



# भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

Ref. No. AAI/RPR/ENGG (E)/CW/WO-04/2020-21/

Date: 27.11.2020

**By Speed Post/E-Mail**

सेवा में,

मेसर्स अवस्थि इलेक्ट्रिक वर्क्स,  
107/265, ब्रम्ह नगर,  
कानपुर-208012 (उ.प्र.)

M/s Awasthi Electric Works,  
107/265, Brahma Nagar,  
Kanpur-208012 (U.P.)

कार्य का नाम:-स्वामी विवेकानन्द हवाई अड्डा, रायपुर पर GLF स्थापना के लिए 2 नग 320 KVA DG Sets का प्रावधान।

Name of work:- Replacement of 2 Nos. 320KVA DG sets for GLF installation at S.V. Airport, Raipur.

संदर्भ/Ref:- आपकी ई-निविदा जो 24.11.2020 को खोली गई/ Your e- tender opened on 24.11.2020.

महोदय/ Sir,

1. उल्लिखित कार्य हेतु आपकी ई-निविदा के संबंध में आपके द्वारा उद्धरीत कुल **रु. 62,70,709.00 (रुपये बँसठ लाख सत्तर हजार सात सौ नौ मात्र)** (जी. एस. टी. रहित), जो कि आंकलन लागत राशि **रु. 78,50,873.00 (रुपये अठत्तर लाख पच्चास हजार आठ सौ तिहत्तर मात्र)** (जी. एस. टी. रहित) से 20.12% कम है, को अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण की ओर से स्वीकृत किया जाता है।

Your e- tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates quoted by you totaling of **Rs.62, 70,709.00 (Rupees Sixty Two Lakhs Seventy Thousand Seven Hundred Nine only)** excluding GST, which is **20.12% below** the estimated cost put to tender of **Rs.78, 50,873.00 (Rupees Seventy Eight Lakhs Fifty Thousand Eight Hundred Seventy Three only)** excluding GST.

2. सहायक महा प्रबंधक (अभि -वि), भाविप्रा, स्वामी विवेकानंदा हवाई अड्डा, रायपुर, उपरोक्त कार्य के प्रभारी होंगे। आपसे निवेदन है कि आप सहायक महा प्रबंधक (अभि -वि) भाविप्रा, स्वामी विवेकानंदा हवाई अड्डा, रायपुर, के कार्यालय में दिनांक 11.12.2020 तक उपस्थित रहकर हस्ताक्षर करने तथा करार की कार्यवाही पूर्ण करने का कष्ट करें। ठेका करार का निष्पादन एक सौ रुपए मूल्य के गैर अदालती स्टैम्प पेपर पर किया जाएगा तथा स्टैम्प पेपर का खर्च आपके द्वारा वहन किया जाएगा।

AGM Engg(E), AAI, Swami Vivekananda Airport, Raipur, shall be the Engineer - In-charge of the work. You are requested to attend the office of AGM Engg (E) AAI, Swami Vivekananda Airport, Raipur by 11.12.2020 to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value Rs. 100/- (Rupees one hundred only) and the cost of the stamp paper shall be borne by you.

3. आपसे अनुरोध है कि कार्य आदेश जारी करने के दिनांक से 10 दिनों के भीतर सिक्क्योरिटी डिपॉजिट परफारमेंस बैंक गारंटी के रूप में जमा करें अन्यथा यह अनुबंध के पृष्ठ 53 पर शर्त के अनुसार वसूल किया जाएगा।

You are requested to furnish Security Deposit in the form of Performance Bank Guarantee amounting to 10% of the tendered value within 10 days from the date of award of work failing which same will be recovered as per condition on page 53 of contract document.

स्वामी विवेकानन्द एयरपोर्ट, रायपुर (छ.ग.)-492015  
Swami Vivekananda, Airport, Raipur (CG)- 492015

दूरभाष-0771-2418044  
Phone.- 0771-2418044

*प्रशांत*  
27/11/2020



## भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

4. आपसे अनुरोध है कि आप ठेका श्रमिक (विनिमय एवं उन्मुलन) अधिनियम 1970 के उपबन्धों का अनुपालन करें। साथ ही ठेका श्रमिक (विनिमय एवं उन्मुलन) केन्द्रीय नियमावली 1971 एवं केन्द्रीय एवं राज्य सरकारों के न्यूनतम वेतन तथा उससे सम्बन्धित अन्य नियमों का पालन करें।

You are requested to comply with the provision of Contract Labour (Regulation and Abolition) Act 1970 and Contract Labour (Regulation and Abolition) Central rules 1971 and minimum wages act and rules of Central and State Governments, with its upto date amendments thereof.

5. आपको यह भी निर्देश दिया जाता है कि आप प्रबंधक (अभि-वि), भाविप्रा, स्वामी विवेकानंदा हवाई अड्डा, रायपुर, से अविलम्ब सम्पर्क करें जो आपको कार्यस्थल सौंपेंगे।

You are also directed to contact Manager (Engg-E), AAI, S.V. Airport, Raipur, immediately who will arrange to hand over the site to you.

6. कृपया यह भी नोट कर लें कि निविदा के अनुसार कार्य निष्पादन हेतु अनुगत समय 04 (चार) महीने है जो इस आदेश के जारी दिनांक से माना जाएगा।

Please note that the time allowed for carrying out the work shall be 04 (Four) months and same will be reckoned from the date of issue of this order.

7. इस ठेके से संबंधित किसी भी प्रकार के पत्र व्यवहार के लिए कार्य के प्रभारी को संबंधित करेंगे। Any further correspondence in connection with the contract should normally be addressed to the Engineer – in- charge.
8. कृपया इस पत्र की प्राप्ति सूचना दे तथा इसके साथ संलग्न अनुप्रति पर हस्ताक्षर करके टोकन के प्रतिग्रहण के रूप में अधोहस्ताक्षरी को वापस भेज दें।

Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

9. कार्यआदेश के संबंध में किसी प्रकार की टंकणीय त्रुटि/विसंगति होने पर अंग्रेजी संस्करण मान्य होगा। With reference to this work order, if in case of any typographical mistake/discrepancy arise, the English version shall prevail.

धन्यवाद / Thanking you,  
संलग्न / Encl: Schedule

भवदीय / Yours faithfully,

प्रशांत  
27/11/2020

सहायक महा प्रबंधक (अ-वि). / Assistant General Manager [E-E]  
एएआई, स्वामी विवेकानंदा, हवाई अड्डा, रायपुर / AAI, S. V. Airport, Raipur



# भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

## प्रतिलिपि (बाह्य):-

1. श्रम प्रवर्तन अधिकारी (केन्द्रीय) एल-7, डी/6, आदर्श सोसायटी, सेक्टर-1, अवन्ति विहार, रायपुर
2. क्षेत्रीय भविष्य निधि आयुक्त-1, कर्मचारी भविष्य निधि संगठन, (श्रम एवं रोजगार मंत्रालय, भारत सरकार), क्षेत्रीय कार्यालय छत्तीसगढ़, खंड-डी योजना नं. 32, इंदिरा गांधी व्यवसायिक परिसर, पन्डरी, रायपुर, (छ.ग.)

## प्रतिलिपि (आन्तरिक):-

1. संयुक्त महाप्रबंधक (अभि-विद्युत), पूर्वी क्षेत्र, भाविप्रा, एन.एस.सी.बी.आई. हवाई अड्डा, कोलकाता
2. उप महाप्रबंधक (सतर्कता), पूर्वी क्षेत्र, भाविप्रा, एन.एस.सी.बी.आई. हवाई अड्डा, कोलकाता

## आन्तरिक वितरण:-

(सूचनार्थ)

1. विमानपत्तन निदेशक, स्वामी विवेकानन्द हवाई अड्डा, रायपुर
2. सहा. महाप्रबंधक, (अभि-सिविल)-I, स्वामी विवेकानन्द हवाई अड्डा, रायपुर
3. उप महाप्रबंधक (वित्त), स्वामी विवेकानन्द हवाई अड्डा, रायपुर
4. वरिष्ठ प्रबंधक, (अभि-वि), स्वामी विवेकानन्द हवाई अड्डा, रायपुर
5. प्रबंधक, (अभि-वि)-II, स्वामी विवेकानन्द हवाई अड्डा, रायपुर

प्रशांत  
27/11/2020

सहायक महा प्रबंधक (अ-वि). / Assistant General Manager [E-E]  
एएआई, स्वामी विवेकानंदा, हवाई अड्डा, रायपुर / AAI, S. V. Airport, Raipur

**Airports Authority of India**  
**Swami Vivekananda Airport, Raipur**

**Schedule of Quantities**

**Name of Work:- Replacement of 2 Nos. 320KVA DG sets for GLF installation at S.V. Airport, Raipur.**

| S. No. | Item Description                                                                                                                                                                                                                                                                                                                                                                                                                | Unit | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|--------------|
|        | <b>DIESEL GENERATOR SETS</b>                                                                                                                                                                                                                                                                                                                                                                                                    |      |      |            |              |
| 1      | Providing, Installing, Testing and Commissioning of 'Silent Type' Diesel Generating set alongwith having Prime Power Rating of 320 KVA, 415 volts at 1500 RPM, 0.8 lagging power factor at 415 V suitable for 50 Hz, 3 phase system & for 0.85 Load Factor and consisting of the followings:                                                                                                                                    | Set  | 2    | 1965000.00 | 3930000.00   |
| (a)    | <b>Diesel Engine:</b><br>Diesel engine 4 stroke water cooled, electric start, of suitable BHP at 1500 RPM suitable for above output of alternator at 45 Degree C, 50% RH & at 335 Meter MSL and conforming to BS 5514, BS 649, IS 10000, capable of taking 10% over loading for one hour after 12 hours of continous operation. The engine will be fitted complete with all the required accessories.                           |      |      |            |              |
| (b)    | <b>Engine mounted Instrument Panel fitted with and having digital display for following:</b><br>(i) Start-stop switch with key<br>(ii) Water temperature indication<br>(iii) Lubrication oil pressure indication<br>(iv) Lubrication oil temperature indication<br>(v) Battery charging indication<br>(vi) RPM indication<br>(vii) Over speed indication<br>(viii) Low lub. Oil trip indication<br>(ix) Engine Hours indication |      |      |            |              |
| (c)    | <b>Alternator</b><br>Synchronous alternator rated at 320 KVA, 415 volts at 1500 RPM, 3 phase 50 Hz, AC supply with 0.8 lagging power factor at 45 Degree C, 50% RH & at 335 Meter MSL. The alternator shall be having SPD enclosure, brushless, continuous duty, self-excited and self-regulated through AVR conforming to IS: 4722/BS 2613 suitable for tropical conditions and with class-F/H insulation.                     |      |      |            |              |
| (d)    | <b>Base Frame &amp; Foundation:</b><br>Both the engine and alternator shall be mounted on suitable base frame made of MS channel with necessary reinforcement which shall be installed on suitable cement concrete foundation and vibration isolation arrangement as per recommendations of manufacturer. (Foundation as per Technical specifications /manufacturer's recommendations to be provided)                           |      |      |            |              |
| (e)    | <b>Fuel Tank:</b><br>Daily service fuel tank of 990 L capacity capacity fabricated out of 3 mm thick M.S./CRCA sheet complete with all standard accessories and fuel piping between fuel tank and diesel engine with MS class 'C' pipes of suitable dia. Complete with valves, level indications & accessories as required as per specifications.                                                                               |      |      |            |              |
| (f)    | <b>Exhaust System:</b><br>Dry exhaust manifold with hospital exhaust silencer and catalytic convertor.                                                                                                                                                                                                                                                                                                                          |      |      |            |              |

  
27/11/2020

| S. No. | Item Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|--------------|
| (g)    | <b>Starting System:</b><br>24V DC starting system comprising of starter motors: voltage regulator and arrangement for initial excitation complete with suitable nos. of batteries (OR) as per OEM standard complete as required.                                                                                                                                                                                                                                                                                                                                             |      |      |            |              |
| (h)    | Acoustic and weather proof enclosure with arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air in to the atmosphere as per specifications.                                                                                                                                                                                                                                                                                                                                                                               |      |      |            |              |
| 2      | <b>AMF PANEL</b><br>Fabricating, Installing, Testing & Commissioning of automatic mains failure control including auto by-pass panel, suitable for 320 KVA silent type DG set complete with relays, timers, set of CTs for metering & protection and energy analyser to indicate currents, phase and line voltages, frequency, power factor, KWH, KVARH & provision for overload, short circuit, restricted earth fault, under frequency, control cabling from AMF panel to diesel engine and elsewhere if required, all complete and inter locking including the following: | Sets | 2    | 325000.00  | 650000.00    |
| (a)    | 2 nos. 4 Pole, 630 A, 50 KA, Ics=100% Icu, Microprocessorbased MCCB (with O/L, S/C & E/F protection)                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |      |            |              |
| (b)    | Auto/Manual/Test/Off selector switch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |      |            |              |
| (c)    | 2 Nos. over voltage relay, 2 Nos. reverse power relay and 2 Nos. under voltage relay.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |      |            |              |
| (d)    | 3 Sets of current transformers 15 P 10 accuracy for protection and 15 VA class-I for metering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |      |            |              |
| (e)    | Energy analyser unit to indicate current, voltage, frequency, power factor and KWH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |      |            |              |
| (f)    | Indicating lamps for load on mains and load on set                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |      |            |              |
| (g)    | Fuse for instruments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |      |            |              |
| (h)    | Battery charger, complete with transformer/ rectifier, D.C. voltmeter and ammeter, selector switch for trickle, off and boost and current adjustment.                                                                                                                                                                                                                                                                                                                                                                                                                        |      |      |            |              |
| (i)    | Main supply failure monitor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |      |            |              |
| (j)    | Supply failure timer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |      |            |              |
| (k)    | Restoration timer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |      |            |              |
| (l)    | Control unit with three impulse automatic engine start/stop and failure to start lockout.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |      |            |              |
| (m)    | Impulse counter with locking and reset facility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |      |            |              |
| (n)    | ON/OFF/Control circuit switch with indicator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |      |            |              |
| (o)    | Audio/Video annunciation for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |      |            |              |
| (i)    | High water temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |      |            |              |
| (ii)   | Low lubricating oil pressure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |      |            |              |
| (iii)  | Engine over speed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |      |            |              |
| (iv)   | Engine fails to start                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |      |            |              |
| (v)    | Full load/maximum load warning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |      |            |              |

  
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| S. No. | Item Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit  | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------------|--------------|
| 3      | <b>MOBILE DG SET</b><br>Supply of fuel efficient silent type trolley mounted DG set having prime power rating of 25 KVA, 415 volts at 1500 RPM, 0.8 lagging power factor at 415 V suitable for 50 Hz, 3 phase system & for 0.85 load factor complete with acoustic enclosure. The DG set should be air cooled and shall have integrated fuel tank of capacity 75-100 Ltr. The DG set must be equipped with manual control panel and maintenance free battery and must confirm to relevant CPCB norms and consisting of electronic speed governor, in-built silencer inside the canopy. The Trolley for mounting DG sets should be capable to sustain the weight of DG set and its accessories, having 4 nos tubeless or solid tyred wheels of suitable size with guard, equipped with pulling arrangement (eye hook arrangement with movement of front wheels in left & right direction), additional 1.5 meter length tow bar with locking arrangements. The trolley should be painted with one coat of red oxide and two coats of synthetic enamel paint etc. as per the instruction of Engineer-in-charge and shall meet the other technical specifications mentioned in contract document. | Set   | 1    | 335000.00  | 335000.00    |
| 4      | Supplying and fixing exhaust gas piping of 150 mm dia. welded black MS, B Class pipe conforming to IS:1239 (part-I, 2004) cut to required lengths and installed with necessary bends, supports and clamps, anti-vibration mountings, SS Expansion Joints, insulation of exhaust system with mineral wool/Rock wool of 50 mm thick, wiremesh & aluminum cladding etc. suitable for 320 KVA DG Set etc. complete as required as per specifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mtrs  | 12   | 5000.00    | 60000.00     |
| 5      | Dismantling of Existing 320 KVA open type DG sets along with AMF panels terminations, cable connections, Diesel Tanks including shifting to store or as directed by E-I-C complete as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Job   | 2    | 15000.00   | 30000.00     |
| 6      | Supply of 30 W (nominal capacity) LED integral Flood Light type light fitting having pressure die cast housing with toughened glass, individual LEDs with secondary optics, IP 66, inbuilt convertor, accessories etc and suitable for use on 230 volts, 50 Hz, single phase, A.C. supply as required. (Make:- Havells, Model - JETACOMPECTOFL30WLED757TG or equivalent).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Each  | 6    | 1650.00    | 9900.00      |
| 7      | Installation, testing and commissioning of wall bracket /ceiling fittings of all sizes and shapes containing upto two GLS/CFL/ LED lamps per fitting/wall fan, complete with all accessories including connections etc. as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Each  | 6    | 100.00     | 600.00       |
| 8      | Supply of following sizes LT power cable of 1.1 KV grade of following sizes aluminum conductor XLPE insulated PVC sheathed armored cable confirming to IS 5554 & 7098/1/1988 with upto date amendment as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Metre | 270  | 960.00     | 259200.00    |
| (a)    | 3.5 x 300 sq.mm. Al Armoured XLPE cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       |      |            |              |
| 9      | Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL / HDPE pipe as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Metre | 90   | 100.00     | 9000.00      |
| (a)    | Above 185 sq. mm and upto 400 sq. mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |      |            |              |
| 10     | Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Metre | 90   | 70.00      | 6300.00      |
| (a)    | Above 185 sq. mm and upto 400 sq. mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |      |            |              |

| S. No. | Item Description                                                                                                                                                                                                                                                                                                                                             | Unit  | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------------|--------------|
| 11     | Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade as required.                                                                                                                                                        | Nos.  | 24   | 950.00     | 22800.00     |
| (a)    | 3.5 X 300 sq. mm (70 mm)                                                                                                                                                                                                                                                                                                                                     |       |      |            |              |
|        | <b>EARTHING SYSTEM</b>                                                                                                                                                                                                                                                                                                                                       |       |      |            |              |
| 12     | Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.                                                                                                            | Set   | 2    | 4890.00    | 9780.00      |
| 13     | Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.                                                                                                          | Set   | 4    | 10500.00   | 42000.00     |
| 14     | Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.                                                                                                                                                             | Metre | 30   | 1150.00    | 34500.00     |
| 15     | Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.                                                                                                                                                                | Metre | 20   | 450.00     | 9000.00      |
| 16     | Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.                                                                                                                                                                                                                                                     | Metre | 20   | 950.00     | 19000.00     |
| 17     | Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.                                                                                                                                                                                                                                                       | Metre | 80   | 160.00     | 12800.00     |
|        | <b>SH-II: MISCELLANEOUS CIVIL WORKS</b>                                                                                                                                                                                                                                                                                                                      |       |      |            |              |
| 18     | Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required. 250 mm dia                                                                                                          | Metre | 30   | 715.00     | 21450.00     |
| 19     | Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.<br>Ordinary rock                                               | Cum   | 80   | 335.00     | 26800.00     |
| 20     | Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. | Cum   | 35   | 425.00     | 14875.00     |
| 21     | Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :<br>1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size)                                                                                                              | Cum   | 20   | 5300.00    | 106000.00    |
| 22     | Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :<br>1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size).                                                                    | Cum   | 8    | 7200.00    | 57600.00     |
| 23     | STEEL REINFORCEMENT: Thermo-Mechanically Treated bars of grade Fe-500D or more.                                                                                                                                                                                                                                                                              | kg    | 1170 | 75.00      | 87750.00     |

| S. No. | Item Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit  | Qty. | Rate (Rs.) | Amount (Rs.) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------------|--------------|
| 24     | Brick work with common fly ash F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :<br>Cement mortar 1:6 (1 cement : 6 coarse sand)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Cum   | 11   | 7200.00    | 79200.00     |
| 25     | Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.<br>Hot finished welded type tubes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | KG    | 1000 | 125.00     | 125000.00    |
| 26     | Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | KG    | 100  | 79.00      | 7900.00      |
| 27     | Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | KG    | 157  | 95.00      | 14915.00     |
| 28     | Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. | Sqm   | 110  | 560.00     | 61600.00     |
| 29     | Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III): 4 graded stone aggregate 12.5mm nominal size)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sqm   | 11   | 330.00     | 3630.00      |
| 30     | CEMENT PLASTER (IN FINE SAND)<br>12 mm cement plaster of mix :<br>1:6 (1 cement: 6 fine sand)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sqm   | 90   | 3.50       | 315.00       |
| 31     | EXTERIOR FINISHING<br>Finishing walls with Acrylic Smooth exterior paint of required shade :<br>New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Sqm   | 90   | 156.00     | 14040.00     |
| 32     | Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :<br>Two or more coats on new work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sqm   | 40   | 115.00     | 4600.00      |
| 33     | Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |      |            |              |
| (a)    | Ridges plain (500 - 600mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Metre | 10   | 395.00     | 3950.00      |
| (b)    | Gutter (600 mm over all girth)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Metre | 20   | 960.00     | 19200.00     |
| 34     | Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Metre | 14   | 192.00     | 2688.00      |
| (a)    | 75 mm diameter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |      |            |              |

  
23/11/2020



| S. No.       | Item Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit | Qty. | Rate (Rs.) | Amount (Rs.)      |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|-------------------|
| 35           | Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |      |            |                   |
| (a)          | Coupler - 75 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Each | 4    | 191.00     | 764.00            |
| (b)          | Bend 87.5° - 75 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Each | 4    | 85.00      | 340.00            |
| (c)          | Shoe (Plain) - 75 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Each | 4    | 75.00      | 300.00            |
| 36           | Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.<br>All kinds of soil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Cum  | 14   | 208.00     | 2912.00           |
| 37           | Providing and laying factory made chamfered edge Cement Concrete paver blocks In foot path, park & lawns driveway or light & traffic parking etc. of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of coarse sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, all complete as per manufacturer's specifications & direction of Engineerin-Charge.<br>80mm thick Cement concrete paver block of M-30 grade with approved colour, design & pattern. | Sqm  | 160  | 850.00     | 136000.00         |
| 38           | Centring and shuttering including strutting, propping etc. and removal of form for:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |            |                   |
| (a)          | Foundations, Footings, bases of columns etc. for mass concrete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sqm  | 70   | 250.00     | 17500.00          |
| (b)          | Lintels, beams, plinth beams, girders, bressumers and cantilevers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sqm  | 30   | 500.00     | 15000.00          |
| (c)          | Columns, Pillars, Piers, Abutments, Posts and Struts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sqm  | 10   | 650.00     | 6500.00           |
| <b>Total</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |      |            | <b>6270709.00</b> |

Rupees in word: Sixty Two Lakhs Seventy Thousand Seven Hundred Nine Only.

  
 27/11/2020  
 AGM (E-E)  
 AAI, S.V. Airport, Raipur  
 सहा. महाप्रबंधक ( अभि.-वि)  
 Asst. Gen. Manager (Engg-Elect)  
 भा.वि.प्रा., एस.वी. एयरपोर्ट, रायपुर  
 AAI, S.V. Airport, Raipur