



भारतीय विमानपत्तन प्राधिकरण
काँगड़ा हवाई अड्डा, काँगड़ा
AIRPORTS AUTHORITY OF INDIA
KANGRA AIRPORT, KANGRA
निविदा दस्तावेज

TENDER DOCUMENTS

FOR

कार्य का नाम:- “काँगड़ा हवाई अड्डे पर परिचालन क्षेत्र में प्रकाशित अनिवार्य साइनेज और क्षतिग्रस्त रनवे/एप्रन सर्किट के प्रतिस्थापन का प्रावधान” ।

NAME OF WORK: -“ Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport”

अनुमानित राशि / Estimated Cost : - Rs. 15,92,063.00

बयाना राशि / EMD :- 31,845/-

TERMS AND CONDITIONS OF CONTRACT

SCHEDULE OF QUANTITIES

INDEX

कार्य का नाम:- “कांगड़ा हवाई अड्डे पर परिचालन क्षेत्र में प्रकाशित अनिवार्य साइनेज और क्षतिग्रस्त रनवे/एप्रन सर्किट के प्रतिस्थापन का प्रावधान”।

NAME OF WORK: - “Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport”

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**NOTICE INVITING
e-TENDER**

भारतीय विमानपत्तन प्राधिकरण
AIRPORT AUTHORITY OF INDIA
अभियान्त्रिकी विभाग (विद्युत)
ENGINEERING WING (ELECTRICAL)

संदर्भ सं.: भाविप्रा/कांगड़ा/अभि. – वि./Illuminated Signage/WE-14/2022-23/

दिनांक:- 24/06/2022

Ref No. : - AAI/Kangra/Engg.-E/ Illuminated Signage /WE-14/2022-23/

Date: - 24/06/2022

ई-निविदा आमंत्रण सूचना (2 बीओटी-2 एन्वेलप ओपन निविदा)

NOTICE INVITING e-TENDER (2 BOT – 2 Envelope Open Tender)

(टेन्डर आईडी / Tender ID: - 2022_AAI_119470_1)

1. अध्यक्ष विमानपत्तन प्राधिकरण की ओर से वरिष्ठ प्रबन्धक (अभि.वि.) भाविप्रा, कांगड़ा एयरपोर्ट, कांगड़ा - 176209 द्वारा ई-निविदा पोर्टल के माध्यम से रुपये 15,92,063.00/- (जीएसटी रहित) अनुमानित लागत के “कांगड़ा हवाई अड्डे पर परिचालन क्षेत्र में प्रकाशित अनिवार्य साइनेज और क्षतिग्रस्त रनवे/एप्रन सर्किट के प्रतिस्थापन का प्रावधान” के कार्य हेतु योग्य ठेकेदारों से मुहर बंद दर की निविदाएं आमंत्रित की जाती है जिसकी कार्य पूर्णता की अवधि 02 (दो) माह है।

Item rate e-tenders are invited through the e-tendering CPP portal by **Senior Manager (Engg-Elect), AAI, Kangra Airport, Kangra – 176209** (Bid Manager) on behalf of Chairman, A.A.I. from the eligible contractors for the work of “**Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport**” at an estimated cost of Rs. 15,92,063.00/- (Excluding GST) with completion period of 02(Two) Months.

निविदा प्रक्रिया ई-पोर्टल के यू.आर. एल पता <https://etenders.gov.in/eprocure/app> or www.aai.aero पर आनलाईन होगी। इच्छुक बोलीदाता टेंडर दस्तावेज डाउनलोड कर देख सकते हैं।

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.

इच्छुक निविदाकर्ता को सलाह दी जाती है कि वे “CPP-portal” पोर्टल में जाकर खुद को पंजियन कर अपना ‘Login ID’ एवं ‘Password’ प्राप्त करें। CPP-portal <https://etenders.gov.in/eprocure/app> or www.aai.aero पर Login करने के तत्पश्चात पोर्टल के होम पृष्ठ पर उपलब्ध ‘निर्देशों’ को अच्छी तरह पढ़ लें। साथ ही वे अपना डिजिटल सिग्नेचर प्रमाणपत्र (डी.एस.सी.) प्राप्त करें जो कि निविदा जमा करने के लिए अनिवार्य तौर पर आवश्यक है। इस प्रक्रिया के लिए सामान्यतः तीन दिनों का समय लग सकता है। निविदाकर्ता भाविप्रा सहायता डेस्क ‘aai.aero/tender/e-tender/help desk support’ के माध्यम से भी सहायता ले सकते हैं।

Prospective Tenderers are advised to get themselves register at CPP portal, obtain ‘Login ID’ & ‘Password’ and go through the instructions available in the Home Page after log in to the CPP portal <http://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.

- (i) तकनीकी सहायता के लिए हेल्प डेस्क से संपर्क करें | 24X7 समय के लिए हेल्प डेस्क का विवरण निम्न है :-

दूरभाष: 0120-4200462, 0120-4001002, मोबाइल: 91 8826246593 ई-मेल: support-eproc@nic.in

For any technical related queries please call the Helpdesk. The 24x7 Help Desk details are as below:-

Tel: 0120-4200462, 0120-4001002, Mobile: 91 8826246593 E-mail: support-eproc@nic.in

बोलीदाताओं से आग्रह है कि वे अपने पोर्टल का URL एवं टेंडर ID को विषय में रखकर अपने मुद्दे को ई मेल करें।

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.

CPP पोर्टल के फंक्शन बाबत किसी तकनीकी सहायता हेतु भा. वि. प्रा. से निम्नानुसार सभी कार्यदिवस पर संपर्क कर सकते हैं।

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 बजे से 20.00 बजे (सोम-शनि) – 011-24632950, एक्सट-3512 (छ: लाइन्स), ई-मेल: - eprochelp@aai.aero
08.00 hrs to 20.00 hrs (Mon-Sat) – 011-24632950, Ext-3512 (Six Lines), E-Mail:- eprochelp@aai.aero
- (iii) 09.30 बजे से 18.00 बजे (सोम-शुक्र) – 011-24632950, एक्सट-3523 (छ: लाइन्स), ई-मेल: - etenderssupport@aai.aero
sanjeevkumar@aai.aero, snita@aai.aero
09.30 hrs to 18.00 hrs (Mon- Fri) – 011-24632950 Ext-3523, E-mail:- etenderssupport@aai.aero, sanjeevkumar@aai.aero, snita@aai.aero
- (iv) 09.30 बजे से 18.00 बजे (सोम-शुक्र) – 011-24657900 ई-मेल: - gmitichq@aai.aero
09.30 hrs to 18.00 hrs (Mon- Fri)- 011-24657900, E-Mail:- gmitichq@aai.aero
- निविदा प्रोसेसिंग शुल्क रु. 1180/- (जीएसटी सहित) नॉन रिफंडेबल है का भुगतान सीपीपी पोर्टल पर भुगतान गेटवे के माध्यम से ऑनलाइन करना होगा
Tender processing fee of **Rs.1180.00/- (i/c GST) Non-refundable** will be required to be paid online through payment gateway on CPP portal.

2. निम्न 2 लिफाफे का निम्नलिखित अनुसूची के अनुसार निविदाकर्ता द्वारा पोर्टल पर ऑनलाईन जमा किया जाएगा:-

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

क्रिटिकल डाटा शीट / CRITICAL DATA SHEET

प्रकाशित करने की तिथि / Publishing Date	24.06.2022
निविदा दस्तावेज डाउनलोड/बिक्री प्रारम्भ की तिथि /Bid Document Download / Sale Start Date	24.06.2022 from 1500 hrs.
स्पष्टीकरण की तिथि आरम्भ/Clarification Start Date	24.06.2022 from 1500 hrs.
स्पष्टीकरण की अंतिम तिथि/Clarification End Date	11.07.2022 from 1800 hrs.
निविदा जमा करने की तिथि/Bid Submission Start Date	24.06.2022 from 1500 hrs.
निविदा जमा करने की अंतिम तिथि/Bid Submission End Date	15.07.2022 upto 1800 hrs.
निविदा खोलने की तिथि (बोली-I)/ Bid Opening Date (Envelope-I)	18.07.2022 at 1000 hrs.
निविदा खोलने की तिथि (बोली-II)/ Bid Opening Date (Envelope-II)	Shall be intimated through CPP Portal
निविदा शुल्क (नॉन रिफंडेबल) (सीपीपी पोर्टल पर भुगतान गेटवे के माध्यम से ऑनलाइन) / Tender Processing Fee (Non-refundable, online through payment gateway on CPP portal)	Rs. 1180/- (i/c GST) Non-refundable. (Online only)
बयाना राशि /Earnest Money Deposit (EMD) (सीपीपी पोर्टल पर भुगतान गेटवे के माध्यम से ऑनलाइन) (in the form of online payment through payment gateway on CPP portal)	Rs. 31,845/- (Online only)

लिफाफा-I (निविदा प्रोसेसिंग शुल्क, बयाना राशि, तकनीकी बिड और पूर्व योग्यताएँ): में निम्नलिखित होना चाहिए :

Envelope –I (Tender processing fee, EMD, Technical Bid and Pre-qualification):- shall contain the following:

A. निविदा प्रोसेसिंग शुल्क, बयाना राशि / Tender processing fee, EMD:

- i) निविदा प्रोसेसिंग शुल्क रु. 1180/- का भुगतान सीपीपी पोर्टल पर भुगतान गेटवे के माध्यम से शुल्क ऑनलाइन करना होगा।

Tender Processing Fee of Rs. 1180/- to be paid online through payment gateway on CPP portal.

- ii) बयाना राशि शुल्क रु. 31845/- का भुगतान सीपीपी पोर्टल पर भुगतान गेटवे के माध्यम से शुल्क ऑनलाइन करना होगा।

EMD of Rs. 31845/- to be paid online through payment gateway on CPP portal.

B. तकनीकी बोली जिसमें निम्नलिखित शामिल हैं :-

Technical Bid containing the following:-

- i. भाविप्रा के निविदा शर्तों की बिना शर्त स्वीकृति पत्र की स्कैन की गई कॉपी (ANNEXURE-I प्रोफार्मा निविदा दस्तावेज के पृष्ठ क्र. PR-1 पर दिया गया है)।

Scanned copy of Unconditional Acceptance of AAI's Tender Conditions. (ANNEXURE-I is provided at Page-PR 1 of tender document).

- ii. स्थायी खाता संख्या (पैन) और जीएसटी पंजीकरण संख्या मय जीएसटी डिक्लेरेशन की स्कैन की गई प्रतिलिपि (जीएसटी डिक्लेरेशन पृष्ठ संख्या PR-2 पर ANNEXURE-II के अनुसार)

Scanned copy of Permanent Account Number (PAN) and GST Registration Number with GST declaration (GST Declaration as per Annexure-II at page PR-2 of tender document).

- iii. कम्पनी के लैटर हेड पर फर्म का ब्लैक लिस्टिंग / डिबारिंग के संबंध में 'घोषणा' की स्कैन प्रतिलिपि (प्रोफार्मा निविदा दस्तावेज के ANNEXURE-III पृष्ठ क्र. PR-3 के अनुसार)

Scanned copy of 'Undertaking' regarding Blacklisting / Debarment on Company's Letter Head. (Undertaking as per Annexure-III at page PR-3 of tender document).

- iv. निविदाकार कार्य की आवश्यकता के अनुसार इंजीनियर-इन-चार्ज से परामर्श करके निर्धारित mile stone / लक्ष्यों को प्राप्त करने एवं कार्य को निर्धारित समयावधि के भीतर समग्र समापन के लिए पर्याप्त संयंत्र और मशीनरी को तैनात करेगा। निविदाकार कंपनी के लैटर हेड पर 'अंडरटेकिंग' की स्कैन की हुई कॉपी जमा करेगा। (प्रोफार्मा निविदा दस्तावेज के ANNEXURE-VII पृष्ठ क्र. PR-10 के अनुसार)

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-VII at Page PR-10 of tender Document)

- v. स्वामित्व वाली फर्म के अलावा अन्य कंपनियाँ, प्राधिकरण के पत्र / पावर ऑफ अटॉर्नी की स्कैन कॉपी के साथ कंपनी अधिनियम के तहत कंपनी को शामिल करने का प्रमाण पत्र जिसमें CIN/LLPIN/ कंपनी के निदेशकों का नाम तथा पावर ऑफ अटॉर्नी आवंटित करने के लिए प्राधिकरण के संबंध में बोर्ड संकल्प की स्कैन प्रति सलग करें।

Companies other than propriety 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.

स्वामित्व वाली फर्म में यदि निविदा प्रोप्राइटर के अलावा किसी अन्य व्यक्ति द्वारा संसाधित की जाती है तो प्राधिकार पत्र / पावर ऑफ अटॉर्नी की स्कैन की हुई प्रति जमा करें।

Proprietary firm shall submit scanned copy of Authorization Letter/ Power of Attorney only if the tender is processed by a person other than proprietor.

- vi. मेक इन इंडिया पॉलिसी के तहत वरीयता के दावे के संबंध में उपक्रम की स्कैन की गई प्रतिलिपि। (प्रोफार्मा निविदा दस्तावेज के ANNEXURE-V के साथ फॉर्म –I, II & III पृष्ठ क्र. PR-5 से PR-8 तक के अनुसार)

Scanned copy of undertaking regarding claim for preference under Make in India Policy. (As per Annexure-V along with form-I, II & III at page PR-5 to PR-8 of Tender Document).

- vii. सामान्य वित्त नियम (जीएफआर) 2017 के नियम 144 (xi) के तहत प्रतिबंध के संबंध में उपक्रम की स्कैन की गई प्रतिलिपि। (प्रोफार्मा निविदा दस्तावेज के ANNEXURE-VI पृष्ठ क्र. PR-9 के अनुसार)

Scanned copy of undertaking regarding restriction under rule 144(xi) of General Finance Rule (GFR) 2017.

(As per Annexure-VI at page PR-9 of Tender Document).

- viii. निविदाकार/ठेकेदार द्वारा 'अनुलग्न-ए' (विधिवत भरे और हस्ताक्षरित कर) चेकलिस्ट प्रोफार्मा प्रस्तुत किया जाए।

The PQ Performa checklist as per Performa at 'Annexure-A' (duly filled & signed) shall be submitted by tenderers.

C. ठेकेदारों / निविदाकारों का अर्हता जरूरतें:-

Qualifying requirements of Contractor/tenderers containing the following:-

- i) निविदाकार/ठेकेदार के पास वैध विद्युत लाइसेंस जमा कराना होगा।

Agency should submit valid electrical license.

- ii) एजेन्सी के पास पिछले सात वर्षों (निविदा जमा करने की तिथि या बढ़ाई गई तिथि तक) के दौरान भारत में किए गए समान प्रकार **“Airport Ground Lighting Works And Other AGL Related Works”** के रु. 6,36,830 /- के कम से कम तीन कार्यों या रु. 7,96,035 /- के कम से कम दो कार्यों या रु. 12,73,655 /- का एक कार्य को सन्तोष जनक रूप के पूर्ण किए जाने का प्रमाण पत्र हो। (संविदा के किसी चरण के कार्य/आंशिक रूप से पूर्ण किए गए कार्य पर विचार नहीं किया जाएगा, हालांकि पूर्व निर्धारित चरणबद्ध कार्य स्वीकार्य होंगे)। कवर / लिफाफा – I (Fee/PreQual/Technical) की योग्यता के लिए पात्रता का अनुभव मूल्यांकन काम पूरा होने की लागत पर आधारित होगा। जीएसटी से पूर्व समय के कार्य पूर्ण होने का अनुभव प्रमाण पत्रों को जीएसटी समय के बाद के अनुभव प्रमाण पत्रों (जीएसटी को छोड़कर) के बराबर करने के लिए समापन राशि को 1.12 (पूर्व GST कर 12% वैट को बाहर करने के लिए) से विभाजित किया जाएगा।

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. 6,36,830 /-** or two works, each of **Rs. 7,96,035 /-** or one work of **Rs. 12,73,655 /-** in single contract of similar nature of **“Airport Ground Lighting Works And Other AGL Related Works”** during last seven years ending on last date (extended date) of submission of e-Bid in India. The experience assessment of eligibility for qualifying Cover / Envelope – I (Fee/PreQual/Technical) shall be based on the work completion cost. The Completion amount of experience certificates of works completed in pre GST era will be divided by 1.12 (to exclude 12% VAT pre GST Tax) to make it as par with experience certificates of post GST era (excluding GST).

“निष्पादन कार्यों का मूल्य 7 प्रतिशत वर्ष की साधारण दर पर वास्तविक मूल्य के काम को बढ़ाकर वर्तमान लागत स्तर पर लाया जाएगा, कार्य पूरा होने की तिथि से बोली प्रस्तुत करने की अंतिम तिथि तक गणना कि जायेगी।”

“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 (extended date) of submission of bid”.

- iii) अनुभव के लिए क्लाइंट प्रमाण पत्र में किए गए कार्य की प्रकृति, कार्य का मूल्य, प्रारंभ की तिथि, समझौते के अनुसार पूरा होने की तारीख, पूरा होने की वास्तविक तिथि और काम के संतोषजनक समापन को दिखाना चाहिए। गैर-सरकारी / गैर-पीएसयू संगठनों से कार्य अनुभव प्रमाण पत्र दिखाने वाले निविदाकारों को पंजीकृत चार्टर्ड एकाउंटेंट द्वारा जारी प्रमाण पत्र के साथ स्रोतों (टीडीएस) प्रमाण पत्र (कर) पर कर कटौती की एक प्रति प्रस्तुत करनी चाहिए, जो स्पष्ट रूप से काम के नाम को निर्दिष्ट करती है, कुल भुगतान कार्य के लिए और टीडीएस राशि के खिलाफ प्राप्त किया।

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) alongwith 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.**

- iv) बोलीदाता के पास गत तीन वर्षों में किये गए कार्यों का औसतन वित्तीय टर्न ओवर (जिसकी अंतिम तारीख पिछले साल की 31 मार्च तक होगी) ₹. 4,77,620/- का प्रमाण पत्र हो। आवेदन के साथ लाभ-हानि अकाउंट स्टेटमेंट तथा संक्षिप्त बैलेंस शीट की प्रतिलिपि जमा करना होगा। लगातार तीन वर्षों से घाटा में चलने वाले फर्म का आवेदन स्वीकार नहीं किया जायेगा। **(निविदाकारों को यूडीआईएन उत्पन्न दस्तावेज जमा करने होंगे जो एक चार्टर्ड एकाउंटेंट द्वारा विधिवत प्रमाणित हो जिसके पास यूडीआईएन हो।)**

Should have annualized average financial turnover of Rs. 4,77,620/- 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. **(Tenderers have to submit UDIN generated documents duly certified by CA and having UDIN.)**

- v) निविदाकार के पास रुपये 2,38,810/- का न्यूनतम नेटवर्थ होने चाहिए जिसे सर्टिफाइड चार्टर्ड एकाउंटेंट द्वारा जारी किया गया हो (ANNEXURE-IV प्रोफार्मा निविदा दस्तावेज के पृष्ठ क्र. PR-4 पर दिया गया है)। **(निविदाकारों को यूडीआईएन उत्पन्न दस्तावेज जमा करने होंगे जो एक चार्टर्ड एकाउंटेंट द्वारा विधिवत प्रमाणित हो जिसके पास यूडीआईएन हो।)**

The tenderer should have a minimum net worth of Rs 2,38,810/- issued by certified Chartered Accountants. (ANNEXURE-IV is provided at Page-PR 4 of tender document) **(Tenderers have to submit UDIN generated documents duly certified by CA and having UDIN.)**

- vi) निविदाकारों को यूडीआईएन उत्पन्न दस्तावेज जैसे कि बैलेंस शीट, टर्नओवर सर्टिफिकेट, नेट वर्थ सर्टिफिकेट, तथा गैर-सरकारी कार्य के लिए स्रोत पर कर कटौती (टीडीएस) प्रमाण पत्र इत्यादि। निविदा की शर्तों के अनुसार सभी दस्तावेज चार्टर्ड एकाउंटेंट जिसके पास यूडीआईएन हो के द्वारा विधिवत प्रमाणित जमा करने होंगे। यूडीआईएन के बिना बोलीदाताओं द्वारा प्रस्तुत किए गए दस्तावेजों पर विचार नहीं किया जाएगा।

Tenderers have to submit UDIN generated documents i.e. Balance sheet, Turnover certificate, 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.

- vii) **मेक इन इंडिया को वरीयता / Preference to make in India**

केवल क्लास-I स्थानीय आपूर्तिकर्ता, जैसा कि "सार्वजनिक खरीद नीति (मेक इन इंडिया को वरीयता), आदेश 2017- संशोधन दिनांक 16.09.2020" के तहत परिभाषित किया गया है या भारत सरकार, वाणिज्य और उद्योग मंत्रालय द्वारा अधिसूचित अद्यतन तक संशोधित किया गया है।, औद्योगिक और आंतरिक व्यापार संवर्धन विभाग (नीति खरीद अनुभाग) पत्र संख्या पी- 45021/2/2017-पीपी (बीई-द्वितीय) दिनांक 16 सितंबर 2020 के तहत इस निविदा में बोली लगाने के लिए पात्र होंगे।

क्लास-I स्थानीय आपूर्तिकर्ता का अर्थ एक आपूर्तिकर्ता या सेवा प्रदाता है, जिसका सामान, सेवाएं या खरीद के लिए प्रस्तावित कार्य, इस आदेश के तहत 'श्रेणी-I स्थानीय आपूर्तिकर्ता' के लिए निर्धारित न्यूनतम स्थानीय सामग्री को पूरा करता है।

न्यूनतम स्थानीय सामग्री: आपूर्तिकर्ता को 'वर्ग-I स्थानीय आपूर्तिकर्ता' के रूप में वर्गीकृत करने के लिए 'स्थानीय सामग्री' की आवश्यकता न्यूनतम 50% है।

स्थानीय सामग्री का सत्यापन:

क) क्लास-I स्थानीय आपूर्तिकर्ता लिफाफा-I में स्थानीय सामग्री का प्रतिशत देते हुए एक उपक्रम प्रस्तुत करेगा। अंडरटेकिंग और सर्टिफिकेट का फॉर्मेट अनुलग्नक- V (पेज PR-5 से PR-8) के तहत दिया गया है।

ख) झूठी घोषणा के मामले में, बोलीदाता या उसके उत्तराधिकारियों को कानून के तहत अनुमत अन्य कार्यों के साथ-साथ एएआई की निविदाओं में भाग लेने के लिए दो साल तक के लिए प्रतिबंधित किया जा सकता है।

ग) एक आपूर्तिकर्ता जिसे इस आदेश के उल्लंघन के लिए किसी अन्य खरीद इकाई द्वारा प्रतिबंधित कर दिया गया है, वह डिबारमेंट की अवधि के लिए भाग लेने के लिए पात्र नहीं होगा। सी) एक आपूर्तिकर्ता जिसे इस आदेश के उल्लंघन के लिए किसी अन्य खरीद इकाई द्वारा प्रतिबंधित कर दिया गया है डिबारमेंट की अवधि के लिए भाग लेने के लिए पात्र नहीं होंगे।

Only 'Class-I Local Supplier', as defined under the “Public Procurement Policy (Preference to Make In India), order 2017- revision dated 16.09.2020” or amended upto date, notified by Government of India, Ministry of Commerce and Industry, Department of Promotion of Industrial & Internal Trade (Policy Procurement Section) vide letter No. P-45021/2/2017-PP (BE-II) dated 16th Sep 2020 shall be eligible to bid in this tender.

'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local supplier' under this Order.

Minimum Local Content: The 'local content' requirement to categorize a supplier as 'Class-I Local Supplier' is minimum 50%.

Verification of local content:

- a) The 'Class-I local supplier' shall submit in Envelope-I an undertaking giving the percentage of local content. The format of undertaking and certificate are given under **Annexure- V (page PR-5 to PR-8)**.
- b) In case of false declarations, bidder or its successors can be debarred for up to two years for participating in tenders of AAI along with other actions as may be permissible under law.
- c) A supplier who has been debarred by any other procuring entity for violation of this Order shall not be eligible for participates for the duration of the debarment.

viii) जीएफआर 2017 के नियम 144 (xi) के तहत पंजीकरण की आवश्यकता भारत सरकार के आदेश संख्या एफ संख्या 6/18/2019-पीपीडी दिनांक 23/07/2020 के आधार पर भारत के साथ भूमि सीमा साझा करने वाले देश से बोली लगाने वाले द्वारा पंजीकरण की आवश्यकता भारत, वित्त मंत्रालय, व्यय विभाग (सार्वजनिक खरीद प्रभाग) सामान्य वित्तीय नियम (जीएफआर) 2017 के नियम 144 (xi) के तहत प्रतिबंध के संबंध में अद्यतन संशोधन के साथ लागू होगा।

बोलीदाता इस संबंध में कंपनी के लेटर हेड पर 'अंडरटेकिंग' की स्कैन की हुई कॉपी जमा करेगा (अनुलग्नक-VIII के अनुसार)। यदि बोलीदाता द्वारा प्रस्तुत किया गया वचन/प्रमाण पत्र झूठा पाया जाता है, तो उसकी निविदा तुरंत समाप्त कर दी जाएगी और भविष्य में एएआई निविदाओं में भाग लेने पर प्रदर्शन गारंटी और / या सुरक्षा जमा को जब्त करने और एएआई निविदाओं में भाग लेने सहित कानून के अनुसार आगे की कानूनी कार्रवाई शुरू की जाएगी।

Requirement of registration under rule 144(xi) of GFR 2017 Requirement of registration by the bidder from a country sharing land border with India based on order No. F No. 6/18/2019-PPD dated 23/07/2020 of Government of India, Ministry of Finance, Department of Expenditure (Public procurement Division) with up to date amendments, regarding restriction under Rule 144(xi) of the General Financial Rules (GFR) 2017 shall be applicable.

Bidder shall submit scanned copy of 'Undertaking' on Company's Letter Head in this regard (Performa given under Annexure-VIII). If Undertaking / Certificate submitted by the bidder found to be false, his tender will be immediately terminated and further legal action in accordance with law including forfeiting of Performance Guarantee and / or Security Deposit and debarring in participating in AAI tenders in future shall be initiated.

उपर्युक्त उल्लिखित कवर / लिफाफा- I के सभी दस्तावेजों की स्कैन की गई प्रति, सीपीपी पोर्टल पर प्रस्तुत करनी होगी। निविदाकर्ता अगर निविदा शर्तों के अनुसार क्रिटीकल डाटा शीट में दिये गये समय तक निविदा प्रोसेसिंग शुल्क एवं बयाना राशि ऑनलाइन जमा करवाने में विफल रहता है तो उनकी निविदा को खारिज कर दिया जाएगा।

Scanned copy of all the Documents of Envelope-I mentioned above shall be submitted on the CPP portal. Tenderer, whose Tender processing fee and EMD are not deposited online by the date & time mentioned in critical data sheet, then their tenders will be liable to be rejected.

बयाना राशि **रूपये 38,700 / -** का भुगतान सीपीपी पोर्टल पर उपलब्ध कराए गए एसबीआई पेमेंट गेटवे के माध्यम से ऑनलाइन किया जाएगा। निर्धारित समय से पहले ईएमडी जमा करने में विफल रहने वाले निविदाकर्ता को एकमुश्त खारिज कर दिया जाएगा। निविदाकर्ता खुद को यह सुनिश्चित करेगा कि EMD जमा करने से संबंधित ऑनलाइन लेनदेन नियत तारीख से पहले सफलतापूर्वक पूरा हो जाए।

EMD of the value of **Rs. 38,700/-** shall be paid by way of online payment through SBI payment gateway provided at the CPP Portal itself. The tenderer who fails to submit the EMD before the stipulated time shall be rejected outright. Tenderers shall ensure himself the online transaction regarding EMD submission shall be completed successfully before due date.

नोट: नकद / डिमांड ड्राफ्ट या किसी अन्य रूप में ईएमडी को स्वीकार नहीं किया जाएगा। निविदाकर्ता यह भी नोट करें कि उन्हें निविदा प्रक्रिया के दौरान किसी भी भाविप्रा कर्मचारी से संपर्क करने या किसी भाविप्रा कर्मचारी को आरटीजीएस / एनईएफटी के रूप में बैंक हस्तांतरण के माध्यम से ईएमडी जमा करने का कोई दस्तावेजी साक्ष्य प्रस्तुत करने की आवश्यकता नहीं है। किसी भी परिदृश्य में निविदाकर्ताओं को बोलियां खोलने से पहले किसी भी दस्तावेज को प्रस्तुत करने के लिए किसी भी एएआई कर्मचारी को प्रस्तुत / अनुबंध करने की आवश्यकता नहीं होती है।

Note: EMD in the form of cash / Demand Draft or any other form shall not be accepted. Tenderers shall also note that they are not required to contact any AAI employee or submit any documentary evidence of submission of EMD via Bank Transfer in the form of RTGS/ NEFT to any AAI employee during the process of the tender. In no scenario the Tenderers are required to submit/contract any AAI employee for physical submission of any documents before opening of the bids.

EMD की वापसी: बैंक ट्रांसफर मोड (आर टी जी एस/एन ई एफ टी) के माध्यम से प्राप्त असफल बोलीकर्ताओं की ईएमडी वापसी केवल उसी मोड के माध्यम से ऑनलाइन लौटाई जाएगी तथा यह निविदा को प्रस्तुत करते समय पोर्टल में उपलब्ध करवाए गए बैंक अकाउंट के ब्यौरे में ही वापस की जाएगी। ऐसे बोलीकर्ता जो कि पात्रता /तकनीकी स्तर पर अयोग्य पाए जाएंगे, को उनकी निविदा के रद्द होने के 07 दिनों के भीतर स्वतः ही ईएमडी दे दी जाएगी। ऐसे सभी बोलीकर्ता जिनकी वित्तीय बोली खोली गई है, एल-1 बोलीकर्ता के अलावा ईएमडी की वापसी बोली की प्रक्रिया वित्तीय बोली खुलने के 07 दिनों के भीतर हो जायेगी।

Refund of EMD: EMD to unsuccessful tenderers received thorough bank transfer mode (RTGS/NEFT) shall be refunded online through the same mode only and it shall be refunded in the Bank Account whose details are provided on the portal at the time of submission of the tender. The refund of EMD to bidder who fail to qualify the eligibility / technical stage shall be initiated automatically within 07 days of their rejection. For all bidders who qualify and their financial bids are opened the refund of EMD of all vendors except L-1 shall be processed within 07 days of opening of the financial bid.

लिफाफा-II:- CCP Portal के द्वारा वित्तीय ई-बोली

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

सभी दरों को दिये गए प्रारूप में अद्वितीय किया जाएगा और किसी अन्य प्रारूप में स्वीकार्य नहीं किया जायेगा। यदि निविदा दस्तावेज के साथ Price Bid को Standard BOQ प्रारूप के रूप में दिया गया है, तो उसे डाउनलोड करना है और सभी बोलीदाताओं द्वारा भरना है। बोलीदाताओं को BOQ फाइल डाउनलोड करके, इसे खोलने और अपने संबंधित वित्तीय उद्धरण और अन्य विवरण (जैसे बोलीदाता का नाम) के साथ रंगीन (असुरक्षित) कोशिकाओं को पूरा करना आवश्यक है। कोई भी अन्य कक्षों को परिवर्तित नहीं किया जाना चाहिए। एक बार विवरण पूरा हो जाने पर, बोलीदाता को इसे बिना फाइल का नाम बदले सुरक्षित करना होगा और इसे ऑनलाइन जमा करना होगा। यदि बोलीदाता द्वारा BOQ फाइल को संशोधित किया गया है, तो बोली को खारिज कर दिया जाएगा।

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 blue coloured (unprotected) cells with their respective financial quotes and other details (such as name of the tenderers). No other cells should be change. 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. बिड जमा करना / Bid Submission :-

निविदाकर्ता केवल सीपीपी पोर्टल <https://etenders.gov.in/eprocure/app> पर ही अपने आवेदन प्रस्तुत करेंगे।

निविदाकार/ठेकेदार को सलाह दी जाती है कि निविदाएं ऑनलाइन जमा करने के लिए निविदा दस्तावेज में दिए गए निर्देशों का पालन करें। निविदाएं शुल्क के लिए डिमांड ड्राफ्ट के स्कैन प्रतिलिपि तथा बयाना राशि के लिए डिमांड ड्राफ्ट के स्कैन प्रतिलिपि के साथ स्कैन किए गए दस्तावेजों का डिजिटल रूप से हस्ताक्षरित फाइल अपलोड करना आवश्यक है। बोली दस्तावेजों को 100 डीपीआई के साथ काले और सफेद विकल्प से स्कैन किया जा सकता है जो स्कैन किए गए दस्तावेज के आकार को कम करने में मदद करता है।

ऊपर बताये गये स्थान के अलावा किसी अन्य स्थान पर आवेदन अपलोड करने पर तथा दस्तावेज के हार्ड प्रतिलिपि पर विचार नहीं किया जायेगा।

The tenderer shall submit their application only at CPP Portal: <https://etenders.gov.in/eprocure/app>. Tenderer /Contractor are advised to follow the instruction provided in the tender document for online submission of bids. Tenders are required to upload the digitally signed file of scanned documents 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. एक से अधिक निविदाएं एक निविदाकार या निविदाकारों द्वारा प्रस्तुत नहीं की जाएगी जिनके आपस में व्यावसायिक संबंध हैं। किसी भी परिस्थिति में पिता और उसके बेटे या अन्य करीबी रिश्तेदार जिसमें आपस में व्यावसायिक संबंध हैं (i.e. एक या अधिक पार्टनर / डायरेक्टर सामान हैं) को उसी अनुबंध के लिए निविदा डालने के लिए अलग प्रतियोगियों के रूप में अनुमति नहीं दी जाएगी। इस शर्त का उल्लंघन दोनों पक्षों की निविदाओं को अस्वीकृति के लिए उत्तरदायी होगा।

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. सेंट्रल पब्लिक प्रोक्योरमेंट पोर्टल (CPPP) की वेबसाइट <http://etenders.gov.in/eproc/app>, से निविदा डाउनलोड करने वाले निविदाकर्ता को किसी भी तरीके से डाउनलोड मूल्य बोली टेम्पलेट एवं निविदा फॉर्म को छेड़छाड़ / संशोधित नहीं करना चाहिए। यदि किसी भी तरह से छेड़छाड़ / संशोधन पाया जाता है, तो एजेंसी का टेंडर को पूरी तरह से खारिज कर दिया जाएगा तथा निविदाकार को एएआई के साथ व्यापार करने पर प्रतिबंध लगाया जा सकता है।

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. बोलियों को खोलने की प्रक्रिया इस प्रकार होगी / Bids Opening Process is as below :-

लिफाफा-I (निविदा प्रोसेसिंग शुल्क, बयाना राशि, तकनीकी बिड और पूर्व योग्यताएं) लिफाफा-I जिसमें उक्त पैरा 2(A), (B) एवं (C) के दस्तावेज (जिन्हें निविदाकार ने अपलोड किया) है को CRITICAL DATA SHEET में दिये गये तिथि तथा समय के अनुसार खोला जाएगा

Envelope –I (Tender processing fee, EMD, Technical Bid and Pre-qualification): Envelope-I containing documents as per para 2 (A), (B) and (C) (uploaded by the tenderers) shall be opened on date & time mentioned in **CRITICAL DATA SHEET**.

यदि बोलीदाता के पास कार्य के बिड दस्तावेज से संबंधित कोई सवाल है तो वे सीपीपी पोर्टल पर 'Seek Clarification' द्वारा स्पष्टीकरण मांग सकते हैं। इस संबंध में संचार का कोई अन्य माध्यम पर विचार नहीं किया जाएगा।

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 regards shall be entertained.

यदि बोली लगाने वाले के लिफाफा-I के द्वारा जमा किये गये दस्तावेजों में किसी भी प्रकार की स्पष्टीकरण की जरूरत होगी तो उन्हें “CPP Portal” द्वारा इसे मुहैया करने के लिए कहा जाएगा। बोलीकर्ता को अपेक्षित दस्तावेज भाविप्रा के द्वारा निर्धारित समय सीमा में अपलोड करना होगा, विफल होने पर यह माना जाएगा कि बोली लगाने वाले के पास जमा करने के लिए कुछ भी नहीं है और तदनुसार बोली का मूल्यांकन किया जाएगा।

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.

बोलीदाताओं को उनकी बोलियों के स्वीकृति/अस्वीकृति के बारे में CPP पोर्टल के माध्यम से सूचित किया जाएगा।

The intimation regarding acceptance/rejection of their bids will be intimated to the tenderers through CPP portal.

जिन-जिन ठेकेदारों/फर्मों का अर्हता आवश्यकताएं और तकनीकी मापदंड सही पाया जाएगा उनका वित्तीय ई-बोली क्रिटिकल डाटा शीट में दिये गये तिथि के अनुसार खोला जाएगा। (अगर लिफाफा- II को खोलने की तिथि तथा समय में बदलाव की आवश्यकता होती है तो सीपीपी पोर्टल में माध्यम से तिथि सूचित कि जाएगी)।

Envelope-II containing financial bid of the tenders 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. भारतीय विमानपत्तन प्राधिकरण को किसी एक निविदा को स्वीकार करने या किसी एक या सभी आवेदन को कोई कारण बताएं बिना निरस्त करने का अधिकार होगा।

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. भाविप्रा उन कार्यकारी एजेंसियों को निविदा दस्तावेज जारी करने का अधिकार सुरक्षित रखता है, जिनकी चल रही परियोजना (कार्य) का प्रदर्शन बराबर है और आमतौर पर खराब है और उन्हें एएआई या केंद्रीय / विभाग के किसी भी विभाग द्वारा निरोधक / अस्थायी / स्थायी नामांतरण / काला सूची पत्र जारी किया गया है। राज्य सरकार **Depts./PSUs/World Bank / ADB** आदि भाविप्रा निविदाकर्ता द्वारा प्रस्तुत किसी भी स्तर (कार्य के पहले या बाद में) द्वारा प्रस्तुत क्रेडेंशियल को सत्यापित करने का अधिकार सुरक्षित रखते हैं। यदि किसी भी स्तर पर, आवेदक द्वारा प्रस्तुत कोई भी जानकारी / दस्तावेज गलत / गलत पाए जाते हैं या कुछ विसंगति है, जो निविदाकर्ता को अयोग्य घोषित करता है तो एएआई निम्नलिखित कार्रवाई करेगा:

क) फर्म के द्वारा जमा किये गये सम्पूर्ण बयाना राशिको जब्त कर लिया जायेगा।

ख) निविदाकर्ता एएआई में निविदा से रोक के लिए उत्तरदायी होंगे, जिसमें अनुबंध की समाप्ति के अलावा किसी अन्य उपयुक्त संविदात्मक या कानूनी कार्रवाई शामिल नहीं है।

AAI reserve 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 debarment/black listing by any department of AAI or Central/State Govt. Depts./PSUs/World Bank/ADB etc. **AAI reserve 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 tenderer.

b) The tenderers shall be liable for debarment from tendering in AAI, including termination of the contract apart from any other appropriate contractual/legal action.

9. कंसोर्टियम/संयुक्त उद्यम कम्पनियां भागीदारी करने की अनुमति नहीं है। किसी भी एक फर्म को दो आवेदन/निविदा करने की अनुमति नहीं है।

Consortium / JV companies shall not be permitted. No single firm shall be permitted to submit two separate applications.

10. केन्द्रीय सार्वजनिक क्षेत्र के उपक्रमों को क्रय सम्बन्धी वरीयता, स्वीकृति की तारीख को विद्यान भारत सरकार के निर्देशों के अनुसार देय होगी।

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. भारतीय सूक्ष्म और लघु उद्यमों (MSE) इकाइयों को रियायत लागू नहीं है।

Concessions to Indian Micro & Small Enterprises (MSEs) units is **Not Applicable**.

नोट:- हिंदी तथा अंग्रेजी संस्करण में अंतर पाए जाने पर अंग्रेजी संस्करण मान्य होगा।

Note :- If there any discrepancy is observed in Hindi and English version, the English version will be considered.

वरिष्ठ प्रबन्धक (अभि.-वि)/Senior Manager (Engg-E)
कृते, अध्यक्ष भा.वि.प्रा./For and on behalf of the Chairman
भारतीय विमानपत्तन प्राधिकरण/ Airports Authority of India

GUIDANCE TO TENDERER

AIRPORTS AUTHORITY OF INDIA

GUIDANCE TO TENDERER

1. **Online item rate tenders through e-tendering portal are invited** on behalf of the Chairman, Airports Authority of India for the work as mentioned in **Schedule -F**. The estimated cost of the work is mentioned in **Schedule -F**. This estimate, however, is given merely as rough guide..
2. The Tenders in the prescribed Form are invited through open e-Tender two Cover / Envelope system on CPP Portal:
 - 2.1 Cover / Envelope- I: Containing scanned copy of unconditional acceptance of AAI's Tender Conditions and technical bid.
 - 2.2 Cover / Envelope-II: Price Bid.
3. The works are required to be completed within the period as mentioned in Schedule F. This period shall be reckoned from the Tenth day after the date of issue of written orders to commence the work, in accordance with the phasing, if any, indicated by AAI in the Tender Documents.
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. Not more than one Tender shall be submitted by a contractor or by a firm of contractors.
5. The Accepting Authority as mentioned in **Schedule F** shall be the Accepting Officer hereinafter, referred to as such for the purpose of this contract.
6. Companies other than propriety 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.
7. Proprietary firm shall submit scanned copy of Authorization Letter/Power of Attorney only if the tender is processed by a person other than proprietor.
8. Tender documents consisting of plans, specifications, Schedule(s) of quantities/rates of the various classes of work to be done, the conditions of contract and other necessary documents can be downloaded from the CPP e-portal URL address **<https://etenders.gov.in/eprocure/app>**. However, to participate in the tender, the tenderer must pay tender fee of Rs. 1,180.00 by way of **online payment** through the SBI payment gate way integrated /mapped with CPP portal for this purpose.
9. Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their Tenders as to the nature of the ground and sub soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require, 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.

10. 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 stores, tools and plant, etc. will be issued to him by Airports Authority of India, local conditions, local material rates and other factors bearing on the execution of the works.
11. All rates shall be quoted in the standard BOQ format uploaded at the CPP e-tendering portal and no other format is acceptable.
12. 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.
13. If the bidder has any clarification/queries related to the tender document of the work, they should use "Clarification" tab in CPP e-tendering portal to seek clarifications. No other means of communication in this regard shall be entertained. Last date and time for making clarification is as stipulated in the Critical Dates and NIT.
14. Tenders shall be received through e-tendering portal upto the date and time as mentioned at **Page No. 2 of e-NIT** and shall be opened on the date and time as mentioned at **Page No.2 of e-NIT** in the presence of tenderers who may be present. Any change or extension of date shall be intimated through e-tendering portal.
15. Earnest money of amount as mentioned at Sr. No 1(ii) Schedule E in page No. **GCC-130** shall be paid by way of online payment through the SBI payment gate way integrated /mapped with CPP portal for this purpose.
16. 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.
 - 16.1 A responsive bidder** is one who submits priced Tender and accepts all terms and conditions of the specifications and contract documents.
 - 16.2 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 acceptable to AAI shall also be treated as a major modification.
 - 16.3** A Tenderer shall submit a responsive bid, failing which his Tender will be liable to be rejected.
17. 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.
18. On acceptance of Tender earnest money will be treated as part of the security deposit.
19. Airports Authority of India will return the earnest money where applicable to every unsuccessful Tenderer except as provided in the Tender documents.
20. Canvassing in connection with Tenders is strictly prohibited and the Tenders submitted by the Tenderers who resort to canvassing will be liable to rejection.

21. 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 relatives 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 for next 2 years.
22. The contractors shall give a list of AAI employees related to him.
23. 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.
24. The Tender for works shall remain open for acceptance for a **period of ninety days** from the date the date of opening of Envelope – II (Finance). 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 forfeit the full said earnest money absolutely.
25. 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.
26. 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 **entire amount of EMD** submitted by the firm.
 - b) Debar the firm for minimum three years to tender for AAI in any name/style.
27. **PRICES:**
- (a) All tendered rates shall be inclusive of all taxes (excluding GST) and levies payable under respective statutes. Purchase tax /turnover tax/ contract tax/ octroi / royalty/ Construction Employee Welfare Cess, Excise or any other duty levied by custom Authorities in respect of import or any materials or any other tax on material, labour, services of contract in respect of this work contract including payment to local / Govt./ Statutory authorities shall be payable by the contractor and Airports Authority of India will not entertain any claim whatsoever in this respect. Construction Employee Welfare Cess will be deducted at the time of making payment of running account bill as per prevailing rates of the respective states. Nothing extra will be paid by AAI in this respect.
 - Rates shall be exclusive of GST (GST shall be reimbursed in RA or Final Bill after submission of relevant documents regarding payment of GST, and no additional amount such as contractor's overhead & profit will be paid on this account.)

- The Contract is of " **Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport** " AAI does not give any concessional forms/certificate/permits towards any taxes, duties and other levies like sales tax, road taxes/permits, octroi etc.
- Wherever supplies/services involve imports, the same should be identified separately. Basic custom duty and IGST will be paid by AAI by utilizing EPCG license/duty scrip under SEI scheme of GoI and such custom duty amount shall be deducted from the payments made to the contractor.
- The bidder is required to provide Tax type and tax percentage.
- The successful bidder shall provide breakup towards material, services and percentage as well as amount of GST applicable, for availing Input Tax Credit (ITC).
- Following undertaking is required to be submitted by bidder.
 - i) That the bidder is registered under GST and compliant of GST provision.
 - ii) In case of non-compliance of GST provisions and blockage of any input credit, the bidder shall be responsible to indemnify AAI.
 - iii) That all input credits have been passed on to AAI by the bidder.
- (b) However, pursuant to Constitution (46th Amendments Act, 1982) if any further tax or levy is imposed by Statute, after the last stipulated date for the receipt of tender including extension if any and the contractor there upon 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.
- (c) In case of change in rate of Tax 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. The contractor shall have to submit tax invoice for the taxable supply/services rendered.
- (d) The rates quoted shall be in Indian Rupees only and inclusive of all taxes and duties but excluding GST, what so ever including labour, tools & plants, packing freight/transportation of items from factory up to the installation site & insurance up to the site, loading, unloading and hoisting arrangement for installation, inspection documents including the fee(s) payable for obtaining statutory license/approval etc. from concerned department. Any statutory increase on these components beyond what is applicable on the last date of submission of bid shall be reimbursed by AAI.
- (e) 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.
- (f) 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.

28. ~~The Tender for composite works includes in addition to building work all other works such as sanitary and water supply installations, electrical work, horticulture work, roads and paths etc. The Tenderer apart from being a registered contractor of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for sanitary and water supply, drainage, electrical work and horticulture works in a composite Tender.~~

29. The site for the work may be made available in full or parts as decided by Engineer-in Charge. No time extension for handing over of site in phases will be granted.

30. MODE OF SUBMISSION OF TENDERS:

30.1 Mode of submission of tender should be as specified in NOTICE INVITING e-TENDER.

Queries, Replies and Clarifications:

30.2 If the bidder has any query related to the Tender Document of the work they should use 'Seek clarification' tab in e-tendering portal to seek clarifications. No other means of communication in this regards shall be entertained.

30.3 If any clarification is needed from the bidder about the deficiency in his uploaded documents in Cover / Envelope-I, he will be asked to provide it through CPP portal. The bidder shall upload the requisite clarification/documents within time specified by AAI, failing which tender will be liable for rejection.

30.4 Once the bidder has submitted 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.

30.5 Issues faced/ queries of the bidders pertaining to technical support on e-portal for submission of tender documents should normally be addressed to AAI Help Desk Support (Details as mentioned in the e-NIT).

30.6 In case, the condition 30.1 to 30.5 above is found violated, the tender shall be rejected.

31. TENDERS OPENING PROCESS:-

Tenders Opening Process should be as mentioned or specified in NOTICE INVITING e-TENDER.

32. The "Make in India policy" of Government of India circulated vide order no. P-45021/2/2017-PP(BE-II); dated 16.09.2020 with up-to-date amendment shall be applicable for this work.

Bidders are advised to go through the "Make in India policy" of Government of India for detailed understanding

33. Restrictions under Rule 144(xi) of the General Financial Rules (GFRs) 2017 issued vide order no F.No. 6/18/2019-PPD dt 23.07.2020 with up-to-date amendments shall be applicable for this work.

Bidders are advised to go through the " General Financial Rules (GFRs) 2017 " of Government of India for detailed understanding

34. 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 there to. Agreement should be signed on non-judicial stamp paper of appropriate value and cost of the stamp paper shall be borne by the contractor.

35. AAI is not responsible for delay due to link failure / internet problem etc. in respect of submission / receipt of any document or in submission of e-bid. Bidders who are intending to submit the responsive e-bid are requested to submit the same well in advance before due date & time. It is the responsibility of the Bidder to make sure that the required documents / e-bid is submitted in time.

36. PURCHASE PREFERENCE TO PUBLIC ENTERPRISES

The Accepting Authority reserves to himself the right to allow to the public enterprises purchase preference facilities as admissible under the existing policy on the date of opening of tender.

37. The AAI reserves the right to ask for submission of sample in respect of material for which the tenderer has quoted his rates before the tender can be considered for acceptance. If the tenderer who is called upon to do so does not submit samples within 7 (Seven) days of written order to do so, AAI shall be at liberty to forfeit 50% of the said earnest money absolutely.

38. Queries if any, may be sent through CPP e-tendering portal only.

39. POLICE VERIFICATION OF CHARACTER

Tenderer shall have to follow the guide lines issued by "BCAS" from time to time and apply for the daily entry permit for the labourer the previous working day together all the required details in the prescribed Performa while entry in to Institutional Building/ operational area / Civil Air Terminal building/ other building and including Residential areas. The tenderer shall also have to produce police verification report from Police Station/ SSP Office of their area in respect of their labourers & himself before commencement of work at site and for issue the pass from Competent Authority and nothing will be paid by AAI in this regard.

40. VERIFICATION OF CONTRACTOR'S CREDENTIALS

Tender document is issued subject to verification of credentials and works executed, in case of any adverse report, falsification of documents submitted by the contractor, AAI shall be liberty to cancel the tender at any stage along with debarment from participation in tender for any work in AAI in any name and style for a period decided by Competent Authority.

41. If the contractor observed discrepancies/mistakes in the schedule of items, he should bring it to the notice of E-I-C before the date of submission of tender on AAI e-tendering portal.

42. DIFFERENCE BETWEEN FIRST LOWEST BIDDER AND SECOND LOWEST BIDDER.

Final bill will be worked out at the accepted tender rates and also with quoted rates of second lowest. The amount of final bill to be paid will be restricted to the lower of the two.

Senior Manager (E-E)

For and on behalf of the chairman,

Airports Authority of India



GENERAL CONDITIONS OF CONTRACT

AIRPORTS AUTHORITY OF INDIA

AIRPORTS AUTHORITY OF INDIA

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GENERAL GUIDELINES

1. This book of “General Conditions of Contract” is applicable to both types of tenders i. e.” Percentage rate tenders and Item rate tenders”. Accordingly, alternative provisions for conditions Nos. 4, 10 & 12 of the General Rules and Directions are given in this book. The appropriate alternatives will be applicable in specific cases depending on whether this is used for percentage rate tenders or item rate tenders
2. Notice Inviting Tender, Schedules A to F, special conditions/specifications and drawings only will be issued to intending bidders. The standard form will not be issued along with the Tender Documents but the same shall form part of the agreement to be drawn and signed by both parties after acceptance of tender.
3. All blanks are confined to Notice Inviting Tender and Schedules A to F.
4. Authority approving the Notice Inviting Tenders (NIT) shall fill up all the blanks in Notice Inviting Tender and in Schedules B to F before issue of Tender documents.
5. The intending bidders will quote their rates in Schedule A.
6. The proforma for registers and Schedules A to F are only for information and guidance. These are not to be filled in the Standard Form. The Schedules with all blanks, duly filled, shall be separately issued to all intending tenderers.

AIRPORTS AUTHORITY OF INDIA

~~Percentage Rate Tender~~/Item Rate Tender & Contract for Work

Airport : **Kangra**

Branch : **Engineering -Electrical**

Office of : **Sr. Manager (E-E)**

(A)Tender for the work of : **“Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport”**

CRITICAL DATA SHEET

Publishing Date	24.06.2022
Bid Document Download / Sale Start Date	24.06.2022 from 1500 hrs.
Clarification Start Date	24.06.2022 from 1500 hrs.
Clarification End Date	11.07.2022 from 1800 hrs.
Bid Submission Start Date	24.06.2022 from 1500 hrs.
Bid Submission End Date	15.07.2022 upto 1800 hrs.
Last date and time of Online Payment through SBI payment gateway provided at the CPP Portal itself against EMD and Tender Processing Fee.	15.07.2022 upto 1800 hrs.
Bid Opening Date (Cover / Envelope-I)	Shall be intimated through CPP Portal
Bid Opening Date (Cover / Envelope-II)	18.07.2022 at 1000 hrs.
Tender Processing Fee	Rs. 1180/- (i/c GST) (Non-refundable), To be paid by way of online payment through SBI payment gateway provided at the CPP Portal itself
EMD	Rs. 31,845/- to be deposited by way of online payment through SBI payment gateway provided at the CPP Portal itself

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 Chairman Airports Authority of India within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the referred to in Rule-1 of General 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. 31,845.00 (Rupees Thirty-one Thousand eight Hundred Forty-five Only)** is here by deposited by way of **online** payment through SBI payment gateway provided at the CPP Portal itself (~~Appendix-I~~). 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.

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

(* To be deleted which are not applicable)

Date :

Signatures of Contractor :

Witness:

Postal Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by competent authority on behalf of the Chairman, Airports Authority of India for sum of Rs. _____ (Rupees _____).

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

- (i)
- (ii)
- (iii)

For & on behalf of Chairman,
Airports Authority of India

Signature-----

Designation-----

Date-----

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, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit and Performance guarantee 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.		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.
2. (A)		In case of the tender submitted by a Joint Venture / Consortium, a copy of joint venture / consortium agreement in the specified form defining the lead partner should be submitted. The lead partner shall sign all the documents in respect of the works. The documents signed by any other person or firm other than the lead partner shall not be entertained.
3.		Receipts for payment made for the 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 duly authorized 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.
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.</p> <p>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 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.	<p>In case of Percentage Rate Tenders, tenderer shall fill up the usual printed form stating at what percentage below/above (in figures as well as in words) the total estimated cost in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if;</p> <ol style="list-style-type: none"> 1. The contractor does not quote percentage above/below on the total amount of tender or any section/sub-head of the tender. 2. The percentage above/below is not quoted in figures & words on the total amount of tender or any section/sub-head of the tender. 3. The percentage quoted above/below is different in figures & words on the total amount of tender or any section/sub-head of the tender. <p>Tenders, which propose any alteration in the work specified in the form of invitation to tender, or in the time allowed for carrying out the work, or contain any other conditions of any sort including conditional rebates, will be summarily rejected.</p> <p>No single tender shall include more than one work. Contractors who wish to tender for two or more works shall submit separate tenders for each. Each tender shall have the name and number of the works to which they refer, written on the envelope.</p> <p>In case the lowest tendered amount (worked out on the basis of percentage above/below) of two or more contractors is same, such lowest bidders will be asked to submit revised offer in the form of percentage above/below on estimated cost of tender including all sub-sections. The revised percentage quoted above/below on estimated cost of tender including all sub-sections should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers. In case any of such bidders refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited.</p> <p>If the revised tendered amount of two more bidders received in revised offer is again found to be equal, the lowest tender, among such bidders, shall be decided by draw of lots in the presence of Jt.</p>

		<p>GM (Engg)/ DGM (Engg)/ AGM (Engg)/ Sr Manager (Engg) in-Charge of work & the lowest bidders those who have quoted equal amount of their tenders, all the lowest bidders those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each bidder.</p> <p>Bidders, whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.</p> <p>Note: Till the time software supports the above provision, revised offers from tenderers forming the tie shall be obtained and procedure as prescribed for "Restricted call of tenders" shall be adopted.</p>
4. (B)		<p>In case the lowest tendered amount (estimated + amount worked on the basis of percentage above/below) of two or more contractors is equal, such lowest contractor will be asked to submit sealed revised offer in the form of letter mentioning percentage above/below on estimated cost of tender including all sub sections /sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section /sub head should not be higher than the percentage quoted above/below on submission of tender. The lowest tender shall be decided on the basis of revised offers.</p> <p>In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited.</p> <p>If the revised tendered amount of two more contractors received in revised offers is again found to be equal, the lowest tender, among such contractors shall be decided by draw of lots in the presence of Jt.GM(Engg)/DGM (Engg), AGM (Engg) or Sr Manager (Engg) in -Charge of major & minor component(s) of work & the lowest bidder those who have quoted same tendered amount of their tenders.</p> <p>In case all the lowest contractors have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each bidder.</p> <p>Bidders, whose earnest money is forfeited because of non submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.</p>
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 statement in a tabular form. In the event of a tender being accepted, a receipt for the earnest money shall be issued to the contractor for the purpose of identification. Copies of the particulars and other documents in accordance with Rule-I. 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.		<p>The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.</p>
7.		<p>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 authorised cashier.</p>
8.		<p>The memorandum of work tendered for and the schedule of materials to be supplied by the department, their issue-rates, shall be filled and completed in the office of the officer inviting tender before the tender is opened. It shall be submitted to the officer without having been signed and complete, shall request the officer to have this completed and he completes and delivers his tender.</p>

9.		The bidders shall sign a declaration under the official Secret Act 1923, for maintaining secrecy of tender documents and drawings or other records connected with the work given to them. Unsuccessful bidders shall return the documents and drawings to the tendering authority.
9. (A)		Use of electronic tenders shall be encouraged. Tenderers shall be liable for rejection of tenders as a consequence of non-compliance with the instructions. The tender and cello tape to be provided on all the rates quoted in case of physical tenders.
10.	Applicable for Item Rate Tender Only.	<p>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,</p> <ol style="list-style-type: none"> If a discrepancy is found between rates in figures and in words, then the rates which correspond with the amount worked out by the bidder shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the bidder or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the bidder in figures and in words tally, but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s) leaving space blank both in figure(s) and word(s) or cancelled the quoted rate in figure(s), and word(s) but the amount corresponding to the item(s) is worked out by the bidder and added to the grand total, then rate(s) of the item(s) shall be derived from the amount(s) quoted by the contractor against such item(s). 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. Sub Para i to iv above shall not be applicable in case of e – tendering.
	Applicable for percentage rate tender only .	<p>In case of percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the bidder in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy. However, if the bidder has worked out the amount, the tender will be considered if discrepancy is found in the percentage quoted in words and figures,</p> <ol style="list-style-type: none"> The percentage which corresponds to the amount worked out by the bidder shall, unless otherwise proved, be taken as correct. If the amount of the tender is not worked out by the bidder or it does not correspond with the percentage quoted in figures or in words, then the percentage quoted by the bidder in words shall be taken as correct. Where the percentage quoted by the bidder in figures and in words tally but the amount is not worked out correctly, the percentage quoted by the bidder will, unless otherwise proved, be taken as correct and not the amount.
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 upto 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.	In Percentage Rate Tender, the tenderer shall quote percentage below / above (in figures as well as in words) which he will be willing to execute the work. He shall also work out the total amount in figures and in words as well as in words in such a way that no interpolation is possible. 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. (quoting of rates in Paise is not applicable in e-tenders)
13.	Acceptance of abnormally low quoted bid (Capital & Revenue Expenditure Contract)	<p>Wherever the price of the lowest bidder is lower than the justified cost by more than 25%, lowest bid can be termed as Abnormally Low Quoted Bid (ALQB). Processing of such bid shall be as follows:</p> <ol style="list-style-type: none"> The bid processing manager shall seek from lowest bidder, a Bank guarantee amounting to 10% of the difference between 75% of the justified cost and the cost quoted by the bidder. This bank guarantee shall be termed as Quality Protection Bank Guarantee (QPBG) and shall be over and above the normal bank guarantee and shall be valid upto the completion of the work. The lowest bidder to submit the QPBG within 10 days of issue of letter from bid manager. On receipt of QPBG from the lowest bidder, the bid processing manager shall submit the case to the officer competent to accept the tender as per delegation of powers. In case of Percentage Rate Tenders QPBG shall be asked for 10% of the difference between 75% of the justified cost and the correspondence cost worked out on the basis of percentage quoted by lowest bidder. The QPBG for any tender shall be as fixed amount as one time measure and will not vary at any stage during the currency of the work or contract. The justified cost worked out by AAI shall be final and binding on the contractor. In case of labour intensive ALQB like MESS, Annual Maintenance Contract for supply of labors, Operation & Maintenance Contract and other similar works, contractor shall transfer / deposit salary of the individual worker to their bank account which should be linked with AADHAR card and a statement to be submitted to AAI alongwith each running bill and final bill. In case lowest bidder fails to submit QPBG within stipulated time as decided by bid manager or contractor does not transfer/deposit salary of individual worker to his/her bank account which should be linked with AADHAR and do not submit statement to AAI as the case may be the tender shall be rejected/foreclosed and EMD/SD collected till date shall be forfeited. In case of non execution/completion of work, QPBG and EMD/SD collected till date shall be forfeited.

13A		In case the contractor does not carry out the work on ALQ items as per schedule or as per NIT specifications, the Engineer-in-charge shall issue a letter to the contractor to comply its obligations as per NIT, for ALQ items. Engineer-in-charge shall also give one reminder after 10 days of 1st letter and if contractor still do not start the work on ALQ items, then bank guarantee i.e. QPBG should be encashed and work should be got executed through another agency at his risk and cost.
14.		<ol style="list-style-type: none"> The bidder, whose tender is accepted, will be required to furnish performance guarantee of 5% (Five Percent) of the tendered amount with the period specified in Schedule F. This guarantee shall be in the form of Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank but not co-operative or Gramin Bank in accordance with the prescribed form, provided confirmatory advice is enclosed. The bidder, whose tender is accepted, will be required to furnish by way of Security Deposit for the fulfillment of his contract an amount equal to 5% of the contract amount of the work. In works where condition of submission of Performance Guarantee is not applicable, the security deposit @ 10% of the tendered value shall be deducted. 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. Security deposit will also be accepted in form of Fixed Deposit Receipts / Guarantee Bonds of any Scheduled Bank but not co-operative or Gramin Bank in accordance with the prescribed form, provided confirmatory advice is enclosed.
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"> All Tendered rates should be inclusive of all taxes but excluding GST. Wherever supplies/services involve imports, the same should be identified separately. Basic Custom Duty will be paid by AAI by utilizing EPCG license/duty scrip under SEI scheme of GOI. GST shall be paid to bidder for any taxable supply/services against a valid Tax Invoice. The bidder is required to provide Tax type and Tax percentage in all bids other than that of civil works. In case of composite works having component of SITC items, such as Electrical & Mechanical Installation, Airport System. Security, IT, Furniture etc should be identified 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. In case of change in rate of Tax 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.
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.

General Rules & Directions



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 who are eligible to tender for sanitary and water supply drainage, electrical and horticulture works in the composite tender.		
20.		The contractor/ bidder shall submit list of work completed in last 5 years*as well as which are in hand (in progress) in the following form assessing bidding capacity of the bidders:-		
Name of Work		Name and particulars of Office where work is being executed	Position of works in progress	Remarks
1		2	3	4
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. Note: In such case para 23 below may be deleted by NIT approving authority		
23.		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 a phased manner has been specified under special conditions of contract. The completion of each phase shall be applicable as indicated in tender documents. The work shall be taken over by Engineer-In-Charge in phases. The warranty for the work shall be applied independently w.e.f. date of completion /taking over in each phase. Note: In such case para 22 above may be deleted by NIT approving authority.		

CONDITIONS OF CONTRACT

Definitions :

1.	<p>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).</p>
2.	<p>In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them :-</p>
3.	<ol 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 incharge 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 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. x. Market Rate shall be the rate as decided by the Engineer-in-Charge on the basis of the

Conditions of Contract



		<p>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 upto 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 :-
		<ul style="list-style-type: none"> 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.

Conditions of Contract



8.2		If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.
8.3		Any error in description, quantity or rate in Schedule of Quantities or any omission therefrom shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.
8.4	Payment for similar items with different quoted rates in different subheads of the contract agreement	If the contractor has quoted different rates for the same item appearing in two or more subheads, then the lowest of the rates quoted shall only be considered for payments during execution of work. In case of deviation of quantity of such item, payments shall be made at the lowest quoted rate for quantity executed upto the deviation limit specified in the contract. Beyond the deviation limit the rate shall be derived as per relevant contract provision.
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.2 Cr.
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)		<p>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.</p> <p>ii. Standard AAI Form as mentioned in Schedule 'F' consisting of :</p> <ol style="list-style-type: none"> Various standard clauses with corrections upto the date stipulated in Schedule 'F' alongwith 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. <p>iii. No payment for the work done will be made unless contract in form of agreement is signed by the contractor.</p>

CLAUSES OF CONTRACT

CLAUSE 1

	Performance Guarantee	This clause is applicable for the works for which the estimated cost of the tender is more than Rs.5 crores.
		<p>i. The contractor shall submit an irrevocable Performance Guarantee (Five percent) of the Tendered amount in addition to other deposits mentioned in the contract for his proper performance of the contract agreement (notwithstanding and/or without prejudice to any other provisions in the contract agreement) as specified in Schedule 'F' from the date of issue of award letter. This guarantee shall be in the form of Fixed Deposit Receipts or Guarantee Bonds of any scheduled bank but not Co-operative or Gramine bank in accordance with the form prescribed hereto. (Appendix-XI) In case a fixed deposit receipts of any Bank is furnished by the contractor to the AAI as part of the performance guarantee and the Bank is not ready to make payment against the said fixed deposit receipts or Guarantee Bonds, the contractor shall be liable to pay the same 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 remain valid upto the stipulated date of completion plus 180 days beyond that. If the time for completion of work gets enlarged, the contractor shall be liable to extend 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 / 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 the work for which the AAI is entitled under the contract (notwithstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:</p> <p>a. Failure of the contractor to extend the validity of the Performance Guarantee as specified herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance Guarantee.</p> <p>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 contract 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>

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 5% of the gross amount of each running and final bill till the sum deducted alongwith the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of the work. Earnest money shall be adjusted first in the security deposit and further recovery of security deposit shall commence only when the update amount of security deposit starts exceeding the earnest money. 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 the form of fixed deposit receipts or guarantee bonds of any Scheduled Bank but not Co-operative or Gramin Bank. In case a fixed deposit receipts or 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 fixed deposit receipt or 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. In works where condition of submission of performance guarantee is not applicable, the security deposit at the rate of 10% (Ten Percent) of gross amount of each running bill shall be deducted instead of 5%, till the sum along with the sum already deposited as earnest money will amount to security deposit of 10% of the contract value of work. Other conditions shall remain same as stated above. 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 therefrom, 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 fixed deposit receipts or 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 and the Earnest money deposited at the time of tenders will be treated as part of the Security Deposit. The security deposit as deducted above can be released against bank guarantee issued by any Scheduled Bank (but not from Co-operative / GraminBank), on its accumulations to a minimum of Rs. 5 lakh subject to the condition that amount of such bank guarantee, except last one, shall not be less than Rs. 5 lakh.</p> <p>Note 1: 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> <p>Note 2: Note 1 above shall be applicable for both clause 1 and 1 A.</p>
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Clause 2

	Compensation for Delay	<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 justified extended date of completion as per clause 5(excluding any extension under clause 5.5) as well as any extension granted under clause 12 and 15, he shall, without prejudice to any other right or</p>
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		remedy available under the law to the AAI on account of such breach, pay as compensation the amount calculated at the rates stipulated below as the authority specified in schedule 'F' may decide on the amount of Tendered Value of the work for every completed day/month (as determined) that the progress remains below that specified in Clause 5 or that the work remains incomplete. This will also apply to items or group of items for which a separate period of completion has been specified.
	i) Compensation for delay of work	<p>If the completion of work is delayed due to reasons attributed to contractor, AAI shall be entitled for compensation for delay as detailed below :</p> <p>i. For works costing upto Rs. 20.00 Lac:</p> <p>1.0% (one percent) of tendered value per week of delay or lesser amount as decided by the competent authority subject to a maximum of 10% of contract value.</p> <p>ii. For the works costing more than Rs 20 Lac:</p> <p>a. For the works having completion period less than 2 years</p> <p>0.5% (half percent) of tendered value per week of delay or lesser amount as decided by the competent authority subject to a maximum of 10% of the tendered value.</p> <p>b. For the works having completion period more than 2 years</p> <p>0.5% of tendered value per fortnight of delay or lesser amount as decided by the competent authority subject to a maximum of 10% of the tendered value.</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 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>
		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

		<p>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	<p>In case, the contractor completes the work ahead of stipulated date of completion, a bonus @ 1 % (one per cent) of the tendered value per month computed on per day basis, shall be payable to the contractor, subject to a limit of 5% (five per cent) of the tendered value. The amount of bonus shall be paid along with the final bill after completion of work. Provided that provision of the Clause 2A shall be applicable only when so provided in schedule 'F'. This clause shall be applicable for the work for which estimated cost of tender is Rs. 50.00 Cr. and above for pavement work and Rs. 100.00 Cr. and above for building work.</p>
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Clause 2B

	Release of withheld amount against compensation for delay.	<p>Withheld amount towards compensation for delay of Rs. 50.00 lacs, can be released against Bank Guarantee (on the format at Appendix-1) or in the form of fixed deposit receipts or guarantee bonds of scheduled Bank but not Co-operative or Gramin Bank, pending finalization of case by extension of time by competent authority as per delegation of powers. Concerning Executive Director (Engg) will authorize such action on receipt of proposal from the Engineer-In-Charge through proper channel.</p>
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Clause 3

	When Contract can be Determined	<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>
		<p>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</p>

		<p>comply with the requirement of such notice for a period of seven days thereafter.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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 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</p>
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		<p>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> <ol style="list-style-type: none"> To determine the contract as aforesaid so far as performance of work by the Contractor of work 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. 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.
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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

	<p>Contractor liable to pay compensation even if action not taken under Clause -3</p>	<p>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</p>
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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.

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 awarded, within 15 days, the Contractor shall submit a Time and Progress Chart for each mile stone and approved by the Engineer-in-charge. 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 Engineer-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) complete the work as per mile stones given in Schedule 'F'.

Project Management shall be done.

- a. For works costing upto Rs. 5.00 Cr. CPM/ PERT Chart
- b. Works costing more than Rs. 5.00 Cr. By using Project Management Software like Primavera / MS Project or any other software with the approval of Engineer-in-charge
- c. Contractor shall submit monthly progress reports (2 copies) highlighting status of various activities and physical completion of work.

PROGRAMME CHART

- i. The Contractor shall prepare an integrated programme chart in Project Management Software for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for

		<p>the fulfillment of the stipulated period or earlier and submit the same for approval to the Engineer-in-Charge within fifteen days of award of the contract. A recovery of Rs. 5000/- (for works costing upto Rs. 5.00 Crores) / Rs. 5000/- (for works costing more than Rs. 5.00 Crores) shall be made on per day basis in case of delay in submission of the programme.</p> <p>ii. The programme chart should include the following:</p> <ol style="list-style-type: none"> Descriptive note explaining the nature of the various activities. Network (PERT / CPM) diagram. Programme for procurement of materials by the contractor. <p>Programme for deployment of labour / equipment's having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor. In addition to the above, to ensure the progress of work as per programme, the contractor must submit the shuttering material required for cement concrete and R.C.C. work within one month from the date of start of work till the completion of RCC work as per requirement of work. The contractor shall submit shuttering schedule to complete structure work within laid down physical milestone.</p> <p>iii. If at any time, it appears to the Engineer-in-Charge that the actual progress of work does not conform to the approved programme referred above or after rescheduling of milestones, the contractor shall submit a revised programme within 7 (seven) days, showing the modifications to the approved programme to ensure timely completion of the work. The modified programme shall be approved by the Engineer in Charge. A recovery of Rs. 5000/- (for works costing upto Rs.5.00 Crores) / Rs. 5000/- (for works costing more than Rs.5.00 Crores) shall be made on per day basis in case of delay in submission of the modified programme.</p> <p>iv. The submission for approval of such programme or such particulars shall not relieve the contractor of any of the duties or responsibilities under the contract. This is without prejudice to the right of Engineer-in-Charge to take action against the contractor as per terms and conditions of the agreement.</p> <p>v. The contractor shall submit progress report using MS Project/Primavera software with base line programme for the work done during previous month to the Engineer-in-charge on or before the 10th day of each month failing which a recovery Rs. 2500/- (for works costing upto Rs. 5.00 Crores) / Rs. 5000/- (for works costing more than Rs.5.00 Crores) shall be made on per day basis in case of delay in submission of the monthly progress report.</p>
5.2		<p>If the work(s) be delayed by:-</p> <ol style="list-style-type: none"> Force majeure, or an act of terrorism. Abnormally bad weather, or Serious loss or damage by fire, or Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or Delay on the part of other contractors or tradesmen engaged by Engineer- in- Charge for executing work not forming part of the Contract, or Non-availability of stores, which are the responsibility of AAI to supply or Non-availability or break down of tools and Plant to be supplied or supplied by AAI or

		<p>viii. Any other cause which, in the absolute discretion of the Engineer-in-Charge is beyond the Contractor's control.</p> <p>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> <p>All correspondence with the agency and concerned stakeholders during execution of works will be taken into consideration for evaluation of hindrances causing delay, for grant of extension of time by the Competent Authority.</p>
5.3		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.
5.4		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.

CLAUSE 6

Measurements of Work Done	<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 made of all works performed under the contract.</p> <p>All measurements and levels shall be taken by the Engineer-in-Charge or his authorised representative and by the contractor or his authorised representative from time to time during the progress of the work. 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 reasons 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 Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his 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 sign 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>
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		<p>The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording.</p> <p>Except where any general or detailed description of the work shows to the contrary, measurements shall be taken in accordance with the procedure set out 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 of measurement issued by the Bureau of Indian Standards and if for any item no 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 of the work, before covering up or otherwise placing beyond the reach of measurement any work in order that its dimensions 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 the reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorised representative 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 measurement without such notice having been given or the Engineer-in-Charge's consent having been obtained in writing, the same shall be uncovered at the Contractor's expense, or in default of such 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 measurements recorded jointly or otherwise as aforesaid and all provisions stipulated in the 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 its position in the interim, on account or final bill shall not be considered as conclusive evidence of the sufficiency of any work or material to which it relates nor shall it release the contractor from liabilities from any over measurement or defects noticed till completion of the warranty liability period.</p>
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CLAUSE 6 A

	Computerised Measurement Book	<p>Computerised 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 complete record is obtained of all the items of works performed under the contract.</p>
		<p>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>

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 computerised measurements, and submit to the department a computerised 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.

The final, fair, computerised 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.

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 alongwith 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.

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.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure setforth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general of local custom. In the case of item 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.

The contractor shall give not less than seven days' notice to the Engineer-in-Charge or his authorized representative of the work before covering up or otherwise placing beyond the reach of checking and / or test 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 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-incharge's consent being obtained in writing the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-charge or his 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.

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.

CLAUSE 7

Payment on Intermediate Certificate to be regarded as Advances

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 shall be submitted by the contractor for the work executed on the basis of 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 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 has been 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 delay in 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 certify the sum to which the contractor is considered entitled by way of interim payment at intervals as decided by the Engineer-in-Charge. The amount admissible shall be paid within 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 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 may be extended to fifteen working days.

All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the contractor from requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken down 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 in 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 account or in any way vary or affect the contract.

Pending completion or extension of date of completion, interim payments shall continue to be made as 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.

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 which shall be made for work done (other than foundations, item over and above the level up to lintel level (including sunshade etc.) and slab and beam etc.) 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.

CLAUSE 8

Completion Certificate and Completion Plans

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within 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 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.

- a. For electrical and mechanical capital works: The contractor shall remove the rubbish from the site. Following conditions must be met before recording completion certificate : Submits completion plan, maintenance manual, manufactures catalogue and gives performance test for system.
- b. For repair works: The performance of the repaired system has been tested and found satisfactory.
- c. For AMC work: The system has been tested for its performance/ completeness and taken over by AAI / next agency for operation and maintenance.

CLAUSE 8 A

Contractor to keep site clean

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.

Where the work is done without waiting for the actual completion of all the other items of work in the contract, in case the contractor fails to comply with the requirements of this clause, the Engineer-in-charge shall have the right to get this work done at the cost of the contractor either departmentally or through any other agency. Before taking such action, the Engineer-in-charge shall give ten days notice in writing to the contractor.

CLAUSE 8 B

Completion Plans to be Submitted by the Contractor

The contractor shall submit completion plan as required vide General Specifications for Electrical works (Part-I internal) 2013 and (Part -II External) 1994 or latest available specifications, as applicable within thirty days of the completion of the work.

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.

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.

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-incharge 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 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"> Informations as per proforma attached. An authorisation in the form of a legally valid document such as power of attorney conferring authority on the bank to receive payments and 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	<p>Materials which Authority will supply are shown in Schedule 'B' which also stipulates quantum, place of issue and rate(s) to be charged in thereof. The contractor shall be bound to procure them from the Engineer-in-charge.</p> <p>As soon as the work is awarded, the contractor shall finalise the programme for the completion of work as per clause 5 of this contract and give his estimates of materials required on the basis of drawings/ or schedule quantities of the work. The contractor shall give in writing his requirement to the Engineer-in-charge, which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in- Charge in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance for equipment.</p> <p>Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied are available at site in original good condition.</p> <p>The contractor shall submit along with every running bill (on account or interim bill) material-wise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/ section-wise in the case of steel) and resulting variations and reasons thereof. Engineer-in-charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure as laid down in clause 42 at any stage of the work if reconciliation is not found to be satisfactory.</p> <p>The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any</p>
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other clause of the contract and all stores / materials so supplied to the contractor or procured with the assistance of the AAI shall remain the property of Authority and the contractor shall be the trustee of the stores/ materials, and stores/ materials shall not be removed/ disposed off from the site of the work or by any agent and shall be at all times open to inspection by the Engineer-in-charge or his authorized agent. Any such stores/ materials remaining unused shall be returned to the Engineer-in-charge in as good a condition in which they were originally supplied at a place directed by him, at a place of issue or any other place specified by him as he shall require. In case it is decided not to take back the stores/ materials the contractor shall have no claim for compensation on any account of such stores/ materials so supplied to him for sale and not used by him or for any wastage in or damage to in such stores/ material.

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

The contractor shall ensure that only the required quantities of materials are got issued. Any such materials remaining unused and in perfectly good/ original condition at the time of completion or determination of the contract shall be returned to the Engineer-in-charge at the place where it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading transporting, unloading and stacking of such unused materials except for the extra lead, if any involved, beyond the original place of issue.

CLAUSE 10 A

Materials to be provided by the contractor and Mandatory Tests

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 analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-charge.
 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 authorised 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-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.
 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 atleast with the testing equipment as specified in Schedule F.
 9. Details in respect of all mandatory tests shall be maintained in the desired format and attached with each Running Account Bill.

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 execution of the work upto 75% of the assessed value of any materials which 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 for other causes but which have not at time of advance been incorporated in the work. 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 for 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 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 for items brought at site for use in electrical and mechanical systems. Such 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 in the bill of materials for equipment.</p>
(II)	Mobilisation Advance	<p>2. Mobilisation advance not exceeding 5% of the tendered value shall be paid for the works costing more than Rs 5.00 Cr, subject to availability of funds and if requested by the contractor in writing within period specified below.</p> <ol style="list-style-type: none"> 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. 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. The contractor shall execute Bank Guarantee Bond from any Scheduled Bank but not Co-operative or Gram Bank as specified by Engineer-in-charge for 110% of value of installment of mobilization advance before such advance is released. The first installment should be Rs.20.00 Cr. for the work for which the estimated cost is kept as Rs. 20.00 Cr. or more. The No. of installments shall be decided by AAI depending on progress of work and availability of funds. The second and subsequent installments shall be released by the Engineer-in-charge only after the contractor provides proof of the satisfactory utilisation of the earlier installment to the satisfaction of the Engineer-in-charge. Provided provision of Clause 10B shall be applicable only when so provided in Schedule 'F'. The contractor shall submit Bank Guarantee in parts for release of corresponding advance and validity of BG shall be for a extended period of 3 months beyond stipulated date of completion.

	Interest on Mobilisation 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 contractor, 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 and accumulated interest thereon may be considered by AAI. In such case of deferment, an enhanced rate of interest i.e 15% per annum shall be payable on recovery of outstanding mobilization amount @ 50% of gross value of bill(s), subject to Engineer-In-Charge certifying that deferment in 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 Mobilisation 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) 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 against progress 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 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 of contractor, 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 bill.</p> <p>e. In case requisited amount as recoverable above is not available in on-account payments mentioned above, the contractor shall deposit the same within 7 days of its due otherwise the amount shall be submitted by the agency towards mobilization advance shall be encashed by Engineer-in-charge.</p>

CLAUSE 10 C

	Payment on Account of Increase in Prices/ Wages due to Statutory Order(s)	<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 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>
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		<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> <p>The cost of work for which escalation applicable (w) is same as cost of work done as worked out as indicated in Clause 10CC minus the amount of full assessed value of secured advances.</p>
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CLAUSE 10 CA

	Payment due to variation in prices of materials after receipt of tender	<p>If after submission of the tender, the price of materials specified in Schedule-F increases/ decreases beyond the base price(s) as indicated in Schedule F for the work, then the amount of the contract shall accordingly be varied. 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 above, it will be limited to indices prevailing at the time of update till the date of completion considering the effect of extra work (Extra time to be calculated on pro-rata basis only as cost of extra work X stipulated period/ tendered cost).</p> <p>The increase/ decrease in prices of steel reinforcement, structural steel, Bitumen and POL shall be determined by the prices issued by the Director General, CPWD. For 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 Industries.</p> <p>Base price for cement, steel reinforcement,</p>

structural steel and POL shall be as issued under authority of Director General, CPWD applicable for Delhi including Noida, Gurgaon, Faridkot and for other places as issued under the authority of Zonal Chief Engineer and base price of other materials issued by concerned Zonal Chief Engineer as indicated in Schedule 'F'. In case, price index of a particular material is not issued by the Ministry of Commerce and Industry then the price index of nearest similar material as indicated in Schedule F shall be followed.

The amount of the contract shall accordingly be varied for all such materials worked out as per the formula given below for individual material:

Adjustment for component of individual material.

$$V = P \times Q \times \frac{CI - CI_0}{CI_0}$$

where,

V = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered

P = Base price of material as issued under authority of CPWD or concerned Zonal Chief Engineer CPWD and as indicated in Schedule 'F'.

For Projects and original works

Q = Quantity of material brought at site for use in the works since previous bill excluding any such quantity consumed in the work. Quantity of items beyond deviation limit and extra/substituted item, paid/to be paid on the basis of market rates under clause 12.2

For maintenance works

Q = Quantity of material brought at site for use in the works since previous bill including any such quantity consumed in the work. Quantity of items beyond deviation limit paid at agreement rates and extra/substituted item being scheduled items, but excluding nonscheduled extra/substituted item to be paid at market rates under clause 12.2

CI₀ = Price index for cement, steel reinforcement bars, structural steel and POL as issued by the DG, CPWD and corresponding to the time of base price of respective material indicated in schedule 'F'. For other items as provided in Schedule 'F', All India Wholesale Price Index for the material published by the Economic Advisor to Government of India, Ministry of Industry and Commerce and corresponding to the time of base price of respective material as indicated in Schedule 'F'.

CI = Price index for cement, steel reinforcement bars, structural steel and POL as issued under the authority of DG, CPWD and corresponding to the time of base price of respective material provided in Schedule 'F'. For other items, if any, as provided in Schedule 'F', All India Wholesale Price Index for the material for the period under consideration as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce.

If actual purchase price of material is less than base price P and CI ≥ CI₀ then, this clause shall not be applicable.

Note:

- i. In respect of justified period extended under Clause 5 of the contract without any action under clause 2, the stipulated date of completion considering the effect of extra work (extra time to be calculated on prorata basis only as cost of X stipulated period/ tendered cost) shall be considered.

Provided always that provisions of the preceding Clause 10 C shall not be applicable in respect of materials covered in this Clause.
- ii. If during progress of work or at the termination 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 material or as prevailing at the time of effecting recovery, whichever is higher.
- iii. Cement mentioned wherever in this clause includes cement component used in RMC brought at site from outside, if any.
- iv. The date wise record of receipt and consumption shall be kept in a register and cement consumption for the same shall be calculated accordingly.

If built-up steel items are brought at site from workshop, then the variation shall be paid for structural steel up to the time when the built-up item/finished product is brought at site.

Clause 10CC

Payment due to Increase/ Decrease in Prices / Wages (excluding material covered under clause 10CA) after Receipt of Tender for works.

If the prices of materials (not being supplied or services rendered at fixed prices by the Department in accordance with clause 10 & 34 thereof) and/ or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provision of this clause and the amount of the contract shall accordingly be varied, subject to the condition that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period under the provisions of clause 5 of the contract without any action under clause 2.

No such compensation shall be payable for a work for which the stipulated period of completion is equal to or less than the period as specified in Schedule 'F'. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:

- i. The base date for working out such escalation shall be the last stipulated date of the receipt of tenders, or the date of extension, if any.
- ii. The cost of work done during the stipulated period will be payable shall be reckoned as below:
 - a. Gross value of work done up to this quarter (A)
 - b. Gross value of work done up to the last quarter (B)
 - c. Gross value of work done since previous quarter (A-B) (C)
 - d. Full assessment of work done advance (excluding material covered under clause 10CA) fresh paid in this quarter (D)

		<p>e. Full assessed value of secured advance (excluding material covered under clause 10CA) recovered in this quarter (D-E) (F)</p> <p>f. Full assessed value of secured advance for which escalation is payable in this quarter (D-E) (F)</p> <p>g. Advance payment made during this quarter (G-H) (I)</p> <p>h. Advance payment recovered during this quarter (G-H) (I)</p> <p>i. Advance payment for which escalation is payable in this quarter (G-H) (I)</p> <p>j. Extra items/ deviated quantities paid as per clause 12 based (J) on prevailing market rates during this quarter (J)</p> <p>Then, $M=(C+F+I-J)$</p> <p>$N= 0.85 M$</p> <p>k. Less cost of material supplied by the department as per clause 10 and recovered during the quarter (K)</p> <p>l. Less cost of services rendered charges as per Clause 34 and recovered during the quarter (L)</p> <p>m. Less cost of Engineering Consultancy Services rendered a fixed charges as per BOQ and paid the quarter (M)</p> <p>Cost of work for which this formula is applicable $W=N-(K+L+M)$</p>
		<p>iii. Components for materials, (except Bitumen, cement, reinforcement bars, structural steel or others material covered under clause 10CA) labour, P.O.L. etc. shall be pre-determined for every work item as indicated in the conditions of contract attached to the tender papers included in Schedule. The decision of the Engineer-in-charge in working out such percentages shall be binding on the contracts.</p> <p>iv. The compensation for other materials (except Bitumen, cement, reinforcement bars, structural steel or others material covered under clause 10CA) and P.O.L. shall be worked as per the formula (m & n) given below:</p>
		<p>a. Adjustment for component (except Bitumen, cement, reinforcement bars, structural steel or others material covered under clause 10CA) /electrical component of construction</p>
Materials		<p>n. Formula for a material cost</p> $V_m = W \times \frac{X_m}{100} \times \frac{M1_0}{M1_0}$ <p>V_m = Variation in cost i.e. increase or decrease in the amount in rupees to be paid or recovered</p> <p>W = Cost of work done, worked out as indicated in sub para (ii) of Clause 10 CC</p> <p>X_m = Component (except cement, structural steel, reinforcement bars, POL and covered under clause 10 CA) expressed as percent of the total value of work.</p>

		<p>MI = All India wholesale price index for civil component/ electrical component* of construction material as worked out on All India Wholesale Price Index for Individual Commodities/ Group for the period under consideration as published by the Economic Advisor to Government of India, Ministry of Industry & Commerce and applying weight to the individual Commodities/ Group Items (in respect to the 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 updated stipulated date of completion considering the effect of extra work (extra time to be calculated on prorata basis on the cost of extra work x stipulated period/tendered cost, shall be considered)</p> <p>* Note: relevant component only will be applicable</p>
POL	<p>o. Formula for adjustment in POL cost</p> $V_F = W \times \frac{Z}{100} \times \frac{F1 - F1_0}{F1_0}$ <p>V_F = Variation in cost of Fuel, Oil & Lubricant i.e. increase or decrease in the amount in rupees to be paid or recovered</p> <p>W = Cost of work done, worked out as per para (ii) of Clause 10 CC</p> <p>Z = Component of Fuel, Oil and Lubricant expressed as a percentage of the total value of the work</p> <p>$F1$ = All India wholesale price index for Fuel, Oil and Lubricant for the period under consideration as published by the Economic Advisor to Government of India, Ministry of Industry & Commerce (in respect to the 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 updated stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered)</p> <p>$F1_0$ = All India wholesale price index for Fuel, Oil and Lubricant valid on the last stipulated date of receipt including extensions, if any.</p>	
	<p>v. The following principles shall be followed while working out the indices mentioned in above para</p> <p>a. The compensation for extra work shall be worked out at quarterly intervals and shall be with respect to the work done as per bills paid during the three calendar months of the said quarter. The rates of preparation of bills as finally entered in the measurement book/drawing of submission of bill finally by the contractor to the department in case of any change in measurement book shall be the guiding factor to decide the bills relevant to each quarterly interval. The first such payment shall be made at the end of three months after the month (excluding the month in which the tender was accepted) and thereafter at three months' interval. At the time of completion of work the last period for payment might become less than 3 months depending on the actual date of completion.</p> <p>b. The index ($F1$ etc.) relevant to any quarter/ period for which such compensation is paid shall be the arithmetic average of the indices relevant to the three calendar months. If the date of completion after the quarter covered by the last such installment is less than three months, the index $M1$ and $F1$ shall be the average of the indices for the months falling within that period.</p>	

Labour

vi. Formula for adjustment in Labour cost

The compensation for escalation for labour shall be worked out as per the formula given below:

$$V_1 = W \times \frac{Y}{100} \times \frac{L_1 - L_0}{L_0}$$

V_1 = Variation in labour cost i.e. amount of increase or decrease in rupees to be paid or recovered

W = Value of work done, worked out as in sub para (ii) above

Y = Component of labour expressed as a percentage of the total value of the work

L_1 = Minimum wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applied on the last date of the quarter previous to the one under consideration (in the case of a justified period extended under the provisions of clause 5 of the contract without any action under Clause 2, the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to the date of completion considering the effect of extra work (extra time) on prorate basis only as cost of extra work x stipulated period/total period to be considered.

L_0 = Minimum daily wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applied on the last stipulated date of receipt of tender including extension if any.

vii. The following principles will be followed while working out the compensation as per sub para (vi) above:

- The minimum wage of an unskilled adult male mazdoor mentioned in sub para (vi) above shall be the higher of the minimum wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.
- The escalation for labour shall be paid at the same quarterly intervals when escalation due to increase in price of materials and/ or P.O.L. is paid under this clause. If such revision of minimum wages take place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters.
- Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause the variation in the rate for an unskilled male mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.

viii. In the event the price of materials and/ or wages of labour required for execution of the work decrease/s, there shall be a downward adjustment of the cost of work so that such price of materials and wages of labour shall be deductible from the cost of work under this clause and the formula herein before stated under this Clause 10C shall mutatis mutandis apply, provided that:

- No such adjustment for decrease in the price of materials and/or wages of labour shall be made in case of contracts in which the stipulated period of execution of the work is equal to or less than the time as specified in Schedule F.

		<p>b. The Engineer-in-charge shall otherwise be entitled to lay down the procedure by which the provision of this sub clause shall be implemented from time to time and the decision of the Engineer-in-charge in this regard shall be final and binding on the contractor.</p> <p>ix. Provided always that :</p> <p>a. Where provisions of clause 10CC are applicable, provisions of clause 10C will not be applicable but provisions of clause 10CA will be applicable.</p> <p>b. Where provisions of clause 10CC are not applicable, provisions of Clause 10C and 10CA will become applicable.</p> <p>Note: Updated stipulated date of completion (period of completion plus extra time for extra work for compensation under clause 10C, 10CA and 10CC, the factor of 1.25 taken into account for calculating the extra time under clause 12.1 for extra time shall not be considered while calculating the updated stipulated date of completion for this purpose under clause 10CA, and clause 10CC.</p> <p>The date of presentation of bill shall be as finally entered in the measurement book by AM/MA/DM/SM or the date of submission of bill by the contractor to the Department. This shall be the guiding factor to decide the bill relevant to the period in case of computerized billing.</p>
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CLAUSE 10 D

Dismantled Material AAI Property	<p>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.</p>
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CLAUSE 11

Work to be executed in accordance with specifications, drawings, orders etc.	<p>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 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.</p>
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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: <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> (i) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted). (ii) 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 prescribed time limit 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 upto 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: <ol style="list-style-type: none"> For Buildings: All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower. For abutments, piers and well staining: All works up to 1.2 m above the bed level. For retaining walls, wing walls, compound walls, chimneys, over head reservoirs/tanks and other elevated structures: All works up to 1.2 m above the ground level. For roads, apron, runway & taxitrack all items of excavation, filling GSBC and including treatment of sub-base. For reservoirs/tanks (other than overhead reservoirs/tanks): All works up to 1.2 metres above the ground level. 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.

CLAUSE 13

	Foreclosure of contract due to Abandonment or Reduction in Scope of Work	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
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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:

- i. 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.
- ii. 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.
- iii. 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.
- iv. 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.
- v. Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary.

The contractor shall, if required by the Engineer- in-Charge, furnish to him, books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.

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.

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.

CLAUSE 14

<p>Carrying out part Work at risk & cost of contractor</p>	<p>a. If contractor:</p> <ol style="list-style-type: none"> 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 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 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>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> <ol style="list-style-type: none"> Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor. <p>c. 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 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>
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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.

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.

CLAUSE 15

Suspension of Work

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

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

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

ii. If the suspension is ordered for reasons (b) and (c) in sub-para (i) above (but not attributed to contractor):

- a. 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;
- b. 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 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.
- 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.

CLAUSE 15 A

Compensation in case of delay due to late supply of stipulated material by AAI.

The contractor shall not be entitled to claim any compensation from AAI for the losses suffered on account of delay by AAI in the supply of material in Schedule 'B' where such delay is caused by the contractor or any force majeure. This clause 15 A will not be applicable for works where no material is stipulated for issue by AAI.

CLAUSE 16

Action in case Work not done as per Specifications

All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-in-Charge, his 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.

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, 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.

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.

CLAUSE 17

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

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road 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 twelve months (six months in the case of work costing Rs. Ten lacs and below except road work) 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 Engineerin- 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 shall not be refunded before the expiry of twelve months (six months in the case of work costing Rs.Ten lacs and below except road work) 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. Provided that in the case of road work, if in the opinion of the Engineer-in-charge, half of the security deposit is sufficient, to meet all liabilities of the contractor under this contract, half of the security deposit will be refundable after six months and the remaining half after twelve months of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later.

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

CLAUSE 18

<p>Contractor to Supply Tools & Plants etc.</p>	<p>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 therefor 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.</p>
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CLAUSE 18 A

<p>Recovery of Compensation paid to Workmen</p>	<p>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.</p>
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CLAUSE 18 B

<p>Ensuring Payment and Amenities to Workers if Contractor fails</p>	<p>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.</p>
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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.</p> <p>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 unauthorisedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable. iv. 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
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default, the Engineer-in-charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-charge concerned.

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.

- 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 thereunder from time to time.
- 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 without prejudice to his right to claim indemnity from his sub contractors.
- vii. The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.
- viii. Whatever is the minimum wage for the time being, or if the wage payable 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.
- ix. The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

CLAUSE 19 C

In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per 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-incharge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE 19 D

The contractor shall submit by the 4th and 19th of every month, to the Engineer-incharge a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively:

- i. the number of labourers employed by him on the work,
- ii. their working hours,
- iii. the wages paid to him,
- iv. 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

- v. 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. 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.

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.

CLAUSE 19 F

Leave and pay during leave shall be regulated as follows:

1. Leave:
 - i. In the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks upto and including the day of delivery and 4 weeks following that day.
 - ii. In the case of miscarriage - upto 3 weeks from the date of miscarriage.
2. Pay:
 - 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.
 - ii. 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.
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.

CLAUSE 19 G

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.

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) Central Rules 1971, for the protection of health and sanitary arrangements for work – people employed by 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. 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).

CLAUSE 19 H

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.

i. Facility to be provided

- a) The minimum height of each hut at the eaves level shall be 2.0m (7ft.) and the floor area to be provided will be at the rate of 2.7 sq.m. (29 sq.ft.) for each member of the worker's family staying with the labourer.
- b) 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.
- c) The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than one unit per each one hundred of the total strength, separate latrines and urinals being provided for women.
- d) 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.

ii. Specifications

- a. 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 kutchra but plastered with mud gobri and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be thatched 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.

- b. The contractor (s) shall provide each hut with proper ventilation.
- c. All doors, windows and ventilators shall be provided with suitable leaves for security purposes.
- d. There shall be kept an open space of at least 7.5 (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.

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 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 provided. The contractor (s) shall also at his / her own cost make arrangements for laying pipe lines for water supply to his / their camp from the existing mains wherever available and shall pay all fees and charges therefor.

iv. The site selected for the camp shall be high ground, removed from jungle.

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 removal of the excreta through the Municipal Committee / authority and inform about the number of labourers employed so that arrangements may be made by the Municipal 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.

vi. Drainage

The contractor (s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.

vii. The contractor (s) shall make necessary arrangements for keeping the camp area sufficiently light to avoid accidents to the workers.

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.

CLAUSE 19 I

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.

CLAUSE 19 J

It shall be the responsibility of the contractor to see that the building under construction is not occupied by any body 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.

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 alongwith 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.

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.

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.

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.

CLAUSE 20 (A)

<p>Employees Provident Fund & Miscellaneous Provision Act 1952/Jammu & Kashmir Employees Provident Funds (and Miscellaneous Provisions) Act, 1961 and State Insurance (ESI) Act, 1948.</p>		<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. 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. <p>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. To withhold 3% for building work & 1.5% for road/pavement work of the total amount of work done during the period considered.</p>
		<p>ESI & EPF amount paid to the statutory authorities by the contractor shall be reimbursed on actual basis on submission of documentary evidence.</p>

CLAUSE 21

<p>Work not to be sublet. Action in case of insolvency</p>		<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**

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

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.

CLAUSE 25

**Dispute
Resolution
Mechanism
and
Arbitration**

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:

- i. If the contractor considers any work demanded of him to be out side 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.
- 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.

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.

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 :

- 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.
- ii. Disputes or difference shall be referred for adjudication through arbitration by a Tribunal having Sole Arbitrator where tendered amount is Rs. 300.00 Cr. or less. Where tendered value is more than Rs. 300.00 Cr., Tribunal shall consist of three arbitrators as above. The requirements of the arbitration and the conciliation act, 1996 (26 of 1996) and further modified act in 2015 and any further statutory modifications or reanectment thereof and the rules made thereunder and for the time being in force shall be applicable.

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 disputes along with the notice for appointment of Arbitrator and giving reference to the decision of the DRC.

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.

Parties, before or at the time of appointment of Aarbitral Tribunal may agree in writing for fast track arbitration as per the Arbitration and Conciliation Act, 1996 (26 of 1996) as amended in 2015.

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 rerefence 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.

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.

		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.
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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 or the part of the work in question at the same rates as are payable under this contract for such items ,or if the part of work in question is not, in the opinion 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	<p>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.</p> <p>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.</p>
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CLAUSE 29

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

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-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) or by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the 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.

- ii. 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.

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.

CLAUSE 29 A

Lien in respect of claims in other Contracts

- 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.
- 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.

CLAUSE 30

Employment of coal mining or controlled area labour not permissible

- 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 to that the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted.
- 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.
- iii. 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 labourers and the number of days for which they worked shall be final and binding upon all parties to this contract.
- iv. It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public is interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872.

Explanation :-

Controlled area means the following areas:

Districts of Jharkhand, Hazaribagh, Jamtara- Sub-Division under Santhal Pargana Colony, District of Bankura, Birbhum, Burdwan, District of Bilaspur. Any other area which may be declared a Controlled Area by or with the approval of the Central Government.

CLAUSE 31

Unfiltered water supply

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

CLAUSE 31 A

Departmental water supply, if available

- Water if available may be supplied to the contractor by the department subject to the following conditions:-
- i. The water charges @1% shall be recovered on gross amount of work done.
 - ii. The contractor(s) shall make his/their own arrangements for water connection and laying of pipelines from existing main of source of supply.
 - iii. The Department do not guarantee to give uninterrupted supply of water and it will be incumbent on the contractor to make alternative arrangements for water at his/their own cost in the event of temporary break down in the AAI's water main so that the progress of the 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.

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, the Engineer-in-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 held 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 purpose 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 accident 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>
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- ii. Plant & Machinery when supplied on hire charges shown in Schedule 'C' shall be made over and taken back at the departmental equipment yard / shed shown in Schedule 'C' and the contractor shall bear the cost of carriage from the place of issue to the site of work and back. The contractor shall be responsible to return the plant and machinery 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.
- iii. The plant and machinery as stipulated above will be issued as and when available and if required by the contractor. The contractor shall arrange his programme of work according to the availability of the plant and machinery and no claim, whatsoever, will be entertained from him for any delay in supply by the department.
- iv. The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over 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.
- v. The hire charges shown above are for each day of 8 hours (inclusive of the one hour lunch break) or part thereof.
- vi. Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying the Department against any loss or damage caused to the plant and machinery either during transit or at site of work.
- vii. Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-charge may, at his discretion, allow the plant and machinery to be worked for more than normal period 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 particular day. For working out hire charges for over time, a period of half an hour and above will be charged as one hour and a period of less than half an hour will be ignored.

- viii. The contractor shall release the plant and machinery every seventh day for periodical servicing and / or wash out which may take about three to four hours or more. Hire charges for full day shall be recovered from the contractor for the day of servicing / wash out irrespective of the period employed in servicing.
- ix. The plant and machinery once issued to the contractor shall not be returned by him on account of lack of arrangements of labour and materials, etc. on his part, the same will be returned only when they are required for major repairs or when in the opinion of the Engineer-in-charge, the work or a portion of work for which the same was issued is completed.
- x. Log Book for recording the hours of daily work for each of the plant and machinery supplied to the contractor will be maintained by the Department and will be countersigned by the contractor or his authorised agent daily. In case the contractor contests the correctness of the entries and / or fails to sign the Log Book, the decision of the Engineer-in-charge shall be final and binding on him. Hire charges will be calculated according to the entries in the Log Book and will be binding on the contractor. Recovery on account of hire charges for road rollers shall be made for the minimum number of days worked out on the assumption that a roller can consolidate per day and maximum quantity of materials or area surfacing as noted against each in the annexed statement (see attached annexure).
- xi. In the case of concrete mixers, the contractors shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion. (a) In case rollers for consolidation are employed by the contractor himself, log book for such rollers shall be maintained in the same manner as is done in case of departmental rollers, maximum quantity of any 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.
- 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.
- 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.
- 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 right of the Engineer-in-charge to use the said plant and machinery during the said period of two days as he likes including hiring out to a third party.

CLAUSE 35

Condition relating to use of asphaltic materials

- i. The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.
- 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 is used in excess 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 quantity 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 the 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.
- 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.

CLAUSE 36

Employment of Technical Staff and employees

- Contractors Superintendence, Supervision, Technical staff & Employees
- 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.
- 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.
- 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 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) alongwith every running account bill / final bill and shall produce evidence if at any times so required by the Engineer-in-Charge.

- ii. The contractor shall provide and employ on the site only such technical assistants as are skilled, and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work. The contractor shall provide and employ skilled, 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.
- iii. The contractor shall not change his engineer/supervisory staff after approval of the Engineer-In-Charge. If Contractor wants to replace any of 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.

CLAUSE 37

	Levy/Taxes/ Royalty/ Land Licence fee payable by Contractor	<p>1. Taxes:</p> <ol style="list-style-type: none"> 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. 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. 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>2. Royalty:</p> <ol style="list-style-type: none"> 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. This will also be applicable to forest produce. 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>3. License fee for land</p> <ol style="list-style-type: none"> 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. 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 do not deposit security deposit same shall be deducted from Ist Running Account Bill. Such security deposit shall be released only after allotted land has been fully vacated by the contractor to entire satisfaction of Engineer-in-Charge.
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CLAUSE 38

	Conditions for reimbursement of levy/taxes if levied after receipt of tenders	<p>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 GSI Building and Other Construction Workers Welfare Cess or any tax, levy or Cess applicable on inputs.</p>
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		<p>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.</p> <p>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.</p> <p>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</p> <p>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 AAI or the Engineer-in-Charge and further shall furnish such other information /document as the Engineer-in- Charge may require from time to time.</p> <p>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.</p>
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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.

Signing of Integrity Pact (As per Appendix XVIII) is mandatory for every bidder/contractor if provided so in Schedule F.

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).

i. The Contractor/Supplier shall have to act in accordance with the conditions laid down in the integrity pact.

- a. Signing of Integrity Pact is mandatory for every Bidder/Contractor in this procurement/bid process the signed original contract to be send to the office of Bid Manager and should reach before the due date mentioned in NIT.
- 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.
- c. Any breach of the aforesaid provisions by the Bidder or any one employed by it or acting on its behalf (whether or not 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.

ii. In case any violation of above conduct is established, AAI reserves right to take following actions.

- 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.
- 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 10% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher.
- c. Authority may initiate appropriate proceedings against the contractor.
- d. Contractor will be liable to pay damages determined by the Authority.
- e. Contractor against whom an action for violation of its commitments and obligations has been taken earlier commits a violation, the Authority is entitled to debar such contractor from future tender/ contract processes for a period as deemed fit.
- 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.

iii. Person signing IP shall not approach the Courts while representing the matters to IEMs and he / she will await their decision in the matter.

CLAUSE 42

Return of material and recovery for excess material issued.

- i. After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, consumed and in balance (as per Clause 10), Theoretical quantity of materials issued by the AAI for the work shall be calculated on the basis and method given hereunder;
 - a. Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as given in the Schedule of Rates mentioned in Schedule 'F'. In case any item is executed for which standard co-efficients for the consumption of cement or bitumen are not available in the above mentioned schedule / statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer-in-Charge.
 - b. Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design authorised by Engineer-in-Charge, including authorised lappages, chairs etc. plus 5% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter-wise, section and category wise separately.
 - c. Theoretical quantity of G.I. & C.I. or other conduits, wires and cables pig lead and G.I. / M.S. sheets shall be taken as the 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.
 - d. For any other material as per actual requirements.
- ii. Over the theoretical quantities of materials as computed a variation shall be allowed as specified in Schedule 'F'. The difference between 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 15 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 provisions 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 in regard to theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor.
 - (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 prescribed specifications.
 - (b) For materials required by the contractor for use in item of work at site, similar theoretical quantities shall be prepared and submitted to the Engineer-in-Charge for verification. If it is found that material consumed in the work is less than the theoretical quantities after taking into account permissible minus variation, the recovery of surplus material shall be effected as per rates specified in schedule 'F' under clause 42.

CLAUSE 43

Compensation during warlike situations / act of terrorism

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 upto the value of the work original executed before being damaged or destroyed and not paid for.

In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Engineer-in charge upto 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.

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.

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.

CLAUSE 44

Apprentices Act provisions to be complied with

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.

CLAUSE 45

Release of security deposit after labour clearance

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 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.

CLAUSE 46

Contractor's Liability and Insurance of Works

- 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.
- 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:
 - 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;
 - 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
- 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.
- 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;
 - a. All works including temporary works to their full value executed from time to time.
 - b. The construction materials and equipments to their full value brought on to the site by the contractor.
- 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.
- 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 to any AAI property,or to any person for at least the minimum amount of Rs. 1.00 lakh with unlimited number of occurrences (including any employee of AAI) by or arising out of carrying out of the Contract.

- 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.
- 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.
- 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.
- 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 are required to be submitted to the Engineer-in-charge.
- 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 are required to be submitted to the Engineer-in-charge.
- 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.
- xiii. In case contractor takes Contractor All Risk (CAR) Policy in joint name of AAI and Contractor for full tendered value alongwith third party liability (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.

CLAUSE 47

<p>Composite Contract and responsibilities of main agency</p>	<p>i. The tenders have been called for composite work consisting of civil construction and other associated specialized works. The pre-qualification criteria shall be applicable for each subhead of work independently. The agency shall be considered for execution of composite work. However the agency shall be allowed to execute only those specialized subheads of works for which bidder meets PQ criteria individually.</p> <p>ii. The main contractor shall be permitted to execute only those works (covered under one or more subhead) for which he meets all requirements of pre-qualification including financial, technical and technological requirements specified in the PQ criteria.</p> <p>iii. Main contractor will associate expert agency for the execution of specialized works under various subheads for which he himself is unable to meet PQ criteria. In such case he will appoint his associate for the execution of each specialized work with the approval of the NIT approving authority. The contractor shall intimate the names of only those agencies who fully meet the PQ criteria for each specialized work for the acceptance of the department.</p> <p>iv. Main contractor shall not be permitted to change their associate agencies in the course of execution of work. If change of agency is necessary then a request shall be submitted to the engineer-in-charge in writing giving full justification for change of agency. The proposal should include name of the alternate agency along with his financial, technical capabilities and work experience in the same composite field. Such change shall be allowed only after receiving approval from the competent authority.</p>
<p>Composite contract-Tripartite agreement</p>	<p>This clause is applicable for the works for which the estimated cost put to tender is more than Rs.500.00 crores.</p> <p>i. The main contractor shall finalise his rates, terms and conditions and mode of execution of work with specialised agencies for all works covered in various subhead of works on receipt of work order but specific quantities and makes of materials and performance of system shall remain as specified in the tender document.</p> <p>ii. The main contractor shall arrange an agreement between department, main contractor and associated agencies for all subheads on receipt of work order from the engineer-in-charge. Main contractor and expert agency shall be jointly responsible for quality of work and performance of the system.</p> <p>iii. Main contractor shall submit list of associated agency for each specialized work within 1/12th of stipulated completion period or within one month from issue of work order whichever is later along with documents of evidence for financial soundness, technical capabilities and their experience for executing similar specialized works along with his application seeking acceptance for the name of associated agency. Approval / rejection for the name of associated agency shall be accorded thereafter by NIT approving authority within a period of 30 days of receipt of application subhead wise.</p> <p>iv. The main contractor shall submit a signed tripartite agreement on the format provided by AAI within 2/3rd of stipulated completion period or 60 days whichever is later for acceptance and signing by the department. The extension of time for signing of this agreement shall not be permitted. The signing time shall only be extended if handing over of site is delayed due to reasons beyond control of the contractor.</p>

<p>Conditions of composite contract</p>	<p>i. Main contractor shall be responsible for submission of earnest money.</p> <p>ii. The mobilization advance shall be paid to main contractor as per terms and conditions of contract and indicated under Clause 10. The first instalment of mobilization advance shall be corresponding to the value of work which shall be executed by the main contractor. The subsequent mobilization advances shall be corresponding to value of work covered in each subhead shall be released on signature of each Tripartite Agreement with expert agency for the same.</p> <p>iii. The security deposit shall be deducted from the running bills of main contractor after adjustment of full earnest money.</p> <p>iv. Main contractor shall be responsible for completion of work as per time schedule indicated in the NIT. The compensation for delay shall be levied on the main contractor only.</p> <p>v. The coordination meetings called by AAI representative shall be attended by associated expert agencies as and when required. Expert agency shall be responsible for technical soundness, quality of work and adherence to tender specifications. The main contractor as well as associated agency shall be responsible for rectification of deficiencies noticed in specialized work.</p>
<p>Payment Conditions for Composite Contract</p>	<p>i. It will be the responsibility of main contractor to finalize expert agencies for the execution of works covered under all subheads in NIT and get the tripartite agreements signed as per NIT requirement at an early date. The main contractor shall not be paid for value of work covered under second running bill & subsequent bills till all Tripartite Agreements are signed by all agencies concerned.</p> <p>ii. The main contractor must fill the ratio of direct payment which shall govern the ratio of direct payment to the expert agency and to the main contractor for each subhead of work in schedule F. This ratio may also be indicated in tripartite agreement. Thus direct payment to each expert agency shall be released in same ratio from the net payment (after all deductions).</p> <p>iii. The running bill for specialized work shall be processed as per terms and conditions of the contract. All deductions like security deposit, income tax and part rate for incomplete work or due to any other reasons shall be made as per contract conditions from each running bill. In case the ratio as desired under (ii) is not filled by the main contractor AAI will make payment of 75% of the net payable amount to the expert agency directly and balance 25% shall be paid to the main contractor.</p>
<p>Clause 48</p>	
<p>Escrow Account</p>	<p>i. All payments for the works estimated to cost more than Rs.500 Cr shall be made only through Escrow Account opened by main contractor. However for works costing less than Rs.500 Cr., it shall be at the discretion of Technical Sanctioning authority to opt for Escrow account or not. The bank charges for Escrow Account shall be borne by contractor. The detailed conditions of Escrow Account shall be drawn in consultation with associated bank.</p> <p>ii. Mobilization advance for mobilization of resources and purchase of plant & machinery shall be credited directly to the escrow account opened for this contract through bank transfer as per terms and conditions of contract. The agency shall be able to utilise 25% (or as decided by TS authority) of each instalment of mobilisation advance to meet minor expenses like construction of office, purchase of office equipment and other minor works, while released balance 75% fund shall be regulated by the department. The contractor shall seek prior concurrence of Engineer-in Charge for release of</p>

- payment to the supplier etc. through Escrow Account by the Bank. Funds against cheque issued by contractor shall be released by Bank on receipt of written consent from Engineer-in Charge.
- iii. Payment received and credited against each RA Bill, can be utilised 25% directly by the contractor for minor expenses like stationery, office expenses etc. AAI shall exercise control for release of payment by contractor for balance 75%.
- iv. The Contractor shall submit his proposal to the Engineer-in-Charge/Authority for utilisation of funds made available (AAI 75% against each RA bill)
- Name of agency for whom payment is proposed to be released.
 - Details of work executed/material supplied by agency to whom he intends to release payment.
 - Nature of advance payment if it is to be released to the supplier for supply of material for the project or
 - Documentary evidence in support of his claim.
- v. Engineer –in-charge will examine and approve full/part of such payments as per agency's request within maximum of five working days. The terms and condition of Escrow Account shall be finalised in bank according to terms and conditions of contract. Bank shall release payment against such cheques only after written consent of authorised officer of AAI in charge.
- vi. Contractor shall be permitted to withdraw from Escrow Account on receipt of final payment for the work/project or on receipt of certificate for foreclosure of work by the AAI. All balances and liabilities against this Escrow Account shall be left at the disposal of the contractor.

Note : In case of difference or ambiguity in Hindi and English version anywhere, the English version will prevail.

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 defence 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 borewell, the contractor should cap the borewell properly by welding steel plate, cover the borewell with the drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump;
 - vi. After the borewell 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 atleast 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) Atleast 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 condoned 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 extent 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 a 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 equipments 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.
 - ii) (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.
 - iii) 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.
 - iv) 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.

- v) 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.
- (b) 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 exceed 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 are 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 limewashed or colour 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 (ix).

- (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 (ix).
- (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 whom 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.

APPENDIX-I

FORM OF BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT & AMOUNT WITHHELD AGAINST COMPENSATION FOR DELAY IN INDIVIDUAL CONTRACT

(on Non-Judicial Stamp Paper of Rs.100/-)

[Refer Clause 1A and 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 under take 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 any 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 form 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

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 _____

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 _____ (Name of Senior Manager) (hereinafter called “the Engineer-in-charge”) 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 return demand, without the engineer-in-charge having to substantiates 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-n-charge , notice of which extension (s) to the bank is hear by 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)

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

PROFORMA FOR MANDATORY TESTS TO BE ATTACHED WITH RUNNING ACCOUNT BILLS

Contractor.....

No.....

[illegible]

Signature of Sudt. (Engg)

Signature of Manager / AM (Engg)

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)]
[Part-A: For all Establishments]
Register of Workmen Employed by Contractor

APPENDIX-VI

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/Un Skilled)

#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 (1) (a) (i)]

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	Se x 3	Father's/ Husband's 4	Date					Remark
				1	2	3	4	5	

**FORM B**

[See Rule 78 (1) (a) (i)]

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 _____ LIN _____ 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

Various Formats to be maintained (Appendix)



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 _____ LIN _____

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 Instalments	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

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



APPENDIX-VIIIA

WAGE CARD

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 iss

19/Form-XIX
78 (2)
[See rule 78 (1) (b)]

APPENDIX-IX

Wages Slip

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

14/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 and address of Principal Employee.....

1. Name of the workman.....

2. SI. No. in the register of workman employed.....

3. Nature of employment/designation.....

4. Wage rate (with particulars of unit in case of piece work).....

5. Wage period.....

6. Tenure of employment.....

7. Remark.....

Signature of Contractor

APPENDIX-XI

FORM OF PERFORMANCE SECURITY (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
favour 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 Labour Regulations to be displayed prominently at the site of work both in English and local Language.

1. Wilful 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. Unauthorised use of employer's property of manufacturing or making of unauthorised 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 unauthorised 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



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



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 installment 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



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. No	Name of workmen	Father's/Husbands 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	12

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.
- 4.

Yours faithfully

(Signature)

Copy to:

1. The Engineer-in-charge,
.....

APPENDIX -XVIII**INTEGRITY PACT**

The integrity pact shall be signed by both the parties in the following form:-
 “This Pact made thisday of between Airports Authority of India, a body corporate constituted by the Central Government under the Airports Act, 1994 and having its Corporate Office at Rajiv Gandhi Bhawan, New Delhi, and its 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, Officers, 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 its organizational procedures, tender/ contract forThe Authority 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 tendering mechanism more transparent, thus to ensure strict adherence of the aforesaid objectives, 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 Monitoring Firm (IEMF) 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 of 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 execution 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 effect 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 the Contractor that their competitors will also abstain from bribing and other corrupt practices, 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, material or immaterial benefit or any other advantage from the BIDDER or 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 or implementation process related to the contract.
- 1.2. The Authority will, during the pre-contract 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 any official(s) is reported by the BIDDER to the Authority with full and correct 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 any proceedings are being conducted by the Authority the proceedings under the contract will not be called.

2. 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 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 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 / Contractor has not entered and will not enter with other bidders into any undisclosed agreement or understanding, whether formal or informal. The Bidder / Contractor shall not enter into any arrangement, particularly to prices, specification, certifications, subsidiary contracts, or any other matters, which may result in non-submission of bids or any actions to restrict competitiveness or to cartelization in the bidding process.
- 2.4 The Bidder/Contractor shall, when presenting his bid, disclose the names and addresses of agents and representatives and Indian BIDDERS shall disclose the names and addresses of foreign principals or associates.
- 2.5 The Bidder/Contractor shall when presenting his bid disclose 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 agent or 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 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 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 his 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 any member of the Authority or their family members, agents, brokers or any other individuals in connection with the contract and the details of services agreed upon for such payments.
- 2.8 The Bidder/Contractor will not allow any other parties interested in the contract to impair the transparency, fairness and integrity 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 irregularities.
- 2.10 The Bidder / Contractor shall not use improperly, for purposes of competition or personal gain, or pass on to any other person, any information provided by the Authority as part of the business relations including plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder / Contractor shall take to exercise due and adequate care lest any such information is disclosed.
- 2.11 The Bidder / Contractor will inform to the Independent External Monitor.
- The Bidder / Contractor shall not demand for an illegal/undue payment/benefit.
 - The Bidder / Contractor shall not be aware of any unethical or illegal payment/benefit.
 - If he makes any payment to any Authority's associate(s)

- 2.12 The Bidder/Contractor commit to refrain from giving any compliance directly or through any other manner without supporting it with full and verified information.
- 2.13 The Bidder/Contractor shall not instigate or cause to instigate any third party 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 of opening of tender. The term 'relative' for this purpose would be as defined in Section 2(2) 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 has committed a transgression in violation of section 2 or in any other form such as to cast doubt on 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.

3. Previous Transgression

- 3.1 The Bidder/Contractor declares that he has no 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 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 process.
- 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 documents before contract signing.
- 3.4 That the subcontractor and 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 contract/ 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. Earnest Money, 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 EMD / PG / BOND / DRAFT/PAY ORDER ETC I/C WARRANTY PERIOD, PG/BOND, VALIDITY which is as per terms and conditions and details given in NIT / tender documents submitted by Bidders.

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

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 tender 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 clause 2 or 3 or 4, the Authority is entitled to forfeit the earnest money deposited as bid security.
- iv) To recover all the amount 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 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 at any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- v) To recover 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 from such cancellation/rescission and the Authority shall be entitled to the amount so payable from the money(s) due to the BIDDER.
 - vii) To debar the BIDDER from participating in future bidding process 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 Authority 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 Bidder 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.
- 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 X 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 agrees 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 circumstances of the case, and the documents/evidence adduced by the Bidder/Contractor for first time default.
- 5.5 That a transaction is considered to have occurred if the Authority is fully satisfied with the available facts 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 the 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 impartially 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 - Contractor and Associates. The Monitor is under obligation to treat the information and documents of the Authority and Bidder/ Contractor / Sub-Contractors/ Associates as confidential.

7.5 That as soon as the Monitor(s) observes, 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 make his recommendations/ suggestions. Beyond this, the Monitor(s) has no right to interfere with the parties that they act in a specific manner, refrain from action or generate any action.

7.6 That the Authority will provide to the Monitor(s) sufficient information about all meetings of 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 Authority offers 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 the Authority and, should the occasion arise, submit proposals for correcting 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 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 provision 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. 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 in partnership or a consortium, this Pact must be signed by all the partners / 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 for 12 months after the final payment under the respective contract, and for all other Bidders 6 months after the contract is awarded.

11.2 That in case of any dispute / lodged during this period, the same shall be binding and continue to be binding 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 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 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. _____

2. _____

APPENDIX XIX

(To be filled by Contractor)

(CLAUSE-47)

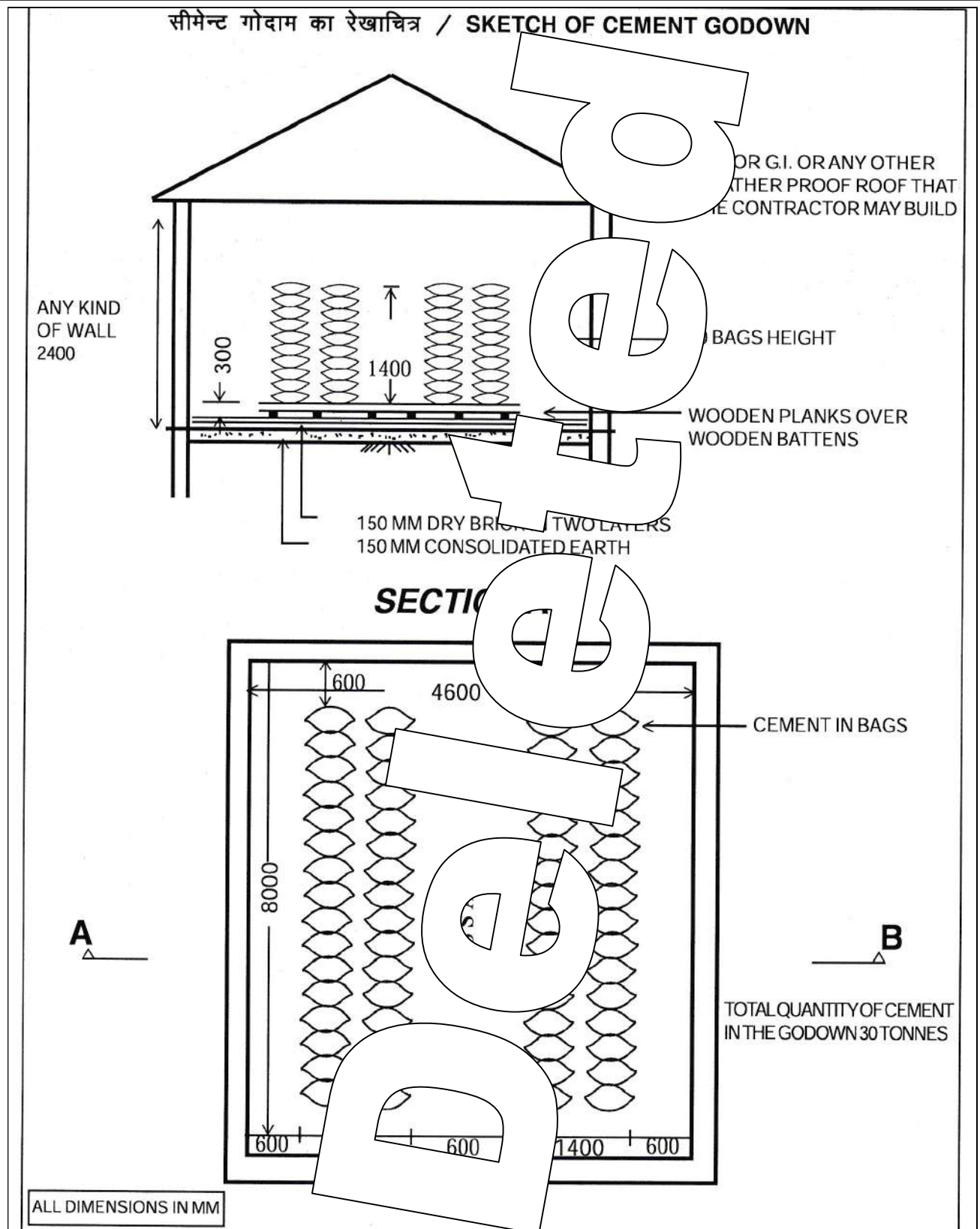
Ratio of direct payment to the specialized : ...% of the net payment to be made to
Specialized

agency in case of composite contract agency

Sl.	Sub-head	Nature of work	% of the net payment to be made to Specialized agency
1	Sub-head I		

Note:

1. NIT approving authority must ensure that all sub-heads of works are covered in above table. The bidder must indicate percentage payable to specialized agency in case of all sub-heads.
2. If % is not filled in by the contractor against one or more subhead in this schedule, then 75% of the net payment admissible as per the subhead under consideration shall be paid directly to specialized agency in case of composite contract.



SKETCH OF CEMENT GODOWN

SCHEDULES

SCHEDULE 'A'

All rates shall be quoted in the format provided and no other format is acceptable. The price bid has been given as a standard BOQ format at page no. **BOQ - 1 to BOQ – 03** 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 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 charged to the contractor	Place of Issue
1	2	3	4	5

Not Applicable

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
Not Applicable			

SCHEDULE `D`Extra schedule for specific requirements/ documents for the work, if any. **Not Applicable****SCHEDULE `E`**

Reference to General Condition of contract

Name of Work **“Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport”**

Estimated Cost **Rs. 15,92,063.00 (Excluding GST)**

i. Earnest Money **Rs. 31845.00/-**

ii. Performance Guarantee: **Rs. Not Applicable**

iii. Security deposit: **10% of contract value**

iv. Defect Liability period : **12 Months**

SCHEDULE 'F'**GENERAL RULES & DIRECTION**

Officer inviting tender : Sr. Manager (Engg.-Elect),
AAI, Kangra Airport, Kangra.

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3	:	a: 30% (Overall) b: 100% (for foundation Items)
--	---	---

Definitions:

Office inviting tender	:	O/o Sr. Manager (Engg.-Elect), Airports Authority of India, Kangra Airport, Kangra 176209 .
2(v) Engineer-in-Charge	:	Sr. Manager / AGM (Engg.-Elect), AAI, Kangra Airport, Kangra 176209
2(viii) Accepting Authority	:	As per AAI's DOP.
2(x) Percentage on cost materials & Labour to cover all overheads & Profits	:	15%
2(xi) Standard schedule of rates	:	Market Rates.
2(xii) Department	:	AAI, Engineering

Clause 1

(i)	Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	:	with 30 Days
(ii)	Maximum extension	:	As per Clause 1

Clause 2

Authority for fixing compensation under Clause 2	:	As per Delegation of Power of AAI.
--	---	------------------------------------

Clause 2A

Whether Clause 2A shall be applicable	:	Yes / No
---------------------------------------	---	----------

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)	Amount to be withheld in case of non achievement of milestone

Time allowed for execution of work. : **02 (Two) Months**

Authority to decide:

- i. Extension of time : **As per DOP applicable**
- ii. Rescheduling of milestone : **As per DOP applicable**
- iii. Shifting of date of start in case of delay in handing over of site : **As per DOP applicable**

Clause 6, 6A : 6A

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. : **As per Special Conditions of Contract**

Clause 10A

Testing equipment to be provided by the contractor at site lab

All the testing equipment for completed works as per CPWD Morn, IRC and AAI specifications as applicable.

Clause 10 B(II)

Whether Clause 10B(II) shall be applicable : **No**

Clause 10C: Applicable

Component of labour expressed as percent of value of work: 30.00%

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
1. Cement (OPC/ PPC)	Not Applicable	Base price for cement 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 Bitumen as to be issued by CPWD is not available concerned ED (Engg) empowered to determine the same.
2. Reinforcement steel bars (TMT)		
3. Structural Steel		
4. Bitumen		

***Note:**

1. Includes cement component used in RMC brought at site from outside approved RMC plants, if any.
2. Base price and its corresponding period of all the materials covered under clause 10CA is to be mentioned at the time of approval of NIT. In case of recall of tenders, the base price may be modified by adopting latest base price and its corresponding period.

Clause 10 CC

Clause 10CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	:	_____ Months
--	---	--------------

Schedule of component of other materials, labour, POL etc. for price escalation.

Component of civil (except material covered under clause 10 CA) / Electrical construction materials expressed as per cent of total value of workXm%.

Component of labour expressed as % of total value of work.....Y.....%.

Component of POL, expressed as % of total value of work.....Z.....%

Note : Xm% should be equal to (100) – (material covered under clause 10 CA i.e. cement, steel and other materials specified in clause 10 CA + component of labour + component of POL).

Clause 11

Specification to be followed for execution of work	:	a) ICAO specifications b) CPWD Specifications with upto date correction slips and amendments or other specification as applicable. c) IS Specifications d) Technical specification. e) Manufacturer's Specification.
--	---	---

Clause 12

12.2 & 12.3	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for building, pavements and all other works above foundation level	:	30% (Thirty Percent)
12.5	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for foundation work	:	100% (Hundred Percent)

Clause 16

	Competent Authority for deciding reduced rates	:	As per DOP / Works manual
--	--	---	----------------------------------

Clause 18**Mandatory machinery, tools & plants to be deployed by the contractor at site:**

To be provided as per NIT and other Machinery required for timely completion of work.

Clause 25

Place of Arbitration : **Airports Authority of India, Northern Region, Operational Offices Complex, Gurgaon Road, Rangpuri, New Delhi – 110037**

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
						Figures Rs. Words
1.						
2.						
3.						
4.						
5.						

- a. Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.
- b. 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

Licence Fee for unpaved land : **Not Applicable**

Clause 41(b)

Integrity Pact applicable : **Yes/No**

Clause 42

(i)	Schedule / statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	:	DSR 2016 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 lakhs.	:	
(b)	Steel Reinforcement and structural steel section for each diameter, section and category	:	
(c)	Bitumen	:	
(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	Excess beyond permissible variation
1.	Cement		
2.	Steel reinforcement		
3.	Structural Sections		
4.	Bitumen issued free		
5.	Bitumen issued at stipulated fixed price		

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

Clause 48

Escrow Account : ~~Applicable~~ / Not applicable.

Annexure to clause 34 (x)

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

Sl.No.	Material of surfacing	Quantity or areas
1.	Consolidation of earth subgrade	1860 Sq.m
2.	Consolidation of stones soling 15 cm to 22.5 cm thick	170 Cu.m
3.	Consolidation of brick soling 10 cm to 20 cm thick	230 Cu.m
4.	Consolidation of wearing coat of stone ballast 7.5 cm to 11.5 cm thick	30 Cu.m
5.	Consolidation of wearing coat of brick ballast 10 cm thick	60 Cu.m
6.	Spreading and consolidation of red bajri 6mm	1860 Sq.m
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 @ 25 Kg per Sq.m. or	
	(b) @ 1.50 m ³ per 100 m ² and bitumen emulsion or Roadtar @ 2.25 Kg per Sq.m.	930 Sq.m.
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 @ 25 Kg per Sq.m. or	
	(ii) @ 1.35 m ³ per 100 m ² and bitumen emulsion @ 2.25 Kg per Sq.m. or	
	(iii) @ 1.25 m ³ per 100 m ² with roadtar @ 2.25 Kg per Sq.m.	600 Sq.m.
	(b) For 2nd Coat, stone aggregate 10 mm nominal size 0.9 Cu.m. per 100 Sq.m. with	
	(i) 1kg of paving bitumen A-90 or S-90 or bitumen emulsion @ 1.25 Kg per Sq.m. or	
	(ii) 1.25 Kg. of road tar, per Sq.m. 600 Sq.m.	600Sq.m.
9.	Re-painting with stone aggregate 10 mm nominal size 0.9 Cu.m. per 100 Sq.m. with	
	(i) 1kg of paving bitumen A-90 or S-90 per Sq.m. or	
	(ii) 1.25 kg of bitumen emulsion per Sq.m. 1670 Sq.m.	1670 Sq.m.
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 to be used is hot cut back bitumen or bitumen emulsion in specified quantities.	930 Sq.m
11.	2.5 cm premix carpet surfacing using 3.0 m ³ of stone aggregate 10 mm nominal size per 100 m ² and binder including tack coat, the binder to be used is hot cut back bitumen or bitumen emulsion in specified quantities.	930 Sq.m
12.	4 cm thick bitumen concrete surfacing using stone aggregate 3.8 Cu.m. per 100m ² and coarse sand 1.9 Cu.m. per 100m ² and hot cut back bitumen.	460 Sq.m.

13.	5 cm thick bitumen concrete surfacing using stone aggregate (60% 25 mm nominal size and 40% 20 mm nominal size) per 100 Sq.m. and hot cut back bitumen over a tack coat of bitumen.	370 Sq.m.
14.	6 cm thick bitumen concrete surfacing using stone aggregate (60% 25 mm nominal size and 40% 20 mm nominal size) per 100m2 and coarse sand 2.9 Cu.m. per 100m2 and hot cut back bitumen over a tack coat of bitumen.	280 Sq.m.
15.	7.5 cm thick bitumen concrete surfacing using stone aggregate (60% 25 mm nominal size and 40% 40 mm nominal size) per 100m2 and hot cut back bitumen over a tack coat of bitumen.	230 Sq.m.
16.	2.5 cm bitumastic sheet using stone aggregate 1.65 Cu.m. (60% 12.5 mm nominal size 40% 10 mm nominal size) per 100 Sq.m. and coarse sand 2.9 Cu.m. per 100 Sq.m. and hot cut back bitumen over a tack coat of hot cut back bitumen.	750 Sq.m.
17.	4 cm bitumastic sheet , using stone aggregate 2.6 Cu.m. (60% 12.5 mm nominal size, 40% 10 mm nominal size) per 100 Sq.m. and coarse sand 2.9 Cu.m. per 100 Sq.m. and hot cut back bitumen over a tack coat of hot cut back bitumen.	560 Sq.m.
18.	Laying full grouted surface using stone aggregate 40 mm nominal size 1.10 Cu.m. per 100 Sq.m. with binder, binding with 20 mm to 12 mm nominal size stone grit. 1.83 Cu.m. per 100 Sq.m. and seal coat of binder and stone grit 10 mm nominal size, 1.07Cu.m. per 100 Sq.m., the binder being hot bitumen or tar as specified.	460 Sq.m.
19.	Laying full grouted surface using stone aggregate 50 mm nominal size 9.14 Cu.m. per 100 Sq.m. with binder, binding with stone grit 20 mm nominal size 1.83 Cu.m. per 100 Sq.m. and seal coat of binder and stone grit 10 mm nominal size, 1.07Cu.m. per 100 Sq.m., the binder being hot bitumen or tar as specified.	370 Sq.m.
20.	4cm. thick premix macadam surfacing using stone aggregate 12.5 mm nominal size 4.57 Cu.m. per 100 Sq.m. and hot bitumin binding 1.52 Cu.m. per 100 Sq.m. and seal coat of hot bitumen and stone aggregate 10 mm nominal size 1.07 Cu.m. per 100 Sq.m.	560 Sq.m.
21.	5cm. thick premix macadam surfacing using stone aggregate 12.5 mm nominal size 6.10 Cu.m. per 100 Sq.m. and hot bitumin binding 1.52 Cu.m. per 100 Sq.m. and seal coat of hot bitumen and stone aggregate 10 mm nominal size 1.07 Cu.m. per 100 Sq.m.	460 Sq.m.

SPECIAL CONDITIONS OF CONTRACT

SPECIAL CONDITIONS OF CONTRACT

01. These Special Conditions shall be read in conjunction with the General conditions of the contract (G.C.C.). If there are any provisions in the special conditions of contract which are at variance with the provisions of general conditions of contract, the provisions in these special conditions shall take precedence.

Should there be any difference/discrepancy or contradiction in the provision of the specification of item of work and the description of the item given in the schedule of Quantities, the scope of the items shall be taken according to the following order of preference: -

- a) Description of Schedule of Quantities.
- b) Particular / technical Specification and Special Condition, if any.
- c) Drawings.
- d) ICAO Specifications
- e) C P W D Specifications.
- f) Indian Standard Specifications of B I S / IRC Code of Practice / ASTM standards.
- g) Sound Engineering practice as directed by the Engineer-in-charge, whose decision in this regard shall final and binding on the contractor.

02. The work shall be strictly carried out as per specifications given in the schedule and conditions or as per general specifications of respective work of Relevant CPWD/AAI specifications with upto date amendments and other related specifications or IS code or any other printed publication on general specifications referred to elsewhere in the contract with up-to-date correction slips or as per prevailing practice in that order. The decision of the Engineer-in-Charge in this regard shall be final and binding on the contractor. Any deviation from the above may be clearly brought out by the contractor.

03. Electricity / water shall be provided on chargeable basis at one point in the airport depending on the availability and restrictions, for erection/testing and commissioning purposes. Further extension shall be done by the contractor at his expense. However if AAI is not able to provide water/electricity, it will become the sole responsibility of the contractor to arrange the same from other sources/agencies at their expense and no claim in this regard will be entertained. For regular power/water supply, the other terms and conditions of AAI regarding the termination of water/power supply shall prevail. The contractor has to provide tested and calibrated energy meter and required length of power cable for extending power supply from the available source.

04. SUFFICIENCY OF TENDER

- a) Particulars and data furnished in the various sections of the tender documents need not be taken as complete by themselves. They are intended to serve as rough guidance only for the contractors to quote for the item rate tender. The tenderers shall, therefore, in their own interest examine the drawings, conditions of contract and specifications of work furnished in the tender documents. They shall also inspect the site and satisfy themselves on their own as to the hydrological, climatic and physical conditions prevailing at site, the nature, extent and practicability of works, all existing and required roads and other means of communications and access to site, availability of housing and other facilities, the sources of supply of different materials and their adequacy, royalties and ferry charges, if any, labour and probable site for labour camps, stores and godown etc.
- b) They shall also obtain for themselves all necessary information as to risks, contingencies and other circumstances, which may affect or influence their tender. No extra charges

(C-NIL I-NIL O-NIL)

consequent on any insufficient appreciation or otherwise shall be allowed. 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 works/items, quantities or in bills of quantities which rates and price 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.

- c) Should there be any discrepancy in or any doubt or obscurity as to the meaning of any of the tender documents, clarification should be sought for in writing sufficiently in advance of the last date fixed for the receipt of the tender from the concerned Sr. Manager (Engg. – Electrical). The department will have a right to make any amendments in the tender documents and any such changes will be intimated to the tenderer at least three days before the date fixed for receipt of tender.

05. When the offer of the contractor is not in line with the tender schedule / specification, the department reserves the right to reject the offer or load/ unload the offer in financial terms to the extent possible to bring all tenderers at par with the tender schedule / specifications in which case the judgment of the department for such loading / unloading shall be treated as final for deciding the lowest and technically acceptable offer. The contractors are therefore advised to quote strictly as per tender schedule and may offer their alternatives separately as annexure with complete details and comments.

06. **SCOPE OF WORK:** The scope of work includes the following:

- 1) Design, Manufacturing and Supply of illuminated mandatory guidance signages
- 2) Installation, testing & commissioning of signages along with required cement concrete.
- 3) Supply and installation of M.S. isolating transformer housing box, Supply of 40mm (OD), PN-6, PE 80 ISI marked HDPE pipe etc.
- 4) Laying of HDPE pipe, airfield lighting cable, secondary lead & earth work.

07. **TIME OF COMPLETION:**

The completion period for the work is **02 (Two) months** from the 10th day of placing of work order or date as specified in work order including testing, commissioning of installations and handing over to AAI. Any delay beyond this period shall attract penalty as agreed and mentioned in the tender/contract documents.

08. **ADMISSION TO SITE:**

Work is to be carried out at Kangra Airport and the site, where work is to be executed, belongs to very essential & sensitive installations, hence strict supervision and special permission is always required before start of work and during progress of work. The prospective tenderer is advised to visit the site before quoting for the work and no claim whatever on account of any deficiencies at site shall be entertained like non-availability of water, security restrictions, inaccessibility, limited working hours due to operations, local bylaws / rules etc. No extra payment will be made by AAI for any misunderstanding by the bidder. The contractor shall apply in writing in advance of the commencement of work, for the issue of security passes and shall submit a list of the personnel concerned 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 the contractor, his agents, his staff and workmen/ workwomen. The cost of photographs, if required, for the passes will be borne by the contractor. The contractor shall ensure that his

men/women will work in area/ 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, his staff and workmen/workwomen shall observe all the rules promulgated from time to time by the Authority (e.g. prohibition of smoking and lighting, search of persons on entry and exit, keeping to specified routes etc.) Any person found violating the security rules laid down by the Authority will be expelled from the area without assigning any reason whatsoever and contractor shall have no claim on this account.

09. If the site is handed over in phases, contractor shall plan the work as per the phasing decided by AAI and no claim will be entertained for not handing over the entire area in one stretch. In case there are small patches which could not be handed over due to legal and technical reasons, this will not be considered as obstructions and no claim will be entertained for delays for such reasons.

10. CO-ORDINATION:

The contractor shall co-operate with Authority's other contractors, compare plans, specifications and the time schedules and so arrange his work that there will be no interference during execution of the work. The contractor shall forward to the Engineer-in-Charge all correspondence and drawings so exchanged. Failure to check plans and conditions will render the contractor responsible for bearing the Cost of any subsequent change found necessary and its cost. However, the contractor shall arrange necessary facilities to execute the work simultaneously with other agencies. No claim on this account shall be entertained by AAI.

11. CO-OPERATION BY CONTRACTORS:

The contractor shall give the work his constant attention to facilitate the progress thereof and shall co-operate with the department in every way possible. He shall have to be present on the work at all times. During his absence, a competent representative who can speak the local language and English and could be able to communicate with the department's representative who is authorized to receive order and act on behalf of contractor, should be present.

12. SITE PRECAUTIONS:

- (i) Strict precautions must be exercised by the contractor to avoid interference with aircraft operations on that portion of the aerodrome not closed off to aircraft traffic. Where there are restrictions of movement imposed by the AAI, the contractor shall abide by all rules and regulations laid down in this regard by the AAI.
 - (ii) When the work is carried out, necessary precautionary boards, luminous warning etc should be provided. The equipments for work shall be positioned without affecting the day to day operations of AAI and facilities of other agencies.
 - (iii) The contractor shall be responsible for any damage, resulting from his operations, to existing airport fixtures such as underground cable, contact lights, hard surface areas, and water mains, other operational installations, airports roads, etc. The contractor shall restore, replace or repair any such damage to the complete satisfaction of the Engineer-in-Charge.
- EXCAVATION: While carrying out the excavation work over the areas or in the foundation trenches the contractor shall carry out the excavation work very carefully assuming that there may be certain power/control cables and other services like storm water drain, water supply line, chill water pipelines and fire fighting lines and man holes etc. In case of any damages to the services while carrying out the work, the contractor has to make good the same at his own expenses. Nothing extra shall be paid for the same.

- (iv) If on handing over site or at any time thereafter during the execution of the works the contractor considers that any drawing or information necessary for the execution of the work has not been provided, he is to inform the Engineer-in-Charge in writing giving details.
- (v) If at any time during the execution of work and for any reasons whatsoever there is some difficulty in availability of site, the contractor shall adjust his labour accordingly and nothing extra shall be paid on this account.
- (vi) No labour huts shall be permitted to be constructed inside the operational area.
- (vii) Contractor shall be responsible for the police and antecedent verification of the labour employed by him in the operational area and shall indemnify the department of any security problems arising thereof.
- (viii) The contractor shall arrange his work schedule according to the flying operations. Unavoidable adjustments in the timings may however have to be made depending upon the emergency operational requirements which may result in lesser availability of working hours or rescheduling of working hours. Operational requirements may also not allow availability of the site on certain days due to unavoidable reasons when it will not be possible to execute any work at all on these days. Nothing extra shall be paid towards the idle establishment labour and machinery etc. on this account.

13. **STATUTORY LAWS/RULES/APPROVALS/LICENSE**

The contractor/agency shall abide by the relevant statutory rules, laws, and guidelines and arrange for the approvals, if any required. They include adhering to labour laws, abiding local electricity rules etc.

14. **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 obtaining prior approval, if any, and payment of all fees and other charges, giving and receiving of all necessary notices and keeping AAI informed of the said compliance with the bye-laws, payments made, notices issued and received.

The Contractor shall indemnify AAI against all claims in respect of royalties, 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, costs, charges and expenses whatsoever in respect of or in relation thereto. The Contractor shall defend all actions arising from such claims and shall himself and every sort that may be legally incurred in respect thereof.

The Electrical works shall be carried out as per state electrical inspectorate standards/specifications /guidelines and the contractor shall get the approval and safety certificate from the inspectorate after the completion of work and before energisation as & if applicable.

The Contractor shall comply with proper and legal orders and directions of local or public authority or municipality and abide by their rules and regulations and pay all fees and incidental charges which may be liable during the contract period.

15. **SAFETY**

- (i) Only properly tested and marked material handling equipment shall be used. All supporting arrangements and fixing details shall be checked periodically and necessary rectifying actions are to be taken in order to ensure safe handling of loads during different operations.

All plant and machinery of the contractor shall observe the safety regulations needed for working in a project where other contractors /sub-contractors /agencies might also be working, so as not to interfere with the work of the other contractors or foul with their constructions.

- (ii) The Contractor shall take all precautions to avoid accidents by exhibiting necessary boards day and night, speed limit borders, red flags, red lights and providing barriers. They shall be responsible for all damages and accidents caused due to negligence on his part. No hindrances shall be caused to traffic during execution of work.

16. **COMPENSATION**

- (i) No payment /compensation will be made to the Contractor for damage caused by rains, floods, cyclones, earthquakes, subversion, riots or other natural calamities during the execution of the Works. The damage caused to work shall be made good by the Contractor at his own cost and no claim on this account shall be entertained.
- (ii) The rates quoted by the Contractor for all items except those where specific provisions indicated in the schedule of quantities shall include all leads, lifts and nothing extra shall be paid on this account.
- (iii) The Contractor shall adjust his labour, staff, plant, machinery etc. according to the requirement of work from time to time with particular regard to approved phases of work and no claim shall be entertained on account of idle labour, plant, machinery, etc., due to any reason whatsoever.
- (iv) The Contractor shall clear the site thoroughly of all scaffolding materials, wastage and rubbish etc., left out of his work and dress the site around the area to the satisfaction of AAI upon completion of the work and before release of payment of the last running bill. The payment of final bill will be subject to the compliance of this condition by the contractor.
- (v) The contractors shall time to time clear and remove all rubbish and obstructions from the site and the work area shall be kept clear and unobstructed at all times. Nothing extra shall be paid on this account.

17. **MAKES:**

Approved make of list is enclosed for various items. Where makes have not been indicated in the list they shall be as per tender specifications and bidder shall take approval of Engineer-in-Charge before supply. The agency is required to specify which makes they have offered from among the approved makes. The agency has to submit the sample for prior approval of the Engineer-in-Charge before supply of material as per the work order. However, no extra shall be paid to the agency for such change of make(s). It is the responsibility of the contractor to get the materials approved before delivery, failing which AAI shall not be bound to accept the materials.

18. **BILL OF QUANTITIES:**

The Bill of Quantities shall be read in conjunction with General Conditions of Contract, Special Conditions, Technical Specifications, Drawings and any other Document forming a part of this tender. The quantities given in the tender BOQ are tentative and shall vary as per the site / AAI requirements. Only required items & quantities are to be supplied/ installed. Contractor shall take detailed site measurements, before placing purchase order/taking procurement action. Contractor shall monitor the requirements of various items and shall report to Engineer – In – charge with regard to deviations in the existing items and requirement of additional/ extra items, if any, for taking necessary action.

19. INSPECTION AND TESTING:

AAI reserves the right to inspect any / all the materials / equipment at works/ factory by Engineer-in-Charge or its authorized representative before dispatch to site unless otherwise exempted from inspection by Engineer-in-Charge. If inspection/ presence for testing of equipment at the works/ factory is to be done, then 15 days prior intimation shall be given in advance. The decision to inspect / waive off shall rest with Engineer-in-charge and waive off inspection shall be communicated in writing and in such cases the inspection certificate issued by the quality control department of the manufacturer will be acceptable to AAI.

The authority's authorized shall have full power to inspect drawings of any portion of work, examine the materials and workmanship at the contractor work or at any other place from which the materials or equipment is obtained. Acceptance of any material or equipment shall in no way relieve the contractor of his responsibility for meeting the requirements of the specifications.

Routine / type tests certificates for equipment's offered shall be furnished by the contractor. Acceptance test as per relevant IS code shall be carried at factory. The contractor shall permit the Authority's authorized representative to be present during been specified or as the Engineer-in-Charge such tests and inspection as have been specified or as the Engineer-in-Charge shall consider necessary to determine whether or not the full intent of event of the inspection and or test proving unsatisfactory and resulting in non-acceptance of the work or any portion whereof cost of re-inspection and/or tests (including the traveling and halting expensed incurred if any or such portion thereof as may be determined by the competent authority) shall be borne by the contractor.

All the materials to be used in and on every part of the works shall be subjected, from time to time, to such tests as AAI may direct. Such tests shall be performed at the expenses of the contractor. The samples for the tests shall be in all cases selected by AAI. If at any time, any material so tested, fails to meet the acceptance criteria, the decision of AAI shall be final and binding as to whether the said materials shall be accepted or rejected.

The contractor shall produce on demand from AAI, the necessary test certificates certifying that the materials conform to the technical specifications. However, this clause will not apply to routine testing of materials at the site laboratory of the Contractor.

All tools, instrument, plants and labour / operating personnel require for the test shall be provided by the contractor at his own cost. All arrangements for conducting the inspection/ testing at the factory shall be the responsibility of the contractor.

The various tests as indicated in the CPWD specifications or BIS and equipment specifications, as considered necessary by the Engineer-in-Charge shall be carried out in the laboratory as approved by the Engineer-in-Charge. The contractor shall bear the entire cost of samples, testing charges, carriage and any other incidental expenditure incurred, thereon. The result shall be final and binding on the contractor.

20. SITE TESTS/ PERFORMANCE TESTS

Necessary site tests/ performance tests shall be conducted on the equipment to ascertain the functional / design/ site requirements. Reports shall be prepared recording the various values, parameters, observations, settings made etc. In case of unsatisfactory results, the same shall be replaced/ rectified as per the requirement.

21. PACKING /TRANSPORTATION/HANDLING:

Professional packing shall be made for Material to be supplied at site. Materials are to be properly packed with appropriate packing materials and means. Special care shall be taken for

fragile items. Items description, quantity, code, instruction etc. is to be marked for easy identification etc. The materials have to be transported by appropriate transport up to site.

All equipment, materials used in the work shall be brand new and free from manufacturing defects. Copies of the original purchase/tax invoices shall be submitted to AAI along with materials for verification.

22. SAFETY OF MATERIAL:

The contractor has to make his own arrangements for storing the materials issued by the department from the stores to the site of work and watch and ward for the same till the installation is completely handed over to the department after completion. No extra claim will be entertained on account of this. Any damage caused to the materials during transit or under storage will be to the contractor's account. In case of any damage contractor shall repair / replace with good ones otherwise appropriate recovery as approved by Engineer-in-Charge shall be adjusted from his bills.

23. DRAWINGS / DOCUMENTS

All required drawings/documents/technical information required during various stages of works should be submitted. Approval of drawings shall not absolve the contractor of any of his obligations to meet the requirements of specifications under this contract.

All drawings submitted by the vendor/equipment supplier shall be in sufficient detail to indicate the type, size, arrangement, weight, breakdown for packing and shipment, the external connections, fixing arrangements required, the dimensions required for installation and interconnections with other equipment and materials, clearances and spaces required between various portions of equipment and any other information specifically requested.

Contractor shall submit the required documents which include Purchase documents/ bills/ invoices, challans, all types of test certificates/ reports, dispatch documents, guarantee/ warrantee certificates, completion certificate/ reports, instruction manuals, computer aided detailed drawings with dimensions, layouts, GA, plans, elevations, sections, bill of materials, single line diagrams, control & schematic diagrams, inventories/ equipment details, data sheets, fault level calculations, characteristic curves, write up etc as applicable.

24. TOOLS & PLANTS, MEASURING INSTRUMENTS

All required tools & plants, equipments, measuring Instruments, labour including all labour facilities as per labour laws required at various stages of the work / contract (like installation, testing, commissioning, monitoring, measuring, billing etc.) shall be arranged by the contractor including loading and unloading. No vehicle shall be arranged by AAI for this purpose. Cost of transportation of labour and materials shall have to be borne by the contractor. Before taking out any material from the AAI premises, the contractor shall sign the gate pass indicating the description of the material with details. The Bidder should have special T&P for proper execution of job.

25. Prices:

25.1 The contractor should quote the rates very carefully in BILL OF QUANTITIES (BOQ).

25.2 The price quoted shall be firm and inclusive of all taxes, duties, cess, freight up to site destination (i.e. Kangra Airport), loading, unloading and insurance etc. **but excluding GST.**

25.3 The applicable GST rate shall be considered in accordance with relevant provisions of GST Acts.

- 25.4 In case of change in rate of tax or any provision relating to the levy of tax during the contract period resulting in increase in burden of tax on the contractor, the contractor shall be entitled to receive any compensation for such increase in the quantum of tax payable by the contractor. Similarly recovery shall be made from the contractor on account of decrease of rate of the tax or any provisions relating to the levy of tax.
- 25.5 It is to be noted that All Input Tax Credits must be passed on to AAI by the bidder/contractor and for the blockage of any Input Tax Credit, the bidder/contractor shall be responsible to indemnify AAI.
- 25.6 Basic Custom Duty if any will be paid by AAI by utilizing EPCG License/Duty Scrip under SEI Scheme of Govt. of India. Wherever supplies/services involve imports, the same must be included in the rate quoted and it shall be recovered from the bill of the contractor.

26. Payment terms shall be:

26.1 For supply, installation, testing and commissioning items.

- 70% of item rate on prorated basis on delivery of material at site.
- 20% of item rate on installation of equipment.
- 10% of item rate on testing and commissioning.

26.2 For installation, testing and commissioning items.

- 80% of item rate on installation of equipment/ cables.
- 20% of item rate on testing and commissioning.

26.3 For supply items

- 90% of item rate on prorated basis on delivery of material at site.
- 10% of item rate on testing and commissioning.

26.4 Security deposit shall be deducted from each running bill and the final bill to the extent of 10% of the gross amount payable subject to the maximum limit specified. The earnest money deposit shall be adjusted against this security deposit. The security deposit shall be released on the expiry of guarantee/maintenance period stipulated in the contract. However, the contractor can furnish a bank guarantee in the specified format from a schedule bank, in which event no recovery shall be made towards security deposit from his bill. The bank guarantee shall be kept valid till the expiry of the above guarantee/maintenance period.

26.5 Payment shall be released after making deduction of Security Deposit, Income Tax, Labour Cess and any other recoveries for which Contractor has made himself / herself liable.

27. The rates quoted by the contractor for all the items except those where specific provisions are indicated in the schedule of quantities shall include all leads, lifts, heights and working in or under water and/ or liquid mud in or under foul condition, pumping out water caused by springs, tidal or river seepage, broken water mains or drains or due to any other causes. Nothing extra shall be paid on this account.

28. The contractor has to follow the local security/safety rules and regulations and such instructions on restricted hours of work as may be imposed on him by the department/local authorities, while working in security restricted zones and no claim whatsoever on account of loss of labour/idle labour etc. can be entertained.

29. The contractor or his authorized representative will have to sign the site order book and comply with the remarks therein every now and then.
30. 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 him on this account.
31. The contractor shall make necessary arrangements for all machinery equipments, etc., considered necessary by the Engineer-in-Charge for completion of work within the stipulated time. The rates quoted by the contractor shall include the cost of providing/running all such machinery equipments etc. Nothing extra shall be paid on this account.
32. The Contractor should take note of it that no mobilization advance shall be paid to him.
33. In the event of any dispute of any related to the works, decisions of the Engineer-in-Charge shall be final and binding. The Engineer-in-Charge shall mean Sr. Manager (Engg. - Electrical) and the Site-in-Charge concerned to the authorized officer to carry out general Supervision, issue day to day instructions and approve materials and workmanship.
34. The contractor shall be responsible for any damage, resulting from his negligence to existing fixtures and will restore, replace or repair any such damage to the complete satisfaction of the Engineer-in-Charge at free of cost. If the agency fails to carry out the above said rectification/replacement within the time stipulated by Engineer-in-charge, the same will be got repaired / replaced by AAI and the full amount incurred along with additional charges will be deducted from the security deposit / running bill / final bill.
35. AAI shall be at liberty to ask for original purchase vouchers/tax invoice to ensure genuineness and quality of material along with delivery challan of materials for acceptance of material to enable AAI to make payment for the supplied materials.
36. The Contractor shall take insurance policy of his workmen before deploying them at site against injury, loss of life etc., and submit documentary evidence to AAI. No claims of compensation to the staff/workers will be entertained by AAI in this regard.
37. The Contractor shall indemnify and keep indemnified AAI against all losses and claims for injuries or damage to any person or any property whatsoever, which may arise out of or its consequences of the construction and maintenance of the works by them and against all claims, demands, and proceedings of or in relations thereof.
38. Before commencing the execution of works the contractor (but without limiting which obligations and responsibilities) shall insure against all damage, loss or injury which may occur to any property (including that of the employer) or to any person, including any employee of the employer by or arising out of the execution of the works or temporary works or in carrying out of the contract.
39. Payment for similar items with different quoted rates in different sub-head. If the tenderer quotes different rates for the same item appearing in two or more sub-head, then the lowest of the rates quoted shall only be considered for payment during execution of work. In case of deviation of quantities of such item, payment shall be made at the lowest quoted rate for quantities executed up to the deviation limit specified in the contract. Beyond the deviation limit the rate shall be derived as per relevant contract provision.

40. 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, a lump sum recovery shall be made from the final bill of the contractor so that overall position of the lowest tenderer remains unchanged.

41. On completion of works, the contractor shall submit the following '~~As As Built~~' drawings (~~three sets~~) and documents to Engineer – in – charge after completion of work, failing which Rs.15,000.00 shall be recovered from the contractor's bill.

(i) ~~General Arrangements, Layout drawings with dimensions, plans, sections etc.~~

(ii) List of Inventories indicating makes, Technical specs, quantity etc, Control & Schematic Diagrams and Keys, operating handles, tools etc. as applicable.

(iii) Test certificates (Factory Tests, site tests)

(iv) All the guarantee/Warranty certificates of equipments used etc is to be handed over.

(v) Operating, Installation & Instruction / Maintenance Manuals.

(vi) Other documents/ drawings as per the instructions of Engineer-in- Charge.

42. **Default, risk & cost**

In the event of default by contractor, AAI reserves the right to get any of the works done through any other agency / agencies in full or part at the risk and cost of the contractor under the following circumstances.

(i) Non – completion of work, lack of response.

(ii) Suspension of work, lack of response.

(iii) Poor quality of materials, work/workmanship.

(iv) Labour disputes.

(v) Noncompliance of tender requirements.

43. Dispatch schedules for supply of items are to be informed. No supply shall be done be on Sunday / Holidays without the prior sanction in writing of the Engineer-in-Charge.

44. No work shall be done on Sunday/Holiday/Night without the prior sanction in writing of site InCharge.

45. **Dispute Resolution Committee**

39.1 If a dispute of any kind, whatsoever, arises between the procuring entity and contractor in connection with or arising out of the contract or the execution of the works, whether during the execution of the works or after their completion and whether before or after the repudiation or termination of the contract, including any disagreement by either party with any action, opinion, instruction, determination, certificate or valuation of the Engineer, the matter in dispute shall in the first place, be referred to the Dispute Resolution Committee (DRC) appointed by RED.

39.2 DRC thus constituted may act as 'conciliator' and will be guided by principles of 'conciliation' as included in part III of Arbitration & Conciliation Act 1996. DRC should take into consideration, rights and obligations of parties, usage to trade concerned and circumstances surrounding the dispute(s), including any previous business practices between parties. Efforts of DRC should be to come to an amicable settlement of outstanding disputes. If parties agree, a written settlement will be drawn up and signed by the parties. DRC will authenticate the settlement agreement and furnish a copy to each party.

39.3 DRC may likely to give its report within 45 days of its constitution.

(C-NIL I-NIL O-NIL)

46. **HANDING OVER/ CERTIFIED DATE OF COMPLETION**

Upon the satisfactory commissioning of the entire work shall be handed over officially and completion date recorded by Engineer-in- charge with all the prescribed formalities for handing over.

This date shall be reckoned, as the certified date of completion and the defects liability period shall commence from this date.

Until the handing over of the installation, the responsibility lies with the contractor for safety, upkeep etc.

47. **TRAINING**

The contractor shall train a minimum of one or Two AAI staff during the erection and also familiarize them with the operation and maintenance of all the system up to the full satisfaction of AAI. Training shall be provided for understanding and operation of all the items to all systems. Charge for training, if any, should be included in the total cost. The contractor shall also provide training materials to the staff prior to the commencement of the training.

48. **DEFECTS LIABILITY PERIOD:** The materials / workmanship shall be guaranteed for a period of 12 (Twelve) Months from the date of completion of the work. Any defects noticed during the guarantee period shall be rectified / replaced in part or in full by the firm free of cost without charging anything extra to AAI. The contractor shall guarantee that all the material, machinery and components supplied, fabricated, designed and installed by him shall be free from defects due to faulty design material and/or workmanship.

Any parts found defective during guarantee period shall be replaced by the manufacturer/agency without any charges whatsoever. The services of contractors/OEM personnel, if requisitioned during this period, for such work shall be made available free of any cost till remedial of defects spite of nos. of visit to site.

Any defects arising during the Defect Liability period shall be rectified / replaced by the tenderer at his own expenses to the satisfaction of the AAI within one week after the date of notice.

The security deposit @ 10% of the total amount of work shall be deducted at the time of processing of running/ final bills. Security deposit shall be released after completion of defect liability period of 12 Months.

49. The contract agreement shall be executed on Non Judicial Stamp paper of appropriate value and cost of the stamp paper shall be borne by the contractor.

Sr. Manager (Engg.-E)

Kangra Airport, Kangra - 176209

TECHNICAL SPECIFICATION

TECHNICAL SPECIFICATIONS

Name of Work: Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport

Scope of Work:

It is proposed to provide taxiway guidance LED Signages on the newly constructed / proposed to be constructed Apron and Link Taxi Way between K – Taxi and K-2 Taxi at IAF area along with other related works.

The scope of work covers the following: -

- 1) Design, Manufacturing and Supply of illuminated mandatory guidance signages
- 2) Installation, testing & commissioning of signages along with required cement concert.
- 3) Supply and installation of M.S. isolating transformer housing box, Supply of 40mm (OD), PN-6, PE 80 ISI marked HDPE pipe etc.
- 4) Laying of HDPE pipe, airfield lighting cable, secondary lead & earth work

1.1 Should there be any difference/discrepancy or contradiction in the provision of the specification of item of work and the description of the item given in the schedule of Quantities, the scope of the items shall be taken according to the following order of preference:-

- (i) Description of Schedule of Quantities.
- (ii) Particular / technical Specification and Special Condition, if any.
- (iii) Drawings.
- (iv) ICAO Annex 14 and DGCA CAR
- (v) C P W D Specifications.
- (vi) Indian Standard Specifications of B I S / IRC Code of Practice / ASTM standards.
- (vii) Sound Engineering practice as directed by the Engineer-in-charge, whose decision in this regard shall final and binding on the contractor.

1.2 The details of scope of work sub-head wise are given in subsequent sections. The quantities worked out in schedule of quantities are tentative, which are based on preliminary estimation. The contractor is required to carry out detailed design for each part of the work.

1.3 Inspection and Testing

- (a) Authority's authorized representative(s) shall have full power to inspect drawings of any portion of the work, examine the materials and workmanship at the contractor's work or at any other place from which the material or equipment is obtained. Acceptance of any material or equipment shall in no way relieve the contractor of his responsibility for meeting the requirement of the specifications, but shall have to be paid by the contractor in case the equipment or work is found defective or of inferior quality.
- (b) Routine tests for the various items of equipment shall be performed at the contractor's works and test certificates furnished. The contractor shall permit the Authority's authorized representative to be present during any of, or all the tests. After notification to the Authority that the installation 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 intent of requirements of the plans

and specifications have been fulfilled. In case the work does not meet the full intent of the specifications, the contractor at no extra cost shall rectify it and the contractor shall bear all the expenses for any further tests considered necessary.

- (c) The contractor at his own cost shall provide all tools, instruments, plants and labour /operating personnel for the test.

The contractor shall intimate the readiness of the equipments to be inspected sufficiently in advance to enable AAI to depute inspecting Officer for carrying out such inspection. The materials shall be delivered at site only after issuance of dispatch clearance by AAI's authorized representative.

1.4 Requirement of Test Certificate / Inspection:

Unless otherwise specified, the following procedures shall be adopted for submission of various test certificates by the contractor and inspection of materials by AAI (at site or in the works of the manufacturer) for the items relevant to the instant contract.

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.

CATEGORY – 3:

- (a) OEM/Dealer/Contractor routine test certificate.
- (b) Visual and functional check by AAI official at AAI Airport site.

CATEGORY – 4:

- (a) Visual and functional check by AAI official at AAI Airport site.

Item wise list showing requirement of test certificate or inspection at the works of the manufacturer is given under “Appendix-I”

1.5 Rejection of Defective Plant / Equipment

- (a) If the complete work / equipment or any portion thereof, before it is taken over, be found defective or fails to fulfill the intent of the specifications, the contractor shall, on receipt of a written notice from the Engineer-in-charge forthwith make good the defective works/equipment.
- (b) Should the contractor fail to rectify the defects and or make good the defective work/equipment within stipulated time, mentioned in the written notice, or replace the plant at no extra cost, the Authority may make good, reject and/or replace at the risk and expense of the contractor the whole or any portion of the work/equipment which is defective or fails to fulfill the requirements of the contract.
- (c) The Authority shall have the right to operate all equipment, in any operating condition, whether or not such equipments have been accepted as complete and satisfactory. Repairs and alterations shall be made at such time and as directed by the Engineer-in-charge.

1.6 Prices

Prices for each of the items of schedule of quantities shall be firm and consolidated for the equipment delivered, installed, commissioned and tested at site including all applicable taxes, levies etc. but excluding GST. The contractors are also to take into account provision of temporary lighting, wherever required, however the material retrieved from dismantling work shall be utilised for providing temporary lighting.

The tenderer is responsible for ascertaining all relevant information and making due allowance in his tender for any factors likely to affect his contract works.

1.7 Clean up of Works at Site:

The site has to be cleaned everyday and handed over for operations as & when demanded. During execution of work, the contractor shall at all times keep the working and storage free from waste or rubbish. On completion of work, he shall remove all temporary structures, debris and leave the premises clean to the full satisfaction of the Engineer-in-charge.

1.8 MATERIALS

All materials and equipment supplied under this contract shall be suitable in every respect for reliable operation under tropical conditions & should be of reputed make and to be got approved by Engineer-in-charge before supply. It is the responsibility of the contractor to get the materials approved before delivery, failing which AAI shall not be bound to accept the materials.

1.9 LIST OF APPROVED MAKES FOR ELECTRICAL WORKS

Unless otherwise approved by AAI or agreed upon between AAI and the successful tenderer, the materials to be supplied or incorporated in various works relevant to the instant contract, shall remain confined to any of the approved “Makes” only, subject to their meeting the technical requirements as spelt out under the schedule of items & quantity enclosed and specifications given in the NIT. The lists of approved makes of various items are given under list of approved makes. However, wherever any specific make is mentioned in the schedule of work, specification, the same shall be provided.

1.10 WORKING PERMITS :

Contractor shall obtain all work permits/licenses required for their personnel employed at work site and shall obey all rules and regulations of the Authority / IAF.

2.1 Illuminated Mandatory Guidance Signages

2.1.1 General requirements

The work is to be carried out mostly at an operational Airport in restricted area. The work shall be taken up in phased manner so that day to day operations of flights schedule are not affected. Also, all laid down norms / precautions for executing works at an operational Airport / Air Force Station must be complied with.

The Schedule of work included in this tender document generally accounts for the ICAO / DGCA CAR requirements. Contractors are required to quote as per NIT schedule, taking into account all the specifications and particular specifications. The tenderer shall examine and verify that their offered equipment meet the specifications given herein and as specified in ICAO / DGCA CAR for their sufficiency. Once the contractor quote / submit offer, it shall be presumed that the contractor has made himself aware of requirement of work and then quoted. The offer shall be deemed to be inclusive of all the items which are not indicated in NIT but are essentially required to complete the work.

2.1.2 Specifications for various equipments/items related with the work have been given in subsequent chapters. The acceptable makes have also been mentioned. The imported items, if any, shall be procured from original manufacturers with back to back guarantee for equipment and contract performance. However, AAI shall not pay any customs /import duty. All such items shall have to be quoted in Indian Rupees and shall be inclusive of customs duties and other levies imposed by the Customs Authority and all other applicable taxes, duties and levies and nothing extra shall be payable by AAI.

2.1.3 Materials

All materials and equipments supplied shall be suitable in every respect for reliable operation under tropical conditions and be resistant to termites and rodents. Contractor's attention is drawn to the fact that suppliers of Airfield Lighting equipments are to be approved by the AAI, and the utmost consideration will have to be given to the quality of materials incorporated for completion of job. The project is time bound and therefore, the manufacturers of equipment chosen for the work should have sufficient capability to supply the items within the time frame of the project schedule. Quantity of material is given in "SOQ", however any deviations if required have to be worked out & prior approval from the competent authority has to be taken in order to complete the project on time.

2.1.4 Submittals and Test Sheets

The contractor shall submit proposal with brochure, specifications, descriptions, test report etc., for the review and provisional approval by the Engineer-in-charge, prior to any ordering of equipment and commencing the manufacturing of equipment.

In addition the submittals shall include a complete list of specifications conformity (Manufacturer's certification of Guarantee and Compliance) and, if applicable, deviation with the specifications shall be listed.

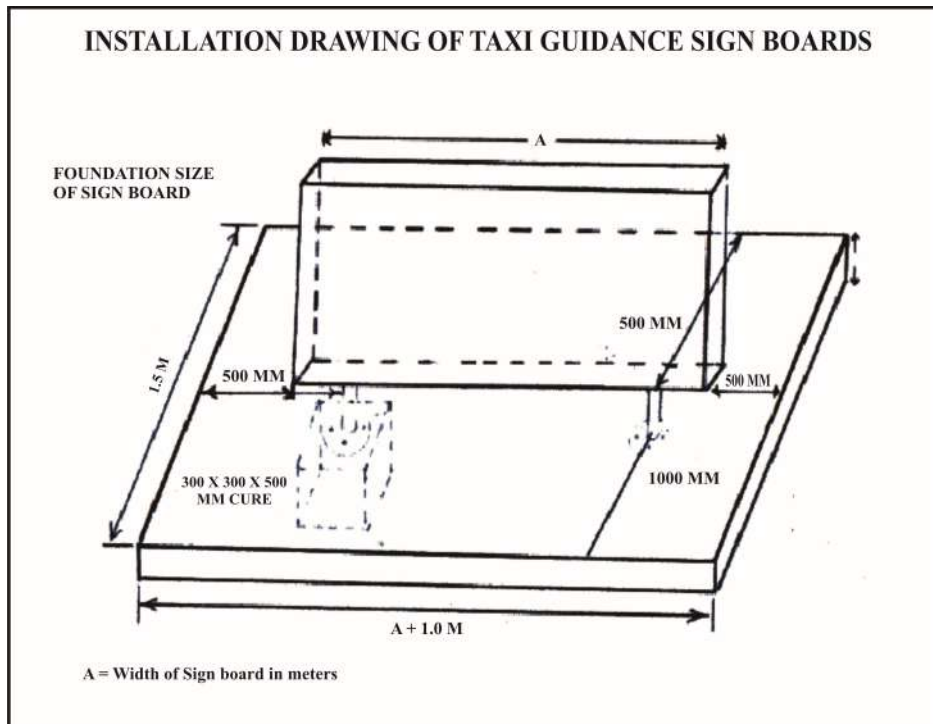
2.1.5 Specification For Illuminated Guidance Sign

- (i) **Signage Frame:** 2 mm thick anodized Aluminum profile and of 150 mm nominal depth.
- (ii) **Back side:** Minimum 2 mm thick white painted aluminum sheet.
- (iii) **Strengthening:** 50x5mm warm zinc alloy steel. All screws and nuts shall be of stainless steel.
- (iv) **Front sheet:** 4mm thick polycarbonate sheet. Letters and symbols in screen printed preferably on the backside of the sign sheet.
- (v) **Illumination:** LEDs to achieve required illumination, electronic convertor suitable for operation between 2.2A to 6.6A constant current AC series system.
- (vi) **Board Legs:** Aluminum/FRP frangible mounting legs. The poles shall be sealed on the top and should be grouted with/on cement concrete foundation.
- (vii) **Protection:** IP 54 Standard Protection.
- (viii) **Standard:** Guidance sign board shall be in full compliance with latest ICAO standard and recommended practices in all respect.
- (ix) **Size:** Overall size (length and height) of each sign board shall be determined based on the message to be in-scripted / conveyed on the fascia. Width and Height of each letter shall be in accordance to ICAO Annex 14 and Aerodrome Design Manual Part-IV & V. Drawing showing length, breadth and height of sign board shall be submitted for approval before manufacturing is commenced.
- (x) **Workmanship:** The equipment shall be fabricated in accordance with the highest quality workmanship. Wiring shall be neatly run and laced. All sharp and burrs shall be removed painted / treated surfaces shall be free from runs, blotches and scratches.

- (xi) **Test:** The firm shall submit test certificates from reputed test labs for sign boards as per Appendix-4 of ICAO Annex 14 Volume I for size, isocandela, frangibility etc along with the undertaking for make of LED used, their test certificates, OEM recommendation for rating of isolating transformer to be used for supply etc.
- (xii) **Grouting:** Each mounting leg shall be grouted with 1:2:4 Cement concrete of 300mm x 300mm x 500 mm foundation and total base of 150 mm thick all around the board as per drawing.
- (xiii) **Connection:** Signs will be connected to the adjacent and associated runway lighting or taxiway lighting circuits.

2.1.6 Mode of Measurement

- (i) For Item No. – 1: For the purpose of payment of guidance sign board, measurement of board shall be done as front face area visible sign sheet (in sq.mtr)
- (ii) For Item No. – 2: For the purpose of payment of ITC of Sign Board, the measurement of overall C.C. surface area shall be (in sq.mtr). The sign board foundation shall be included in overall area and nothing extra will be paid for foundation. For example refer drawing, Board of width is 'A', C.C. Surface Area would be (1.50 Mtrs X (A+1.0 Mtrs)).



2.2 Specification for series to series type Isolating Transformer for 5000 Volt Series Circuit

2.2.1 General

This specification covers completely enclosed rubber covered isolating transformer for use of 6.6 amp series airport lighting circuits having nominal voltage rating of 5000 Volts. The transformer shall be water tight and shall be designed for direct burial in the earth or installation in a base. The isolating transformer shall confirm to IS specifications 12290 (latest edition).

2.2.2 Rating

The transformer shall be of rating as specified in schedule of quantities and all rated for operation on 50 Hz.

2.2.3 Operating conditions

The transformer shall be constructed for continuous outdoor service at any ambient temperature from minimum of (-) 20 degree C to a maximum of 55 degree C. They shall operate properly when buried in the ground with 5KV on the primary winding. The transformer shall be designed to operate satisfactorily at rated 50 Hz. Frequency.

2.2.4 Applicable Specifications:

- i. FAA AC 150/5345-47C,150/5345-26
- ii. Relevant IS specification

2.2.5 **Types:** The transformer shall be suitable for Taxiway Edge Lighting Fixtures. Following types are generally used at our Airports. All rated for operation on 50 Hz.

Types	Wattage	Pri. Amps.	Sec. Amps.
I	15	6.6	6.6
II	45	6.6	6.6
III	65	6.6	6.6
IV	100	6.6	6.6
V	150	6.6	6.6
VI	200	6.6	6.6
VII	300	6.6	6.6

2.2.6 Transformer Characteristics:

The characteristics of the transformer shall be within the limits specified in table1.

Table – I - Electrical Characteristics

Type	Watt	Primary Amp.	Power Factor	% age Eff.	Secondary full load (Amp)	Secondary short circuited (Amp.)	Secondary load in Ohms
I.	15	6.6	0.95	80	6.53-6.67	6.6-7.1	1.15
II.	45	6.6	0.95	80	6.53-6.67	6.6-7.1	1.15
III.	65	6.6	0.95	80	6.53-6.67	6.6-7.1	1.15
IV.	100	6.6	0.95	85	6.53-6.67	6.6-7.1	2.44
V	150	6.6	0.95	85	6.53-6.67	6.6-7.1	3.58
VI	200	6.6	0.95	90	6.53-6.67	6.6-7.1	4.82
VII	300	6.6	0.95	90	6.53-6.67	6.6-7.1	8.25

Note: Voltage ratings shall be: Primary-5000V, Secondary-600V.

2.2.7 Temperature Rise:

The temperature rise, when a transformer is operated at rated load or when short-circuited or open-circuited with rated current and frequency in the primary shall not exceed 55°C (131°F) as determined by the resistance method. Temperature rise shall be computed from the following formula:

$$\text{Temp. Rise (C)} := \frac{(234.5 + X) R1 - R0}{R0}$$

Where X = Temperature (C) corresponding to cold resistance.

RO = Cold resistance

R1 = Hot resistance

proper clearance exists between these connections after the moulding operation has been completed. All three leads shall emerge from one end of the transformer. Spacing and arrangements are optional, provided all other requirements are complied with. The leads shall be securely fastened to the transformer in such a manner that carrying by a single lead will not loosen the electrical connections or effect the water seal. The length of all transformer leads shall be measured from the connector face to the junction of the transformer case.

One primary lead shall be equipped with a plug type connector; the other primary lead shall be equipped with receptacle. The cable for the primary leads shall be 19/0.75mm single core cable, annealed tinned copper conductor insulated with composite insulation of HR-VIR and PCP sheathed suitable for 5000V operating voltage. Each primary lead shall extend not less than 60 cm, plus or minus 7.5cms beyond the housing including the cable connector.

The secondary lead shall be equipped with a receptacle. The cable for secondary lead shall be at least 37/0.30mm twin core cable, annealed tinned and filled and sheathed with special type of PCP suitable for 600 volt operating voltage. The cable shall extend 120cms plus or minus 7.5cm, beyond the housing, including the cable connector.

An approved watertight cap or plug shall be furnished on each mating part of each plug or receptacle for protection during shipment and installation from moisture and dirt.

2.2.14 Component Details requirements:

- a. Case
- b. Transformer Lead
- c. Primary lead
- d. Secondary lead
- e. Protective Cap
- f. Weight
- g. Name Plate
- h. Workmanship

All the above mentioned component details shall be in accordance with relevant FAA(Latest Edition) specification / Aerodromes Annex-14of International Civil Aviation Organization (Latest Edition)/ relevant IS specifications.

2.2.15 Testing:

- (i) Each transformer shall be examined visually for good workmanship.
- (ii) Ratio test shall be carried out on each transformer for current ratio at rated frequency of current on the primary and rated load on the secondary. These secondary current of each transformer shall conform to the limits specified in table-1 specified above.
- (iii) Test for voids: The maximum pressure which could be exerted directly with hands shall be applied to all parts of the transformer cases. Any evidence of voids beneath the surface of the case shall be cause for rejection.
- (iv) Insulation resistance tests

The sample transformer shall be subjected to a continuous 20 cycle tests as follows:

Mating connectors that were gauged with 'go' and 'no go' gauges shall be installed in the three connectors of the transformer. The mating connectors shall not be removed before completion of the 20 cycle testing. One cycle shall consist of the sequence of operation specified below.

The transformer shall be operated with mating connectors installed for a minimum of 6 hours in air at room temperature with rated current flowing in primary coils. The secondary of the transformer shall be open circuited. This procedure shall hereinafter referred to as the heating cycle.

Immediately following the heating cycle the transformer with leads and connectors shall be completely sub-merged in water which is grounded, at room temp., Care should be taken to ensure that all moulded connections, transformer leads and test harness are completely immersed in water during test. Immediately after immersion, insulation resistance of each coil and lead assembly shall be measured. The time period between interruption of heating cycle and start of the measurement shall not exceed three minutes. The transformers and their connectors shall be soaked in water at room temperature for not less than 12 hours and the insulation resistance measurements repeated.

The direct current insulation resistance shall be measured immediately after immersion (before 3 minutes have elapsed) and measured again after the soaking period. The insulation resistance shall be measured after the voltage shown in Table 2 has been applied for one minute between each coil and ground with the other coil grounded and its connectors submerged in water. An insulation resistance less than the values specified in table 2 shall cause rejection. Any softening or swelling of the housing or any evidence of leakage or damage shall also because of rejection. Zero and maximum readings of the test instruments shall be periodically checked by immersing the high voltage lead in water alongside the transformer and by suspending it in air.

TABLE – 2

DC TEST			MINIMUM INSULATION RESISTANCE IN MEGOHMS		
COIL	VOLTAGE	COLD	ELC*	HOT	ELC*
Secondary (600V)	5000V	750	6.7	300	17.0
Primary (5000V)	15000 V	2000	7.5	750	20.0

*** Equivalent Leakage Current in microampere.**

(v) Characteristics tests

The sample shall be tested to show that their electrical characteristics are as specified in Table 1. All corrections necessary to compensate for meter power consumption shall be applied. The transformer shall be operated in air at room temperature with rated load connected to the secondary until the transformer windings have reached normal operating temperature at which time the measurement will be taken.

(vi) Impact Test

The transformer shall be dropped twice from a height of two meters upon a smooth concrete surface hardware floor, once so it hits on the bottom of the case and once on the side of the case, location of hitting is so decided, where the most damage is likely to occur to the windings or due to core cutting into the housing. Lead rigidity shall be tested by securing (just below the connector) each lead one at a time in a clamp fastened to a support, elevated a distance in excess of the length of leads and then releasing the transformer for a free fall from clamp elevation. The lead clamp used shall be such as not to cause damage to the lead at the point of attachment. The test shall be conducted subsequent to the electrical characteristic test specified in Table 1.

Following this impact test, the transformer shall again be subjected to the electrical characteristic tests. Any failure or a change of more than 1% in the results obtained in the electrical characteristic tests or evidence of damage to the housing & attached leads shall be cause for rejection.

The manufacturer shall possess test certificate for all the tests specified above for each capacity of isolating transformer from an independent GOVT. LABORATORY without that the item shall not be accepted. Test report shall not be later than five years

(vii) Acceptance tests

The following test shall be carried out at the time of acceptance.

- Visual examination for good workmanship.
- **Ratio test:** Each transformer shall be tested by the manufacturer for current ratio at rated frequency & current on the primary and rated load on the secondary. The secondary current of each transformer shall be within the limits specified in table-1.
- **Insulation test:** Transformer shall be subjected to one complete cycle of the test specified under insulation resistance test specified above.
- **Test for voids:** The maximum pressure which can be exerted directly with the hands shall be applied to all parts of the transformer housing. Any evidence of voids beneath the surface of the housing shall be cause for rejection.

2.2.16 Packing

Packing shall ensure full protection to the equipment against corrosion and deterioration or physical damage during handling and transportation by air, road or sea. Each case shall be marked on the outside with the following details:

- Name of manufacturer.
- Order Number
- Brief description of contents.

2.3 SPECIFICATION FOR TRANSFORMER HOUSING BOX

2.3.1 The M.S. transformer housing box is used for housing the isolating transformer in operational area for runway, taxiway, turning pad, approach threshold etc. over its top.

- (i) MATERIAL:** MS
- (ii) THICKNESS:** 10 mm thick (average) on top surface and 06 mm thick (average) all round. Top surface should be smoothly machined to receive base plate of light fixture.
- (iii) HEIGHT:** 400 mm
- (iv) OUTSIDE EDGE:** 330mm
- (v) OPENING ON TOP:** 220mm Diameter
- (vi) HOLES FOR FIXING LIGHT BASE PLATE:** 6 Nos. M-10 tapped holes at hole centre of 260mm
- (vii) HOLES REQUIRED:** 02 Nos. of hole to receive of 40 mm dia (outer dia) HDPE pipe as specified in BOQ & drawing.
- (viii) OVERALL WEIGHT:** 30Kg (Minimum)
- (ix) EARTH TERMINALS:** One / Two numbers holes tapped to receive M10X 40mm SS bolts.

Note:

All other requirements as per the Drawing enclosed. The tenderer shall prepare the drawing for transformer housing boxes and shall get it approved from Engineer-in-charge before manufacturing.

2.3.2 Acceptance & Routine Test:

The following tests shall be carried out as acceptance test:

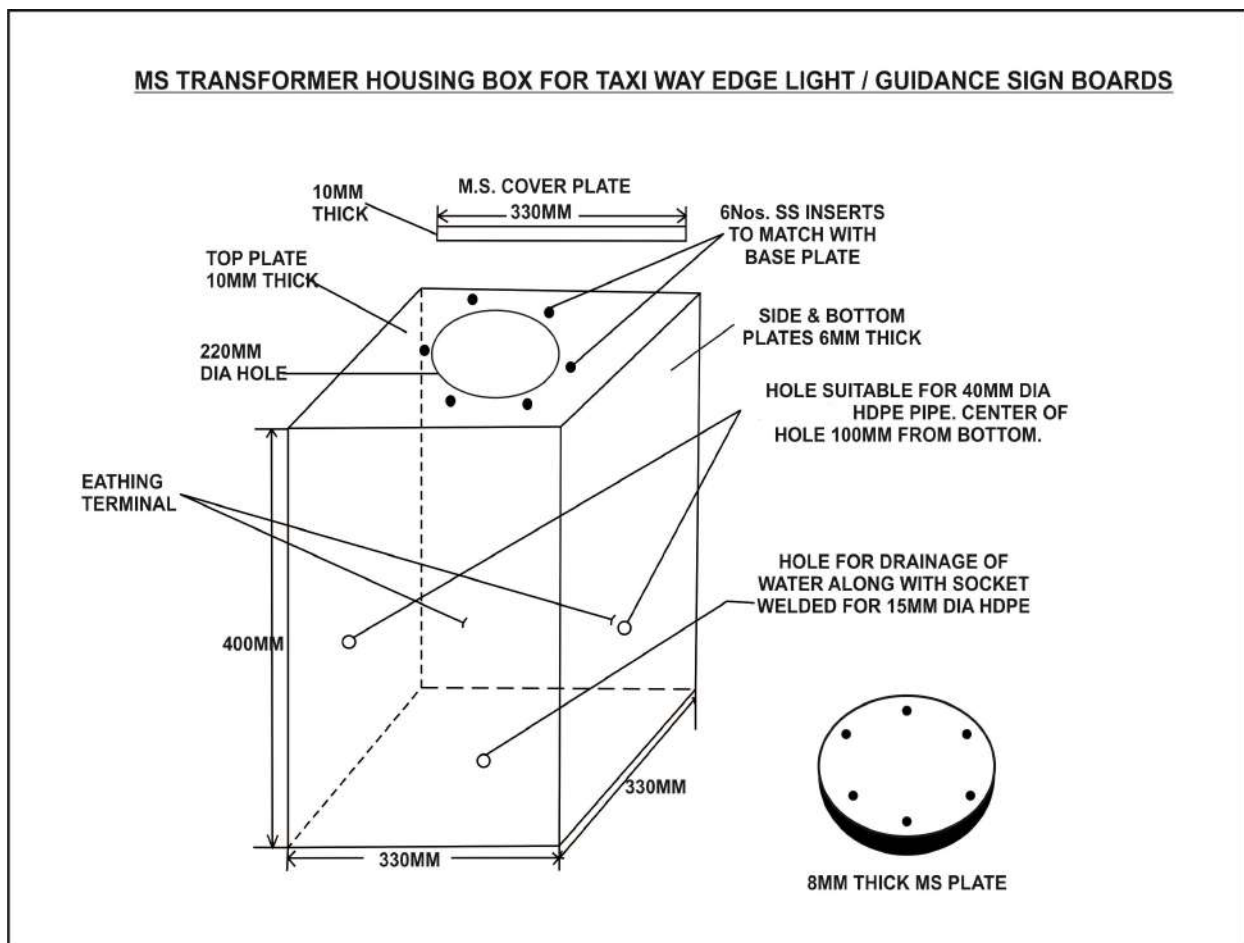
- Visual inspection (Dimensional check & finish)
- Weight of the MS box
- Checking with base plate of fitting (to be obtained by contractor from AAI) about matching of holecentres and threading to suit M-10 bolt.
- Checking for earth terminals arrangement

2.3.3 Painting

Each MS box shall be painted with 2 coats of anti-corrosive black paint on inside as well as outside.

2.3.4 Transformer Housing Box

Drawing of the Transformer Housing Boxes shall be got approved from the Engineer-in-Charge prior to commencement of fabrication.

**2.4 Specification for Airfield Lighting 6Sq. mm Cable****2.4.1 General**

This specification covers the requirements for Type – C, single core, copper conductor, XLPE / PVC insulated, PVC sheathed unshielded (unscreened) type airfield lighting cable for use on 5KV system (unearthed system). Cable shall be generally conforming to IS: 1554-Part II (latest edition) and details specified below.

2.4.2 Applicable Specification:-

The cable shall generally conform to IEC class II and shall comply with the recommendation of ICAO Aerodrome design manual Part 5 and with the FAA advisory circular AC 150/5345-7F (L 824).

2.4.3 Conductor details

- (a) **Size:** 6 sq. mm & 16 Sq.mm
- (b) **Conductor Material:** High conductivity annealed copper wires
- (c) **No. of strands:** Minimum 7 for 6 sq mm & 16 sq mm
- (d) **Dia. of strand:** The diameter of each strand shall be chosen to achieve 6 sq mm & 16 Sq.mm and not to exceed the maximum resistance of the conductor as per IS. The maximum resistance of the conductor at 20° C as per IS 8130 – 1984 is 3.08 ohm per km for 6 sq mm & 1.15 ohm per km for 16 sq mm.
- (e) **Semiconductor layer:** To avoid local stress of the HV insulation as per the relevant international standards and OEM specifications.

2.4.4 Insulation

- (a) **Composition of insulation:** P.V.C. Type ‘B’ to meet the requirement of clause 4.1 of IS 1554 Part II. The sheathing shall be so designed so as to afford a high degree of mechanical protection, acid, alkaline, oil (Kerosene) and shall be oil and weather resisting.
- (b) **Thickness of insulation:** Average thickness of XLPE /PVC insulation should be such as to withstand the system voltage and test voltage as specified. In any case, average thickness of XLPE / PVC insulation shall not be less than 3.60 mm. But not less than 3.14mm at any point as per IS: 1554 part II-1988, for 6 sq. mm & 16 sq.mm.
- (c) **Insulation Colour:** 6 sq.mm & 16 Sq. mm. – Yellow.

2.4.5 Outer sheath:

- (a) **Outer sheath colour:** 6 sq.mm. – Black, 16 sq. mm – Blue
- (b) **Composition sheath:** PVC compound shall be confirming to the requirement of Type ST1 compound of IS 5831-1984 with up-to-date amendments.
- (c) **Thickness of outer sheath:** 1.8 mm average for 1 x 6 sq.mm & 1.8 mm average for 1 x 16 sq.mm

At no place it should be less than 1.24 mm for 6 sq. mm & 16 sq.mm single core. PVC insulation and outer sheath shall be done in pressure extrusion by PVC extruding machine. The sheathing shall be so designed so as to afford high degree of mechanical protection and shall also be oil weather resisting and treated for anti-rodent & termite. Outer sheath thickness should be sufficient to render enough electrical and mechanical strength without shielding so as to work smoothly under the duty conditions specified in FAA standards, with amendment upto date.

2.4.6 Operating temperature: (-) 20 deg C to (+) 70 deg C.

2.4.7 Overall diameter of cable has to be arrived at keeping in view of the above duty conditions.

2.4.8 Length

- (i) Length of cable in one drum shall not exceed 1000 mt. + or – 5%. Variation to the extent of + or – 5% of ordered quantity is acceptable or as specified in the agreement.
- (ii) Each drum shall be marked on the outside with the following details:
 - (a) Name of the manufacturer of trade mark.
 - (b) Brief description of content viz. cross sectional area, no. of core, voltage grade etc.
 - (c) Length of cable in drum.
 - (d) Direction of rotation of drum.
 - (e) Year of manufacture

2.4.9 Bending

Minimum radius of cable during bending 90 mm approx. / as per IS – 1255.

2.4.10 Marking

Manufacturer's trade name, voltage grade, year of manufacture shall be embossed on the outer sheath at regular interval. The cable shall also have sequential numbering at 01mtr interval indicating the length of the cable.

2.4.11 Tests

The cable shall be tested in accordance with relevant IEC/FAA specification with up to date amendments along with the test certificate from an independent test laboratory certifying conformity of the cable offered is as per Indian Standard Specification.

All routine test and acceptance test shall be carried out as per relevant Standard Specification.

(i) Type Tests

Test		Requirement	Test Method
(a)	Tests on conductor	IS 8130	IS 10810/1
(b)	Resistance test	IS 8130	IS 10810/5
(c)	Test for thickness of insulation & sheath	IS 1554 (part 2)	IS 10810/6
(d)	Physical tests for insulation & sheath		
	i) Tensile strength & elongation at break	IS 5831	IS 10810/7
	ii) Aging in air oven	IS 5831	IS 10810/11
	iii) Shrinkage Test	IS 5831	IS 10810/12
	iv) Hot deformation test	IS 5831	IS 10810/15
	v) Loss of mass in air oven	IS 5831	IS 10810/10
	vi) Heat shock test	IS 5831	IS 10810/14
	vii) Thermal stability test	IS 5831	IS 10810/60
	viii) Water absorption	IS 5831	IS 10810/33
(e)	Insulation resistance test	IS 5831	IS 10810/43
(f)	High voltage test	IS 1554 (part 2)	IS 10810/45
(g)	Flammability test	IS 1554 (part 2)	IS 10810/53

The above mentioned type tests shall be carried out for initial approval of the cables and shall be valid for maximum five years even if the design as per the original type tests are not changed.

(ii) Acceptance test

The following tests shall be carried out as acceptance tests by the inspecting officer of AAI.

- Conductor resistance test.
- Test for thickness of insulation and sheath.
- Tensile strength and elongation at break of insulation & outer sheath
- Test for insulation resistance.
- Anti-rodent/anti-termite test.

(iii) Procedure for anti-rodent/anti-termite test

A few chippings of the PVC compound is slowly ignited on a porcelain dish or cubicle in a muffle furnace at about 600° C. The resulting ignited ash is boiled with little ammoniumacetate solution (10%). Place a drop of aqueous sodium sulphide solution on a thick filter paper and allow to soak. Touch the spot with a drop of above extract. A black spot indicate the presence of lead – the anti-termite & rodent compound.

(iv) Routine test

The following shall be carried out as routine test:-

- Conductor resistance test
- High voltage test
- Annealing test for copper conductor

The manufacturer shall produce the routine test certificate to the inspecting officer of AAI for all the drums offered for inspection.

2.4.12 Samples

Samples shall be taken and tested from each lot for ascertaining the conformity of the lot to the requirement of specifications.

(i) The number of samples to be selected shall depend on col 1 and 2 as indicated below:

Number of Drums in the Lot	Number of Drums to be taken as sample	Permissible Number of defectives
(N)	(n)	(a)
(1)	(2)	(3)
Up to 50	2	0
51 to 100	5	0
101 to 300	13	0
301 to 500	20	1
501 and above	32	2

(ii) Number of Tests and Criterion for Conformity

Suitable lengths of test samples shall be taken from each of the drums selected. These test samples shall be subjected to each of the acceptance tests. A test sample is called defective if it fails in any one of the acceptance tests. If the number of defectives is less than or equal to the corresponding permissible number given in col 3 under the table above, the lot shall be declared as conforming to the requirements of acceptance tests, otherwise not.

2.4.13 Packaging

The cable shall be wound on a wooden drum of suitable size and packed. The ends of the cable shall be sealed by means of non-hygroscopic sealing material.

2.5 Plug & Receptacle, Cable Connectors and Drawings

2.5.1 Scope

This specification contains requirements for plugs and receptacles (cable connectors) to be used for underground cable connections, for power cables, isolation transformer leads, and light fixture leads for airport systems

2.5.2 Classification

Cable connectors are classified by this specification into two types, two classes, and six styles of plugs and two types, two classes, and six styles of receptacles.

(i) Type: Plugs and receptacles with the following electrical characteristics are covered by the specification:

Type I 1 conductor, 25 ampere, 5000 volt

Type II 2 conductor, 20 ampere, 600 volt

(ii) Class: Plugs and receptacles with the following attachment methods are covered by this specification:

Class A Factory molded to conductors

Class B Field attached to conductors

(iii) Style:- Plugs and receptacles with following styles of housing are covered by this specification:

Style 1 Plug, figure 1(a)

Style 2 Plug, figure 2(a)

Style 3 Plug, figure 3(a). & 3(c)

Style 4 Plug, figures 4(a), 4(b) & 4(c)

Style 5 Plug, figures 7(a), 7(b), & 7(c)

Style 6 Plug, figure 8

Style 7 Receptacle, figure 1(b)

Style 8 Receptacle, figure 1(c)

Style 9 Receptacle, figure 2(b)

Style 10 Receptacle, figures 3(b), & 3(d)

Style 11 Receptacle, figures 5(a), 5(b) & 5(c)

Style 12 Receptacle, figures 6(a), 6(b), & 6(c)

2.5.3 Equipment requirements

(i) General. Plugs and receptacles (cable connectors) shall be fabricated in accordance with all specification requirements.

(ii) Environmental Requirements. The plugs and receptacles (cable connectors) shall be designed for continuous use within a temperature range of $-55^{\circ}\text{C}(-67^{\circ}\text{F})$ to $+65^{\circ}\text{C}(+149^{\circ}\text{F})$ while exposed to weather, submerged in water, or buried in the earth.

2.5.4 **Performance Requirements**

- (i) **Electrical Connection:** The electrical rating of each connector shall not be less than 5000 V for type I connectors, or 600 V for type II connectors. The voltage drop across the contacts of a connected plug and receptacle shall not exceed 7.5 millivolts for the Type I connectors, and 6.0 millivolts for the Type II connectors.
- (ii) **Bonding Strength:** The completed Class A connector assembly shall withstand a longitudinal pull of at least 30,000 psi (207 Mpa), 75 percent of an average tensile strength of 40,000 psi, (276 Mpa) for all wire sizes. Separation between the molded on connector and the cable shall not exceed 0.03 inches (0.8 mm).
- (iii) **Mechanical Connection:** Each connected plug and receptacle shall withstand a static pull load of 10 pounds (44N) without showing evidence of separation. No damage shall occur to the mating components when the connected plug and receptacle are separated by a greater static pull load.
- (iv) **Seal:** A watertight seal shall be provided between the mated plug and receptacle and between the rubber and metal parts of the plug and receptacle.

2.5.5 **Fabrication and Materials**

- (i) **General:** Each plug and receptacle (cable connector), type, class, and style shall conform to the dimensions and construction requirement shown on the applicable figures in Appendix I of this specification.
- (ii) **Housing:** The connector housing shall be molded from natural and/or synthetic elastomeric materials serving both as insulation and sheath to fully enclose the pins of the plug and sockets of the receptacle. The housing material shall be suitable for direct earth burial, submergence in water, and capable of withstanding limited attack from chemicals, typically present on the airfield, including but not limited to, oil, de-icing fluids and/or gasoline. Material compounds used in connector housings shall not contain more than 25 pounds (11 kg) of carbon black per 100 pounds (45kg) of elastomer. Housings for Class A connectors shall be fabricated from materials capable of bonding to cable sheaths or conductor insulation, during the manufacturing process to provide a watertight bond.
- (iii) **Pins and Sockets:** The pins and sockets shall conform to all dimensions and construction requirements indicated on the applicable figures in Appendix I of this specification. Pins and sockets shall be made of materials that contain at least 98 percent copper. The contact portion of the pin and socket shall be left "stock hard" and the crimping section, when necessary, fully annealed. The hardness transition shall be limited to the locking section of the pin and socket. The pin and socket shall be electroplated with tin or other suitable material to provide good electrical contact as required under electrical connection specified above. The sockets shall be spring loaded or slotted and spring loaded to ensure good electrical contact as required under electrical connection specified above and Class A sockets shall have a means that protects the sockets slots from filling with insulating compound during molding. The pin for the Style 3 connector shall be provided with a visual indication that verifies proper assembly position. Pins and sockets provided for Class B connectors shall have provisions for crimping to the cable conductors(s), and shall not exhibit damage after crimping.

2.5.6 **Connector Assemblies**

- (i) **Class A:** Pins and sockets shall be held perpendicular to the face of the block. Suitable electrical conductors shall be mechanically and electrically connected to the pin(s) or socket(s). The connector housing shall be molded as specified under housing. Primary connectors shall be molded to an electrical conductor having a voltage rating equal to or less than the specified voltage rating of the connector. Secondary connectors shall be molded to an electrical conductor having a voltage rating equal to or less than the specified voltage rating of the connector with the preferred being equal to the connector rating. A connector shall never be molded to an electrical conductor or cable having a higher voltage rating than the specification requirements for the connector. After molding, the space between the pins of Type II plugs shall not be less than 1/8 inch (3mm) when the pins are pinched together with a force of 6 pounds (27 N) applied 1/2 inch (12.7 mm) out from the face of the plug. Also, the space between the ends of the pin of the Type II plugs shall not be greater than 9/16 inch (14.3 mm) when the pins are pulled apart with a force of 6 pounds (27N) applied 1/2 inch (12.7 mm) out from the face of the plug. The force is applied to the pins only. During testing for the above mentioned requirements the plug is to be held only to keep it from turning.

(ii) **Class B**

2.5.6.1 Type I: Each receptacle shall be equipped with a disposable sleeve fitted into the receptacle's water seal to catch surplus silicone compound upon assembly. Each socket shall be equipped with a disposable pin fitted tightly into the pin end of the socket to prevent entry of silicon compound on assembly and to provide a visual indication of proper socket position after assembly. The pin design shall be such that proper internal dispersion of silicone compound in the assembly is assured. An adequate amount of silicone insulating compound shall be furnished with each connector to ensure filling all internal voids when the connector is assembled. Each housing shall be capped with a disposable shipping cap on the cable entrance end.

2.5.6.2 Type II: Connector assemblies shall be composed of two parts, an insert assembly and housing. Pins or sockets shall be held perpendicular to the face of each end of the molded insert assembly and fastened. After proper assembly, the space between the pins of the plug shall not be less than 1/8 inch (3 mm) when the pins are pinched together with a force of 6 pounds (27 N) applied 1/2 inch (12.7 mm) out from the face of the plug. Also, the space between the ends of the pin shall not be greater than 9/16 inch (14.3 mm) when the pins are pulled apart with a force of 6 pounds applied 1/2 inch (12.7 mm) out from the face of the plug. Inserts and housing shall be molded as specified in paragraph 'housing', and shall comply with the dimensions and styles shown on the applicable figures in Appendix I of this specification. When assembled the plug and receptacle assemblies shall provide a watertight seal to prevent moisture from entering the housing.

2.5.7 Marking: Each plug and receptacle shall be marked with manufacturer's identification and bold style number.

2.5.7.1 Caps: Caps shall be supplied with Class A connectors to protect plugs and receptacles prior to final connection. Caps shall be made of a plastic material compatible with the housing materials specified in paragraph 'housing'. When a series short circuiting plug type cap with internal jumpers is required for Type II receptacles, jumpers shall be connected to the proper pins. The mating dimensions shall be the same as the corresponding plug. The short circuiting cap shall be permanently marked with an "S".

2.5.8 Instructions: Installation instructions shall be furnished by the manufacturer with each Class B connector.

2.5.9 Equipment qualification requirements.

(i) Type Test

The under mentioned type tests shall be carried out for initial approval of the item and shall be valid for maximum five years even if the design as per the original type tests is not changed. The plug and connector assembly shall be tested in accordance with the tests detailed below:

(A) General: Assembled connectors, with conductors attached, shall be subjected to electrical and physical tests. Class B connectors shall be assembled in accordance with manufacturer's instructions to lengths of wire or cable, as appropriate, of at least 24 inches (0.6 m) for all tests. Six pairs of mated connectors shall be selected at random from a production run for each type of connector to be tested for approval. Each tested connector shall pass all qualification tests. Failure of any one of the connectors in any one of the qualification tests shall indicate failure of this product to comply with this specification unless otherwise noted in a particular test.

(B) Dielectric Tests

Plugs and Receptacles: Six test insert plugs made of nylon or equal material of suitable dielectric strength shall be provided for the test. These test plugs shall meet the mating dimensions of the corresponding standard plug intended for use with the receptacle being tested. Each plug shall be checked with "go" and "no go" ring gauges to ensure compliance with specified dimensions. Each connector receptacle under test shall be mated with one of the test plugs and allowed to soak for 24 hours in a tap water bath at room temperature, 20-25 degree C. At the end of the soaking period, with the receptacle still immersed, apply a test voltage of 4.7 kV dc for 5 minutes to Type II connectors and 15 kV dc to Type I connectors. One minute after the test voltage has been applied the minimum insulation resistance between the conductors and water, and between conductors measured with a 500-volt source shall be 25,000 megohms. The receptacles having passed this test are now used for testing the corresponding plugs in a like test.

Connector Assembly: After the conclusion of the test as above, each plug and receptacle being tested shall be mated and immersed in a tap water bath at room temperature, 20-25°C. Immerse not more than 2 feet (0.6 m) of cable, 1 foot (0.3 m) of the plug and 1 foot (0.3 m) of the receptacle. While immersed, each connector assembly shall be manually flexed for 2 minutes and then left immersed for a minimum of 24 hours with its cable leads flexed and maintained 180° from its longitudinal axis. Measure insulation resistance between conductors of each connected assembly after the 24 hour soaking period. The resistance measurements shall be taken 1 minute after a test voltage of 4.7 kV dc has been applied for 5 minutes to Type II connectors and 15 kV dc to Type I connectors. The minimum resistance between conductors shall be 25,000 megohms. Heat the tap water to 65°C without removing the assemblies and maintain this temperature for at least 1 hour. Again measure the resistance between the conductor(s) and water, and between conductors with a 500-volt source. The minimum acceptable resistance after the heated soaking period shall be 10,000 mega ohms.

(C) Bond Test: The molded bond between cable and Class A connector shall be subjected to a static longitudinal pull load of the magnitude specified in this specification under 'bonding strength'. When testing class A, Type II, connectors of any Style the two conductors shall be pulled as a single cable, not as individual conductors. The connector shall be held in a manner that does not impart a crimping or clamping action to the connector that would affect the pull test. The connector molding cavity, or a similarly shaped fixture, is acceptable for holding the connector.

Separation between the molded on connector and the cable jacket or conductor insulation exceeding 0.03 inches shall be cause for rejection.

(D) Mechanical Connection Test: Each plug and receptacle intended to be mated shall be connected together and subjected to the static pull load specified in this specification under 'mechanical connection'. Any evidence of separation of the connection shall be cause for rejection. Increasing load shall be applied to the connector assembly until separation occurs. No damage shall occur to the mating components when the connected plug and receptacle are separated by the greater static pull load.

(E) Any evidence of damage to plugs, receptacles, conductors, and/or the connector bond shall be cause for rejection.

(F) Electrical Connection Test: Voltage drop measurements shall be made across mated connectors while conducting rated current. Voltage drops in excess of those specified in this specification shall be cause for rejection. This test may be performed using unmolded contacts conducting rated current. This would permit the measurement to be made without damaging the molded connectors. This test shall be performed on the equivalent of six connectors (six contact pairs for Type I connectors and twelve contact pairs for Type II connectors).

(G) Metal Bond Test: Class A assemblies shall have their connector plug and receptacle placed in water, with 20 psi air pressure applied from the free end of the cable, for a period of 10 minutes. No air bubbles shall be observed in the water.

(ii) Acceptance Tests

The following tests shall be carried out as acceptance test:

- Dielectric test
- connector assembly test
- mechanical connection test
- Electric connection test

2.5.10 Samples for acceptance test

Sample should be taken from each lot of particular type of plug and receptacle for ascertaining the conformity of the lot to the requirement of specifications. The number of samples to be selected and permissible number of defects shall be as given below:-

(i) Scale of Sampling

All the plug and receptacle of the same type manufactured using the same raw material under similar conditions of production shall be grouped together to constitute a lot.

- (ii) The number of plug and receptacle to be selected from each lot shall depend upon the size of the lot and shall be in accordance with col 1 and 2 of Table given below:

SAMPLE SIZES AND ACCEPTANCE NUMBERS

LOT SIZE (1)	SAMPLE SIZE (2)	ACCEPTANCENUMBER (3)
Up to 50	8	0
51 to 100	13	0
101 to 150	20	1
151 to 300	32	1

301 to 500	50	2
501 to 1000	80	3
1001 and above	125	5

(iii) These samples shall be selected from the lot at random.

(iv) **Number of Tests and Criteria for Conformity**

The plug and receptacle, selected at random according to col 1 and 2 of Table above, shall be subjected to the acceptance tests as specified above. A plug and receptacle failing to satisfy any of the acceptance tests shall be termed as defective. The lot shall be considered as conforming to the requirements, if the number of defectives found in the samples is less than or equal to the corresponding acceptance number; otherwise the lot shall be rejected.

(v) **Packaging**

Packaging shall ensure full protection to the equipment against corrosion and deterioration or physical damage during handling and transportation by air, road, rail or sea. With the equipment a packaging list giving full details of the contents of the case including name of manufacturer, order number, brief description of contents etc. shall be enclosed.

Drawings

- Class A, Type I Plug & Receptacles
- Class A, Type II Plug & Receptacles
- Class A & B Plug & Receptacles-Dimensions
- Class B, Type I Plug & Receptacles
- Class B, Type II, Style 4 Plug
- Class B, Type II, Style 5 Plug
- Class A, Type II, Style 6 Plug
- Class B, Type II, Style 11 Receptacles
- Class B, Type II, Style 12 Receptacles

2.6 SPECIFICATION FOR SECONDARY LEADS

2.6.1 Scope:-

This standard covers the requirement for two core, flexible copper conductor, Cl.5, EPR insulated, CPE (Chlorinated polyethylene cross linked heavy duty) outer sheath, black, Type-B, 600 V secondary leads.

2.6.2 Applicable Specification:-

Secondary lead shall be generally conforming to relevant FAA AC 150/5345-7E (L 824) standards and details specified below.

2.6.3 Construction:-

The cable shall have high conductive flexible copper conductor of circular cross section complying with the requirement of standards. The nominal cross section shall be 4 sq. mm, conforming to relevant standards. Leads shall be EPR insulated and sheathed with special type of non-hygroscopic CPE with inner filled suitable for operating on 600 V.

The sheath shall be tightly and concentrically formed around the cores and shall be free from pores and other defects.

2.6.4 General Requirements:-

- a) Operating Temperature: - 20 deg C to +55 deg C
- b) Overall Diameter of Cable: Has to be arrived at keeping in view the above duty conditions.
- c) Bending: Bending radius of cable should be 5X outer diameter.
- d) Marking: Manufacturer's trade name, voltage and year of manufacture embossed on the outer sheath at regular intervals.
- e) Testing: The cable shall be tested in accordance with relevant IEC/FAA specification with up to date amendments along with the test certificate from an independent test laboratory certifying conformity of the cable offered is as per Indian Standard Specification.

All routine test and acceptance test shall be carried out as per relevant Standard Specification.

2.7 SPECIFICATIONS FOR HDPE PIPE

- (i) The HDPE pipe should be made from rugged & virgin High Density Poly Ethylene material with double wall construction as per Is 14930, part -2, with latest amendments.
- (ii) The HDPE pipe/duct should be free from cracks & have suitable mechanical strength to protect runway lighting cables laid in Runway/Shoulder. The Pipe should high ring stiffness, better impact strength & superior crush resistance.
- (iii) The pipe should have better ability to withstand heavy external loads when properly buried & back filled or compacted with concrete.
- (iv) The pipe should be chemically inert & should have anti rodent, anti-termite properties.
- (v) HDPE pipe should have better resistance to flame propagation properties.
- (vi) Pipe should be laid at suitable slope while maintaining proper depth so that the water cannot be accommodated in pipes.
- (vii) The guide wires to be provided in HDPE pipes for pulling of cables with proper arrangement to avoid blockage of pipes.
- (viii) The length of pipe should be preferably single length to avoid joints/couplers.
- (ix) The HDPE pipe should be able to withstand 6kg per sq. cm.

2.8 SPECIFICATIONS FOR CABLE LAYING

2.8.1 Scope:

This specification covers the requirement for laying of Airfield lighting cables, power cables, control cables etc.

2.8.2 Laying Methods:

Cables shall be laid direct in the grounds, in pipes, in ducts etc. depending on availability of site, environmental conditions and requirement.

During the preliminary stage of laying consideration should be given to proper location of joint position so that when the cable is actually laid the joints are made in the most suitable places. As far as possible water logged locations, carriage ways, pavements, proximity to telephone cables, water mains, in accessible places, ducts, pipes etc. shall be avoided for joint position.

2.8.3 Cable Laying Direct In Ground:

2.8.3.1 General

This method shall be adopted where the cable route is through open ground, along runway/roads/lanes etc., and where no frequent excavations are likely to be encountered and where re-excavation is easily possible without affecting other services.

2.8.3.2 Trenching

A. Width of trench

The width of the trench shall first be determined on the basis indicated herein. The minimum width of the trench for laying a single cable shall be 35 cm. Where more than one cable is to be laid in the same trench in horizontal formation, the width of the trench shall be increased such that the inter-axial spacing between the cables, except where otherwise specified, shall be at least 20 cm. There shall be a clearance of at least 15 cm between axis of the end cables and the sides of the trench. It will be advantageous to lay main and standby cables in separate trench.

B. Depth of trench:

- (i) The depth of the trench shall be determined on the basis indicated herein. Where the cables are laid in a single tier formation, the total depth of trench shall not be less than 80 cms and 75 cms for cables of Air Field Lighting type in the operational area and LT cable respectively. The depth of the trench shall not be less than 1.2 mts for Air Field Lighting cables to be laid in areas other than operational areas.
- (ii) When more than one tier of cables is unavoidable and vertical formation of laying is adopted, depth of trench in b (i) above shall be increased by 30 cm. for each additional tier to be formed.

C. Excavation of trenches:

- (i) The trenches shall be excavated in reasonably straight lines. Wherever there is a change in direction, suitable curvature shall be provided complying with the requirements.
- (ii) Where gradients and changes in depth are unavoidable, these shall be gradual.
- (iii) Excavation should be done by any suitable means – manual or mechanical. The excavated soil shall be stacked firmly by the side of the trench such that it may not fall back into the trench.
- (iv) Adequate precautions should be taken not to damage any existing cable(s), pipes or other such installations in the proposed route during excavation. Wherever bricks, tiles or protective covers or bare cables are encountered, further excavation shall not be carried out without the approval of the Engineer-in-charge.
- (v) Existing property exposed during trenching shall be temporarily supported or protected adequately as directed by the Engineer-in-charge. The trenching in such cases shall be done in short lengths, necessary pipes laid for passing cables therein and the trenches refilled in accordance with specification.
- (vi) If there is any danger of a trench collapsing or endangering adjacent structures, the sides should be well supported up with timbering and / or sheeting as the excavation proceeds. Where necessary, these may even be left in places when back filling the trench.
- (vii) The bottom of the trench shall be level and free from stone, brick bats etc.
- (viii) The trench shall then be provided with a layer of clean, dry sand cushion of not less than 8 cm in depth before laying the cables therein.

2.8.3.3 Testing before laying

At the time of issue of cables for laying, the cable shall be tested for continuity and insulation resistance.

2.8.3.4 Laying of cables in trench:

- (i) When the cable has been properly straightened, the cores are tested for continuity and insulation resistance and the cable is then measured. Cable ends shall be sealed/ taped to safe guard from moisture.
- (ii) Cable laid in trenches in a single tier formation shall have a covering of clean, dry sand of not less than 17 cms above the base cushion of sand before the protective cover is laid.
- (iii) In the case of vertical multi-tier formation after the first cable has been laid, a sand cushion of 30 cms shall be provided over the initial bed before the second tier is laid. If additional tiers are formed, each of the subsequent tiers also shall have a sand cushion of 30 cms, as stated above. The top most cable shall have final sand covering not less than 17 cms before the protective cover is laid.
- (iv) At the time of original installation, approximately 3m of surplus cable shall be left on each end of the cable and one each side of underground joints straight through / end termination at entries and places as may be decided by the Engineer-in-charge. The surplus cable shall be left in the form of a loop. Where there are long runs of cable length, loose cable may be left at suitable intervals as specified by the Engineer-in-charge.
- (v) A final protection to cables shall be laid in accordance with specification to provide warning to future excavators of the presence of the cable and also to protect the cable against, accidental mechanical damage by pick-axe blows etc.
- (vi) Care shall be taken to lay the GI earth wire before the protective cover is laid. Unless otherwise specified, the cables shall be protected by second class brick placed on top of the sand (or, soil as the case may be). The bricks shall be placed breadth-wise for the full length of the cable. Where more than one cable is to be laid in the same trench, this protective covering shall cover all the cables and project at least 5cm over the sides of the end cables.

2.8.3.5 Testing before covering

The cables shall be tested for continuity of cores and insulation resistance and the cable length shall be measured, before closing the trench. The cable end shall be sealed/covered.

2.8.3.6 Back filling:

- (i) The trenches shall be then back-filled with excavated earth free from stones or other sharp edged debris and shall be rammed and watered, if necessary, in successive layers not exceeding 30 cm. Unless otherwise specified, a crown of earth not less than 50mm. In the centre and tapering towards the sides of the trench shall be left to allow for subsidence, the crown of earth however should not exceed 10 cms as not to be a hazard to vehicular traffic. The temporary reinforcements of roadways should be inspected at regular intervals, particularly during the wet weather, and any settlement should be made good by further filling as may be required. After the subsidence has ceased, trenches cut through roadways or other paved areas shall be restored to the same density and material as the surrounding area and re-paved in accordance with the relevant specifications to the satisfaction of the Engineer-in-charge.
- (ii) Where road or lawns have been cut or kerf stones displaced, the same shall be repaired and made good except turfing / asphaltting to the satisfaction of the Engineer-in-charge and all surplus earth or rock removed to places.

2.8.3.7 Laying In Pipes / Closed Ducts:

In locations such as road crossing, entry in to buildings, on poles and in paved areas etc., cables shall be laid in pipes or closed ducts. Cable grips / draw wires and winches etc. may be employed for drawing cables through pipes / ducts. Working contractor shall have to clean the pipe if it is found choked and shall also ensure no damage is done to the existing cables. Angle irons / “J” clamps or other suitable clamps shall be provided in the ducts wherever is required as per site requirements. Suitable non-corrosive sleeving shall be used for clamping the cables to avoid damage to the cable sheath.

2.8.3.8 Road crossing

The top surface of pipes shall be at a minimum depth of 1m from the pavement level when laid under roads, pavements etc. with man holes at both ends of the pipes. The number of pipes to be laid should include sufficient number of spare pipes for future use.

2.8.3.9 Laying in open ducts

Open ducts with suitable removable covers (RCC slabs or checkered plates) are generally provided in sub-stations, switch rooms, between the buildings etc., for taking the cables. The cable ducts shall be of suitable dimensions for the number of cables involved. Laying of cables with different voltage ratings in the same duct shall be avoided. Where it is inescapable to take HV & MV cables in same trench, they shall be laid with a barrier between them or alternatively, one of the two (HV/MV) cables shall be taken through pipe(s). Splices or joints of any type shall not be permitted inside the ducts. The cables shall be laid directly in the duct such that unnecessary crossing of cables is avoided. Cables shall be fixed with clamps on the walls of the duct or taken in hooks/brackets/troughs in ducts. The size and material of saddles/clamps shall be as given under laying on surface.

2.8.3.10 Laying on surface

This method shall be adopted in places like switch rooms, rising distribution) mains in buildings etc. This shall also be necessitated in the works of additions and/or alterations to the existing installation, where other methods of laying shall not be feasible.

Cables shall be laid in surface by any of the following methods as specified:-

- Directly clamped by saddles or clamps.
- Supported on cradles.
- Laid on troughs/trays duly clamped.

The saddles and clamps used for fixing the cables on surface shall be 1 mm thick with fixing interval of 45 cm for cable of overall diameter up to 26 mm and 3mm thick 25mm wide with fixing interval of 60cm for cable of overall diameter up to 45mm. For cable of overall diameters above 45 mm the clamps shall be minimum of 3 mm thick 40 mm wide and fixing interval 60 cm. Additional clamping shall be provided at 30cm from the center of bend on both sides. Saddles shall be secured with screws to suitable approved plugs. Clamps shall be secured with nut on to the bolts, grouted in the supporting structure in an approved manner. In the case of single core cables, the clamps shall be of non-magnetic material. Suitable non-corrosive packing shall be used for clamping un-armoured cables to prevent damage to the cable sheath. Cables shall be fixed neatly

without undue sag or kinks. AllMS components used in fixing the cables shall be either galvanized or given a coat of red-oxide primer and finished with 2 coats of approved paint.

2.8.3.11 Laying in covered duct

Covered duct shall be provided between substation and switch rooms (where feasible) at Terminal Building for taking the cables. Suitable angle iron supports shall be provided in this duct by AAI. The contractor shall fix the cables by using suitable clamps. The size and material of saddles/clamps shall be as given under laying on surface. AAI may opt for fixing cable trays on angle iron supports and taking / laying cables in trays.

2.8.3.12 Testing of Cables

During cable laying, following tests shall be carried out. Insulation test between phases, phase & neutral, phase & earth for each length of cable.

- Before laying
- After laying
- After jointing.

On completion of cable laying work, the following tests shall be conducted in the presence of the Engineer in Charge.

- Insulation Resistance Test(Section a land overall).
- Continuity Resistance Test.
- Earth Test.

All tests shall be carried out in accordance with relevant Indian Standard code of practice and Indian Electricity Rules. The Contractor shall provide necessary instruments, Equipments and labour for conducting the above tests & shall bear all expenses of conducting such tests.

2.9 SPECIFICATION FOR PIPE EARTHING

2.9.1 Electrode material and dimensions:

GI pipe electrodes shall be cut tapered at the bottom, and provided with holes of 12mm dia. Drilled not less than 75 mm from each other upto 2m of the length from the bottom.

Pipe electrode shall be buried in the ground vertically with its top at not less than 20 cm below the ground level.

In location, where the full length of pipe electrode is not possible to be installed due to meeting a water level, hard soil or rock, the electrode may be of reduced length, provided the required earth resistance result is achieved with or without additional electrodes or any alternative method of earthing may be adopted, with the prior approval of the Engineer-in-charge. Pipe electrodes may also be installed in horizontal formation in such exceptional cases.

2.9.2 Resistance of Earth:

The earth resistance at each electrode shall be measured. No earth electrode shall have a greater ohmic resistance than 5 ohms as measured by an approved earth testing apparatus.

Technical Annexure – I

TECHNICAL PARTICULARS OF ISOLATING TRANSFORMERS

1. Name & Address of the Manufacturer :
2. Wattage :
3. Current
 - a) Primary :
 - b) Secondary :
4. Voltage Rating
5. Name & Address of the Laboratory
where the Transformer was tested :
6. Enclose Test certificate :
7. Any other information, if any :

Technical Annexure – II

TECHNICAL PARTICULARS OF CABLES (6 SQ.MM. & 16 SQ.MM.)

1. Trade Name
2. Voltage Grade
3. Type of Cable
4. Standard referred
5. Conductor :-
 - a) Material
 - b) Nominal area of cross-section (sq.mm)
 - c) Shape of the conductor
 - d) Maximum DC resistance of conductor at 20° C(ohms/km)
 - e) Number of strands
6. Insulation: -
 - a) Material
 - b) Nominal thickness
7. Identification of cores
8. Inner sheath :-
 - a) Material
 - b) Minimum thickness (mm)
 - c) Nominal thickness
9. Outer Sheath:-

Material

Nominal thickness

Colour of outer sheath
10. Approximate over all dia. of cable (mm)
11. Approximate weight of the cable (kg/km)
12. Standard drum length with 5% tolerance (mtrs.)
13. Anti-termite treatment to be provided (YES / NO)
14. Anti-rodent treatment to be provided (YES / NO)
15. Laboratory where the cable was tested
16. Certificate regarding manufacturing of cables upto 11KV grade.

Technical Annexure – III

TECHNICAL PARTICULARS OF CABLES (2X4 SQ.MM.)

1. Trade Name
2. Voltage Grade
3. Type of Cable
4. Standard referred
5. Conductor: -
 - a) Material
 - b) Nominal area of cross-section (sq.mm)
 - c) Shape of the conductor
 - d) Maximum DC resistance of conductor at 20° C(ohms/km)
 - e) Number of strands
6. Insulation: -
 - a) Material
 - b) Nominal thickness
7. Identification of cores
8. Inner sheath :-
 - a) Material
 - b) Minimum thickness (mm)
 - c) Nominal thickness
9. Outer Sheath: -
 - a) Material
 - b) Nominal thickness
 - c) Colour of outer sheath
10. Approximate over all dia. of cable (mm)
11. Approximate weight of the cable (kg/km)
12. Standard drum length with 5% tolerance (mtrs.)
13. Anti-termite treatment to be provided (YES / NO)
14. Anti-rodent treatment to be provided (YES / NO)
15. Laboratory where the cable was tested.
16. Certificate regarding manufacturing of cables upto 11KV grade.

2.10 Approved Makes

LIST OF APPROVED MAKES FOR ELECTRICAL WORKS

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)	CATEGORY OF TEST CERTIFICATE/ INSPECTION
A. PANEL, SWITCHGEARS AND RELATED ITEMS:			
1	LT PANELS (TTA) (FOR INCOMER ABOVE 250 AMPS)	CAT-A&B EAP/ TRICOLITE/ SUDHIR/ L&T/ ADLEC/ LEGRAND/ ABB/ C&S/ SIEMENS/ NEPTUNE/ MEpowerR/ SCHNEIDER/ RITTAL/ RR ISPAT/ ADVANCE/ KEPL/ PEATON / RISHA/ STERLING GENERATORS/ HAROLD/ NITYA / TRISQUARE/ SPC ELECTROTECH /BCH/ MILESTONE / GEPOWER (SPECTRA)* / UNILEC* / JACKSON* / GODREJ* / INCOTECH* subject to having valid CPR/ ERDA Certificate of required Fault Level & IP Level protection.	CATEGORY - 1
2	LT PANELS (PTTA) (FOR INCOMER UP TO & BELOW 250 AMPS)	CAT-A EAP/ TRICOLITE/ SUDHIR/ L&T/ ADLEC/ C&S/ SIEMENS/ NEPTUNE/ PYROTECH/ MEpowerR/ SCHNEIDER/ HENSEL/ ENGINEERS & ENGINEERS/ ADVANCE/ KEPL/ PEATON/ RISHA / STERLING GENERATORS/ HAROLD / NITYA/ TRISQUARE/ CMKL/ SPC ELECTROTECH /BCH/ MILESTONE / GODREJ / GEPOWER (SPECTRA)* / UNILEC* / JACKSON* / INCOTECH* subject to having valid CPR/ ERDA Certificate of required Fault Level & IP Level protection.	CATEGORY - 1
		CAT-B DIGIDRIVES/ AMBIT/ ELINS/ JAKSON/ ZENIYA/ EVA & ALL MAKES IN CAT-A	
3	AIR CIRCUIT BREAKERS	CAT-A L&T/ LEGRAND/ ABB/ C&S/ SIEMENS/ HAVELLS/ SCHNEIDER/ GE POWER*	CATEGORY - 2
		CAT-B CHINT & ALL MAKES IN CAT-A	
4	MOULDED CASE CIRCUIT BREAKERS (MCCB)	CAT-A L&T/ LEGRAND/ ABB/ C&S/ SIEMENS/ ANDREW YULE/ HAVELLS/ SCHNEIDER / BENLO / INDO ASIAN / HPL / GE POWER*	CATEGORY - 2
		CAT-B CHINT/ GE POWER* / STANDARD / BCH* & ALL MAKES IN CAT-A	
5	CHANGE OVER SWITCH/ FUSE DISCONNECTOR SWITCH/ SWITCH FUSE UNITS	CAT-A&B SOCOMEC/ L&T/ LEGRAND/ C&S/ SIEMENS/ BENLO / HPL / HH ELCON* / INDO ASIAN*/ HAVELLS* / GE POWER* / ABB* / STANDARD* / SCHNEIDER*	CATEGORY - 2
6	AMMETER/ VOLTMETER/ KWH/ KVAH/ PF/ FREQUENCY METER/DIGITAL INTELLIGENT MULTI FUNCTIONAL METER/ TRIVECTOR METER	CAT-A&B MEGGER/ FINDER/ RISHABH/ L&T/ SIEMENS/ NEPTUNE/ SCHNEIDER/ SOCOMEC / BENLO/ HPL / AE*/ MECO* / IMP*/ UNIVERSAL* / TRINTY* / BHEL*/ ELMEASURE* / CONSERVE* / HPK*/ HAVELLS*/ SIMCO* / JAIPUR METERS*/ INDIA METER* /AREVA*/ MOTWANI*/ SECCURE*/ SUNCO*	CATEGORY - 3
7	SELECTOR SWITCH, PUSH BUTTON SWITCH / EMERGENCY SWITCH	CAT-A L&T/ C&S/ SIEMENS / EATON / BCH / KAY CEE* / GE POWER* / SCHENIDER* / ROCKWELL (ALLEN BRADLEY)* / TEKNIC*	CATEGORY - 4
		CAT-B HENSEL/ HAGER & ALL MAKES IN CAT-A	
8	CT's / PT's	CAT-A MEGAWIN/ SELEC/ NEWTEK ELECTRICALS/ AE* / KAPPA* / UNIVERSAL* / KAYCEE* / IMP* / C&S* / L&T*/ MECO*/ KAPCO*/ CROMPTON GREAVES*/ PRAGATI*/ INSTRANS*	CATEGORY - 3
		CAT-B ANANT POWER/ HAGER & ALL MAKES IN CAT-A	
9	PROTECTIVE RELAYS (ALL TYPE)	CAT-A CG POWER (CGPSL) / L&T/ C&S/ SIEMENS/ MEGAWIN/ AREVA* / ABB* / EASUN REYROLLE*	CATEGORY - 2
		CAT-B ALL MAKES IN CAT-A	
10	CONTACTORS	CAT-A L&T/ LEGRAND/ ABB/ TDK(EPCOS) / C&S/ SIEMENS/ ANDREW YULE/ HAVELLS/ SCHNEIDER/ GE POWER* / BCH* / TC*	CATEGORY - 3
		CAT-B CHINT & ALL MAKES IN CAT-A	
11	TIMERS/ TIME SWITCH	CAT-A FINDER/ L&T/ LEGRAND/ ABB/ C&S/ SIEMENS/ SELEC/ BCH / INDO ASIAN*/ SCHNEIDER* / ADVANI ORLIKON* / GE*	CATEGORY - 3
		CAT-B HAGER & ALL MAKES IN CAT-A	
12	HRC FUSES	L & T/ GE POWER/ SIEMENS / ABB / C&S/ INDO ASIAN/ HAVELLS/ STANDARD	CATEGORY - 4
13	LED INDICATION LAMPS	CAT-A C&S / AE* / VINAY LED* / EASUN* / CONCORD* / KAY CEE*/ SIEMENS* / VAISHNOV* / L&T*/ SCHENIDER*/ ROCKWELL* (ALLEN BRADLEY) / PREFINE* / BCH* (T.S. Authority may add makes considering the local availability and quality. The approved OEM of HT/LT Panel manufacturer).	CATEGORY - 3
		CAT-B HAGER & ALL MAKES IN CAT-A	
B. SUBSTATION RELATED ITEMS.			
14	TRANSFORMER UP TO 500 KVA (DRY/OIL)	CAT-A&B SUDHIR/ ABB/ ANDREW YULE/ SCHNEIDER/ KOTSONS/ VOLTAMP/ CG POWER (CGPISL)/ AREVA*/ KIRLOSKAR* / INDO TECH* / BHARAT BIJLEE/ TELK*/ BHEL*	CATEGORY - 1
15	TRANSFORMER MORE THAN 500 KVA (DRY/OIL)	CAT-A&B SUDHIR/ ABB/ ANDREW YULE/ SCHNEIDER/ KOTSONS/ VOLTAMP/ CG POWER (CGPISL) / AREVA*/ KIRLOSKAR* / SIEMENS* / BHARAT BIJLEE*/ BHEL*	CATEGORY - 1
16	H T PANEL	CAT-A&B EAP / CG POWER (CGPISL) / TRICOLITE/ SUDHIR/ L&T/ ADLEC/ ABB/ C&S/ NITYA/ PSI/ TRISQUARE / ANDREW YULE/ MEGAWIN/ MEpowerR/ SCHNEIDER/ MILESTONE/ EATON/ ADVANCE/ STERLING GENERATORS/ MEI* / SOUTHERN SWITCH GEARS* / BIECO LAWRIE*/ NGEF*/ JYOTI*/ KIRLOSKER*/ AREVA*/ SIE*/ SIEMENS*/ BHEL*	CATEGORY - 1

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)		CATEGORY OF TEST CERTIFICATE / INSPECTION
17	SANDWICH BUS DUCT	CAT-A&B	EAP/ L&T/ LEGRAND/ C&S/ RR KABEL/ EAE/ SCHNEIDER/ GODREJ / POWER DUCTS (TRICOLITE)* / MOELLAR (Imported)* / HONIKOWN (Imported)* / GE POWER*	CATEGORY - 2
18	H.T./L.T. TERMINATION & JOINTING KIT.	CAT-A&B	ANDREW YULE/ COMPAQ/ RAY CHEM*/ M-SEAL*/ CAB SEAL*/ DENSON*/ MAHINDRA/ BIRLA-3M*	CATEGORY - 3
19	POWER CABLES ABOVE 1.1 KV	CAT-A&B	CRYSTAL/ KEI/ WORLD CAB/ RAVIN/ DYNAMIC/ RHINO/ CMI/ POLY CAB/ UNICAB/ AVOCAB/ GEMSCAB/ HAVELLS/ GLOSTER/ UNIVERSAL* (Satna)/ CCI* (Bangalore)/ RPG* (ASIAN) (Mumbai)/ TORRENT* (Nadiad)/ NICCO* (Shyam Nagar, WB)/ ICL* (Rajpura)/ FINOLEX* (Pune)/ INDUSTRIAL CABLES* (Rajpura)	CATEGORY - 1
20	POWER CABLES UP TO AND INCLUDING 1.1 KV	CAT-A&B	CRYSTAL/ RALLISON/ KEI/ WORLD CAB/ RAVIN/ DELTON/ DYNAMIC/ RHINO/ CMI/ POLY CAB/ UNICAB/ AVOCAB/ RR KABEL/ GEMSCAB/ HAVELLS/ BONTON/ CORDS/ GLOSTER/ CCI* (Bangalore)/ NICCO* (Shyam Nagar, WB)/ UNIVERSAL* (Satna)/ RPG* (ASIAN) (Mumbai)/ INDUSTRIAL CABLES* (Rajpura)/ TORRENT* (Nadiad)/ HINDUSTAN VIDYUT PRODUCT LTD* (Faridabad)/ FINOLEX* (Pune)/ EKTA* (New Delhi)/ SKYTONE* (Faridabad)	CATEGORY - 1
21	CONTROL CABLES	CAT-A&B	CRYSTAL/ RALLISON/ KEI/ WORLD CAB/ RAVIN/ DELTON/ TAMRA/ FINECAB/ DYNAMIC/ RHINO/ CMI/ POLY CAB/ UNICAB/ AVOCAB/ RR KABEL/ GEMSCAB/ HAVELLS/ BATRA/ CORDS/ GLOSTER/ CCI* (Bangalore)/ NICCO* (Shyam Nagar WB)/ UNIVERSAL* (Satna)/ RPG* (ASIAN) (Mumbai)/ TORRENT* (Nadiad)/ FINOLEX* (Pune)/ HINDUSTAN VIDYUT PRODUCT LTD* (HVP) (Faridabad)/ LAPP*/ ALOKE* (ANKUR TECHNOCRAT)/ (Ahmedabad)/ EKTA* (New Delhi)/ SKYTONE* (Faridabad)	CATEGORY - 1
22	TELEPHONE CABLE	CAT-A&B	RALLISON/ DELTON/ CMI/ POLY CAB/ RR KABEL/ SKYTONE*/ NATIONAL*/ NICCO*	CATEGORY - 2
23	CO-AXIAL/ INSTRUMENTATION/ FIBER OPTIC/ CAT-6 CABLES	CAT-A&B	RALLISON/ DELTON/ RHINO/ CMI/ POLY CAB/ LEGRAND/ UNICAB/ AVOCAB/ RR KABEL/ GEMSCAB/ CORDS/ SCHNEIDER/ BHANSALI*/ SKYTONE*/ RPG*/ UNIVERSAL*/ UNIFLEX*/ AMP*/ AVAYA*/ METRO*/ SKYLINE*/ DELTRON*	CATEGORY - 2
24	CABLE MANAGEMENT SYSTEM (PRE FABRICATED CABLE TRAY/ WIRE MESH SYSTEM ETC.)	CAT-A&B	MEM/ L&T/ LEGRAND/ RMCON/ BEC/ RR ISPAT/ RATAN'S/ STERLING DURO/OBO BETTERMANN/ PILCO*/ INDIANA*/ VENUS*/ STEELITE*/ SADHANA ENG*/ TECHNAD ENG*/ MM ENGG*/ POWER CAB*/ NEPTUNE*/ RICO STEEL*/ PROFAB ENGG*/ SLOTCO*	CATEGORY - 3
25	CAPACITORS	CAT-A&B	SHREEM/ L&T/ LEGRAND/ ABB/ TDK(EPCOS)/ NEPTUNE/ SCHNEIDER/ GE POWER*/ VOLTAS*/ BHEL*/ KHATAU ZANKAR*/ USHA*/ MATRIX*	CATEGORY - 2
26	APFC PANEL	CAT-A CAT-B	EAP/ TRICOLITE/ SHREEM/ L&T/ ADLEC/ LEGRAND/ EPCOS/ C&S/ NEPTUNE/ SCHNEIDER AMBIT & ALL MAKES IN CAT-A	CATEGORY - 1
27	LIGHTENING PROTECTION SYSTEM	CAT-A&B	ABB/ DEHN/ TERCEL/ ERICO*/ PHEONIX*/ INDELEC*/ DUVAL MASSIAN*/ FRANKLIN*	CATEGORY - 3
28	EARTHING SYSTEM (DIGITAL/ CHEMICAL/ PORTABLE EARTHING)	CAT-A&B	JMV/ RATAN'S/ CAPE/ APS/ PROTEC-DHRUVA/ OBO BETTERMANN	CATEGORY - 3
29	SURGE PROTECTION DEVICES	CAT-A CAT-B	FINDER/ L&T/ LEGRAND/ DEHN/ TERCEL/ JMV/ MERSEN/ CAPE/ EATON/ PHOENIX/ CONTACT/ OBO BETTERMANN ALLIED/ PROTEC/ SECOM/ ITE/ CITE & ALL MAKES IN CAT-A	CATEGORY - 3
30	SCADA (Hardware & Software, Except Computer & Accessories)	CAT-A&B	ABB/ SIEMENS/ SCHNEIDER/ ALLEN BRADLEY*/ GE FANUC*/ JOHNSON CONTROLS* (METASYS MS)/ LALNDIS & STEAEFA/ HONEYWELL*	CATEGORY - 2
31	SF6 CIRCUIT BREAKER	CAT-A&B	L&T/ ABB/ C&S/ BHEL*/ CROMPTON GREAVES*/ KIRLOSKER*/ SIEMENS*/ SCHNEIDER*	CATEGORY - 2
32	VACUUM CIRCUIT BREAKER	CAT-A CAT-B	CG POWER/ L&T/ ABB/ C&S/ ANDREW YULE/ MEGAWIN/ SCHNEIDER/ SIEMENS* CHINT & ALL MAKES IN CAT-A	CATEGORY - 2
33	SERVO STABILIZER	CAT-A CAT-B	CONSUL NEOWATT/ ANDREW YULE P2 POWER & ALL MAKES IN CAT-A	CATEGORY - 2
34	AUTO TRANSFER SWITCH	CAT-A CAT-B	SOCOME/ L&T/ LEGRAND/ ABB/ HAVELLS/ ASCO (SCHNEIDER) HAGER/ ALL MAKES IN CAT-A	CATEGORY - 2
35	COMPACT SUB STATION	CAT-A&B	L&T/ ABB/ C&S/ SCHNEIDER	CATEGORY - 1
36	EMERGENCY LIGHT - LED (PORTABLE)	CAT-A&B	ABB/ LIFE-GUARD/ PROLITE/ BPL*/ SANYO*	CATEGORY - 3
37	CABLES GLANDS		COMET/ DOWELL/ ELECTROMAC/ SIEMENS/ BRACO/ HMI/ MCI/ (METAL/ CRAFT)	CATEGORY - 3
38	LUGS & THIMBLES		DOWELLS/ JOHNSONS/ COMET/ ASCON	CATEGORY - 4
39	SYNTHETIC INSULATING MATS		CPRI certified for required voltage level.	CATEGORY - 2
40	LIGHTNING ARRESTORS	CAT-A&B	JMV/ CAPE/ APS/ PROTEC-DHRUVA/ OBO BETTERMANN/ LAMCO*/ ELARO*/ ATLAS*/ INTERNATIONAL*/ AREVA*/ OBLUM*/ ALPRO*/ WS IND*/ JAIPURIA*/ JAYSHREE*	CATEGORY - 2

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)		CATEGORY OF TEST CERTIFICATE / INSPECTION
41	INSULATION TAPE (HT / LT)	CAT-A&B	BENLO/ANCHOR / BCH	CATEGORY - 4
C DG SETS & RELATED ITEMS				
42	DIESEL ENGINE ABOVE 250 KVA.	CAT-A&B	CUMMINS/ KOEL /CATERPILLAR/ MAHINDRA/ PERKINS/ GREAVES COTTON / ASHOK LEYLAND-BAUDOUIN / MTU* / VOLVO PENTA*	CATEGORY - 1
43	DIESEL ENGINE UPTO AND INCLUDING 250 KVA	CAT-A&B	CUMMINS / KOEL/ CATERPILLAR/ MAHINDRA/ ASHOK LEYLAND / GREAVES COTTON / MTU* / VOLVO PENTA*	CATEGORY - 1
44	ALTERNATOR	CAT-A&B	KIRLOSKAR/ LEROY-SOMER/ STAMFORD/ CROMPTON GREAVES / JYOTI* / NGEF* / KEL*	CATEGORY - 1
45	BATTERIES	CAT-A&B	KIRLOSKAR/ EXIDE* / AMCO* / PRESTOLITE* / AMARON* / GENPRO* / STANDARD FURUKAWA* / LUCAS* / HBL NIFE*	CATEGORY - 3
46	BATTERY CHARGER	CAT-A&B	VERTIV/ DELTA	CATEGORY - 2
47	UPS - ABOVE 10 KVA	CAT-A	MICROTEK/ SOCOMEC/ GREEN / NUMERIC/ RIELLO/ AUTOMETERS/ CONSUL NEOWATT/ ABB/ SCHNEIDER / VERTIV (EMERSON) / APC* / DBPOWER*	CATEGORY - 3
		CAT-B	EATON / ALL MAKES IN CAT-A	
48	UPS - UPTO 10 KVA	CAT-A	MICROTEK/ POWER-ONE/ SOCOMEC/ GREEN / NUMERIC/ SCHNEIDER / VERTIV (EMERSON) / DBPOWER* / APC*	CATEGORY - 3
		CAT-B	DELTA / EATON & ALL MAKES IN CAT-A	
D INTERNAL WIRING RELATED TEAMS				
49	MCB/ ISOLATOR/ MCBDB/ RCCB/ RCBO/ ELCB	CAT-A	L&T / INDO ASIAN/ C&S/ LEGRAND / HPL/ BENLO/ ANCHOR / EATON/ GM/ ABB/ MK HONEYWELL/ POLYCB/ MITSUBISHI/ BCH/ SIEMENS* / SCHNEIDER* / STANDARD* / HAVELLS* / GE*	CATEGORY - 2
		CAT-B	HAGER/ ALL MAKES IN CAT-A	CATEGORY - 2
50	MS CONDUIT	CAT-A	RMCON/ BEC/ SUPER	CATEGORY - 3
		CAT-B	JPC PIPES & ALL MAKES IN CAT-A	
51	PVC CONDUIT	CAT-A	BEC/ AKG/ ANCHOR/ GM/ POLYPACK* / PRECISION* / MIHIR*	CATEGORY - 3
		CAT-B	JPC PIPES & ALL MAKES IN CAT-A	
52	INDUSTRIAL SOCKET IN SHEET STEEL ENCLOSURE WITH MCB	CAT-A	C&S/ LEGRAND/ HPL/ NEPTUNE- BALS/ BCH/ INDO ASIAN* / CROMPTON* / SCHNEIDER* / HAVELLS*	CATEGORY - 4
		CAT-B	HAGER/ ALL MAKES IN CAT-A	
53	PVC INSULATED COPPER WIRE	CAT-A	KEI/ PARAMOUNT/ BONTON/ RAJNI GANDHA/ CMI/ ANCHOR / MESCAB/ ALOKE/ GOLD MEDAL/ APAR/ GRANDLAY/ GM/ RALLISON/ BATRA HENLAY/ ZENIUM/ RR KABEL/ BHANSALI/ GLOSTER/ NATCAB/ PARAGON/ BCH/ SKYLINE* / PLAZA/ V GUARD* / FINOLEX* / HAVELLS* / INDO ASIAN* / CRYATAL* / POLYCB* / KDK EVERSHINE* / FINECAB* / CAPCAB* / STANDARD*	CATEGORY - 2
		CAT-B	GALAXY CONCB & ALL MAKES IN CAT-A	
54	SWITCHES/ SOCKETS/ TELEPHONE/ TV/ DATA SOCKET/ BOXES (MODULAR/ PIANO TYPE)	CAT-A	BENLO/ INDO ASIAN/ C&S/ SIMON/ ANCHOR/ L&T/ GOLD MEDAL/ LEGRAND/ GM/ HPL/ ABB/ MK HONEYWELL/ POLYCB/ BCH/ SSKAY* / HAVELLS* / NORTH WEST* / CLIPSAL* / WESTERN VEGA*	CATEGORY - 3
		CAT-B	HAGER & ALL MAKES IN CAT-A	
E FIRE ALARM EQUIPMENTS.				
55	FIRE / SMOKE DETECTOR	CAT-A	APOLLO/ EDWARDS (UTC)/ SIEMENS/ BOSCH/ NOTIFIRE/ TYCO SIMPLEX/ G + M SCHRACK/ HONEYWELL/ SYSTEM SENSOR* / MORLEY IAS*	CATEGORY - 2
		CAT-B	KIDDE (UTC)/ GST (UTC) & ALL MAKES IN CAT-A	
56	FIRE ALARM PANEL / REPEATER PANEL	CAT-A	APOLLO/ AUTRONICA (UTC)/ EDWARDS (UTC)/ SIEMENS/ BOSCH/ NOTIFIRE / TYCO SIMPLEX/ G + M SCHRACK/ HONEYWELL/ SYSTEM SENSOR* / MORLEY IAS* / GROUP4* / MATHER & PLATT* / MINIMAX*	CATEGORY - 2
		CAT-B	KIDDE (UTC)/ GST (UTC) & ALL MAKES IN CAT-A	
57	HOOTER / MANUAL CALL POINT / RESPONSE INDICATOR	CAT-A	APOLLO/ EDWARDS (UTC)/ SIEMENS/ BOSCH/ NOTIFIRE / TYCO SIMPLEX/ G + M. SCHRACK/ HONEYWELL/ MORLEY IAS* / SYSTEM SENSOR* / GROUP4* / MINIMAX*	CATEGORY - 2
		CAT-B	GST (UTC) & ALL MAKES IN CAT-A	
58	PA SYSTEM FOR FIRE ALARM SYSTEM	CAT-A&B	APOLLO/ SIEMENS/ BOSCH/ TYCO SIMPLEX/ G + M SCHRACK/ HONEYWELL/ AHUJA/ PHILIPS* / MOTWANE*	CATEGORY - 3
59	FIRE SURVIVAL CABLE	CAT-A	CMI/ KEI/ BONTON/ POLYCB/ BATRA HENLAY/ RR KABEL/ WREXHAM	CATEGORY - 2
		CAT-B	FUSION POLYMER & ALL MAKES IN CAT-A	
60	FIRE ESCAPE / EXIT SIGNAGES	CAT-A	LIFE-GUARD/ PROLITE/ DELITE	CATEGORY - 3
F LED LIGHT FIXTURE AND FANS				
61	TERMINAL/ ANCILLARY/ RESIDENTIAL BUILDING /	AS PER SPECIFICATION		CATEGORY - 2
62	AVIATION WARNING LIGHT / OBSTRUCTION LIGHT (LOW	MANUFACTURERS WHO MEET ICAO REQUIREMENTS		CATEGORY - 3

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)		CATEGORY OF TEST CERTIFICATE/ INSPECTION
63	LAMPS FOR FITTING (NON - LED)	PHILLIPS/ GE/ BAJAJ/ OSRAM/ WIPRO/ CROMPTON/ THORN/ SCHREDER/ REGENT/ REGGIANI/ TRILUX/ GEWISS/ REGIOLUX/ AEOC/ LIGHT(DURLU MY) C&S GROUP/ SOLAR/ HAVELLS/ HALONIX/ ORTON/ SURYA		CATEGORY - 4
64	CEILING/ WALL FAN	CAT-A&B	ANCHOR/ HALONIX/ GM/ RR/ ORIENT* / GEC* / POLAR* / USHA* / CROMPTON* / BAJAJ* / KHAITAN* / ALMONARD* / HAVELLS*	CATEGORY - 2
65	EXHAUST/ FRESH AIR FAN	CAT-A&B	ANCHOR / HALONIX/ GM/ RR/ GEC* /CROMPTON* / KHAITAN* / ALMONARD* / BAJAJ*	CATEGORY - 2
66	AIRCONDITIONING AND FIRE FIGHTING ACCESSORIES.			
66	GI / M S PIPES	CAT-A&B	PRAKASH SURYA/ ITL-INDUS/ BEC/ RR ISPAT/ JINDAL STAR/ TATA* /HSL*/ SAIL*	CATEGORY - 2
67	VALVES (BUTTERFLY/ SLUICE/ CHECK/ NRW/ FOOT/ GATE/ GLOBE ETC.)	CAT-A	ZOLOTO/ CRANE / JOHNSON CONTROL / DANFOSS/ VTM/ EMERALD/ ADVANCE / CASTLE / SANT / KIRLOSKAR* / LEADER* / KILBURN*/ AUDCO*/ SARKAR* /DIVINE* / C&R*	CATEGORY - 2
		CAT-B	VENUS & ALL MAKES IN CAT-A	
68	SUCTION / POT / Y- STRAINER	CAT-A&B	VTM/ ANERGY/ EMERALD / SANT / LEADER*	CATEGORY - 2
69	SPRINKLER / FLEXIBLE CONNECTION FOR SPRINKLER	CAT-A&B	LIFE-GUARD/ EXFLAME/ SAFEFIRE/ TYCO/ AQUAMIST/ NEWAGE/ SPRAY SAFE* / HD*	CATEGORY - 2
70	FIRE HYDRANT LANDING VALVES/ FIRE BRIGADE CONNECTION.	CAT-A	FIRESHIELD/ LIFE-GUARD/ SWASTIK/ SHOOTFIRE/ EXFLAME/ SAFEFIRE/ TYCO/ NEWAGE / MINIMAX* / SAFEX* / VIJAY* / SAFE GUARD*	CATEGORY - 2
		CAT-B	VENUS & ALL MAKES IN CAT-A	
71	INSTALLATION VALVE (ISI MARKED)	CAT-A&B	LIFE-GUARD/ TYCO/ SPRAY SAFE* / HD*	CATEGORY - 3
72	FIRE HOSE PIPES/ FIRST AID HOSE REEL	CAT-A&B	FIRESHIELD/ LIFE-GUARD/ SWASTIK/ SHOOTFIRE/ EXFLAME/ SAFEFIRE/ CHEMGAURD/ SKUM / NEWAGE / MINIMAX* / SAFEX*	CATEGORY - 2
73	BRANCH PIPE, NOZZLE AND COUPLINGS	CAT-A	FIRESHIELD/ LIFE-GUARD/ SWASTIK/ SHOOTFIRE/ EXFLAME/ SAFEFIRE/ TYCO/ ANSUL/ GRINELL/ NEWAGE / MINIMAX* / SAFEX*	CATEGORY - 2
		CAT-B	VENUS & ALL MAKES IN CAT-A	
74	FIRE EXTINGUISHERS	CAT-A&B	KANEX/ FIRESHIELD/ LIFE-GUARD/ SUPREMEX/ SWASTIK/ SHOOTFIRE/ EXFLAME/ SAFEFIRE/ ANSUL/ SKUM/ CHEMGAURD / MINIMAX* / SAFEX* / SAFEGUARD*	CATEGORY - 2
75	FIRE SUPPRESSION SYSTEM	CAT-A	LIFE-GUARD/ SUPREMEX/ SHOOTFIRE/ ANSUL/ LPG/ HYGOOD	CATEGORY - 2
		CAT-B	FOAMTECH / FIRETRET & ALL MAKES IN CAT-A	
76	DIESEL ENGINE DRIVEN PUMP FOR FIRE FIGHTING	CAT-A	MAHINDRA/ CATERPILLAR/ ASHOK LEYLAND* / KIRLOSKAR OIL*	CATEGORY - 2
		CAT-B	GRUNDFOS & ALL MAKES IN CAT-A	
77	PUMPS/ SUBMERSIBLE/ SEWAGE PUMPS (VERTICAL/ HORIZONTAL)	CAT-A&B	GRUNDFOS/ ANDRITZ/ XYLEMI/ AQUA /ANS/ KSB / KIRLOSKAR* / BEACONS* / MATHER & PLATT* / CROMPTON* / WASP*/ JYOTI* / BE */ VOLTAS* /GREAVES* / AMRUT*/ PEC*/ SUGUNA* / CALAMA*(for Pumps Only)	CATEGORY - 2
78	MOTORS	CAT-A&B	BHARAT BIJLEE/ GRUNDFOS/ BCH/ KIROLSKAR* / ALSTOM* / SIEMENS* / JYOTHI* / ABB* / CROMPTON* / NGEF*	CATEGORY - 2
79	MOTOR/ PUMP STARTER	CAT-A	ABB/ C&S/ SIEMENS/ SCHNEIDER/ L&T/ BENLO/ GRUNDFOS/ PHOENIX CONTACT/ BCH/ EATON/ CUTLER HAMMER* / GE POWER* / ABS*	CATEGORY - 2
		CAT-B	VIDHYUT CONTROL/ MOTOVARIO & ALL MAKES IN CAT-A	
80	SINGLE PHASING PREVENTOR/ OVER LOAD PROTECTION UNIT	CAT-A	SELEC/ BCH/ L&T* / GE POWER* / SIEMENS* / MINILEC* / ABB*	CATEGORY - 3
		CAT-B	HAGER/ ALL MAKES IN CAT-A	
81	PRESSURE SWITCH	CAT-A&B	DANFOSS/ EMERALD/ SWIZER*	CATEGORY - 2
82	GI SHEETS.	CAT-A&B	RUSKIN TITUS/ JINDAL / TATA* / HSL* / SAIL*	CATEGORY - 2
83	GRILLS/ DIFFUSERS.	CAT-A	RUSKIN TITUS/ CARYAIRE/ MAPRO/ GREENHECK/ CRYSTAL/ AIRMASTER*/ VINAYAGA* /CORPORATION* / AJANTA* / RAVI STAR*	CATEGORY - 3
		CAT-B	TRISTAR/ CONAIRE/ CARYAIRE & ALL MAKES IN CAT-A	
84	INSULATION MATERIAL (a) Rock Wool/ Glass Wool/ Nitrile Rubber (b) XLPE/EPDM	CAT-A	TWIGA / ARMAFLEX /ALP AEROFLEX/ K-FLEX / LLOYDS/ INSUFLEX/ PILKINGTON*/ BEARDSSELL*	CATEGORY - 3
		CAT-B	PARAMOUNT & ALL MAKES IN CAT-A	
		CAT-A	TROCELLEN/ ALP AEROFLEX/ INSUFLEX/ K-FLEX	CATEGORY - 3
		CAT-B	PARAMOUNT & ALL MAKES IN CAT-A	
85	PRE-FABRICATED GI DUCT	CAT-A	ROLASTAR/ DUCTOFEB/ ADVANCE/ WAVES/ ZECO	CATEGORY - 3
		CAT-B	REFROTECH & ALL MAKES IN CAT-A	
86	FIRE DAMPERS	CAT-A	MAPRO/ GREENHECK / RUSKIN / CARYAIRE	CATEGORY - 2
		CAT-B	TRISTAR/ CONAIRE & ALL MAKES IN CAT-A	
87	AIR CURTAINS.	CAT-A&B	MITZVAH/ TECHNOCRAT/ ALMONARD* / BECON* / TECHNOMECH* / RUSSEL* / AERODYNAMICS*	CATEGORY - 2
88	MODULATING MOTOR	CAT-A	ANERGY/ SIEMENS/ GRUNDFOS/ HONEYWELL*/ JOHNSON */STEFA CONTROL* /RAPID COOL*	CATEGORY - 2
		CAT-B	CONAIRE & ALL MAKES IN CAT-A	

S. NO	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)		CATEGORY OF TEST CERTIFICATE / INSPECTION
89	MODULATING/ SOLENOID/ BALANCING VALVE FOR AHU	CAT-A&B	DANFOSS/ VTM / ANERGY/ SIEMENS/ CASTLE / SANT/ ADVANCE/ AZBIL/ JOHNSON CONTROL* / RAPID COOL* / HONEYWELL*	CATEGORY - 2
90	REFRIGERENT VALVE	CAT-A&B	BRASMATIC/ SANT	CATEGORY - 2
91	FILTERS	CAT-A	HUMIDIN/ DYNA* / KIRLOSKAR* / PUROMATIC* / PURAFILL* / THERMODYNE* / PURE AIR*	CATEGORY - 3
		CAT-B	USHA FILTERS & ALL MAKES IN CAT-A	
92	THERMOSTAT	CAT-A	FINDER/ / DANFOSS/ HONEYWELL* / JOHNSONS* / LANDIS & STEAEFA/ PENN* / INDFOSS* / ESCORTS* / DASSPASS* / SWIZER*	CATEGORY - 3
		CAT-B	ALL MAKES IN CAT-A	
93	HP /LP /OFF SWITCH THERMOSTATS / HUMIDISTATS STRIP HEATERS.	CAT-A&B	DANFOSS/ ANERGY	CATEGORY - 3
94	ENERGY SAVING DEVICES	CAT-A&B	P2 POWER/ FINDER/ TDK(EPCOS)	CATEGORY - 3
95	THERMOMETERS	CAT-A&B	WIKAI/ EMERALD/ JAPSIN* / FIEBIG*/ GURU*	CATEGORY - 3
96	PROPORTIONAL THERMOSTATE	HONEYWELL / JOHNSONS / LANDIS & STEAEFA		CATEGORY - 3
97	PRESSURE GAUGE	H.GURU / FIEBIG / JASPIN / BESTOBELL / GENERAL INSTRUMENTS		CATEGORY - 3
98	BUILDING MANAGEMENT SYSTEM (Hradware & Software, Except Computer & Accessories)	CAT-A&B	JOHNSON CONTROL/ DELTA (LOYTEC) / L&T/ TRANE/ TRIDIUM/ SIEMENS/ AZBIL/ HONEYWELL	CATEGORY - 3
99	VFD DRIVE	CAT-A&B	DELTA/ L&T/ BHARAT BIJLEE / GRUNDFOS/ MITSUBISHI/ SCHNEIDER/ ABB/ DANFOSS / ALAN BRADLEY*/ SIEMENS*	CATEGORY 3
100	FIRE DAMPER MOTORS	BALEMO/ JUVANTO / SIEMENS		CATEGORY - 2
101	MIXING VALVE WITH MOTOR	SIEMENS / JHONSON CONTROL /HONEYWELL /RAPID COOL		CATEGORY - 2
H A/C PLANTS, A/C UNITS & EQUIPMENTS.				
102	A/C UNITS (SPLIT/ WINDOW/ CASSETTE/ TOWER TYPE)	CAT-A&B	HITACHI/ SAMSUNG/ CARRIER/ HAIER/ LG / BLUE STAR/ DAIKIN/ MITSHUBISHI*/ VOLTAS*(Split AC Only)	CATEGORY - 2
103	PRECISION AIR CONDITIONING	CAT-A&B	STULZ/ CLIMAVENTA/ SWEGON BLUE BOX/ VERTIV/ SIDWAL	CATEGORY - 3
104	PACKAGED AIRCONDITIONER	CAT-A	HITACHI/ TRANE/ CARRIER/ SIDWAL/ LG/ VOLTAS* / BLUESTAR*	CATEGORY - 2
		CAT-B	DAIKIN & ALL MAKES IN CAT-A	
105	CHILLERS / A.C. PLANTS	CAT-A	DAIKIN/ KIRLOSKER/ TRANE/ LG/ YORK / CLIVET/ BLUE STAR/ CLIMAVENTA/ DUNHAMBUSH/ VOLTAS/ CARRIER	CATEGORY - 1
		CAT-B	CRISTOPIA & ALL MAKES IN CAT-A	
106	AIR HANDLING UNITS (AHU)	CAT-A	EDGE TECH/ STULZ/ TRANE/ CARRIER / HUMIDIN/ ZECO/ WAVES/ CRYSTAL	CATEGORY - 1
		CAT-B	TRISTAR & ALL MAKES IN CAT-A	
107	FAN COIL UNIT (FCU)	CAT-A	EDGE TECH/ DAIKIN / TRANE/ YORK / CARYAIRE/ CARRIER	CATEGORY - 2
		CAT-B	TRISTAR & ALL MAKES IN CAT-A	
108	VRV/ VRF AIRCONDITIONING SYSTEM	CAT-A&B	HITACHI/ SAMSUNG/ CARRIER/ HAIER/ VOLTAS/ LG/ DAIKIN/ TRANE/ BLUE STAR/ TOSHIBA/	CATEGORY - 2
109	COOLING TOWER UP TO 200 TR.	CAT-A&B	BELL/ MIHIR* / PAHARPUR* / ADVANCE* / SOUTHERN COOLING TOWERS*	CATEGORY - 2
	COOLING TOWER ABOVE 200 TR.	CAT-A&B	BELL/ MIHIR*/ PAHAR PUR*/ ADVANCE*	CATEGORY - 2
110	FAN (AXIAL FLOW/ INLINE/ VENTILATION / PROPELLAR)	CAT-A	WOLTER/ AIRFLOW/ GREENHECK/ RR/ ELTA/ CRYSTAL/ NICOTRA/ GEC*/ ALMONARD* / KHAITAN* / ACCEL* / CROMPTON*	CATEGORY - 2
		CAT-B	CARYAIRE & ALL MAKES IN CAT-A	
111	R O SYSTEM/ WATER SOFTENING PLANT	CAT-A	ZERO B	CATEGORY - 3
		CAT-B	VENZA & ALL MAKES IN CAT-A	CATEGORY - 3
112	WATER COOLER	CAT-A&B	ZERO B/ SIDWAL	CATEGORY - 3
I PA SYSTEM				
113	AMPLIFIERS	CAT-A&B	YAMAHA / NEXO/ HEINRICH/ HONEYWELL/ BOSCH* / BOSE*	CATEGORY - 2
114	ANNOUNCEMENT MICROPHONES /CAR CALL CONSOLES	CAT-A&B	YAMAHA / NEXO/ HEINRICH/ HONEYWELL/ BOSCH* / BOSE*	CATEGORY - 2
115	CONTROLLERS	CAT-A&B	YAMAHA / NEXO / HEINRICH/ HONEYWELL	CATEGORY - 3
116	SPEAKER	CAT-A&B	YAMAHA / NEXO/ HEINRICH/ HONEYWELL/ APOLLO/ EDWARDS (UTC)/ SIEMENS/ BOSCH/ NOTIFIRE/ BOSE*	CATEGORY - 3
J MISCELLANEOUS ITEMS.				
117	CCTV CAMERA	CAT-A&B	SIEMENS/ TYCO- ILLUSTRATE / HONEYWELL/ BOSCH*/ ULTRAK*/ PELCO*	CATEGORY - 2
118	DVR	CAT-A&B	SIEMENS/ TYCO- ILLUSTRATE/ HONEYWELL/ BOSCH* / ULTRAK*/ PELCO*	CATEGORY - 2
119	LCD/LED/PLASMA MONITOR	CAT-A&B	SAMSUNG / LG / SONY/ JVC / PANASONIC/ BOSCH/ ULTRAK/ PELCO	CATEGORY - 2

S. NO.	ITEMS	APPROVED MAKES (W.E.F. 28.10.2020)	CATEGORY OF TEST CERTIFICATE/ INSPECTION
120	COMPUTER/PC/ACCESSORIES	HP/DELL/WIPRO/IBM	CATEGORY - 2
121	HAND DRIER	CAT-A&B TECHNOCRAT/ ANAND AUTOMATIC SYSTEM*/ KOPAL*	CATEGORY - 3
122	HDPE/DOUBLE WALL CORRUGATED HDPE PIPE	CAT-A&B NARAYANI POLYPIPES/ BEC/ GEMINI/ GANGOTRI/ TELEREX/ DURALINE/ HIMALYAN*	CATEGORY - 3
123	HDPE TANK	ISI MARK	CATEGORY - 3
124	AUTOMETIC GLASS DOOR	CAT-A&B AUTOINGRESS/ NEPTUNE (FAAC)/ GODREJ	CATEGORY - 3
125	BOLLARD	CAT-A&B BROSIS/ NEPTUNE (FAAC)	CATEGORY - 3
126	BOOM BARRIER	CAT-A&B AUTOINGRESS/ BROSIS/ NEPTUNE (FAAC)	CATEGORY - 3
127	TROLLY GATE	CAT-A&B AUTOINGRESS	CATEGORY - 3
128	TYRE KILLER	CAT-A&B BROSIS/ NEPTUNE (FAAC)	CATEGORY - 3
129	POLES/ HIGH MAST/ DECORETIVE POLES	CAT-A RR ISPAT/ SGS / VALMONT/ BAJAJ / SUMIP CAT-B TWINKLE & ALL MAKES IN CAT-A	CATEGORY - 3
130	SMU / STRING COMBINER BOX	CAT-A&B HENSEL / ADVANCE	CATEGORY - 3
131	SOLAR INVERTER	CAT-A&B SUNGROW/ DELTA/ POWER ONE & ANY MANUFACTURER APPROVED BY MNRE/ BIS.	CATEGORY - 2
132	SOLAR MODULES	CAT-A&B JAKSON ENGINEERS / HHV SOLAR TECHNOLOGIES (HHV ST) & ANY MANUFACTURER APPROVED BY MNRE/ BIS	CATEGORY - 2
133	DC CABLES	CAT-A&B KEI/ BONTON/ CMI/ ALOKE/ APAR/ BHANSALI/ GLOSTER	CATEGORY - 2
134	ALUMINIUM LADDERS/ HYDRAULIC LADDERS	CAT-A SUMER CAT-B PARAS / VARDHMAN & ALL MAKES IN CAT-A	CATEGORY - 2
135	DASH FASTNERS	CAT-A&B HILTI/ MUNGO	CATEGORY - 4
K	GROUND LIGHTING ITEMS		
	FOR CAT-III LIGHTING SYSTEM, ONLY FAA CERTIFIED INSET LIGHT, CCR, ISOLATING TRANSFORMER, PLUG & RECEPTACLES AND AGL CABLE SHALL BE USED AS PER AVAILABILITY.		
136	ELEVATED RUNWAY/ TAXIWAY/ APPROACH LIGHT FITTINGS	MANUFACTURERES WHO MEET ICAO REQUIREMENT FOR ISO CANDELA AS SPECIFIED IN ANNEXURE - 14.	CATEGORY - 1
137	LED BASED TAXIWAY FITTINGS (INSET/ ELEVATED)	MANUFACTURERES WHO MEET ICAO REQUIREMENT FOR ISOCANDELA AS SPECIFIED IN ANNEXURE - 14.	CATEGORY - 1
138	INSET TYPE LIGHT FITTINGS	MANUFACTURERES WHO MEET ICAO REQUIREMENT FOR ISOCANDELA AS SPECIFIED IN ANNEXURE - 14.	CATEGORY - 1
139	PAPI	AMA/ MANUFACTURES WHO MEET ICAO REQUIREMENT	CATEGORY - 1
140	LENSES/FILTERS	THORN/ IDAM-OY/ CECELEC/ ADB/ ERNI/ YOUYANG OR AS RECOMMED BY OEM	CATEGORY - 1
141	LAMPS (T-14, T-10, SPERICAL)	JS LAMPS/ KOILITE / PHILIPS	CATEGORY - 3
142	LAMPS (HALOGEN)	OSRAM / PHILIPS / YOUYANG OR AS RECOMMED BY OEM	CATEGORY - 3
143	ISOLATING TRANSFORMERS	CAT-A BILDAL/ AMA/ ELECTROMACH/ THORN/ IDMAN-OY/ CECELEC/ ADB/ YOUYANG CAT-B CTC & ALL MAKES IN CAT-A	CATEGORY - 1
144	CONSTANT CURRENT REGULATORS	CAT-A&B HONEYWELL/ HIND RECTIFIER/ AMA/ NASU/ THORN/ IDMAN-OY/ CECELEC/ ADB/ YOUYANG	CATEGORY - 1
145	5 KV GRADE AIRFIELD LIGHTING CABLE	CAT-A&B KEI/ ALOKE/ RALLISION/ BHANSALI/ GLOSTER/ DYNAMIC & MANUFACTURER HAVING 11KV GRADE BIS/ FAA CERTIFIED CABLES	CATEGORY - 1
146	PLUGS & RECEPTACLE	CAT-A&B AMA/ BILDAL /ALOKE/ BCH/ NEPTUNE- BALS/ VASANTH/ YOUYANG	CATEGORY - 2

* Shall be considered subject to enlistment of Item/ Product as per terms & conditions, criteria etc. of Expression of Interest (EOI) of AAI at CHQ level, before supply of Item/Product.

CATEGORY REQUIREMENT OF TEST CERTIFICATE/INSPECTION

CATEGORY - 1:

- Type test certificate for similar item done. If not, one of the items offered is to be type tested.
- OEMs routine test certificate.
- Acceptance test to be conducted in the presence of AAI representative at OEMs factory.

CATEGORY - 2:

- Type test certificate for similar item done. If not, one of the items offered is to be type tested.
- OEMs routine test certificate.
- Visual and functional check by AAI official at AAI airport site.

CATEGORY - 3:

- a) OEM/Dealer/Contractor routine test certificate.
- b) Visual and functional check by AAI official at AAI airport site

CATEGORY - 4:

- a) Visual and functional check by AAI official at AAI airport site.

NOTE:

1. This categorization is done keeping in mind big projects wherein the bought out item quantity may be large. In case the bought out item/supplied items are of very less in quantity, required category may be reviewed by Technical sanction Authority. Technical sanction authority shall finalise the requirements of certificate at the time of call of tender.
2. Following guidelines shall be followed while implementing the approved makes list:
 - (a) The technical sanctioning authority or the NIT approving authority shall specifically indicate in tender document the make of the items in accordance with approved list (Annexure-A2).
 - (b) In case of supply item tender, where a manufacturer directly participates and whose make is not included in the approved list but otherwise meets the notice inviting tender conditions, then NIT approving authority may examine the merit of the case and consider/allow their make appropriately for participating only in that tender.
 - (c) Approved Makes list under CAT-A shall be for Terminal buildings, Office buildings & ancillary Buildings in Operational area
 - (d) Approved Makes list under CAT-B shall be for Residential Colony, Ancillary Buildings in Non-operational area & Service block/Substation building
 - (e) All makes in CAT-A are eligible for CAT-B also.
- (f) Items/ Products under (*) Star Category, shall be considered subject to :
 - (i) ED Engg. Shall have the powers to accept the star (*) marked items/products for a particular project, case to case basis, without formal enlistment, on the merit of the case.
 - (ii) Items/Products kept under Star (*) Category, shall be considered subject to fresh enlistment of the item/product as per terms & conditions, criteria etc of Expression of Interest (EOI) of AAI at CHQ on approval of ED (Engg.)-NR.
 - (iii) Project specific items, which are not covered in this approved makes list, may be considered with the approval of TS Authority, not below the rank of GM (Engg.)/GM (P).
3. In addition to above, GM (Engg.) of respective regions shall have the powers to approve the product make for maintenance works following transparent process.
4. Where less than 03 options of makes are mentioned in the list, TS authority (not below than GM) may add the renowned & reputed makes as per the merit of the case as work specific makes as per AAI requirements.
5. Field units must ensure the codal procedures and quality etc. while procuring the materials, notwithstanding the approval and must give prompt feedback in case of any adverse report in respect of quality, durable life, performance and successful completion of contracts/orders etc. by the firm.
6. The enlistment of items/products of manufacturer/OEM shall be valid for a period of one year on trial basis and the same shall be extendable for further period of three years, subject to satisfactory performance and feedback from the field stations/Airports.
7. In case of any adverse report of performance of the products the approval may be cancelled/withdrawn/withheld at any time with immediate effect with the approval of Member (Plg.).
8. This list shall be applicable for all electrical works including Maintenance, Special repair, Project (PMC/EPC) & Composite works.

2.11 FOR OTHER ITEMS

All Works shall be carried out as per CPWD /Indian Standard Specifications of B I S / IRC Code of Practice / ASTM standards / Sound Engineering practice as directed by the Engineer-in-charge.

Sr. Manager (Engg-E)
Kangra Airport, Kangra

PROFORMA

ACCEPTANCE LETTER
(Refer Clause 30 of Guidance to Tenderer)

To

Senior Manager (Engg. - Elect)
Airports Authority of India,
Kangra Airport, Kangra - 176209.

Subject: - ACCEPTANCE OF AAI'S TENDER CONDITIONS

Sir,

1. The tender documents for the work **“Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport”** 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 **Senior Manager (Engg.-E), AAI, Kangra Airport, Kangra – 176209** 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 **30** 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 byis 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/firm as deemed fit by AAI.
6. The required earnest money for this work is enclosed herewith / submitted.

Yours faithfully,

(Signature of the tenderer)

**Undertaking for GST registration & complying its provisions
(To be submitted by bidder in Envelop-I on letter head of company / Firm)**

To,
Senior Manager (Engg.-Elect.)
Airports Authority of India,
Kangra Airport, Kangra – 176209

Name of Work:- “Provision of illuminated mandatory signage in operational area and replacement of
damaged runway / apron circuit at Kangra Airport.”

I / We _____ (Name of
company / Firm) hereby undertake that

1. I / We are registered under GST and our GSTIN are _____
(to be filled by bidder) and compliant of GST provision.
2. In case of noncompliance of GST provisions and blockage of any input credit, I
/We shall be responsible to indemnify AAI.
3. All input credits have been passed on to AAI by me / us.

Signature and name of authorized signatory of the firm

Date :

Place :

UNDERTAKING

(Regarding Debarred / Blacklisted)

[To be submitted by bidder in Envelop-I on letter head of company / Firm]

I/We the director(s) /
proprietor(s) of

M/s do here by declare that, neither this
firm nor its any subsidiary firm is debarred / blacklisted by AAI Government/ Semi-
Government / PSU for participating in Tenders

Date:

Place:

Signature and name of the authorized signatory of the firm

CERTIFICATE OF NET WORTH FROM CHARTERED ACCOUNTANT

It is to certify that as per the audited balance sheet and profit & loss 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 (the relevant date)."

Signature of Chartered Accountant

.....

Name of Chartered Accountant

.....

Membership No. of ICAI

.....

Date and Seal

**UNDERTAKING TO BE SUBMITTED BY AGENCIES WHO WISH TO CLAIM
PREFERENCE UNDER MAKE IN INDIA POLICY**

(To be printed on Company's Letter head)

(TO BE SUBMITTED WITH ENVELOPE-I)

Name of work: **"Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport"**

Name of Contractor / Firm:

Bid No.:.....

I / We have applied for above tender for the work of **"Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport ""** and hereby undertake that:-

- I / We have gone through the "Make in India Policy" mentioned in the tender document and have understood the provisions available in the policy.
- I / we have quoted the make in India local content not less than 50% of the total quoted amount as per BOQ.
- I / we will submit the details as per Form – III i.e. calculation of actual local content in goods / services provided in make in India policy available in tender document. This detail will match with the rates quoted in Schedule of Quantities (i.e. submitted price bid). Failing which AAI shall have full rights to consider my/ our bid as non-make in India bid and price preference as per the provision of Make in India policy shall not be applicable even though the local content is more than 50%.
- I/ we will submit scan copy of filled and signed Forms I, II & III in Envelope-I. In case of non-submission of these documents, their bid shall be treated as non-make in India bid.

Signature of the Contractor

Date:

FORM – “I”

**Make of Items / materials / accessories sourced from India
(To be submitted in Envelope-I)**

S. No.	Description of Accessories & Items	Make of Accessories & Items Proposed

Signature of tenderer with seal

FORM – “II”

Make of imported items and accessories
(To be submitted in Envelope-I)

S. No.	Description of Accessories & Items	Make of Accessories & Items proposed

Signature of tenderer with seal

FORM – “III”

CALCULATION OF LOCAL CONTENT IN GOODS / SERVICES

(To be submitted in Envelope-I)

Sr. No.	BOQ Item No.	Total Value of the Item procured	Local content in INR (i.e. value Addition done in India)	Percentage of local content	Location at Which Value addition is done in India
Total					

Signature of tenderer with seal

ANNEXURE-VI

**UNDERTAKEING REGARDING COMPLIANCE OF RESTRICTION UNDER
RULE 144(xi) OF GFR 2017**

(To be printed on Company's Letter head)

(TO BE SUBMITTED WITH ENVELOPE-I)

**I/We (Name of agency)
..... certify that we are fully complying legal
obligations with regard to restriction under rule 144(xi) of General Finance Rule 2017
amended up to date.**

**Signature and name of the authorized signatory of the firm
With Rubber Stamp**

Date:

Place:

UNDERTAKING

(To be submitted by bidder in Envelop-I on letter head of company / Firm)

Name of Work: - **“Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport.”**

I/We(name and post of authorized signatory) on behalf of(Name of firm) do here by solemnly affirm and declare as follows:

Our firm shall deploy sufficient plant and machinery as per requirement of work in consultation with the Engineer-in-Charge(EIC) to achieve the milestones/targets and overall completion within the time period. If, we fail to deploy sufficient plant and machinery as per requirement, any recovery/penalty imposed by EIC shall be final and bound to us.

Signature with Stamp of Authorized representative of the Company/ Firm

Date:

Place:

Check List

CHECK LIST

(To be uploaded by the bidder along with tender application)

Name of Work:- “Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport.””

S. No.	Qualifying Criterion	Particulars	ATTACHEMENTS/ ENCLOSURES CHECK LIST (To be uploaded/ enclosed)
1	Name and Registered office address of the Applicant		
2	Name, Address, Telephone, Fax No., e-mail address of the Authorized contact person of the agency for further communication	Name : Address: Ph. No. : Mobile No. : Fax No. : Email ID :	
2. Envelope –I (Tender processing fee, EMD, Technical Bid and Pre-qualification) : It shall contain the scanned copy of--			
A. Tender Processing Fee, EMD :			
i.	Tender Processing Fee	Tender Fee shall be paid by way of online payment through SBI payment gateway provided at the CPP Portal itself	Tender fee submitted YES / NO
ii.	EMD	EMD shall be deposited by way of online payment through SBI payment gateway provided at the CPP Portal itself	EMD fee submitted YES / NO
B. Tender Technical Bid Containing Following :			
i	Unconditional Acceptance Letter	Format given at Page PR-1 (Annexure-1) of Tender document at PR-1.	Print out of Annexure-I from Tender Document, signed and stamped. YES / NO
ii	Details of PAN Card, GST Registration No alongwith GST declaration as per ANNEXURE-II at Page PR-2	Enclose documentary Proof PAN, GST and GST declaration	Copy of PAN Card, GST No & ANNEXURE-II uploaded / enclosed YES / NO
iii	Declaration regarding Debarred / Blacklisted as per ANNEXURE-III at Page PR-3	Enclose Annexure-III on company letter head.	Copy of uploaded / enclosed YES / NO

S. No.	Qualifying Criterion	Particulars	ATTACHEMENTS/ ENCLOSURES CHECK LIST (To be uploaded/ enclosed)
v	Declaration for deployment of T&P as per ANNEXURE-VII at Page PR-10	Declaration for deployment of T&P on company letter head as per Annexure - VII	Copy of uploaded / enclosed YES / NO
vi	Power of Attorney/ Authorization letter for signing tender document/ bidding on e-Tender Portal (if applicable)		Digitally signed copy of Power of Attorney/ Authorization letter uploaded / enclosed. YES / NO
vii	Undertaking regarding claim for preference under Make in India (Annexure-V at page PR-5 to PR-8)	Enclose undertaking as per Performa at page PR-5 to PR-8.	Copy of uploaded / enclosed YES / NO
viii	Undertaking regarding compliance of restriction under rule 144(xi) of GFR 2017 (Annexure-VI at page PR-09)	Enclose undertaking as per Performa at page PR-09.	Copy of uploaded / enclosed YES / NO
ix	PQ Performa (Check list) at Annexure-A of tender document	Duly filled in and signed check List	Check list with declaration uploaded / enclosed YES / NO
C. Qualifying requirements of contractors :-			
i	Valid Electrical License	Enclose documentary Proof	Copy of Valid Electrical License uploaded / enclosed YES / NO
ii	Work Experience Certificates from clients of having satisfactorily completed works similar in nature (i)	Details of similar nature works completed during last seven year i.e. copy of Completion certificate from Clients along with copy of work order. Completion certificates should have the following details:	Copy uploaded/ enclosed YES / NO
		Name of Client:	
		Name of Work:	
		Completion Value:	
		Date of Start:	
		Date of Completion	

S. No.	Qualifying Criterion	Particulars	ATTACHEMENTS/ ENCLOSURES CHECK LIST (To be uploaded/ enclosed)
	(ii)	Name of Client:	
		Name of Work:	
		Completion Value:	
		Date of Start:	
		Date of Completion	
	(iii)	Name of Client:	
		Name of Work:	
		Completion Value:	
		Date of Start:	
		Date of Completion	
iii	Annual average turnover details (Abridged Balance Sheet and Profit and Loss Account) for the last three years.	Abridged Balance Sheet and Profit and Loss Account for last three financial year.	Copy uploaded/ enclosed YES / NO
iv	Net worth certificate issued by certified chartered Accountants as per ANNEXURE-IV at Page PR-4		Copy uploaded/ enclosed YES / NO
3. ENVELOPE – II (PRICE BID FOLBER): It shall contain			
a.	Price / Financial e-Bid	The Rates shall be quoted in the format provided at e-tendering portal and no other format is acceptable.	

Date :

Signature with Stamp

Place:

Authorized Signatory of the Agency

DECLARATION

I (_____) hereby declare that the documents submitted / enclosed are true and correct. In case any document at any stage found fake / incorrect, my EMD may be forfeited and action for debarment from tendering in AAI, apart from any other appropriate contractual / legal action be taken.

Date :

Signature with stamp

Place :

Authorized Signatory of the Agency

Bill of Quantity

Validate

Print

Help

Item Rate BoQTender Inviting Authority: **Sr.Manager Engg.- E, Airports Authority of India, Kangra Airport, Kangra**

Name of Work:- "Provision of illuminated mandatory signage in operational area and replacement of damaged runway / apron circuit at Kangra Airport."

Contract No: 2022_AAI_119470_1

Name of the Bidder/ Bidding Firm / Company :						
PRICE SCHEDULE						
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)						
NUMBER #	TEXT #	NUMBE R #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE per Item 'Excluding GST in Figure to be entered by the Bidder Rs. P	TOTAL AMOUNT Excluding GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
1	Design, Manufacturing and Supply of illuminated taxiway guidance signages of various sizes made of anodized 2 mm (nominal) thick extruded aluminum profile frame with suitable stiffening supports for structural rigidity, 1.5 mm thick aluminum back cover, 4 mm thick poly carbonate sheet with glare free face, supporting legs, breakable coupling etc. The letters and symbols shall be internally pasted/ screen printed with required coloring. The sign boards shall be uniformly internally illuminated with required number of LEDs strips to achieve required illumination level, alongwith drivers, internal control circuit etc and shall operate without any flickering when operated on input source of 2.8 Amps. to 6.6 amps. series current, and having suitable arrangement for water tightness and locking arrangement etc. complete as required. The taxiway guidance signages shall be as per ICAO and confirming to technical specifications. (Legends shall be as approved by Engineer-in-charge).	15	Sq. Metre		0.00	INR Zero Only
2	Installation of illuminated taxiway guidance signages of various sizes by providing and laying in position cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of nominal size 300 mm x 300 mm x 500 mm for each leg and total base of 150 mm thick cement concrete all around the board as per attached drawing including excavation, finishing, leveling of ground, interconnection with isolating transformer, crimping/ jointing of plug & receptacles, laying of secondary leads, connections, earthing, testing and commissioning etc. complete as per site conditions. (Measurement will be made as per Cement Concrete area (sqm) of the surface around the sign board) (Isolating transformer, plug & receptacles, secondary cable, pipe shall be supplied by AAI)	30.00	Sq. Metre		0.00	INR Zero Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE per Item 'Excluding GST' in Figure to be entered by the Bidder Rs. P	TOTAL AMOUNT Excluding GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
3	Supply of M.S. Isolation Transformer Housing Box, water tight rectangular type, metal container of size 400 MM Height x 330mm Width x 330mm Length. All sides including bottom except top surface shall be made of 6mm thick MS sheet & Top Surface shall be made of 10mm MS Sheet with a round opening of dia 220mm and 6 nos. M10 tapped hole with S. S. inserts on 260mm PCD to receive cover plate and bolts suitable to receive a cover plate on the top, The cover plate shall be made up of MS Plate of 8mm thickness with rubber gasket and 6 nos. M10 S.S. Bolts. All joints shall be continuously welded and shall have a clear holes on three side at surface centre suitably above bottom surface to receive of 40 mm dia (outer dia) HDPE/G. I. pipe and including check nuts as required. The box should have One / two S.S. earth bolts of M10 x 40 mm tapped inside near the hole but away from the hole centre and having a drain hole at the bottom centre suitably tapped to receive 15 mm dia, "B" class GI pipe and 6 nos. M10 tapped hole at the hole centre 260 mm to receive cover plate and bolts as required as per the drawings. (a) Two Hole Type	6.00	Each		0.00	INR Zero Only
4	Supply of following type 5 KV grade 50 Hz Isolating transformer series type encapsulated in neoprene type rubber with primary and secondary leads as specified in particular technical specification. (a) 200 Watt 6.6 Amps /6.6 Amps	6.00	Each		0.00	INR Zero Only
5	Installation of transformer housing boxes with a base concrete of 1:3:6 of size 1300 x 1300 x 50 mm thick all around concrete of 1:2:4, 150 mm thick, the top sloped with 1:2:4 cement including providing and fixing 250 mm long 15 mm dia "B" Class GI pipe with check nut for drainage of water etc. including excavation of side shoulder and refilling etc complete as required.	6.00	Each		0.00	INR Zero Only
6	Supply of following sizes 5 KV grade XLPE / PVC insulated & PVC sheathed, antitermite & anti-rodent, multi-stranded copper conductor single core Airfield lighting cable confirming to IS 1554 (Part-II) with up to date amendments and confirming to tenders technical specifications, terms & conditions etc. complete as required.					
7	(a) 6 sq mm	300	Meter		0.00	INR Zero Only
8	(b) 16 sq mm	1500	Meter		0.00	INR Zero Only
9	Supply of following size ISI marked, HDPE pipe confirming to IS-4984-1995 with up to date amendments and confirming to tender's technical specifications, terms & conditions i/c loading, unloading etc. complete as required. (a) 63 mm (OD), PN-6, PE 80	1000	Meter		0.00	INR Zero Only
10	Laying of following size. HDPE/GI pipe in the soil / ground at depth of min 0.6 Mtrs including covering with excavation and refilling the trench, consolidation and making good the surface etc. complete as required. (a) 63 mm	1000	Meter		0.00	INR Zero Only

NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE per Item 'Excluding GST' in Figure to be entered by the Bidder Rs. P	TOTAL AMOUNT Excluding GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
11	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 5 KV grade of 6 sq. mm / 16 Sq. mm size in the existing RCC/ HUME/ METAL pipe as required.	1000	Meter		0.00	INR Zero Only
12	Removing and re-installation, Testing, and Commissioning of elevated type MIRL fittings on the existing transformer housing boxes including installation of Isolating transformer, lens, lamps, laying of secondary lead in pipe and other accessories, alignment, leveling and making transformer connections, earth connections etc complete as required.	21	Each		0.00	INR Zero Only
13	Supply of 5 KV grade plug and receptacle of type - I Class B connector and suitable for field attachment with 5 KV grade PVC insulated, PVC sheathed single core 16 sq. mm copper conductor cable conforming to technical specifications etc complete as required.	10	Set		0.00	INR Zero Only
14	Making field connections by crimping 6 sq.mm / 16 sq. mm plug and receptacle with existing 6 sq.mm / 16 Sq. mm single core PVC copper conductor cable including filling the gap with water sealant material and applying PVC insulated tape etc. complete as required.	10	Set		0.00	INR Zero Only
15	Supply and laying of following size copper conductor two pin secondary leads suitable for airfield lighting system and conforming to technical specifications etc. complete as required. (a) 2 X 4.0 Sqmm & 10 meter long	21	Each		0.00	INR Zero Only
16	Earthing with G.I. earth pipe 4.5 meter long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	6	Set		0.00	INR Zero Only
17	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	1000	Meter		0.00	INR Zero Only
Total in Figures					0.00	INR Zero Only
Quoted Rate in Figures			Select		0.0000	Zero Only
Quoted Rate in Words		INR Zero Only				