement surface. The pavement shall be opened to traffic only after joint sealing over the entire pavement has been completed. To prevent tackiness or pick up under traffic, the exposed surfaces of the sealing compound shall be dusted with hydrated lime, if directed by Engineer-in-Charge, for which nothing extra shall be paid to the Contractor.

12.5 Each lot sealant shall be supported with manufacturers test certificate. However one sample per 1000 kg. of sealant received at site or part thereof shall be collected by the Engineer-in-Charge or his authorized representative and sent for testing to any Government/ AAI approved Laboratory.

The contractor shall note that as testing charges of sealant seem to be high, they shall confirm the testing charges and quote their rates accordingly. Nothing extra over and above the quoted rates is payable on this account and no plea on what so ever ground will be entertained later on.

12.6 In case of sudden rain or storm, the work can be concluded at the dummy joints but these will then be formed as construction joints.

12.7 Before sealing of joints, it may be ensured that the transverse joints on each side of the longitudinal joint shall be in line with each other and of the same type and width. Any concrete or other foreign matter must be removed from the groove before sealing.

13.0 CONSTRUCTION JOINTS

13.1 Construction joints shall be provided as shown in the drawing and also at places whenever day's operations start and stops or where concreting is stopped due to unforeseen circumstances. The joints shall be straight and vertical through the full depth of the slab.

13.2 At all construction joints, bulk head shall be used to retain the concrete and care shall be taken in striking off and finishing the surface to the top face of the bulkhead. When work is resumed, the surface of concrete laid subsequently, shall conform to the grade and cross section of previously laid pavement. Where semi-mechanized method of construction is used, the concrete along the face of all joints shall be compacted with an internal vibrator inserted in the concrete and worked along the joint to ensure a concrete free from honeycombing. In case of mechanized construction, working and vibration/RPM of all the fixed vibrators shall be checked. There shall be two additional needle vibrators to compact the concrete near bulk head.

13.3 The Sealing of joints shall be done in the same manner as for contraction joints, by cutting a groove of 10mm wide and 25mm deep as shown in Appendix 'A'.

14.0 EXPANSION JOINTS

14.1 Expansion joints are essential where cement concrete pavement is designed to abut with structures like bridges, culverts, etc. and at junction of building and pavement. Expansion joint shall also be provided at the intersection of runway, taxiway and Apron.

The expansion joint shall be straight, extend through the full depth of the slab and shall be of the shape and dimensions shown on the drawing. The slab edges adjacent to the joint shall be formed truly vertical.

14.2 Where semi-mechanized method of construction is used, the concrete along the face of all joints shall be compacted with an internal vibrator inserted in the concrete and worked along the joint to ensure a concrete free from honeycombing. In case of mechanized construction, working and vibration/RPM of all the fixed vibrators shall be checked. There shall be two additional needle vibrators to compact the concrete near bulk head.

14.3 Synthetic expansion joint filler board as per specification shall be used to fill the gap between adjacent slabs at expansion joint. The joint groove shall be filled with Polysulphide conforming to grade B.S.: 5212-1990 or IS: 11433-1995. Prior to filling with Polysulphide, the joints shall be cleaned by compressed air up to full depth and primed properly with appropriate Polysulphide primer up to back-up rod and masking tape shall be applied along the edges of joint to prevent spillage of sealant on top surface to give neat finish to sealant. The masking tape shall be removed after the sealant has been applied and tooled. The details of expansion joint shall be as given in Appendix –'A'.

15.0 APPLICATION OF POLYSULPHIDE JOINT SEALING COMPOUND

15.1 Materials

15.1.1 **Sealant:** It shall be cold Polysulphide sealant of approved make conforming to BS: 5212-1990 or IS: 11433-1995.

15.1.2 **Back-up Rod/Backer Rod:** Type of material shall be Expanded closed cell Polyethylene foam and shall conform to ASTM C-5249-95 or ASTM D 3575.

15.1.3 **Primer:** It shall be applied on the concrete faces of the joints. It shall be single component primer suitable for use with Polysulphide joint sealant, as approved by the Engineer-in-Charge.

15.1.4 **Joint Filler Board:** The joint filler shall be Synthetic joint filler board of approved make. It shall be 25mm thick within a tolerance of +1.5mm and of a firm compressible material and complying with the requirements of IS:1838 (Part 3):2011 with a compressibility more than 25%. It shall be provided to the full width between the side forms. If two pieces are joined to make up full width, the joint shall be taped such that no slurry escapes to the joint. The physical requirement of filler shall be as per the table given below:

S.No	Characteristics	Requirement	Method of test, Ref. to IS
1	Resistance to handling	Filler strips shall not be deformed or broken by twisting, bending or other types of ordinary handling when exposed to atmospheric condition (see note)	-
2	Recovery	90% min.	10566
3	Compression	a) Load required to compress the specimen to 50% of its original thickness before the test shall be (i) 7 kgf/cm ² , min. (ii) 53 kgf/cm ² , max.	-do-
4	Extrusion	Amount of extrusion of the free edge shall not exceed 6mm	-do-
5	Water Absorption	1%, max.	-do-
6	Density	100 ± 10 kg/m ³ , min.	-do-
7	Weathering	a) shall show no sign of disintegration, delamination or separation after the test b) shall satisfy the requirement of recovery,	-do-

Note: Pieces of joint filler that have been damaged shall be rejected.

In order to ensure that sides of the PQC pavement in the portion of above expansion joint filler board do not get dirty and this space does not accumulate pieces of aggregates and other foreign materials, precaution is required to be taken as indicated in note 1 given below.

Note:

1. Expansion joint filler board should be provided upto the top of finished pavement surface. At the time of filling the joint with sealant material and backup rod/baker rod, the required depth of joint filler board from the top upto the bottom of back-up rod/baker rod should be cut & removed. For easy removal of top filler board and to avoid damage to the filler board, a pre-cut in the expansion joint filler board shall be provided at a suitable depth so that back-up rod/baker rod & sealant could be filled after removal of the top cut portion of the filler board.

Nothing extra shall be paid for the filler board from top upto the bottom of backup rod/baker rod.

2. As the period for the test will be around three weeks, advance planning is required to avoid any delay on this account.

15.2 PROCEDURE

15.2.1 Preparation of Surface: All the joint surfaces to which the sealant is to be applied should be clean, dry and free from any loose material, dirt, dust, scale, protective lacquer, grease.

15.2.2 Expansion joint filler material must be checked to ensure that it is tightly packed and no gaps or voids exist at the base of the joint slot.

15.2.3 Sealant should be prepared as per manufacturer's specifications.

15.2.4 Before sealant is applied, primer shall be applied to secure better adhesion between sealant and the concrete surface. The surface shall be allowed to dry for at least 30 minutes but no longer than 3 hours before the sealant is applied.

15.2.5 To prevent accidental spillage of sealant on the top surface and to give a neat finish, masking tape should be applied along the edge of joint before the sealant material is filled.

15.2.6 Immediately after filling the joints, the sealant should be tooled either with a stainless steel or wooden spatula of the size of the joint to give a smooth surface. While tooling, the spatula should be wetted with a wetting agent like soap water. Masking tape shall be removed immediately after the sealant has been tooled. By tooling, the sealant is compressed with the result that air bubbles if any, are broken up and the sealant becomes free of voids and there is a proper adhesion of the sealant to the sides of the joints.

15.3 Sealant of approved make shall be filled only after complete curing of concrete i.e., after 28 days. Sealant shall be applied slightly to a lower level than the slab with a tolerance of $\pm 0.5\text{mm}$ as shown in Appendix –'A'.

15.4 Sealant of approved make shall be filled up for a depth as specified in item. The rate of application of sealant may be calculated on the basis of the following formula:

Number of 1 Kilogram tins required = $0.0015 \times L \times W \times D$

where L = Length of joint in meters

W = Width of joint in mm.

D = Depth of joint in mm.

15.5 Manufacturer's certificate shall be produced for establishing that the sealant is not more than six months old or the shelf-life of the sealant. For storage, preparation of sealant, health and safety precautions etc., manufacturer's specifications shall be applicable.

15.6 A typical sketch showing details of filling of joints is enclosed as Appendix -'A'.

16.0 QUALITY CONTROL

16.1 The following quality control tests shall be carried out at frequencies specified against each, as per the table given below:

S.No	Test	Test Method	Frequency	Acceptance Criteria
I	Cement			
	Physical and chemical tests	IS:4031, IS:4032	Once for each source of supply and every 200 tonnes or part thereof. Cement remaining in stores for more than one and half month from the date of manufacture must be retested before use and to be rejected, if it fails to conform to any of the requirements of the specifications. Each brand of cement brought to site shall be tested as per this frequency. Besides, the Contractor also will submit daily	As per relevant code as per Para 1.1

S.No	Test	Test Method	Frequency	Acceptance Criteria
			test report on cement released by the manufacturer.	
II	Coarse aggregate			
	a) Flakiness Index	IS:2386 (Part-I)	Before approval of the quarry and at every subsequent change in the source of supply and one test for every 2000 cum of aggregate	Not more than 25%
	b) Impact value or Los Angeles abrasion value	IS:2386 (Part-IV)	- do-	Not more than 30%
	c) Water Absorption	IS:2386 (Part III)	-do-	Not more than 3%.
	d) Deleterious materials	IS:2386 (Part II)	Before approval of the quarry and at every subsequent change in the source of supply.	As per table -2 of IS: 383
	e) Moisture content	IS:2386 (Part III)	Regularly as required subject to a minimum of one test per day	This data shall be used for correcting the water demand of the mix on a daily basis
	f) Grading	IS: 2386 (Part-	One test per	As per

S.No	Test	Test Method	Frequency	Acceptance Criteria
		I)	day on each size of aggregates	Table - 7 of IS: 383
	g) Soundness (i) Loss with Sodium Sulphate for 5 cycles (ii) Loss with Magnesium Sulphate with 5 cycles	IS 2386 (Part V)	Before approval of the quarry and at every subsequent change in the source of supply	Max. 12% Max. 18%
	(h) Presence of ferrous sulphide and iron oxide	As per clause 1.3.1	Before approval of the quarry and at every subsequent change in the source of supply.	No presence of ferrous sulphide and iron oxide
III	Fine Aggregates			
	a) Silt Content	CPWD Specification 2009 Vol. I, Page 78, Appendix – C	One test per 200 cum and part thereof	Not more than 8%
	b) Grading	IS : 2386 (Part-III)	-do-	Fineness modulus between 2.5 to 3.9
	c) Water Absorption	IS : 2386 (Part-III)	-do-	Not more than 3%
	d) Deleterious materials	IS: 2386 (Part-II)	Before approval of the quarry and at every subsequent change in the source of supply.	As per table 1 of IS 383
	e) Moisture	IS:2386 (Part-	Regularly as	This data

S.No	Test	Test Method	Frequency	Acceptance Criteria
	content	III)	required subject to a minimum of two test per day.	shall be used for correcting the water demand of the mix on a daily basis.
IV	Combined Grading of Aggregates			
	a) Grading	IS: 2386 (Part-I)	1 test per 150 cum and part thereof	As per Para 1.5
V	Concrete			
	a) Slump test of concrete	IS : 1199	At least once in 50 batches at each mixer or more frequently if directed by the EIC.	As per Para 3.1
	b) Flexural strength	IS : 516	One test consisting of six beam specimens and 6 cubes. Three specimens shall be tested after 7 days and another three shall be tested after 28 days for every 200 Cum of Concrete & part thereof	As per Para 16.4
	c) Surface accuracy	As prescribed	Regularly	As per Para 10
VI	Polyethylene sheet	IS:2508 Density Tensile strength at break Melt flow Index	One test per lot	As per IS:2508

16.2 Equipment as per list at Appendix-‘B’ shall be provided by the Contractor in the field testing laboratory. Nothing extra shall be paid to him on this account. Records as required shall be maintained at site.

All test details in support of mix design shall be maintained as part of records of the contract and shall be signed both by the contractor and the Engineer-in-Charge or their authorized representatives. The contractor shall provide all labour, materials and equipment required for all tests to be carried out, at his own cost.

16.3 The Engineer-in-Charge reserves the right to test any concrete laid regarding quality, soundness, compaction, thickness strength and finish of the concrete at any time before the expiry of the “Defects

Liability period” notwithstanding that necessary tests had been carried out and found satisfactory at the time of execution.

16.4 QUALITY CONTROL AND STANDARD OF ACCEPTANCE OF STRENGTH OF CONCRETE

16.4.1 Samples of concrete shall be collected at the point of discharge on the pavement and beams cast as controlled specimens and tested in accordance with IS: 516 and IS: 1199. The concrete will be said to comply with the specified flexural strength, when the following conditions are met with.

(a) The mean strength determined from any group of four consecutive samples (each sample containing 3 beam specimen i.e. $4 \times 3 = 12$ beam specimens) at 28 days should exceed the specified characteristic flexural strength by at least 0.3 MPa i.e., 4.4 MPa.

(b) The strength of any specimen is not less than the specified characteristic flexural strength minus 0.1 MPa i.e., 4.0 MPa.

16.4.2 Should the concrete fail to pass the specification for strength as described above, the contractor may, all at his own expense elect to cut cores (diameter of the core not less than 150mm) as per the direction of Engineer-in-Charge where the requirements are not met with. The points from where cores are to be taken and the number of cores required shall be at the discretion of the Engineer-in-Charge and shall be representative of the whole of concrete concerned. In no case, however, shall fewer than 3 cores be tested.

16.4.3 Cores shall be prepared and tested as described in IS 516. Concrete in the member represented by a core test shall be considered acceptable if the average of the results of crushing strength tests of the cores shall not be less than 0.8×0.85 times the corresponding Characteristic compressive strength of cubes and no individual core has a strength less than 0.8×0.75 times the corresponding Characteristic compressive strength of cubes where height to diameter ratio of the core is 2. Where height to diameter ratio of the core is not 2 necessary corrections shall be made in calculating crushing strength of cubes as per clause 12.21.1 of IRC:15-2017. Sample calculation for required core strength is placed below for core cut with height to diameter ratio of core is 2 :

$$\text{Flexural strength } f_{cr} = K\sqrt{f_{ck}}$$

$$f_{cr} = 4.1 \text{ MPa}$$

$$4.1 = K\sqrt{f_{ck}}$$

K - value as derived in clause 4.5

$$f_{ck} = 16.81/K^2$$

Average core strength required = $0.8 \times 0.85 \times f_{ck}$ MPa

Individual core strength required = $0.8 \times 0.75 \times f_{ck}$ MPa

16.4.4 If however, the tests on cores also confirm that the concrete is not satisfying the strength requirements, then the concrete corresponding to the area from which the cores were cut should be replaced, i.e., over an area extending between two transverse joints where the defects could be isolated or over larger area as decided by the Engineer-in-Charge.

16.4.5 All defective and sub-standard work which includes concrete slab of sub-standard strength as established in above para shall be liable to rejection and shall be replaced by the contractor at his expense. Acceptance criteria for cracked concrete slabs shall be as follows (ref. clause 12.33 of IRC-15-2017):

- i) Fine crazy cracks (Plastic shrinkage cracks) with cumulative length of 3000 mm in a slab can be accepted after repair as per IRC:SP-83. Beyond cumulative length of 3000 mm, it shall be rejected.
- ii) Slabs with cracks running transversely or longitudinally penetrating to full depth and length of the slab are to be rejected.
- iii) Slabs with any type of cracks which are penetrating to more than half the depth shall be rejected. (ref. clause 12.33 of IRC-15-2017).
- iv) When due to operational or any other reason, such replacement does not become possible (decision of Engineer-in-charge in this respect being final and binding on the contractor), the cost of removal and replacement of such rejected work shall be recovered from the contractor whether such rejected work is subsequently replaced by the Deptt. or not.

17.0 WEATHER LIMITATIONS

17.1 **Concreting during rains:** To prevent damage to freshly laid concrete during monsoon, or sudden rains, the Contractor shall provide an adequate supply of tarpaulins or other water-proof material. Any concrete damaged by rain shall be removed and replaced by the Contractor at his own cost as directed by the Engineer-in-Charge. If need be, necessary provisions shall be made to support the water- proof material clear of the newly-laid concrete surface to prevent smoothening or any damage due to the contact with tarpaulin. The whole unit should be weighted down appropriately to prevent from blown off by winds. The rate quoted shall include all these.

17.2 **Concreting in hot weather:** No concreting shall be done when the concrete temperature is above 30°C. Besides, in adverse conditions like high temperature, low relative humidity, excessive wind velocity, imminence of rains etc. if so desired by the Engineer-in-charge, tents on mobile trusses may be provided over the freshly laid concrete for a minimum period of 3 hours as directed by the Engineer-in-charge. The temperature of the concrete mix on reaching the paving site shall not be more than 30°C. To bring down the temperature, if necessary, chilled water or ice flakes should be made use of. No extra payment shall be made for this arrangement.

17.3 **Concreting in cold weather:** No concreting shall be done when the concrete temperature is below 5°C.

18.0 MEASUREMENTS

18.1 For the purpose of ascertaining the quantity of concrete in the pavement length, breadth and thickness shall be measured as detailed below:

a) Length

- i) Between the end of a pavement to the center line of the construction / expansion joints.
- ii) Between the center lines of consecutive construction/ expansion joints.

b) Width

- i) Between the edge of a pavement and the center line of the construction joints.
- ii) Between the center lines of construction joints and expansion joints.
- iii) Between the center lines of construction joints and expansion joints.

iv) Between the center lines of consecutive construction joints.

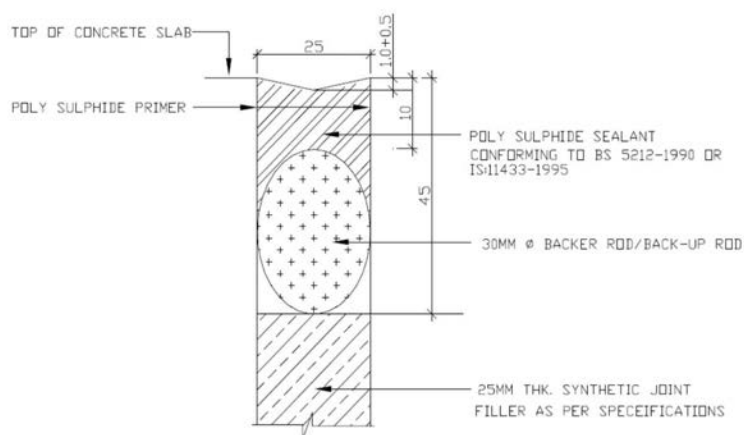
c) Thickness

Levels shall be taken before and after construction, at the grid of points 5 metre centre-to-centre longitudinally in straight reaches for each panel and 2.5 metre centre-to-centre at curves. The levels shall also be taken transversely, at 0.75 metre from either edge of the and the remaining locations shall be at equi-distance but not more than 2 metre in the balance portion of panel. The average thickness of the pavement course in any panel shall be the arithmetic mean of the difference of levels before and after construction at all the grid points falling in that panel, provided that the thickness of finished work shall be limited to those shown on the drawings or approved by the Engineer-In- Charge in writing. As supplement to level measurements, the Engineer shall have the option to take cores/ make holes to check the depth of construction. The holes made and the portions cut for taking cores shall be made good by the Contractor by laying fresh mix/material including compacting as required at his-own cost immediately after the measurements are recorded. The finished concrete courses to be paid on volume basis by multiplying length , breadth and thickness as measured above and its volume shall be calculated in Cubic metres correct to two places of decimal. Measurements of concrete slabs shall be recorded in aforesaid manner jointly by the Engineer-in-Charge or his authorized subordinate and the Contractor or his authorized agent.

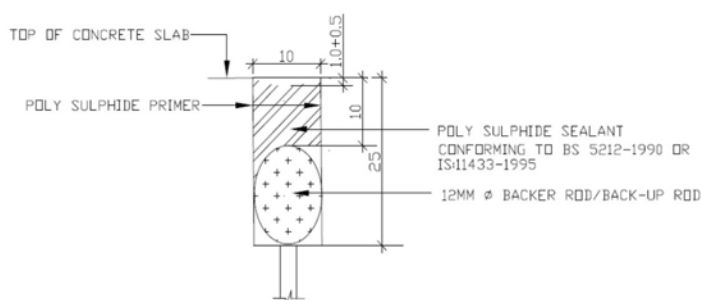
19.0 RATE

19.1 The rate of the item for concrete in pavement shall include the cost of all materials and labour including charges for machinery tools & plants, making profile including taking levels including all cartages and lift required in all the operations described above complete in all respects for a successful completion of the job. The rate also includes cost of mix design from outside laboratory, trial mix, all costs of setting up of laboratory at site and carrying out the quality control measures/tests enumerated above by the Contractor at his own cost in the presence of Engineer-in-Charge or his authorized representative, and submission of test results on completion of tests to the Engineer-in-Charge thereof.

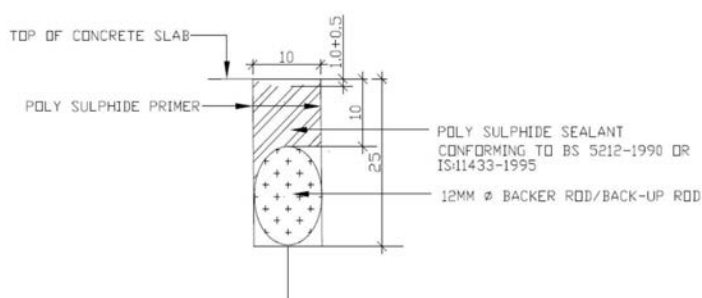
APPENDIX-A



EXPANSION JOINT



CONTRACTION /DUMMY JOINT



CONSTRUCTION JOINT

DETAILS OF FILLING OF JOINTS IN RIGID PAVEMENTS

APPENDIX-B

**List of minimum equipment to be provided in the field testing
laboratory by the contractor at his own cost.**

1. Sieve analysis for combined grading of aggregates
Sets of I.S. Sieves of sizes 63mm, 45mm, 22.4mm, 11.2mm, 5.6mm, 2.8 mm, 1.4 mm, 710 micron, 355 micron and 180 micron.
2. Sieve analysis for coarse aggregates
Sets of I.S. Sieves of sizes 63mm, 40mm, 20mm, 12.5mm, 10mm, 4.75mm, 2.36mm.
3. Sieve analysis of fine aggregate
Sets of I.S. Sieves of sizes 10mm, 4.75mm, 600 micron, 300 micron and 150 micron
4. Silt content of sand
Graduated glass cylinders 500 C.C. capacity.
5. Bulkage of sand
 - a) Graduated glass cylinders 250 C.C. capacity
 - b) Graduated glass cylinders 500 C.C. capacity
6. Slump test
 - a) Slump cones
 - b) Slump rods 3/8" dia. 24" long bullet pointed.
 - c) Steel plates 24" x 24"
 - d) Steel scales
7. For making beam specimens for flexural strength
 - a) Beam moulds size 70x15x15cm (minimum 18 nos.)
 - b) Cube moulds size 15x15x15cm (minimum 18 nos.)
 - c) Tamping rods.
 - d) Table vibrator (size 1m x 1m)
8. Testing flexural strength of concrete:
100 tonne capacity equipment for compressive strength and 5-10 tonne equipment for flexural strength testing electrically operated.
9. Other miscellaneous items
 - a) Electronic weighing scale of different capacity
 - b) Glass measuring jar
 - c) Beakers
 - d) Towels, glass plates etc.
 - e) Apparatus for testing flakiness index, Impact value and Los Angeles Abrasion value test machines for coarse aggregates.

TECHNICAL SPECIFICATIONS

(For Electrical Works)

Specification for transformer Housing Box

Transformer Housing Box (Cylindrical)

1. Drawing of the transformer Housing Boxes Shall be got approved from the Engineer-in-charge prior to commencement of fabrication.
2. Transformer housing Boxes shall be made out of Mild Steel having metal container of outside dia 330 mm, height 450 mm made of 10 mm thick cast iron molding all round, except the top surface, which should be 15 mm thick.
3. The cast iron molding should be suitable to receive a ground light fitting base plate on the top and underground housing suitable for keeping the isolating transformer along with connectors & leads.
4. The housing should have one/two/three nos holes on the periphery wall, 75 mm above bottom surface suitable to receive one/two/three nos. 50 mm (OD) GI pipe as required.
5. Nominal weight for CI box (without cover) with one hole shall be 41.7 kg, with two holes 41.5 kg and with three holes 41.3 Kg.
6. The box should have two SS earth bolts of M10 X 40 mm tapped inside near the hole (approximately 4" away from the hole center).
7. The housing box should have a drain holes at the bottom suitably tapped to receive 15 mm dia, 250 mm length 'B' class GI Pipe.
8. The housing should have clear opening of 220 mm at the top surface and 6 nos. M10 tapped hole having center to center distance of 260 mm to receive fitting base [plate and bolts as required as per the drawing enclosed. The holes should be properly machined & tapped to avoid any burr/sharp edges.
9. Transformer housing Box when installed with cover has to be water tight, accordingly necessary rubber gasket and bolts have to be provided for each cover plate.

List of approved Make			
Sl. No.	Material	Brands / Make / manufacturers	Category of Test Certificate/ Inspection
1	Cement	ACC Ltd, Ultratech, Shree Cement, Ambuja, JAY PEE, CENTURY, JK LAXMI / JK Cement, Lafarge, Dalmia Cement Ltd, Birla A1 (Orient Cement Ltd), Star Cement, Penna, Max Cement, Ramco Cement, Chettinad Cement, Wonder, Emami Cement, JSW Cement, Zuari Cement, Prism Cement or any other reputed cement manufacturer having a production capacity not less than 1 million tonnes per annum as approved by GM(Engg).	Manufacturer test certificate for concerned lot.
2	Admixtures	Pidilite Industries Ltd, Fosroc Chemicals (India) Pvt. Ltd., CICO Technologies Ltd., Sika India Pvt. Ltd., BASF India Pvt. Ltd., MC Bauchemie, Ardex Endura (India) Pvt. Ltd., STP Ltd., Choksey Chemicals Pvt. Ltd., MYK Laticrete / Laticrete, Mapie, Chryso India Pvt. Ltd., Maruti Bitumen Pvt. Ltd., Penetron India Pvt. Ltd., Supreme Bituchem India Pvt. Ltd., Asian Paints Ltd., IWL India Ltd., TP Building Pvt. Ltd.,	Manufacturer test certificate for concerned lot.
3	Road marking paint (Water based)	Nerolac, Berger Paints, Asian Paints Ltd., ITS Coating Pvt. Ltd., Supreme bitumen India pvt. Ltd.,	Manufacturer test certificate for concerned lot.
4	Filler Board	VEXCOLT International Ltd. (UK), Construction Specialities (USA), The Supreme Industries Ltd., STP Ltd., Dupont, Sanfield, Hercules, Z-Tech, Deevin, MM Systems, Kantaflex – Balco, Mapei, Migua, Insuboard, Soprema, Supreme Bitumen India Pvt. Ltd.	Manufacturer test certificate for concerned lot.
5	Polysulphide Sealant for joints	Fosroc Chemicals (India) Pvt. Ltd., Choksey Chemicals Pvt. Ltd., Pidilite Industries Ltd., Sika India Pvt. Ltd., Dow Corning, Laticrete, tuffseal, Wacker, G.E., STP Ltd., BASF India Ltd., Maruti Bitumen Pvt. Ltd., Supreme Bituchem India Pvt. Ltd., Chryso India Pvt. Ltd.	Manufacturer test certificate for concerned lot.
6	Steel	SAIL, RINL, TISCO (Tata Steel), Jindal Steel, APL Apollo Tubes Ltd., Surya Roshani Ltd., Nezone Tubes Ltd., Jotindra Steel & Tubes Ltd., Utkarsh Tubes & Pipes Ltd., Hi-tech Pipes Ltd.,	Manufacturer test certificate for concerned lot.
7	G.I. / M.S. PIPES	PRAKASH SURYA / ITL-INDUS / BEC / RR ISPAT / JINDAL STAR / TATA / HSL / SAIL	CATEGORY-2
8	ISOLATING TRANSFORMERS	AMA/BILDAL/ELECTROMACH/THORN/IDMANOY/CEGELEC/ADB/YO UYANG	CATEGORY-1
9	ANY OTHER MATERIAL	PRIOR APPROVAL SHALL BE TAKEN FROM ENGINEER-IN-CHARGE.	

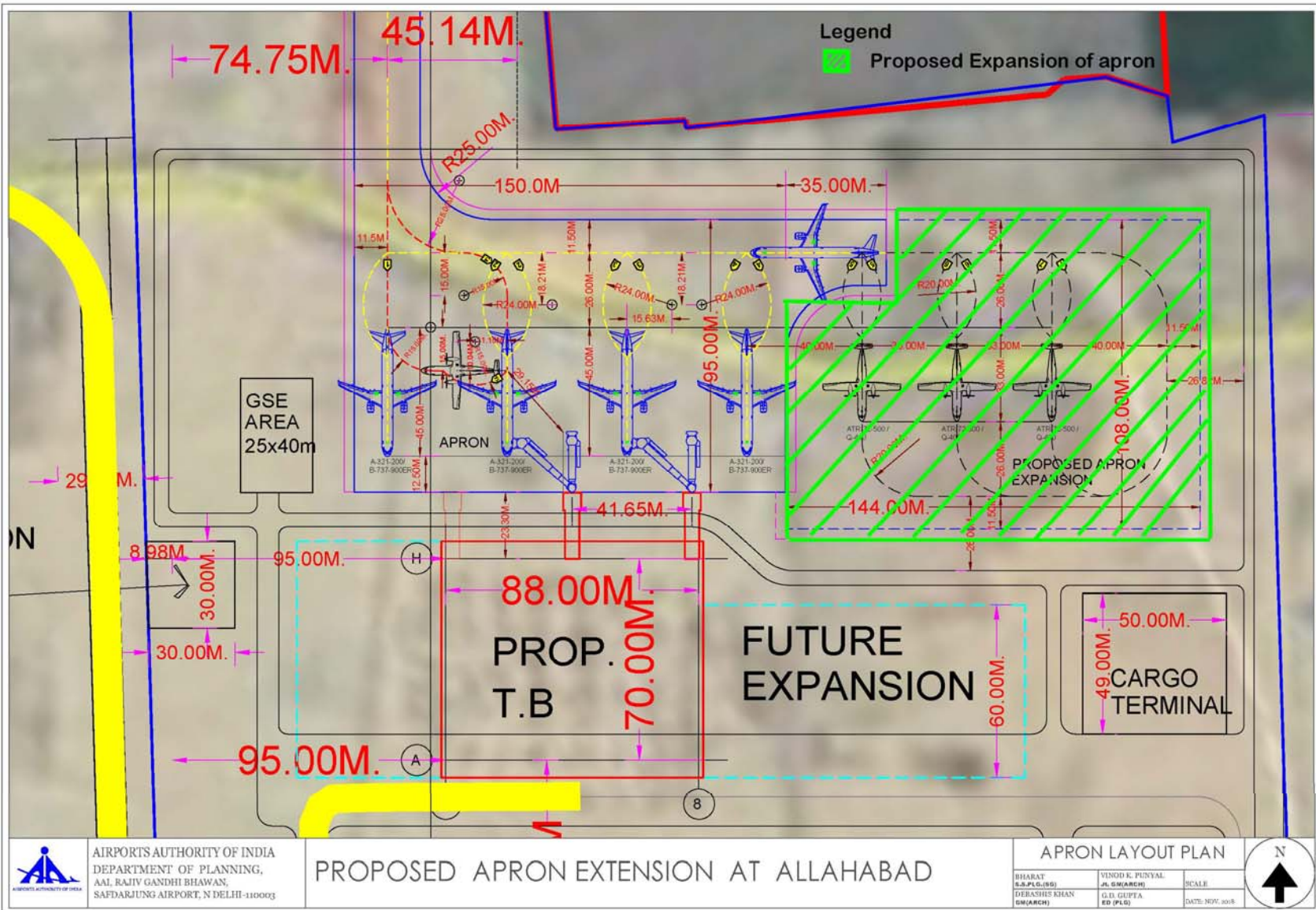
CATEGORY REQUIREMENT OF TEST CERTIFICATE/INSPECTION

CATEGORY-1:

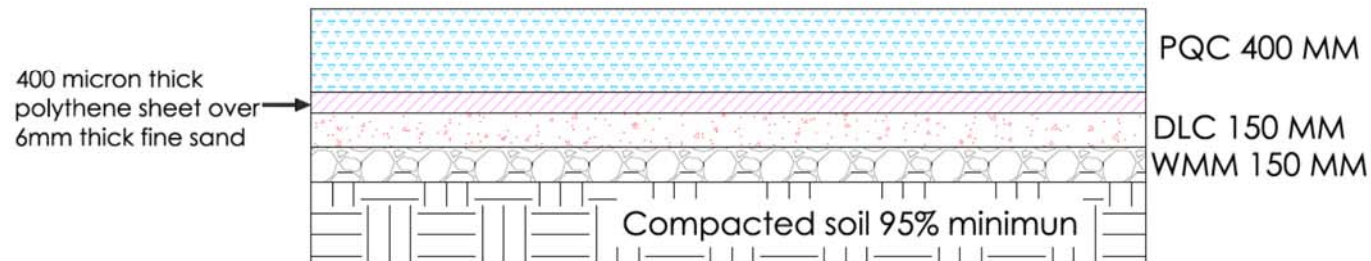
- a) Type test certificate for similar item done. If not, one of the items offered is to be type tested.
- b) OEMs routine test certificate.
- c) Acceptance test to be conducted in the presence of AAI representative at OEMs factory

CATEGORY-2:

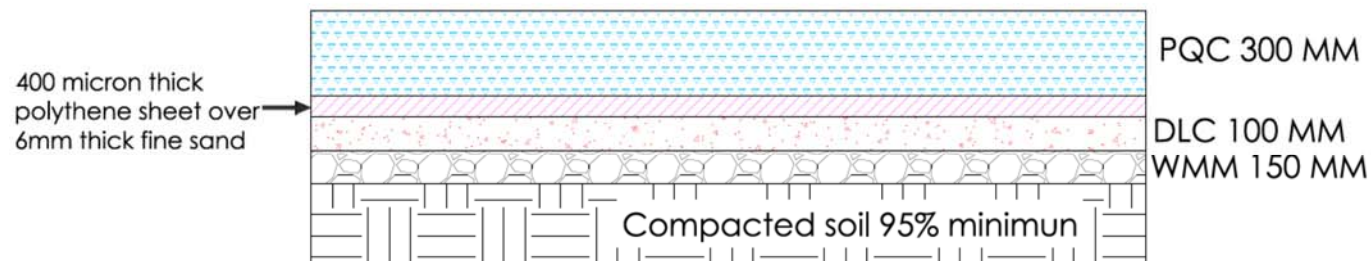
- a) Type test certificate for similar item done. If not, one of the items offered is to be type tested
- b) OEMs routine test certificate.
- c) Visual and functional check by AAI official at AAI airport site.



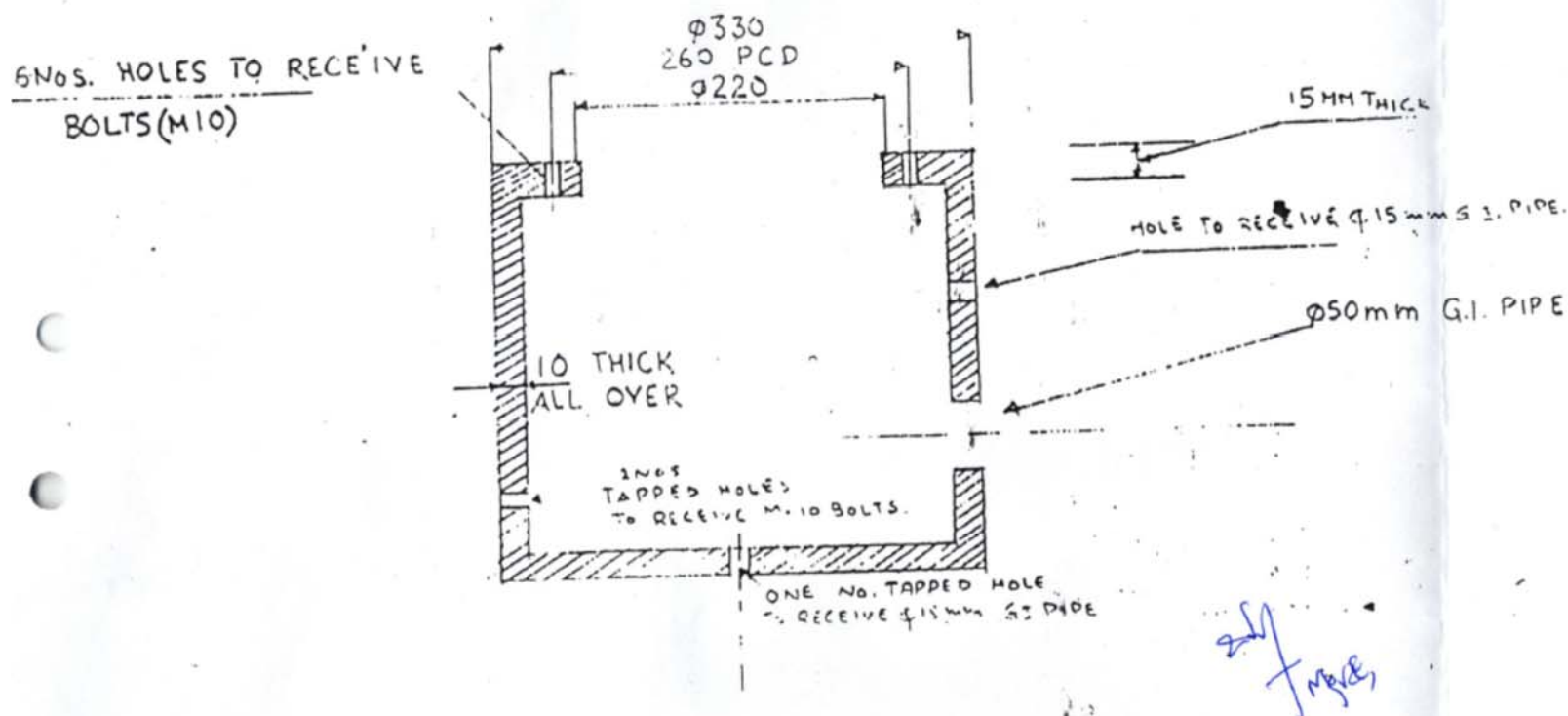
TENTATIVE CROSS SECTION OF PAVEMENT



APRON PAVEMENT



SHOULDER PAVEMENT



TYP. DRAWING FOR G.I.
ISOLATING TRANSFORMER BOX

NOT TO SCALE

Bill of Quantities

Name of work : Expansion of Apron and associated works at Prayagraj Airport (Recall).

Item no.	Description	Qty	Unit	Rate	Amount
	Civil items				
1	Excavation for earth work in all kinds of soil with hydraulic excavator of 0.9 cum bucket capacity including loading in tippers, trimming bottom and side slopes in accordance with requirement of line, grades and cross section including transportation and unloading earth to the embankment location with all lifts and lead within Airport Premises as directed by Engineer-in-Charge.	8225.00	Cum	Rates are to be filled in BOQ template at CPP Portal. Amount shall be worked out automatically by the system.	
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 m and lift upto 1.5 m.	180.00	Cum		
3	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	137.00	Sqm		
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : (a) 1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size)	40.00	Cum		
5	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: (a) Cement mortar 1:6 (1 cement : 6 coarse sand)	170.00	Cum		
6	12 mm cement plaster of mix (a) 1:6 (1 cement: 6 coarse sand)	698.00	Sqm		
7	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of oil dirt, scales, oil, grease and other foreign material etc. and lining out complete.	498.00	Sqm		

Bill of Quantities

Name of work : Expansion of Apron and associated works at Prayagraj Airport (Recall).

Item no.	Description	Qty	Unit	Rate	Amount
8	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC including all leads & lifts, laying in uniform layers with mechanical paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	2348.00	Cum	Rates are to be filled in BOQ template at CPP Portal. Amount shall be worked out automatically by the system.	
9	Construction of dry lean cement concrete sub base over a prepared subgrade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site including all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per specification & direction of Engineer-in-charge.	2281.00	Cum		
10	Demolishing cement concrete manually/ by mechanical means including disposal of material up to munciple dumping ground as per direction of Engineer - in - charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	230.00	Cum		
11	Spreading & compacting excavated available earth in desired camber/line & level including all lifts & leads etc. complete (Excluding Rock) within Airport premises at any location directed by the Engineer-in-Charge in embankments, depressions etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by watering & ramming with 0.5 tonne roller and every 3rd & topmost layer with 8-10 tonne vibratory roller etc. complete as per direction of Engineer-in-Charge.	8045.00	Cum		

Bill of Quantities

Name of work : Expansion of Apron and associated works at Prayagraj Airport (Recall).

Item no.	Description	Qty	Unit	Rate	Amount
12	<p>Providing and laying Pavement Quality Concrete (PQC) produced in a batching and mixing plant having a Characteristic flexural strength i.e. flexural strength of 4.1 MPa at 28 days using Ordinary Portland cement of 43/53 grade conforming as per relevant IS codes, to be mixed at site, with 0.5% Super plasticizer by mass of cementitious material, fine aggregate, graded stone aggregates of 40 mm nominal size in appropriate proportion as per specification and job mix formula, laid in panels as per drawings/design with form work if any required as approved by the Engineer-In-Charge using Slip Form Paver or Fixed form paver including anti friction layer, joint filler board, making necessary provision for expansion, dummy and construction joint including filling with Polysulphide sealant of approved make, curing and making profile, complete as per direction of Engineer-in-Charge and specifications. The item for execution shall include all operations making pavement for intended use but not limited to following:</p> <p>(i) Polyethylene sheet (White in color) of thickness 400 micron conforming to IS: 2508 with 6mm thick fine sand layer.</p> <p>(ii) Providing and laying in position for expansion joint, 25mm thick pre-cut Synthetic joint filler board of approved make conforming to IS:1838(part 3)-2011, 45 mm from top (to be removed at the time of filling of Polysulphide sealant).</p> <p>(iii) Mechanically cutting dummy joints 3mm wide x 1/3rd thickness of slab which is subsequently widened to 10mm for the top 25mm depth and construction joints 10mm wide x 25mm deep as per specification.</p> <p>(iv) Providing and laying in position Polysulphide sealant of approved make conforming to BS-5212-1990 or IS: 11433-1995 in expansion/ construction / dummy joints including rounding off edges, applying 2 coats of approved primer compatible with the brand of Polysulphide and preparing the surface and applying masking tape along the edge of joint to prevent accidental spillage of sealant on top surface and to give neat finish to the sealant and removing the masking tape after application of sealant etc. as per the details below:</p> <p>(a) Expansion Joints of size 25 mm wide and 10 mm deep over 30mm dia expanded closed-cell Polyethylene foam back-up/backer rod of minimum density 22 Kg/Cum, as per manufacturer's specifications and sketch at Appendix-'A'.</p> <p>(b) Construction Joints of size 10 mm wide and 10 mm deep over 12mm dia expanded closed-cell Polyethylene foam back-up/backer rod of minimum density 22 Kg/Cum, as per manufacturer's specifications and sketch at Appendix-'A'.</p>				<p>Rates are to be filled in BOQ template at CPP Portal. Amount shall be worked out automatically by the system.</p>

Bill of Quantities

Name of work : Expansion of Apron and associated works at Prayagraj Airport (Recall).

Item no.	Description	Qty	Unit	Rate	Amount
	<p>(c) Dummy Joints of size 10 mm wide and 10 mm deep over 12 mm dia expanded closed-cell Polyethylene foam back-up/backer rod of minimum density 22 Kg/Cum, as per manufacturer's specifications and sketch at Appendix-'A'.</p> <p>(v) Making profile as per DGCA CAR, panel drawing showing dummy, construction, expansion joints location.</p> <p>Note:</p> <p>(i) Areas inaccessible to paving equipment shall be constructed by manual/hand guided method. Areas in which manual/hand guided methods of construction become indispensable shall be got approved by the Engineer-in-Charge in writing in advance.</p> <p>(ii) The quantity of cement, type of cement and super plasticizer for one Cum. of finished concrete specified are for tendering purpose only. The contractor shall quote his rates assuming quantity of OPC cement as 360 Kg/Cum or 400 Kg of Portland Pozzolana Cement/ Portland Slag cement. In addition, if the actual quantity of cement & super plasticizer required as per laboratory mix design varies from the quantity assumed above, necessary cost adjustment for deviation in the quantity of cement and super plasticizer as per mix design, if any, shall be done as per the rate of cement and super plasticizer in actual supply voucher from manufacturer/authorized dealer at the time of execution. In the case of authorized distributor, the rate may be authenticated by the manufacturer. The rate of cement and super plasticizer exclusive of GST shall only be considered for payment.</p>	6127.00	Cum	Rates are to be filled in BOQ template at CPP Portal. Amount shall be worked out automatically by the system.	
13	<p>Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.</p> <p>In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works</p>	13625.00	Kg		
14	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)	10.00	Cum		
15	Centering and shuttering including strutting, propping etc. and removal of form for : Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	110.00	Sqm		

Bill of Quantities

Name of work : Expansion of Apron and associated works at Prayagraj Airport (Recall).

Item no.	Description	Qty	Unit	Rate	Amount
	Electrical items			Rates are to be filled in BOQ template at CPP Portal. Amount shall be worked out automatically by the system.	
16	Supply of C.I. Transformer housing box water tight round type metal container of outside dia of 330 mm, height 450 mm made of 10 mm thick cast iron moulding all round except on top surface which is 15 mm thick suitable to receive a light fitting base plate at the top and underground housing associated with transformer power cable and having a clear hole center at one side surface center 75 mm above bottom surface suitable to receive one no. 50 mm dia 'B' class G.I. pipe & check nut having two earth bolts & four nuts with washer of M 10x30mm welded inside near the hole (4" away from the hole center) and having a drain hole at the bottom suitably tapped to receive 15 mm dia 'B" class G.I. pipe & having clear opening of 220 mm at top surface and 6 nos. M 10 tapped hole at the center of 260 mm to receive light fitting base plate and bolts as required.				
a	Double Entry	10.00	Each		
17	Installation of Transformer housing box with a base concrete of 1:3:6 (1:cement, 3:coarse sand, 6:concrete of 20 mm nominal size) of size 630x630x100mm thick and all around concrete of 1:2:4 (1: cement, 2 : coarse sand, 4 : concrete of 20mm nominal size) 150 mm and top sloped as specified including providing & fixing 250 mm long 15 mm dia "B" class G.I. pipe for drainage of water etc. complete as required as per specification & drawing .	10.00	Job		
18	Providing and fixing of 50 mm dia GI pipe 'B' class for cable entry in C.I housing box including excavation concrete reinforcement below and above the pipe (15 cm each) refilling and making good the existing paved area (Runway edge, taxiway, apron) with 1:2:4 cement concrete above the pipe including suitable bend for entry of cable etc.as required	180.00	Meter		