

लघु निविदा सूचना
SHORT TENDER NOTICE

हल्दिया गोदी परिसर में निम्नलिखित कार्य हेतु निविदा में दिए गए योग्यता मापदंड के अनुसार एक साथ दो भाग प्रक्रिया के तहत (तकनीकी-वाणिज्यिक बिड एवं लागत बिड) ई-निविदा आमंत्रित की जाती है।

E-Tender under single stage two part system (Techno-Commercial Bid and Price Bid) are invited as per Prequalification criteria stipulated in Tender Document for the following work at Haldia Dock Complex.

➤ कार्य का नाम/ Name of work	:	अनु. क: "पोर्ट अस्पताल, हल्दिया गोदी परिसर, हल्दिया में एक नया उपभवन (ऐनेक्स बिल्डिंग) का निर्माण" Tender for "Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia. अनु. ख : "हल्दिया टाउनशिप, हल्दिया गोदी परिसर, में पोर्ट अस्पताल के नए उपभवन (ऐनेक्स बिल्डिंग) के सामने पेवर ब्लॉक लगी नई सड़क एवं वॉकवे का निर्माण" हेतु निविदा Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex".
➤ ई-निविदा संख्या/ E-Tender No	:	आईएंडसीएफ/एसडीएम/आरजेड/ईटी/31 I&CF/SDM/RZ/ET/31
➤ अनुमानित लागत/ Estimated Cost	:	रु. 3,23,82,426.48 [रुपये तीन करोड़ तेईस लाख बयासी हजार चार सौ छब्बीस और पैसा अड़तालीस मात्र] Rs. 3,23,82,426.48 [Rupees Three Crore Twenty Three Lakh Eighty Two Thousand Four Hundred Twenty Six and Paisa Forty Eight only].
➤ पूर्व बोली बैठक ➤ Pre-bid meeting	:	प्री-बिड मीटिंग 05.05.2022 को होगी। Pre-bid meeting will be held on 05.05.2022.
➤ ई-निविदा जमा करने की अंतिम तिथि/ Last date of submission of e-tender	:	27.05.2022 अपराह्न 15:00 बजे तक जमा की जाएगी। Submission Up to 15:00 hrs.

निविदा और निविदा दस्तावेज की विस्तृत जानकारी एसएमपी, कोलकाता के वेबसाइट (www.kolkataporttrust.gov.in) पर उपलब्ध है एवं बोलीकर्ता उनके रेलटेल पोर्टल के वेबसाइट <https://KOLKATA.enivida.in> के माध्यम से ही बोली प्रक्रिया में भाग ले सकते हैं। इच्छुक ठेकेदार bsengupta.hdc@kolkataporttrust.gov.in वेबसाइट पर सम्पर्क कर सकते हैं।

Details of the Tender & Tender Documents are available in SMP, KOLKATA website (www.kolkataporttrust.gov.in) and have to participate in bidding process through their website <https://KOLKATA.enivida.in> of RailTel Portal. only. Interested bidders may contact at: bsengupta.hdc@kolkataporttrust.gov.in

General Manager (Engineering)
हल्दिया गोदी परिसर/ Haldia Dock Complex
श्यामा प्रसाद मुखर्जी पोर्ट, कोलकाता
Syama Prasad Mookerjee Port, Kolkata

सयमा प्रसाद मुखर्जी पोर्ट, कोलकाता
Syama Prasad Mookerjee Port, Kolkata
हल्दिया गोदि परिसर
HALDIA DOCK COMPLEX

BIDDING DOCUMENTS

(e-Tender)

[Tender No.: I&CF/SDM/RZ/ET/31]

FOR

Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex.



श्यामा प्रसाद मुखर्जी पोर्ट, कोलकाता
SYAMA PRASAD MOOKERJEE PORT, KOLKATA

Formerly Kolkata Port Trust

April – 2022

TABLE OF CONTENTS

[Tender No.: I&CF/SDM/RZ/ET/31]

CL. NO	SUBJECT	PAGE MKD
1	SCHEDULE OF TENDER (SOT)	3
2	SHORT TENDER NOTICE	4
3	NOTICE INVITING TENDER	5 - 8
4	IMPORTANT INSTRUCTIONS FOR E-PROCUREMENT	9 - 10
5	INSTRUCTION TO BIDDER	11 - 16
6	SPECIAL CONDITIONS OF CONTRACT FOR CIVIL & ELECTRICAL	17 - 43
7	TECHNICAL SPECIFICATIONS FOR CIVIL & ELECTRICAL	44 - 80
8	PREAMBLE TO THE BILL OF QUANTITIES	81
9	BILL OF QUANTITIES FOR CIVIL & ELECTRICAL	82 - 148
10	ABSTRACT FOR CIVIL & ELECTRICAL	149
11	ANNEXURE - IA	150
12	ANNEXURE - IB	151
13	ANNEXURE - II	152
14	ANNEXURE - III	153 - 154
15	ANNEXURE - IV	155
16	ANNEXURE - V	156
17	ANNEXURE - VI	157
18	ANNEXURE - VII	158 - 159
19	ANNEXURE - VIII	160
20	ANNEXURE - IX	161 - 162
18	General Conditions of Contract	163 - 205

1. SCHEDULE OF TENDER (SOT)

E-Tender under single stage two part system (Techno-Commercial Bid and Price Bid) are invited from reliable, bonafide & experienced agency with required experience as per Prequalification criteria stipulated in Tender Document for “**Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.**”

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex.” as per Bill Of Quantities to Haldia Dock Complex. Bid Document may be seen from SMP, KOLKATA website (www.kolkataporttrust.gov.in). Corrigenda or clarifications, if any, shall be hosted on the above mentioned website only. Bidders will have to participate in bidding process through website <https://KOLKATA.enivida.in> of RailTel Portal only.

a. TENDER NO.	I&CF/SDM/RZ/ET/31
b. MODE OF TENDER	e-tendering System
d. Date of NIT available to parties to download	25.04.2022 to 27.05.2022
e. i) Estimated Cost Of Work	Estimated Cost: Rs. 3,23,82,426.48 [Rupees Three Crore Twenty Three Lakh Eighty Two Thousand Four Hundred Twenty Six and Paisa Forty Eight only]. [Civil Work – Rs. 2,14,81,016.48 & Electrical work – 1,09,01,410.00]
ii) Bid Document fee	The intending bidders should submit Bid Document Fee of INR Rs. 2950.00 (Rupees Two Thousand Nine Hundred Fifty only) including 18% GST.
iii) Earnest Money Deposit	Rs. 6,47,649.00 [Rupees Six Lakh Forty Seven Thousand Six Hundred Forty Nine only] as Earnest Money, physically to Haldia Dock Complex, through DD / Banker's Cheque in favour of Syama Prasad Mookerjee Port, Kolkata, Haldia Dock Complex on any Scheduled / Nationalized Bank , payable at Haldia , otherwise, their bid will be summarily rejected, treating the same as non-responsive. Scanned copy of the DD / Banker's Cheque should be uploaded.
iv) Transaction Fee/ processing fee for bidding in RailTel Portal	Rs. 8,850.00 (Rupees Eight Thousand Eight Hundred and Fifty Only) (Including GST) (non-refundable) by net-banking / Debit / Credit card at RailTel Portal only.
g. Last date of submission of Bid Document fee.	27.05.2022 upto 15.00 Hrs.
h. Date of starting of online e-tender for submission of Techno-Commercial Bid & Price Bid.	25.04.2022
i. Pre-bid meeting	Pre-bid meeting will be held on 05.05.2022 in the office of General Manager (Engg), 2nd floor, Jawahar Tower, Haldia Township, Haldia, Purba Medinipur
j. Date of closing of online e-tender for submission of Techno-Commercial Bid & Price Bid.	27.05.2022 (Up to 3:00 P.M.),
k. Date & time of opening of the subject tender	27.05.2022 (After 3:30 P.M.)

2. लघु निविदा सूचना SHORT TENDER NOTICE

हल्दिया गोदी परिसर में निम्नलिखित कार्य हेतु निविदा में दिए गए योग्यता मापदंड के अनुसार एक साथ दो भाग प्रक्रिया के तहत (तकनीकी-वाणिज्यिक बिड एवं लागत बिड) ई-निविदा आमंत्रित की जाती है।

E-Tender under single stage two part system (Techno-Commercial Bid and Price Bid) are invited as per Prequalification criteria stipulated in Tender Document for the following work at Haldia Dock Complex.

➤ कार्य का नाम/ Name of work	:	अनु. क: "पोर्ट अस्पताल, हल्दिया गोदी परिसर, हल्दिया में एक नया उपभवन (एनेक्स बिल्डिंग) का निर्माण" Tender for "Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia. अनु. ख : "हल्दिया टाउनशिप, हल्दिया गोदी परिसर, में पोर्ट अस्पताल के नए उपभवन (एनेक्स बिल्डिंग) के सामने पेवर ब्लॉक लगी नई सड़क एवं वॉकवे का निर्माण" हेतु निविदा Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex".
➤ ई-निविदा संख्या/ E-Tender No	:	आईएंडसीएफ/एसडीएम/आरजेड/ईटी/31 I&CF/SDM/RZ/ET/31
➤ अनुमानित लागत/ Estimated Cost	:	रु. 3,23,82,426.48 [रुपये तीन करोड़ तेईस लाख बयासी हजार चार सौ छब्बीस और पैसा अड़तालीस मात्र] Rs. 3,23,82,426.48 [Rupees Three Crore Twenty Three Lakh Eighty Two Thousand Four Hundred Twenty Six and Paisa Forty Eight only]. [Civil Work – Rs. 2,14,81,016.48 & Electrical work – 1,09,01,410.00].
➤ पूर्व बोली बैठक ➤ Pre-bid meeting	:	प्री-बिड मीटिंग 05.05.2022 को होगी। Pre-bid meeting will be held on 05.05.2022.
➤ ई-निविदा जमा करने की अंतिम तिथि/ Last date of submission of e-tender	:	27.05.2022 अपरान्ह 15:00 बजे तक जमा की जाएगी।/ Submission Up to 15:00 hrs.

निविदा और निविदा दस्तावेज की विस्तृत जानकारी एसएमपी, कोलकाता के वेबसाईट (www.kolkataporttrust.gov.in) पर उपलब्ध है एवं बोलीकर्ता उनके रेलटेल पोर्टल के वेबसाईट <https://KOLKATA.enivida.in> के माध्यम से ही बोली प्रक्रिया में भाग ले सकते हैं। इच्छुक ठेकेदार bsengupta.hdc@kolkataporttrust.gov.in वेबसाईट पर सम्पर्क कर सकते हैं।

Details of the Tender & Tender Documents are available in SMP, KOLKATA website (www.kolkataporttrust.gov.in) and have to participate in bidding process through their website <https://KOLKATA.enivida.in> of RailTel Portal. only. Interested bidders may contact at: bsengupta.hdc@kolkataporttrust.gov.in

General Manager (Engineering)
हल्दिया गोदी परिसर/ Haldia Dock Complex
श्यामा प्रसाद मुखर्जी पोर्ट, कोलकाता
Syama Prasad Mookerjee Port, Kolkata

3. निविदा आमंत्रण सूचना
NOTICE INVITING TENDER

कार्य शीर्षक/WORK TITLE:- अनु. क: “पोर्ट अस्पताल, हल्दिया गोदी परिसर, हल्दिया में एक नया उपभवन (ऐनेक्स बिल्डिंग) का निर्माण”

Tender for “Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

अनु. ख : “हल्दिया टाउनशिप, हल्दिया गोदी परिसर, में पोर्ट अस्पताल के नए उपभवन (ऐनेक्स बिल्डिंग) के सामने पेवर ब्लॉक लगी नई सड़क एवं वॉकवे का निर्माण” हेतु निविदा

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex”.

3.1. E -TENDER NO.: I&CF/SDM/RZ/ET/31

हल्दिया गोदी परिसर में निम्नलिखित कार्य हेतु निविदा में दिए गए योग्यता मापदंड के अनुसार एक साथ दो भाग प्रक्रिया के तहत (तकनीकी-वाणिज्यिक बिड एवं लागत बिड) कुशल तकनीकी एवं वित्तीय क्षमता वाले साधन सम्पन्न, अनुभवी एवं योग्य एजेंसियों से ई-निविदा आमंत्रित की जाती है।

E-Tender under single stage two part system (Techno-Commercial Bid and Price Bid) are invited from resourceful, experienced and bonafide agencies with sound technical and financial capabilities on fulfilling the following Pre-qualification Criteria;

3.2 PRE-QUALIFICATION CRITERIA FOR BIDDERS: -

I) पिछले तीन वर्षों (31-03-2021 को समाप्त) के दौरान औसत वार्षिक वित्तीय कारोबार, अनुमानित लागत का कम से कम 30% होना चाहिए

Average Annual Financial Turnover during the last three years, ending on **31-03-2021**, should be at least 30% of the estimated cost.

II) The bidder, must have experience of having successfully completed “similar works” (defined below) as the main contractor during last seven years ending on the last day of the month previous to the one in which tender is invited and the experience must be either of the following:

a) One completed work of minimum Rs. 2,59,05,940.00 only, having minimum completed value of Rs. 1,71,84,812.00 for civil works and Rs. 87,21,128.00 for electrical works;

b) Two completed works, each of minimum value of Rs. 1,61,91,213.00 only, having minimum completed value of Rs. 1,07,40,508.00 for civil works and Rs. 54,50,705.00 for electrical works;

c) Three completed works each of minimum value of Rs. 1,29,52,970.00 having minimum value of Rs. 85,92,406.00 for civil works and Rs. 43,60,564.00 for electrical works.

d) i) In case, an entity is having experience only in Civil Works and does not possess requisite experience of electrical works and valid Electrical Contractor’s License, he may form a contractual joint venture with an entity having requisite experience of electrical works and having valid Electrical Contractor’s License, with or without forming a new legal entity, and in such case, the combined experience and turnover of the both the entities would be reckoned for the purpose of satisfying the eligibility criteria.

ii) No entity applying individually or as a member of a joint venture /consortium as the case may be can be member of another bidder.

iii) The term bidder used herein would apply to both a single entity and a joint venture /consortium.

iv) Value of Contracts mentioned in the Pre-Qualification Criteria is without GST.

III) समान प्रकृति वाले कार्य का अर्थ है

Similar works means: -

For Civil works - Construction of buildings / Sheds / Godown or any concrete or masonry structure or any combination thereof at Port Sectors / Central Govt. / State Govt. / PSU / Other Reputed Organization.

For electrical works - Work involving LT Electrical installations / new Electrical Wiring Work at Port Sectors / Central Govt. / State Govt. / PSU / Other Reputed Organization.

iv) उप-ठेकेदार या आपूर्ति ठेकेदार के रूप में कार्य का अनुभव, अपेक्षित योग्यता के रूप में मान्य नहीं होगा

Work experience, as a sub-contractor or supply contractor shall not be considered as the requisite qualification.

3.3 निविदा प्राधिकार/TENDER AUTHORITY:-

वरिष्ठ उप. प्रबंधक (आरज़ेड एवं स्पे.आर टी) (आई एंड सीएफ प्रभाग I), हल्दिया गोदी परिसर ; श्यामा प्रसाद मुखर्जी पोर्ट, कोलकाता।

Sr. Dy. Manager (RZ & Spl RT) (I & CF Divn.), Haldia Dock Complex; Syama Prasad Mookerjee Port, Kolkata.

पता/Address:

टाउनशिप सिविल मेंटेनेंस ऑफिस, क्लस्टर- 5; पो.: हल्दिया टाउनशिप; जिला: पूर्व मेदिनीपुर; पिन:-721607, पश्चिम बंगाल, भारत। टेलीफोन नंबर : 03224-263389

Township Civil Maintenance Office, Cluster- 5; P.O.: Haldia Township; Dist.: Purba Medinipur ; PIN: -721607, West Bengal, India. **Telephone no. : 03224-263389**

नियत तारीख Due	27.05.2022	समय Time	15:30 बजे तक UPTO 15:00 hrs.	निविदा खोलने की तिथि Date of Opening of	27.05.2022	समय Time	15:30 बजे से 15:30 hrs. onwards.
----------------	------------	----------	------------------------------	---	------------	----------	----------------------------------

बोली दस्तावेज एसएमपी, कोलकाता वेबसाइट(www.kolkataporttrust.gov.in) पर उपलब्ध होगा। बोलीदाता केवल रेलटेल पोर्टल की वेबसाइट <https://KOLKATA.enivida.in> of RailTel Portal के माध्यम से ही बोली प्रक्रिया में भाग ले सकते हैं।

Bid document will be available on SMP, KOLKATA website (www.kolkataporttrust.gov.in) Bidders will have to participate in bidding process through website <https://KOLKATA.enivida.in> of RailTel Portal only.

निविदा दस्तावेज की लागत(नॉन रिफंडेबल) Cost of Tender document (Non-refundable)	रु. 2950.00 (रुपये दो हजार नौ सौ पचास मात्र) 18% जीएसटी सहित। Rs. 2950.00 (Rupees Two Thousand Nine Hundred Fifty only) including 18% GST.
अग्रिम राशि Earnest Money Deposit	रु. 6,47,649.00 [छ: लाख सैंतालीस हजार छह सौ उनचास रुपए मात्र] अग्रिम राशि, हल्दिया गोदी परिसर को नकद के रूप में अथवा किसी भी अनुसूचित/राष्ट्रीयकृत बैंक के डीडी/बैंकर्स चेक के माध्यम से श्यामा प्रसाद मुखर्जी पोर्ट, कोलकाता, हल्दिया गोदी परिसर के पक्ष में, देय हल्दिया के माध्यम से जमा करें। अन्यथा, आपकी बोली को अप्रतिसादी मानकर तत्काल खारिज कर दिया जाएगा। डीडी/बैंकर चेक की स्कैन प्रति अपलोड करें। Rs. 6,47,649.00 [Rupees Six Lakh Forty Seven Thousand Six Hundred Forty Nine only] as Earnest Money, physically to Haldia Dock Complex, through DD / Banker's Cheque in favour of Syama Prasad Mookerjee Port, Kolkata, Haldia Dock Complex on any Scheduled / Nationalized Bank , payable at Haldia , otherwise, their bid will be summarily rejected, treating the same as non-

	responsive. Scanned copy of the DD / Banker's Cheque should be uploaded.
कार्य पूरा करने हेतु समय/ Time Of Completion	10 (दस) महीने 10 (Ten) Months.
कार्य की अनुमानित लागत /Estimated Cost Of Work	रु. 3,23,82,426.48 [रुपये तीन करोड़ तेईस लाख बयासी हजार चार सौ छब्बीस और पैसा अड़तालीस मात्र] Rs. 3,23,82,426.48 [Rupees Three Crore Twenty Three Lakh Eighty Two Thousand Four Hundred Twenty Six and Paise Forty Eight only]. [Civil Work – Rs. 2,14,81,016.48 & Electrical work – 1,09,01,410.00].
पूर्व बोली बैठक Pre-bid meeting	बोली पूर्व बैठक 05.05.2022 को कार्यालय महाप्रबंधक (इंजीनियरिंग), द्वितीय तल, जवाहर टावर, हल्दिया टाउनशिप, हल्दिया, पूरबा मेदिनीपुर में होगी. Pre-bid meeting will be held on 05.05.2022 in the office of General Manager (Engg),2nd floor, Jawahar Tower,Haldia Township, Haldia, Purba Medinipur

3.4. अन्य अनुदेश/OTHER INSTRUCTIONS:-

3.4. 1 हल्दिया गोदी परिसर में उपर्युक्त कार्य के लिए कुशल तकनीकी और वित्तीय क्षमताओं वाले साधन संपन्न, अनुभवी और योग्य बोलीदाताओं से दो कवर आधार (तकनीकी-वाणिज्यिक भाग एवं लागत बिड भाग) पर ई-निविदा आमंत्रित की जाती है।

E-Tenderers are invited on two Cover basis (Techno Commercial Part & Price Part) from resourceful, experienced and bonafide bidders with sound technical and financial capabilities for the above mentioned work at Haldia Dock Complex.

3.4.2 निविदा दस्तावेज संबंधी विवरण और निविदा दस्तावेजों के किसी भी परिशिष्ट / शुद्धिपत्र की अधिसूचना एसएमपी, कोलकाता की वेबसाइट (www.kolkataporttrust.gov.in) पर उपलब्ध है एवं बोलीकर्ता रेलटेल पोर्टल के वेबसाइट <https://KOLKATA.enivida.in> के माध्यम से ही बोली प्रक्रिया में भाग ले सकते हैं।

Details of the Tender Documents and Notification of any Addendum / Corrigendum to the tender documents are available in web site from SMP, KOLKATA website (www.kolkataporttrust.gov.in) and have to participate in bidding process through their website <https://KOLKATA.enivida.in> of RailTel Portal only.

3.4.3 ई-निविदा दस्तावेज न तो डाक द्वारा जारी किया जाएगा और न ही बेचा जाएगा।

E-Tender Document shall neither be issued by post nor sold.

3.4.4 ई-निविदाकारों को वेबसाइट से डाउनलोड किए गए निविदा दस्तावेज के किसी भी खंड में संशोधित/आशोधन परिवर्तन/हटाने की अनुमति नहीं है। यदि निविदा प्रस्तुत करने के बाद उसमें कोई परिवर्तन/विसंगति पाई जाती है, तो जमा किए गए प्रस्ताव को तुरंत खारिज कर दिया जाएगा।

E-Tenderers are not permitted to alter/change/delete/modify any clause of the tender document down loaded from the website. If any deviation / discrepancy is found after submission of tender, the submitted offer will be summarily rejected.

3.4.5 बोलीदाताओं को ई-निविदा दस्तावेज के "बोलीदाताओं को निर्देश" में निर्धारित बोली दस्तावेज जमा करना होगा। न्यासी जमा किए दस्तावेज/प्रमाणपत्र की प्रतियों को मूल प्रति से सत्यापित करने का अधिकार रखते हैं।

Bidders shall submit the Bid Document as stipulated in the "Instructions To Bidders" of the e-tender document. Trustees reserve the right to verify the submitted copies of documents / credentials with the original documents.

3.4.6 बोलीदाताओं को ई-निविदा दस्तावेज के "बोलीदाताओं को निर्देश" में निर्धारित बोली दस्तावेज जमा करना होगा। न्यासी जमा किए दस्तावेज/प्रमाणपत्र की प्रतियों को मूल प्रति से सत्यापित करने का अधिकार रखते हैं।

The successful tenderer will be required to comply with the relevant provisions of BOCW (RECS) Act, 1996, West Bengal BOCW (RECS) Act, 2004 and BOCW Welfare Cess Act, 1996 and the rules framed there under. An amount of cess as per prevalent rate (presently @ 1% of the billed amount) shall be

progressively recovered from all the bills of the contractor for onward transmission of the same to the appropriate authority.

3.4.7 ई-निविदा, निविदा जमा करने और खोलने की उपरोक्त निर्दिष्ट अंतिम तिथि को रेलटेल पोर्टल के <https://KoPT.enivida.in> के माध्यम से 15:00 बजे तक स्वीकार किए जाएंगे।

E-Tenderers will be received through <https://KOLKATA.enivida.in> of RailTel Portal up to 15:00 hrs. on the last date of submission and opening of tender specified above.

3.4.8 निर्धारित तिथि को दोपहर 3.30 बजे के तुरंत बाद ई-निविदा का तकनीकी-वाणिज्यिक भाग खोला जाएगा।

Techno Commercial Part of the e-Tender will be opened shortly after 3.30 p.m. on the stipulated date.

3.4.9 केवल तकनीकी और व्यावसायिक रूप से योग्य बोलीदाताओं का लागत भाग सभी संबंधितों को सूचित करते हुए परवर्ती तारीख को खोला जाएगा।

Price Part of only technically & commercially qualified bidders will be opened at a later date under due intimation to all concerned.

3.4.10 ई-निविदा खोलने की तिथि को अनिर्धारित अवकाश/बंद की दशा में निविदा अगले कार्य दिवस को खोली जायेगी।

In case of unscheduled Holiday / Bandh on the date of opening of E-Tender, the same will be opened on the next working day.

3.4.11 यह स्पष्ट किया जाता है कि उपरोक्त निविदा आगे बढ़ाना संभव नहीं होगा।

It is stated here that the subject tender may not be extended further.

3.4.12 एसएमपी, कोलकाता किसी भी प्रस्ताव या सभी प्रस्तावों को पूर्ण या आंशिक रूप से बिना कोई कारण बताए स्वीकार अथवा अस्वीकार करने का अधिकार सुरक्षित रखता है।

SMP, Kolkata reserves the right to reject any or all offers or to accept the offer in whole or in part without assigning any reason whatsoever thereof.

General Manager (Engineering)
हल्दिया गोदी परिसर/ Haldia Dock Complex
श्यामा प्रसाद मुखर्जी पोर्ट, कोलकाता
Syama Prasad Mookerjee Port, Kolkata

4. Important instructions for E-procurement

Bidders are requested to use internet Browsers Firefox version below 50 / Internet Explorer version 8 or above, and Java 8 Update 151 or 161.

Further, bidders are requested to go through the following information and instructions available on the <https://KOLKATA.enivida.in of RailTel Portal> before responding to this e-tender:

- Bidders Manual Kit
- Help for Contractors
- FAQ

Contact Persons (Syama Prasad Mookerjee Port, Haldia Dock Complex):

1. Shri B. Sengupta, Sr. Dy. Manager (I&CF), Mob: 9002784574, email: bsengupta.hdc@kolkataporttrust.gov.in

1	<p>Process of E-tender :</p> <p>THE TECHNICAL BID AND THE COMMERCIAL BID HAS TO BE SUBMITTED ON-LINE AT https://KOLKATA.enivida.in of RailTel Portal 1). Vendors are required to register themselves online with https://KOLKATA.enivida.in of RailTel Portal</p> <p>Contact person (Haldia Dock Complex):</p> <p>1. Shri B. Sengupta Designation: Sr. Deputy Manager (I&CF Division) Mobile No.: + 91 9002784574; Landline: + 91-03224-263389 E-mail : bsengupta.hdc@kolkataporttrust.gov.in</p> <p><u>Contact persons (RailTel Portal):</u> Shri Siddharth Ghosh Mobile No.: + 91 9355030604 E-mail : ewizardsiddharth@gmail.com Shri Deepak Jha Mobile No.: +91 8448288981 E-mail : ewizarddipak@gmail.com</p>
2	<p>The Techno-commercial Bid and the Price Bid shall have to be submitted online at https://KOLKATA.enivida.in of RailTel Portal Tenders will be opened electronically on specified date and time as given in the Tender.</p>
3	<p>All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.</p>
4	<p>Information about tenders /corrigendum uploaded shall be sent by email only during the process till finalization of tender. Hence the vendors are required to ensure that their corporate email I.D. provided is valid and updated at the time of registration of vendor with https://KOLKATA.enivida.in of RailTel Portal Vendors are also requested to ensure validity of their DSC (Digital Signature Certificate).</p>
5	<p>E-tender cannot be accessed after the due date and time mentioned in NIT.</p>
6	<p>Bidding in e-tender :</p> <p>a) Vendor(s) need to submit necessary EMD and Tender fees to be eligible to bid online in the e-tender. Tender fees are non refundable. No interest will be paid on EMD. EMD of the unsuccessful vendor(s) will be refunded by the tender inviting authority.</p>

	<p>b) The process involves Electronic Bidding for submission of Technical and Commercial Bid.</p> <p>c) In all cases, vendor should use their own ID and Password along with Digital Signature at the time of submission of their bid.</p> <p>d) During the entire e-tender process, the vendors will remain completely anonymous to one another and also to everybody else.</p> <p>e) The e-tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.</p> <p>f) All electronic bids submitted during the e-tender process shall be legally binding on the vendor. Any bid will be considered as the valid bid offered by that vendor and acceptance of the same by the Buyer will form a binding contract between Buyer and the Vendor for execution of supply.</p> <p>g) It is mandatory that all the bids are submitted with digital signature certificate otherwise the same will not be accepted by the system.</p> <p>h) Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.</p> <p>i) No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-tender floor by any vendor confirms his acceptance of terms & conditions for the tender.</p>
7	Any order resulting from this tender shall be governed by the terms and conditions mentioned therein.
8	No deviation to the technical and commercial terms & conditions are allowed.
9	The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of bid(s) without assigning any reason thereof.
10	Vendors are requested to read the vendor guide and see the video in the page https://KOLKATA.enivida.in of RailTel Portal to familiarize them with the system before bidding.

11	No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-tender floor by any bidder confirms his acceptance of terms & conditions for the tender.
12	The bidders must upload all the documents required as per terms of NIT. Any other document uploaded which is not required as per the terms of the NIT shall not be considered.
13	The bid will be evaluated based on the filled-in technical & commercial formats.
14	The documents uploaded by bidder(s) will be scrutinized. In case any of the information furnished by the bidder is found to be false during scrutiny, EMD of defaulting bidder(s) will be forfeited. Punitive action including suspension and banning of business can also be taken against defaulting bidders.
15	Necessary addendum/ corrigendum (if any) of tender would only be hosted in the e-tendering portal of CPP.
16	Due date of submission of tender will not be extended under any situation.

5. INSTRUCTIONS TO BIDDER

E-tender for “Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex”.

5.0 PREFACE :

The work as described in the tender shall be executed in Haldia and in accordance with the attached General Conditions of Contract, Special Conditions of Contract, Particular Specifications, Drawings (if any) & detailed Bill Of Quantities. Location Plan of the place of work might be inspected at the office of the Sr. Dy. Manager (RZ & Spl. RT.), I&CF on any working day before quoting for the tender.

5.1 Earnest Money Deposit (EMD) and Cost of Tender Document:

The intending bidders should deposit an amount specified in the Schedule of Tender (SoT), as Earnest Money Deposit (EMD) and **Cost of Tender Document** in accordance with the procedure mentioned therein.

Earnest Money Deposit (EMD) and **Cost of Tender Document** is to be physically deposited at the office of Sr. Dy. Manager (RZ & Spl RT) (I&CF), Haldia Dock Complex, Township Civil Maintenance Office ,P.O: Haldia Township, Dist.: Purba Medinipur; PIN: 721 607; West Bengal; India, separately in a single sealed envelope, mentioning Tender no. with proper marking Demand Draft/ Banker’s Cheque / Pay Order etc. against Earnest money should be submitted / deposited on any scheduled/ nationalized Bank, by the bidder in favour of Syama Prasad Mookerjee Port, Kolkata, payable at Haldia or by RTGS/ NEFT before opening of the tender, as specified in the Bidding Document.

Details of cost of e-tender paper remitted should be entered by the participating bidder in the space provided in the e-tender as indicated hereunder:

- a) Name of remitting bidder :
- b) Tender No. :
- c) Amount remitted :
- d) Date of remittance :
- e) DD/BC No. :

Cost of tender document fee and EMD may be deposited through NEFT/ RTGS in the following account.

Beneficiary Name: SYAMA PRASAD MOOKERJEE PORT, KOLKATA, HALDIA DOCK COMPLEX [Erstwhile Kolkata Port Trust, Haldia Dock Complex].

Bank: Punjab National Bank (Erstwhile United Bank of India)

Branch Name: Haldia Dock Complex.

Account No: 1604050000310

IFSC Code: PUNB0160420

Account Type: Current

The bidder should make payment of cost of tender document, Transactions fee and mention the UTR Numbers and date.

The details of payment made, with Bidder's Name, Tender Number and Tender subject, Bid Document Fee and UTR number may positively be informed to us by your office for checking the status of receipt of payment and generating Treasury Receipts.

However, it may be noted that for such successful payment (credited to the aforesaid account) through NEFT/ RTGS is the sole responsibility of the Applicant / Bidder. In case on any default for non-credit of the amount in the aforesaid account, the submitted offer will be summarily rejected without assigning any reason thereof by the Authority.

Tender submitted without requisite Earnest Money and tender document fee will be liable for rejection.

5.2 MODE OF SUBMISSION OF BID :

5.2.1 All bidders must submit their offers through e- tendering in accordance with the terms and conditions set out in the bid documents and no deviation will be accepted.

5.2.2 Techno commercial part shall contain the following which are to be uploaded: -

I. Essential Document :-

- a) Credentials in the form of copies of Letters of Award of Works along with corresponding Completion Certificates from owners to justify that the intending bidder satisfies the earlier mentioned pre-qualification criteria.
- b) In case of joint venture, credentials in the form of copies of Letters of Award of Works along with corresponding Completion Certificates from both the members of the Joint venture should be submitted to justify that the intending bidder satisfies the earlier mentioned pre-qualification criteria.
- c) Certified copies of audited balance sheet and Profit and Loss account / Trading account for the last 3 (three) financial years (i.e. 2018-2019, 2019-2020, 2020-2021).

II. Non-Essential Document :-

- a) That the Bidding Firm has Not been debarred / de-listed by any Govt / Quasi Govt. / Public Sector undertaking in India.
- b) The proprietor/partner(s)/authorized signatory of the bidding firm (in the case of proprietorship firm /partnership firm /limited company, as the case may be) is/are not associated with any other firm bidding for the same work.
- c) The un-priced "Abstract Form of Tender" & "Form of Tender" (without price quoted) shall not only be signed and stamped by the Bidder, but must also be duly witnessed and scan copy to be uploaded.
- d) A list of works which are in hand at the time of submitting the offer as per the enclosed proforma titled 'Concurrent Commitments of the Bidder' vide 'Annexure-II' in Volume-I of the tender document.
- e) A Declaration as per 'Annexure – IA' that no conditions / deviations have been added in the price part of the Bid.
- f) Scan copy of the following documents to be uploaded:-

- i) GSTIN / Provisional GST registration certificate.
- ii) Valid Trade Licence.
- iii) Valid Professional Tax Clearance Certificate / Up to date tax payment.
- iv) Proof of possessing valid Employees' Provident Fund (EPF) Account.
- v) Proof of being registered with Employees' State Insurance Corporation (ESIC).

- g) Details of the firm as per "BIDDER'S PROFILE" of the tender document.
- h) Addendum/Corrigendum / Notice / Extension Notice issued and drawings (if any) duly signed by the Bidder under office seal.

The bidder will have to produce the original documents or any additional documents, if asked for, to satisfy the Authorities.

- i) Integrity Pact.

5.2.3 All the bidders should submit the e-tender in accordance with the Mode of submission of Bid as aforesaid.

5.2.4 Guidelines for participation of as Joint Venture/Consortium:

1. A Bidder may form a "Joint Venture / consortium" with another firm having required expertise/ experience and submit the offer as "Joint Venture / consortium". If the offer is made as "Joint Venture/ consortium", the details and composition shall be clearly spelt out in the Technical bid.

2. If a joint venture firm/ consortium is pre-qualified, the responsibility for execution of works and operations and maintenance shall be in accordance with the Joint Venture/consortium agreement and no deviation from the terms of the JV / consortium agreement will be permitted without prior approval of the Engineer. Tenders submitted by a joint venture / consortium of two firms as partners shall comply with the following requirements:

- i) Both the Joint Venture partners shall jointly undertake the contract. Each entity forming part of the Joint Venture/Consortium would be jointly and severally responsible for completing the task as per the contract.

- ii) In case of a successful tender the Form of Agreement shall be signed by both the Joint Venture Partners so as to be legally binding on all partners.

- iii) The entity satisfying the experience criteria of Civil works shall be nominated as being Lead Partner; and this authorization shall be evidenced by submitting a Power of Attorney signed by legally authorized signatories of all the partners;

- iv) The Lead Partner shall be authorized to incur liabilities and receive instructions for and on behalf of any or all of the partners of the joint venture and the entire execution of the contract including payment against works done shall be done exclusively with the Lead Partner;

- v) Both the partners of the joint venture shall be jointly and severally liable for execution of the contract in accordance with the contract terms, and a relevant statement to this effect shall be included in the authorization mentioned above as well as in the Tender Form and the Form of Agreement (in case of a successful tender);

- vi) The agreement entered into by the members of the joint venture/consortium as per specified format shall be submitted with the tender.

- vii) All the partners of JV/Consortium shall submit a Power of Attorney for the Authorized Signatory of the JOV/Consortium as well as Power of Attorney for the authorized signatory of the JV Partners as per specified format.

- viii) Value of a completed work done by a Member in an earlier JV Firm, if any, shall be reckoned only to the extent of the concerned member's share in that JV firm for the purpose of satisfying his/her compliance to the above mentioned technical eligibility criteria in the tender under consideration, if applied as a JV / consortium for this particular work.

- ix) The purchaser of the tender document must be the Lead Partner of the Joint Venture/ consortium submitting the tender.
- x) The validity of the joint venture/consortium agreement shall continue for entire period of contract as specified in the tender including maintenance period and no amendment in the same shall be permissible without specific written consent of SMP, Kolkata.
- xi) A single Performance Guarantee shall be required to be submitted either by JV Firm or by the Lead Partner on behalf of the JV firm. No splitting of guarantees amongst the members of the JV firm shall be permitted.

5.3 OPENING OF BIDS:

Techno Commercial Part and Price Part as stated above will be opened on the date and time as fixed in the e-tender document on line.

5.4 SECURITY DEPOSIT:

5.4.1 For the successful Bidder, the Security Deposit shall be recovered from the bills as per clause no. 3.4 of G.C.C and will be refunded as per clause no. 6.9 of Special Conditions of the contract.

5.4.2 Forfeiture S.D. shall be guided by the G.C.C and as per tender stipulation.

5.5 VALIDITY OF OFFER:

The e-tender shall remain valid for a period of 120 [One Hundred Twenty] Days from the date of opening the same. If before expiry of this validity period, the Bidder amends his quoted rates or tender, making them unacceptable to the Trustees and / or withdraws his e-tender, the Earnest Money deposited shall be liable to forfeiture at the option of the Trustees/ Sanctioning Authority/Engineer.

5.6 DETAILED SCRUTINY OF E-TENDERERS:

5.6.1 During the course of examination of Techno Commercial Part of the bid, the bidders, if asked for, shall furnish any or additional document(s) for the purpose of evaluation of his / their bids. The price bids of those bidders who meet the qualifying criteria of NIT shall be opened.

5.6.2 During techno-Commercial Evaluation of tender, an offer shall be considered non-responsive in case:-

- (i) is not accompanied by requisite tender paper cost,
- (ii) validity of the offer is less than tender stipulation,
- (iii) It does not meet the Qualification Criteria as stipulated in the NIT.
- (iv) The bidder submits conditional offer / impose own terms and conditions / does not accept tender conditions completely.

In addition to above, a bidder may be disqualified if –

- a) The bidder provides misleading or false information in the statements and documents submitted.
- b) Record of unsatisfactory performance during the last seven years, such as abandoning of work or rescinding of contract for which the reasons are attributable to the non-performance of the contractor or inordinate delays in completion or financial bankruptcy etc.

The decision of SMP, Kolkata in this regard shall be final and binding on the Bidder.

5.7 For Micro & Small Enterprises (MSEs): -

5.7.1 Micro & Small Enterprises (MSEs) shall submit the following documents for availing themselves waiver of cost of tender documents: -

5.7.2 Micro and Small Enterprise registered with the authorities as mentioned in the Govt. of India gazette Notification dated 26.03.2012 shall be exempted from payment of Cost of Tender Document for which copies of valid MSE's Certificate along with NSIC / DIC / any other certificate of the authority as mentioned in the Govt. gazette with list of items registered must be submitted with tender.

5.8 EVALUATION CRITERIA:

During evaluation of Price Part, provided that the bidder submits his offer following e-tender stipulations & specifications, the overall lowest offer received shall be considered for acceptance by the Trustees.

5.9 ACCEPTANCE OF TENDER:

5.9.1 SMP, Kolkata reserves the right to accept / reject any / all offer(s) without assigning any reason thereof and also reserve the right to accept the tender in part or as a whole.

5.9.2 Any attempt to exercise undue influence in the matter of acceptance of Tender is strictly prohibited and any Tenderer who resorts to this will render his tender liable to rejection.

5.9.3 The successful Tenderer will be notified in writing of the acceptance of his tender. The "Tenderer" then becomes the "Contractor" and he shall forthwith take steps to execute the Contract Agreement within six weeks of issue of Letter Of acceptance and fulfill all his obligations as required by the Contract.

5.10 GOOD CONDUCT:

If a bidder has had previous history of "defined misconduct" (such as banning from by any government sector, premature termination of a contract solely on bidder's fault, criminal case pending against the company or its owner / current director filed by a government entity etc.) his offer is liable to be ignored.

5.11 MISCELLANEOUS:

(i) Bidder shall submit his offer for complete scope of work, strictly in accordance with the tender documents. Any deviation from the tender documents and / or any incomplete tender shall not be considered.

(ii) The bidder shall not impose his own terms & conditions in his offer or quote his rates based on his own terms and conditions, such E-Tenderers are liable to rejection at the option of the Trustees without further reference to the bidder.

(iii) All materials shall have to be procured by the successful Bidder and shall be of the best and approved quality conforming to relevant specifications. The successful Bidder shall also arrange for the supply of all labour, tools and plants as stipulated in the Special Conditions of Contract, required for efficient execution of the work.

(iv) All measuring units are in Metric System and rates and sums in the tender are in Indian Currency. The language used throughout shall be in English.

- (v) The Tender Documents with all the enclosures, appendices, Abstract Form of Tender and Form of Tender shall be required to be complete, duly filled in and signed and uploaded.
- (vi) The Bidder shall give a declaration about the names of their relations employed in SMP, Kolkata. It is not the intention to debar the Contractors from working if their relatives are working in SMP, Kolkata, but such a declaration is necessary in the interest of Trustees against any possible lapses.

5.12 REFUND OF EARNEST MONEY:

The Earnest Money received, will be refunded or released as the case may be to the unsuccessful Bidders without any interest within 7 [Seven] days after opening of Price bid of the e-Tender document.

6. SPECIAL CONDITIONS OF CONTRACT

E-tender for “Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex”.

6.0 PREFACE:

These provisions though given in a separate section are part of the tender documents which must be read as a whole, the various sections being complementary to one another and are to be taken as mutually explanatory. These provisions shall be read in conjunction with the other parts of the tender documents viz. General Conditions of Contract, Notice Inviting E-Tenderers, Instructions to Bidder, Particular Specifications, Drawings, Bill of Quantities and other documents forming part of the Contract. In case of any discrepancy or ambiguity in the documents, the order of precedence of the documents as stated below will apply. In particular, these provisions will over ride those in the General Conditions provided there is discrepancy between them.

6.1 CORRELATION AND ORDER OF PRECEDENCE OF TENDER DOCUMENTS:

If the stipulations in the various tender documents be found to be at variance in any respect, one will override others (but only to the extent these are at variance) in the order of precedence as given in the list below, i.e. any particular item in the list will take precedence over all those placed lower down in the list.

- Order letter.
- Bill of Quantities.
- Drawings.
- Particular Specifications of work.
- Special Conditions of Contract.
- General Conditions of Contract.

In case of any dispute, question or difference either during the execution of the work or any other time as to any matter or thing connected with or arising out of this Contract, the decision of the Sr. Dy. Manager (I&CF), Haldia Dock Complex, thereon shall be final and binding upon all parties.

6.2 SCOPE OF WORK:

The major scope of work shall be:-

- i) Earth work in excavation in foundation.
- ii) Taking out of damaged/bulged out cement plaster.
- iii) Dismantling cement brick work.
- iv) Filling in foundation trenches or plinth by silver sand.
- v) Supplying and laying Polythene Sheet.
- vi) Brick soling with picked jhama bricks.
- vii) Provide and lay cement concrete (1:2:4).
- viii) Provide and build brick work in foundation and plinth etc..
- ix) Provide and build 125 mm. thick brick work.
- x) M.S./Tor reinforcement.
- xi) Providing and laying of ordinary cement concrete Mix (1:1.5:3).
- xii) Hire and labour charges for shuttering.
- xiii) Providing and laying of cement plaster to exterior surfaces.

- xiv) Supplying, fitting & fixing granite slabs.
- xv) Supplying, fitting and fixing 1st quality Ceramic tiles.
- xvi) Supplying and laying true to line and level vitrified tiles
- xvii) Provide & supply Ordinary teak wood
- xviii) Supplying, Fitting & Fixing Factory made pre-laminated P.V.C. door frame
- xix) Provide and fixing M.S or W.I. Ornamental grill
- xx) Provide and apply one coat of ready mixed zinc chromate yellow primer
- xxi) Provide and lay paint on steel work.
- xxii) Providing and applying French polishing to wood work
- xxiii) Provide and apply Acrylic Distemper/ Acrylic Primer
- xxiv) Applying one coat Exterior grade Acrylic prime
- xxv) Supply, fit, fix CPVC (Chlorinated Polyvinyl Chloride) pipes.
- xvi) Supply and fill Zone-III brown sand
- xxvii) Provide and fix M50 grade paver block
- xxviii) Provide and fix M35 grade paver block

All the items of works as detailed above shall have to be carried out as per specification and as detailed in the “Bill of Quantities”.

The scope of work also includes all other ancillary and appurtenant works as set forth in the attached Bill of Quantities in accordance with specifications for materials and workmanship as per this tender, relevant BIS codes, specifications as detailed in M.O.R.T.H Specifications and PWD, West Bengal’s Schedule of Rates for Road & Bridge Works and Building Works (Latest editions).

6.3 LOCATION:

The new construction of Civil and electrical works are located at Port Hospital, Haldia Township, HDC.

6.4 ACCESS TO THE SITE:

(a) By Road:

All-weather hard top road approachable from N.H. 41 and State Highway exist right up to the area of work.

(b) By Rail:

S. E. Railway Branch Line connects Haldia with the Panskura/Mecheda Railway Station.

6.5 INSPECTION OF SITE:

The Bidder shall inspect the site of work and thoroughly familiarise himself with the nature of work, site conditions, and access to the site and location before submission of the tender. He should contact the Sr. Dy. Manager, RZ (I&CF), Cluster –V, P.O.: - Haldia Township, Dist.: Purba Medinipur, Pin: 721607 for collecting information about the site before submission of the tender.

No excuse will be entertained afterwards on the above ground. In case any part of the site cannot be handed over to the successful Bidder in time, no compensation for loss of labour or any other cause nor any claim will be entertained by the Trustees. Suitable extension of time shall, however, be granted to the successful Bidder on that ground if applied for.

6.6 SITE CONDITIONS & METHOD OF WORK:

The sequence of delivery of the materials shall have to be programmed by the successful bidder as per direction of the Engineer.

Any damage caused to the existing pavement / structures/facilities/service lines or defect arising during construction shall have to be made good / rectified forthwith as directed to the satisfaction of the Engineer.

They shall have to plan the work in such a way so that all the activities of the job can be continued after taking care of the above hindrances effectively round the clock even on Sundays and holidays in order to complete the job within scheduled time frame as mentioned below. The tenderers shall consider the above points while quoting their rates.

The Contractor shall take all possible care so that other construction and / or operational works around the area, if any, are not unduly hampered for this work. Any defect arising during construction work shall have to be rectified forthwith as directed, to the satisfaction of the Engineer, without charging extra. During execution of the work, proper care should be taken to provide adequate protection to the existing structures, cables (electrical / telephone / computer etc), fresh water and fire pipelines etc. and other installations against any damage at the contractor's risk and expense. Careful manual excavation will have to be carried out in places where service lines have been laid (information to be obtained from Engineer by the contractor beforehand) to avoid any damage.

The tenderers shall have to assess the impact of hindrance to the different activities of the work which may likely to occur during execution of the job due to various factors including those of shipping and other operational activities in the areas and also as stated above. They shall have to plan the work in such a way so that all the activities of the job can be continued after taking care of the above hindrances effectively round the clock even on Sundays and holidays in order to complete the job within scheduled time frame as mentioned below. The tenderers shall consider the above points while quoting their rates.

6.7 SETTING OUT WORKS AND INITIAL MEASUREMENTS:

The Engineer shall provide the initial references and a benchmark for the setting out of the work. It will be the Contractor's responsibility to set out the works accurately and get them checked by the Engineer.

The Contractor shall provide at his own expense all necessary instruments, staff and labourers for the checking of the survey.

The Contractor shall be responsible for the true setting out of the Works, and for the correctness of all dimensions, levels, lines, positions and alignment. Any error in any of the dimensions, levels, lines, positions and alignment found in any part of the Works shall be rectified by the Contractor at his own cost. Checking by the Engineer at any stage shall not absolve the Contractor from any responsibility for proper setting out and construction of the Works to correct levels, lines, positions and alignment.

Before commencement of the work, the Contractor shall take initial measurements and spot levels at intervals as ordered by the Engineer and after verification by the Engineer, these records shall be signed by the Contractor and serve as the initial record for earthwork measurements. The Contractor shall give the Engineer or his representative at least 24 hours prior notice in writing of the time when any part of the setting out of the works will be ready for checking.

6.8 TIME OF COMPLETION:

The work is urgent in nature and must be commenced immediately on receipt of the work order and to be completed in all respects within **10 (Ten) Months** including preliminary time from the date of placement of work order.

6.9 MAINTENANCE PERIOD:

The Contractor shall maintain the works allotted to him considering new construction of the buildings and other works a guarantee period of 05 (Five) years in addition to 03% performance security should be maintained. 10% retention money will be kept withheld from the bills which will be released @ 02% per annum during guarantee period of five years. Maintenance period for Electrical works will for 01 (One) year period.

6.10 TEMPORARY OR ENABLING WORK:

The Contractor shall submit to the Engineer for his approval not less than 28 days before commencement or erection of any part of Temporary Works, drawings and detailed proposals for the method of construction of temporary works such as office, store, and temporary platforms, pre-casting yard, workshop etc. which he intends to construct for the execution of the contract and no such work shall be constructed before obtaining the written approval of the Engineer. These provisions will apply to all enabling works also. The contractor shall obtain permission for any Temporary Works and would ensure that during execution of works the statutory requirements of the concerned authorities such as SMP, Kolkata, Police, Customs, etc. would be complied with.

The Contractor shall also submit his calculations relating to the design of temporary works, strength etc., if required by the Engineer and shall carry out the modifications that the Engineer may require of such temporary works at Contractor's own cost. As with the permanent works, the Contractor shall take all precautions while carrying out the temporary works and shall abide by regulations of all statutory authorities.

Notwithstanding approval by the Engineer, the Contractor shall be solely responsible for the safety and proper execution of the temporary work and all related permanent work. The Contractor at his own cost shall repair any damage occurring to part or whole of the permanent work due to any failure of the temporary works.

6.11 CONTRACTOR'S SITE OFFICE, STORE SHEDS ETC:

On an application from the Contractor, land near to the site of work will be allotted by the Trustees for the construction of Site Office, Store etc. For such allotment a rent will be recovered from Contractor's bill at prevailing rates of HDC plus applicable tax or any amendments thereof.

The Contractor shall hand over vacant possession of the land free from all encumbrances within two months from actual date of completion of work (as stated in G.C.-I).

In case the contractor does not remove the site offices, store etc. within two months from the actual date of completion, the contractor will have to pay compensation equivalent to three times the applicable licence fee for the plot of land allotted to him temporarily for site offices, store etc. as per Schedule of Rent of SMP, Kolkata's land and buildings at Haldia and to be recovered from his final bill / Security Deposit. The Contractor shall build office, sheds etc. on the land allotted to him as approved by the Engineer or his representative and shall maintain a clean hygienic condition throughout the period of their use.

The Contractor shall maintain a Site Order Book at his site office and all orders and instructions issued to him from time to time by the Engineer or his representative will be recorded in the Site Order Book. The Contractor shall promptly sign each entry as a token of having received such orders.

6.12 KEEPING THE SITE AND WORKING AREA CLEAR:

The Contractor shall at all times keep the site and working areas free from all surplus materials, rubbish and offensive matter all of which shall be disposed off in a manner to be approved by the Engineer's Representative. As the works will be carried out mainly inside of operational buildings of HDC, the Contractor has to make necessary arrangement to clear the rubbishes etc. from the buildings, at the end of day's work at his own cost & risk.

6.13 SUPPLY OF MATERIALS BY THE CONTRACTOR:

It will be the responsibility of the contractor to make timely procurement of all materials for both temporary and permanent works required in accordance with the Bill of Quantities or for any extra/additional work required as per the directions of the Engineer. The contractor shall procure cement, reinforcement steel, paver blocks (if procured), only from manufacturers approved by the Engineer.

Second hand rail, if required, will be supplied free of cost from the departmental store.

The contractor will be allowed to take away surplus materials on completion of the work, subject to Engineer's verification of contractor's records of entry and consumption of materials in the works.

6.14 TESTING OF MATERIALS & EQUIPMENT:

The contractor shall provide at his own cost all necessary equipment and all necessary facilities for such testing which by the nature of work will have to be done at site or at the approved test laboratory.

During inspection of materials, the defective and non conforming (to the specifications mentioned on BOQ) materials will be rejected and returned.

Material test certificates including challans to be submitted for the materials to the Engineer in charge.

These are only indicative and it may be noted that equipment are to be provided and testing carried out as per direction of Engineer without any reservation and at the cost and expense of the contractor.

Any other testing of materials or workmanship desired by the Engineer shall be carried out by the contractor at his cost from National Test House or any other Government registered laboratory or Institutional Laboratory as approved by the Engineer.

The testing charges and all other incidental charges like packaging and transporting the test samples etc. shall have to be borne by the contractor and must be included in the rates.

6.15 SAFETY:

The contractor shall adhere to safe construction practice, guard against hazardous and unsafe working conditions and follow all safety precautions for prevention of injury or accidents and safeguarding life and property. The contractor shall comply with relevant provisions of Dock Workers (Safety, Health and Welfare) Act – 1986 and Dock Workers (Safety, Health and Welfare) Regulation – 1990 and Safety Officer of the Trustees or Safety Inspectors shall be afforded all facilities for inspection of the works, tools, plant, machineries, equipments etc. wherever so required.

The contractor shall further comply with any instruction issued by the Engineer, Trustees' Safety Officer, Safety Inspector in regards to safety which may relate to temporary, enabling or permanent works, working of tools, plants, machineries, equipments, means of access or any other aspect.

The contractor shall provide all necessary first aid measures, rescue and life saving equipment to be available in proper condition.

The contractor shall provide PPE's (Personal Protective Equipments) such as, helmet, safety shoe, mask etc. to all workers and shall also provide job specific PPE's e.g. safety belts for working at heights; protective face and eye shield, goggles, hand gloves for welding / gas cutting works; protective foot wear and gloves for hot works ; facemasks, gloves and overalls for painting works, mixing and handling materials etc , as directed by the Engineer.

All safety rules shall be strictly followed while working on live electrical systems or installations as stipulated in the relevant safety codes.

Use of hoisting machines and tackles including their attachments, construction tools, machineries and equipments shall comply to the relevant safety codes.

Before allowing workers in sewers, manholes, any duct or covered channel etc, the manhole covers shall have to be kept open and ventilated at least one hour in advance and necessary safety torches / lamps should be inserted first before allowing entry to the worker. Suitable hand gloves and other safety gear will be provided to the worker during handling / removing of slushes / sludge etc. without any extra cost. The contractor shall adopt all the above safety measures at his own cost.

The successful bidder shall also ensure that –

- (i) No damage is caused to plants and vegetation's unless the same is required for execution of the project proper.
- (ii) The work shall not pollute any source of water / land / air surrounding the work site so as to affect adversely the quality or appearance thereof or cause injury or death to animal and plant life.
- (iii) His office & labour hutment etc. shall be maintained in a clean and hygienic condition throughout the period of their use and different effluents of the labour hutment shall have to be disposed off suitably.

6.16 POWER SUPPLY:

If available and if required, suitable power supply may be arranged by the Trustees at the nearest existing supply point of the site of work on receipt of request letter from the Contractor to that effect. All necessary arrangements for the distribution at site will have to be made by the Contractor at his own cost as approved by the Trustees' Plant and Equipment Division.

Electricity consumption charges will be determined on the basis of **Chargeable Unit (kWh)** [actual **Unit (kWh) consumed** (recorded through Energy Meter) **plus 3%** on actual Unit consumed] and applicable rate of **West Bengal State Electricity Distribution Company Limited (WBSEDCL)**. Billing will be done on the basis of aforesaid **Electricity consumption charges** and overhead charges @ 19.25% [on the aforesaid **Electricity consumption charges**] as per the notifications of **Tariff Authority of Major Ports (TAMP)**.

The billed amount against **electric supply** shall have to be paid by the Contractor immediately, on receipt of the bill from the office of the Finance Division, Haldia Dock Complex. All payment on this account should be updated, otherwise the pending bill amount, along with late payment surcharge, will be recovered from the Contractor's bill(s).

6.17 WATER:

The Contractor will arrange for supply of water both for drinking and for construction purposes. However, on written request from the Contractor, water for drinking and for construction purposes may be made available from the exiting water line of the Trustees at a point near the site of work. The contractor will have to arrange for laying pipelines, as necessary, as per approval of the Engineer or his representative, for storing and distributing the same to the work point at his own cost. For supply of water by Trustees to the Contractor, an amount equivalent to 1% (one percent) of the gross bill value for cementitious items only shall be progressively recovered from the running bill including final bill as applicable.

6.18 METHOD OF MEASUREMENT:

Unless otherwise specified in the Particular Specifications and Bill of Quantities, the work shall be measured according to the current P.W.D.'s (Building, Road, and Sanitary) Schedule of Rates, Govt. of West Bengal and analysed rate. For details of measurement not covered by the above S.P.-27 1987 of B.I.S. shall be referred to.

6.19 ON ACCOUNT PAYMENT:

Payment will be made to the Contractor on the basis of measurements at the quoted rates in the Bill of Quantities after completion of the work.

On Account payments may be made at the discretion of the Engineer or his representative at intervals deemed suitable and justified to him provided always that, subject to execution of work of substantial

value in the context of contract price, the interval of such On Account payment shall be decided by the Engineer or his representative, which shall ordinarily be not less than one month in between two payments for on Account bills and/ or advance.

Any On Account payment made prior to issue of the certificate in Form GC-2 shall all be treated as mere advances, which shall stand recoverable in full or in part if the Engineer so decides in the context of Contractor's unfulfilled contract condition, if any.

The terms of payment shall be in accordance with General Conditions of Contract. The Bills should be submitted by the contractor in quadruplicate to the Sr. Dy. Manager (I&CF)'s Office with necessary documents in original.

Subject to the availability and feasibility of system, HDC may make payment directly to the contractor's designated bank account.

For this purpose, the contractor will have to indicate (i) name of bank (ii) branch name (iii) branch code and (iv) designated account number in the "Abstract Form Of Tender".

In case payment is made directly through bank, the contractor may be required to submit a pre-receipt as per instruction of HDC.

6.20 WATCHING OF MATERIALS:

The successful Bidder will have to arrange for proper security of all materials and tools brought by him. The Contractor shall be fully responsible for any theft or damage of the materials. He may be allowed to post his Watchmen round –the-clock at the work-site with valid prior permission. No extra amount will, however, be paid separately for watching. The Contractor should quote his rates keeping this in view.

6.21. STATUTORY COMPLIANCE:

6.21.A. CONTRACT LABOUR LAWS:

The Contractor must comply with the provisions of Contract labour (Regulation & Abolition) Act 1970 and Contract Labour (Regulation & Abolition) Central Rules 1971 and the rules framed there under with all modifications/amendments being enforced from time to time.

The Contractor shall indicate maximum number of workmen to be engaged on any day for execution of the work in the appropriate place in the ABSTRACT FORM OF TENDER & he shall have to obtain a regular/permanent license as per sec12(1) of the Contract Labour Act.

Further , whenever a contract work has commenced or completed , the contractor has to intimate the same to the Assistant Labour Commissioner(Central) /labour Enforcement Officer (Central) in Form IV-A , within 15 days of such commencement or completion.

The contractor has to obtain a certificate of registration under "Building & Other Construction Workers (Regulation Of Employment & Conditions Of Service) Act-1996 and Central Rule 1998 and his rate shall include a cess payable @ 1 % of the cost of construction as applicable under "Building & Other Construction Workers Welfare Cess Act -1996 & Welfare Cess Rules 1998.

The contractor has to arrange for displaying the name of the Regional Labour Commissioner (Central), Asst. Labour Commissioner (Central) & Labour Enforcement Officer (Central) at his worksite(s).

The contractor shall inform the Principal Employer the date, time & venue of disbursement to be made by him to his workers.

The successful bidder shall also be required to put up a notice at the site of work mentioning the date, time & venue of disbursement to be made by him to his workers and he or his authorized representative shall have to be present during period of disbursement.

6.21 B. COMPLIANCE WITH EPF & M P ACT:

The successful contractor will have to comply with provision of EPF & MP Act –1952 (along with amendments, if any), issued from time to time.

If asked for by the Employer, the contractor will be required to submit photocopy of all payment challans and produce the original for verification to the representative of the principal employer, i.e. Sr. Dy. Manager (I&CF).

6.21 C. COMPLIANCE WITH ESI ACT:-

If applicable, the successful bidder will have to comply with provisions of “Employers State Insurance Act –1948”, along with amendments (if any) issued from time to time. He shall obtain ESI registration and shall deduct employees’ contribution as applicable percentage of the wages of each of the employees’ and shall deposit the same together with employer’s contribution as applicable percentage of such total wages payable to the employees or at such rates as fixed by the competent authority from time to time.

In case, where an employee is not covered under ESIC Scheme (or contribution not paid for him regularly) and meet an accident during and arising out of his employment, the contractor being the immediate employer, shall be liable to pay him suitable compensation.

The contractor will be required to submit Photo copies of all payment challans and produce the original for verification to the representative of the principal employer, i.e. Sr. Dy. Manager (I&CF).

6.21 D. INDEMNIFICATIONS:

The successful bidder shall be deemed to indemnify and keep indemnified the Trustees from and against all actions, claims, demands and liabilities whatsoever under and in respect of the breach of any of the provisions of any law, rules or regulations having the force of law, including but not limited to –

- a) The Minimum Wages Act, 1948.
- b) The Dock Workers (Regulation Of Employment) Act, 1948
- c) The Building And Other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996
- d) The Dock Workers’ Safety, Health & Welfare Act , 1986
- e) The Payment of Wages Act, 1936.
- f) The Workmen’s Compensation Act, 1923.
- g) The Employees Provident Fund Act, 1952.
- h) The Contract Labour (Regulation and Abolition) Act, 1970; Rules 1971.
- i) The Payment of Bonus Act, 1965.
- j) The Payment of Gratuity Act, 1972.
- k) The Equal Remuneration Act, 1976.
- l) The Employees State Insurance Act, 1948 & Employees State Insurance (Amendment) Act ,1989
- m) Child Labour (Prohibition and Regulation) Act, 1986.
- n) The Maternity Benefits Act 1961
- o) Interstate Migrant Workmen (Regulation Of Employment & Conditions Of Service) Act, 1979.
- p) Motor Vehicle Act, latest revision.

6.22 FORCE MAJEURE:

In the event of either party rendered unable by Force Majeure to perform any obligation required to be performed by them under the Contract, relevant obligation of the party affected by such Force Majeure shall upon notification to the other party be suspended for the period which Force Majeure events lasts. The cost and loss sustained by the either party shall be borne by the respective parties.

The term “Force Majeure” as employed shall mean the events as below :

- (i) riot (unless solely restricted to or perpetuated by employees of the Contractor or his subcontractors / suppliers or occurring outside India) so far as it is uninsurable;
- (ii) war, hostilities (whether war be declared or not), invasion, directed to or by India or act of foreign enemies, directed to India;
- (iii) rebellion, revolutions, insurrection, or military or usurped power, or civil war in India;
- (iv) Fire , flood , cyclone , hurricane and acts of God.

Time of performance shall be extended by the period of delay, which is directly caused by the Force Majeure. Upon the occurrence of such cause and upon its termination, the party alleging that it has been rendered unable as aforesaid shall notify the other party in writing immediately but not later than forty eight hours of the alleged beginning and ending thereof, giving full particulars and satisfactory evidence in support of his claim.

Time of performance of the relative obligation suspended by the Force Majeure shall stand extended by the period for which such event lasts and affects the relative obligation directly. Such extension of time shall be without prejudice to the provision that time is essence of the Contract and any other terms and conditions related to time of completion as may provided elsewhere in the Contract

If the work is affected by Force Majeure lasting for more than 60 days at a stretch, the parties to the Contract shall settle the issue mutually.

6.23 SETTLEMENT OF DISPUTES:

If a dispute of any kind whatsoever arises between the Employer and the Contractor in connection with or arising out of the contract or the execution of the works, the same shall be dealt as per relevant provisions of the General Conditions of Contract and THE ARBITRATION AND CONCILITATION (AMENDMENT) ACT,2015 and any statutory amendment thereof.

6.24 TAX :

The quoted rates should include all other Taxes excluding GST. GST as applicable shall be paid extra against proper invoice submitted by the successful contractor.

The contractor will be required to submit GST compliant invoice with all required details and also to be required to file timely and proper return so as to enable SMP, KOLKATA to get due input credit against GST paid off.

In case of any failure on the above account, GST amount even if paid by SMP, KOLKATA shall be recoverable from the contractor, along with applicable interest if any.

6.25 PROVISIONS FOR SITE STAFF OF ENGINEER: -

After the issue of Engineer’s notice to commence, the contractor shall as soon as possible make available of the following facilities for the staff of the Engineer at the Site of Work, all in accordance

with the approval of the Engineer or his Representative and the Contract Price shall be deemed to be inclusive of the provision for all these (a) Equipment Facilities: - Provide and maintain all necessary equipments in working condition for use of Engineer's staff such survey, testing of materials and any other instruments, equipment and apparatus as they may require for carrying out the contractual obligations.

(b) Site office with all relevant furniture etc. during execution of the job.

6.26. PROGRAMME AND PROGRESS:

The contractor shall submit a detailed programme of work within 7 [seven] days from the date of issue of Work Order / L.O.I. showing the commencement, duration and completion time of all major items of work including procurement of all materials etc,. The Contractor shall have to detail out all procurement, execution, etc. In the form of Bar Charts/ Gantt Charts/ Networking diagrams, CPM and/or PERT Charts, Project Work Breakdown structures, etc. From time to time as would be required by the KoPT or its authorised representatives. The sequence of work shown in the programme must be practicable and compatible with technical specifications and conditions prevailing at site. The contractor shall maintain the progress of work as per the approved programme. In case of any slippage of programme the engineer may require the contractor to augment the input of plant, equipment, labour of any item as he may deem fit. The contractor shall comply with the engineer's directive in this regard, without any extra charge whatsoever.

In case of delays caused due to conditions or circumstances beyond the control of the contractor, the delays must individually be informed to the Engineer forthwith in writing and his acceptance in writing obtained.

6.27. RESPONSIBILITY OF THE CONTRACTOR FOR METHODOLOGY OF WORKS:

i) The Contractor shall be solely responsible for the methodology and detailed working for the whole of the works, keeping in mind the site conditions and shall supply to the Engineer such particulars thereof as he may require from time to time.

ii) The Contractor shall submit within the time stipulated by the Engineer in writing, the details of actual methods that would be adopted by the Contractor for the execution of each item of the work supported by necessary details.

iii) Approval, for the Drawings and sketches, if necessary including those of the plant and machinery that would be used, their locations, arrangements for conveying and handling materials etc., should be obtained from the Engineer well in advance for starting each item of work. The Engineer reserves the right to suggest modifications or make concrete changes in the methods proposed by the Contractor whether accepted previously or not at any stage of the work, to obtain the desired accuracy, quality and progress of the work, which will be final and binding on the Contractor.

6.28. HOLIDAY OR SUNDAY WORK:

Subject to provisions in local Acts and any statutes of the State, the Contractor shall arrange for working on Holidays and Sundays whenever so desired by the Engineer to expedite progress and complete the works in time.

The Contractor shall not be entitled to any additional payment for taking up works on Holidays and Sundays. The Contractor should be prepared to resort to round-the-clock working by following shift timings for labour.

6.29. WORKING PERIOD:

Normally the work will be carried out between 8 A.M. to 5 P.M. on the Trustees' working days only. However, the tenderer should note that he might be required to carry out the job on Sundays, holidays

and after normal working hours and at night in addition to the normal working hours to expedite the progress of the work if permitted by Competent Authority. The tenderer should include in his rates the cost, if any, involved on those accounts.

6.30. BANK GUARANTEE IN LIEU OF CASH SECURITY DEPOSIT:

Security deposit shall be recovered from the On A/C. Bill as per Clause – 3.4 and 3.5 of General Conditions of Contract. However, Bank Guarantee may be considered in lieu of Cash Security Deposit. In that case, the Contractor shall have to submit to the Engineer a performance Bond in the form of an irrevocable guarantee from any Nationalized Bank at Kolkata in the proforma as given in the G.C.C. In this context Clause 3.6 of G.C.C. may be referred to.

6.31 PROVISIONS FOR SITE STAFF OF THE CONTRACTOR: -

After the issue of Engineer's notice to commence, the contractor shall as soon as possible make available Engineer at the Site of Work, all in accordance with the approval of the Engineer or his Representative as shown below:

Civil Engineer having minimum qualification of BE/ B.Tech or equivalent with minimum of 5 years working Experience – 01 no.

Or

Civil Engineer having minimum qualification of Diploma with minimum of 7 years working Experience – 01 no.

SPECIAL CONDITIONS OF CONTRACT (SCC)

(For Electrical Works)

ELECTRICAL WORKS RELATED TO CONSTRUCTION OF A NEW ANNEX BUILDING AT PORT HOSPITAL, HALDIA DOCK COMPLEX, HALDIA.

2.1. Preface

These provisions though given in a separate section are part of the Bidding Documents, which must be read as a whole, the various sections being complementary to one another and are to be taken as mutually explanatory. These provisions shall be read in conjunction with the other parts of the Bidding Documents, including General Conditions of Contract (GCC), Technical Specification & Scope of Work, Price Schedule, etc.

2.2. Drawings furnished by the ‘Engineer’:

2.2.1. The Drawings, referred to in the ‘Special Conditions of Contract’ / ‘Technical Specification & Scope of Work’ / ‘Price Schedule’, if and as applicable, shall be furnished by the ‘Engineer’ to the Contractor, free of cost, for their use on the work, but these shall remain the property of Syama Prasad Mookerjee Port, Kolkata (SMPK) and hence, the Contractor shall return them to the ‘Engineer’ or his Representative on completion of the work, if not torn or mutilated on being regularly used at site.

2.3. Language

2.3.1. The contract as well as all correspondence and documents relating to the contract, exchanged between the Contractor and the Employer/Engineer, shall be written in English Language only. If any documents / manuals / printed literature / drawings are submitted by the Contractor in other language(s), the same should be accompanied by an accurate translation of the relevant pages in the English language. In that case, for the purposes of interpretation of the contract, such translation shall govern.

2.3.2. The Contractor shall have to bear all costs of translation to the English Language and all risk of the accuracy of such translation, for documents provided by the Contractor.

2.4. Governing Law

2.4.1. The contract shall be governed by and interpreted in accordance with the relevant Indian Acts [considering latest amendment thereof], as applicable, within the jurisdiction of the Honourable High Court of Kolkata [Calcutta High Court], India, including the following Acts:

- i) The Indian Contract Act, 1872.
- ii) The Workmen’s Compensation Act, 1923.
- iii) The Payment of Wages Act, 1936.
- iv) The Dock Workers’ (Regulation of Employment) Act, 1948.

- v) The Minimum Wages Act, 1948.
 - vi) The Employees Provident Fund Act, 1952.
 - vii) The Maternity Benefits Act, 1961.
 - viii) The Major Port Trust Act, 1963.
 - ix) The Payment of Bonus Act, 1965.
 - x) The Contract Labour (Regulation & Abolition) Act, 1970; Rules 1971.
 - xi) The Payment of Gratuity Act, 1972.
 - xii) The Equal Remuneration Act, 1976.
 - xiii) Interstate Migrant Workmen (Regulation of Employment & Conditions of Service) Act, 1979.
 - xiv) The Employees State Insurance Act, 1948 & The Employees State Insurance (Amendment) Act, 1989.
 - xv) Child Labour (Prohibition & Regulation) Act, 1986.
 - xvi) The Dock Workers (Safety, Health & Welfare) Act, 1986.
 - xvii) The Indian Arbitration and Conciliation Act, 1996 [considering its latest amendment in 2015].
- 2.4.2. Unless otherwise specified, all the laws / rules / acts, etc., mentioned in different clauses of this bidding document, should be considered as laws / rules / acts, etc. applicable in India.
- 2.4.3. The Contractor shall indemnify SMP, Kolkata for any proceeding taken or commenced by any authority against the Employer for any contravention of any of such laws, bye laws, rules, regulations, orders, etc., by the Contractor or their personnel / workmen / agent / supplier, etc. If, as a result of the Contractor's failure, negligence, omission, default or non-observance of any provisions of any law, bye law, rule, regulation, order, etc., the Employer is called upon by any authority to pay or reimburse or is required to pay or reimburse any amount, the Employer shall be entitled to deduct the same from any amount due or that may become due to the Contractor under this contract or any other contract or by any other means or may otherwise recover from the Contractor any sum which SMP, Kolkata is required or called upon to pay or reimburse on behalf of the Contractor.

2.5. Indemnity

- 2.5.1. Notwithstanding that all reasonable and proper precautions may have been taken by the Contractor, at all times during the progress of the work, the Contractor shall, nevertheless, be wholly responsible for all damages, whether to the works themselves or to any other property of SMP, Kolkata or to the lives, persons, property of others during the progress of the work.
- 2.5.2. In case any damage occurs to the existing structure due to the Contractor's operation, the same shall be made good by the Contractor, at their own risk and cost. The areas, which are likely to be unsafe for use, shall be barricaded and all necessary precautionary measures, like displaying notices, shall be taken by the Contractor, during the contract period.

2.6. Transportation of materials

- 2.6.1. All materials, spare parts, tools, tackles, service equipment, including consumables, required under this contract, will have to be packed, securely placed and protected by the Contractor during transportation. The Contractor will be held responsible for the inefficient packing, storing and protection of the materials.

2.7. Contractor's equipment

- 2.7.1. The Contractor shall be responsible for all the equipment of the Contractor. When brought on to the site, the Contractor's equipment shall be deemed to be exclusively intended for the execution of the work. The Contractor shall not remove from the site any major items or Contractor's equipment without the consent of the 'Engineer'. However, consent shall not be required for vehicle(s) transporting goods or Contractor's personnel off site.

2.8. Existing services

- 2.8.1. Drains, Pipes, Cables, overhead wires and similar services, whether above or below the ground, which may be encountered in the course of the work, shall be saved and kept harmless from injury and/or loss or damages by the Contractor, at their own costs and expenses, so that they continue to be in full and uninterrupted use to the Employer.
- 2.8.2. The Contractor shall not store any materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services. The Contractor shall, at their own costs and expenses and without any delay, repair and make good, to the satisfaction of the Employer, any injury and/or loss or damage caused by the Contractor to the same.

2.9. Labour Laws

- 2.9.1. The Contractor shall, at all times, during the pendency of the contract [including the period of making good/rectification of deficiencies/defects, if any], have to comply fully with all existing Acts, Regulations and Byelaws, including all statutory amendments and re-enactment of State or Central Government and other Local Authorities and any other enactments and acts that may be passed in future either by the State or the Central Government or Local Authority, including Workmen's Compensation Act, Labour Laws and Equal Remuneration Act, Factories Act, Minimum Wages Act, Contract Labour (Regulation & Abolition) Act, etc., if applicable and/or as applicable.
- 2.9.2. If, as a result of the Contractor's failure, negligence, omission, default or non-observance of any provisions of any laws, the Employer is called upon by any authority to pay or reimburse or required to pay or reimburse any amount, the Employer shall be entitled to deduct the same from any money due or that become due to the Contractor under this contract or any other contract or otherwise recover from the Contractor any sum, which the Employer is required or called upon to pay or reimburse on behalf of the

Contractor.

All registration and statutory inspection fees, in connection with labour engagement, with respect to this contract, shall have to be paid by the Contractor, if applicable and / or as applicable.

- 2.9.3. The Contractor shall have to, immediately after the occurrence of any accident, at or near the site or in connection with the execution of the work under the contract, report (over phone or otherwise) to the 'Engineer' or his representative(s) and shall make every arrangement to render all possible assistance to the victim(s) of such accident.

The Contractor shall also have to report such accident to the 'Engineer', in writing (giving reference to the earlier communication made). Based on such report, necessary communication with the competent authority would be made whenever such a report is required by law.

- 2.9.4. For any accident occurred within the entire operational area covered under the contract, the Contractor shall have to arrange prompt investigation into the matter through recording of statement of the personnel witnessing the accident. Such "Accident Report", containing the findings, along with the statements so recorded, shall have to be forwarded by the Contractor to the 'Engineer' at the earliest.

- 2.9.5. The Contractor shall have to provide full medical treatment to their staff & labourers, in case of "Accident on Duty", which will inter alia include their obligations under the Workmen's Compensation Act, 1923, including all amendments thereof.

The Employer shall in no manner be liable to the Contractor or any person engaged/employed by them or any other person, for injuries or death caused as a result of accidents occurred, either within or outside the site of work, under the contract. The Contractor shall be responsible for such contingencies and will make good all claims for compensation, claim by their personnel/workmen or the families of the sufferer(s), as the case may be, or as per the decision of the appropriate authority/tribunal or other involved persons.

- 2.9.6. The Contractor shall have to indemnify SMP, Kolkata, in the event of SMP, Kolkata being held liable to pay compensation for injury to any Contractor's servants or workmen under the Workmen's Compensation Act, 1923, as amended from time to time.

2.10. Health and safety

- 2.10.1. In the event of any outbreak of illness or an epidemic nature, the Contractor shall have to comply with and carry out such regulations, orders & requirements, as may be made by the Government, or the local medical or sanitary authorities, for the purpose of dealing with and overcoming the same.

- 2.10.2. The Contractor shall provide all necessary First Aid measures, rescue &

lifesaving equipment, to be available at Site of Work, in proper condition.

- 2.10.3. The Contractor shall adhere to safe construction practice, guard against hazardous & unsafe working conditions and follow all safety precautions for prevention of injury or accidents and safeguarding life & property. The Contractor shall have to ensure safety of all their working personnel to the fullest compliance of the provisions of general safety rules/regulations, including Dock Workers' (Safety, Health & Welfare) Act, 1986.

The Contractor shall be solely responsible for consequences arising out of non-compliance or violation of safety rules/ regulations.

- 2.10.4. The Contractor shall have to provide (at their own expenses) all required Personal Protective Equipment (PPE) [such as Helmets, Safety Shoes, Nose Masks, Hand Gloves, etc.] & Safety Gears for all personnel & labourers engaged during the work.

The contractor shall also provide job specific PPEs [such as safety belts for working at heights; protective face & eye shield; goggles & hand gloves for welding / gas cutting works; protective foot wear & gloves for hot works; facemasks & gloves for painting works, mixing & material handling work, etc.], as directed by the 'Engineer' or his representative.

In case of failing to provide the PPEs & Safety Gears, as mentioned above, by the Contractor, the Employer shall provide the same & recover the cost thereof from any amount due, or which may become due to the Contractor or from any amount lying with them or under their control.

- 2.10.5. Safety Officer of SMPK or Safety Inspectors shall be afforded all facilities for inspection of the works, tools, plant, machineries, equipment, etc., wherever so required. The Contractor shall further comply with any instruction issued by the 'Engineer' / SMPK's Safety Officer and / or Safety Inspector in regards to safety which may relate to temporary, enabling or permanent works, working of tools, plants, machineries, equipment, means of access or any other aspect.

- 2.10.6. All safety rules shall be strictly followed while working on live electrical systems or installations as stipulated in the relevant safety codes.

Use of hoisting machines and tackles including their attachments, construction tools, machineries and equipment shall comply to the relevant safety codes.

Before allowing workers in sewers, manholes, any duct or covered channel etc, the manhole covers shall have to be kept open and ventilated at least one hour in advance and necessary safety torches / lamps should be inserted first before allowing entry to the worker. Suitable hand gloves and other safety gear will be provided to the worker during handling / removing of slushes / sludge etc. without any extra cost. The Contractor shall adopt all the above safety measures at his own cost.

- 2.10.7. The successful bidder shall also ensure that –

- i) No damage is caused to plants and vegetations unless the same is required for execution of the project proper.
- ii) The work shall not pollute any source of water / land / air surrounding the work site so as to affect adversely the quality or appearance thereof or cause injury or death to animal and plant life.
- iii) Their office, labour hutment, etc. shall be maintained in a clean and hygienic condition through out the period of their use and different effluents of the labour hutment shall have to be disposed off suitably.

2.11. Employees' Provident Fund & Employees' State Insurance

- 2.11.1. The Contractor should have their establishment (with respect to this contract) registered with the concerned authorities under the provision of Employees' Provident Fund & Miscellaneous Provision Act, 1952 and Employees' State Insurance Act, 1948. The Contractor shall have to submit the proof of registration as mentioned above immediately after commencement of work.
- 2.11.2. As per the above mentioned Act, the Contractor is liable for remittance of monthly subscription contribution in respect of Employees' Provident Fund (EPF) and Employees' State Insurance (ESI) for the workers engaged by them, wherever applicable.
- 2.11.3. In case, registration with the EPF and ESI Authorities is not applicable for the employees of the Contractor, documentary evidence to establish non-applicability to be submitted by the Contractor.

2.12. Materials to be supplied by the Employer

- 2.12.1. Regarding supply of any materials by SMPK to the Contractor, in accordance with the contract, the following conditions shall apply:
 - a) The Contractor shall, at his own expense, arrange for transporting the materials from SMPK's Store [store of Haldia Dock Complex, situated at Haldia], watching, storing and keeping them in his safe custody, furnishing of statement of consumption thereof in the manner required by the 'Engineer' or his Representative, return of surplus and empty container to the SMPK's Stores, as per the direction of the 'Engineer' or his Representative.
 - b) Being the custodian of the SMPK's materials, the Contractor shall remain solely responsible for any such materials issued to him and for any loss or damage thereof. For any reason other than "Excepted Risks", the Contractor shall compensate SMPK, in the manner decided by the 'Engineer', and shall, at no stage, remove or cause to be removed any such material from the site, without his permission.
 - c) SMPK's materials will generally be supplied in stages and in accordance with the rate of progress of work, but, except for grant of suitable extension of completion time of work, as decided by the

‘Engineer’, the Contractor shall not be entitled to any other compensation, monetary or otherwise, for any delay in the supply of SMPK’s materials to them. The Contractor shall, however, communicate their requirement of such materials to the Engineer from time to time.

- d) Unless stipulated otherwise in the contract, the value of the SMPK’s materials issued to the Contractor shall be recovered from the Contractor’s bills and / or any of their other dues, progressively, according to the consumption thereof on the work and / or in the manner decided by the ‘Engineer’ or their Representative and at the rate(s) stipulated in the contract. These rates shall only be considered by the Contractor in the preparation of their bid / offer and these will form the basis of escalation/variation, if in future the Contractor is required to procure and provide any such material on the written order of the ‘Engineer’, consequent on SMPK’s failure to effect timely supply thereof.
- e) If the ‘Engineer’ decides that due to the Contractor’s negligence, any of the SMPK’s materials, issued to the Contractor, has been – (i) lost or damaged, (ii) consumed in excess of requirement and (iii) wasted by the Contractor in excess of normal wastage, then the value thereof shall be recovered from the Contractor’s bills, or from any of their other dues, after adding 19.25 % extra over the higher one of the followings:
 - i) The issue rate of the materials at the SMPK’s Stores, and
 - ii) The market price of the material on the date of issue, as would be determined by the ‘Engineer’.

2.13. Contractor’s arrangement for execution of the work

- 2.13.1. The Contractor will have to arrange and provide all types of materials, etc. [in line with the ‘Technical Specification & Scope of Work’] throughout the execution of the contract.
- 2.13.2. SMP, Kolkata will not take any responsibility regarding non-availability of any such materials for which Contractor is responsible as per contract. The Contractor shall have to assess the requirement of such materials and keep sufficient stock.
- 2.13.3. The Contractor shall have to provide all equipment, including tools, tackles, lifting machineries, air compressor, scaffolding arrangement, different vehicular transport, etc., necessary to execute the work.
- 2.13.4. All tools & machineries to be used by the Contractor should be suitable for the particular requirement (i.e. capacity should be adequate) and the same should be checked for fitness before use. They should maintain the said equipment properly to ensure their efficient working.
- 2.13.5. The Contractor shall, at their own costs and expenses, have to provide all labour, plant, haulage, transportation of plant and equipment to be used for

executing the contract, all materials, stores, etc. (except the equipment & materials to be provided by SMP, Kolkata, as per contract) required for efficiently carrying out the work to the satisfaction of the Employer.

- 2.13.6. The Contractor should use calibrated measuring & testing instruments and should also ensure revalidation of such calibration as and when required. In this regard, initially the Contractor shall have to submit a list of measuring and testing instruments (mentioning the period of validity of Calibration Certificates) to be used. The photocopies of the Calibration Certificates (including the revalidations) of the said measuring and testing instruments, shall have to be submitted to the 'Engineer'.

2.14. Engagement of staff and labour

- 2.14.1. The Contractor's personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The 'Engineer' may require the Contractor to remove (or cause to be removed) any person employed on the site of work, including the Contractor's representative, if applicable, who:

- a) persists in any misconduct or lack of care,
- b) carries out duties incompetently or negligently,
- c) fails to conform with any provisions of the contract, or
- d) persists in any conduct, which is prejudicial to safety, health or protection of the environment.

If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

- 2.14.2. The Contractor shall have to make their own arrangements for the engagement of all staff and labour, for doing the work at site or in respect of or in connection with the execution of work, as also for the transport, housing, feeding. They shall have to ensure making payment to the above staff and labours, to be engaged by them.

- 2.14.3. It is expressly made clear that both before and after the completion of the work or termination of the contract, SMP, Kolkata shall have no liability, whatsoever, for the personnel to be engaged by the Contractor.

2.15. Electrical Contractor's Licence

- 2.15.1. The electrical work shall be carried out by a Contractor, having **valid Electrical Contractor's Licence** issued by the competent authority [under relevant rules of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, as amended upto date], under the direct supervision of a person having a valid **Supervisor's Certificate of Competency (SCC)**, issued by the appropriate statutory authority, against the relevant parts, for carrying out such type of job [i.e. Wiring for systems not-exceeding 650 V, Alternating Current (A.C.) Apparatus upto 650 V and Underground cables upto 1100 V]

- 2.15.2. In case the Contractor do not possess aforesaid **valid Electrical Contractor's Licence**, issued by the competent authority, they may make an agreement with an Electrical Contractor, having **valid Electrical Contractor's Licence**, for executing the electrical work, on their behalf. The aforesaid agreement should be kept valid for a period, covering the Defect Liability Period.

2.16. Inspection and testing

- 2.16.1. The 'Engineer' or his authorised Representative shall have, at all reasonable time, access to the Contractor's premises or work site or other premises [if a part of the work is being executed there or some maintenance repair work (during Defect Liability Period) is being done there] and shall have the power, at all reasonable time, to inspect, examine and test the materials and workmanship, as well as the documents, equipment, tools, measuring & testing instruments, as applicable, in connection with the instant contract (including Defect Liability Period).
- 2.16.2. The materials, supplied by the Contractor, will be inspected / tested before installation, either at Contractor's premises or at work site, jointly by the authorized representative of HDC, SMP, Kolkata and the Contractor, based on the 'Technical Specification & Scope of Work'.
- 2.16.3. During execution of the work, as well as after completion of the jobs, the same will be inspected and tested jointly by the authorized representative of HDC, SMPK and the Contractor at site, based on the 'Technical Specification & Scope of Work'. The Contractor will have to provide all facilities for inspection of the materials and executed work, at their own risk, cost & arrangement.
- 2.16.4. The major items (fabricated / bought out items) may be inspected & tested at Manufacturer's works by the representative of HDC, SMPK, before delivery. Physical checking & verification of the items will be carried out at site after delivery, as per the 'Technical Specification & Scope of Work', based on Manufacturer's test certificate, as applicable. Other materials, which will be provided / installed by the Contractor, will be inspected at site, as applicable, before installation.
- 2.16.5. The materials, supplied by the Contractor, should strictly conform to the laid down specification of the contract. If felt necessary, by the 'Engineer' or his representative, samples from the supplies may be drawn for testing by SMPK's own arrangement or by Government Test House / Government Recognised Test House / NABL Accredited Laboratory in India. In case tests are required to be carried out by the aforementioned Government Agencies, the same shall have to be arranged by the Contractor, at their risk & cost.
- If the samples are found inferior with respect to the laid down specifications, as per contract, the whole lot of the supplied materials will be rejected and the rejected materials shall have to be replaced by the

Contractor at their own cost, risk & arrangement.

- 2.16.6. The 'Engineer' or his authorised Representative, on giving 7 (seven) days' notice, in writing, to the Contractor, setting out any ground of objections, in respect of the work, shall be at liberty to reject all or any material and/or workmanship in the subject of any of the said grounds of objection, which are not in accordance with the contract.
- 2.16.7. After completion of the work, on satisfactory testing & commissioning, as applicable, measurement of the executed work of will be certified by the representative of the 'Engineer', from time to time. All measurements shall have to be entered in a 'Work Measurement Book', to be maintained by the Contractor, and the same should be signed by the representative of the Contractor & representative of the 'Engineer'. Based of the entry in the 'Work Measurement Book', 'Work Done Certificate' will be issued against the executed work.
- 2.16.8. Inspection & testing of the work by the authorized representative of HDC, SMP, Kolkata shall not relieve the Contractor from their obligation for conforming to the quality, workmanship, guaranteeing the performance, etc., as per the contract.
- 2.16.9. The Employer may appoint a **Third Party Inspection Agency (TPIA)**, at the cost of the Employer, for stage-wise technical inspection and certification of materials & workmanship, including painting, erection, commissioning, etc., in part or as a whole, on their behalf. In that case the relevant Certificates shall be produced by the **Third Party Inspection Agency** to the 'Engineer' or his authorised Representative.
- 2.16.10. The stage-wise technical inspection will be carried out by the representative of the 'Engineer' [or **Third Party Inspection Agency**] based on the approved **Quality Assurance Plan (QAP) & Field Quality Assurance Plan (FQAP)** [considering the 'Technical Specification & Scope of Work' of the Bidding Documents].
- 2.16.11. The Contractor shall have to submit a **Quality Assurance Plan (QAP)** and a **Field Quality Assurance Plan (FQAP)**, based on the 'Technical Specification & Scope of Work' and other terms & conditions stipulated in the Bidding Documents. The **QAP & FQAP** shall be approved by the **"Engineer"**.
- 2.16.12. In all cases where tests are required, within the purview of QAP & FQAP, whether at the premises of the Contractor or any Sub-contractor or elsewhere, the Contractor, except where otherwise specified, shall provide free of charges such labour, materials, electricity, fuel, water, stores, apparatus and instruments, as may reasonably be demanded, to carry out sufficiently such tests and shall, at all times, facilitate the 'Engineer' or his Representative [and / or the Third Party Inspection Agency] , to accomplish

such testing.

- 2.16.13. The cost of all tests and / or analyses, within the purview of QAP & FQAP, effected at the Contractor's or Sub-contractor's works and on the site, shall be borne by the Contractor. The Contractor will be called upon to pay all expenses incurred by the Employer in respect of any work found to be defective or of inferior quality, adulterated or otherwise unacceptable.
- 2.16.14. If, during inspection by the **Third Party Inspection Agency** [if appointed by SMPK], any material or test [within the purview of QAP & FQAP] fails to fulfil the contract conditions for **more than 2 (two) times, any additional amount charged by the Third Party Inspection Agency towards inspection of the same from the 3rd time onwards shall have to be borne by the Contractor**. If the Contractor fails to make such payment to the **Third Party Inspection Agency**, the same shall be deducted from the bill(s) of the Contractor and paid to the **Third Party Inspection Agency**.
- 2.16.15. Inspection & testing of the work by the authorized representative of HDC, SMPK or TPIA shall not relieve the Contractor from their obligations for conforming to the quality, workmanship, guaranteeing the performance, etc. as per the contract.
- 2.16.16. **Tests on completion:**
On completion of installation, the contractor shall give a 7 (seven) days' notice to the 'Engineer' [with a copy to the Third Party Inspection Agency, if appointed by SMPK], in writing (informing the date on which they will be ready to make the tests), before carrying out such tests, in accordance with and in the manner prescribed in the specifications.
If any portion of work fails under the tests to fulfil the contract conditions, tests of the faulty portion shall, if required by the Third Party Inspection Agency (appointed by SMPK) or the 'Engineer' or by the Contractor, be repeated within reasonable time, upon the same terms and conditions.
If such "Tests on completion" cannot be carried out successfully by the Contractor within 1 (one) month after the time fixed by the Contractor and if, in opinion of the 'Engineer', the tests are being unduly delayed, the 'Engineer' may, in writing, call upon the Contractor, with 7 (seven) days' notice, to make such tests, failing which the 'Engineer' may proceed to make such tests himself, at the Contractor's risk and expense. In the above eventuality, the Employer shall, nevertheless, have the right of using the installations at the Contractor's risk until the "Tests on completion" are successfully carried out.
- 2.16.17. After completion of the work, on satisfactory testing & commissioning, the Completion Certificate will be issued and the installations will be taken over by HDC thereafter.

- 2.16.18. Notwithstanding the fact that the materials or installations have passed the inspection, the Contractor is not relieved from his obligations to conform to the quality, workmanship, guaranteeing the performance, etc., as per the contract.

2.17. Removal of materials on completion

- 2.17.1. The Contractor shall, on completion of the contract or when directed by the 'Engineer' or his representative, shall have to remove all plant, equipment, tools, materials, temporary constructions, etc. and rubbish garbage, waste, which may have accumulated during the execution of the contract, other than those permanently used into the work, at Employer's site.

2.18. Workmanship and secrecy

- 2.18.1. The Contractor shall carry out the services in conformity with generally accepted norms and sound standards of Engineering. The Contractor shall be responsible for the technical soundness of the services rendered. In the event of any deficiency in those services, the Contractor shall promptly re-do the same, at no additional cost to the Employer.
- 2.18.2. The Contractor shall use all the documents, drawings and other data & information, of proprietary nature, received from the Employer, solely for the purpose of performing and carrying out the obligations on their part, under the Agreement in the performance of the works for the project and maintain utmost secrecy, in this regard. The documents, drawings and other data & information, received from the Employer, shall not be used by the Contractor for any other purpose.

2.19. Defect Liability Period (DLP)

- 2.19.1. The materials supplied and work executed by the Contractor will be guaranteed for a period of 12 (twelve) months from the latest date of execution of the work.
- 2.19.2. "Defect Liability Period" for the materials, installations & workmanship, with respect to the electrical work shall mean the Guarantee Period, which starts from the date of complete execution of the work and will continue till expiry of 12 months thereafter.
- 2.19.3. During "Defect Liability Period" [as specified above], the Contractor shall nominate 1 (one) competent, experienced and responsible technical person, to co-ordinate and execute all works to be attended by the Contractor, as per contractual obligations, without any extra cost to HDC, SMP, Kolkata.
- 2.19.4. The Contractor shall be responsible for making good (including replacement of defective items, if required), with all possible speed, at their expense, any defect in or damage to any portion of the work, which may appear or occur after complete execution of the work and before expiry of Defect Liability Period [as specified above] and which arises either:

- a) from any defective materials, workmanship or design, or
 - b) from any act or omission of the Contractor done or omitted during the said period.
- 2.19.5. If any such defects shall appear or damage occur, the ‘Engineer’ shall forthwith inform the Contractor thereof, stating in writing the nature of defect or damage.
- 2.19.6. If any such defect or damage be not remedied by the Contractor within a reasonable time, HDC, SMP, Kolkata may proceed to do the work at the Contractor’s risk and expense, but without prejudice to any other rights which HDC, SMP, Kolkata may have against the Contractor in respect of such defects.
- 2.19.7. All inspection, adjustments, replacement or renewal carried out by the Contractor during the period referred in this clause shall be subject to the conditions of this contract, which shall be binding on the Contractor in all respects during the Defect Liability Period and its extension, if any.

2.20. Security Deposit / Performance Guarantee

2.20.1. Submission of Security Deposit / Performance Guarantee

Within **28 (twenty-eight) days** of issuance of “Letter of Acceptance (LOA)”, the Contractor shall have to provide an irrevocable and unconditional Bank Guarantee, from a Nationalized Bank / Scheduled Bank in India, in the amount, **03 %** of the contract value (for electrical works) excluding GST.

This Security Deposit / Performance Bank Guarantee should be kept valid and enforceable till a date, covering at least 3 (three) months beyond the date of expiry of the Defect Liability Period [for the materials, installations & workmanship, with respect to the electrical work].

Failure of the Contractor to submit the aforesaid Performance Bank Guarantee and in the manner stated above, shall constitute sufficient grounds for termination of the contract (including forfeiture of the Earnest Money Deposit, if any).

- 2.20.2. The proceeds of Security Deposit / Performance Guarantee shall be payable to the Employer, as compensation, for any loss resulting from the Contractor’s failure to complete its obligations under the Contract (related to electrical works).
- 2.20.3. Security Deposit / Performance Guarantee shall be liable to be forfeited, at the option of the Employer, if the Contractor fails to carry out the work or to perform / observe any of the conditions of the Contract.
- 2.20.4. The Employer shall be at liberty to deduct / recover any of their dues from Security Deposit / Performance Guarantee.

In that case, if Security Deposit / Performance Guarantee is reduced by

reason of any such deduction or encashment, the Contractor shall have to, within 15 (fifteen) days thereafter, make good the amount so reduced.

- 2.20.5. The cost of obtaining Security Deposit / Performance Bank Guarantee or any other Bank Guarantee and / or revalidation thereof, whenever required, has to be borne by the Contractor and it shall be their sole responsibility to arrange for timely revalidation of such Bank Guarantee, failing which and for non-fulfilment of any contractual obligation by the Contractor, the 'Engineer' and/or the Employer shall be at liberty to raise claim / demand under Security Deposit / Performance Guarantee and/or enforce the same unilaterally.

No interest/charge, of whatsoever nature, shall be paid by the Employer on the amount of Security Deposit / Performance Guarantee held by the Employer, at any stage.

- 2.20.6. On completion of execution of the work, the Contractor shall maintain the same during the "Defect Liability Period" (for electrical works), from the date of complete execution of the work. Any defect / fault, which may appear in the work during the aforesaid maintenance period, arising, in the sole opinion of the 'Engineer' or his Representative, from materials or workmanship not in accordance with the contract or the instruction of the 'Engineer' or his Representative, shall, upon the written notice of the 'Engineer' or his Representative, be amended and made good by the Contractor, at their own cost, within 7 (seven) days of the date of such notice, to the satisfaction of the 'Engineer' or his Representative, failing which, the 'Engineer' or his Representative shall have the defects amended and made good through other agency at the Contractor's risk & cost and all expenses, consequent thereon or incidental thereto, shall be recoverable from the Contractor in any manner deemed suitable by the 'Engineer'.

- 2.20.7. The Contract shall not be considered completed and the work shall not be treated as finally accepted by SMPK, until all obligations under the contract, including that in the Defect Liability Period (for electrical works), if any, have been fulfilled by the Contractor. Previous entry on the works or taking possession, working or using thereof by SMPK, shall not relieve the Contractor of their obligations under the Contract for full and final completion of the work.

- 2.20.8. **Release / refund of Security Deposit / Performance Guarantee:**

On successful completion of the 'Defect liability period' of the Contract job [for the materials, installations & workmanship, with respect to the electrical work, as a whole], the Contractor may apply for release / refund of their Security Deposit / Performance Guarantee by submitting to the 'Engineer' an application, alongwith 'No Claim Certificate'. The 'Engineer' shall also issue necessary recommendation for release of the said Security Deposit / Performance Guarantee or refund the balance due against the Security Deposit / Performance Guarantee to the Contractor, after making

deduction therefrom in respect of any sum due to SMPK from the Contractor.

2.21. Contract Price

- 2.21.1. Price charged by the Contractor for the related services performed under the contract shall not vary from the rates accepted by the Employer, based on the bid/offer of the successful bidder and stated in the “Letter Of Acceptance”, with the exception of any price adjustment, if provided for in the contract.
- 2.21.2. The Accepted Rates shall include all taxes & duties of Central / State / Local bodies [excluding Goods and Services Tax (GST)], as applicable, all incidental charges and charges for packing, forwarding, loading, handling, carrying to any lead, stacking, transportation, permits, overheads & profit, etc. necessary for the complete services, as described in the ‘Price Schedule’ & ‘Technical Specification & Scope of Work’.
- 2.21.3. Changes in statutory taxes & duties will be adjusted time to time.
- 2.21.4. No claim whatsoever of the Contractor for their man & material resources remaining idle for any reason or for any other expenses incurred by them due to the flow of work not being continuous or for stoppage of work, will be entertained by the Employer.

2.22. Terms of payment

- 2.22.1. *The quantities given in the “PRICE SCHEDULE” are indicative only [which may vary (both upward & downward) during execution] and are given to provide a common base for tendering and evaluation.* However, the payment will be made on the exact quantity to be executed by the Successful Bidder.
- 2.22.2. **Against Price Schedule Sl. No. 1 a) under PART – B [Split-type Air-conditioning Work] and Sl. Nos. 1 to 5 under Part – C [Centralised Air-conditioning Work] :**
 - i) Payment for 90% amount of each item will be made against supply & installation of the respective item and submission of bills along with Installation Certificate (to be issued by SMPK).
 - ii) Payment for balance 10 % amount will be made against Testing, successful commissioning & taking over the commissioned job by SMPK and submission of bill, supported with documents regarding successful commissioning & taking over the commissioned job by SMPK.
- 2.22.3. **Against remaining items of Price Schedule:**

Payment shall be made on the exact quantity, which would be executed by the Contractor.

 - i) Payment for 70% amount of the executed work (including supply) will be made after successful completion of the work and submission of unambiguous bill, along with required documents like

Challans, Inspection Report / Work Done Certificates, etc.

- ii) Payment for 30 % amount of the executed work (including supply) will be made against Testing, successful commissioning, taking over the commissioned job (electrical work, in totality) by SMPK and submission of unambiguous bill, supported with documents regarding successful commissioning & taking over the commissioned job (electrical work, in totality) by SMPK .

2.22.4. **Payment of Goods & Services Tax (GST):**

GST, as applicable, shall be paid extra against proper invoice submitted by the Contractor.

The Contractor will be required to submit GST compliant invoice with all required details and also be required to file timely and proper return so as to enable SMPK to get due credit against GST paid.

In case of any failure on the above account, GST amount, even if paid by SMPK, shall be recoverable from the Contractor.

2.22.5. **Time of payment:**

The Contractor shall have to submit **bills in triplicate** to the 'Engineer', in accordance with the stage-wise payments specified above. In normal circumstances, payment of the bills, accompanied by Inspection Certificates / Work Done Certificate / Job Certification & other relevant documents, duly recommended by the 'Engineer' or his Representative , will be passed within 30 (thirty) days from the date of receipt of such bills, if found in order.

2.22.6. **Income Tax deduction:**

Income Tax, if any, as per the relevant provision of the Income Tax Act, shall be **deducted at source** from amount payable to the Contractor.

2.22.7. **No interest on account of delayed payments:**

Any claim for interest will not be entertained by SMP, Kolkata with respect to any delay on the part of SMP, Kolkata for making payment, or for any dispute. The decision of the 'Engineer' is final in such matters.

2.23. Extra expenses incurred by the Employer

- 2.23.1. Any extra expenses incurred in connection to the work by the Employer in the performance of the work owing to neglect or omission on the part of the Contractor in any of the case mentioned in this contract shall be deducted from any sum due or which may thereafter become due to the Contractor or from any amount lying with them or under their control or they may be called upon to pay the amount of such extra expense to such person or persons as the Employer may appoint to receive the same and in the event of the Contractor failing to make such payment, the said amount shall be recoverable from them in such manner as the Employer may determine.

2.24. Recovery of deducted amount

- 2.24.1. Without prejudice to any of their legal rights, SMPK shall have the power to recover the amount of deduction, from any money due or likely to become due to the Contractor. Such payment or deduction shall not relieve the Contractor from their obligation to complete the work or from any of their other obligations / liabilities under the contract.

7. TECHNICAL SPECIFICATIONS FOR CIVIL WORKS

E-tender for “Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex”.

7.1 GENERAL: -

- All materials to be used in the permanent works shall be of the best quality of the kind and to the approval of the Engineer. They shall comply with the Specifications laid out in the BIS codes (referred to as IS) as revised or modified up to the date one month prior to the Tender Date unless otherwise specifically mentioned in the Tender Documents.
- Samples of materials to be supplied and used by the Contractor in the works shall be subject to the prior approval of the Engineer. For this purpose, the contractor shall furnish in advance, representative samples in quantities and in the manner as directed by the Engineer for his approval.
- Materials brought to the site, which in the opinion of the Engineer do not conform to the approved sample, shall, and if so directed by him, be removed by the contractor within 24 hours at his own cost from the site and replaced by materials of approved quality at no extra cost.
- The contractor shall produce manufacturer's test certificates for the materials procured by him. The Engineer may carry out or order any test on any of the materials as he may decide. The contractor shall, at his cost and expense, supply requisite materials for this purpose and render such assistance to the Engineer as he may require. The cost of testing will be borne by the

Contractor. Further, if and as required by the Engineer, the contractor shall get the materials tested from approved laboratories at his expense and produce the test certificates for the inspection of the Engineer.

- If the Engineer is of the opinion that the materials are not suitable for use on the works; he may reject the consignment, notwithstanding the Manufacturer's certificates. The Engineer's decision regarding the suitability of materials brought to site for use in the works shall be final and binding on the contractor, who shall remove the rejected materials from site and replace them with materials of required quality.
- All materials bought to the site shall be properly stored and preserved to ensure their quality and fitness during the course of their use in work. If the storage arrangements are not to the Engineer's satisfaction, he may direct the contractor for arranging proper storage to which the contractor shall have to comply. The materials shall be stored in adequate quantities well in advance to meet the construction schedule and shall be guarded in the manner directed by the Engineer and to his satisfaction.
- All materials used in the works shall be of the best kind and to the approval of the Engineer's Representative. The materials supplied and the workmanship shall satisfy the relevant clauses as given below and in the Bill of Quantities of the tender. The specifications of the materials and workmanship which do not cover the above shall be referred to BIS specifications/workmanship.

TECHNICAL SPECIFICATION & SCOPE OF WORK

(For Electrical Works)

***ELECTRICAL WORKS RELATED TO CONSTRUCTION OF A NEW ANNEX BUILDING
AT PORT HOSPITAL, HALDIA DOCK COMPLEX, HALDIA.***

A. Scope of Work:

1.1 Scope of Work includes-

- 1.1.1 Electrical work at newly Constructed Annexe Building of Port Hospital, in the Residential Zone of Haldia Dock Complex, SMP, Kolkata.
- 1.1.2 Design, Supply, Installation, Testing & Commissioning of 415 V TPN double door Wall Mounted Power Distribution Panel and Metering Panel of different types.
- 1.1.3 Electrical works (including internal & external wiring, vicinity illumination, complete Air Conditioning installation & Power Supply network with supply of electrical appliances & inventories) at newly Constructed Hospital Annex Building at Port Hospital in the Residential Zone of Haldia Dock Complex, SMP, Kolkata.

- 1.1.4 Supply, laying, testing & commissioning (including cable jointing & end termination) of 1.1 kV grade, XLPE insulated, galvanised steel armoured, aluminium conductor / copper conductor, power cables of different sizes.
 - 1.1.5 Supply, delivery, erection / installation, testing & commissioning of 9 m high Hot Dip Galvanised octagonal Street Light Poles, with 120 W (approx.) LED streetlight luminaries.
 - 1.1.6 Supplying & laying of heavy, galvanized, mild steel tubes (including sockets).
 - 1.1.7 Design, Supply, Delivery, Installation, Testing & Commissioning of 415 V TPN Indoor Type, double door Wall / Floor Mounted Power Distribution Panel.
 - 1.1.8 Design, Supply, Delivery, Installation, Testing & Commissioning of 415 V TPN Outdoor Type Street light Feeder Pillar, with Astronomical Time Switch.
 - 1.1.9 Supply, Delivery, Installation, Testing & Commissioning of Outdoor Bollard/ Landscape type [IP66] LED Light Fixture and construction of civil foundation.
 - 1.1.10 Supply, delivery, installation, testing and commissioning (including lifting, shifting & handling) of 1.5 TR new Split Air Conditioner [Non-inverter type, with Rotary Compressor], having 3 Star BEE rating, including providing Iron Stand, refrigerant copper piping, PVC drain piping, electrical power cabling, nitrile insulation, etc., as required.
 - 1.1.11 Supply, delivery, installation, testing and commissioning (including lifting, shifting & handling) of Centralised Air-conditioning System, by providing Ductable Split type Air-conditioning Machine (complete with Indoor & Outdoor Units), Air Handling Units and Outdoor Units, including refrigerant copper piping, PVC drain piping, electrical power cabling, nitrile insulation, etc., as required.
- 1.2 Scope of Work includes following related works:
- 1.2.1 In connection with the electrical works, all materials, equipment, accessories, etc. shall have to be delivered at site. Transportation, lifting, shifting & handling of the same are under the scope of the Contractor.
 - 1.2.2 In connection with the air-conditioning work transportation, lifting, shifting, handling & placement of Indoor Unit, Outdoor Units, Air Handling Units & other materials, including minor civil work (wall cutting, copper pipe concealing, etc.) should be done by the Contractor at their own risk, cost and arrangement.
 - 1.2.3 All materials (including Air-conditioner units), equipment, accessories, etc. will be under the custody of the Contractor, till complete installation / fixing, testing, commissioning & handing over of the same.

- 1.2.4 In connection with installation of the split-type Air-conditioner units, necessary MS Brackets, additional copper pipe, additional drainage pipe and additional electric wire, as required for complete execution of the job, shall have to be provided by the Contractor [for which necessary payment (in addition to the installation & commissioning charge) would be made by HDC].
- 1.2.5 The Contractor must make their own arrangements for delivery of all materials, as well as for careful and proper unloading at site. The responsibility for preventing damage / deterioration to the materials during transit, delivery, unloading at the designated point shall rest with the Contractor. All transit risk will be to Contractor's account.
- 1.2.6 Free service shall be provided against Air Conditioning System (both Split type & Centralised), during the Guarantee Period of 12 months from the date of complete execution of the work (commissioning & handing over). Even in case of no complaint, at least 03 (three) free services are required to be provided during the aforesaid Guarantee Period (12 months) for routine servicing of the Air Conditioning System (both Split type & Centralised). Each Air Conditioner unit is also to be cleaned thoroughly once during the Guarantee Period of 12 months.

B. General Requirements :

- 1.3 In connection with the instant work, the site & working areas need to be kept free from surplus materials, rubbish, offensive materials, etc. and the same are to be disposed off by the Contractor.
- 1.4 The electrical works will be executed to comply with the General Specifications for Electrical works and conforming to the Indian Electricity Act & rules, BIS and direction of the 'Engineer'.
- 1.5 The electrical work shall be carried out by a Contractor, having **valid Electrical Contractor's Licence** issued by the competent authority [under relevant rules of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, as amended upto date], under the direct supervision of a person having a valid **Supervisor's Certificate of Competency (SCC)**, issued by the appropriate statutory authority, against the relevant parts, for carrying out such type of job [i.e. Wiring for systems not-exceeding 650 V, Alternating Current (A.C.) Apparatus upto 650 V and Underground cables upto 1100 V]
- 1.6 The skilled workmen engaged by the Contractor for the electrical work must possess a valid Workman Permit (W.P.), issued or recognised by the competent authority [under relevant rules of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, as amended upto date], against the relevant parts, for carrying out such work.
- 1.7 The skilled workmen engaged by the Contractor for cable laying related electrical work [cable laying and jointing] must possess a valid Workman Permit (W.P.), issued or recognised by the competent authority [under relevant rules of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, as amended upto date], against the relevant parts, for carrying

- out such work.
- 1.8 The Contractor shall be liable to submit the list of aforesaid Licence / Workman Permit holder, along with the attested copies of the of the Licence / Workman Permit, during execution.
- 1.9 The entire job should be executed in accordance with the requirements of following Acts and rules, including latest amendments:
- a) Indian Electricity Rules – 1956
 - b) Electricity Laws (Amendment) Ordinance, 1997
 - c) Central Electricity Authority Rules, 1977
 - d) Central Electricity Authority Regulations, 1979
 - e) Indian Electricity Act, 2003
 - f) Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010
- 1.10 The supply, installation and commissioning of all items required for this work should be complied with the above Acts & Rules and relevant Code of Practice of the **Bureau of Indian Standard**, including **National Electrical Code (NEC)** and **National Building Code (NBC)** of India, if not specified otherwise.
- 1.11 The Contractor shall engage qualified / experienced / skilled personnel to carry out the works in all respects at their own cost. The Contractor will engage suitable qualified / experienced & licensed engineering supervisor for the electrical work and suitable skilled personnel, with required permit, for doing the erection work.
- 1.12 All materials required for the entire work and apparatus used therein, shall conform to relevant specifications of the Bureau of Indian Standard (BIS) or International Electrotechnical Commission (IEC), as applicable, if not specified otherwise in this Bidding Document.
- All materials should be inspected before installation. Only accepted materials will be allowed for installation. Necessary consent should be obtained from the ‘Engineer’ or his representative, before using any material / equipment/ apparatus.
- Nothing in this specification shall be construed to relieve the Contractor of their responsibility for providing the equipment, with all accessories, in accordance with applicable statutory regulations and safety codes in force, from the safety angle.
- 1.13 The Contractor holds responsibility for executing the entire job as per relevant specifications. If any item is left out within the schedule of work but if it is considered essential for the completion of the job, the Contractor shall have to carry out the items as extra / substituted item.
- 1.14 The Contractor should use calibrated measuring & testing instruments [having Valid Calibration Certificate] and should also ensure revalidation of such calibration as and when required. In this regard, initially the Contractor shall have to submit a list of measuring and testing instruments (mentioning the period of validity of Calibration Certificates) to be used. The photocopies of the Calibration Certificates (including the revalidations) of the said measuring and

testing instruments, shall have to be submitted to the 'Engineer'.

Calibration Certificate of instruments / equipment, used for testing purpose, should be issued by an NABL accredited Laboratory. For testing equipment where NABL accreditation is not available, calibration certificate from educational institutions like IITs, NITs, J.U., C.U., B.H.U. only can be accepted, provided they demonstrate traceability.

- 1.15 The Contractor must make their own arrangements for delivery of all materials, as well as for careful and proper unloading at HDC's site. The responsibility for preventing damage / deterioration to the materials during transit, delivery, unloading at the designated point shall rest with the Contractor. All transit risk will be to Contractor's account.
- 1.16 The Contractor shall arrange all necessary labour, tools, tackles, lifting machineries, scaffolding, temporary lighting, different vehicular transport, equipment (with fuel & operator), etc., required for satisfactory execution of the entire work, at their own risk, cost and expense. Special tools, which would be required during execution of the work, shall also have to be arranged by the Contractor, at their own risk, cost and expense.
- 1.17 The Contractor shall have to make arrangements, at their own risk & cost, for transportation of materials from the point of issue of stores to site of work, if any.
- 1.18 Electricity and water, if required, will be provided on chargeable basis, for the purpose of execution of the work at site.
- 1.19 All practical steps shall be taken to prevent danger to persons employed from the risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris of materials as to render it unsafe.
- 1.20 The Contractor shall provide necessary barriers, warning signals and other safety measures, to avoid accidents. They shall also indemnify HDC, SMP, Kolkata, against claims for compensation arising out of negligence in this respect.
- 1.21 All necessary personnel safety equipment, as per relevant statutory provisions, should be kept available for the use of the persons employed (directly or indirectly on the instant work) on the site and the Contractor should take adequate steps to ensure proper use of safety equipment by those concerned.
- 1.22 The ordinary business and work of HDC, SMP, Kolkata & others, as being carried out on & in the vicinity of the site, shall be continued during installation, testing & commissioning and maintenance. The execution of the work shall be conducted in such a way as to avoid interference with traffic of every kind by land and with any other work in progress in the vicinity.
- 1.23 Inspection / acceptance, in no way shall absolve the Contractor from supplying material as per standards / codes and other obligations under the contract.
- 1.24 Any materials brought for work which is not matching with the relevant specification will be rejected and the rejected materials shall be removed from site on the same day.

- 1.25 A register (Site Work Register with Hindrance Record) is required to be maintained by the Contractor on daily basis with details of works carried out on that particular day, where details regarding engagement of labourers, equipment, receipt of materials and cause of hindrance, if any, shall be recorded jointly [by the representatives of the Engineer & the Contractor].
- Representative(s) of the Contractor shall have to check the register for any instructions of ‘Engineer’ or his authorized representative and sign the same for compliance with the instructions recorded therein.
- Any instruction issued by the ‘Engineer’ or his authorized representative, which has been entered in the Site Work Register, shall be deemed to have been legally issued.
- This Site Work Register (s) shall be the property of HDC, SMP, Kolkata and shall be returned to the representative of the ‘Engineer’ in good condition, after the completion of the work.
- 1.26 The Contractor shall maintain a Site Order Book at their site office. All orders and instructions issued to them from time to time by the ‘Engineer’ or his representative will be recorded in the Site Order Book. The authorized representative of the Contractor shall promptly sign each entry as token of having received such orders.
- Any order or instruction issued by the ‘Engineer’ or his authorized representative, which has been entered in the Site Order Book, shall be deemed to have been legally issued.
- This Site Order Book(s) shall be the property of HDC, SMP, Kolkata and shall be returned to the representative of the ‘Engineer’ in good condition, after the completion of the work. Photocopy of the same may be retained by the Contractor, for their record.
- 1.27 Relevant aspects of following Rules / Code of Practices should also be followed and complied with:
- a) Indian Factories Act
 - b) Dock Workers (Safety, Health & Welfare) Act, 1987
 - c) The Workmen’s Compensation Act, 1923
 - d) The Minimum Wages Act, 1948
 - e) The Contract Labour (Regulation & Abolition) Act, 1970
 - f) Other Local Regulations.
- 1.28 If during execution of work any damage takes place in the property of HDC, the same will have to be mended good by the contractor at their risk, cost and arrangement. Otherwise the same will be repaired / replaced by HDC, either departmentally or through outside agency and the cost of repairing / replacement will be **recovered from the Contractor, along with overhead charges @19.25%.**

- 1.29 No project surplus material will be taken over by HDC, SMP, Kolkata, after completion of the work.

C. Detailed Technical Specification:

1.30 Hot Dip Galvanised octagonal Street Light Pole :

- 1.30.1 The Hot Dip Galvanised [as per BS EN ISO 1461 standard, with minimum coating thickness of 100 micron] octagonal Street Light Poles should have inbuilt terminal box for cable connection and should be made of Structural Steel (3 mm thick) of grade S355 [as per European Standard EN 10025], having following details :-

- i) Bottom diameter – 155 mm [Across Face (A/F)].
- ii) Top diameter – 70 mm [Across Face (A/F)].
- iii) Base plate – Size : 260mm X 260mm X 16 mm (PCD – 250 mm), as per IS – 2062.
- iv) Foundation bolts, washers & nuts –
Bolt : 'J' type M24 X 750 mm long [EN 8 grade, 4 nos. per pole].
Washer : Suitable plain washer for the aforesaid bolts (1 no. per bolt).
Nut: Suitable nuts for the aforesaid bolts (3 nos. per bolt).

- 1.30.2 Arm Bracket (single), to be provided with each octagonal Street Light Pole, should have following details :

- v) Cap – To be made from 3 mm thick M. S. Pipe (approx. 300 mm long) of suitable diameter, to fit on Pole [top diameter – 70 mm (A/F)] with bolts, with a top cover welded at top.
- vi) Arm – To be made from M. S. Pipe (approx. 1500 mm long) of suitable diameter, welded with the cap (supported by suitable stiffener plate), keeping suitable opening for cable entry.
- vii) The Arm Bracket (in totality) should be Hot Dip Galvanised [as per BS EN ISO 1461 standard, with minimum coating thickness of 100 micron].

- 1.30.3 The inbuilt terminal box, for cable connection, should be provided with suitable TPN connectors (for connecting loop-in & loop-out cables) and one no. 6A SPN MCB (for terminating connecting wires of the luminaries) , mounted on a suitable Bakelite sheet.

1.31 Erection of Hot Dip Galvanised octagonal Street Light Pole :

- 1.31.1 The RCC foundation (1:2:4, with nominal reinforcement) for Hot Dip Galvanised Street Light Poles should be provided as per the approved drawing. RCC foundation should be designed to withstand 120 km/hr

wind speed and necessary drawing is to be submitted by the successful bidder for approval of the Engineer.

The portion of the RCC foundation, exposed above ground level, should be finished & painted properly.

1.31.2 02 nos. flexible PVC Pipe of suitable diameter to be kept inserted inside the RCC foundation, for cable entry.

1.31.3 The Hot Dip Galvanised Street Light Poles should be erected on aforesaid RCC foundation.

1.31.4 During erection of the poles 01 no. nut is to be placed below the base plate and 01 no. washer & 02 nos. nut are to be placed above the base plate.

1.32 Installation of LED Street lighting Luminaire :

1.32.1 The LED Street lighting luminaires are to be installed on the arm brackets of newly erected Hot Dip Galvanised Street Light Poles or on the existing G I Street Light Poles.

1.32.2 Providing electrical connections of the luminaries with ISI marked, 3 X 2.5 mm² circular PVC insulated & PVC sheathed (1.1 kV grade) flexible cable (with copper flexible conductor), from the MCBs of the inbuilt terminal boxes of the Hot Dip Galvanised Street Light Poles, is under the scope of the Contractor.

1.32.3 Supply of aforesaid copper wire is also under the scope of the Contractor.

1.33 Outdoor Feeder Pillar for street lighting / area lighting / landscape lighting:

1.33.1 The outdoor Feeder Pillar (for street lighting / area lighting / landscape lighting) shall be pedestal type (with top canopy), IP 65 compliant and dust, damp, vermin & weather proof, fabricated from SS316 grade sheet (2 mm thick), angle & flat [duly painted (with Siemens Grey / Smoke Grey powder coating)]. It shall be provided with double door / shutter, handle with lock and key system. The Feeder Pillar shall be designed in such a way that it should be spacious for easy maintenance.

1.33.2 The aforesaid Panel Board should be CPRI / ERDA approved. Necessary supporting document, alongwith type test certificate, should be submitted by the Contractor. The design & drawing of the Feeder Pillar should be got approved from the 'Engineer', prior to manufacture.

1.33.3 Bilingual Danger Notice Plates of size 200 mm X 150 mm, made from mild steel [at least 1.6 mm thick and vitreous enamelled white, with letters, figures and the conventional skull and cross-bones in signal red colour on the front side], should be provided as per requirement. The rear side of the plate shall also be enamelled. Other details shall be as per IS 2551 (1982) [with latest amendment]

1.33.4 The Feeder Pillar shall be provided with LED indication lamps [for busbar (R, Y, B)], PVC/XLPE sleeved (with colour code) electrolytic grade copper tinned busbar (for 3 Phases and Neutral), stud type terminals for incoming & outgoing connections (as required) and supply & fixing of necessary MCBs, Power Contactor , Time Switch , etc., as applicable, (including necessary connection with suitable sizes of 1.1 kV grade copper wires/ aluminium cables, with lugs).

1.33.5 The Feeder Pillar shall be provided with following items :

Incomer :

TPN, 63 A , 415 V, MCB (10kA breaking capacity)- :: **01 no.**

Connecting terminals (stud type), suitable for terminating 01 no. 3 ½ C X 50 mm², 1.1 kV grade, Aluminium Conductor armoured XLPE cable. :: **01 set**

Time Switch arrangement :

3 Pole Power Contactor –

Thermal rating (AC – 1) at 415 V, 50 Hz – 45 A, :: **01 no.**

Coil voltage – 240 V AC (50 Hz),

Built in auxiliary contacts - 2 NO + 2 NC

Digital Latitude/ Longitude Time Switch –

Supply voltage – 240 V AC, 50 Hz, :: **01 no.**

Contact rating – 16 A @ 240 V AC (Resistive)

Bypass Switch (6 A) :: **01 no.**

Control Fuse :: **01 no.**

PVC/ XLPE sleeved (with colour code),

Electrolytic grade copper tinned busbar [for 3 Phases (70 A) and Neutral (40 A)] :: **01 set**

Outgoing [for street lighting] :

16 A, SP MCB (10kA breaking capacity)- :: **18 no.**

1.33.6 All the aforesaid component shall be mounted in the Feeder Pillar by means of suitable zinc/cadmium passivated hardware. The Feeder Pillar shall be complete in all respect with detachable gland plate, interconnection using necessary PVC insulated (1.1 kV grade), single core, flexible (stranded) copper wire. The Feeder Pillar shall be provided with 02 nos. SS Terminal for earthing.

1.33.7 Erection / installation of outdoor Feeder Pillar for street lighting:

The RCC foundation (M20 grade) for outdoor Feeder Pillar for street lighting should be provided as per the approved drawing. RCC

foundation drawing is to be submitted by the successful bidder for approval of the 'Engineer'.

The outdoor Feeder Pillar for street lighting should be erected on the aforesaid RCC foundation and the same should be fixed with the foundation bolts, grouted in the aforesaid RCC foundation.

Connection of incoming and outgoing cables with the Switch – Disconnecter – Fuse Unit / MCB / Connector is under the scope of the Contractor.

1.34 Indoor Floor Mounted Electrical Distribution Panel (Type:A):

1.34.1 The Indoor Floor Mounted Electrical Distribution Panel, IP 54 compliant and dust, damp, vermin & weather proof, fabricated from SS316 grade sheet (2 mm thick), angle & flat. It shall be provided with double shutter, handle with lock and key system. The Floor Mounted Electrical Distribution Panel shall be designed in such a way that it should be spacious for easy maintenance.

1.34.2 The aforesaid Electrical Panel should be CPRI / ERDA approved. Necessary supporting document, along with type test certificate, should be submitted by the Contractor. The design & drawing of the Electrical Panel should be got approved from the Engineer, prior to manufacture.

1.34.3 Bilingual Danger Notice Plates of size 200 mm X 150 mm, made from mild steel [at least 1.6 mm thick and vitreous enamelled white, with letters, figures and the conventional skull and cross-bones in signal red colour on the front side], should be provided as per requirement. The rear side of the plate shall also be enamelled. Other details shall be as per IS 2551 (1982) [with latest amendment]

1.34.4 The Electrical Panel shall be provided with PVC/XLPE sleeved (with colour code) electrolytic grade copper tinned busbar (for 3 Phases and Neutral) and supply & fixing of necessary MCCBs, MCBs Units, etc. (including necessary connection with suitable sizes of 1.1 kV grade copper wires / aluminium cables, with lugs).

1.34.5 The Electrical Panel shall be provided with following busbar, MCCBs & MCBs Units:

Incomer :

4 pole, 415 V (AC), 400A, MCCB (36 kA breaking capacity) [thermal magnetic release with O/L & S/C Protection], Including :: 02 no.
Extended Rotary Handle, Terminal Spreader, Interlocking Arrangement.

Three Phase **LED Ammeter** CL-1, 50-520 VAC (P-P), Inbuilt Selector Switch :: **02 set.**

Three Phase LED Voltmeter CL-1, 50-520 VAC (P-P), Inbuilt Selector Switch	::	02 set.
Digital Multifunction Meter	::	01 no.
Resin cast Current Transformer , 400 A / 5 A, 15 VA, Class – 1.0	::	09 no.
R-Y-B, ON, OFF Indication Lamp (220 V – 240 V)	::	02 set.
Control MCB (6 A)	::	06 no.

Busbar :

PVC/ XLPE sleeved (with colour code), Electrolytic grade copper tinned busbar [for 3 Phases (400 A) and Neutral (200 A)]	::	01 set
---	----	---------------

Outgoing :

4 pole, 415 V (AC), 160A , MCCB (36 kA breaking capacity) [thermal magnetic release with O/L & S/C Protection], Including Extended Rotary Handle, Terminal Spreader.	::	06 no.
4 pole, 415 V (AC), 125A , MCCB (36 kA breaking capacity) [thermal magnetic release with O/L & S/C Protection], Including Extended Rotary Handle, Terminal Spreader.	::	03 no.
4 pole, 415 V (AC), 100A , MCCB (36 kA breaking capacity) [thermal magnetic release with O/L & S/C Protection], Including Extended Rotary Handle, Terminal Spreader.	::	02 no.
TPN, 415 V (AC), 50 Hz, 63 A , MCB (C characteristics, 10 kA Breaking capacity).	::	02 no.

- 1.34.6 All the aforesaid component shall be mounted in the Power Distribution Panel by means of suitable zinc/cadmium passivated hardware. The Power Distribution Panel shall be completed in all respect with detachable gland plate at both the ends (2 nos. incoming to each MCCB, interconnection using necessary PVC insulated (1.1 kV grade), single core, flexible (stranded) copper wire. The Power Distribution Panel shall be provided with 02 nos. SS Terminal for earthing. The height of the base plate should have sufficient clearance from Nominal Floor Level, in order to have greater flexibility for 3 ½ C x 240 mm² Aluminium Armoured XLPE cables.

- 1.34.7 Erection / installation of Power Distribution Panel (Type:A):

The aforesaid Indoor type Power Distribution Panel should be directly erected on the Floor of the Electrical panel Room, and the same should be fixed with the foundation bolts, at each leg. Preferred angle size for

fabrication of leg shall be 65 mm X 65 mm X 6 mm.

Connection of incoming and outgoing cables with the MCCB/ MCB/ Connector is under the scope of the Contractor.

1.34.8 Rubber Mat, Fire Bucket, First Aid Box, Shock treatment Chart (to be provided by the Contractor, without any additional cost):

- a) Adequate length of insulating mat (width 1 m) for electrical purpose (atleast Class – A, as per relevant IS) shall be provided by the Contractor, at the electrical Panel Room.
- b) Fire Extinguisher (ISI marked) suitable, for dealing with electric fire, shall be provided by the Contractor at the Panel Room.
- c) Fire Buckets (as per relevant IS), filled with clean dry sand and ready for immediate use for extinguishing fires, shall be provided by the Contractor, which should be conspicuously marked & kept (atleast 02 nos., kept on a suitable stand) in Panel Room, in convenient situation.
- d) First Aid Boxes, conspicuously marked & equipped with required contents, shall be provide by the Contractor in the Panel Rooms, so as to be readily accessible during all working hours.
- e) Instructions, in English or Hindi and Bengali, for restoration of persons suffering from electric shock, shall be provided by the Contractor for fixing in a conspicuous place in the Panel Room.

1.35 Wall Mounted Power Distribution Panel Board (**Type:B**):

1.35.1 The indoor Wall Mounted Power Distribution Panel (IP-54 compliant and dust, damp, vermin & weather proof) fabricated from SS316 grade sheet (2 mm thick), angle & flat. It shall be provided with single door shutter, handle with lock and key system. The Power Distribution Panel shall be designed in such a way that it should be spacious for easy maintenance.

1.35.2 The aforesaid Power Distribution Panel should be CPRI / ERDA approved. Necessary supporting document, along with type test certificate, should be submitted by the Contractor. The design & drawing of the Power Distribution Panel should be got approved from the Engineer, prior to manufacture.

1.35.3 Bilingual Danger Notice Plates of size 200 mm X 150 mm, made from mild steel [at least 1.6 mm thick and vitreous enamelled white, with letters, figures and the conventional skull and cross-bones in signal red colour on the front side], should be provided as per requirement. The rear side of the plate shall also be enamelled. Other details shall be as per IS 2551 (1982) [with latest amendment]

1.35.4 The Distribution Panel shall be provided with PVC sleeved (with colour code) electrolytic grade copper tinned busbar (for 3 Phases and Neutral) and supply & fixing of necessary MCCBs, MCBs Units, etc. (including necessary connection with suitable sizes of 1.1 kV grade copper wires / aluminium cables, with lugs).

1.35.5 The Distribution Panel shall be provided with following busbar, MCCBs & MCBs Units:

Incomer :

4 pole, 415 V (AC), 400A, MCCB (36 kA breaking capacity) [thermal magnetic release with O/L & S/C Protection], Including Extended Rotary Handle, Terminal Spreader, Interlocking Arrangement. :: **02 no.**

Three Phase **LED Ammeter** CL-1, 50-520 VAC (P-P), Inbuilt Selector Switch :: **02 set.**

Three Phase **LED Voltmeter** CL-1, 50-520 VAC (P-P), Inbuilt Selector Switch :: **02 set.**

Digital **Multifunction Meter** :: **01 no.**

Resin cast **Current Transformer**, 400 A / 5 A, 15 VA, Class – 1.0 :: **09 no.**

R-Y-B, ON, OFF **Indication Lamp** (220 V – 240 V) :: **02 set.**

Control MCB (6 A) :: **06 no.**

Busbar :

PVC/ XLPE sleeved (with colour code), Electrolytic grade copper tinned **busbar** [for 3 Phases (400 A) and Neutral (200 A)] :: **01 set**

Outgoing :

4 pole, 415 V (AC), 160A, MCCB (36 kA breaking capacity) [thermal magnetic release with O/L & S/C Protection], Including Extended Rotary Handle, Terminal Spreader. :: **02 no.**

TPN, 415 V (AC), 50 Hz, 63 A, MCB (C characteristics, 10 kA Breaking capacity). :: **06 no.**

1.35.6 All the aforesaid component shall be mounted in the Power Distribution Panel by means of suitable zinc/cadmium passivated hardware. The Power Distribution Panel shall be completed in all respect with detachable gland plate at both the ends (2 nos. incoming to each SDFU as well as 1 no. outgoing from Busbar), interconnection using necessary PVC insulated (1.1 kV grade), single core, flexible (stranded) copper wire. The Power Distribution Panel shall be provided with 02 nos. SS

Terminal for earthing.

1.35.7 Erection / installation of indoor wall mounted Power Distribution Panel
(Type : B):

The Panel Board should be rigidly fixed on the wall , using suitable fixing materials & insulators. Internal & External Saddling with appropriate size of saddles and ferrules for cable/ wires identification shall be adhered to.

Connection of incoming and outgoing cables with the Switch – Disconnector – Fuse Unit, is under the scope of the Contractor.

1.36 **3D LED Glow Sign Board for Port Hospital Annexe Building:**

3.1.1. A new LED sign board of approx. dimensions 4200 mm X 1225 mm, with Hindi inscription and Logo of Syama Prasad Mookerjee Port, Kolkata, as per the approved design [to be prepared by the Contractor and approved by the ‘Engineer’], is to be installed in the main entrance of the Annexe Building of Port Hospital. The above size of the board is indicative only. The size of the board may be increased to have a clear & legible visibility up to 60 m distance.

3.1.2. The Glow Sign Board is to be fabricated out of Aluminum Composite Panel (ACP) sheet [thickness not less than 3 mm], fitted on double frame [having depth not less than 250 mm], made of GI Square pipe [Hollow steel section of designation 32 mm X 32 mm X 2 mm]. All sides of frame are to be covered with ACP Sheet. The complete structure is to be erected & fixed on 4 nos. GI angle [size not less than 50 mm X 50 mm X 5 mm] of length not less than 2.0 m, to be provided by the Contractor. All the supplied & fabricated GI angles & pipes are to be painted with 2 coats of red-oxide primer and 2 coats of aluminium paints.

3.1.3. Stainless Steel illuminated 3D Letters (of height at least 220 mm should have inbuilt LED & driver]. Depth of bottom parts of the Letters should be at least 50 mm, which are to be carved / fabricated from Stainless Steel sheet (minimum thickness 26 Gauge) .The female parts are to be fabricated from cool white coloured PVC Acrylic sheets (Laser cut) of thickness not less than 3 mm .The emission of letters shall be of preferably warm white colour on the backdrop of blue coloured ACP sheet.

3.1.4. LED Driver should be suitable to use with 220 V- 250 V, 50 Hz, AC supply. The LED Drivers are to be connected with the nearest power source, using suitable size copper wire.

3.1.5. The board shall be so designed to be easily openable for repair / maintenance, as and when required.

3.1.6. Entire earthing should be done in accordance with the relevant Indian Standard (IS) issued by Bureau of Indian Standard, Indian Electricity Rules & Act and Code of Practice. Colour of insulation of the copper

wire, to be used for earthing purpose, will have to be preferably GREEN.

All necessary work (including supply of aforesaid cable & other required materials), for providing aforesaid earthing connection, is under the scope of the Contractor.

- 1.37 The type / model of the fans / light fittings should be selected based on the following guidelines. However, Technical Specifications (minimum requirement) must be fulfilled. In case of non availability of a particular type / model, equivalent type / model may be selected based on the Technical Specifications (minimum requirement), indicated against the relevant item. Prior written consent is to be obtained from the 'Engineer' or his representative, before supply of the selected type / model of fans / light fittings.

Sl. No.	Items	Type / Model	Technical Specifications (minimum requirement)
i)	Ceiling Fan [Sweep : 1400 mm]	Summer Breeze (Orient)	Speed : 275 rpm – 325 rpm Air Delivery: ≥ 260 m ³ /minute Power input : ≤ 80 W
		SS-390 (Havells)	
		High Speed (Crompton)	
ii)	Ceiling Fan [Sweep : 1200 mm]	Summer Breeze (Orient)	Speed : 350 rpm – 400 rpm Air Delivery: ≥ 225 m ³ /minute Power input : ≤ 75 W
		SS-390 (Havells)	
		High Speed (Crompton)	
iii)	Ceiling Fan [Sweep : 900 mm]	Summer Breeze (Orient)	Speed : 375 rpm – 425 rpm Air Delivery: ≥ 150 m ³ /minute Power input : ≤ 60 W
		SS-390 (Havells)	
		High Speed (Crompton)	
iv)	Heavy Duty Exhaust Fan [Sweep: 450 mm]	EXHD450-4-1 (Crompton)	Speed: 1375 rpm – 1425 rpm Air Delivery: ≥ 6000 m ³ /hour Power input : ≤ 400 W Blade : Metallic (Four Blade)
		Heavy Duty Exhaust (Orient)	
		TURBO FORCE (Havells)	
v)	Exhaust Fan [Sweep: 300 mm]	Heavy Duty Exhaust (Orient)	Speed : 1375 rpm – 1425 rpm Air Delivery: ≥ 1800 m ³ /hour Power input : ≤ 80 W Blade : Metallic (Four Blade)
		VENTILAIR DB (Havells)	

Sl. No.	Items	Type / Model	Technical Specifications (minimum requirement)
vi)	Exhaust Fan [Sweep: 200 mm]	Brisk Air High Speed (Crompton)	Speed : 2100 rpm – 2400 rpm Air Delivery : $\geq 460 \text{ m}^3 / \text{hour}$ Power input : $\leq 60 \text{ W}$ Blade : Non-metallic
		Ventilator HS (Orient)	
vii)	Exhaust Fan [Sweep: 150 mm]	Brisk Air High Speed (Crompton)	Speed : 2200 rpm – 2500 rpm Air Delivery : $\geq 350 \text{ m}^3 / \text{hour}$ Power input : $\leq 40 \text{ W}$ Blade : Non-metallic
		Ventilator HS (Orient)	
viii)	False Ceiling Mounted Type Ventilating Exhaust Fan [Sweep : 125 mm-150 mm]	Havells (VENTILAIR DXC)	Air Delivery: $\geq 150 \text{ m}^3/\text{minute}$ Power input : $\leq 28 \text{ W}$ Noise level $\leq 42 \text{ dB}$
		Anchor Panasonic (FV-24CU7)	
ix)	Heavy Duty (Industrial) Wall Fan [Sweep: 450 mm]	TURBO FORCE WALL (Havells)	Speed : 1400 rpm – 1500 rpm Power input : $\leq 100 \text{ W}$ Blade : Metallic (Three Blade)
		Thunderstorm (Orient)	
x)	Wall Fan [Sweep: 400 mm]	PLATINA HS (Havells)	Speed : 2000 rpm – 2100 rpm Power input : $\leq 110 \text{ W}$
		High Speed (Crompton)	
xi)	Pedestal Fan [Sweep: 400 mm]	TRENDY (Havells)	Speed : 1300 rpm – 1400 rpm Power input : $\leq 55 \text{ W}$
		High Flo Ester (Crompton)	
xii)	1 X 4 ft (approx.) LED tube light fittings	Batten : IGP161LT8-16 (Crompton)	[Box Type]
		Batten : TMC 501 P 1 x T- LED 22W P3241 (Philips)	

Sl. No.	Items	Type / Model	Technical Specifications (minimum requirement)
		Batten : BLRB-DB 118 (Bajaj)	
		Batten : WIO921208 (Wipro)	
xiii)	2 X 4 ft (approx.) LED tube light fittings	Batten : IGP162LT8-16 (Crompton)	[Box Type]
		Batten : TMC 501 P 2 x T- LED 22W P3242 (Philips)	
		Batten : BLRB-DB 218 (Bajaj)	
		Batten : WIO922208 (Wipro)	

xiv)	4 ft (approx.) LED tube lamp	Lamp & driver : LTT8-20 (Crompton)	Lamp: LED tubular lamp with Al body & PC Diffuser Material & in-built driver. Luminous flux: ≥ 2100 lumen Correlated Colour Temperature (CCT): 5700K - 6500 K
	System wattage of luminaire: ≤ 22 W	Lamp & driver : 18W865 T8 (Philips)	
		Lamp & Driver : BLRB 21W CWc (Bajaj)	
		Lamp & Driver : LL13-181-65SE (Wipro)	
xv)	1 X 4 ft (approx.) Integrated LED Batten	CCS-100-20-65-HL2-DP-NWH (Crompton)	Integrated LED Batten (PC) with efficient Diffuser Material & in-built driver. Luminous flux: ≥ 2300 Correlated Colour Temperature (CCT): 5700K - 6500 K
	System wattage of luminaire: ≤ 22 W	BN021CLED22S (Philips)	
		LL20-221-XXX-65-NE3 (Wipro)	
xvi)	1 X 2 ft (approx.) Integrated LED Batten	CCS-102-10-65-SL-DP-NWH (Crompton)	Integrated LED Batten (PC) with efficient Diffuser Material & in-built driver. Luminous flux: ≥ 1000
		BN021CLED12S (Philips)	

Sl. No.	Items	Type / Model	Technical Specifications (minimum requirement)
	System wattage of luminaire: \leq 10 W	LL20-111-XXX-65-NE3 (Wipro)	Correlated Colour Temperature (CCT): 5700K - 6500 K
		BCLSB 10WH (Bajaj)	
xvii)	10W-12W Bulkhead surface / wall mounted LED light fittings (IP 65).	BIBWP 10W LED (Bajaj)	Housing: Die Cast Aluminium alloy housing. Inbuilt driver, upto 5 kV surge protection. IP65 protected System Efficacy: 100LPW Correlated Colour Temperature (CCT): 5700K - 6500 K
		LBHE-10-CDL (Crompton)	
		LW07-141-XXX-57-G1 (Wipro)	
xviii)	05W-06W surface mounted LED light fittings (IP20).	LCDSPLN-R-06-CDL (Crompton)	Pressure Die Cast Al housing Shape: Round / Square IP20 protected System Efficacy: 100LPW Correlated Colour Temperature (CCT): 5700K - 6500 K
		(LD80/ LD 81)-350-XXX-60-SM (Wipro)	
xix)	10W-12W surface mounted LED light fittings (IP20).	LCDSPLN-R-12-CDL (Crompton)	Powder coated pressure die cast aluminium housing, with PMMA diffuser. Shape: Round / Square IP20 protected Suitable for surface mounting. Complete with LEDs, Driver (with surge and thermal protection) and accessories prewired up to terminal block. Power Factor: > 0.95 System Efficacy: 100LPW
		(LD80/ LD 81) -101-XXX-60-SM (Wipro)	

Sl. No.	Items	Type / Model	Technical Specifications (minimum requirement)
			Correlated Colour Temperature (CCT): 5700K - 6500 K
xx)	18W-20W surface mounted LED light fittings (IP20).	LCDSPLN-R-18-CDL (Crompton)	Powder coated pressure die cast aluminium housing, with PMMA diffuser. Suitable for surface mounting. Complete with LEDs, Driver (with surge and thermal protection) and accessories prewired up to terminal block. Power Factor: >0.95 Shape: Round / Square IP20 protected System Efficacy: 100LPW Correlated Colour Temperature (CCT): 5700K - 6500 K
		(LD80/ LD 81)-171-XXX-60-SM (Wipro)	
xxi)	40W - 45W Post Top LED Light fittings (IP 65).	BGCL 40W LED (Bajaj)	Material: Die Cast Al with PMMA Diffuser Optics. IP65 protected Correlated Colour Temperature (CCT): 5700K - 6500 K
		LPTO-40-CDL-M (Crompton)	
		LP02-501-XXX-57-XX (Wipro)	
xxii)	LED recessed 2ft X 2ft luminaire [IP 20] System wattage of luminaire: ≤ 36 W	RC380B LED36S-6500 G4 L60 W60 PSU OD- (Philips)	Housing: CRCA Correlated Colour Temperature (CCT): 5000K - 6500 K Luminous flux: ≥ 3600 lumen Colour Rendering Index (CRI): 80
		LCTLRNE-36-FO-CDL (Crompton)	
		CRCO10R038HP57GL1 (Wipro)	
xxiii)	LED recessed 1ft X 1ft	BZRSQ 18W WH (Bajaj)	Housing: CRCA Correlated Colour

Sl. No.	Items	Type / Model	Technical Specifications (minimum requirement)
	luminaire [IP 20] System wattage of luminaire: \leq 18 W	LCTLRNE-18-CDL (1X1) (Crompton)	Temperature (CCT): 5000K - 6500 K Luminous flux: \geq 1800 lumen Colour Rendering Index (CRI): 80

xxiv)	LED recessed 1ft X 4ft luminaire [IP 20] System wattage of luminaire: \leq 40 W	BZRSLL 36W GZ1 CW (Bajaj)	Housing: CRCA Correlated Colour Temperature (CCT): 5000K - 6500 K Luminous flux: \geq 4000 lumen Colour Rendering Index (CRI): 80
		RC380B LED-36S-6500 GS L3W12 PSU OD	
		LCTLRNE-40-CDL(1X4) (Crompton)	
xxv)	LED Downlighter (Cool Day Light) System wattage of luminaire: \leq 20	LD56-251-060-40-XX (Wipro)	Downlighter ,suitable for fixing on false ceiling, should be provided with suitable Driver & necessary safety protections. Housing: Pressure die-cast Aluminium body, with extended heat sink. Correlated Colour Temperature (CCT): 5000 - 6500 K Luminous flux: \geq 2000 lumen Colour Rendering Index (CRI): 80 Power factor: 0.95
		MV18CTRS0D (LT)	

Sl. No.	Items	Type / Model	Technical Specifications (minimum requirement)
xxvi)	Outdoor / Street light type LED Light fittings (with Secondary Lense). [IP 66] System wattage of luminaire: \leq 120 W	LSTP-120-CDL (Nexus Star Neo) (Crompton)	<u>Housing:</u> Pressure die-cast Aluminium body (epoxy powder coating), with extended heat sink (for effective heat dissipation) and heat resistance toughened clear glass cover. Drivers should have in-built protection against high voltage surge, open circuit & short circuit.
		A10057MI00 (LT)	Correlated Colour Temperature (CCT): 5000 - 6500 K Luminous flux: \geq 15000 lumen Power Factor: >0.95 Impact Resistance: IK08 Colour Rendering Index (CRI): 70 Side entry mounting for 50 mm - 62 mm OD pipe bracket.
xxvii)	Outdoor / Street light type LED Light fittings (with Secondary Lense) [IP 66] System wattage of luminaire: \leq 60 W	BRP062 LED 65 CW SLA S1 PSU (Philips)	<u>Housing:</u> Pressure die-cast Aluminium body (epoxy powder coating), with extended heat sink (for effective heat dissipation) and heat resistance toughened clear glass cover. Drivers should have in-built protection against high voltage surge, open circuit & short circuit. Correlated Colour Temperature (CCT): 5000 - 6500 K Luminous flux: \geq 6600 lumen Power Factor: >0.95 Impact Resistance: IK08 Colour Rendering Index (CRI): 70 Side entry mounting for 40
		LST-60-CDL-M (Crompton)	
		A05557M000 (LT)	

Sl. No.	Items	Type / Model	Technical Specifications (minimum requirement)
			mm - 50 mm OD pipe bracket.

xxviii)	Outdoor / Street light type LED Light fittings. [IP 66] System wattage of luminaire: \leq 30 W	BRP046 LED 30 CW MR S1 PSU GR- (Philips)	<u>Housing:</u> Pressure die-cast Aluminium body (epoxy powder coating), with extended heat sink (for effective heat dissipation) and heat resistance toughened clear glass cover. Drivers should have in-built protection against high voltage surge, open circuit & short circuit. Correlated Colour Temperature (CCT): 5000 - 6500 K Luminous flux: \geq 3300 lumen Power Factor: >0.95 Impact Resistance: IK08 Colour Rendering Index (CRI): 70 Side entry mounting for 35 mm - 50 mm OD pipe bracket.
		LSTS-30-CDL-M (Crompton)	
		A02557M0X0 (LT)	
xxix)	LED Downlighter (Warm Light) System wattage of luminaire: \leq 34 W	R034CTR0X0 (LT)	Down lighter, suitable for fixing on false ceiling, should be provided with suitable Driver & necessary safety protections. Housing: Pressure die-cast Aluminium body, with extended heat sink. Correlated Colour Temperature (CCT):
		LD59-381-036-40-XX (Wipro)	

Sl. No.	Items	Type / Model	Technical Specifications (minimum requirement)
			2700K- 3000 K Luminous flux: ≥ 3000 lumen Colour Rendering Index (CRI): 80 Power factor: 0.95 Beam Angle: 36° to 40°
xxx)	LED Downlighter (Cool Day Light) System wattage of luminaire: ≤ 20	LD56-251-060-40-XX (Wipro)	Downlighter ,suitable for fixing on false ceiling, should be provided with suitable Driver & necessary safety protections. Housing: Pressure die-cast Aluminium body, with extended heat sink. Correlated Colour Temperature (CCT): 5000 - 6500 K Luminous flux: ≥ 2000 lumen Colour Rendering Index (CRI): 80 Power factor: 0.95
		MV18CTRS0D. (LT)	

1.38 Hand Dryer:

Fully automatic wall mounted Hand Dryer (with heating element), made of ABS plastic material, complete with all accessories.

Rated Voltage : 220 V (nominal), 50 Hz, AC Single phase.

Rated Power : 1000 W to 1200 W.

Motor: Brush AC type motor.

Motor Speed $\geq 25,000$ rpm.

Air Speed ≥ 90 m/s.

1.39 Supply of Solid State (Static) Energy Meter (Watthour Meter), conforms to IS 13779 (with latest amendment) [ISI marked], with following specifications::

i) **01 Phase, 2 Wire, Direct Connected :**

Rated Voltage (Vref) :: 240 V – Phase to Neutral

Voltage Variation :: 70% to 120% of reference voltage i.e. 240 V

Rated Current :: Basic Current [Ib]: 5 A,
Maximum Current [I_{max}]: 30 A.

or

		Basic Current [Ib]: 10 A, Maximum Current [Imax]: 60 A.
Rated Frequency	::	50 Hz
Frequency Variation	::	± 5%
Accuracy Class	::	1.0
Display	::	Backlit LCD display
Enclosure		Non-metallic - Engineering plastic /Poly-Carbonate. The meter shall have a reasonably dust / moisture-proof case. The case should be sealed by the manufacturer in such a way that the internal parts of the meter would be accessible only after breaking such distinctive seal. The meter should be suitable for fixing on wall (Base Mounting).
Terminal Cover	::	Terminal block shall be provided with a Terminal Cover. The terminals, their fixing screws and the insulated compartment housing them should be enclosed by a cover with a provision for sealing.
Ingress Protection	::	IP 51
Applicable Standard	::	IS: 13779 (with latest amendment)
Other Details	::	The meter should be capable of recording & displaying energy in Wh or kWh for single-phase two wire A.C. loads.

ii) **A.C. Three Phase , 4 Wire, Direct Connected .:**

Rated Voltage (Vref)	::	3 X 240 V – Phase to Neutral
Voltage Variation	::	70% to 120% of reference voltage i.e. 240 V
Rated Current	::	Basic Current [Ib]: 10 A, Maximum Current [Imax]: 60 A.
Rated Frequency	::	50 Hz
Frequency Variation	::	± 5%
Accuracy Class	::	1.0
Display	::	Backlit LCD display
Enclosure		Non-metallic - Engineering plastic /Poly-Carbonate. The meter shall have a reasonably dust / moisture-proof case. The case should be sealed by the manufacturer in such a way that the internal parts of the meter would be accessible only after breaking such distinctive seal.

		The meter should be suitable for fixing on wall (Base Mounting).
Terminal Cover	::	Terminal block shall be provided with a Terminal Cover. The terminals, their fixing screws and the insulated compartment housing them should be enclosed by a cover with a provision for sealing.
Ingress Protection	::	IP 51
Applicable Standard	::	IS: 13779 (with latest amendment)
Other Details	::	The meter should be capable of recording & displaying energy in Wh or kWh for three phase four wire A.C. balanced / un-balanced loads.

1.40 Supply of 1.1 kV grade, Cross Linked Polyethylene (XLPE) Cable (FRLS) :

The cables should be generally compliance with IS 7098 (Part-1) [with latest amendment, if any] with following specifications:

- (i) Conductor materials: Aluminium / Copper.
- (ii) Shape: Stranded Compacted Shaped.
- (iii) Insulation: Cross Linked Polyethylene (XLPE).
- (iv) Armouring: Single layer, Galvanised steel round wire / flat strip.

1.41 Laying of 1.1 kV grade, XLPE Cable:

- 1.41.1 Before laying of Cables, cable routes should be checked properly to avoid interference with the existing cables, structures, heat sources, drains, pipelines, etc., as far as possible and minor adjustments to be done to suit the field conditions, wherever deemed necessary, without any extra cost. Considering above, cable routes should be carefully measured to ascertain the exact requirement of cable for a particular feeder. Sufficient lengths to be kept for the final connections of the cables to the terminal of the equipment.
- 1.41.2 Programme for Road Crossing, wherever required (for Casing Pipe laying etc.), shall have to be coordinated through the authorized representative of the Dy. Manager (P&E), TSEM, in advance, for having due clearance of Road Blockage. Such clearance will be given within 7 (seven) days from the date of receipt of request from the Contractor.
- 1.41.3 In case of Road or Rail Crossing, cable should be laid inside the pipes. Where cables enter into pipe sleeves, adequate beds of sand should be given so that the cables do not slack and get damaged by pipe ends.
- 1.41.4 When cables pass through foundation walls, or other underground structures, if necessary, ducts or opening shall have to be provided, by the

Contractor. However, shall it become necessary to cut holes in the existing foundations or structures, the contractor should obtain permission from Dy. Manager (P&E), TSEM, before cutting is done. Cutting, if necessary and mending good of any cut portion should be done by contractor at his cost and risk.

- 1.41.5 Cables should be handled carefully during installation to prevent mechanical injury to the cables. During laying of cables, Cable Drum Lifting Jacks, sufficient number of Cable Rollers and other materials, etc. as necessary, should be used to avoid any mechanical injury to the cables. Ends of cables leaving trenches should be coiled and provided with a protective pipe or cover, until such times, the final terminations to the equipment are completed.
- 1.41.6 After laying of the cables in the trench and before placement of protective covering, an Insulation Test should be carried out for each length of cable in presence of the representative of Sr. Dy. Manager (P&E), HDC. After re-filling the trench with soil, rammed and levelled, Insulation Test of the cable should also be carried out in presence of the representative of Sr. Dy. Manager (P&E), HDC.
- 1.41.7 All cables should be identified close to their termination points by Cable Number / Equipment Number, which will be punched on Aluminium strip/ PVC Strip (approx. 2 mm thick) securely fastened to the cable and wrapped around it. Type and size of the cable also to be punched on the straps.
- 1.41.8 Each underground cable should be provided with Identification Tags (made of PVC) securely fastened every 30 m of its underground length, with at least one tag at each end before the cable enters the ground. Concrete Cable Markers are to be placed at cable joint locations and “L.T. Cable Joint” should be engraved on the said Cable Markers.
- 1.41.9 All temporary ends of cables must be protected against dirt and moisture to prevent damage to the insulation. For this purpose, ends of the cables should be covered with PVC insulating tape.
- 1.41.10 Where splices or terminations are required in circuit, it is required to measure insulation resistance of each length of cable before splicing and / or terminating. It is required to repeat measurement after splices and / or terminations are completed. Before energizing, the insulation resistance of every cable shall have to be measured.
- It is required to measure the Insulation Resistance of directly buried cables, before Cable Trenches are back-filled.
- 1.41.11 Directly buried cables should be laid in underground Cable Trenches to be excavated by the Contractor. Width of the Cable Trench should be such that all cables shall be correctly spaced and arranged. The 1.1 kV grade cables should be laid in trenches at a depth of 0.75 m.

1.41.12 **Placing & Protection of cables in trench:**

For 3 ½ C / 4C cable, upto 150 mm²

Before cables are placed, the bottom of the trenches should be filled with a layer (approx. 100 mm) of sand at the bottom of the trench, duly levelled. After laying of the cable on the sand bed the same is to be covered with sand and bricks should also be used as protective top covering [8 no. bricks would be used in 01 m cable laying work]. Rest of the trench should be re-filled with soil, rammed and levelled.

For 3 ½ C cable, above 150 mm²

Before cables are placed, the bottom of the trenches should be filled with a layer (approx. 100 mm) of sand at the bottom of the trench, duly levelled. After laying of the cable on the sand bed bricks should be placed at both sides of the cable. The cable inside the brick walls to be covered with sand at the bottom of the trench, up to the height of wall. Bricks should also be used as protective top covering and to be placed on the top of the protective brick walls [16 no. bricks would be used in 01 m cable laying work]. Rest of the trench should be re-filled with soil, rammed and levelled.

- 1.41.13 The bricks, to be used for protective top covering & side wall, should be of class designation 10.0 (as per latest version of IS: 1077, 1992). Dimensions [non-modular size (230 mm. x 110 mm. x 70 mm)] and tolerances of the bricks should be as per latest version of IS: 1077, 1992.

1.41.14 Cable Termination of 1.1 kV grade, XLPE Cable :

Termination of XLPE aluminium conductor power cables shall be by means of compression method using brass compression gland and aluminium lugs [including supply of materials, as required], tapes, anticorrosive paste & jointing materials.

1.41.15 Straight Through cable jointing of 1.1 kV grade, XLPE Cable:

Additional length (loop) of 5 m (approx.) cable should be kept at each end of the

cables near the straight through cable joints. It is required to measure the insulation resistances of the cables before and after straight through cable jointing. This scope includes supply of all required materials including complete straight through cable jointing kits, with ferrules and all other accessories.

Heat Shrinkable type straight through Cable Jointing Kits, suitable for XLPE insulated 1.1 kV grade LT cables, are to be used.

1.41.16 GI Pipe laying work:

Laying of Galvanized Mild Steel Tubes should be done wherever necessary, such as at Road Crossing, Railway Crossing, Drains, Culverts or any similar concrete structure, etc. The scope includes cutting of road, railway crossing, excavating of trenches, etc. Re-filling the trench after laying the Galvanized Mild Steel Tubes to be done by the Contractor. The Galvanized Mild Steel Tubes may also be laid by boring process, as per site requirement.

The depth of the laying should be matched with the underground cable trench, as far as possible.

Cutting of Galvanized Pipe to required length and threading, bending, jointing by Socket as required, supply and fixing of support clamps / brackets should be under the scope of Contractor.

1.42 Earthing :

- 1.42.1 Earth Electrode should be made of 3 m long Medium Galvanised Mild Steel Tubes (as per IS:1239) of nominal bore 50 mm. The tube shall have perforated hole of 10 mm dia at a cross distance of 75 mm. 260 mm long G.I. Plate of size 50 mm X 6 mm (with 4 nos. 10 mm dia tap hole, bend to shape of pipe) to be welded at 100 mm below the top of tube for connection of Earth Strip. G.I. Funnel / Cap to be provided on top of the tube. Two earth electrodes are to be interconnection to from one earth grid, which will provide a common ground for Street Light Poles / Feeder Pillar Boxes.

Earth Electrode to be driven in the Earth Pit filled up with alternate layer of Charcoal and Salt. Earth Pit should be provided with suitable size Brick Masonry Inspection Chamber with removable RCC Cover (75 mm thick) with handle.

Excavation of earth, back filling, masonry work and interconnection of earthing electrodes (with 50 mm X 6 mm G.I. Flat), shall be within the Scope of Work.

- 1.42.2 All connection of the G. I. Flats / G. I. Wire, with the Earth Electrode & Earth Grid, should be made by welding & welding point should be covered by black Bitumen Paint.

- 1.42.3 Entire earthing should be done in accordance with the relevant Indian Standard (IS) issued by Bureau of Indian Standard, Indian Electricity Rules & Act and Code of Practice. Colour of insulation of the copper wire, to be used for earthing purpose, will have to be preferably GREEN.

All necessary work (including supply of aforesaid cable & other required materials), for providing aforesaid earthing connection, is under the scope of the Contractor.

1.43 **Split-type Air-conditioning Work:**

- 1.43.1 The Split type Air-conditioner units [capacity 1.5 TR] shall be High Wall Split Type with Rotary Compressor, compatible with eco-friendly refrigerant (R410A or R32), having minimum 3 Star BEE Rating (with remote control).

The cooling coils of indoor units and condenser coils of the outdoor units should be of copper only. The supplier should also ensure copper wound motors used in the assembly (either Indoor or Outdoor unit).

- 1.43.2 The Air-conditioner units shall be supplied with copper refrigerant pipe (standard length of 3.0 running metre) & electric wire (standard length of 3.0 running metre), between outdoor unit & indoor unit, and standard length of drainage pipe.

- 1.43.3 The air-conditioning units should be compatible with operation at rated power supply of 1 phase, 230 V \pm 10 %, 50 Hz.

1.44 **Centralised Air-conditioning Work:**

- 1.44.1 The Centralised Air-conditioning system comprises following major components:

- i) Ductable Split type Air-conditioning Machine [Cooling Capacity : 11.0 TR], complete with Indoor & Outdoor Units, for Doctor's Chamber, Observation Room, Doctor's Rest Room, Medicine Counter & Reception.
- ii) Ceiling suspended , double skin, Direct Expansion Cooling (DX) coil type, Air Handling Unit (AHU) of capacity 3,000 CFM [Static pressure of Blower: 125 mm (WG)] (including 2 stage Filter Chamber), Outdoor Unit and Plenum chamber (including HEPA Filters), for Emergency Operation Theatre (OT).
- iii) Ceiling suspended , double skin, Direct Expansion Cooling (DX) coil type, Air Handling Unit (AHU) of capacity 1,500 CFM [Static pressure of Blower: 110 mm (WG)] (including 3 stage Filter Chamber) and Outdoor Unit, for Minor Operation Theatre (OT).
- iv) Floor mounted, double skin, Direct Expansion Cooling (DX) coil type, Air Handling Unit (AHU) of capacity 12,000 CFM [Static pressure of Blower: 110 mm (WG)] (including 3 stage Filter Chamber) and Outdoor Units, for ICU Block.

- 1.44.2 The Indoor Unit, Air Handling Units and Outdoor Units shall be fully factory assembled, wired, internally piped & tested. The outdoor unit shall be pre-charged with first charge of refrigerant. Additional charge shall be added as per refrigerant piping at site.

The Indoor Unit , Outdoor Units and Air Handling Units shall be suitable for operation with 415 V \pm 10%, 50 Hz \pm 3%, 3 Phase supply or 220 V \pm 10%, 50 Hz \pm 3%, 1 Phase supply, as applicable.

1.44.3 *The cooling coils of indoor units and condenser coils of the outdoor units should be of copper only. The supplier should also ensure copper wound motors used in the assembly (either Indoor or Outdoor unit or AHUs).*

1.44.4 Specifications of double skin Air Handling Units:

- i) The double walled modular type AHUs should be made of Pre-coated Galvanised Iron (PCGI) sheets of 0.8 mm thickness and should be provided with all control accessories, including corded Remote.
- ii) The AHU Panels shall be Polyurethane Foam (PUF) insulated [having 50 mm thickness] & inside epoxy painted.
- iii) The AHUs shall have powder coated aluminium profiles, with thermal break sections and Polyurethane (PU) Omega & Corner joints.
- iv) The AHUs shall be provided with backward curved , High Static Double Inlet Double Width (DIDW) centrifugal fan, with motor.
- v) Base frame of the AHUs should have proper arrangement to ensure minimum vibration and sound.
- vi) The AHUs shall be provided with insulated tray and Cooling Coil Chamber, with Direct Expansion Cooling (DX) type cooling coil (4 rows), having integrally finned copper tube.
- vii) The AHUs shall be provided with following Filter Chamber:

I.	Ceiling suspended AHU of capacity 3,000 CFM [Static pressure of Blower: 125 mm (WG)].	::	having 2 stage filtrations: a) Pre-filer & b) Fine filter
II.	Ceiling suspended AHU of capacity 1,500 CFM [Static pressure of Blower: 110 mm (WG)].	::	having 3 stage filtrations: a) Pre-filer, b) Fine filter & c) High Efficiency Particulate Air (HEPA) Filter
III.	Floor mounted AHU of capacity 12,000 CFM [Static pressure of Blower: 110 mm (WG)].	::	having 3 stage filtrations: a) Pre-filer, b) Fine filter & c) High Efficiency

		Particulate Air (HEPA) Filter
--	--	-------------------------------

- viii) The AHUs shall maintain the required clean room condition of as per National Accreditation Board for Hospitals & Healthcare Providers (NABH) standard, as given below:

I.	Ceiling suspended AHU of capacity 3,000 CFM [Static pressure of Blower: 125 mm (WG)].	::	Clean room condition of the Operation Theatre (OT).
II.	Ceiling suspended AHU of capacity 1,500 CFM [Static pressure of Blower: 110 mm (WG)].	::	Clean room condition of the Operation Theatre (OT).
III.	Floor mounted AHU of capacity 12,000 CFM [Static pressure of Blower: 110 mm (WG)].	::	Clean room condition of the Intensive Care Unit (ICU).

- ix) The Air Handling Units shall be fully factory assembled, wired, internally piped & tested.

1.44.5 Specifications of Ductable Split type Air-conditioning Machine [Cooling Capacity : 11.0 TR]

- i) The Air-conditioner units shall be air cooled type, complete with Indoor & Outdoor Units, with Single / Double scroll compressor [non-inverter type, compatible with eco-friendly refrigerant (R410A/ R32)] and provided with air-cooled condenser with blower fan, copper refrigerant coil (tube), anti-corrosion (aluminium) condenser fins, safety controls, facilities for gauge connection , refrigerant gas charging points, etc., as required. Outdoor units will be placed on brick pedestal / Angle support, to be provided by the Contractor separately.
- ii) The Air conditioning machine should have micro-processor-based control system with LED display, Thermostatic Expansion Valve (TXV), enunciator for fault diagnosis and other latest features.

1.44.6 Specifications of Outdoor Units [4.0 TR , 8.5 TR & 11.0 TR]:

- i) Outdoor Units of the Ductable Split type Air-conditioning Machine shall be air cooled type, with Single / Double scroll compressor [non-inverter type, compatible with eco-friendly refrigerant (R410A/ R32)] .
- ii) The outdoor condensing unit housing shall be weather proof , provided with air-cooled condenser with blower fan, copper

refrigerant coil (tube), anti-corrosion (aluminium) condenser fins, safety controls, facilities for gauge connection , refrigerant gas charging points, etc., as required.

Outdoor units will be placed on brick pedestal / Angle support, to be provided by the Contractor separately.

- iii) Outdoor units will be placed on brick pedestal / Angle support, to be provided by the Contractor separately.
- iv) The outdoor units should be supplied with full charging of R-410A refrigerant gas.

1.44.7 Entire earthing should be done in accordance with the relevant Indian Standard (IS) issued by Bureau of Indian Standard, Indian Electricity Rules & Act and Code of Practice. Colour of insulation of the copper wire, to be used for earthing purpose, will have to be preferably GREEN.

All necessary work (including supply of aforesaid cable & other required materials), for providing aforesaid earthing connection, is under the scope of the Contractor.

1.44.8 Air Ducting system and Plenum chamber:

- i) Ducts related to Air Ducting system (rectangular ducting) for Operation Theatre shall be made out of Aluminium sheet [22 Gauge]. Other ducts shall be made out of Galvanised Sheet Steel (GSS) [22 Gauge / 24 Gauge].

Providing necessary supports / hangers, elbows, splitter, adjustable dampers, vanes, etc., including neoprene rubber gasket, is under the scope of the Contractor.

- ii) Ducts shall be fabricated at site or factory fabricated and shall be generally as per IS: 655 . The interior surfaces of the ducting shall be smooth.
- iii) Acoustic insulation for Air Ducting system shall be provided by using open cell closed-cell Nitrile Rubber (class 1) [10 mm thick, density: 60 kg / m³] and all required materials for fixing like bolts, nuts, GI washers, etc.
- iv) Thermal insulation on OT ducting (Supply Air & Return Air) , including OT Plenum Chamber , shall be provided by using closed-cell Nitrile Rubber (class 1) [13 mm thick, density: 48 kg / m³] and all required materials for fixing like bolts, nuts, GI washers, etc.

Thermal insulation on other ducting (Supply Air & Return Air) shall be provided by using closed-cell Nitrile Rubber (class 1) [9 mm thick, density: 48 kg / m³] and all required materials for fixing like bolts, nuts, GI washers, etc.

- v) Laminar flow single skin OT Plenum Chamber shall be made out of Aluminium sheet [22 Gauge], duly insulated.

The Plenum Chamber shall be provided with High Efficiency Particulate Air (HEPA) Filters, perforated Stainless Steel (SS) distributors, stiffeners, etc., with following details:

Material of Construction (MOC) :: Aluminium
of laminar flow chamber

Filter Type :: Mini Pleat - Box Type

Filter Grade :: H13

Filter Efficiency :: 99.97% Down to 0.3 μ m

Media :: Micro glass fibre, along
with hotmelt separator.

1.45 **Make / Brand of Air Handling Units:**

Air Handling Units of following Make/ Brand will be preferred:

ZECO/ EDGETECH/CARRIER / DAIKIN / HITACHI / BLUE STAR / VOLTAS.

However, Air Handling Units of any other make may be accepted, subject to compliance of all the Technical Specifications / Scope of Work / Requirements, mentioned in the instant Bidding Documents.

All the Bidders shall have to indicate the Make / Brand of the Air Handling Units, for which they are submitting their bid, in the Techno-commercial bid. They should also upload the Technical Details to establish compliance of all the Technical Specifications / Scope of Work / Requirements, mentioned in the Bidding Documents.

In case any Bidder submits their bid considering other Make / Brand of Air Handling Units, they shall have to upload scanned copies of following supporting documents [duly signed & stamped by the Bidder], alongwith the Techno-commercial bid:

- a) Request for consideration of other Make / Brand of Air Handling Units [to be specified by the Bidder], along with the Technical Details to establish compliance of all the Technical Specifications / Scope of Work / Requirements, mentioned in the Bidding Documents.
- b) Certificate from any Central Govt. Organization / Public Sector Units / CPWD / State PWD / State Govt. Organization / Govt. Port, regarding satisfactory working / performance of the Air Handling Units of the specified Make / Brand, during the last seven years [prior to the starting date of submission of instant e-tender].

1.46 **Make / Brand of Air-conditioner units:**

Air-conditioner units of following Make/ Brand will be preferred:

CARRIER / DAIKIN / HITACHI / BLUE STAR / VOLTAS.

However, Air-conditioner units of any other make may be accepted, subject to compliance of all the Technical Specifications / Scope of Work / Requirements, mentioned in the instant Bidding Documents.

All the Bidders shall have to indicate the Make / Brand of the Air-conditioner units, for which they are submitting their bid, in the Techno-commercial bid. They should also upload the Technical Details to establish compliance of all the Technical Specifications / Scope of Work / Requirements, mentioned in the Bidding Documents.

In case any Bidder submits their bid considering other Make / Brand of Air-conditioner units, they shall have to upload scanned copies of following supporting documents [duly signed & stamped by the Bidder], alongwith the Techno-commercial bid:

- a) Request for consideration of other Make / Brand of Air-conditioner units [to be specified by the Bidder], along with the Technical Details to establish compliance of all the Technical Specifications / Scope of Work / Requirements, mentioned in the Bidding Documents.
- b) Certificate from any Central Govt. Organization / Public Sector Units / CPWD / State PWD / State Govt. Organization / Govt. Port, regarding satisfactory working / performance of the Air-conditioner units of the specified Make / Brand, during the last seven years [prior to the starting date of submission of instant e-tender].

1.47 **LIST OF PREFERRED MAKES / BRANDS :**

Sl. No.	Items	Manufactures / Makes / Brands
i)	MCB, RCCB, MCB Type Isolator, Changeover Switch , MCCB, Contactor, Time Switch, Switch – Disconnecter – Fuse Unit	L&T / LEGRAND / SIEMENS / SCHNEIDER / ABB
ii)	MCCB / MCB Enclosure or Distribution Board	L&T / LEGRAND / SIEMENS / SCHNEIDER / ABB/ HENSEL
iii)	PVC insulated (1.1 kV grade) single / multi-core copper flexible conductor.	FINOLEX / HAVELLS / RPG / UNIFLEX / MESCAB / RR KABLES/ POLYCAB
iv)	Telephone cable, LAN Cable	FINOLEX / HAVELLS / MESCAB / POLYCAB
v)	Indoor Light Fittings and Lamps (Excluding decorative Bracket	PHILIPS / WIPRO / BAJAJ / CROMPTON / LIGHTING TECHNOLOGY (LT) /

Sl. No.	Items	Manufactures / Makes / Brands
	Light)	HAVELLS
vi)	Outdoor Light Fittings	PHILIPS / WIPRO / BAJAJ / CROMPTON / LIGHTING TECHNOLOGY (LT)/ SIMOCO/ HAVELLS
vii)	Piano Type / Modular Type Switch, Socket, Ceiling Rose, Electronic Type Fan Regulator, etc.	ANCHOR / LEGRAND/ PHILIPS/ PANASONIC/ ABB/ HAVELLS / NORTH-WEST
viii)	Ceiling Fan, Exhaust Fan, Wall Fan, Pedestal Fan, etc.	CROMPTON / ORIENT / HAVELLS / ALMONARD
ix)	False Ceiling mounted type Ventilating Exhaust Fan	CROMPTON / ORIENT / HAVELLS / ANCHOR PANASONIC
x)	Calling Bell	CONA / MAX / ANCHOR/ PANASONIC
xi)	LT Cable (1.1 kV grade) PVC / XLPE .	HAVELLS / FINOLEX / GLOSTER / UNISTAR / RPG / APAR INDUSTRIES (UNIFLEX) / POLYCAB / RR KABLE / TORRENT
xii)	Cable Jointing Kit	3M / RAYCHEM / DENSON
xiii)	Cable Lug & Cable Gland	DOWELLS / JHONSON / RAYCHEM

xiv)	Digital Multifunction Meter, Energy Meter [ac Static Watthour Meters]	CONZERV / SECURE / L&T / ABB / SIEMENS / AE / IMP / UNIVERSAL / RESHABH / KAYCEE / MECO / ENERCON / NIPPEN / YOKINS
xv)	Electric Water Heater (Geyser)	VENUS / BAJAJ / RACOLD / HAVELLS / CROMPTON
xvi)	Outdoor Type PVC Box	HENSEL / SINTEX / ABB/ HAVELLS / LEGRAND / HAGGER
xvii)	Paints	ASIAN / BERGER / NEROLAC / SHALIMAR / DULUX

Sl. No.	Items	Manufactures / Makes / Brands
xviii)	G.I. Pipes	TATA/ SAIL/ JINDAL
xix)	Hand Dryer	AVRO/EURONICS/ ORCHIDS/MAGNUM
xx)	Hot Dipped Galvanised Octagonal Street Light Poles	BAJAJ/ VALMONT
xxi)	Aluminum Composite Panel (ACP)	TIMEX BOND / ALEX PANELS/ ALUDECOR/EUROBOND / EQUIVALENT
xxii)	Power Supply of LED modules for 3D Glow Sing Board.	SAMSUNG OR EQUIVALENT.

- 1.48 Bidders shall submit list of makes / brands for all the major items [in line with the aforesaid list] during submission of Techno-Commercial bid. In case bidders fails to submit the list, it would be presumed that the bidder would strictly adhere to the preferred makes as indicated in the instant Bidding Document.

After issuing the Letter of Acceptance (LOA) , Successful Bidder shall be required to comply the following during engineering stage of the project:-

Any new make, other than preferred make mentioned in the instant Bidding Document, may be accepted by the ‘Engineer’, if the same meets the following criteria:-

- Shall meet Technical Specification of the equipment / items, as mentioned in the instant Bidding Document.
- Shall be from OEM [Original Equipment Manufacturer].
- Shall submit at least 3 Nos. Work order and Performance certificate from Central Govt./ State Govt./ PSU/ other Reputed Organisation for offered make of equipment / items.
- Shall have valid type test certificates for the offered make of equipment / items, from CPRI /ERDA /ERTL /Gov. Labs, as applicable.

In case, the new make offered by the bidder does not meet above mentioned criteria, the Successful Bidder should be required to adhere to the preferred make list , as mentioned in the instant Bidding Document..

1.49 TEST ON COMPLETION

- 1.49.1 On completion of the work, necessary tests shall be carried out as per relevant standards to the satisfaction of the ‘Engineer’ or his representative.
- 1.49.2 On successful completion of ‘Test on Completion’, the system will be declared commissioned and the same will be taken over by HDC, SMPK.

1.50 AS BUILT DRAWING

On completion of the work, “As Built” drawings, duly incorporating all the changes made during the construction / execution, shall be submitted to Haldia Dock Complex. A USB flash drive, containing the “As Built” drawings and comprehensive list of the drawings, shall also be submitted by the Contractor.

8. PREAMBLE TO THE BILL OF QUANTITIES

E-tender for “Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex”.

8.1 The Bill of Quantities must be read with the General Conditions of Contract, the Special Conditions of Contract and the Particular Specifications of Work and the Bidder is deemed to have examined the above documents and to have thoroughly familiarise himself with the total scope of work and its mode of execution.

8.2 The quantities given in the Bill of Quantities are approximate only and are given to provide a common basis for tendering. Payment will be made according to the quantities of each item of work actually carried out at the accepted rates as per Order Letter. The measurements of each item of work shall be measured jointly by the Engineer or his Representative.

8.3 This being a percentage rate tender, the Bidder shall quote his rates as percentage above / below / at par with the estimated amount put to tender on line based on his own analysis.

The Tender Price thus established would be taken for comparative evaluation of E-Tenderers .

8. BILL OF QUANTITIES

Sec.-A: CIVIL WORK

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
1	Earth work in excavation in foundation in any soil including disposal of surplus excavated earth within a lead of 100 M include for bailing out subsoil or rain water, if required, all complete and as directed.	700.00	₹ 120.46	Cu.M.	₹ 84,322.00
2	Earthwork in filling in foundation trenches or plinth with good earth obtained from excavation of foundation in layers including watering and raming etc. complete.	250.00	₹ 78.32	Cu.M.	₹ 19,580.00

3	Taking out of damaged/bulged out cement plaster or skirting of any thickness including raking out of joints and cleans the surface for plastering and dispose off rubbish within a lead of 75 m. Also include for making scaffolding from G.L. to 2nd floor level etc., all complete and as directed.	50.00	₹ 19.19	Sq.M.	₹ 959.50
4	Dismantling cement brick work by carefully chiseling out as directed. Include for cleaning the serviceable bricks including stacking for reusing and disposal of unserviceable materials within a lead of 75 m. etc., all complete and as directed.	5.00	₹ 451.47	Cu.M	₹ 2,257.35
5	Dismantling the cement concrete (of any thickness) by carefully chiseling out. Include for removing the debris within a lead of 75 m. etc., all complete and as directed.	4.00	₹ 948.39	Cu.M	₹ 3,793.56
6	Dismantling of MS grill full / in parts R.S., joists, channels, angles, tees, plates etc. including lowering, stacking and return to RZ store within 2 km complete as directed.	2.5	₹ 198.97	Qntl	₹ 497.43
7	Chisel out existing damaged cement concrete I.P.S. / Mosaic / Terrazo / Tiles floor surfaces (of any thickness), square up the edges, clean the surfaces thoroughly for laying new concrete. Include for removing the debris within a lead of 100 metres, all complete and as directed.	70.00	₹ 50.50	Sq.M.	₹ 3,535.00

[BOQ-2]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
8	Filling in foundation trenches or plinth by silver sand in layers not exceeding 150mm as directed and consolidated the same by thorough saturation with water, ramming complete including the cost of supply of sand (payment to be made on measurement of finished quantity.)	950.00	₹ 548.95	Cu.M.	₹ 521,502.50
9	Supplying and laying Polythene Sheet (150 gm / sq.m.) below flooring or in foundation or in foundation trenches.	1650.00	₹ 24.24	Sq.M.	₹ 39,996.00

10	Brick soling with picked jhama bricks including preparation of bed as necessary with brick joints properly filled in and packed with powdered earth and including necessary cushion of similar materials below the soling (and in between layers when more then one layer is used) completes sper direction. a) Single brick flat soling (thickness 75mm)	1575.00	₹ 339.36	Sq. M.	₹ 534,492.00
11	Provide and lay cement concrete (1:2:4) (with 20 mm down stone chips) in foundation and plinth protection etc. in proper line and level to superior finish, all complete and as directed.	210.00	₹ 5,371.18	Cu.M.	₹ 1,127,947.80
12	Provide and build brick work in foundation and plinth etc. in cement and sand mortar 1:6 (1 cement : 6 coarse sand) with Ist class bricks, include for chiselling out/cutting teeth etc. in existing walls and floors for proper bonding, all complete and as directed.	130.00	₹ 5,249.98	Cu.M.	₹ 682,497.40
13	Providing and building of brick work in cement and sand mortar 1:4 (1 cement : 4 coarse sand) with 1st clalss bricks include for chiseling out/cutting teeth etc. in existing walls and floors for proper bonding etc. all complete and as directed.	200.00	₹ 5,745.89	Cu.M.	₹ 1,149,178.00
14	Provide and build 125 mm. thick brick work with 1st class bricks in cement mortar 4:1 (4 sand :1 cement) include for chiselling out / cutting teeth etc. in existing walls and floors for proper bonding, all complete and as directed.	1020.00	₹ 719.12	Sq.M.	₹ 733,502.40

[BOQ-3]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
15	M.S./Tor reinforcement (TATA/SAIL/RINL or equivalent) including supply of rods, initial straighting and removal of loose rust, cutting to requisite length, bending, shaping and place in correct position, including welding if necy. for the above item etc., all complete & as directed.	35250.00	₹ 56.07	Kg.	₹ 1,976,467.50

16	Providing and laying of ordinary cement concrete Mix (1:1.5:3) with graded stone chips excluding shuttering and reinforcement, if any, upto 3rd floor level as per relevant IS code with Pakur variety stone chips including application of epoxy based reactive joining agent for joining the old concrete with fresh concrete to be applied within manufacturer's specified time as per manufacturers specification (0.4 kg / sqm of concrete surface) etc., all complete and as directed.	340.00	₹ 5,930.72	Cu.M.	₹ 2,016,444.80
17	Hire and labour charges for shuttering for building works for floor, beam, lintels, chajjas etc for the above item.	2750.00	₹ 327.24	Sq.M.	₹ 899,910.00
18	Providing and laying of cement plaster (1:4) with medium coarse sand to interior surfaces of walls and columns etc. Include for necessary curing etc. all complete and as directed. avg. 20 mm. thick cement plaster(1:4) (to match with existing plastered surface) upto 2nd floor level etc., all complete and as directed.	1050.00	₹ 180.79	Sq.M.	₹ 189,829.50
19	Providing and laying of 10 mm. thick cement plaster (1:4) with medium coarse sand at the ceiling surface Include for necessary scaffolding & curing upto 2nd floor level etc., all complete as directed.	1100.00	₹ 126.25	Sq.M.	₹ 138,875.00
20	Providing and laying of cement plaster to exterior surfaces 15 mm to 20 mm thick with (1:4) cement plaster with approved water proofing compound. Include for making scaffolding for working up to 2nd floor level and necessary curing etc., all complete and as directed.	3300.00	₹ 168.67	Sq.M.	₹ 556,611.00

[BOQ-4]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
21	Providing and laying of neat cement punning over the plastered surfaces of dado, skirting and floor surfaces upto 2nd floor level etc., all complete and as directed.	600.00	₹ 34.34	Sq.M.	₹ 20,604.00

22	Supplying, fitting and fixing Marble Slab/tile of 15 to 18 mm thickness in floor, lobby, stair, landing & treads etc. over 20 mm (av.) thick base of Cement mortar (1:2) laid with white cement slurry @ 4.4 kg/Sq.m before placing marble & jointed with white cement slurry @ 2.0 kg/Sq.m with necessary pigments including grinding and Granite polishing as per direction of Engineering -in -Charge in all Floor. (White cement and Pigment to be supplied by the Agency)	60.00	₹ 1,694.78	Sq.M.	₹ 101,686.80
	With Makrana plain pink / Adranga Pink / Garbh Gulabi / Udaypur pink / Udaypur Green / Black Bhaslana				
23	Supplying, fitting & fixing granite slabs 15mm to 18 mm. thick with uniform texture & without decorative veins in columns, wall, fascia, etc. with 15 mm thick [avg] cement mortar (1:2) including making suitable arrangements to hold the stones properly by brass / copper hooks including pointing in cement mortar (1:2) (1 white cement : 2 marble dust) with admixture of pigment matching the stone shades all complete as per direction of the Engineer-in-charge including cost of all materials, labours, scaffolding, staging, curing and roughening of concrete surface complete. [Using cement slurry at back side of granite @ 4.4 g/sq.m & white cement slurry for joint filling @ 1.8kg/sq.m], (a) Area of each Granite slab 0.6 to 1.00 Square meter.	130.00	₹ 3,361.28	Sq.M.	₹ 436,966.40

[BOQ-5]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

24	Supplying, fitting and fixing 1st quality Ceramic tiles of any size having mat finish in walls and floors including borders to match with the existing work set in sand cement mortar (4:1) and 2mm thick cement slurry back side of tiles using cement @ 2.91kg/sqm or using polymerised adhesive as required and finishing the joints with white cement mixed with colouring oxide of required match colour of tiles, fix with polymerised Adhesive and Epoxy grouting materials including spacer 2mm. All complete and as directed.				
	(i) Floor	45.00	₹ 745.38	Sq.M.	₹ 33,542.10
	(ii) Wall	1300.00	₹ 765.58	Sq.M.	₹ 995,254.00
25	Supplying and laying true to line and level vitrified tiles (double charged Premium quality) of approved brand (Size not less than 600 mm. X 600 mm. X 10 mm. thick) in floor and skirting etc set in 20mm sand cement mortar (1:4) and 2mm thick cement slurry back side of tiles using cement @ 2.91kg/sqm or using polymerised adhesive (6mm thick layer applied directly over finished artificial stone floor /mosaic etc. without any backing course) laid vafter application slurry using 1.75 kg of cement per sqm below mortar only ,joints grouted with admixture of white cement and colouring pigment to mat with colour of tiles/epoxy grout materials of approved make as directed and removal of wax coating of top surface of tiles with warm water and polishing the tiles using soft and dry cloth upto mirror finish complete including the cost of materials, labour and all other incidental charges complete true to manufacturer's specification and direction of Engineer-in charge, fix with polymerized Adhesive (6mm thick) & epoxy grouting materials for filling joints including spacer - 2mm. as required.	870.00	₹ 1,806.89	Sq.M.	₹ 1,571,994.30

[BOQ-6]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

26	Provide & supply Ordinary teak wood frames in door and window frame fitted and fixed in position complete including a protective coat of painting at the contact surface of the frame excluding cost of concrete, Iron Butt Hinges and M.S clamps. (The quantum should be corrected upto three decimals).	1.00	₹ 109,450.67	Cu. M.	₹ 109,450.67
27	Supplying solid flush type doors of deluxe ecorative (both side) quality, conforming to I:S 2202 timber frame consisting of top and bottom rail and side styles of well seasoned timber 65mm wide each and the entire frame fitted with 27.5mm wide battens places both ways in order to made the door of solid core and internal lipping with teak, mahogany or rose wood approved decorative veneers using phenol formaldehyde as glue etc. complete, including fitting, fixing the shutters in position but excluding the cost of hinges and other fittings in ground floor: (a) 35mm thick shutters (single leaf)	45.00	₹ 3,994.55	Sq.M.	₹ 179,754.75
28	Prelaminated particle board conforming to IS: 3087-1985 and IS: 12823-1991, Both side decorative laminated interior grade Wall panelling / partition with Melamine faced 3 layered flat pressed wood particle board of approved make and brand as per direction of Engineer - in - Charge of requisite grade bonded with phenol formaldehyde synthetic resin conforming to IS: 848 - 1974 (excluding the cost of supporting frame work and teak wood battens / lipping) In Ground Floor. 12mm thick.	20.00	₹ 1,093.83	Sq.M.	₹ 21,876.60

[BOQ-7]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

29	Supplying, Fitting & Fixing Factory made prelaminated P.V.C. door frame of size 50 mmx47 mm with a wall thickness of 5 mm, made out of extruded 5 mm Prelaminated PVC sheet miter cut at two corners and joined with two nos of 1.5 mm long brackets of 15 mm x15 mm M.S. square tube. The two vertical door profiles are to be reinforced with 19 mmx 19 mm M.S. Square tube of 19 gauge, weather seal to be provided through out the frame. The door frame shall be fixed with the wall using 65/100 mm M.S. Screws through the frame by using P.V.C fasteners. A minimum of 4 Nos of screws to be provided for each vertical member and minimum 2 Nos for horizontal member etc. complete as per Manufacturer's specification and direction of Engineer-in-Charge.	35.00	₹ 388.85	Mtr.	₹ 13,609.75
30	Supplying, Fitting & Fixing 30 mm thick both side prelaminated Factory made solid Panel PVC Door Shutter consisting of outer frame made out of M.S. tubes of 19 gauge thickness and size 19 mmx19 mm for styles, top and bottom rails, M.S. frame shall have cost of steel primers of approved make and manufacture, M.S. frame covered with 5 mm th. heat moulded PVC "C" channel of size 30 mm th, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on either sides forming styles; and 5 mm th. 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm tapered in 45 degree on the inner side to etc. complete excluding all necessary hardwares as per direction of Engineer-in-Charge.				

[BOQ-8]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

	form top & bottom rail and 115 mm wide PVC sheet out of which 75mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided either side of the panel with 10 mm (5 mmx2) th.,20 mm wide cross PVC sheet as gap insert for top rail and bottom rail sheet to be fitted in the M.S. frame welded/sealed to the styles & rails with 7 mm (5 mm+2 mm) th.x15 mm wide PVC sheet beading on inner side and joined together with solvent cement adhesive. An additional 5 mm th. PVC strip of 20 mm which is to be stuck on the interior side of the “C” channel using PVC solvent adhesive etc. complete excluding all necessary hardwares as per direction of Engineer-in- Charge.	12.00	₹ 2,462.38	Sq.M	₹ 29,548.56
31	Provide and fixing M.S or W.I. Ornamental grill of approved design joints continuously welded with M.S, W.I. Flats and bars of windows, railing etc. fitted and fixed with necessary screws and lugs.	1700.00	₹ 71.16	Kg	₹ 120,972.00
32	Collapsible gate with 40mm x 6mm Tee as top and bottom guide rail, 20mm x 10mm x 2 mm vertical channels 100 mm apart in fully stretched position 20 mm x 5 mm M.S.flats as collapsible branching properly rivetted and washered including 38 mm steel roller including locking arrangements, fitted and fixed in position with lugs set in cement concrete and including cutting necessary holes, chasing etc. in walls, floor etc. and making good damages complete.	12.00	₹ 3,436.02	Sq.M.	₹ 41,232.24
33	Provide and apply one coat of ready mixed zinc chromate yellow primer of approved brand and manufacture to the grills and gates etc. include for scrapping, brushing, sand papering and cleaning the surfaces smooth before application of primer etc., all complete & as directed.	90.00	₹ 29.29	Sq.M.	₹ 2,636.10

[BOQ-9]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

34	Provide and lay paint on steel work with two coats of approved synthetic enamel paint of first quality including scrapping, brushing and cleaning the surfaces if necessary etc. all complete & as directed.	90.00	₹ 79.79	Sq.M.	₹ 7,181.10
35	Providing and applying French polishing to wood work including preparing surface (ordinary gloss) oldpolish. On new wood work.	100.00	₹ 471.67	Sq.M.	₹ 47,167.00
36	Supplying,fitting & fixing of 2-Track / 3-Track Aluminium sliding Window of all Aluminium sections viz. window frame (top,bottom & sideframe), shutter (top, bottom, side & interlock member) made of aluminium alloy extrusions conforming to IS 733-1983 & IS 1285-1975, annodised conforming to IS 1868-1983, fitted with all other accessories viz. PVC roller, EPDM gasket, maruti lock, screws etc. including labour charges for fitting & fixing of aluminium 2-track/3-track sliding window with fixing of glass (excluding cost of glass) all complete as per architectural drawings and direction of Engineer-in-charge. 10-12 Micron thickness Annodizing film.Natural white	480.00	₹ 452.48	Kg	₹ 217,190.40
37	Supplying, fitting & fixing of Aluminium fixed partition wall of all aluminium sections viz top, bottom and side member, intermediate member, glazing clip made of Aluminium Alloy Extrusions conforming to IS: 733-1983 and IS: 1285-1975, annodized conforming to IS:1868- 1983, fitted with all other accessories viz. EPDM sket,cleat, angle screws etc. including labour charges for fitting and fixing of aluminium fixed partition wall with glass / panel board all complete as per architectural drawings and direction of Engineer-in-charge. (Excluding cost of glass/ panel board, 10-12 Micron thickness Annodizing film. Natural white.				

[BOQ-10]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

(a)	For unsupported length of vertical member upto 1.50m. height of both ends of vertical member restrained but panel with in 0.90 sqm.	570.00	₹ 394.91	Kg	₹ 225,098.70
(b)	For unsupported length of vertical member above 1.50m. height of both ends of vertical member restrained but panel above 0.90 sqm	45.00	₹ 390.87	Kg	₹ 17,589.15
38	Filling the gap in between aluminium frame & adjacent RCC / Brick/ Stone work by providing weather silicon sealant over 6mm dia backer rod of approved quality as per architectural drawings and direction of Engineer-in-Charge complete. Upto 5 mm depth and 5 mm width	200.00	₹ 69.69	Mtr	₹ 13,938.00
39	Supplying, fitting & fixing of partly glazed partly panelled or fully glazed Aluminium swing door of all aluminium sections viz door frame (top and side frame), shutter(top rail, bottom rail, lock rail, door vertical) , glazing clip made of Aluminium Alloy Extrusions conforming to IS: 733-1983 and IS: 1285-1975, annodized conforming to IS:1868- 1983, fitted with all other accessories viz. EPDM gasket,cleat, angle screws etc. including labour charges for fitting and fixing of aluminium door with door pring,/aluminium hinges, glass / Panel board all complete as per architectural drawings and direction of Engineer-incharge.(Excluding cost of glass/ panel board, door spring/ Al hinges, door closer, door stoper, handle, tower bolt and locking arrangement etc)10-12 Micron thickness Annodizing filmNatural white	100.00	₹ 388.85	Kg	₹ 38,885.00

[BOQ-11]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

40	Supplying profiles for top & bottom rails of Rimless door of required section made of Aluminium Alloy Extrusions conforming to IS: 732-1983 and IS: 1285-1975; Anodized (with required film thickness and specified colour / natural) matt finished conforming to IS: 1868-1983 for fabrication of composite door, sliding & casement windows, partitions, formed of basic sections of any ISI embossed / certified make and brand as per direction of Engineer - In-Charge. (Payment will be made on finished length of the work).	11.00	₹ 818.10	Mtr.	₹ 8,999.10
	In 10-12 Micron thickness Anodizing film				
	Natural white				
41	Supplying bubble free float glass of approved make and brand conforming to IS: 2835-1987.				
(a)	6mm thick clear glass.	30.00	₹ 614.08	Sq.M.	₹ 18,422.40
(b)	6mm thick coloured / tinted / smoke glass.	160.00	₹ 667.61	Sq.M.	₹ 106,817.60
42	Supplying, fitting and fixing 12mm thick bubble free cleared toughened glass of approved make and brand conforming to Is: 2553-1992 (Part-II) .	6.00	₹ 4,043.03	Sq.M.	₹ 24,258.18
43	Providing and fixing exterior quality Aluminium Composite Panel (ACP) wall cladding on existing Al. /MS frame work with GI brackets, ACP fixed on the existing frame work by folding the edges of ACP panel (Engraving the rear surface of ACP sheet) with CP angles, cleats and stainless Steelscrews forming grooves at the periphery of ACP panel. Such grooves filled with foam and silicon sealant etc. complete with all materials (but including the cost of silicon sealant), labour, scaffolding and all other incidental charges complete in all respect as per specification and direction of Engineer-in-charge. (Mode of payment is on finished surface area of ACP)	6.00	₹ 2,010.91	Sq.M.	₹ 12,065.46
	3mm thick (0.25mm Al.+2.5mm LDPE +0.25mm Al. PVDF coating)				

[BOQ-12]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

44	Aluminium Fittings				
(a)	Supplying heavy duty hydraulic double action floor spring along with top pin/set of pivots conforming to IS: 6315 or any approved make as per direction of Engineer in charge.	2.00	₹ 1,746.29	Each Set	₹ 3,492.58
(b)	Supplying 200 mm long concealed type heavy duty PVC headed aluminium tower bolt for double leaf doors as per approved make and brand as per direction of Engineer-in-Charge.	6.00	₹ 61.61	Each	₹ 369.66
(c)	Supplying Aluminium casted body hydraulic door closer as per I.S.I.	6.00	₹ 641.35	Each	₹ 3,848.10
(d)	Supplying natural colour 125 mm. Dia acrylic handle for aluminium door as per approved make & brand.	6.00	₹ 182.81	Each	₹ 1,096.86
(e)	Supplying Aluminium casted body Butt Hinge (KOBRA type). (Natural white)	16.00	₹ 56.56	Each	₹ 904.96
(f)	Supplying 4 lever mortice lock or any approved make and brand as per direction of the Engineer- in -Charge.	8.00	₹ 381.78	Each	₹ 3,054.24
45	Provide & fix MS clamp made of 40 mm x 6 mm x125 mm long ms flat or as required at site to the door, window, cupboard frame etc.,all complete & as directed.	72.00	₹ 38.38	Each	₹ 2,763.36
46	Supplying, fitting and fixing of anodised aluminium tower bolt of approved quality manufacture from extruded section confirming to IS 204/74 fitted and fixed with cadmium plated screw etc., all complete and as directed.				
	a) 225 mm. long x 10 mm. dia. bolt.	22.00	₹ 84.84	Each	₹ 1,866.48
47	Anodised aluminium Sliding bolt/ Aldrop (250 mm X 16 mm dia.bolt) of approved quality manufactured from extrud section fitted and fixed complete.	12.00	₹ 235.33	Each	₹ 2,823.96

[BOQ-13]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

48	Anodised Iron butt hinges of approved manufactured from extruded section conforming I:S 205/66 fitted and fixed with cadmium plated screw.				
a)	75 x 40 x 1.12 mm (For hinge cleat)	11.00	₹ 28.28	Each	₹ 311.08
b)	100 x 75 x 33.5 mm (For Door)	44.00	₹ 66.66	Each	₹ 2,933.04
49	Supply, fit and fix anodised aluminium D - type handle of size 125 mm. X 12 mm. dia rod with continuous plate base (Hexagonal / Round rod) of approved quality manufactured from extruded section conforming to I.S. specification (IS 230/72) etc., all complete & as directed.	22.00	₹ 104.03	Each	₹ 2,288.66
50	Supplying, fitting and fixing 125mm long wooden buffer block position excluding the cost hinge and other fittings.	11.00	₹ 51.51	Each	₹ 566.61
51	Supplying, fitting and fixing hinge cleat in position excluding the cost hinge and other fittings.	11.00	₹ 35.35	Each	₹ 388.85
	with local Sal and 75mm iron Butt-hinge				
52	Supply & fix ' Godrej ' mortice lock chromium plated with latch and keys 4 levers, including fitting and fixing complete.	11.00	₹ 1,091.81	Each	₹ 12,009.91
53	Supply Medium type Godrej Hydraulic door closer fitted and fixed complete.	11.00	₹ 1,681.65	Each	₹ 18,498.15

[BOQ-14]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

54	Provide and fix suspended GYP BOARD [Fultone tiles,] false ceiling [with or without drop] including providing and fixing G.I. perimeter channels of size 20mm x 30mm x 27mm (web) and 0.55 mm thickness along the perimeter of ceiling fixed to the brick wall the help of nylon sleeves and screws at 610 mm C/C suspending G.I. intermediate channels of size 45 mm and 0.90 mm thick with two flanges of 15 mm each from the soffit 1220 mm centres with ceiling angle [Hanger] of width 25mmX 10mm x0.55mm thick to soffits with G.I. cleat and steel expansion fasteners ceiling section of 0.55mm thickness having knurled wed of 51.5mm and two flanges of 26 mm each with lips of 10.50mm fixed to the intermedited channel with the help of connecting clips and in the direction of perpendicular to the intermediate channel at 297.5mm 297.5 mm centres, fixing of 12.50 mm thick Gypsum board [Fultone panels] of size 595 mm x 595 mm to the ceiling section with 25 mm drywall screws at 297.50 mm centres in such way that minimum 9 nos. of screws hold the panel [screw mechanically either wuth screw driver or drilling machine.] [Payment will be made on the basis of actual finished area and accepted]	850.00	₹ 1,095.10	Sq.M.	₹ 930,835.00
55	Provide and lay white cement base wall putty 1.5 mm thick approximate to smooth finish. Include for removing damaged plaster of Paris where necessary etc. all complete & as directed.	2300.00	₹ 123.22	Sq.M.	₹ 283,406.00
56	Provide and apply Acrylic Distemper/ Acrylic Primer (solvent based interior grade) of Asian paint or equivalent as per manufacture specification of approved brand and manufacture of required shades to give an even shade. Allow for cleaning the surfaces thoroughly and repairing of scratches etc. wherever required before application of paint etc., all complete & as directed.				
	One coat of Acrylic Primer.	2300.00	₹ 31.11	Sq.M.	₹ 71,553.00

[BOQ-15]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

57	Applying Acrylic Emulsion Paint of approved make and brand on walls and ceiling including sand papering in intermediate coats including putty (to be done under specific instruction of Superintending Engineer) : (Two coats) Luxury Quality.	2300.00	₹ 70.70	Sq.M.	₹ 162,610.00
58	Applying one coat Exterior grade Acrylic primer of approved quality and brand on plastered or concrete surface old or new surface to receive acrylic exterior emulsion paint including scraping and preparing the surface thoroughly complete as per manufacturer's specification and as per direction of the EIC.	1250.00	₹ 31.71	Sq.M.	₹ 39,637.50
59	Applying two coats of protective and decorative Acrylic exterior emulsion paint of approved quality, as per manufacturer's specification and as per direction of EIC.	1250.00	₹ 67.67	Sq.M.	₹ 84,587.50
60	Application of non toxic polyurethane modified acrylic based single component, solvent-free, cold applied, polyurethane modified elastomeric waterproofing membrane with excellent UV resistant capacity in two coats along with a priming coat and reinforced with 20gsm Geotextile fleece as per manufacturer's specification, in the following method: After preparing the surface by cleaning and repairing roof cracks by cement and sand mortar (1:4), if any, apply two coats along with a priming coat and reinforced with 20gsm Geotextile fleece. The product has to comply with the requirement laid out in ASTM D6083-97a.	1025.00	₹ 434.72	Sq.M.	₹ 445,588.00

[BOQ-16]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

61	Supply, fit, fix CPVC (Chlorinated Polyvinyl Chloride) pipes of approved make (Oriplast / Supreme or equivalent) conforming to IS-15778; 2007, with all necessary accessories specials i.e socket, band, tee, elbow , union, cross, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted with holder bats clamp, including cutting pipes, making threads, fitting, fixing, complete in all respect in any position above ground and upto 1st floor level. (Payment will be made on the centre line measurement of total pipe line including all specials, no separate payment will be made for accessories, specials as required to complete the work).				
	(a) For Exposed works CPVC Pipes Class-I,SDR-11				
	i) 25mm	45.00	₹ 210.08	Mtr.	₹ 9,453.60
	i) 40 mm.	100.00	₹ 407.03	Mtr.	₹ 40,703.00
	(b) For Concealed works CPVC Pipes Class-I,SDR-11				
	i) 15 mm.	60.00	₹ 141.40	Mtr.	₹ 8,484.00
	ii) 20 mm..	45.00	₹ 172.71	Mtr.	₹ 7,771.95
62	Supplying, fitting and fixing G.I. pipes of TATA make with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing sock t, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accesories, specials. Payment for painting will be made seperately)				
	For Exposed works				
	i) 15 mm.	35.00	₹ 193.92	Mtr.	₹ 6,787.20
	ii) 20 mm..	40.00	₹ 228.26	Mtr.	₹ 9,130.40

[BOQ-17]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

63	Cutting chase in brick wall upto 125x150 mm and subsequent mending of damages.	105.00	₹ 88.88	Mtr.	₹ 9,332.40
64	Supplying, fitting and fixing 20 mm dia brass ferrule including connection with P.V.C.pipe of approved make upto 450 mm long with lumbing joint,brass over C.P. coupling at both ends, with cap and lining complete in all respect,including cutting trenches in all sorts of soil and filling up trenches as per direction of the Engineer-in-charge.	2	₹ 1,279.67	Each	₹ 2,559.34
65	Supply fitting and fixing gunmetal wheel valve of approved brand and make tested to 21 kg per sq.cm.(for water line only).				
	i) 40 mm dia	2	₹ 1,605.90	Each	₹ 3,211.80
	ii) 25 mm dia	16	₹ 785.78	Each	₹ 12,572.48
	ii) 20 mm dia	18	₹ 610.04	Each	₹ 10,980.72
66	Supplying, fitting and fixing 15mm dia. alloy iron with brass spindle bib cock/ stop cock of approved brand and make, spray painted and tested to 21 kg per sq. cm.	18	₹ 170.69	Each	₹ 3,072.42
67	Supplying, fitting and fixing chromium plated concealed bib cock 15 mm (equivalent to code no. 512 & model - tropical / something special of ESSCO or similar brand).	12	₹ 665.59	Each	₹ 7,987.08
68	Supplying, fitting and fixing chromium plated concealed stop cock 15 mm (equivalent to code no. 514(A) & model - tropical / something special of ESSCO or similar brand).	29	₹ 680.74	Each	₹ 19,741.46
69	Supply, fit and fix CP-2 way Bib Cock-15 mm , (Code No- 5041 & Model- FLORENTINE of JAQUAR or similar brand).	8	₹ 1,281.69	Each	₹ 10,253.52

[BOQ-18]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

70	Supplying, fitting and fixing CP Pillar Cock Super Deluxe with Aerator - 15 mm. (Equivalent to Code No. 508 & Model No. Tropical / Sumthing Special of ESSCO or similar brand).	8	₹ 597.92	Each	₹ 4,783.36
71	Provide and fix 75 mm. dia. PTMT overhead shower (Prayag or equivalent) including taking out damaged shower and return to store etc., all complete & as directed.	4	₹ 180.79	Each	₹ 723.16
72	Supplying, fitting and fixing best quality approved make Wash basin vitreous china of approved make (without fittings) of size 550mm X 400mm , supplied, fitted and fixed in position on 75mm X 75 mm X 75 mm wood blocks and C.I. brackets including two coats of painting of C.I. brackets.				
	i) Size- 550 mm. x 400 mm.	10	₹ 1,396.83	Each	₹ 13,968.30
73	Supply, fit and fix in position European type water closet in white glazed vitreous chinaware of approved make with all necessary bolts and nuts P / S trap etc. all complete as directed.	8	₹ 1,435.21	Each	₹ 11,481.68
74	Supply, fit and fix in position European type water closet seat (Hollow type) of approved make and made with white colour plastic with lid C.P. hinges rubber buffer, brass screws bolts and nuts etc. all complete as directed.	8	₹ 383.80	Each	₹ 3,070.40
75	Supplying, fitting and fixing approved brand 32 mm dia. P.V.C. waste pipe, with PVC coupling at one end fitted with necessary clamps. (i) 600 mm long	17	₹ 47.47	Each	₹ 806.99
76	Supplying, fitting and fixing approved brand P.V.C. CONNECTOR white flexible, with both ends coupling with heavy brass C.P. nut, 15 mm dia.	25	₹ 108.07	Each	₹ 2,701.75

[BOQ-19]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

77	Supply, fit and fix 10 litres capacity PVC Low - down cistern conforming to IS specification with PVC fittings completed, CI bucket including two coats of painting to bracket etc. all complete & as directed.	8	₹ 1,025.15	Each	₹ 8,201.20
78	Supplying, fitting and fixing Hand shower (Health Faucet) with 1 mtr. Flexible Tube with Wall Hook (Equivalent to Code No-573 & Model- ALLIED of JAQUAR or similar brand).	8	₹ 1,263.51	Each	₹ 10,108.08
79	Supplying fitting and fixing Flat back Urinal (470 mm x 280 mm x 340 mm) in white vitreous Chinaware of approved make in position with brass screws on 75 x 75 x 75 mm wooden blocks complete.	7	₹ 954.45	Each	₹ 6,681.15
80	Supplying, fitting and fixing approved brand 32 mm dia. PVC waste pipe for Urinal with PVC coupling at one end fitted with necessary clamps.	7	₹ 156.55	Each	₹ 1,095.85
81	Supplying, fitting and fixing porcelain soap tray of approved make.(i) Recessed soap tray of size 150 mm X 150 mm	5	₹ 341.38	Each	₹ 1,706.90
82	Supplying, fitting and fixing bathroom shelf of approved make of size 580 mm X 150 mm (porcelain).	5	₹ 619.13	Each	₹ 3,095.65
83	Supplying, fitting and fixing Squatting plate with integral flushing in white vitreous chinaware (450 mm x 350 mm) of approved make in cement concrete (6:3:1) with jhama chips complete. (Payment of concrete will be paid separately).	3	₹ 889.81	Each	₹ 2,669.43
84	Supplying, fitting and fixing Half round white vitreous chinaware channel (600 mm x 100 mm) with or without outlet as required set in cement concrete (6:3:1) with jhama chips complete. (Payment of concrete will be paid separately).	16	₹ 470.66	Each	₹ 7,530.56
85	Supply, fit & fix aluminium domical gratings 150 mm. dia.	10	₹ 74.74	Each	₹ 747.40

[BOQ-20]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

86	Supplying fitting & fixing approved brand best quality indian make mirror 5.5mm thick with silvering as per IS specifications supported on fibre glass frame of any colour, frame size 550mm X 400mm complete.	10	₹ 619.13	Each	₹ 6,191.30
87	Supplying, fitting and fixing glass shelf with aluminium guard rails. (a) Ordinary type with 5.5 mm sheet glass 600 mm X 125 mm	10	₹ 484.80	Each	₹ 4,848.00
88	Supply, fit and fix C.P. over brass 25 mm dia. and 600 mm. long towel rail with two brackets etc., all complete & as directed.	5	₹ 434.30	Each	₹ 2,171.50
89	Supply, hoist & place in position, fit and fix 2000 litre capacity of P.V.C. water storage tank of approved quality with closed top with lid (black) multilayer 2000 liters capacity of Sintex / Rounak or equivalent brand etc. all complete & as directed.	3	₹ 10,693.88	Each	₹ 32,081.64
90	Supply, fit and fix single socketed 110 mm. dia. and 160 mm dia of 3.00 M long UPVC pipe (Type B) granules as specified in IS 13592-1992 as down pipe and fitted with all necessary clamps nails including making holes in walls, floors etc. and cutting trenches in any soil, through masonry concrete structures etc. if necessary and mending good damages including jointing with jointing materials and taking out damaged pipe and returned to HDC Store upto 4th floor level etc. all complete as directed.				
(a)	110 mm dia.	150	₹ 352.49	Mtr	₹ 52,873.50
(b)	160 mm dia.	150	₹ 618.12	Mtr	₹ 92,718.00
91	Supply, fit & fix UPVC (B Type) fittings conforming to IS- 13592-1992 all complete as directed.				
(i)	110X110 P Trap	14	₹ 283.81	Each	₹ 3,973.34
(ii)	110 mm door bend (LH&RH)	28	₹ 286.84	Each	₹ 8,031.52

[BOQ-21]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

(iii)	110 mm door Tee (LH&RH)	14	₹ 315.12	Each	₹ 4,411.68
(iv)	110 mm Croos Tee with Door	3	₹ 241.39	Each	₹ 724.17
(v)	160 mm Plain Tee	6	₹ 264.62	Each	₹ 1,587.72
(vi)	160 mm X 110mm Reducing Door Tee	6	₹ 399.96	Each	₹ 2,399.76
(vii)	160 mm Door Bend	6	₹ 372.69	Each	₹ 2,236.14
92	Supply of UPVC 110 mm dia. Vent Cowl conforming IS-13592-1992.	8	₹ 33.33	Each	₹ 266.64
93	Supply, fit and fix single socketed 110 mm. dia. Of 3.00 M long UPVC pipe (Type A) granules as specified in IS 13592-1992 as down pipe and fitted with all necessary clamps nails including making holes in walls, floors etc. and cutting trenches in any soil, through masonry concrete structures etc. if necessary and mending good damages including jointing with jointing materials and taking out damaged pipe and returned to HDC Store upto 4th floor level etc. all complete as directed.	60	₹ 253.51	Mtr	₹ 15,210.60
94	Supply, fit & fix UPVC door bend 110 mm dia. etc., all complete & as directed.	12	₹ 148.47	Each	₹ 1,781.64
95	Supply, fit & fix UPVC shoe 110 mm dia. etc., all complete & as directed.	12	₹ 112.11	Each	₹ 1,345.32
96	Constructing Inspection pit of inside measurement 600mm X 600mm with 250 mm thick 1st. class brick work in cement mortar (1:4) on all sides, bottom of the pit consisting of 100 mm thick cement concrete (1:3:6) with stone chips over a layer of jhama brick flat soling, 15 mm thick (1:4) cement plaster to inside walls and out-side walls upto G.L. and 20 mm. thick (1:4) plaster to bottom of the pit,				

[BOQ-22]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

	providing necessary invert with cement concrete (1:3:6) with stone chips as per direction, neat cement finishing to entire internal surfaces, top of the pit covered with 100 mm thick R.C.C. slab (1:1.5:3) with stone chips and necessary reinforcements upto 1% and shuttering including 6 mm thick cement plaster (1:4) in all external surfaces of the slab and one 560 mm dia. R.C.C. manhole cover of approved make supplied, fitted and fixed in the slab with necessary fittings, necessary earthwork in excavation in all sorts of soil, filling sides of the pit with earth and removing spoils after work complete in all respect with all costs of labour and materials. With Pakur variety. (SAIL/TATA/RINL)				
	(i) For 750mm depth	6.00	₹ 8,307.25		₹ 49,843.50
	(ii) For 900mm depth	5.00	₹ 9,557.63		₹ 47,788.15
	(iii) For 1050mm depth	4.00	₹ 10,808.01		₹ 43,232.04
97	Painting block letters or digits in Black Japan or any approved paint as per direction.				
(i)	Size above 5 cm. and upto 7.5 cm.	60.00	₹ 11.11	Each	₹ 666.60
(ii)	Size above 10 cm. and upto 12.5 cm.	40.00	₹ 14.14	Each	₹ 565.60
98	Surface Dressing of the ground in any kind of soil including removing of vegetation inequalities not exceeding 15cm depth and disposal of the rubbish within a lead up to 75m as directed.	3500	₹ 10.10	Sq.m.	₹ 35,350.00
99	Uprooting and Removing Stumps & roots , compaction of backfilling and stacking of serviceable material by manual means as per Technical Specifications Clause 201 for Rural Roads of MORD. Lead upto 1000 m				
a)	Girth above 300 mm to 600 mm	10	₹ 132.31	Each	₹ 1,323.10
b)	Girth above 600 mm to 900 mm	5	₹ 216.14	Each	₹ 1,080.70

[BOQ-23]

It No	Description of work	Quantity	Rate	Unit	Amount (Rs. P.)
-------	---------------------	----------	------	------	-----------------

100	Supplying, fitting and fixing Fan Hook for ceiling with 1 metre long 16mm.dia rod complete including mending damages. Payment for damage and repair to be made separately.	40	₹ 101.00	Each	₹ 4,040.00
101	Carriage of earth within 5 KM ,Loading in to trucks at the lifting point, unloading at destination, stacking properly in go downs or yard etc. as directed including carriage by head load up to a lead of 50.00 m at each of the two points.	550	₹ 203.01	Cu.M	₹ 111,655.50
102	Remove debris / building rubbish / concrete lumps / earth etc.	20.00	₹ 167.66	Cu.M	₹ 3,353.20
				Total	₹ 1,79,47,536.69

Sec.-B: CIVIL WORK

[BOQ-24]

It. No	Description of work	Quantity	Rate Rs. P)	Unit	Amount (Rs. P)
1	Surface Dressing of the ground in any kind of soil including removing of vegetation inequalities not exceeding 15cm depth and disposal of the rubbish within a lead up to 75m as directed.	950	₹ 10.10	Sq.m.	₹ 9,595.00
2	Earth work in excavation in foundation in any soil including disposal of surplus excavated earth within a lead of 100 M include for bailing out subsoil or rain water, if required, all complete and as directed.	220	₹ 120.46	Cu.M.	₹ 26,501.20
3	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work) With earth obtained from excavation of foundation.	50	₹ 78.32	Cu.M.	₹ 3,916.00
4	Roll sub grade/surrounding area with heavy duty approved make mechanical Vibro-roller in all kinds of soil to proper level, camber and grade including watering as per direction and satisfaction of the engineer, include for supply of vibro roller, cost of fuel, operator and helper etc. all complete.	700	5.01	Sq.M.	₹ 3,507.00
5	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 m as per Technical Specifications Clause 202 for Rural Roads of MORD.(By Manual Means)				
a)	Plane cement concrete	5	₹ 402.99	Cu.M.	₹ 2,014.95
b)	Reinforced cement concrete	2	₹ 1,021.11	Cu.M.	₹ 2,042.22

[BOQ-25]

It. No	Description of work	Quantity	Rate Rs. P)	Unit	Amount (Rs. P)
6	Take out of damaged/bulged out cement plaster or skirting of any thickness including rake out joints and cleans the surface for plastering and dispose off rubbish within a leay of 75 metres.	100	₹ 19.19	Sq.m.	₹ 1,919.00
7	Supplying and laying polythene sheet (150gm/sqm) over damp proof course or below roof terraceing or in foundation or in foundation trenches.	260	₹ 24.24	Sq.M.	₹ 6,302.40
8	Ordinary cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any in ground flooras per relevent IS code	30	₹ 5,371.18	Cu. M.	₹ 161,135.40
9	Providing and laying of Ordinary cement concrete Mix (1:1.5:3) with graded stone chips excluding shuttering and reinforcement, if any, upto 2nd floor including roof as per relevant IS code with Pakur variety stone chips, all complete and as directed.	2	₹ 5,930.72	Cu. M.	₹ 11,861.44
10	Provide and build brick work in foundation and plinth etc. in cement and sand mortar 1:6 (1 cement : 6 coarse sand) with Ist class bricks, include for chiselling out/cutting teeth etc. in existing walls and floors for proper bonding, all complete and as directed.	30	₹ 5,209.58	Cu. M.	₹ 156,287.40
11	Hire and labour charges for 25 mm to 30 mm thick wooden shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works .	190	₹ 327.24	Sq.M.	₹ 62,175.60

It. No	Description of work	Quantity	Rate Rs. P)	Unit	Amount (Rs. P)
12	M.S/ Tor reinforcement (TATA/SAIL/RVNL or equivalent) including supply of rods, initial straightening and removal of loose rust, cutting to requisite length, bending, shaping and place in correct position, including welding if necessary.	20000	₹ 56.07	Kg	₹ 1,121,400.00
13	Providing and laying of cement plaster to exterior surfaces 15 mm to 20 mm thick with (1:4) cement plaster with approved water proofing compound. Include for making scaffolding for working up to 2nd floor level and necessary curing etc., all complete and as directed.	270.00	₹ 168.67	Sq.M.	₹ 45,540.90
14	Provide and lay neat cement punning over the plastered surfaces of drain etc. all complete and as directed.	170	₹ 34.34	Sq.M.	₹ 5,837.80
15	M.S. structural works in roof trusses with tubular sections conforming to IS: 806-1968 & IS: 1161- 1998 connected to one another with bracket, gusset cleats as per design, direction of Engineer-in-charge complete including cutting to requisite size, fabrication with necessary metal arc welding conforming to IS: 816- 1969 & IS: 9595 using electrodes of approved make and brand conforming to IS:814- 2004, haulage, hoisting and erection all complete. The rate includes the cost of rolled steel section, consumables such as electrodes, gas and hire charge of all tools and plants and labour required for the work including all incidental charges such as electricity charges, labour insurance charges etc. (Payment to be made on the basis of calculated weight of structural tubular members as specified in relevant IS code in finished work. Payment for gusset, bracket, cleat may be made by adding the actual weight of such items with weight of finished structural members. the rates are considered for a height of erection 8 m / 2nd floor level from the ground).	3.50	₹ 60,062.68	MT.	₹ 210,219.38

It. No	Description of work	Quantity	Rate (Rs. P)	Unit	Amount (Rs. P)
16	Supplying and fixing colour coated trapezoidal profile sheet conforming to IS:15965 of TATA / Bhushan / JSW make or approved equivalent make of 1015mm effective width & 1072mm supply width nominal 28mm deep ribs with subtle square fluting in the five pan at nominal 203mm C/C. The end rib shall be designed for anticapillary action to avoid any seepage of water through the lateral overlap, the feed material is manufactured out of nominal 0.45mm base metal thickness, and 0.50mm total coated thickness, Hi-strength steel with min. 550mpa yield strength, metallic hot dip coated with Al- Zinc alloy (55%Al., 43.5% Zn and 1.5% Silicon) as per As1397/IS 15961 etc with necessary hook bolts, washers, putty, nuts all complete.	190	₹ 752.34	Sq.M.	₹ 142,944.60
17	Galvanised or painted wind-tie made of M.S. flats, fitted and fixed complete including cost of necessary fittings. Ade with 50 mm. X 10 mm. flats	210.00	₹ 228.26	Mtr.	₹ 47,934.60
18	Cutting requisite length or shape departmental R.S. joists, channels, angles, tees, plates etc., all complete and as directed.	1500	₹ 8.08	Sq.Cm	₹ 12,120.00
19	Welding in M.S. structural work gas or electric etc., all complete and as directed. (Continuous weld)	3000	₹ 9.09	Per Cm. Run	₹ 27,270.00
20	Provide and apply Primer of one coat on steel or other metal surface with synthetic oil bound primer of approved quality include for scrapping, brushing, sand papering and cleaning the surfaces smooth before application of paint all complete and as directed.	140	₹ 29.29	Sq.m.	₹ 4,100.60
21	Provide and lay paint on old steel work with two coats of approved synthetic enamel paint of first quality of any shed other than white including scrapping, brushing and cleaning the surfaces if necessary all complete as directed.	140	₹ 79.79	Sq.m.	₹ 11,170.60

[BOQ-28]

It. No	Description of work	Quantity	Rate (Rs. P)	Unit	Amount (Rs. P)
22	Painting lines, dashes, arrows etc on roads in two coats on new work with ready mixed road marking paint conforming to IS:164 on bituminous or concrete surface, including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control (Reference to MORT&H's specification 803).	120	₹ 75.75	Mtr.	₹ 9,090.00
	Up to 10 cm in width				
23	Painting the vertical end faces of posts, wheel guards or railing or parapet with alternate bands of different colours as directed by the Engineer-in-charge with approved synthetic enamel paint. Two coats.	100	₹ 99.99	Sq.m.	₹ 9,999.00
24	Provide, spread & fill the excavated area with Zone - III Brown sand , in layers of thickness not exceeding 200 mm including consolidation by sprinkling of water and rolling by mechanically operated Vibro-Roller of appropriate capacity , all inclusive as directed by the Engineer.	450	₹ 937.09	CuM	₹ 421,690.50
25	Provide supply & fix in position machine made precast concrete paver block (M50) of size 200mm(L)*100mm(B) and 100 mm thickness over a layer of 50mm thick (ave) brown coarse sand (ZONE III) cushion as leveling course as specified.The blocks must be cast and cured in a factory of reputed and apporved manufacturer of paver blocks. Include for transportation ,loading,unloading,dressing,sand cushioning ,compacting the sand layer suitably,laying the blocks in position in proper ;level and grade ,filing interstices between blocks with sand by vibrating with heavy duty plate vibrators ,cutting paver blocks where ever required with hydraulic splitter including cost of all materials,labour , tools,plants etc. all complete as directed by Engineer andas per manufactures specification.	200	₹ 1,161.58	Sq.M.	₹ 232,316.00

[BOQ-29]

It. No	Description of work	Quantity	Rate (Rs. P)	Unit	Amount (Rs. P)
26	60 mm thick interlocking designer coloured decorative concrete paver block M- 35 grade for light-traffic zone,commercial & office complex,tourist resort as per IS: 15658-2006 (over 20-40 mm medium sand bed on 250mm thk WBM/ WMM base course & 250 mm thk bound gnaular /granular sub-base course including cost of sand for sand bed but excluding cost of base ,sub-base course & subgrade preparation.)	700	₹ 1,116.05	Sq.M.	₹ 781,235.00
27	Remove debris / building rubbish / concrete lumps / earth etc. from scattered area of Haldia Township, Residential Zone, within a lead of 2 K.M. with proper site cleaning, loading, unloading, and levelling at the disposal site etc., all complete and as directed. (Payment will be made after deduction of 16% of volume as voids.)	20	₹ 167.66	Cu. M.	₹ 3,353.20
					₹ 35,33,479.79

PRICE SCHEDULE

for

Electrical works related to construction of a new Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
---------	---------------------	----------	------	--	---

Part - A : Electrification Work

1	a) Providing PVC pipe of following diameters [thickness not less than 2 mm] complete with fittings, as necessary, by cutting channel of suitable size on masonry wall / floor and fixing the pipe (approx. 18 mm below the top surface of the wall / floor) by means of iron hooks / binding wire, including mending good damages to building works.				
	i) 13 mm dia	1,200	RM	93.00	1,11,600.00
	ii) 19 mm dia	1,500	RM	109.00	1,63,500.00
	iii) 25 mm dia	900	RM	139.00	1,25,100.00
	iv) 30 mm dia	80	RM	139.00	11,120.00
	b) Providing 19 mm (nominal size) PVC Rigid Conduit [medium mechanical stresses, 'FR'] on surface of the wall / ceiling, with aluminium saddles and other accessories, as required and mending good damages to building works.	180	RM	64.00	11,520.00
	c) Providing Steel wire reinforced Flexible uPVC Conduit pipes on surface of the wall / ceiling / floor /structure, with aluminium saddles and other accessories, as required and mending good damages to building works.				
	i) Size (ID): 40 mm	20	RM	156.00	3,120.00
	ii) Size (ID): 20 mm	40	RM	87.00	3,480.00
	d) Providing Steel wire reinforced Flexible uPVC Conduit glands.				
	i) Size (OD): 40 mm	20	no.	33.00	660.00
	ii) Size (OD): 20 mm	30	no.	15.00	450.00
	e) Providing MS / CI Round box with cover, concealed in ceiling / beam / wall.				
	i) one way	200	no.	35.00	7,000.00
	ii) two way	200	no.	36.00	7,200.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
2	Supply & fixing of PVC casing-capping, including necessary PVC clips, fittings etc., on wall or ceiling and mending good damages to building woks.				
	a) 20 mm size	20	RM	40.00	800.00
	b) 25 mm size	20	RM	44.00	880.00
	c) 32 mm size	10	RM	44.00	440.00
3	Providing 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked) of the following sizes, in the pre-laid PVC pipe / PVC casing-capping and making necessary connection, as required.				
	a) 2 X 1.5 mm ² (as phase & neutral wires)	600	RM	43.00	25,800.00
	b) 3 X 1.5 mm ² (as phase & neutral wires and as Earth Continuity Conductor)	800	RM	60.00	48,000.00
	c) 2 X 2.5 mm ² (as phase & neutral wires) and 1 X 1.5 mm ² (as Earth Continuity Conductor)	800	RM	81.00	64,800.00
	d) 2 X 4.0 mm ² (as phase & neutral wires) and 1 X 2.5 mm ² (as Earth Continuity Conductor)	200	RM	119.00	23,800.00
	e) 2 X 6.0 mm ² (as phase & neutral wires) and 1 X 4.0 mm ² (as Earth Continuity Conductor)	20	RM	174.00	3,480.00
	f) 2 X 10.0 mm ² (as phase & neutral wires) and 1 X 6.0 mm ² (as Earth Continuity Conductor)	900	RM	310.00	2,79,000.00
	g) 4 X 10.0 mm ² (as 3 phase & neutral wires) and 2 X 6.0 mm ² (as Earth Continuity Conductor)	75	RM	617.00	46,275.00
	h) 4 X 16.0 mm ² (as 3 phase & neutral wires) and 2 X 10.0 mm ² (as Earth Continuity Conductor)	20	RM	995.00	19,900.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	i) 2 X 4.0 mm ² (as Earth Continuity Conductor)	100	RM	90.00	9,000.00
	j) 2 X 6.0 mm ² (as Earth Continuity Conductor)	30	RM	133.00	3,990.00
	k) 2 X 10.0 mm ² (as Earth Continuity Conductor)	20	RM	248.00	4,960.00
4	Wiring in 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked) of following sizes in 25 mm PVC casing-capping [including supply & fixing of PVC casing-capping, PVC clips, fittings, etc.] and making necessary connection, as required.				
	a) 3 X 1.5 mm ² (as phase & neutral wires)	25	RM	106.00	2,650.00
	b) 2 X 2.5 mm ² (as phase & neutral wires) and 1 X 1.5 mm ² (as Earth Continuity Conductor)	25	RM	128.00	3,200.00
	c) 2 X 4.0 mm ² (as phase & neutral wires) and 1 X 2.5 mm ² (as Earth Continuity Conductor)	12	RM	165.00	1,980.00
5	Providing 1100 V grade, PVC insulated, FR PVC round sheathed, Copper conductor (flexible) cable [conforming to IS: 694, with latest amendment (if any)] on existing Cable Tray / False Ceiling / masonry wall /other structure and fixing by PVC saddling / PVC Cable Tie (approx. 300 mm interval), including making necessary connections, as required.				
	a) 3 C X 0.5 mm ²	150	RM	39.00	5,850.00
	b) 3 C X 1.5 mm ²	10	RM	90.00	900.00
	c) 3 C X 2.5 mm ²	5	RM	145.00	725.00
	d) 3 C X 4.0 mm ²	5	RM	221.00	1,105.00
	e) 4 C X 2.5 mm ²	5	RM	187.00	935.00
	f) 4 C X 4.0 mm ²	2	RM	291.00	582.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
6	Supplying and drawing of 4 pair 0.5 mm diameter FRLS PVC insulated annealed copper conductor, unarmored telephone cable (one run) through existing pipes / casing-capping and making necessary connections, as required.	150	m	30.00	4,500.00
7	Supplying and drawing co-axial TV cable (one run) , RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath, through existing pipes / casing-capping and making necessary connections, as required.	30	m	35.00	1,050.00
8	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable (one run) through existing pipes / casing-capping.	150	m	53.00	7,950.00
9	<u>Finishing Copper Wire ends</u> Finishing of the ends of 1.1 kV grade, copper (stranded) wire, by socketing with pin / ring type copper sockets, insulating tapes, etc., including supplying sockets, tapes, etc., as required.				
	a) 1.5 mm ²	1,000	set	8.00	8,000.00
	b) 2.5 mm ²	400	set	8.00	3,200.00
	c) 4 mm ²	50	set	9.00	450.00
	d) 6 mm ²	150	set	11.00	1,650.00
	e) 10 mm ²	400	set	14.00	5,600.00
	f) 16 mm ²	20	set	21.00	420.00
10	Distribution wiring (alongwith earth wire) [average run 6 m], with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked), in suitable size (minimum 20 mm) PVC casing-capping [including necessary fittings / accessories], to light / fan / exhaust fan / call bell point [including supply & fixing of 3 terminal Ceiling Rose / Batten Holder / Angle Holder /Connector, as required], including necessary connections & making earthing attachment and mending good damages to building works. [PVC casing-capping and Switch board				

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	both on surface] 2 X 1.5 mm ² (as phase & neutral wires) and 1 X 1.5 mm ² (as Earth Continuity Conductor), per point.				
	a) with Piano Key type switch fixed on PVC switch board (with top cover) on wall (including supply & fixing of switch & switch board).	2	point	826.00	1,652.00
	b) with Modular type switch fixed on Modular PVC switch board with (with mounting plate & top cover) on wall (including supply & fixing of switch & switch board).	2	point	918.00	1,836.00
11	Distribution wiring (alongwith earth wire) [average run 6 m], with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked), in suitable size [minimum 13 mm bore, 2 mm thick] PVC concealed pipe [complete with all accessories] embedded in wall, to light / fan / exhaust fan / call bell point [including supply & fixing of 3 terminal Ceiling Rose / Batten Holder / Angle Holder / Connector, as required], including necessary connections & making earthing attachment and mending good damages to building works. 2 X 1.5 mm ² (as phase & neutral wires) and 1 X 1.5 mm ² (as Earth Continuity Conductor), per point.				
	a) with Piano Key type switch fixed on CRCA sheet metal (16 SWG) switch board with Perspex / Bakelite top cover (3 mm thick) flushed on wall, (including supply & fixing of switch & switch board).	5	point	977.00	4,885.00
	b) with Modular type switch fixed on Modular GI switch board (with mounting plate & top cover) flushed on wall (including supply & fixing of switch & switch board).	150	point	1,118.00	1,67,700.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
12	Distribution wiring (alongwith earth wire) [average run 6 m], with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked), in suitable size [minimum 13 mm bore, 2 mm thick] PVC concealed pipe [complete with all accessories] embedded in wall and in suitable size (minimum 20 mm) PVC casing-capping for ceiling / beam portion only, to light / fan / exhaust fan / call bell point [including supply & fixing of 3 terminal Ceiling Rose / Batten Holder / Angle Holder / Connector, as required], including necessary connections & making earthing attachment and mending good damages to building works. 2 X 1.5 mm ² (as phase & neutral wires) and 1 X 1.5 mm ² (as Earth Continuity Conductor), per point.				
	a) with Piano Key type switch fixed on CRCA sheet metal (16 SWG) switch board with Perspex / Bakelite top cover (3 mm thick) flushed on wall (including supply & fixing of switch & switch board).	2	point	1,055.00	2,110.00
	b) with Modular type switch fixed on Modular GI switch board (with mounting plate & top cover) flushed on wall (including supply & fixing of switch & switch board).	170	point	1,136.00	1,93,120.00
13	Distribution wiring (alongwith earth wire) [average run 6 m], with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked), in suitable size [minimum 13 mm bore, 2 mm thick] PVC concealed pipe [complete with all accessories] embedded in wall and in suitable size pre-laid pipe for ceiling / beam portion only, to light / fan / exhaust fan / call bell point [including supply & fixing of 3 terminal Ceiling Rose / Batten Holder / Angle Holder / Connector, as required], including necessary connections & making earthing attachment and mending good damages to building works.				

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	2 X 1.5 mm ² (as phase & neutral wires) and 1 X 1.5 mm ² (as Earth Continuity Conductor), per point.				
	a) with Piano Key type switch fixed on CRCA sheet metal (16 SWG) switch board with Perspex / Bakelite top cover (3 mm thick) flushed on wall (including supply & fixing of switch & switch board).	2	point	891.00	1,782.00
	b) with Modular type switch fixed on Modular GI switch board (with mounting plate & top cover) flushed on wall (including supply & fixing of switch & switch board).	2	point	1,037.00	2,074.00
14	Distribution wiring (alongwith earth wire) [average run 6 m], with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked), in suitable size (minimum 20 mm) PVC casing-capping [including necessary fittings / accessories], to light / fan / exhaust fan / call bell point [including supply & fixing of 3 terminal Ceiling Rose / Batten Holder / Angle Holder / Connector, as required], including necessary connections & making earthing attachment and mending good damages to building works. [PVC casing capping on surface and Switch board concealed] 2 X 1.5 mm ² (as phase & neutral wires) and 1 X 1.5 mm ² (as Earth Continuity Conductor), per point.				
	a) with Piano Key type switch fixed on CRCA sheet metal (16 SWG) switch board with Perspex / Bakelite top cover (3 mm thick) flushed on wall (including supply & fixing of switch & switch board).	1	point	932.00	932.00
	b) with Modular type switch fixed on Modular GI switch board (with mounting plate & top cover) flushed on wall (including supply & fixing of switch & switch board).	1	point	1,035.00	1,035.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
15	Distribution wiring (alongwith earth wire), with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked), in suitable size [minimum 13 mm bore, 2 mm thick] PVC concealed pipe [complete with all accessories] embedded in wall, to 240 V, 6 A, 5 pin socket outlet (plug) point, including necessary connections & making earthing attachment and mending good damages to building works. 2 X 1.5 mm ² (as phase & neutral wires) and 1 X 1.5 mm ² (as Earth Continuity Conductor), per point.				
	a) including supply & fixing of 240 V, 6 A, 5 pin socket outlet (plug) & Piano Key type switch on existing PVC Switch Board (with top cover) {of light & fan } fixed on wall.	5	point	95.00	475.00
	b) including supply & fixing of 240 V, 6 A, 5 pin modular type socket outlet (plug) & modular type switch on existing GI modular Switch Board (with mounting plate & top cover) {of light & fan } flushed on wall.	60	point	270.00	16,200.00
16	Providing (after cutting the brick wall) CRCA sheet metal (16 SWG) JB-cum-Switch Board (having earthing attachment) of the following sizes, flushed in wall, including painting and mending good damages to building works.				
	a) 100 mm X 100 mm X 50 mm	300	no.	131.00	39,300.00
	b) 150 mm X 100 mm X 50 mm	50	no.	179.00	8,950.00
	c) 175 mm X 100 mm X 50 mm	5	no.	197.00	985.00
	d) 200 mm X 100 mm X 50 mm	5	no.	197.00	985.00
	e) 200 mm X 150 mm X 50 mm	10	no.	265.00	2,650.00
	f) 250 mm X 100 mm X 50 mm	10	no.	317.00	3,170.00
	g) 300 mm X 250 mm X 50 mm	10	no.	356.00	3,560.00
17	Providing Bakelite / Perspex top cover (3 mm thick) on the existing sheet metal JB-cum-Switch Board of following sizes, fixing by Brass screws: <i>[The covers should be extended atleast 25 mm from the screw points]</i>				

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	a) 100 mm X 100 mm X 50 mm	300	no.	44.00	13,200.00
	b) 150 mm X 100 mm X 50 mm	50	no.	53.00	2,650.00
	c) 175 mm X 100 mm X 50 mm	5	no.	59.00	295.00
	d) 200 mm X 100 mm X 50 mm	5	no.	59.00	295.00
	e) 200 mm X 150 mm X 50 mm	10	no.	75.00	750.00
	f) 250 mm X 100 mm X 50 mm	10	no.	100.00	1,000.00
	g) 300 mm X 250 mm X 50 mm	10	no.	114.00	1,140.00
18	Providing PVC JB-cum-Switch Board on wall, including top cover and mending good damages to building works:				
	a) 100 mm X 100 mm	2	no.	75.00	150.00
	b) 100 mm X 175 mm	2	no.	102.00	204.00
	c) 100 mm X 150 mm	2	no.	102.00	204.00
	d) 150 mm X 200 mm	2	no.	143.00	286.00
19	Providing (after cutting the brick wall) GI Modular Switch Board (having earthing attachment, flushed in wall, including mending good damages to building works.				
	a) 1 - 2 module	30	no.	117.00	3,510.00
	b) 3 module	30	no.	128.00	3,840.00
	c) 4 module	30	no.	157.00	4,710.00
	d) 6 module	40	no.	265.00	10,600.00
	e) 8 module	40	no.	367.00	14,680.00
	f) 8 module (02 rows)	60	no.	343.00	20,580.00
	g) 12 module	60	no.	402.00	24,120.00
	h) 18 module	10	no.	637.00	6,370.00
20	Providing mounting plate with frame on the existing GI Modular Switch Board.				
	a) 1 module	20	no.	165.00	3,300.00
	b) 2 module	20	no.	178.00	3,560.00
	c) 3 module (2+1)	10	no.	186.00	1,860.00
	d) 3 module	30	no.	246.00	7,380.00
	e) 4 module	30	no.	267.00	8,010.00
	f) 6 module	40	no.	369.00	14,760.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	g) 8 module	40	no.	432.00	17,280.00
	h) 8 module (02 rows)	60	no.	492.00	29,520.00
	i) 12 module	60	no.	534.00	32,040.00
	j) 18 module	10	no.	843.00	8,430.00
21	Providing 240 V, 16 A Modular type switch on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections [with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked) of size 4.0 mm ²], as required.	175	no.	174.00	30,450.00
22	Providing 240 V , 16 A, 6 pin Modular type socket outlet (plug) [without switch & plug top] on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections [with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked) of sizes 4.0 mm ² (for phase & neutral wires) & 2.5 mm ² (as Earth Continuity Conductor)], as required.	175	no.	258.00	45,150.00
23	Providing 240 V, 6 A Modular type switch on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections [with suitable size 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked)], as required.	110	no.	119.00	13,090.00
24	Providing 240 V , 6 A, 5 pin Modular type socket outlet (plug) [without switch & plug top] on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections [with suitable size 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked)], as required.	110	no.	169.00	18,590.00
25	Providing 240 V , 6 A, 2 way Piano Key type switch on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections [with with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked) of size 1.5 mm ²], as required.	12	no.	157.00	1,884.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
26	Providing 240 V , 6 A, 2 pin Moduler type socket outlet (plug) [without switch & plug top] on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections [with with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked) of size 1.5 mm ²], as required.	5	no.	157.00	785.00
27	Providing Modular Socket (2 Module) type fan regulator (Step type) on existing GI / PVC Modular Switch Board [with mounting plate & top cover] and making necessary connections , as required.	10	no.	597.00	5,970.00
28	Providing Calling Bell point with PVC box [100 mm X 100 mm] & 01 no. 02 pin plug socket.	30	set	261.00	7,830.00
29	Providing Calling Bell Extension cord with hanging bell push switch, 2 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable (average length - 04 m), [conforming to IS: 694 , with latest amendment (if any)] & 02 pin plug top.	30	set	259.00	7,770.00
30	Providing Power Extension board with PVC Box , 3 C X 2.5 mm ² PVC insulated, PVC sheathed, copper conductor cable [conforming to IS: 694, with latest amendment (if any)], 01 no. 16 A plug top, 02 nos. 16 A, 6 pin socket outlet (plug) & 02 nos 16 A Switch and making necessary connections, as required.				
	a) length - 15 m	2	no.	2,756.00	5,512.00
	b) length - 10 m	2	no.	2,097.00	4,194.00
	c) length - 5 m	2	no.	1,438.00	2,876.00
31	Providing Buzzar calling bell, Indicator type, suitable for 230 V AC, 50 Hz supply system :	30	no.	207.00	6,210.00
32	Providing modular type 20 A motor starter (2 module) for Air-conditioners , on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections [with 'FR' PVC insulated (unsheathed), single core, 1.1 kV grade, copper (stranded) wire (ISI marked) of size 4.0 mm ²], as required.	2	no.	970.00	1,940.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
33	Providing 01 Telephone Socket (RJ11) on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections, as required.	15	no.	119.00	1,785.00
34	Providing 01 TV Socket on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections, as required.	2	no.	131.00	262.00
35	Providing 01 Computer Socket on existing GI / PVC Modular Switch Board [with mounting plate & frame] and making necessary connections, as required.	15	no.	589.00	8,835.00
36	Providing Solid State (Static) Energy Meter (Watthour Meter) with backlit LCD display, conforms to IS 13779 (with latest amendment) [ISI marked] and as per "Technical Specification & Scope of Work".				
	a) Supply				
	i) A.C. Single Phase , 2 Wire, Direct Connected . <u>Rated Voltage</u> (V_{ref}) :: 240 V – Phase to Neutral. <u>Rated Current</u> :: Basic Current [Ib]: 5 A, Maximum Current [Imax]: 30 A.	1	no.	1,252.00	1,252.00
	ii) A.C. Single Phase , 2 Wire, Direct Connected . <u>Rated Voltage</u> (V_{ref}) :: 240 V – Phase to Neutral. <u>Rated Current</u> :: Basic Current [Ib]: 10 A, Maximum Current [Imax]: 60 A.	1	no.	1,481.00	1,481.00
	iii) A.C. Three Phase , 4 Wire, Direct Connected . Rated Voltage (V_{ref}) :: 3 X 240 V – Phase to Neutral. Rated Current :: Basic Current [Ib]: 10 A, Maximum Current [Imax]: 60 A.	2	no.	4,331.00	8,662.00
	b) Fixing A.C. Single Phase / Three Phase , Direct Connected Energy Meter (Watthour Meter), with screws & other fixing materials including making necessary holes and making connection,	4	no.	71.00	284.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	as required.				
37	Stationary storage type (vertical, wall – mounted type) electric water heater [Geyser], ISI marked, having BEE (Bureau of Energy Efficiency) star rating - 5. Wattage : 2000 W Rated Voltage : 230 V (nominal), 50 Hz, AC singly phase. Each Geyser is to be provided with all standard accessories, including stainless steel wire braided connector set (02 no., 18” length).				
	a) Supply				
	i) Capacity : 10 litre (approx)	1	no.	9,280.00	9,280.00
	ii) Capacity : 15 litre (approx)	2	no.	10,602.00	21,204.00
	iii) Capacity : 25 litre (approx)	2	no.	11,958.00	23,916.00
	b) Fixing & installation only Geysers [10 L / 15 L / 25 L] and making connection , as required.	5	no.	378.00	1,890.00
38	Supply and delivery of Ceiling Fan, suitable for suitable for 230 AC, 50 Hz supply system, complete with capacitor, canopy & all accessories and as per the 'Technical Specification & Scope of Work':				
	a) 1400 mm sweep.	6	no.	2,593.00	15,558.00
	b) 1200 mm sweep.	2	no.	2,377.00	4,754.00
	c) 900 mm sweep.	2	no.	2,377.00	4,754.00
39	Fixing only ceiling fan complete with blades, canopy, rubber bush, etc. and making connection [by providing required length of 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable, conforming to IS: 694 , with latest amendment (if any)], as required.	10	no.	177.00	1,770.00
40	Supply and delivery of 450 mm sweep Heavy Duty Exhaust Fan [metallic blade] suitable for 230 V AC, 50 Hz supply system, complete with all accessories and as per the 'Technical Specification & Scope of Work'.	1	no.	5,356.00	5,356.00
41	Supply and delivery of 300 mm sweep Exhaust Fan [metallic blade] suitable for 230	6	no.	3,305.00	19,830.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	V AC, 50 Hz supply system, complete with all accessories and as per the 'Technical Specification & Scope of Work'.				
42	Supply and delivery of Exhaust Fan [non-metallic blade] suitable for 230 V AC, 50 Hz supply system, complete with all accessories & louver (gravity shutter system) and as per the 'Technical Specification & Scope of Work'.				
	a) 200 mm sweep.	3	no.	1,576.00	4,728.00
	b) 150 mm sweep.	1	no.	1,398.00	1,398.00
43	Installation of exhaust fan , wall cowl , etc.				
	a) Making hole in wall for fixing exhaust fan & making good damages to building works.				
	i) Exhaust fan of sweep 450 mm.	1	no.	502.00	502.00
	ii) Exhaust fan of sweep 300 mm.	6	no.	297.00	1,782.00
	iii) Exhaust fan of sweep 200 mm.	3	no.	194.00	582.00
	iv) Exhaust fan of sweep 150 mm.	1	no.	194.00	194.00
	b) Providing aluminium louver shutter on wall, for exhaust fan of sweep 300 mm, with necessary bolts & nuts .	6	no.	242.00	1,452.00
	c) Providing G I Wall Cowl on wall, for exhaust fan, with necessary bolts & nuts.				
	i) Exhaust fan of sweep 450 mm.	1	no.	1,117.00	1,117.00
	ii) Exhaust fan of sweep 300 mm.	6	no.	700.00	4,200.00
	d) Fixing only exhaust fan of sweep 150 mm / 200 mm / 300 mm / 450 mm and making connection [by providing required length of 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable (if required), conforming to IS: 694, with latest amendment (if any)] , as required.	11	no.	115.00	1,265.00
44	Supply and delivery of 450 mm sweep Heavy Duty (Industrial Type) Wall Fan, with Sturdy close-mesh guards , suitable for 230 V AC, 50 Hz supply system, complete with all	3	no.	8,102.00	24,306.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	accessories.				
45	Supply and delivery of 400 mm sweep Wall Fan, with close-mesh guards , suitable for 230 V AC, 50 Hz supply system, complete with all accessories.	12	no.	2,945.00	35,340.00
46	Fixing only Wall Fan of sweep 300 mm / 400 mm / 450 mm and making connection [by providing required length of 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable (if required), conforming to IS: 694 , with latest amendment (if any)], as required.	15	no.	115.00	1,725.00
47	Supply and delivery of 400 mm sweep Pedestal Fan, with close-mesh guards , suitable for 230 V AC, 50 Hz supply system, complete with all accessories.	4	no.	3,157.00	12,628.00
48	a) Supply and delivery of tube light fittings [Surface Mounted, Box Type, suitable for 1 X 4 ft (approx.) LED tubular lamp], complete with all accessories & Lamp [LED tubular lamp, with Al body & PC Diffuser Material & in-built driver; System wattage of luminaire: ≤ 22 W; Luminous flux : ≥ 2100 lumen ; suitable for 230 V AC, 50 Hz supply system], as per the 'Technical Specification & Scope of Work' .	30	no.	1,295.00	38,850.00
	b) Supply and delivery of tube light fittings [Surface Mounted, Box Type, suitable for 2 X 4 ft (approx.) LED tubular lamp], complete with all accessories & Lamp [LED tubular lamp, with Al body & PC Diffuser Material & in-built driver; System wattage of each luminaire: ≤ 22 W; Luminous flux of each luminaire : ≥ 2100 lumen ; suitable for 230 V AC, 50 Hz supply system], as per the 'Technical Specification & Scope of Work'.	6	no.	2,098.00	12,588.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
49	Supply and delivery of 1 X 4 ft (approx.) tube light fittings [Integrated LED Batten, Surface Mounted; System wattage of luminaire: ≤ 22 W; Luminous flux : ≥ 2300 lumen], complete with all accessories, driver & Lamp , suitable for 230 V AC, 50 Hz supply system and as per the 'Technical Specification & Scope of Work'.	2	no.	554.00	1,108.00
50	Supply and delivery of 1 X 2 ft (approx.) tube light fittings [Integrated LED Batten, Surface Mounted; System wattage of luminaire: ≤ 10 W; Luminous flux : ≥ 1000 lumen], complete with all accessories, driver & Lamp , suitable for 230 V AC, 50 Hz supply system and as per the 'Technical Specification & Scope of Work'.	12	no.	455.00	5,460.00
51	Supply & delivery of 10W-12W Bulkhead surface / wall mounted LED light fittings (IP 65), suitable for 230 V AC, 50 Hz supply system and as per the 'Technical Specification & Scope of Work'.	6	no.	1,964.00	11,784.00
52	Supply & delivery of surface mounted LED light fittings (IP 20), suitable for 230 V AC, 50 Hz supply system and as per the 'Technical Specification & Scope of Work'.				
	a) 05W-06W	2	no.	893.00	1,786.00
	b) 10W-12W	10	no.	1,295.00	12,950.00
	c) 18W-20W	20	no.	1,786.00	35,720.00
53	Supply and delivery of 40W - 45W Decorative Post Top LED Light fittings [Post-Top lantern], with IP 65 protection, complete with all accessories & lamp , suitable for 230 V AC, 50 Hz supply system and as per the 'Technical Specification & Scope of Work'.	8	no.	10,714.00	85,712.00
54	Fixing only tube light fittings / post top light fittings / round light fittings / bracket lights / night lamp fittings / calling bell, complete with all accessories, directly on wall / ceiling / post top / PVC or HW Block by screws / MS fastener, including necessary connections [by providing required length of 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable, conforming to IS: 694 , with	90	no.	125.00	11,250.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	latest amendment (if any)] & mending good damages to the wall / ceiling / post .				
55	Supply and delivery of 3W - 6W Compact Step Type LED Light fittings, with IP 65 protection, complete with all accessories, suitable for 230 V AC, 50 Hz supply system and as per the 'Technical Specification & Scope of Work'.	30	no.	2,143.00	64,290.00
56	Installation of 3W - 6W Compact Step Type LED Light fittings, with IP 65 protection complete with all accessories, inside wall, post cutting sufficient length of wall, including necessary connections [by providing required length of 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable, conforming to IS: 694 , with latest amendment (if any)] & mending good damages to the wall.	30	no.	213.00	6,390.00
57	Supply and delivery of LED recessed luminaire [suitable for 230 V AC, 50 Hz supply system], provided with suitable Driver & necessary safety protections [complete with all accessories] and as per 'Technical Specification & Scope of Work'.				
	a) Supply				
	i) 2ft X 2ft luminaire. System wattage of luminaire: ≤ 36 W Luminous flux: ≥ 3600 lumen.	75	no.	4,464.00	3,34,800.00
	ii) 1ft X 1ft luminaire System wattage of luminaire: ≤ 18 W Luminous flux: ≥ 1800 lumen.	30	no.	2,411.00	72,330.00
	iii) 1ft X 4ft luminaire System wattage of luminaire: ≤ 40	65	no.	5,357.00	3,48,205.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	W Luminous flux: ≥ 4000 lumen.				
	b) Fixing LED recessed luminaire , complete with all accessories, under the false ceiling, including making cut out, necessary connections [by providing required length of 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable, conforming to IS: 694, with latest amendment (if any)] & mending good damages to the false ceiling.				
	i) 2ft X 2ft luminaire.	75	no.	334.00	25,050.00
	ii) 1ft X 1ft luminaire.	30	no.	213.00	6,390.00
	iii) 1ft X 4ft luminaire.	65	no.	334.00	21,710.00
58	Supply and delivery of recess mounted LED Downlighter [suitable for 230 V AC, 50 Hz supply system], suitable for fixing on false ceiling, complete with all accessories, provided with suitable Driver & necessary safety protections and as per 'Technical Specification'.				
	a) Supply				
	LED Downlighter with Cool Day Light. System wattage of luminaire: ≤ 20 W Luminous flux: ≥ 2000 lumen.	10	no.	3,527.00	35,270.00
	b) Fixing recess mounted LED Downlighter (upto 34 W), complete with all accessories, under the false ceiling, including making cut out, necessary connections [by providing required length of 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable, conforming to IS: 694, with latest amendment (if any)] & mending good damages to the false ceiling.	10	no.	800.00	8,000.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
59	Supply and delivery of Outdoor / Street light type [IP 66] LED Light fittings [suitable for 230 V AC, 50 Hz supply system], provided with suitable Driver & necessary safety protections [complete with all accessories] and as per "Technical Specification & Scope of Work".				
	a) System wattage of luminaire: ≤ 120 W Luminous flux: ≥ 15000 lumen.	6	no.	13,036.00	78,216.00
	b) System wattage of luminaire: ≤ 60 W Luminous flux: ≥ 6600 lumen.	12	no.	5,804.00	69,648.00
	c) System wattage of luminaire: ≤ 30 W Luminous flux: ≥ 3300 lumen.	20	no.	2,768.00	55,360.00
60	Providing GI pipe (ISI- Medium) of 1.2 m average length [having suitable bend & fixed / projected from the wall of the building, for fixing outdoor / street light type light fitting], including making holes / clamping arrangement & mending good damages to wall.				
	a) using 50 mm nominal bore GI pipe.	5	no.	1,039.00	5,195.00
	b) using 40 mm nominal bore GI pipe.	12	no.	742.00	8,904.00
	c) using 32 mm nominal bore GI pipe.	20	no.	668.00	13,360.00
61	Fixing only outdoor / street light type LED light fitting, complete with all accessories , on the existing GI Pipe (fixed / projected from the wall of the building), including making connections [by providing 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable {conforming to IS: 694 , with latest amendment (if any)} & flexible PVC conduit of length 1 m approx.]	35	no.	268.00	9,380.00
62	Providing LED bulb, suitable for 230 V AC, 50 Hz supply system.				
	a) 7 W	5	no.	125.00	625.00
	b) 9 W	20	no.	134.00	2,680.00
	c) 15 W	2	no.	268.00	536.00
63	Providing PVC Batten Type / Angle Type Lamp Holder, on PVC / HW Block, including mending good damages to the wall.	30	no.	93.00	2,790.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
64	Providing 3 terminal Ceiling Rose on PVC / HW Block, including mending good damages to the wall.	30	no.	65.00	1,950.00
65	Providing (after cutting the brick wall or fixing on wall surface) outdoor type PVC Junction Box [IP 66 with knockouts for cable entry] of following size [complete with 3 way terminals attached inside the box] and mending good damages to building works.				
	a) 165 mm X 125 mm X 75 mm (approx.)	10	no.	1,331.00	13,310.00
	b) 125 mm X 115 mm X 60 mm (approx.)	40	no.	952.00	38,080.00
66	Providing (after cutting the brick wall or fixing on wall surface) outdoor type PVC Junction Box [IP 66 with knockouts for cable entry] of following size [complete with 3 way terminals (02 set) attached inside the box] and mending good damages to building works.				
	a) 200 mm X 140 mm X 90 mm (approx.)	2	no.	2,530.00	5,060.00
67	Providing sheet steel, duly painted, MCB Distribution Board on wall / iron structure & mending good the damages to original finish, including provision for earthing attachment. (Without MCB / RCCB / Isolator).				
	a) 2 way	10	no.	620.00	6,200.00
	b) 4 way	6	no.	629.00	3,774.00
68	Providing (after cutting the brick wall or fixing on wall surface) outdoor type PVC Junction Box [IP 65 with knockouts for cable entry and complete with arrangement for fixing MCB inside the box] and mending good damages to building works.				
	a) 2 module (suitable for 01 no. double pole MCB)	2	no.	1,804.00	3,608.00
	b) 4 module (suitable for 01 no. four pole MCB)	10	no.	2,244.00	22,440.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
69	Providing double door, sheet steel, powder painted, SPN MCB Distribution Board [IP-43 protection and complete with tinned copper bus bar, copper connecting leads, neutral bar, earth bar & din bar] on masonry wall (concealed) / iron structure & mending good the damages to original finish, including inter-connection and provision for earthing attachment. (Without MCB / RCCB / Isolator).				
	a) 6 way (2+6 module)	1	no.	2,219.00	2,219.00
	b) 8 way (2+8 module)	1	no.	2,564.00	2,564.00
	c) 10 way (2+10 module)	2	no.	2,685.00	5,370.00
	d) 12 way (2+12 module)	6	no.	3,076.00	18,456.00
70	Providing double door, sheet steel, powder painted, TPN MCB Distribution board [IP-43 protection and complete with tinned copper bus bar, copper connecting leads, neutral bar, earth bar & din bar] on masonry wall (concealed) / iron structure & mending good the damages to original finish, including inter-connection and provision for earthing attachment. (without MCB / RCCB / Isolator).				
	a) 4 way (8+12 module)	1	no.	4,801.00	4,801.00
	b) 6 way (8+18 module)	3	no.	5,444.00	16,332.00
71	Providing double door, sheet steel, powder painted, 4 way Vertical Three Phase Distribution Board [IP-43 protection, with provision for MCCB / MCB/ Isolator/ RCD as incomer and three phase & single phase (TP/SP) MCBs as outgoings ; complete with insulated busbar arrangement, copper connecting leads, neutral bar, earth bar & din bar] on masonry wall (concealed) / iron structure & mending good the damages to original finish, including inter-connection and provision for earthing attachment. (without MCCB / MCB).				
	4 way (4 pole MCCB+12 module), with 4 pole MCCB (upto 160A) as Incomer.	7	no.	11,792.00	82,544.00
72	Providing Cable End Box [with IP-43 protection] on masonry wall (concealed) /				

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	iron structure & mending good the damages to original finish.				
	a) For 4 way SPN DB	1	no.	601.00	601.00
	b) For 6 way SPN DB	1	no.	629.00	629.00
	c) For 8 way SPN DB	1	no.	732.00	732.00
	d) For 10 way SPN DB	2	no.	704.00	1,408.00
	d) For 12 way SPN DB	6	no.	834.00	5,004.00
	e) For 4 way TPN DB	1	no.	1,049.00	1,049.00
	f) For 6 way TPN DB	3	no.	1,105.00	3,315.00
	g) For Vertical Three Phase Distribution Boards [with 4 pole MCCB (upto 160A) as Incomer].	7	no.	3,277.00	22,939.00
73	Providing Four Pole, 415V, 50Hz, MCCB (having adjustable thermal and fixed magnetic trip unit) on existing DBs and necessary connection.				
	a) 63 A [Breaking capacity 25 kA]	1	no.	11,920.00	11,920.00
	b) 160 A [Breaking capacity 25 kA]	7	no.	19,330.00	1,35,310.00
74	Providing Four Pole, 415 V, 50 Hz, Residual Current Circuit Breaker (RCCB) [with Sensitivity: 30 mA] on din rail of existing DBs and necessary connection.				
	a) 40 A	1	no.	3,551.00	3,551.00
	b) 63 A	1	no.	4,025.00	4,025.00
75	Providing Two Pole, 240 V, 50 Hz, Residual Current Circuit Breaker (RCCB) [with Sensitivity: 30 mA] on din rail of existing DBs and necessary connection.				
	a) 25 A	10	no.	2,623.00	26,230.00
	b) 63 A	2	no.	3,551.00	7,102.00
76	Providing 240 V / 415 V, 50 Hz, MCB (C characteristics, 10 kA Breaking capacity) on din rail of existing DBs and necessary connection.				
	a) Single Pole, 6 A - 32 A	110	no.	263.00	28,930.00
	b) Single Pole, 40 A - 63 A	90	no.	521.00	46,890.00
	c) Double Pole, 6 A - 32 A	30	no.	742.00	22,260.00
	d) Double Pole, 40 A - 63 A	10	no.	1,178.00	11,780.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	e) Four Pole, 6 A - 32 A	6	no.	1,508.00	9,048.00
	f) Four Pole , 40 A - 63 A	18	no.	2,309.00	41,562.00
77	Supply, Installation [on iron structure / hard Wood (HW) frame], Testing & Commissioning of Fully Automatic Star-Delta Starter [Coil Voltage : 415 V AC ; suitable for 3-phase, 415 V, 50 Hz, 11 kW / 15 HP Vertical turbine / Centrifugal pump motor] assembly, in sheet steel enclosure, with Single Phase protection & Overload protection features. Including making connection & mending good the damages to building works.	1	no.	15,961.00	15,961.00
78	Providing fully automatic wall mounted hand dryer (with heating element), made of ABS plastic material, complete with all accessories and as per the 'Technical Specification & Scope of Work'. Rated Voltage : 220 V (nominal), 50 Hz, AC Single phase. Rated Power : 1000 W to 1200 W	6	no.	20,367.00	1,22,202.00
79	Supply and delivery of False Ceiling Mounted Type Ventilating Exhaust Fan [125 mm -150 mm sweep], suitable for 230 V AC, 50 Hz supply system, complete with all accessories and as per the 'Technical Specification & Scope of Work'.	8	no.	3,729.00	29,832.00
80	Installation of False Ceiling Mounted Type Ventilating Exhaust Fan, including supply & fixing of suitable Aluminium Flexible Duct Exhaust Pipe (with Cowl Cover for Exhaust Pipe), making hole in wall for fixing Cowl Cover, making cutout on false ceiling, necessary connections [by providing required length of 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable, conforming to IS: 694, with latest amendment (if any)] & mending good damages to the false ceiling.	8	no.	1,768.00	14,144.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
81	Design, Supply, Delivery, Installation, Testing & Commissioning of 415 V TPN Indoor Type, double door Floor Mounted Power Distribution Panel (Type:A), fabricated from SS316 grade sheet (2 mm thick), [as per actual site requirement], duly painted, as per Technical specification & Scope of Work".	1	no.	4,42,472.00	4,42,472.00
82	Design, Supply, Delivery, Installation, Testing & Commissioning of 415 V TPN Indoor Type, double door Wall / Floor Mounted Power Distribution Panel (Type:B), fabricated from SS316 grade sheet (2 mm thick), [as per actual site requirement], duly painted, as per Technical specification & Scope of Work".	1	no.	2,28,616.00	2,28,616.00
83	Supply and delivery of following Hot Dip Galvanised octagonal street light pole [with inbuilt terminal box for cable connection], made of Structural Steel (3 mm thick) of grade S355 [as per European Standard EN 10025], alongwith base plate, arm bracket & foundation bolts, as per the enclosed "Technical Specification & Scope of Work"				
	i) 9 m high octagonal street pole with single arm (1500 mm)	6	Set	17,023.00	1,02,138.00
84	Erection, testing and commissioning of 9 m high Hot Dip Galvanised octagonal street light pole, including fixing of single arm/ double arm/ triple arm and construction of civil foundation, as per the "Technical Specification & Scope of Work".	6	Set	23,200.00	1,39,200.00
85	Installation, testing and commissioning of LED Streetlight luminaire [120 W approx.], as per the "Technical Specification & Scope of Work".				
	On the newly installed octagonal street light poles	6	no.	592.00	3,552.00
86	Design, Supply, Delivery, Erection (including RCC foundation) / Installation, Testing & Commissioning of outdoor Feeder Pillar for street lighting, fabricated from SS316 grade sheet of 2 mm thick, as per "Technical Specification & Scope of Work".	1	no.	64,766.00	64,766.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
87	Supply and delivery of 9W-11W Outdoor Bollard / Landscape type [IP 66] LED Light Fixture [suitable for 230 V AC, 50 Hz supply system], provided with suitable Driver & necessary safety protections [complete with all accessories] and as per "Technical Specification & Scope of Work".	12	no.	3,571.00	42,852.00
88	Erection, testing and commissioning of Outdoor Bollard/ Landscape type [IP 66] LED Light Fixture and construction of civil foundation [Brick-cement work, with cement mortar (1:6) & one coat of synthetic enamel paint over the primer], as per the "Technical Specification & Scope of Work".	12	no.	810.00	9,720.00
89	Supplying & laying of heavy, galvanized, mild steel tubes (including sockets) as per IS 1239 [with latest amendment].				
	a) Supply				
	i) 50 mm (nominal bore)	24	m	552.00	13,248.00
	ii) 100 mm (nominal bore)	12	m	1,260.00	15,120.00
	iii) 150 mm (nominal bore)	24	m	1,864.00	44,736.00
	b) Laying, including joining of tubes by sockets, if required.				
	I) Over the culvert, canal, etc. (fixing on existing structural supports) or through walls, roads, etc. (through open excavation & refilling) or with vertical structure (fixing using clamps / supports). The scope includes supply of materials, as required (excepting main support structure for crossing the canal)], as per "Technical Specification & Scope of Work".				
	i) upto 50 mm (nominal bore)	18	m	225.00	4,050.00
	ii) above 50 mm (nominal bore) & upto 150 mm (nominal bore)	36	m	350.00	12,600.00
	II) Through boring process.				
	i) upto 50 mm (nominal bore)	6	m	800.00	4,800.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	ii) above 50 mm (nominal bore) & upto 150 mm (nominal bore)	18	m	1,950.00	35,100.00
90	Supply & Laying of 1.1 kV grade, XLPE insulated, , power cable (FRLS), conforming to IS: 7098 (Part – I) , with latest amendment (if any), and as per "Technical Specification & Scope of Work".				

a) Supply				
I) Galvanised steel armoured, stranded aluminium conductor.				
i) 3 C X 06 mm ²	300	m	164.00	49,200.00
ii) 3 ½ C X 25 mm ²	100	m	302.00	30,200.00
iii) 3 ½ C X 70 mm ²	180	m	648.00	1,16,640.00
iii) 3 ½ C X 240 mm ²	400	m	1,903.00	7,61,200.00
II) Armoured, stranded copper conductor.				
i) 4 C X 4 mm ²	60	m	406.00	24,360.00
ii) 4 C X 6 mm ²	120	m	591.00	70,920.00
ii) 4 C X 10 mm ²	20	m	855.00	17,100.00
ii) 4 C X 16 mm ²	20	m	1,265.00	25,300.00
b) Laying, Testing & Commissioning				
I) When laid in underground trench. The scope includes excavation, sand cushioning, protective top covering by bricks, tiles or slabs, refilling the trench, leveling up, restoring surface (duly rammed),etc. [including supply of materials, as required], as per "Technical Specification & Scope of Work".				
i) 01 no. 1C / 3C / 3 ½ C / 4C cable, upto 50 mm ² [with 08 nos. bricks per metre]	270	RM	203.00	54,810.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	ii) 01 no. 3C / 3 ½ C / 4C cable, above 50 mm ² & upto upto 150 mm ² [with 08 nos. bricks per metre]	10	RM	215.00	2,150.00
	iii) 01 no. 3C / 3 ½ C / 4C cable, above 150 mm ² [with 16 nos. bricks per metre]	320	RM	299.00	95,680.00
	II) When run through existing duct, trench, culvert , laid pipe, riser pipe, etc.				
	i) 01 no. 1C / 3C / 3 ½ C / 4C cable, upto 150 mm ² .	40	RM	120.00	4,800.00
	ii) 01 no. 3C / 3 ½ C / 4C cable, above 150 mm ² & upto upto 300 mm ²	30	RM	170.00	5,100.00
	III) After cutting floor / pavement / wall and making holes, including embedding the cable at an average depth (through suitable casing pipe) and mending good the damages to original finish including removal of the rubbish.				
	i) 01 no. 1 C / 3C / 3 ½ C / 4C cable, upto 35 mm ² , at an average depth of 75 mm.	75	RM	159.00	11,925.00
	ii) 01 no. 3C / 3 ½ C / 4C cable, above 35 mm ² & upto 95 mm ² , at an average depth of 100 mm.	20	RM	199.00	3,980.00
	ii) 01 no. 3C / 3 ½ C / 4C cable, above 95 mm ² , at an average depth of 100 mm.	10	RM	227.00	2,270.00
	IV) When laid on existing Cable Tray and fixing by aluminium saddling (approx. 300 mm interval) [including supply of materials, as required].				
	i) 01 no. 1 C / 3C / 3 ½ C / 4C cable, upto 50 mm ² .	75	RM	14.00	1,050.00
	ii) 01 no. 3C / 3 ½ C / 4C cable, above 50 mm ² and upto 150 mm ² .	5	RM	19.00	95.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	iii) 01 no. 3C / 3 ½ C / 4C cable, above 150 mm ² and upto 240 mm ² .	5	RM	24.00	120.00
	V) When laid on wall and fixing by aluminium saddling (approx. 300 mm interval), with earthing attachment in 10 SWG GI (Hot Dip) wire [including supply of materials, as required] , as necessary, including mending good damages to building works.				
	i) 01 no. 1 C /2C cable, upto 25 mm ² .	2	RM	71.00	142.00
	ii) 01 no. 3C / 3 ½ C / 4C cable, upto 25 mm ² .	120	RM	75.00	9,000.00
	iii) 01 no. 3C / 3 ½ C / 4C cable, above 25 mm ² & upto 50 mm ² .	10	RM	89.00	890.00
	iv) 01 no. 3C / 3 ½ C / 4C cable, above 50 mm ² & upto 90 mm ² .	150	RM	104.00	15,600.00
	v) 01 no. 3C / 3 ½ C / 4C cable, above 90 mm ² and upto 150 mm ² .	10	RM	108.00	1,080.00
91	Laying of 3C X 6 mm ² / 3C X 4 mm ² , 1.1 kV grade XLPE Cable , through following G I pipe / PVC pipe [including supply & laying of G I Pipe / PVC pipe] , at a depth of 0.5 m from ground surface or concealed in wall .				
	(a) Through PVC pipe [25 mm diameter, having thickness not less than 3 mm]	50	RM	108.00	5,400.00
	(b) Through G I pipe [ISI marked, Medium Class, nominal bore -25 mm]	5	RM	275.00	1,375.00
92	Connecting the leads of following PVC / XLPE armoured / unarmoured cables with MCCBs / MCBs / SDFU/ connectors [after finishing the ends by crimping method, including supplying & fixing solderless sockets , tapes, anticorrosive paste & jointing materials], at Distribution Board / Junction Box / SDFU:				
	a) 3 C X 4 mm ² , 1.1 kV grade, Aluminium Conductor Cable.	6	set	56.00	336.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
	b) 3 C X 6 mm ² , 1.1 kV grade, Aluminium Conductor Cable.	30	set	58.00	1,740.00
	c) 4 C X 16 mm ² , 1.1 kV grade, Copper Conductor Cable	30	set	119.00	3,570.00
	d) 3 ½ C X 25 mm ² , 1.1 kV grade, Aluminium Conductor Cable	12	set	138.00	1,656.00
	e) 3 ½ C X 70 mm ² , 1.1 kV grade, Aluminium Conductor Cable	30	set	329.00	9,870.00
	f) 3 ½ C X 240 mm ² , 1.1 kV grade, Aluminium Conductor Cable	20	set	890.00	17,800.00
93	Providing double compression type gland complete with brass gland, brass ring & rubber ring for dust & moisture-proof entry of following XLPE insulated, armoured cables as given below :				
	a) 3 C X 4 mm ² , 1.1 kV grade, Aluminium Conductor Cable.	6	set	144.00	864.00
	b) 3 C X 6 mm ² , 1.1 kV grade, Aluminium Conductor Cable.	30	set	144.00	4,320.00
	c) 4 C X 16 mm ² , 1.1 kV grade, Copper Conductor Cable	30	set	165.00	4,950.00
	d) 3 ½ C X 25 mm ² , 1.1 kV grade, Aluminium Conductor Cable	12	set	190.00	2,280.00
	e) 3 ½ C X 70 mm ² , 1.1 kV grade, Aluminium Conductor Cable	30	set	265.00	7,950.00
	f) 3 ½ C X 240 mm ² , 1.1 kV grade, Aluminium Conductor Cable	20	set	538.00	10,760.00
94	Supply, fabrication, installation and commissioning of 3D LED Glow Sign Board [using Stainless Steel illuminated 3D Letters (of height at least 220 mm & depth at least 50 mm) with inbuilt LED & driver] (approx. size: 4200 mm X 1250 mm), including support structure and making necessary electrical connection, as required, as per 'Technical Specification & Scope of Work.'	1	set	3,02,500.00	3,02,500.00
95	Providing Timer for Air Conditioners [02 nos. 1.5 TR / 2.0 TR would be connected with on Timer unit], on existing box.	2	no.	1,944.00	3,888.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
96	Providing (supplying and fixing) following size of perforated Hot Dipped Galvanized Iron Cable Tray & its accessories with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts etc. or supported by GI Angle support (25mm X 25mm X 3mm) from below, as required.				
	a) Cable Tray				
	i) 150 mm width X 50 mm depth X 1.6 mm thickness	60	m	666.00	39,960.00
	ii) 225 mm width X 50 mm depth X 1.6 mm thickness	60	m	838.00	50,280.00
	b) Cable Tray "bends"				
	i) 150 mm width X 50 mm depth X 1.6 mm thickness	6	no.	1,207.00	7,242.00
	ii) 225 mm width X 50 mm depth X 1.6 mm thickness	6	no.	1,617.00	9,702.00
	c) Cable Tray "Tee"				
	i) 150 mm width X 50 mm depth X 1.6 mm thickness	6	no.	1,316.00	7,896.00
	ii) 225 mm width X 50 mm depth X 1.6 mm thickness	6	no.	1,881.00	11,286.00
	d) Cable Tray "Cross Member"				
	i) 150 mm width X 50 mm depth X 1.6 mm thickness	6	no.	1,317.00	7,902.00
	ii) 225 mm width X 50 mm depth X 1.6 mm thickness	6	no.	1,900.00	11,400.00
	e) Cable Tray "Reducer"				
	i) 150 mm width X 50 mm depth X 1.6 mm thickness	2	no.	1,838.00	3,676.00
	ii) 225 mm width X 50 mm depth X 1.6 mm thickness	2	no.	2,317.00	4,634.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
97	Providing Earthing Stations, using Earth Electrode [made of 3 m long Medium Galvanised Mild Steel Tubes (as per IS:1239) of nominal bore 50 mm]. 260 mm long G.I. Strip of size 50 mm X 6 mm (with 4 nos. 10 mm dia tap hole, bend to shape of pipe) to be welded at 100 mm below the top of tube for connection of Earth Strip. G.I. Funnel / Cap to be provided on top of the tube. Earth Electrode to be driven in the Earth Pit filled up with alternate layer of Charcoal and Salt. Earth Pit should be provided with suitable size Brick Masonry Inspection Chamber with removable RCC Cover (75 mm thick) with handle.	18	no.	3,617.00	65,106.00
98	Providing Earthing Stations, using spike of 1.85 m length, including bolts, nuts, washers, etc., as required and mending good damages, if any.				
	a) Supply of 20 mm diameter, 1.85 m long GI spike.	2	no.	900.00	1,800.00
	b) Installation of 20 mm diameter, 1.85 m long GI spike.	2	no.	250.00	500.00
99	Providing earthing, using GI (Hot Dip) wire of size 8 SWG and making connections with bolts, nuts, washers, etc., as required and mending good damages, if any.				
	a) Supply of GI (Hot Dip) wire of size 8 SWG.	100	m	20.00	2,000.00
	b) Laying & fixing of GI (Hot Dip) wire of size 8 SWG.	100	m	5.00	500.00
100	Providing earth busbar of galvanized (Hot Dip) MS flat 50 mm X 6 mm on wall having clearance of 6 mm from wall including providing drilled holes on the busbar complete with GI bolts, nuts, washers, spacing insulators etc., as required	20	no.	177.00	3,540.00
101	Interconnection of Earthing Stations by G.I. Strip (Hot Dip) of size 50 mm X 6 mm, with bolts, nuts, washers, etc.	100	m	225.00	22,500.00

Sl. No.	Description of item	Quantity	Unit	Estimated Unit Rate [excluding GST] (in ₹)	Estimated Amount [excluding GST] (in ₹)
102	Connecting the earth busbar to Earthing Station (with bolts, nuts, washers, etc.), including supply & laying of G.I. Strip (Hot Dip) of size 25 mm X 6 mm, using GI saddles or through PVC conduit of suitable size, including drilling holes.	300	m	216.00	64,800.00
103	Providing Lightning Conductor Air-terminals, made of 20 mm dia 1000 mm long GI pipe (ISI Medium), having five discharge prongs of 4 SWG GI (Hot Dip) wire at top, duly soldered with 7/16 stranded GI (Hot Dip) wire and 85 mm dia 6 mm thick GI base plate at bottom, including necessary holes, etc., duly grouted on the parapet, etc. in CC mortar (4:2:1).	12	no.	538.00	6,456.00
104	Making soldered joints between conductor/ conductor & air terminals by G.I. Strip (Hot Dip) of size 25 mm X 6 mm including supply of jointing materials & painting with 2 (two) coats of Bituminous paint	30	m	88.00	2,640.00
105	Providing LED Signage Board [suitable for 230 V AC, 50 Hz supply system], complete with all accessories, provided with suitable Driver & necessary safety protections and as per 'Technical Specification', including necessary connections [by providing required length of 'FR' 3 C X 0.5 mm ² PVC insulated, PVC sheathed, copper conductor cable, conforming to IS: 694, with latest amendment (if any)] & mending good damages to the wall / ceiling.				
	a) 450 mm X 300 mm (approx.)	10	set	2,797.00	27,970.00
	b) 450 mm X 300 mm (approx.)	10	set	5,593.00	55,930.00
	c) 900 mm X 300 mm (approx.)	5	set	11,186.00	55,930.00
Sub-total (Part A) =					75,78,050.00

Part - B : Split-type Air-conditioning Work

1	Supply, installation, testing & commissioning of new Split type Air Conditioner units [Capacity: 1.5 TR ; Non-inverter type, with Rotary Compressor (compatible with eco-friendly refrigerant)], having 3 Star BEE rating, as per the "Technical Specification & Scope of Work".				
	a) Supply	2	set	25,430.00	50,860.00
	b) Installation, testing & commissioning (including lifting, shifting & handling and first charge of refrigerant).	2	set	1,411.00	2,822.00
2	Providing refrigerant copper piping (with nitrile insulation) [additional requirement, if any] between outdoor unit & indoor unit of 1.5 TR split type Air Conditioner units.	10	RM	313.00	3,130.00
3	Providing PVC drain piping (for drainage of water from indoor units) for 1.5 TR split type Air-conditioner units (additional requirement, if any).	10	RM	35.00	350.00
4	Providing electrical power cabling (minimum 2.5 mm ² , copper) [additional requirement, if any] between outdoor units & indoor units of 1.5 TR split type Air Conditioner units.	10	RM	84.00	840.00
5	Providing Iron Stand for holding outdoor units of 1.5 TR split type Air Conditioner units.	2	set	573.00	1,146.00
6	Providing air-conditioner pipe protective wrapping tape Width: Not less than 44 mm Length / Roll : Not less than 12 m	4	Roll	66.00	264.00
Sub-total (Part B) =					59,412.00

Part - C: Centralised Air-conditioning Work

1	Supply, Installation, Testing & Commissioning of Ductable Split type Air-cooled Air-conditioning Machine [Cooling Capacity : 11.0 TR], complete with Indoor & Outdoor Units, with Single / Double scroll compressor [non-inverter type, compatible with eco-friendly refrigerant (R410A/ R32)], as per 'Technical Specification & Scope of Work'.	1	set	1,89,000.00	1,89,000.00
2	Supply, Installation, Testing & Commissioning of ceiling suspended , double skin, Direct Expansion Cooling (DX) coil type, Air Handling Unit (AHU) of capacity 3,000 CFM [Static pressure of Blower: 125 mm (WG)], with Filter Chamber [having 2 stage of filtration, i.e. a) Pre-filer & b) Fine filter], as per 'Technical Specification & Scope of Work'.	1	set	2,47,700.00	2,47,700.00
3	Supply, Installation, Testing & Commissioning of ceiling suspended, double skin, Direct Expansion Cooling (DX) coil type, Air Handling Unit (AHU) of capacity 1,500 CFM [Static pressure of Blower: 110 mm (WG)], with Filter Chamber [having 3 stage of filtration, i.e. a) Pre-filer, b) Fine filter & c) HEPA Filter], as per 'Technical Specification & Scope of Work'.	1	set	2,30,300.00	2,30,300.00
4	Supply, Installation, Testing & Commissioning of floor mounted, double skin, Direct Expansion Cooling (DX) coil type, Air Handling Unit (AHU) of capacity 12,000 CFM [Static pressure of Blower: 110 mm (WG)], with Filter Chamber [having 3 stage of filtration, i.e. a) Pre-filer, b) Fine filter & c) HEPA Filter], as per 'Technical Specification & Scope of Work'.	1	set	7,94,800.00	7,94,800.00
5	Supply, Installation, Testing & Commissioning of Ductable Split type Air-cooled Air-conditioning Machine [Outdoor Unit, with Single / Double scroll compressor {non-inverter type, compatible with eco-friendly refrigerant (R410A/ R32)}] of following cooling capacities, as per 'Technical Specification & Scope of Work'.				
	i) 8.5 TR Ductable Split Outdoor Unit	5	set	1,09,300.00	5,46,500.00
	ii) 4.0 TR Ductable Split Outdoor Unit	1	set	74,600.00	74,600.00

6	Supply and installation of Refrigerant Copper piping (duly insulated with closed cell elastomeric nitrile insulation), with proper support / hangers from ceiling / wall, as required, for Ductable Split type Air-conditioning Units and as per the "Technical Specification & Scope of Work".				
	i) For 4.0 TR Ductable AC Unit	15	RM	750.00	11,250.00
	ii) For 8.5 TR Ductable AC Unit	75	RM	1,050.00	78,750.00
	iii) For 11.0 TR Ductable AC Unit	15	RM	1,250.00	18,750.00
7	Supply, installation, testing & commissioning of control cum transmission wiring of copper cable, in suitable PVC conduits (as required), for interconnection between IDUs & ODU's and IDUs and Remotes.				
	i) 4C X 2.5 mm ² copper cable for 3.0 TR & 4.0 TR Ductable AC	20	RM	125.00	2,500.00
	ii) 6C X 2.5 mm ² copper cable for 8.5 TR & 11.0 TR Ductable AC	100	RM	180.00	18,000.00
8	Supply & fixing of rigid PVC Drain Pipe with fittings, proper supports at 600 mm interval and duly insulated with 6 mm thick closed cell nitrile rubber.				
	i) 32 mm dia.	30	RM	145.00	4,350.00
	ii) 40 mm dia.	10	RM	175.00	1,750.00
9	Topping-up of refrigerant gas (R410A/ R32) for entire system, pressure testing with nitrogen, vacuumisation and testing & commissioning of complete DX system, including AHUs , indoor units, outdoor units, electricals, remotes, etc.	5	kg	1,100.00	5,500.00
10	Supply & Installation of fabricated MS structure (duly galvanised- 80 micron) for installation of Outdoor Units, with all accessories.	400	kg	115.00	46,000.00
11	Providing (supplying & fixing) Air Ducting system (rectangular ducting), made out of Galvanised Sheet Steel (GSS) of following thickness, including necessary supports / hangers, elbows, splitter, adjustable dampers, vanes, etc., complete with neoprene rubber gasket.				
	i) Made of 24 Gauge GI sheet	258	m ²	790.00	2,03,820.00
	ii) Made of 22 Gauge GI sheet	110	m ²	910.00	1,00,100.00

12	Providing (supplying & fixing) Air Ducting system (rectangular ducting), made out of Aluminium sheet of following thickness, including necessary supports / hangers, elbows, splitter, adjustable dampers, vanes, etc., complete with neoprene rubber gasket.				
	i) Made of 22 Gauge Aluminium sheet	105	m ²	1,150.00	1,20,750.00
13	Providing (supplying & fixing) acoustic insulation for Air Ducting system, with open cell nitrile rubber (10 mm thick, density: 60 kg / m ³), including all materials for fixing (bolts, nuts, GI washers, etc., as required.), as per "Technical Specification & Scope of Work".	140	m ²	615.00	86,100.00
14	Providing (supplying & fixing) thermal insulation on OT ducting (Supply Air & Return Air) with Nitrile Rubber (13 mm thick, density: 48 kg / m ³), including all materials for fixing, as per "Technical Specification & Scope of Work".	105	m ²	650.00	68,250.00
15	Providing (supplying & fixing) thermal insulation on ducting (Supply Air & Return Air) with Nitrile Rubber (9 mm thick, density: 48 kg / m ³), including all materials for fixing, as per "Technical Specification & Scope of Work".	260	m ²	450.00	1,17,000.00
16	Supplying & fixing of powder coated aluminium construction Square Diffuser with Volume Control Dampers (VCD), for Supply Air.	6	m ²	6,500.00	39,000.00
17	Supplying & fixing of powder coated aluminium construction Square Diffuser without Volume Control Dampers (VCD), for Return Air.	7	m ²	6,000.00	42,000.00
18	Supplying & fixing of GI construction duct damper in Supply Air duct.	1	m ²	5,200.00	5,200.00
19	Supplying & fixing of aluminium construction duct damper in Supply Air duct & Return Air duct, in OT.	1	m ²	6,500.00	6,500.00
20	Supplying & fixing of flexible canvas connection in mouth of duct unit for Ductable AC Units & AHUs.	7	no.	1,500.00	10,500.00
21	Supplying, fixing, testing & commissioning of laminar flow single skin OT Plenum chamber (made of 22 Gauge Aluminium sheet, duly insulated), with High Efficiency Particulate Air (HEPA) Filters, perforated SS distributors, stiffeners, etc., as per "Technical				

	Specification & Scope of Work".				
	Size : 1800 mm X 2400 mm X 400 mm (approx.)	1	set	1,57,478.00	1,57,478.00
22	Supply, Fixing / Installation, Testing & Commissioning of Electrical Starter panel for Air Handling Unit (AHU).	3	no.	12,500.00	37,500.00
Sub-total (Part C) =					32,63,948.00
Total estimated amount (without GST) [Part A + Part B + Part C] :					₹ 1,09,01,410.00

[Indian Rupees: One crore nine lakh one thousand four hundred ten only]

9. ABSTRACT

SUB: -E-Tender for “Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex”.

Civil work: Sec. A & Sec. B	Rs. 1,79,47,536.69
	Rs. 35,33,479.79
Electrical work: Sec. C	Rs. 1,09,01,410.00
Total =	Rs. 3,23,82,426.48

[Indian Rupees: Three Crore Twenty Three Lakh Eighty Two Thousand Four Hundred Twenty Six and Paisa Forty Eight only]

DECLARATION BY THE BIDDER

(To be submitted on Company's Letter Head along with Techno Commercial Bid duly stamped and signed)

Sr. Dy. Manager (I&CF),
Haldia Dock Complex.
SMP, Kolkata

SUB:- E-tender for “Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex”.

Dear Sir,

We do hereby confirm that our offer is strictly in accordance with the terms and conditions of the Tender Document without any deviation / condition.

We further confirm that Part-II of the bid does not contain any condition / deviation.

Signature of the Bidder with Office Seal.

Date:

Place:

DECLARATION BY THE BIDDER

(To be submitted on Company's Letter Head along with Techno Commercial Bid duly stamped and signed)

Sr. Dy. Manager (I&CF),
Haldia Dock Complex.
SMP, Kolkata

SUB:- E-Tender for “Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex”.

Dear Sir,

- a) The bidding firm has not been debarred / delisted by any Govt / Quasi Govt. / Public sector undertaking in India.
- b) The proprietor / partner(s)/ authorised signatory of the bidding firm is/are not associated with other firm bidding for the same work.
- c) The bidding firm accepting that if they withdraw or modify their bids during period of validity of the offer , they will be suspended for three years.

Signature of the Bidder with Office Seal.

Date:

Place:

CONCURRENT COMMITMENT(S) OF THE BIDDER

Sl. No.	Full particulars of works to be executed concurrently by the bidder. (i) Name of work. (ii) Client. (iii) W.O. No. & Date.	Sanctioned Tender Value. (in Rs.)	Completion time as stated in tender.	Name and address to whom reference can be made.
1	(i)			
	(ii)			
	(iii)			
2	(i)			
	(ii)			
	(iii)			
3	(i)			
	(ii)			
	(iii)			
4	(i)			
	(ii)			
	(iii)			

BIDDER'S PROFILE

(To be submitted with Techno Commercial Bid)

The Bidders are also requested to furnish the following particulars:-

A) In case of Limited Company -

- 1) Name of Company :
- 2) Address of its present registered office. :
- 3) Date of its incorporation :
- 4) Full name and address of each of its Directors – any special particulars as to Directors if desire to be stated. :
- 5) Name, address and other necessary particulars of Managing Agents, if any appointed by the Company. :
- 6) Copies of Memorandum, Articles of Association (with the latest amendments, if any). :
- 7) Copies of audited balance sheets of the Company for the last two years. :

B) In case of a firm -

- 1) Name and address of the firm. :
- 2) When business started :
- 3) If registered a certified copy of certificate of registration. :
- 4) A certified copy of the Deed of Partnership :
- 5) Full name and address of each of the partners and the interest of each partner in the partnership – any special particulars as to partners if desired to be stated. :
- 6) Whether the firm pays income tax over Rs.10, 000/- per year :

C) In case of an Individual:

- 1) Full name and address of the Bidder any :
special particulars of the Bidder if desired
to be stated.
- 2) Name of the father of the Bidder. :
- 3) Whether the Bidder carries on business in :
his own name or any other name.
- 4) When business was started and by whom. :
- 5) Whether any other person is interested in :
the business directly or indirectly, if so,
name and address etc. of such persons and
the nature of such interest.
- 6) Whether the Bidder pays Income Tax over :
Rs.10, 000/- per year.

Dated:

(Full signature of Bidder)

ABSTRACT FORM OF TENDER (UNPRICED)

(To be submitted with Techno Commercial Bid)

I / We hereby tender for the under mentioned work for its execution within the specified time and in accordance, in all respects with the specifications, design, drawing and instructions in writing and with such materials as are provided for, by and in all other respects in accordance with such conditions so far as practicable.

(a) Name of Work. : Sec. A: Construction of a New Annex Building at Port Hospital, Haldia Dock Complex, Haldia.

Sec. B: Construction of new paver block road & walkway in front of new Port Hospital Annex. Building at Haldia Township, Haldia Dock Complex.

(c) Earnest Money : Rs. 6,47,649.00 [Rupees Six Lakh Forty Seven Thousand Six Hundred Forty Nine only] as Earnest Money, physically to Haldia Dock Complex, through DD / Banker's Cheque in favour of Syama Prasad Mookerjee Port, Kolkata, Haldia Dock Complex on any Scheduled / Nationalized Bank, payable at Haldia, otherwise, their bid will be summarily rejected, treating the same as non-responsive. Scanned copy of the DD / Banker's Cheque should be uploaded.

(e) Time allowed for completion of the work : 10 (Ten) Months.

(f) Permanent I/T A/C No. :

(g) Maximum number of workmen to be engaged on any day. :

(h) Bank Details

Name of Bank: Branch:

Branch Code: Account Number:

IFS Code:-

(Signature of the Bidder)

Witness:

Address:

(Name in block letters)

Address:-

Occupation:-

FORM OF TENDER

(To be submitted with Techno Commercial Bid)

To

The Sr. Dy. Manager (I&CF),

Haldia Dock Complex

I/We _____
_____ having examined the site of work, inspected the Drawings and read the specifications, General & Special Conditions of Contract and Conditions of the Tender, hereby tender and undertake to execute and complete all the works required to be performed in accordance with the Specification, Bill of Quantities, General & Special Conditions of Contract and Drawings prepared by or on behalf of the Trustees and at the rates & prices set out in the annexed Bill of Quantities within _____ months / weeks from the date of order to commence the work and in the event of our tender being accepted in full or in part. I / We also undertake to enter into a Contract Agreement in the form hereto annexed with such alterations or additions thereto which may be necessary to give effect to the acceptance of the Tender and incorporating such Specification, Bill of Quantities, Drawing and Special & General Conditions of Contract and I / We hereby agree that until such Contract Agreement is executed the said Specification, Bill of Quantities, Conditions of Contract and the Tender, together with the acceptance thereof in writing by or on behalf of the Trustees shall be the Contract.

I / We require _____ days / months preliminary time to arrange and procure the materials required by the work from the date of acceptance of tender before I We could commence the work.

I / We have deposited with the Trustees' Manager (Finance), HDC, vide Receipt No. _____ of _____ as Earnest Money.

I / We agree that the period for which the tender shall remain open for acceptance shall not be less than four months.

Dated: _____
Seal)

(Signature of Bidder with

WITNESS :

Signature :

Name :

(In Block letters)

Address :

Occupation :

Name of the Bidder
:

Address :

CHECK LIST

(TO BE FILLED- UP BY THE BIDDER)

1	Declarations a) The bidding firm has not been debarred / delisted by any Govt / Quasi Govt. / Public sector undertaking in India. b) The proprietor / partner(s)/ authorised signatory of the bidding firm is/are not associated with other firm bidding for the same work.	Declaration submitted	Yes / No
2	Application money towards cost of tender documents.	Deposited	Yes / No
3	Earnest Money	Deposited	Yes / No
4	Declaration as per Annex-I that no conditions / deviations have been added in Volume-II in the tender offer.	Submitted on company's letter head.	Yes / No
5	GST registration certificate.	Submitted	Yes / No
6	Valid Trade License.	Valid up to	
		Submitted	Yes / No
7	Professional Tax Clearance Certificate. / Upto date tax payment challan.	Valid up to	
		Submitted	Yes / No
8	Valid Employees' Provident Fund Account	Submitted	Yes / No
		Photo copy of latest payment challan of EPF submitted	Yes / No
9	ESI registration	Submitted	Yes / No
		Photo copy of latest payment challan of ESI submitted	Yes / No
10	Details of firm as per Bidder's Profile	Format fill-up	Yes / No
11	Concurrent Commitments of the Bidder	Format fill-up	Yes / No
12	Credential within seven years	i) Amount	
		ii) Amount	
		iii) Amount	
		Credentials as per pre-qualification criteria.	Yes / No
		Letter of award works and completion certificate from owners are enclosed.	Yes / No
13	Certified copies of audited balance sheet	i) Turnover amount and year	
		ii) Turnover amount and year	
		iii) Turnover amount and year	
		Certified by the CA / FA	Yes / No

Signature of the bidder with seal

FORMAT OF JV/ CONSORTIUM AGREEMENT

(To be submitted on Rs 100.00 Non Judicial Stamp Paper)

This Joint venture/consortium agreement is made at _____ on _____ day of _____ 20** between M/s. _____ (please indicate the status viz. Proprietor, firm, Company) represented through its proprietor /partner or Director (hereinafter referred to as “first Party”) and M/s. _____ (Please indicate the status viz. Proprietor, Firm, Company) represented through its proprietor /partner or Director (hereinafter referred to as “Second Party”) WHEREAS the First party is engaged in the business of _____

AND

WHEREAS THE Second Party is engaged in the business of _____

AND

WHEREAS both the parties are desirous of entering into a joint venture /consortium for carrying on the work of HALDIA DOCK COMPLEX, SYAMA PRASAD MOOKERJEE PORT, KOLKATA, in connection with work of _____ under Tender Number..... (hereinafter referred to as ‘The Contract’) (please mention the work of the tender and tender number). AND WHEREAS the First Party and Second Party have agreed to form joint venture/consortium for execution of subject works.

NOW THIS DEED WITNESSED AS UNDER:

1. That under this Joint Venture/consortium Agreement, the work will be done jointly by the first party and second party in the name and style of M/s _____.
2. It is further agreed by the Joint Venture/consortium Partners that M/s. First Party has been nominated as Lead Partner for the execution of the works.
3. That all the parties shall be liable jointly, equally and severally for the satisfactory execution of the Contract in all respect in accordance with terms and conditions of the Contract including maintenance obligations and the Lead Partner shall be authorized to incur liabilities and receive instruction for and on behalf of any and all the partners and parties of the Joint Venture/consortium and the entire execution of the contract including payment against the work shall be done exclusively with the lead partner.
4. **THE PROPOSED PARTICIPATION SCOPE OF ACTIVITIES TO BE PERFORMED AND RESPONSIBILITIES OF EACH PARTNER:**

The proposed administrative arrangement, participation, scope of activities to be performed and responsibilities for the execution of the work of the each party shall be as under:

First Party:

[Mention scope of activity to be performed, responsibilities to be discharged etc. of the party]

Second Party:

[Mention scope of activity to be performed, responsibilities to be discharged etc. by the party]

5. Subject to Clause-4, the parties shall depute their experienced staff as required for the works and plants, equipment, machinery, resources etc. as requires for execution of works and maintenance thereof, will be deployed by each Joint Venture/consortium partners for execution of the contract.
6. The Registered Office of the Lead Partner of the consortium at shall be the office of the Joint venture/Consortium for the purpose of all communications relating to the Contract.
7. The Joint Venture/consortium shall regularly maintain in the ordinary course of business a true and correct account of all its incoming and outgoing and also of its assets and liabilities in proper books or account which shall ordinarily be kept at place of business and after Completion of above mentioned work all account shall be taken.
8. Opening and operation of Bank Account: The Joint Venture/consortium shall open and maintain bank account(s) at..... The Lead Partner as mentioned in Clause (2) above shall have the power to receive the payments on behalf of the Joint Venture/consortium and also to issue discharge certificate in Form GC-3 of General Conditions of Contract on behalf of the Joint Venture/consortium.
9. This Agreement shall be effective from the date hereof and shall continue in full force and effect until all the obligations of the Contractor is fulfilled in accordance with the terms of the tender and GC-2 Form as per General Conditions of the Contract is issued in favour of the Contractor by the Engineer of the Contract of HALDIA DOCK COMPLEX, SYAMA PRASAD MOOKERJEE PORT, KOLKATA, in case the contract is awarded to the Joint Venture/Consortium. However, in case the Joint Venture /Consortium is either not pre-qualified for the work or does not get selected for award of the contract, the Agreement will stand terminated in case the Tenderer is not pre-qualified or upon return of the Earnest Money by the SMPK to the Bidder, as the case may be.
10. The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the SMPK.
11. This Joint Bidding Agreement shall be governed by laws of India.

IN WITNESS WHEREOF the Parties hereto have signed hereunder at _____on this _____day of _____

Party of First Part

[Name, Designation and Signature of Authorized Signatory]
Signature of Authorized Signatory]

Party of Second Part

[Name, Designation and

Witness 1:

Name :

Address :

Occupation :

Witness 2:

Name :

Address :

Occupation :

ANNEXURE - VIII

**FORMAT FOR POWER OF ATTORNEY FOR AUTHORISED
SIGNATORY OF BIDDERS INCLUDING JOINT VENTURE (JV) PARTNERS
POWER OF ATTORNEY***

(To be executed on non-judicial stamp paper of Rs. 100.00 in accordance with relevant stamp Act. The stamp paper to be in the name of the company who is issuing the Power of Attorney.)

Know all men by these present, we do hereby constitute, appoint and authorize Mr/Ms.....who is presently employed with us and holding the position ofas our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for the work of.....(name of the work and Tender Number) including signing and submission of all documents and providing information/ responses to HALDIA DOCK COMPLEX, SYAMA PRASAD MOOKERJEE PORT, KOLKATA representing us in all matters, dealing with HALDIA DOCK COMPLEX, SYAMA PRASAD MOOKERJEE PORT, KOLKATA in all matters in connection with our Tender for the said project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

Dated this theday of.....20..

Signature of the attorney

Signature of the attorney is attested

.....
[Authorized signatory of the
Company]

(Signature and Name in Block letters of Signatory)

.....
(Signature and Name in Block letters of Executants)

Seal of Company

Witness:

Witness 1:

Name :

Address :

Occupation :

Witness 2:

Name :

Address :

Occupation :

Notes:

- i) To be executed by all the partners individually, in case of a Joint Venture.
- ii) The made of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- iii) In case of incorporated companies, the common seal of the company has to be embossed on all pages.

FORMAT FOR POWER OF ATTORNEY TO LEAD PARTNER OF JOINT VENTURE (JV)

(To be executed on non-judicial stamp paper of Rs 100.00. The stamp paper to be in the name of the company who is issuing the Power of Attorney)

POWER OF ATTORNEY

Whereas HALDIA DOCK COMPLEX, SYAMA PRASAD MOOKERJEE PORT, KOLKATA, has invited Tender for the work of Whereas, the members of the Joint Venture comprising of M/s.....and M/s....., are interested in submission of bid for the work(insert name of work..... in accordance with the terms and conditions contained in the bidding documents.

Whereas, it is necessary for the members of the Joint Venture to designate one of them as the Lead Partner, with all necessary power and authority to do, for and on behalf of the Joint Venture, all acts, deeds and things as may be necessary in connection with the Joint Venture's bid for the project, as may be necessary in connection the Joint Venture's bid for the project.

NOW THIS POWER OF ATTORNEY WITNESSETH THAT:

We, M/s....., hereby designate M/s....., being one of the partners of the Joint Venture, as the lead partner of the Joint Venture, to do on behalf of the Joint Venture, all or any of the acts, deeds or things necessary or incidental to the Joint Venture's Tender for the contract, including submission of Tender, participating in conferences, responding to queries, submission of information/documents and generally to represent the Joint Venture in all its dealings with the HALDIA DOCK COMPLEX, SYAMA PRASAD MOOKERJEE PORT, KOLKATA, or any other Government Agency or any person, in connection with the contract for the said work till the expiry of the maintenance period and issuance of GC-2 Form as per General Conditions of the Contract by the Engineer of the Contract of HALDIA DOCK COMPLEX, SYAMA PRASAD MOOKERJEE PORT, KOLKATA . M/s....., the Lead partner is also authorized to take possession of site, sign Measurement Books, raise bills for the work, receive payment against the bills raised and take any or all actions required for successful execution of the project on behalf of the Joint Venture and also to issue the discharge certificate to HALDIA DOCK COMPLEX, SYAMA PRASAD MOOKERJEE PORT, KOLKATA in Form GC-3 of General Conditions of Contract on behalf of the Joint Venture.

We hereby agree to ratify all acts, deeds and things lawfully done by lead member, our said attorney pursuant to this power of attorney and that all acts deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us/ Joint Venture.

Dated this theday of.....20..

Signature of the attorney

Signature of the attorney is attested

.....

[Authorized signatory of the

Company]

(Signature and Name in Block letters of

Signatory)

.....

(Name in Block letters of Executants)

Seal of Company

Witness 1:

Name :

Address :

Occupation :

Witness 2:

Name :

Address :

Occupation :

Notes:

- i) To be executed by all the partners individually, in case of a Joint Venture.
- ii) The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- iii) In case of incorporated companies, the common seal of the company has to be embossed on all pages.

**General Conditions of Contract
Forms and Agreements**

**Sanctioned by the Trustees under Resolution No. 92 of the 6th Meeting held on 27th
May, 1993**

Including Addendum Sanctioned by the Trustees Meeting held on July, 2014

**KOLKATA PORT TRUST
KOLKATA DOCK SYSTEM &
HALDIA DOCK COMPLEX
JULY , 2014**

GENERAL CONDITIONS OF CONTRACT

	CLAUSE		PAGES
1.	AMENDMENT TO GENERAL CONDITIONS OF CONTRACT	...	GC 1
2.	DEFINITION	...	GC 2 – GC 3
3.	DUTIES & POWERS OF ENGINEER & ENGINEER'S REPRESENTATIVE	...	GC 3 – GC 5
4.	THE TENDER/OFFER AND ITS PRE-REQUISITES	...	GC 5 – GC 9
5.	THE CONTRACT & GENERAL OBLIGATIONS OF CONTRACTOR	...	GC 9 – GC 14
6.	COMMENCEMENT, EXECUTION AND COMPLETION OF WORK	...	GC 14 – GC 17
7.	TERMS OF PAYMENT	...	GC 18 – GC 20
8.	VARIATION AND ITS VALUATION	...	GC 20 – GC 22
9.	DELAY/EXTENSION OF COMPLETION TIME/LIQUIDATED DAMAGE/TERMINATION OF CONTRACT	...	GC 22 – GC 24
10.	MAINTENANCE AND REFUND OF SECURITY DEPOSIT	...	GC 24 – GC 25
11.	INTERPRETATION OF CONTRACT DOCUMENTS, DISPUTES & ARBITRATION	...	GC 25 – GC 27
12.	FORMS GC-1, GC-2 , GC-3		
13.	FORM OF AGREEMENT		
14.	PROFORMA FOR B.G. FOR CONTRACT PERFORMANCE		
15.	INTEGRITY PACT DOCUMENT: PROFORMA		
16.	DRAFT Memorandum of Understanding between Ko.P.T. & Transparency International India		

GC - 1
AMENDMENT
TO

GENERAL CONDITIONS OF CONTRACT

❖ ***CI-3.4 THE TENDER /OFFER & ITS PRE-REQUISITES***

Table under sub-clause (a)

PREVIOUS			AS AMENDED			
			For Works Contract		For Contract of Supplying Materials or Equipment only	
	For Works Contract	For Contract of Supplying Materials or Equipment only	Estimated Value of Work	Amount of Earnest Money	Estimated Value of Work	Amount of Earnest Money
Up to Rs. 1,00,000.00	5% of the estimated value of work	1% of the estimated value of work	Up to Rs. 10 Crore	2% of the estimated value of work	Up to Rs. 1,00,000.00	1% of the estimated value of work
Over Rs. 1,00,000.00	2% of the estimated value of work subject to a maximum of Rs. 20,000/- and minimum of Rs. 5,000/-.	½% of the estimated value of work subject to a maximum of Rs. 10,000/- and minimum of Rs. 1,000/-.	Over Rs. 10 Crore	2% on first Rs. 10 Crore + 1% on the balance	Over Rs. 1,00,000.00	½% of the estimated value of work subject to a maximum of Rs. 10,000/- and minimum of Rs. 1,000/-.

[AMENDMENT SANCTIONED BY THE BOARD OF TRUSTEES VIDE RESOLUTION NO 210 OF THE TRUSTEES' MEETING HELD ON 26.02.2013]

Table under sub-clause (d)

PREVIOUS			AS AMENDED		
Class of Registration	Amount Of Fixed Security	Financial Limit Of Each Tender	Class of Registration	Amount Of Fixed Security	Financial Limit Of Each Tender
A	Rs 10,000/-	Any tender priced upto Rs 2,00,000/-	A	Rs 50,000/-	Any tender priced up to Rs 10,00,000/-
B	Rs 5,000/-	Any tender priced upto Rs 1,00,000/-	B	Rs 25,000/-	Any tender priced upto Rs 5,00,000/-
C	Rs 2,500/-	Any tender priced upto Rs 50,000/-	C	Rs 15,000/-	Any tender priced upto Rs 3,00,000/-

[AMENDMENT SANCTIONED BY THE BOARD OF TRUSTEES VIDE RESOLUTION NO 82 OF THE TRUSTEES' MEETING HELD ON 12.10.2012]

1. DEFINITIONS

- 1.0 In the contract, as here in after defined, the following words and expressions shall have the meaning herein assigned to them, except where the context otherwise required.
- 1.1 “Employer” or “Board” or “Trustees” means of the Board of Trustees for the Port of Calcutta, a body corporate under Section 3 of the Major Port Trusts Act, 1963, including their successors, representatives and assigns. Employer
- 1.2 “Chairman” means the Chairman of the Board and includes the person appointed to act in his place under Sections 14 and 14A of the Major Port Trusts Act, 1963 Chairman
- 1.3 “Contractor” means the person or persons, Firm or Company whose tender/offer has been accepted by the Trustees and includes the Contractor’s representatives, heirs, successor and assigns, if any, permitted by the Board/Chairman. Contractor
- 1.4 “Engineer” means the Board’s official who has invited the tender on its behalf and includes the Manager (Infrastructure & Civic Facilities) or other official as may be appointed from time to time by the Employer, with written notification to the Contractor, to act as Engineer for the purpose of the Contract, in place of the “Engineer” so designated. Engineer
- 1.5 “Engineer’s Representative” means any subordinate or Assistant to the Engineer or any other official appointed from time to time by the Engineer to perform the duties set forth in Clauses 2.4 to 2.6 hereof. Engineer’s Representative
- 1.6 “Work” means the work to be executed in accordance with the Contract and includes authorised “Extra Works” and ‘Excess Works” and “Temporary Works”. Works
- 1.7 “Temporary Works” means all temporary works of every kind required in or about the execution, completion or maintenance of the works and includes (without thereby limiting the foregoing definitions) all temporary erections, scaffolding, ladders, timbering, soaking vats, site offices, cement and other godowns, platforms and bins for stacking building materials, gantries, temporary tracks and roads, temporary culverts and mixing platforms. Temporary works
- 1.8 “Extra Works” means those works required by the Engineer for completion of the Contract which were not specifically and separately included in the schedule of items of the works i.e. (Bill of Quantities) of the tender. “Excess Works” means the required quantities of work in excess of the provision made against any item of the bill of Quantities. Extra works and Excess works
- 1.9 “Specifications” means the relevant and appropriate Bureau of Indian Standard’s specifications / International Standard’s Specifications (latest revisions) for materials and workmanship unless stated otherwise in the Tender. Specification

- | | | |
|------|---|------------------------------|
| 1.10 | “Drawings” means the drawings referred to in the Tender and specification and any modification of such drawings approved in writing by the Engineer and such other drawings as may from time to time be furnished or approved in writing by the Engineer. | Drawings |
| 1.11 | “Contract” means and includes the General and Special Conditions of Contract, Specifications, Drawings, priced Bill of Quantities, the Tender / Offer, the letter of acceptance of the Tender/Offer, the Contract Agreement, if separately entered into and the Schedule of Rates and Price, if any, adopted by the Trustees at their discretion. | Contract |
| 1.12 | “Constructional Plant” means all appliances or things of whatsoever nature required or about the execution, completion or maintenance of the works or temporary works and includes (without thereby limiting the foregoing definition) all machinery and tools but does not include materials or other things intended to form or forming part of the permanent works. | Constructional Plant |
| 1.13 | “Site” means the land, waterways and other places, on, under, in or THOROUGH which the works are to be executed by the Trustees for the purpose of the Contract. | Site |
| 1.14 | “Contract Price” means the sum named in the letter of acceptance of the Tender/Offer of the Contractor, subject to such additions thereto and deductions therefrom as may be made by the Engineer under the provisions here in after contained. | Contract Price |
| 1.15 | “Month” means English Calendar Month. | Month |
| 1.16 | “Excepted Risks” are riot in so far as it is uninsurable, war, invasion, act of foreign enemies, hostilities) whether war be declared or not), Civil War, rebellion, revolution, insurrection or military or usurped power or use or occupation by the Trustees of any portion of the works in respect of which a certificate of completion has been issued (all of which are herein collectively referred to as the excepted risks). | Excepted Risks |
| 1.17 | Word importing the singular only, also includes the plural and vice-versa where the context so requires. | Singular/
Plural |
| 1.18 | The heading and marginal notes in these General Conditions of Contract shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or of the contract. | Headings/
Marginal Notes. |
| 1.19 | Unless otherwise stipulated the work “Cost” shall be deemed to include overhead costs of the Contractor, whether on or off the site. | Cost |
| 2.0 | DUTIES & POWERS OF ENGINEER & ENGINEER’S REPRESENTATIVE. | |
| 2.1 | The Contractor shall execute, compete and maintain the works in terms of the contract to the entire satisfaction of the Engineer and | Engineer’s Authority |

Shall comply with the Engineer's direction on any matter whatsoever.

GC - 4

- | | | |
|-----|---|--|
| 2.2 | The Contractor shall take instructions from the Engineer and subject to limitation of Clause 2.5 hereof, from the Engineer's Representative. | Authority of
Engineer's
Representative |
| 2.3 | <i>The Engineer shall have full power and authority :</i>

(a) to supply to the contractor from time to time during the progress of the works such further drawings and instructions as shall be necessary for the purpose of proper and adequate execution and maintenance of the works and the contractor shall carry out and be bound by the same.
(b) to alter or modify the specification of any material and workmanship and to inspect the work at any time.

(c) to order for any variation, alteration and modification of the work and for extra works.

(d) to issue certificates as per contract.

(e) to settle the claims & disputes of the Contractor and Trustees, as the first referee.

(f) To grant extension of completion time. | Engineer's
Power |
| 2.4 | <i>The Engineer's Representative shall :</i>

(i) watch and supervise the works.
(ii) test and examine any material to be used or workmanship employed in connection with the work.
(iii) have power to disapprove any material and workmanship not in accordance with the contract and the contractor shall comply with his direction in this regard.
(iv) take measurements of work done by the contractor for the purpose of payment or otherwise.
(v) order demolition of defectively done work for its reconstruction all by the Contractor at his own expense.
(vi) have powers to issue alteration order not implying modification of design and extension of completion time of the work and
(vii) have such other powers and authorities vested in the Engineer, which have been delegated to him in writing by the Engineer under intimation to the Contractor. | Power of
Engineer's
Representative. |

- 2.5 *Provided always that the Engineer's Representative shall have no power :* Limitation of Engineer's Representative's Power
- (a) to order any work involving delay or any extra payment by the Trustees,
 - (b) to make variation of or in the works; and
 - (c) to relieve the Contractor of any of his duties or obligations under the Contract.
- 2.6 Provided also as follows : Engineer's Overriding Power
- (a) Failure of Engineer's Representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or materials and to order the pulling down, removal, breaking-up thereof and re-constructing at the contractor's cost and the contractor shall have no claim to compensation for the loss if any sustained by him.
 - (b) If the contractor shall be dissatisfied by reason of any decision of the Engineer's Representative, he shall be entitled to refer the matter to the Engineer who shall thereupon confirm, reverse or vary such decision.
 - (c) Any written instructions or written approval given by the Engineer's Representative to the contractor, within the terms of delegation of power and authority vested in the Engineer to his Representative in writing, shall bind the contractor and the Trustees as though it had been given by the Engineer, who may from time to time make such delegation.
- 3.0 THE TENDER/OFFER AND ITS PRE-REQUISITES
- 3.1 The Contractor shall, before making out and submitting his tender/offer, be deemed to have inspected and examined the site, fully considered all factors, risks and contingencies, which will have direct and indirect impact on his expenses and profit from the work and shall be specifically deemed to have taken the following aspects into consideration :
- (a) The form and nature of the site and its surroundings including their sub-surface, hydrological, tidal and climatic conditions, the means of access to the site and all other local conditions, including the likely charges and costs for temporary way-leave, if any, required for the work. Site & Local condition.
 - (b) The drawings, specifications, the nature and extent of work to be executed and the quality, quantity and availability of the required materials and labour for the work and the need to execute the work to the entire satisfaction of the Engineer, and also by complying with the General and Special Conditions of Contract. Drawing/ Specification/ Nature & extent of work to be done.

- (c) The accommodation required for the workmen and site office, mobilisation/demobilisation and storage of all plant, equipment and Construction materials. Accommodation for Contractor's men/materials.
- (d) The sources and means of procurement of water for drinking, washing and execution of work, and source and availability of electrical power, all at Contractor's cost. Water for drinking etc. /Electrical power.
- (e) Payment of taxes and duties and compliance of all applicable statutes, ordinances and law together with the rules made thereunder, the rules, regulations and bye-laws of public bodies or any local or other authority by the Contractor, keeping the Trustees indemnified against penalties and liabilities of every kind arising from the Contractor's failure in such compliance. Payment of Taxes/duties and observance of all statutes.
- (f) Payment of all kinds of stamp-duty for executing the agreement or for any legal instrument including Bank Guarantees and Indemnity Bonds. Payment of Stamp Duty by the Contractor.

3.2 The Contractor's tender shall be in ink on the Tender Forms supplied by the Trustees, unless stipulated otherwise in the Notice Inviting the Tender and shall be faultless in figures and free from erasing. Corrections, if any, shall only be made by scoring out and initialling of the revised figure.

3.3 If required by the Engineer or the Trustees, the Contractors in their tender or subsequently, shall disclose the names of their owners/partners/share holders at the required points of time. The failure in this regard shall be treated as a breach and a contract, if entered into, shall be liable to be cancelled. Disclosure of Owner's name.

3.4 (a) Unless otherwise stipulated in the Notice Inviting Tender / Offer, every tender must be submitted with Earnest Money of the amount calculated as per the following scale. Earnest Money and Security Deposit.

Estimated Value of Work	Amount of Earnest Money	
	For Works Contract	For Contract of Supplying Materials or Equipment only
Up to Rs. 1,00,000=00	5% of the estimated value of work	1% of the estimated value of work
Over Rs. 1,00,000=00	2% of the estimated value of work subject to a maximum of Rs. 20,000/- and minimum of Rs. 5,000/-.	½% of the estimated value of work subject to a maximum of Rs. 10,000/- and minimum of Rs. 1,000/-.

- (b) Earnest Money shall be deposited with the Trustees' treasurer in cash or by Banker's Cheque of any Calcutta Branch of a Nationalised Bank of India drawn in favour of Calcutta Port Trust or in the form of any "Account Payee" Draft of any Nationalised Bank of India drawn in favour of "Calcutta Port Trust" and payable at Calcutta/Haldia, as the case may be, and the receipt granted therefor be kept attached to the Tender/Offer in the Sealed Cover. Method of Paying E.M.

- (c) Earnest Money of unaccepted tender shall be refunded without any interest THOROUGH A/c. Payee Cheque drawn on a Nationalised Bank of Calcutta / Haldia. Refund of E.M.

- (d) The enlisted (registered) Contractors of the Trustees who have deposited fixed Security with the Trustees' FA & CAO / Manager (Finance) according to his Class of Registration, shall be exempt from depositing the Earnest Money, as per the following scale : Exemption from E.M. to Regd. Firms

Class of Registration	Amount of Fixed Security	Financial Limit of Each Tender
A	Rs. 25,000/-	Any tender priced up to Rs.5,00,000/-
B	Rs. 10,000/-	Any tender priced up to Rs.2,00,000/-
C	Rs. 5,000/-	Any tender priced up to Rs.1,00,000/-

- (e) (i) Tender submitted without requisite Earnest Money may be liable to rejection. Tender without EM liable to rejection.

- (ii) If before expiry of the validity period of his Tender/Offer, the tenderer amends his quoted rates or tender/offer making them unacceptable to the Trustees and/or withdraws his tender/offer, the Earnest Money deposited shall be liable to forfeiture at the option of the Trustees. Forfeiture of E.M. before Acceptance of offer.

- (f) The Earnest Money of accepted tender/offer shall be retained by the Trustees as part of the Security Deposit, for which a separate Treasury Receipt shall be issued to the Contractor after cancellation of the previous Receipt of Earnest Money. E.M. to be converted to part S.D.

- (g) Balance security for works contract shall be recovered by deduction from all progressive Bill (including final Bill, if necessary) @ 10% of the gross value of work in each such bill, so that the total recovery may not exceed the quantum computed as per the under noted percentages of the total value of work actually done up to the stage of completion. Mode of recovery of balance S.D.

GC - 8

Value of Work	% of Security Deposit for works contract.	% of Security Deposit For contract of supplying materials & equipment only.	Scale of S.D. recovery.
For works up to Rs.10,00,000/-.	10% (Ten percent)	1% (One percent)	
For works costing more than Rs.10,00,000/- and up to Rs.20,00,000/-	10% on first Rs.10,00,000/- + 7½% on the balance.	1% on first Rs.10,00,000/- + ½% on the balance.	
For works costing more than Rs.20,00,000/-	10% on first Rs.10,00,000/- + 7½% on the next Rs.10,00,000/- + 5% on the balance.	1% on first Rs.10,00,000/- + ½% on the next Rs.10,00,000/- + ¼% on the balance.	

(h) Balance Security for Contract of supplying materials and equipment computed in terms of the percentages given above, shall have to be deposited with the Trustees' Treasurer in advance and within 30 days from the date of placement of supply order, either in cash or by A/c. Payee Draft of a Nationalised Bank of India drawn in favour of Calcutta Port Trust and payable at Calcutta/Haldia, as the case may be. S.D. for supply contracts to be deposited in advance.

(i) No interest shall be paid by the Trustees to the Tenderer/Contractor on the amount of Earnest Money/Security Deposit held by the Trustees, at any stage. No interest payable on E.M. /S.D

3.5 (i) The Security Deposit shall refunded to the Contractor in terms of Clause 9.3 hereinafter and subject to deduction, if any, under the provision of Sub-clause 3.5 (ii) herein below. Id, however, the Contract provides for any maintenance period. 50% of the Security Deposit may be refunded against any of the treasury Receipt for that amount on expiry of half of the maintenance period and the balance deposit on the expiry of the said maintenance period and after the Engineer has certified the final completion of work in Form G.C.2 and the Contractor has submitted his "No Claim" Certificate in Form G.C.3. Mode of refund of S.D.

(ii) The Security Deposit/Earnest Money may be liable to forfeiture at the option of the Trustees, if the Contractor fails to carry out the work or to perform/observe any of the conditions of the Contract. The Trustees shall also be at liberty to deduct any of their dues from the Security Deposit, fixed Security, Earnest Money or from any sum due or to become due to the Contractor under any other contract. Forfeiture of S.D.

- 3.6 If stipulated in the contract as a Special Condition, the contractor shall have to submit to the Engineer a performance Bond in the form of an irrevocable guarantee from Calcutta/Haldia Branch, as the case may be, of any Nationalised Bank of India in the proforma annexed hereto and for the sum and period as mentioned in the letter of acceptance of the Tender/Offer, within 15 days from the date of such letter, failing which the Contract shall be liable to be terminated and the earnest money shall be liable to forfeiture; all at the discretion of the Engineer. The cost of obtaining this or any other Bank Guarantee and/or the revalidation thereof, wherever required, has to be borne by the Contractor and it shall be his sole responsibility to arrange for timely revalidation of such Bank Guarantee, failing which and for non-fulfilment of any contractual obligation by the Contractor, the Engineer and/or the Trustees shall be at liberty to raise claim against the Guarantee and/or enforce the same unilaterally.
- Bank Guarantee in lieu of Cash S.D. in certain cases
- 3.7 “Every Tenderer/ Bidder shall submit, in respect of a tender value of more than Rs 5 Crore, along with their tender comprising Special Conditions of Contract, General Conditions of Contract, BOQ, Earnest Money, etc. a document called Integrity Pact Agreement duly signed by their authorized representative. The Proforma of the Integrity Pact Agreement shall as specified in the GCC. In case of tender value more than Rs 5 Crore, the Integrity Pact Agreement is an essential part and parcel of bid document to be submitted by each tenderer, without which the tender shall not be considered.”
- 4.0 THE CONTRACT & GENERAL OBLIGATIONS OF CONTRACTOR
- 4.1 (a) The contract documents shall be drawn-up in English language.
- English language to be used Applicability of laws on the contract
- (b) The contract shall be governed by all relevant Indian Acts. As applicable only within the jurisdiction of the High Court at Calcutta, India, including the following Acts :
1. The Contract Act (India), 1872.
 2. The Major Port Trusts Act, 1963.
 3. The Workmen’s Compensation Act, 1923.
 4. The Minimum Wages Act, 1948.
 5. The Contract Labour (Regulation & Abolition) Act, 1970.
 6. The Dock Workers’ Act, 1948.
 7. The Arbitration and Conciliation Act (1996) (in the case of a definite Arbitration Agreement only).
- 4.2 After acceptance of his Tender/Offer and when called on to do so by the engineer or his representative, the contractor shall, at his own expense, enter into and execute a Contract Agreement to be prepared by him in the form annexed hereto. Until such Contract Agreement is executed, the other documents referred to in the definition of the term ‘Contract’ here-in-before, shall collectively be the Contract.
- Contractor to Execute Contract Agreement .
- 4.3 Several documents forming the contract are to be taken as mutually explanatory of one another. Should there be any discrepancy, ambiguity, omission or error in the various contract documents, the Engineer shall have the power to correct the same and his decision shall be final and binding on the parties to the Contract.
- Interpretation of contract documents – Engineers’

- | | |
|--|--|
| <p>4. Two copies of the Drawings referred to in the general and special
4 Conditions of Contract and in the Bill of Quantities, shall be furnished by the Engineer to the Contractors free of cost for his use on the work, but these shall remain the property of the Trustees and hence, the Contractor shall return them to the Engineer or his Representative on completion of the work, if not torn or mutilated on being regularly used at site.</p> | <p>All Drawings are Trustees' property.</p> |
| <p>4. The Contractor shall prove and make at his own expense any working or
5 progress drawings required by him or necessary for the proper execution of the works and shall, when required, furnish copies of the same free of cost to the Engineer for his information and/or approval, without meaning thereby the shifting of Contractor's responsibility on the Engineer in any way whatsoever.</p> | <p>Contractor to prepare working / progress drawings</p> |
| <p>4. The Contractor shall not directly or indirectly transfer, assign or sublet
6 the Contract or any part thereof without the written permission of the Engineer. Even if such permission be granted, the Contractor shall remain responsible (a) for the acts, defaults and neglect of any sub-contractor, his agents, servants or workmen as fully as if these were the acts, defaults or neglects of the Contractor himself or his agents, servants or workmen and (b) for his full and entire responsibility of the contract and for active superintendence of the works by him despite being sublet, provided always that the provision of labourers on a "piece rate" basis shall not be deemed to be sub-letting under this clause.</p> | <p>Contractor cannot sub-let the work</p> |
| <p>4. Unless otherwise specified, the Contractor shall be deemed to have
7 included in his Tender/Offer all his cost for supplying and providing all constructional plant, temporary work. Materials both for temporary and permanent works, labour including supervision thereof, transporting to and from the site and in and about the work, including loading, unloading, fencing, watching, lighting, payment of fees, taxes and duties to the appropriate authorities and other things of every kind required for the construction, erection, completion and maintenance of the work.</p> | <p>Contractors' price is inclusive of all costs</p> |
| <p>4. The Contractor shall be solely responsible for the adequacy, stability and
8 safety of all site operations and methods of construction, even if any prior approval thereto has been taken from the Engineer or his Representative. The Contractor shall not be responsible for the correctness of the design or specification of the Temporary and Permanent works formulated by the Engineer; but the Contractor shall be fully responsible for the correct implementation thereof, as also for any design and specification prepared/proposed/used by the Contractor.</p> | <p>Contractor is responsible for all construction process, except for correctness of design and specification formulated by the Engineer</p> |
| <p>4. Whenever required by the Engineer or his representative, the Contractor
9 shall submit to him the details of his (a) programme for execution of the work, (b) proposed procedure and methods of work, (c) proposed deployment of plant, equipment, labour, materials and temporary works. The submission to and/or any approval by the Engineer or his Representative to any such programme or particulars shall not relieve the Contractor of any of his obligations under the contract.</p> | <p>Contractor to submit his programme of work</p> |

If for any reason the contractor be unable to adhere to his earlier programme, he shall submit his revised programme for completion of work within the stipulated time whenever asked to do so.

- | | | |
|------|---|--|
| 4.10 | Necessary and adequate supervision shall be provided by the Contractor during execution of the works and as long thereafter as the Engineer or his representative shall consider necessary during the maintenance period. The Contractor or his competent and authorised agent or representative shall be constantly at site and instructions given to him by the Engineer or his representative in writing shall be binding upon the Contractor subject to limitation in Clause 2.5 hereof. The Contractor shall inform the Engineer or his representative in writing about such representative/agent of him at site. | Contractor to supervise the works |
| 4.11 | The Contractor shall employ in execution of the Contract only qualified careful and experienced persons and the Engineer shall be at liberty to direct the Contractor to stop deployment of any of his staff, workmen or official at site and the Contractor shall within 48 hours comply with such instruction without any demur whenever the Engineer shall feel that the deployment of the person concerned will not be conducive to the proper and timely completion of the work. | Contractor to deploy qualified men and Engineer's power to remove Contractor's men |
| 4.12 | The Contractor shall be responsible for the true and proper setting out of the works in relation to reference points/lines/levels given by the Engineer in writing. The checking of any setting-out or of any alignment or level by the Engineer or his Representative shall not in any way relieve the contractor of his responsibility for the correctness thereof and he shall fully provide protect and preserve all stakes, templates, bench marks, sight rails, pegs, level marks, profile marks and other things used in setting out the works. | Contractor is responsible for line, level, setting out etc. |
| 4.13 | From the commencement of the works till issue of the completion certificate in Form G.C.1, vide Clause 5.12 hereof, the contractor shall take full responsibility for the care thereof. Save for the excepted risks, any damage, loss or injury to the work or any part thereof shall be made good by the Contractor at his own cost as per instruction and to the satisfaction of the engineer, failing which the Engineer or his Representative may cause the same to be made good by any other agency and the expenses incurred and certified by the Engineer shall deem proper. This Clause will not apply to that part of the work, which might have been taken over by the Trustees on partial completion of the work and in such case the Contractor's obligation will be limited to repairs and replacement for manufacturing or construction defects during the Maintenance period (Guarantee Period) as per the directions of the Engineer as also for defects/damages if any caused to the work by the Contractor during such repairs and replacement in the maintenance period. | Contractor is responsible to protect the work |

- 4.1 The Contractor shall at his own cost protect support and take all Contractor is
4 precautions in regard to the personnel or structure or services or responsible
properties belonging to the Trustees or not which may be interfered for all
with or affected or disturbed or endangered and shall indemnify and damages to
keep indemnified the Trustees against claim for injury, loss or damage other
caused by the Contractor in connection with the execution and structures /
maintenance of the work to the aforesaid properties, structures and persons
services and/or to any person including the Contractor's workmen. caused by
Cost of Insurance Cover, if any, taken by the Contractor shall not be him in
reimbursed by the Trustees, unless otherwise stipulated in the executing the
Contract. work.
- 4.1 The Contractor shall immediately inform the Engineer's Fossils,
5 Representatives if any fossil, coins, articles of value or antiquity and Treasure
structures and other remains or things of geological or archaeological travois, etc.
importance be discovered at site which shall remain the property of the are Trustees'
Trustees and protect them from being damaged by his workmen and property
arrange for disposal of them at the Trustees' expense as per the
instruction of the Engineer's Representative.
- 4.1 The Contractor shall be deemed to have indemnified and shall Contractor to
6 indemnify the Trustees against all claims, demands, actions and Indemnify the
proceedings and all costs arising therefrom on account of : Trustees
against all
(a) Infringement of any patent right, design, trademark or name or claims for
other protected right in connection with the works or temporary loss, damage,
work. etc.
- (b) Payment of all royalties, rent, toll charges, local taxes, other
payments or compensation, if any, for getting all materials and
equipment required for the work.
- (c) Unauthorised obstruction or nuisance caused by the contractor in
respect of Public or Private or Private road, railway tracks,
footpaths, crane tracks, waterways, quays and other properties
belonging to the Trustees or any other person.
- (d) Damage/injury caused to any highway and bridge on account of
the movement of Contractor's plants and materials in connection
with the work.
- (e) Pollution of waterway and damage caused to river, lock, sea-wall
or other structure related to waterway, in transporting contractor's
plants and materials.
- (f) The Contractor's default in affording all reasonable facilities and
accommodation as per the direction of the Engineer or his
Representative to the workmen of the Trustees and other agencies
employed by or with the permission and/or knowledge of the
Trustees on or near the site of work.
- 4.1 Debris and materials, if obtained by demolishing any property, Dismantled
7 building or structure in terms of the Contract shall remain the property materials
of the Trustees. Trustees'

- 4.18 The Contractor's quoted rates shall be deemed to have been inclusive of the following :
- Contractor's quoted rates/price must be all inclusive
- (a) Keeping the site free of unnecessary obstruction and removal from site of constructional plant wreckage, rubbish, surplus earth or temporary works no longer required.
 - (b) Cleaning and removal from site all the surplus materials of every kind to leave the site clean and tidy after completion of the work, without which payment against final bill may be liable to be withheld.
 - (c) Precautionary measures to secure efficient protection of Docks, the River Hooghly and other waterways against pollution of whatever nature during execution and maintenance of the works and to prevent rubbish, refuse and other materials from being thrown into the water by the Contractor's men or those of his agency.
 - (d) Making arrangements for deployment of all labourer and workers, local or otherwise including payment for their wages, transport, accommodation, medical and all other statutory benefits and entry permits, wherever necessary.
 - (e) Making arrangements in or around the site, as per the requirements of local authority or the Engineer or his Representative for preventing (i) spread of any infectious disease like smallpox, cholera, plague or malaria by taking effective actions for destruction of rats, mice, vermin, mosquitoes, etc. and by maintaining healthy and sanitary condition, (ii) illegal storage and distribution of Drugs, Narcotics, Alcoholic liquor, Arms and Ammunitions, (iii) unlawful, riotous or disorderly conduct of the Contractor's or his Sub-Contractor's workmen, (iv) deployment of workmen of age less than 16 years.
- 4.19 Every direction or notice to be given to the Contractor shall be deemed to have been duly served on or received by the Contractor, if the same is posted or sent by hand to the address given in the tender or to the Contractor's Site Office or to the Registered Office of the Contractor. The time mentioned in these conditions for doing any act after direction or notice shall be reckoned from the time of such posting or despatch.
- Notice to Contractor.
- 4.20 The Contractor and his Sub-contractor or their agents and men and any firm supplying plant, materials and equipment shall not publish or caused to be published any photographs or description of the works without the prior authority of the Engineer in writing.
- Contractor not to publish photograph or particulars of work

- 4.2 The Contractor shall at the Trustees' cost to be decided by the Contractor to
1 Engineer render all reasonable facilities and Co-operation as per provide
direction of the Engineer or his representative to any other facilities to
Contractor engaged by the Trustees and their workmen to the outsiders
Trustees' own staff and to the men of other Public Body on or
near the site of work and in default the Contractor shall be liable
to the Trustees for any delay or expense incurred by reason of
such default.
- 4.2 The work has to be carried out by the Contractor causing the Work to cause
2 minimum of hindrance for any maritime traffic or surface traffic. minimum
possible
hindrance to
traffic
movement
- 4.2 All constructional plants, temporary works and materials when Trustees' lien
3 brought to the site by the Contractor shall be deemed to be the on
property of the Trustees who will have lien on the same until the Contractor's
satisfactory completion of the work and shall only be removed Plant &
from the site in part or in full with the written permission of the Equipment.
Engineer or his Representative.
- 5.0 COMMENCEMENT, EXECUTION AND COMPLETION OF WORK.
- 5.1 The Contractor shall commence the work within 7 days of the Preliminary
receipt of Engineer's letter informing acceptance of the time to
Contractor's tender/offer by the Trustees or within such commence
preliminary time as mentioned by the Contractor in the Form of work an
Tender or the time accepted by the Trustees. The Contractor maintenance of
shall then proceed with the work with due expedition and steady rate of
without delay, except as may be expressly sanctioned or ordered progress
by the Engineer or his Representatives, time being deemed the
essence of the contract on the part of the contractor.
- 5.2 The Contractor shall provide and maintain a suitable office at or Contractor's
near the site to which the Engineer's Representative may send site office
communications and instructions for use of the Contractor.
- 5.3 Unless specified otherwise in the contract or prior permission of Contractor to
the Engineer has been taken, the contractor shall not execute the observe
work beyond the working hours observed by the Engineer's Trustees'
Representative and on Sundays and Holidays observed in the working hours
Trustees' system, except in so far as it becomes essential on
account of tidal work or for safety of the work. If the progress of
the work lags behind schedule or the work has been endangered
by any act or neglect on the part of the contractor, then the
Engineer or his Representative shall order and the contractor at
his own expense shall work by day and by night and on Sundays
and Public Holidays. Any failure of the Engineer or his
Representative to pass such an order shall not relieve the
contractor from any of his obligations. The Engineer's decision
in this regard shall be final binding and conclusive.

- 5.4 Unless stipulated otherwise in the contract all materials required for the work shall be procured and supplied by the contractor with the approval of the Engineer or his Representative and subject to subsequent testing as may be required by the Engineer or his Representative. The Engineer shall exercise his sole discretion to accept any such materials. Contractor to supply all materials as per requirement of the Engineer or his representative
- 5.5 Unless stipulated otherwise in the contract all materials, workmanship and method of measurement shall be in accordance with the relevant Codes (Latest Revision) of the Bureau of Indian Standards and the written instructions of the Engineer or his Representative. Where no specific reference is available in the contract, the material and workmanship shall be of the best of their respective kinds to the satisfaction of the Engineer. Materials & Works
- 5.6 Samples shall be prepared and submitted for approval of the Engineer or his representative, whenever required to do so, all at the Contractor's cost. Contractor to submit samples for approval
- Unless stipulated otherwise in the contract, the cost of any test required by the Engineer or his representative in respect of materials and workmanship deployed on the work, shall be borne by the Contractor. Contractor to arrange all testing at his own cost.
- 5.8 Regarding the supply of any materials by the Trustees to the contractor in accordance with the contract, the following conditions shall apply :
- (a) The Contractor shall, at his own expense, arrange for transporting the materials from the Trustees' Stores, watching, storing and keeping them in his safe custody, furnishing of statement of consumption thereof in the manner required by the Engineer or his representative, return of surplus and empty container to the Trustees' Stores as per the direction of the Engineer or his Representative. The Contractor shall account for and look after the Trustees' materials
- (b) Being the custodian of the Trustees' materials, the contractor shall remain solely responsible for any such materials issued to him and for any loss or damage thereof for any reason other than "Excepted Risks", the Contractor shall compensate the Trustees' in the manner decided by the Engineer and shall at no stage remove or cause to be removed any such material from the site without his permission in writing. Contractor to compensate for loss and damage to Trustees' materials
- (c) The Trustees' materials will generally be supplied in stages and in accordance with the rate of progress of work but except for grant of suitable extension of completion time of work as decided by the Engineer. The Contractor shall not be entitled to any other compensation, monetary or otherwise, for any delay in the supply of Trustees' materials to him. The Contractor shall, however, communicate his requirement of such materials to the Engineer from time to time. Delay in supply of Trustees' materials will only entitle the Contractor for extension of completion time of work

- (d) Unless stipulated otherwise in the contract, the value of the Trustees' materials issued to the contractor shall be recovered from the contractor's bills and/or any of his other dues, progressively according to the consumption thereof on the work and/or in the manner decided by the Engineer or his representative and at the rate/s stipulated in the contract. These rates shall only be considered by the contractor in the preparation of his tender/offer and these will form the basis of escalation/variation, if in future the contractor is required to procure and provide any such material on the written order of the Engineer consequent on the Trustees' failure to effect timely supply thereof.
- (e) If the Engineer decides that due to the contractor's negligence, any of the Trustees' materials issued to the contractor has been – (i) lost or damaged, (ii) consumed in excess of requirement and (iii) wasted by the contractor in excess of normal wastage, then the value thereof shall be recovered from the contractor's bills or from any of his other dues, after adding 19 ¼% extra over the higher one of the followings -

Recovery from Contractor for Trustees' materials under normal circumstances

Recovery from Contractor for Trustees' materials under other circumstances.

(1) The issue rate of the materials at the Trustees' Stores and

(2) The market price of the material on the date of issue as would be determined by the Engineer.

- 5.9 The Engineer or his Representative shall have the power to inspect any material and work at any time and to order at any time – (i) for removal from the site of any material which in his opinion is not in accordance with the contract or the instruction of the engineer or his representative, (ii) for the substitution of the proper and suitable materials, or (iii) the removal and proper re-execution of any work which in respect of material and workmanship is not in accordance with the contract or the instructions of the Engineer. The Contractor shall comply with such order at his own expense and within the time specified in the order. If the contractor fails to comply, the Engineer shall be at liberty to dispose any such materials and re-do any work in the manner convenient to the Trustees by engaging any outside agency at the risk and expense of the contractor and after giving him a written prior notice of 7 days.
- 5.10 No work shall be covered up and put out of view by the contractor without approval of the Engineer or his Representative and whenever required by him, the contractor shall uncover any part or parts of the work or make openings in or THOROUGH the same as may be directed by the Engineer or his representative from time to time and shall reinstate or make good those part of works thus affected to the satisfaction of the Engineer, all at the cost of the contractor. The Trustees shall reimburse such cost as determined by the Engineer, if the initial covering up was with prior written order

Contractor to replace materials/work not acceptable to the Engineer or his Representative

Contractor to seek approval of Engineer or his Representative before covering up any portion of work

of the Engineer or his Representative.

GC – 17

- 5.11 On a written order of the Engineer or his Representative, the Contractor to suspend work on Order from Engineer or his Representative
- contractor shall delay or suspend the progress of the work till such time the written order to resume the execution is received by him. During such suspension the contractor shall protect and secure the work to the satisfaction of the Engineer or his Representative. All extra expenses in giving effect to such order shall be considered by the Trustees, unless such suspension is –

- (a) otherwise provided for in the contract, or
- (b) necessary by reason of some default on the part of the contractor, or
- (c) necessary by reason of climatic conditions on the site, or
- (d) necessary for proper execution of the works or for the safety of the works or any part thereof.

The Engineer shall settle and determine such extra payment and/or Extension of completion time to be allowed to the contractor, as shall, in the opinion of the Engineer be fair and reasonable, and the same shall be final and binding on the Contractor.

- 5.11. If at any time before or after commencement of the work the Trustees do not require the whole of the work tendered for the Engineer shall notify the same to the contractor in writing and the contractor shall stop further works in compliance of the same. The Contractor shall not be entitled to any claim for compensation for underived profit or for such premature stoppage of work or on account of curtailment of the originally intended work by reason of alteration made by the Engineer in the original specifications, drawings, designs and instructions.

- 5.12 When the whole of the work has been completed to the satisfaction of the Engineer and has passed any final test prescribed in the contract, the contractor shall, within 21 days of submission of his application to the Engineer, be entitled to receive from him a certificate for completion of work in Form G.C.1, annexed hereto. If any part of the total work having been completed to the satisfaction of the Engineer, be taken over and/or used by the Trustees, the Contractor shall on application be entitled to partial completion certificate in the Form G.C.1 indicating the portion of the work covered by it, so that the Contractor's liability during maintenance period of the contract, if any, shall commence from the date mentioned in such certificate so far as the completed portion of the work is concerned.
- Completion Certificate G.C.1.

6.0 TERMS OF PAYMENT :

- 6.1 No sum shall be considered as earned by or due to the Contractor in respect of the work till final and satisfactory completion thereof and until a certificate of final completion in Form G.C.2 has been given by the Engineer.
- On account payments, if any, made prior to issue of the certificate in Form G.C.2, shall all be treated as mere advance, which shall stand recoverable in full or in part, if the Engineer so decides in the context of Contractor's unfulfilled contract condition, if any.
- 6.2 All payments shall be made to the Contractor only on the basis of measurements of actual work done, as recorded in the Trustees' measurement books and at accepted tendered or at agreed rates, as the case may be, except as otherwise provided in the contract and when the Engineer decides any other rate for change in the scope of work or omission, if any, on the part of the Contractor.
- 6.3 For work of sanctioned tender value more than Rs.50,000/- or having an initially stipulated completion period of 4 months or more, on account payments may be made at the discretion of the Engineer or his Representative at intervals deemed suitable and justified by him. Provided always that subject to execution of work of substantial value in the context of the contract price, the interval of such on account payments shall be decided by the Engineer or his Representative, which shall ordinarily not be less than 1 month in between two payments for on account bill and/or advance.
- 6.4 Measurement for works done shall be progressively taken by the Engineer's Representative and entered in the Trustees' Measurement Book, at intervals deemed suitable and proper by him and/or the Engineer. The Contractor or his duly accredited Representative or Agent shall remain present at the time of such measurement and assist the engineer's Representative in every manner required by him. After the measurements taken have been entered in the Measurement Book, the Contractor or his Agent shall sign the Measurement Book at the end of such Measurements over the Contractor's Rubber Stamp as a token of acceptance of all such measurements, recorded above and prior to such signature. If the Contractor or his Agent fails to participate even after 3 days written notice from the Engineer's Representative, the measurement shall be taken ex-parte by the Engineer's Representative and those shall be accepted by the Contractor.

All interim payments are advances till issue of Certificate in Form G.C.2

Payment on the basis of measurements at agreed rates.

Limitation for on account payment

Recording of measurements

- 6.5 Based on the quantum of work and the value thereof computed in the Measurement Book, the Contractor shall type out his bill in the proforma approved by the Engineer and submit the same to the Engineer's Representative in quadruplicate, duly signed by him or his accredited Agent over his Rubber Stamp. The Engineer or his Representative may in his absolute discretion, allow advance payment against such bill to the extent of an amount not exceeding 75% of the "net payable" sum of the said bill, subject to adjustment thereof against the bill at the time of checking and auditing the bill at the Trustees' end. The measurement Book will not be handed over to the Contractor; but he will obtain the abstracts of quantities, amounts and recoveries to type out the bill. Contractor to prepare and submit his bills
- 6.6 At the discretion of the Engineer or his Representative and only in respect of accepted offers/where estimated amount put to tender would be Rs.2,00,000/- or more, advance payment may be made to the extent of 75% of the value of any material purchased and brought to the site by the Contractor. Provided always that –
- (i) the materials shall, in the opinion of the Engineer or his Representative be of imperishable nature, Advance payment against Non-perishable materials
 - (ii) the value of such materials shall be assessed by the engineer or his Representative at their own discretion,
 - (iii) a formal agreement has been drawn up with the contractor, under which the Trustees secure a lien on the contractor's materials,
 - (iv) the materials are safe-guarded by the contractor against losses, shortage and misuse due to the contractor postponing the execution of the work or otherwise,
 - (v) in the event of storage of such materials within the Trustees' protected areas in the Docks, the contractor shall submit an Indemnity Bond in the proforma and manner acceptable to Trustees' whereby the contractor shall indemnify the Trustees against all financial loss/damage, on account of loss/damage to such materials for whatever reasons,

(vi) in the event of storage of such materials outside the Trustees' protected areas the Contractor shall submit to the Engineer an irrevocable Bank Guarantee favouring the Trustees and for the same sum as is being advance, in the proforma and manner acceptable to the Trustees. The Guarantee shall be of a Calcutta/Haldia Branch of any Nationalised Bank or a Schedule Commercial Bank, as the case may be, acceptable to the Trustees and shall remain valid till the anticipated period of consumption of such materials in the work. The Bank Guarantee must bear an undertaking by the issuing Bank guaranteeing automatic payment of the guaranteed sum to the Trustees by the Bank on the date of expiry of the validity of the Guarantee, unless with the prior written approval of the Engineer on behalf of the Trustees, the Bank has extended the validity of the Guarantee.

(vii) The amount of advance shall be recoverable from the contractor's bills or any other dues, progressively with the consumption of the materials on the basis of quantity consumed. Consequent on full recovery of the advance the Indemnity Bond/Bank Guarantee, vide Sub-clause (v) & (vi) above, shall be returned to the Contractor duly discharged by the Engineer on behalf of the Trustees.

6.7	No certificate of the Engineer or his representative shall protect the Contractor against or prevent the Trustees from obtaining repayment from the Contractor, in case the Engineer or his representative should overcertify for payment or the Trustees should over-pay the Contractor on any account.	Recovery for wrong and over payment
-----	--	-------------------------------------

6.8	No claim for interest shall be admissible or payable to the Contractor at any stage and in respect of any money or balance or Bank Guarantee, which may be due to the Contractor from the Trustees, owing to dispute or otherwise or for any delay on the part of the Trustees in making interim or final payment or otherwise.	Interest not admissible to Contractor
-----	---	---------------------------------------

7.0 VARIATION AND ITS VALUATION :

7.1	The Quantities set out in the Bill of Quantities of the tender shall be treated as estimated quantities of the work and shall never be deemed as actual or correct quantities of the works to be executed by the contractor in fulfilment of his obligation under the contract.	Quantities in Bill of Quantities of Tender
-----	---	--

7.2	The Engineer shall have the power to order the Contractor in writing to make any variation of the quantity, quality or form of the works or any part thereof that may, in his opinion, be necessary and the Contractor upon receipt of such an order shall act as follows :	Engineer's power to vary the works
-----	---	------------------------------------

- 7.2 (a) Increase or decrease the quantity of any work included in the contract.
- (b) Omit any work included in the contract.
- (c) Change the Character or quality or kind of any work included in the contract.
- (d) Change the levels, lines, position and dimensions of any part of the work, and
- (e) Execute extra and additional work of any kind necessary for completion of the works
- 7.3 No such variation shall in any way vitiate or invalidate the contract or be treated as revocation of the contract, but the value (if any) of all such variations evaluated in accordance with the Engineer's sole decision shall be taken into account and the contract price shall be varied accordingly. Variation by engineer do not vitiate the contract
- 7.4 Provided always that written order of the Engineer shall not be required for increase or decrease in the quantity of any work upto 15% where such increase or decrease is not the result of any variation order given under this clause but is the result of the quantities exceeding or being less than those stated in the bill of quantities. Provided also that verbal order of variation from the Engineer shall be complied with by the Contractor and the Engineer" subsequent written confirmation of such verbal order shall be deemed to be an order in writing within the meaning of this clause. Where written order for variation is not needed
- 7.5 (a) The Contractor shall not be entitled to any claim of extra or additional work unless they have been carried out under the written orders of the Engineer. Payment for extra or additional, or omitted work or substituted work, Engineer's powers
- (b) The Engineer shall solely determine the amount (if any) to be added to or deducted from the sum named in the tender in respect of any extra work done or work omitted by his order.
- (c) All extra, additional or substituted work done or work omitted by order of the Engineer shall be valued on the basis of the rates and prices set out in the contract, if in the opinion of the Engineer, the same shall be applicable. If the contract does not contain any rates or prices directly applicable to the extra, additional or substituted work, then the Engineer may decide the suitable rates on the basis of Schedule of Rates (including surcharge in force at the time of acceptance of tender), if any, adopted by the Trustees with due regard to the accepted contractual percentage, if any thereon. In all other cases the Engineer shall solely determine suitable rates in the manner deemed by him as fair and reasonable, and his decision shall be final, binding and conclusive.

- (d) If the nature or amount of any omission or addition relative to the nature or amount of the whole of the contract work or to any part thereof shall be such that, in the opinion of the Engineer, the rate of prices contained in the contract for any item of the works or the rate as evaluated under sub-clauses (b) and (c) of this clause, is by reason of such omission or addition rendered unreasonable or in-applicable, the Engineer shall fix such other rate or price as he deems proper and the Engineer's decision shall be final, binding and conclusive.

8.0 DELAY / EXTENSION OF COMPLETION TIME / LIQUIDATED DAMAGE / TERMINATION OF CONTRACT

- 8.1 Should the quantum of extra or additional work of any kind or delayed availability of the Trustees' materials to be supplied as per contract or exceptionally adverse climatic conditions and natural phenomenon or strikes, lock-outs, civil commotion or other special circumstances of any kind beyond the control of the Contractor, cause delay in completing the work, the contractor shall apply to the Engineer in writing for suitable extension of completion time within 7 days from the date of occurrence of the reason and the Engineer shall thereupon consider the stated reasons in the manner deemed necessary and shall either reject the application or determine and allow in writing the extension period as he would deem proper for completion of the work with or without the imposition of "Liquidated Damage" Clause (No.8.3 hereof) on the Contractor and his decision shall be final and binding on the Contractor. If an extension of completion time is granted by the Engineer without imposition of liquidated damage, from the Clause No.8.3 of the Liquidated damage shall apply from its date of expiry, if the work be not completed within the extended time, unless stated otherwise in the decision communicated by the Engineer, as aforesaid.
- 8.2 (a) If the Contractor fails to complete the work within the stipulated dates or such extension thereof as communicated by the Engineer in writing, the Contractor shall pay as compensation (Liquidated Damage) to the Trustees and not as a penalty, ½% (half percent) of the total value of work (contract piece) as mentioned in the letter of acceptance of the tender/offer, for every week or part thereof the work remains unfinished. Provided always that the amount of such compensation shall not exceed 10% of the said value of work. The amount of Liquidated damages shall be determined by the Engineer, which shall be final and binding.
- Extension of completion time
- 'Liquidated Damage' and other compensation due to Trustees

(b) Without prejudice to any of their legal rights, the Trustees shall have the power to recover the said amount of compensation/damage in Sub-clause (a) of this clause, from any money due or likely to become due to the Contractor. The payment or deduction of such compensation/damage shall not relieve the Contractor from his obligation to complete the work or from any of his other obligations/liabilities under the contract and in case of the Contractor's failure and at the absolute discretion of the Engineer, the work may be ordered to be completed by some other agency at the risk and expense of the Contractor, after a minimum three days notice in writing has been given to the Contractor by the Engineer or his Representative.

8.3 Without being liable for any compensation to the Contractor, the Trustees may, in their absolute discretion, terminate the contract and enter upon the site and works and expel the Contractor there from after giving him a minimum 3 days' notice in writing, due to occurrence of any of the following reasons and decision of the Trustees in this respect, as communicated by the Engineer shall be final and conclusive :

Default of the Contractors remedies & powers/Termination of Contract.

- (i) The Contractor has abandoned the contract.
- (ii) In the opinion of the Engineer, either the progress of work is not satisfactory or the work is not likely to be completed within the agreed period on account of Contractor's lapses.
- (iii) The Contractor has failed to commence the works or has without any lawful excuse under these conditions has kept the work suspended for at least 15 days despite receiving the Engineer's or his Representative's written notice to proceed with the work.
- (iv) The Contractor has failed to remove materials from site or to dismantle or demolish and replace work for 7 days after receiving from the Engineer or his representative the written notice stating that the said materials or work were condemned and rejected by him under these conditions.
- (v) The Contractor is not executing the works in accordance with the contract or is persistently or flagrantly neglecting to carry out his obligations under the contract.
- (vi) Any bribe, commission, gift or advantage is given, promised or offered by or on behalf of the contractor to any officer, servant or representative of the Trustees or to any person on his or their behalf in relation to the obtaining or to the execution of the contract.
- (vii) The Contractor is adjusted insolvent or enters into composition with his creditors or being a company goes into liquidation either compulsory or voluntary.

- 8.3.1 Upon receipt of the letter of termination of work, which may be issued by the Engineer on behalf of the Trustees, the Contractor shall hand over all the Trustees' tools, plant and materials issued to him at the place to be ascertained from the Engineer, within 7 days of receipt of such letter.
- 8.3.2 In all such cases of Termination of work, the Trustees shall have the power to complete the work THOROUGH any other agency at the Contractor's risk and expense and the Contractor shall be debited any sum or sums that may be expended in completing the work beyond the amount that would have been due to the Contractor, had he duly completed the work of the work in accordance with the contract.
- 8.3.3 Upon termination of contract, the Contractor shall be entitled to receipt payment of only 90% of the value of work actually done or materials actually supplied by him and subject to recoveries as per contract, provided the work done and materials conform to specifications at the time of taking over by the Trustees. The payment for work shall be based on measurements of actual work done and priced at approved contract rates or other rates, as decided by the Engineer. The payment for materials supplied shall be at the rates as decided by the Engineer, which shall in no case be more than market rates prevailing at the time of taking over by the Trustees. The Engineer's decision in all such case shall be final, binding and conclusive.
- 8.3.4 The Trustees shall have the power to retain all moneys due to the Contractor until the work is completed by other agency and the Contractor's liabilities to the Trustees are known in all respect.

9.0 MAINTENANCE AND REFUND OF SECURITY DEPOSIT

- 9.1 On completion of execution of the work the Contractor shall maintain the same for a period, as may be specified in the form of a Special Condition of the Contract, from the date mentioned in the Initial Completion Certificate in Form G.C.1. Any defect/fault, which may appear in the work during aforesaid maintenance period, arising, in the sole opinion of the Engineer or his representative, from materials or workmanship not in accordance with the contract or the instruction of the Engineer or his representative, shall, upon the written notice of the Engineer or his representative, be amended and made good by the Contractor at his own cost within seven days of the date of such notice, to the satisfaction of the Engineer or his representative, failing which the Engineer or his representative shall have the defects amended and made good THOROUGH other agency at the Contractor's risk and cost and all expenses, consequent thereon or incidental thereto, shall be recoverable from the Contractor in any manner deemed suitable by the Engineer.
- Contractor's obligation for maintenance of work.

- 9.2 The Contractor shall not be considered completed and the work shall not be treated as finally accepted by the Trustees, until a Final Completion Certificate in Form G.C.2 annexed hereto shall have been signed and issued by the Engineer to the contractor after all obligations under the Contract including that in the maintenance period, if any, have been fulfilled by the Contractor. Previous entry on the works or taking possession, working or using thereof by the Trustees shall not relieve the Contractor of his obligations under the contract for full and final completion of the work. Certificate of final completion
- 9.3 On completion of the contract in the manner aforesaid, the Contractor may apply for the refund of his Security Deposit by submitting to the Engineer (i) The Treasury Receipts granted for the amount of Security held by the Trustees, and (ii) his “No further claim” Certificate in Form G.C.3 annexed hereto (in original), where upon the Engineer shall issue Certificate in Form G.C.2 and within two months of the Engineer’s recommendation, the Trustees shall refund the balance due against the Security Deposit to the Contractor, after making deduction therefrom in respect of any sum due to the Trustees from the Contractor. Refund of Security Deposit
- 10.0 INTERPRETATION OF CONTRACT DOCUMENTS, DISPUTES AND ARBITRATION
- 10.1 In all disputes, matters, claims, demands or questions arising out of or connected with the interpretation of the Contract including the meaning of Specifications, drawings, designs and instructions or as to the quality of workmanship or as to the materials used in the work or the execution of the work whether during the progress of the works or after the completion and whether before or after the determination, abandonment or breach of the contract the decision of the Engineer shall be final and binding on all parties to the contract and shall forthwith be given effect to by the Contractor. Engineer’s decision
- 10.2 If the Contractor be dissatisfied with any such decision of the Engineer, he shall within 15 days after receiving notice of such decision require that the matter shall be referred to Chairman, who shall thereupon consider and give a decision. Chairman’s award.
- 10.3 If, however, the Contractor be still dissatisfied with the decision of the Chairman, he shall within 15 days after receiving notice of such decision require that within 60 days from his written notice, the Chairman shall refer the matter to an Arbitrator of the panel of Arbitrators to be maintained by the Trustees for the purpose and any such reference shall be deemed to be a submission to arbitration within the meaning of Indian Arbitration Act, 1940 or any statutory modification thereof. Arbitration.
- 10.3.1 If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever, another person from panel shall be appointed as Sole Arbitrator and he shall proceed from the stage at which his predecessor left it.

- 10.3.2 The Arbitrator shall be deemed to have entered on reference on the date he issues notice to both the parties fixing the date of first hearing.
- 10.3.3 The time limit within which the Arbitrator shall submit his award shall normally be 4 months as provided in Indian Arbitration Act, 1940 or any amendment thereof. The Arbitrator may, if found necessary, enlarge the time for making and publishing the award, with the consent of the parties..
- 10.3.4 The venue of the arbitration shall be either Calcutta or Haldia as may be fixed by the Arbitrator in his sole discretion. Upon every or any such reference the cost of any incidental to the reference and award respectively shall be in the discretion of the Arbitrator who may determine, the amount thereof or by whom and to whom and in what manner the same shall be borne and paid.
- 10.3.5 The Award of the Arbitrator shall be final and binding on all parties subject to the provisions of the Indian Arbitration Act 1940 or any amendment thereof. The Arbitrator shall give a separate award in respect of each item of disputes and respective claim referred to him by each party and give reason for the award.
- 10.3.6 The Arbitrator shall consider the claims of all the parties to the contract – within only the parameters of scope and conditions of the contract in question.
- 10.3.7 Save as otherwise provided in the contract the provisions of the Arbitration Act, 1940 and rules made thereunder, for the time being in force, shall apply to the arbitration proceedings under this Clause.
- 10.4 The Contractor shall not suspend or delay the work and proceed with the work with due diligence in accordance with Engineer's decision. The Engineer also shall not withhold any payment, which, according to him, is due or payable to the Contractor, on the ground that certain disputes have cropped up and are likely to be referred to arbitration.
- 10.5 Provided always as follows:
- [a] Nothing of the provisions in paragraphs 10.3 to 10.3.7 hereinabove would apply in the cases of contracts, where tendered amount appearing in the letter of acceptance of the tender / offer is less than Rs.40,00,000/-.
 - [b] The Contractor shall have to raise disputes or differences of any kind whatsoever in relation to the execution of the work to the Engineer within 30 days from the date of occurrence of the cause of dispute and before the preparation of the final bill, giving detailed justifications, in the context of contract conditions.

- [c] Contractor's dispute if any arising only during the maintenance period, if any, stipulated in the contract, must be submitted to the Engineer, with detailed justification in the context of contract conditions, before the issuance of final completion certificate in Form G.C.-2 *ibid*.
No dispute or difference on any matters whatsoever, the Contractor can raise pertaining to the Contract after submission of certificate in form G.C.3 by him.
- [d] Contractor's claim / dispute raised beyond the time limits prescribed in sub-clauses 10.5[b] and 10.5 [c] hereinabove, shall not be entertained by the Engineer and / or by any Arbitrator subsequently.
- [e] The Chairman / Trustees shall have the right to alter the panel of Arbitrators, vide Clause 10.3 hereinabove, on their sole discretion, by adding the names of new Arbitrators and / or by deleting the names of existing Arbitrators, without making any reference to the Contractor.

(TO BE SUBMITTED WITH COVER- I OFFER)

THE BOARD OF TRUSTEES FOR THE PORT OF KOLKATA
FORM OF TENDER (UNPRICED)

To
The Manager (I&CF),
Haldia Dock Complex.

I/We _____

having examined the site of work, inspected the Drawings and read the specifications, General & Special Conditions of Contract and Conditions of the Tender, hereby tender and undertake to execute and complete all the works required to be performed in accordance with the Specification, Bill of Quantities, General & Special Conditions of Contract and Drawings prepared by or on behalf of the Trustees and at the rates & prices set out in the annexed Bill of Quantities within _____ months / weeks from the date of order to commence the work and in the event of our tender being accepted in full or in part. I / We also undertake to enter into a Contract Agreement in the form hereto annexed with such alterations or additions thereto which may be necessary to give effect to the acceptance of the Tender and incorporating such Specification, Bill of Quantities, Drawing and Special & General Conditions of Contract and I / We hereby agree that until such Contract Agreement is executed the said Specification, Bill of Quantities, Conditions of Contract and the Tender, together with the acceptance thereof in writing by or on behalf of the Trustees shall be the Contract.

THE TOTAL AMOUNT OF TENDER Rs. **NOT TO BE QUOTED IN COVER I OFFER**

(Repeat in words) **NOT TO BE QUOTED IN COVER I OFFER**

I / We require _____ days / months preliminary time to arrange and procure the materials required by the work from the date of acceptance of tender before I We could commence the work.

I / We have deposited with the Trustees' Manager (Finance), HDC, vide Receipt No. _____ of _____ as Earnest Money.

I / We agree that the period for which the tender shall remain open for acceptance shall not be less than four months.

Dated :
Seal)

(Signature of Bidder with

WITNESS :

Name of the Bidder :

Signature :

Name : (In
Block Letters)

Address :

Address :

Occupatio
n :

**KOLKATA PORT TRUST
HALDIA DOCK COMPLEX**

FORM G.C.1

Contractor _____

Address -----

Date of completion :

Dear sir(s),

This is to certify that the following work viz :-

Name of work :

.....

.....

Estimate No. E.E.0.....Dt.....

C.E.O.....Dt.....

Work Order No.....

Allocation.....

Contract No.

which was carried out by you is in the opinion of the undersigned complete in every respect on the _____ day of _____ 2000 in accordance with terms of the Contract and you are required to maintain the work as per Clause 62 of the General Conditions of Contract and under provisions of the Contract for a period of _____ weeks / months / years

from the _____ day of _____
_____ 2000 to _____ day of _____ 2000 .

Yours faithfully,

Signature.....

(ENGINEER/ENGINEER'S REPRESENTATIVE)

Name.....

Designation.....

OFFICE SEAL

**KOLKATA PORT TRUST
HALDIA DOCK COMPLEX**

FORM G.C.2.

Certificate of Final Completion.

The Financial Adviser & Chief Accounts Officer
The Manager (Finance), Haldia Dock Complex.

This is to certify that the following work viz:-

Name of work :

Estimate No. E.E.O.....dt.....
C.E.O.....dt.....

Work Order No.....

Contract No.

Resolution & Meeting No.

Allocation :

which was carried out by Shri/Messrs..... is now complete in every respect in accordance with the terms of the Contract and that all obligations under the Contract have been fulfilled by the Contractor.

Signature.....
(ENGINEER/ENGINEER'S REPRESENTATIVE)
NAME.....
DESIGNATION.....
OFFICE SEAL

**KOLKATA PORT TRUST
HALDIA DOCK COMPLEX**

FORM G.C.3

(‘NO CLAIM ‘ CERTIFICATE FROM CONTRACTOR)

The Manager (I&CF)
Haldia Dock Complex
Calcutta Port Trust
Haldia.

(Atten:.....)

Dear Sir,

I / We do hereby declare that I / we have received full and final payment from the Calcutta Port Trust for the execution of the following work viz:-

Name of work : _____

Work Order No :- _____

Contract No. _____

Agreement No.....Dt.....

and I / we have no further claim against the Calcutta Port Trust in respect of the above-mentioned job.

Yours faithfully,

(Signature of

the Contractor)

Dated _____

Name of Contractor.....

Address:.....

(OFFICIAL SEAL OF THE CONTRACTOR)

Syama Prasad Mookerjee Port, Kolkata
PROFORMA OF FORM OF AGREEMENT

THIS AGREEMENT made _____ day of _____

_____20____ between the "Board Of Trustees for the Syama Prasad Mookerjee Port, Kolkata", a statutory body constituted under Major Port Trust Act, 1963 under the rules there under and statutory modification thereto having Registered Office at 15, Strand Road, Calcutta -700001 (hereinafter called "EMPLOYER" which expression unless excluded by or repugnant to the context be deemed to include his successor/s in office) on the one part and _____ (hereinafter called the "CONTRACTOR" which expression shall unless excluded by or repugnant to the context be deemed to include his heirs, executors, administrators, representative, successor in office and permitted assigns) of the other part.

WHEREAS The TRUSTEES are desirous that certain works should be executed viz _____ and have accepted a Tender/Offer by the contractor for the execution, completion and maintenance of such works.

NOW THIS CONTRACT AGREEMENT WITNESSETH as follows:-

1. In this agreement words expressions shall have the same meanings as are respectively assigned to them in General Conditions Of Contract, hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz :-
 - i. The said Tender/Offer & the acceptance of Tender/ Offer.
 - ii. The Drawings.
 - iii. The General Conditions Of Contract.
 - iv. Special Conditions Of Contract (If any).
 - v. The Conditions Of Tender.
 - vi. The Specifications.
 - vii. The Bill Of Quantities.
 - viii. All correspondences by which the contract is added, amended, varied or modified in any way by mutual consent.
3. In consideration of the payments to be made by the Trustees to the Contractor as hereinafter mentioned the contractor hereby covenants with the Trustees to execute, complete and maintain the work in conformity in all respects with the provisions of Contract.
4. The Trustees hereby covenants to pay to the contractor in consideration of such execution, completion and maintenance of the works the Contract Prices at the times and in the manner prescribed by the contractor.

IN WITNESS whereof the parties hereto have caused their respective Common Seals to be hereunto as fixed (or have set their respective hands and seals) the day and year first above written.
have executed these presents on the day and year first above written.

The Seal of _____

Was hereunto affixed in the presence of :

Name :- _____

Address :- _____

OR

SIGNED SEALED AND DELIVERED

By the said _____

In the presence of :

Name :- _____

Address :- _____

The Common Seal of the Trustees was hereunto affixed in he presence of :

Name :- _____

Address :- _____

Proforma Of Irrevocable Bank Guarantee (PERFORMANCE BOND) in lieu of cash Security Deposit, to be issued by the Kolkata/ Haldia Branch, as the case may be, of any nationalised Bank of India on Non-Judicial Stamp Paper worth Rs 50/- or as decided by the Engineer/ Legal Adviser of the Trustees.

Ref. _____

Bank Guarantee No. _____

Date _____

To

The Board of Trustees for the Syama Prasad Mookerjee Port, Kolkata,
15, Strand Road
Kolkata – 700 001

Dear Sirs,

In consideration of the Board of Trustees For the Syama Prasad Mookerjee Port, Kolkata, - (hereinafter referred to as the “EMPLOYER” which expression shall unless repugnant to the context or meaning thereof include its successors administrators and assigns) having awarded to _____, with registered office at _____ (hereinafter referred to as the “CONTRACTOR “ which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) a CONTRACT by issue of EMPLOYER’S work order dated _____ the same having been unequivocally accepted by the Contractor resulting in a ‘CONTRACT’ bearing Letter Of Award No _____ dated _____ Valued at Rs _____ for “ _____ ” and the contractor having agreed to prove a Contract performance Guarantee for the faithful performance of the entire Contract equivalent to Rs. _____ (rupees _____ only) to the EMPLOYER.

We, the _____ Bank, _____, Kolkata/ Haldia having its Head Office at _____ (hereinafter referred to as the “Bank”, which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Employer on demand any and all monies payable by the Contractor to the extent of Rs. -(_____ only) as aforesaid at any time upto _____ without any demur, reservation, contest, recourse or protest an/or without any reference to the CONTRACTOR, Any such demand made by Employer on the Bank shall be conclusive and binding notwithstanding any difference between EMPLOYEE and CONTRACTOR or any dispute pending before any Court, tribunal, Arbitrator or any other Authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of employer and further agrees that the guarantee herein contained shall continue to be enforceable till the Employer discharges his guarantee.

EMPLOYER shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to extend the time for performance of the CONTRACT by CONTRACTOR. Employer shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or any right which they might have against Contractor, and to exercise the same at any time in any manner, and other to enforce or to forebear to enforce any covenants, contained or implied, in the CONTRACT between EMPLOYER and CONTRACTOR or any other course of remedy or security available to EMPLOYER . The Bank shall not be released of its obligations under these presents by any exercise by EMPLOYER of its liberty

with reference to the matters aforesaid or any of them or by reason or any other acts of omission or commission on the part of employer or any other indulgence shown by EMPLOYER or by any other matter or thing whatsoever which under Law would, but for this provision, have the effect of reliving the bank.

The Bank also agreed that EMPLOYER at its option shall be entitled to enforce this Guarantee against the Bank as principal debtor, in the first instance without proceeding against CONTRACTOR and notwithstanding any security or other guarantee that EMPLOYER may have in relation to the CONTRACTOR’S liabilities.

Notwithstanding anything contained herein above our liability under this guarantee is restricted to Rs _____ (rupees _____ only) and it shall remain in force up to and including _____ and shall be extended from time to time for such period , on whose behalf this guarantee has been given.

Dated, this _____ day of _____, 2010
_____ at _____

WITNESSES

----- (Signature)	----- (Signature)
----------------------	----------------------

----- (Name)	----- (Name)
-----------------	-----------------

----- (Official address)	----- (Designation with Bank Stamp) + Attorney as per power of Attorney No.
-----------------------------	---

Dated

Integrity Pact

Between

Syama Prasad Mookerjee Port, Kolkata hereinafter referred to as “**The Principal/ Employer**”.

And

..... hereinafter referred to as “**The Bidder/Contractor**”

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for The Principal values full compliances with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its Bidder(s) and/or Contractor(s).

In order to achieve these goals, an Independent External Monitor (IEM) appointed by the principal, will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the PRINCIPAL/EMPLOYER to get the contractual work executed and/or to obtain/dispose the desired said stores/ equipment at a competitive price in conformity with the defined specifications/ scope of work by avoiding the high cost and the distortionary impact of corruption on such work /procurement/ disposal and Enabling BIDDERS/ CONTRACTORS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the PRINCIPAL/EMPLOYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

Section 1 – Commitments of the Principal/ Employer.

- (1) The Principal commits itself to take measures necessary to prevent corruption and to observe the following principles:
 - a. No employee of the Principal, personally or THOROUGH family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - b. The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will, in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information THOROUGH which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c. The Principal will exclude from the process all known prejudiced persons.
- (2). If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal Code (IPC)/Prevention of Corruption (PC) Act, or if there be a

substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section-2 –Commitments of the Bidder(s) / Contractor(s)

- (1) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - a. The Bidder(s) /Contractor(s) will not directly or THOROUGH any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contract, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principles, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines, all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is annexed and marked as Annex-A.
 - e. The Bidder(s)/Contractor(s) will when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2). The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section-3-Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s) before award or during execution has committed a transgression THOROUGH a violation of Section 2 above, or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as considered appropriate.

Section 4-Compensation for damages

- (1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.
- (2) If the Principal has terminated the contract according to Section 3 or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5-Previous transgression

- (1) The Bidder declares that no previous transgressions occurred in the last 3 years from the date of signing the Integrity pact with any other Company in any country conforming to the anti corruption approach or with any other Public Sector Undertaking / Enterprise in India, Major Ports/ Govt. Departments of India that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as considered appropriate.

Section 6- Equal treatment of all Bidders/Contractors/Sub-Contractors

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal, will enter into agreements with identical conditions as this one with all Bidders, Contractors and Sub-contractors.
- (3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7- Other Legal actions against violating Bidder(s)/ Contractor(s)/ Sub Contractor(s)

The actions stipulated in this Integrity pact are without prejudice to any other legal action that may follow in accordance with provisions of the extant law in force relating to any civil or criminal proceedings.

Section 8 – Role of Independent External Monitor(IEM):

- (a) The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.
- (b) The Monitors shall not be subject to instructions by the representatives of the parties and shall perform their functions neutrally and independently.
- (c) Both the parties accept that the Monitors have the right to access all the documents relating to the contract.
- (d) As soon as the Monitor notices, or has reason to believe, a violation of this pact, he will so inform the authority designated by the Principal and the Chief Vigilance Officer of Syama Prasad Mookerjee Port, Kolkata.

(e) The BIDDER/ CONTRACTOR(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the PRINCIPAL 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 contract documentation, if any. The same is applicable to sub-contractors. The Monitor shall be under contractual obligation to treat the information and documents of the Bidder/Contractor/ Sub-contractor(s) with confidentiality.

(f) The Principal/ Employer will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor, the option to participate in such meetings.

(g) The Monitor will submit a written report to the designated Authority of Principal/ Employer/ Chief Vigilance Officer of Kolkata Port Trust within 8 to 10 weeks from the date of reference or intimation to him by the Principal/ Employer/ Bidder/ Contractor and should the occasion arise, submit proposals for correcting problematic situation. BIDDER/ CONTRACTOR can approach the Independent External Monitor (s) appointed for the purposes of this Pact.

(h) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or to take corrective action, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

(i) If the Monitor has reported to the Principal substantiated suspicion of an offence under the relevant IPC/PCA, and the Principal/ Employer has not, within reasonable time, taken visible action to proceed against such offence or reported to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

(j) The word 'Monitor' would include both singular and plural.

Section 9 – Facilitation of Investigation:

In case of any allegation of violation of any provisions of this Pact or payment of commission, the PRINCIPAL/EMPLOYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER/CONTRACTORS and the BIDDER/CONTRACTOR shall provide necessary information and documents **in English** and shall extend all possible help for the purpose of such examination.

Section 10 – Pact Duration:

The pact beings with when both parties have legally signed it and will extend upto 2 years or the complete execution of the contract including warranty period whichever is later. In case bidder/contractor is unsuccessful this Integrity Pact shall expire after 6 months from the date of signing of the contract.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairman, SMP, KOLKATA.

Section 11 – Other Provisions:

(1) This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal in Kolkata.

- (2) Changes and supplements as well as termination notices need to be made in writing in English.
- (3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the reminder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & on behalf of the Principal)

(For & on behalf of Bidder/Contractor).

(Office Seal)

(Office Seal)

Place :

Date :

Witness 1:

(Name & Address)

.....

.....

Witness 2:

(Name & Address)

.....

.....

GUIDELINES FOR INDIAN AGENTS OF FOREIGN SUPPLIERS

- 1.1 There shall be compulsory registration of Indian agents of Foreign suppliers for all Tenders. An agent who is not registered with SMP, KOLKATA shall apply for registration in the prescribed Application-Form.
- 1.2 Registered agents will file an authenticated Photostat copy (duly attested by a Notary Public)/Original certificate of the principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/ remuneration/salary/retainer ship being paid by the principal to the agent before the placement of order by SMP, KOLKATA.
- 1.3 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.
- 2.0 DISCLOSURE OF PARTICULARS OF AGENTS/REPRESENTATIVES IN INDIA. IF ANY.**
- 2.1 Tenderers of Foreign nationality shall furnish the following details in their offer:
 - 2.1.1 The name and address of the agents/representatives in India, if any and the extent of authorization and authority given to commit the Principals. In case the agent/representative be a foreign Company, it is to be conformed whether it is real substantial Company and details of the same shall be furnished.
 - 2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.
 - 2.1.3 Confirmation of the Tenderer that the commission/remuneration if any, payable to his agents/ representatives in India, is to be paid by SMP, KOLKATA in Indian Rupees only.
- 2.2 Tenderers of Indian Nationality shall furnish the following details in their offers:**
 - 2.2.1 The name and address of the foreign principals indicating their nationality as well as their status, i.e. whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or THOROUGH the agents /representatives.
 - 2.2.2 The amount of commission/remuneration included in the price(s) quoted by the Tenderer for himself.
 - 2.2.3 Confirmation of the foreign principals of the Tenderer that the commission/remunerations, if any, reserved for the Tenderer in the quoted price(s), is to be paid by SMP, KOLKATA in India in equivalent Indian Rupees.
- 2.3 In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission/remuneration, if any payable to the agents/representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.
- 2.4 Failure to furnish correct and detailed information as called for in paragraph-2.0 above will render the concerned tender liable for rejection or in the event of a contract materializing, the same liable to termination by SMP, KOLKATA. Besides this there would be a penalty of banning business dealings with SMP, KOLKATA or damage or payment of a named sum.