

INDIAN RAILWAY WELFARE ORGANISATION

TENDER DOCUMENT

FOR

THE BALANCE WORK OF FIRE FIGHTING & FIRE ALARAM SYSTEM IN INDIAN RAILWAY WELFARE ORGANIZATION FOR GROUP HOUSING POCKET –A AND POCKET –B, SECTOR -10 RAIPUR, SONEPAT

JANUARY-2024

RAILWAY OFFICE COMPLEX (BEHIND SHANKAR MARKET)
SHIVAJI BRIDGE, NEW Delhi

Website: www.irwo.net and E-mail ID: support @irwo.net

THE BALANCE WORK OF FIRE FIGHTING & FIRE ALARAM SYSTEM IN INDIAN RAILWAY WELFARE ORGANIZATION FOR GROUP HOUSING POCKET –A AND POCKET –B, SECTOR -10 RAIPUR, SONEPAT

EMPLOYER

The Managing Director
Indian Railway Welfare Organization
Railway Office Complex Shivaji Bridge
(Behind Shankar Market)

PROJECT OFFICER

The Director/Technical)
Indian Railway Welfare Organization
Railway Office Complex Shivaji Bridge
(Behind Shankar Market) New Delhi

SITE OFFICER

The General Manager (Civil)
Indian Railway Welfare Organization
Railway Office Complex Shivaji Bridge
(Behind Shankar Market) New Delhi

DATE OF ISSUE

DATE OF RECEIPT

Tender cost-Rs 2000/- (in person)

-Rs 2500/- (By post)

THE BALANCE WORK OF FIRE FIGHTING & FIRE ALARAM SYSTEM IN INDIAN RAILWAY WELFARE ORGANIZATION FOR GROUP HOUSING POCKET –A AND POCKET –B, SECTOR -10 RAIPUR, SONEPAT

INDIAN RAILWAY WELFARE ORGANISATION

CONTENTS

SN	Description	Page No	
		From	To
1.	Tender Notice	4	6
2.	Instructions to Tenderers	7	9
3.	Draft of forwarding letter	10	11
4.	Draft of Agreement	12	13
5.	Standing Indemnity Bond for on account payments	14	-
6.	Details of contractual payment received in last three financial years and current financial year as Annexure-A.	15	-
7.	General condition of contract (GCC)	Available for sale/ on IRWO Web Site	
8.	Special conditions of contract	16	20
9.	APPENDIX SHOWING IMPORTANT SCHEDULES	21	
10	Technical Specifications,	22	25
11.	List of approved manufacturer	26	-
12.	Bill of quantities & rates	27	30

THE BALANCE WORK OF FIRE FIGHTING & FIRE ALARAM SYSTEM IN INDIAN RAILWAY WELFARE ORGANIZATION FOR GROUP HOUSING POCKET –A AND POCKET –B, SECTOR -10 RAIPUR, SONEPAT

NOTICE INVITING TENDERS

1.0 Sealed Percentage rate open tender are invited in the prescribed form by Managing Director, Indian Railway Welfare organisation , Shivaji Bridge, New Delhi 110001 for the following ;-

Tender Number	Name of work	Estimated Value (In Rs)	Earnest Money (In Rs)	Time of Completion (In months)
IRWO/F.F./ZKP/2	The Balance Work of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector -10 Raipur, Sonapat	4409670/-	66500/-	06 (Six) months

1.1 Eligibility Criteria

(a) Technical Eligibility Criteria

The tenderer must have successfully completed or substantially any one of the following categories of Fire Fighting system and Fire alarm system works during last 07 years, ending last day of month previous to the in which tender is invited:-

- Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or
- Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or
- One similar work costing not less than the amount equal to 60% of advertised value of the tender.

(b) Financial Eligibility Criteria: The tenderer must have minimum average annual contractual turnover of 1.5 V/N crores; where

- V= Advertised value of the tender in crores of Rupees
- N= Number of years prescribed for completion of work for which bids have been invited.
- The average annual contractual turnover shall be calculated as an average of “total contractual payments” in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.

(c) The tenderer/contractor shall submit a statement of contractual payments received during **last three financial years and current financial year** (up to date of opening of tender) on prescribed performa as detailed at Annexure A .

(d) The similar nature of work is defined as under:

Meaning of similar work is “**Design, supply, erection, testing & commissioning of Fire Fighting & Fire detection and Fire alarm system.**”

(e) For judging technical eligibility and financial capability, only those **works** which had been executed for **Govt. or Semi Govt. organizations** shall be considered and tenderer will submit certificate to this effect from officer concerned duly signed under official seal. It should be noted that credentials for **works executed FOR Private Organizations shall not be considered.**

(f) Tenderer shall have a valid **Electrical Contractor’s License** issued in name of firm by **any State Government** and shall furnish all particulars of electrical license held by him along with tender documents.

(g) If Tenderer/s deliberately give any wrong information about credentials/ documents in his/ their tenders and thereby create(s) circumstances for acceptance of his/their tender, IRWO reserves right to reject such tender at any stage, besides, shall suspend business for One Year. Tenders received after stipulated date and time shall not be entertained.

1.2 The work as detailed in this tender shall be executed and completed in all respects within a period of **6 (Six) months** from the date of written order to commence the work in accordance with the tender documents, Instructions to Tenderers, General & Special Condition of Contract, technical Specifications, Bill of Quantities and Drawings to the satisfaction of the Chief Project Manager/ IRWO/New Delhi.

1.3 Tender documents for the above mentioned work can be obtained on any working day from **01/03/2024 to 31/3/2024** from 11.00 hrs. to 16.00 hrs.(Monday to Friday) from the office of the Managing Director, Indian Railway Welfare Organization, Railway Complex, Shivaji Bridge, New Delhi-110001 on payment of Rs.2,000 /- (Rupees Two Thousand only) and by post, on payment of 2,500/- (Rupees Two Thousand Five hundred only) (Non refundable), as tender cost by Bank draft payable to IRWO at New Delhi.

1.3 (a) Tender documents are available on Indian Railway Welfare Organisation web site i.e. www.irwo.net and same can be downloaded and used as tender document for submitting the offer. This facility is available free of cost. However the cost of tender documents as indicated above in Para 1.3 will have to be deposited by tenderer in the form of **Bank Draft** payable in favour of IRWO at New Delhi along with the tender document. This should be paid separately not included in earnest money. In case, tender is not accompanied with the cost of the tender document as detailed above, tender will be summarily rejected.

1.4 The Tenderer is required to deposit **Rs 66500/-** (Rupees Sixty Six Thousand and Five hundred Only) as Earnest Money in the form of Bank Draft on Delhi / New Delhi Branch of any Nationalized Bank in favour of Indian Railway Welfare Organization, New Delhi. **The earnest money can be deposit directly in the A/C No - 000701260023,IFSC Code ICIC0000007 in the name IRWO and send the UTR number.** The tender which is not accompanied with Earnest Money shall be summarily rejected. The Earnest Money of unsuccessful tenderer (s) will be refunded to the tenderer if his tender is not accepted but without any interest/Bank commission/Collection charges within 60 (sixty) days from the date of acceptance/finalization of the tender. The Earnest Money deposited shall be converted as initial security deposit in the case of successful tenderer

1.5 Tender in prescribed form duly accompanied with Earnest Money should be submitted in a sealed cover super scribed with the name of work and must reach the office of the Managing Director Indian Railway Welfare Organization, Railway Office Complex, (Behind Shankar Market) Shivaji Bridge, New Delhi 110001, latest by **14=00 hr on 01/04/2024** The Tenders submitted after due date and time shall be rejected. The Tenders will be open on the same day at **14=30 hrs** in the presence of the Tenderers or their authorized representatives who may be present.

- 1.6 The Tender shall remain valid for a period of 90 days from the date of opening of tender.
- 1.7 The Bidding tenderer should process valid Electrical Contractor License from any State Government. .
- 1.8 The total amount of security deposit shall be as per GCC clause No 2.19 (a) of the total value of the contract for the work. No interest shall be paid on the said security deposited.
- 1.9 In case the selected contractor withdraws his offer within the validity period of the tender, the Earnest Money deposited along with the tender documents shall stand forfeited.
- 1.10 Earnest money of the successful tenderer shall be forfeited in the event of refusal or delay on part in signing the agreement within 7 days of the receipt of letter of award of the contract or refusal to start the work on instructions from the General Manager.
- 1.11 The Indian Railway Welfare Organisation does not bind itself to the lowest or any tender and reserves to itself the right to accept or reject any or all the tenders either in whole or part without assigning any reasons for doing so or can bifurcate the work seeing the feasibility of execution/early completion of the project.
- 1.12 This letter including Instructions to Tenders mentioned in Section 2 shall form part of the Contract and shall be signed and returned along with the tender.

**For Managing Director
Indian Railway Welfare Organisation**

The Balance Work of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector -10 Raipur, Sonapat

INSTRUCTIONS TO TENDERERS

2.1 The tenderer shall examine carefully all the tender documents consisting of:

- (i). Notice Inviting Tenders
- (ii). Instructions to Tenderers
- (iii) Tenderer's Forwarding Letter
- (iv) Indemnity Bond on non judicial paper
- (v) Form of Agreement
- (vi) General & Special Conditions of Contract
- (vii) Technical Specifications
- (viii) Bill of Quantities.
- (ix) Tender Drawings.

The tenderer is advised to visit and inspect the site at his own cost and responsibility and to secure all necessary information which may be required for completing the work. Ignorance of site conditions or local information shall not be considered as an excuse for non-performance of the contract. All costs, charges and expenses that may be incurred by the tenderer in connection with preparation of his tender shall be borne by him and IRWO will not accept any liability whatsoever in this regard.

2.2 Time is the essence of the contract and the tenderers are required to complete the work in all respects within 06 (Six) Months from the date of issue of letter of intent / order and hand over the same complete in all respects to the satisfaction of the Employer.

2.3 The tenderer shall use only the form issued with this tender to fill up the percentage rates.

2.3.1 Every page of the tender shall be signed on the bottom corner and any tender not so complied with is liable to be treated as defective.

2.3.2 The tender form must be filled in Hindi or English and all entries must be made by hand in ink. If any of the documents is missing, or unsigned, the tender is liable to be treated as defective tender.

2.3.3 Tenders not properly filled, mutilated with incorrect calculation or generally not complying with the conditions are liable to be rejected.

2.3.4 Any erasers and alternations made while filing the tender must be attested by initials of the Tenderer. Over-writing of figures is not permitted. Failure to comply with either of these conditions will render the tender liable for rejection.

2.4 A schedule of approximate quantities for various items accompanies this tender: It must be definitely and clearly understood that this schedule is liable to alteration by deductions or additions to any extent at the discretion of IRWO without affecting the terms of the Contract.

2.4.1 The scope of work may be reduced or increased by 25% (twenty five percent) due to variation on any account as per site requirement on the same terms & conditions. No extra payment/claim shall be entertained on this account.

2.4.2 It shall be clearly understood that the rates quoted in the tender are as per instructions to tenderers, Conditions of Contract, Specifications, Schedule of Quantities referred to therein and also for all such works as are necessary for the proper completion of the contract.

- 2.4.3 The tender should contain not only the rates but also the value of each item of work entered in the prescribed column of the Bill of Quantities and all the items should be totalled up in order to show the aggregate value of the entire tender. The rates quoted by the tenderer(s) should be expressed accurately both in words and figures so that there is no discrepancy. The item rates quoted by the tenderer in words and figures (whichever are lower) will be the basis (and not the amounts in case of discrepancies) in finalising the tender.
- 2.4.4 No alteration which is made by the tenderer in the Notice of Tender, Instructions to the Tender, Agreement Form, General and Special Conditions of Contract, Technical Specifications and drawings etc. accompanying the same shall be recognized and if any such alterations are made the tender is liable to be rejected.
- 2.5 The tender for the work shall remain open for acceptance for a period of 90 days from the date of opening of tender. If any tenderer withdraws his offer before the said period or makes any modifications in the terms and conditions of the tender, then IRWO shall without prejudice to any other right or remedy, be at liberty to forfeit the Earnest Money of the tenderer.
- 2.6 Canvassing in connection with the tender is strictly prohibited and the tenders submitted by the Contractor who resort to canvassing will be liable to rejection.

2.7 Taxes:-

2.7.1 Introduction of Goods & Services Tax (GST) following details have been added.

2.7.1.1 The Goods & Services Tax (GST) has been made applicable in India with effect from 01.07.2017.

The Tenderers should quote their rates considering the implementation of GST for works contract and input credit to be availed on the materials procured and services received by him for execution of the contract. Input credit will be retained by the tenderer, this may be kept in consideration while quoting the rates.

2.7.1.2 The GST amount shall be paid as extra to the tenderers as per provisions of GST Act from time to time.

2.7.1.3 The tenderer shall be registered with GST authority.

2.7.2 Any new tax or any increase in the rate of levies/ taxes levied on the finished work introduced by Central or State Government or by any local authorities after the opening of the tender, shall be reimbursed to the Contractor only on production of certificates from concerned authorities with authenticated documents to the fact that the same has already been deposited by the Contractor. Similarly, if there is any Government legislation after the date of opening of tender the same shall be reimbursed to contractor on production of authenticated documentary evidence to the fact that the same has been deposited by the contractor.

Any abolition of tax or decrease in rates of levies/taxed on the finished work introduced by Central or State Government or by any local authorities after the opening of the tender, shall be recovered by IRWO from running/on-account bills of the contractor.

2.7.3 Deduction towards Income tax or any other tax as per rules shall be made by IRWO from the contractor's bills.

2.7.4 Labour Cess:-

The tenderer for carrying out any construction work in **Haryana** State must get themselves registered from Registering office under Section- 7 of the Building and other Construction worker Act 1996 and Rules made there to by the **Haryana** State Government and submit Certificate of Registration issued from the Registering officer of the **Haryana** State Government (Labour Department) for compliance of the Act, the Tenderer shall be required to pay Cess @1%(One Percent) of cost of construction, which is to be deducted from each bill. Cost of material shall be outside purview of Cess, when supplied under a separate Schedule Item.

2.8 Introduction of RERA (Real Estate Regulation Authority):- The RERA Notification has already been issued by Government of India for construction project of housing which is applicable to all

Developers /Builders .For **Haryana** the same is implemented by Govt. of **Haryana** The tenderer shall make all effects to complete the work in stipulated completion period.

2.9 The Contractor's operations and proceeding in connection with the work shall at all time be conducted during the continuance of the contract in accordance with the laws, ordinance, rules and regulations for the time being in force and the contractors shall further observe and comply with the bye-laws and regulations of the Government of India, State Government and Municipal and other authorities having jurisdiction over the area involved in connection with the works or site and over operations such as those as carried out by the contractor and shall give all notices required by such bye-laws and regulations.

2.10 The agreement after acceptance of offer by IRWO shall be executed on a non-judicial stamp paper of requisite value for which the stamp duty shall be borne by the Contractor.

2.11 Tenders containing conditions are liable to be rejected.

2.12 Unknown / Indefinite Liabilities:-

Tenders containing any conditions leading to unknown / indefinite liabilities are liable to be rejected. If at all any rebate(s) is/are to be offered, the tenderer shall first quote his rates strictly on the terms and conditions stipulated in the tender documents and then show separately any rebate(s) offered specifying the condition for such rebate(s), if any.

2.13 List of documents to be submitted with the tender:-

Tender with earnest money in sealed cover The balance works of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector -10 Raipur, Sonapat should reach the Managing Director Indian Railway welfare organisation, Railway Office Complex, (Behind Shankar Market) Shivaji Bridge, New Delhi 110001, latest by **14:00 hr. on 15/03/2024** IRWO shall not accept any loss or delay in transit as an excuse for delayed/late tendering.

- (i) Tender documents will be submitted along with detailed programme with PERT/CPM Chart and targets of completion of each item of work.
- (ii) Power of Attorney
- (iii) Partnership deed and Article of Association etc.
- (iv) Proof of registration
- (v) Proof of registration with GST & PAN number.
- (vi) Copy of the Electrical Contractor License issued by the Govt. of Punjab or any other State.
- (vii) A statement showing similar works executed by him/them.
- (viii) Certificates of successful completion of his/their work.

2.14 Tenderer is not permitted to give alternative offers with reduced/increased duration of the project.

2.15 The successful tenderer will be notified about the acceptance of his tender by the Employer and he will have to execute Agreement within 15 (fifteen) days thereof. Any other information tenderer wants to give, failing which his tender would be liable for rejection with forfeiture of the Earnest Money.

2.16 The successful tenderer shall be required to furnish performance bank guarantee from any nationalized bank for an amount equal to 5% of the accepted tender value.

2.17 Tenderers will have to submit a certificate stating that ESI and P.F have been deducted from the staff.

The Balance Work of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector - 10 Raipur, Sonapat

DRAFT OF FORWARDING LETTER

From

The Managing Director
Indian Railway Welfare Organisation
Corporate Office, Railway Complex,
Shivaji Bridge, Behind Shankar Market,
New Delhi-110 001.

Ref: The Balance Work of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector -10 Raipur, Sonapat

Dear Sir,

With reference to the tender invited by you, I/we hereby offer to perform, provide, execute and complete the works in conformity with the conditions of contract, drawings and specifications for the respective items of schedule of quantities attached hereto.

- 1.0 I/We have satisfied myself/ourselves as to the location and prevailing conditions of the site, and have read carefully the Articles of Agreement, Conditions of Contract, Specifications, General and Special Conditions, Technical Specifications, Drawings, etc. and I/we understand that the works are to be completed within 6 (Six) months from the date of issue of letter of Intent/Order and fully understand that the time will be the essence of the contract.
- 2.0 I/we enclose a Demand Draft for Rs _____/- (Rupees _____ only) as per clause 1.4 of Notice Inviting Tender drawn on _____ Bank payable at Delhi/New Delhi in favour of Indian Railway Welfare Organization as Earnest Money and fully understand that this amount will not bear any interest.
- 3.0 I/We agree to keep the offer open for **90** days from the date of opening the tender.
- 4.0 Should this tender accepted in whole or in part, I/we hereby agree to abide by and full-fill the terms and conditions annexed thereto. If I/we fail to commence the work specified in tender documents, I/we agree that my/our earnest money shall stand forfeited absolutely to the Employer otherwise the said Earnest Money shall be retained by the Employer towards Security Deposit (retention money), I/we also agree to the balance security money being deducted from my/our bills in accordance with the conditions of contract.
- 5.0 All the terms and conditions contained in the Notice Inviting Tenders, General & Special Conditions of Tender, Technical Specifications for execution of work and additional conditions and the agreement etc. constituting the tender documents have been fully read by me/us and explained to me/us and I/we hereby accept the same and sign here under in token of their acceptance.

6.0 We are further enclosing herewith the following documents:

(i) Partnership Deed, Article of Association and Power of Attorney. We agree that no change will be made in these documents without prior approval of IRWO.

(ii) Tender documents duly signed along with detailed programme with PERT/CPM charts and targets of completion of each item of work.

(iii) Draft No..... _____ dated..... _____ drawn on

(iv) Name of the Partners/Directors of the firm.

Yours faithfully

Date: _____

Name & Signature of Tenderer(s)
Office Stamp & Seal of the Tenderer(s)

Witness: _____

Address:-----

Occupation _____

THE BALANCE WORK OF FIRE FIGHTING & FIRE ALARAM SYSTEM IN INDIAN RAILWAY WELFARE ORGANIZATION FOR GROUP HOUSING POCKET –A AND POCKET –B, SECTOR -10 RAIPUR, SONEPAT

AGREEMENT

Articles of Agreement (“Agreement”) made this _____ of 2024 between Indian Railway Welfare Organisation registered under the Societies Registration Act XXI of 1860 and having its registered office at Shivaji Bridge, Railway Office Complex, Behind Shankar Market, New Delhi-110001 (hereinafter referred to as “IRWO” which expression shall mean and include its successor in office, executor, administrator and assignees) of the one part and (Hereinafter referred to as ‘**Contractor**’ which expression shall include his heir, executor, administrator and assignees of the other part.

WHEREAS IRWO is desirous of getting “THE BALANCE WORK OF FIRE FIGHTING & FIRE ALARAM SYSTEM IN INDIAN RAILWAY WELFARE ORGANIZATION FOR GROUP HOUSING POCKET –A AND POCKET –B, SECTOR -10 RAIPUR, SONEPAT and has caused Drawings, specifications and schedule of quantities describing the works to be done, to be prepared by the IRWO and WHEREAS Notice Inviting Tenders, Instructions to Tenderers, General and Special conditions of Contract, Technical Specifications and Schedule of Quantities have been signed by or agreed to execute up and subject to the conditions set forth herein (hereinafter referred to as the said conditions) and the special conditions of the work shown upon the said drawings and/or described in the said specifications and included in the said schedule of quantities & rates here in set-forth amounting to the sum of Rs (Rupees only) without GST (hereinafter referred to as “the said contract amount”).

AND WHEREAS the contractor has deposited with the IRWO the sum of Rs.- (Rupees Only) as the Earnest Money which shall become part of Security Deposit for the due and faithful fulfilment of the contract in terms & conditions of clause 2.19 (a) of GCC and the balance amount of security deposit shall be deducted from your running bills to be retained until the expiry of the defects liability period for the due observance and performance of this contract.

NOW IT IS HEREBY AGREED AS FOLLOWS:

- 1.0 In Consideration of the said contract amount to be paid at the times and in the manner set-forth in the said conditions, the contractor shall, upon and subject to the said conditions, execute and complete the work shown upon the said drawings and described in the said specifications and/or the schedule of quantities and other conditions and within 6 (Six) months from the date of issue of letter of intent.
- 2.0 The date of commencement of the work will be taken as 15 days from the date of issue of the letter of intent/order for award of the contract.

3.0 The contractor clearly understands that the time is the essence of the contract and liquidated damages will be imposed for delay in execution of the work as per terms of the contract.

4.0 The IRWO shall pay the contractor said contract amount or any such other sum as shall become payable at the times and the manner hereinafter specified in the conditions.

5.0 The following documents shall be deemed to form and be read and construed as part of the Agreement along with the amendments, negotiated and confirmed in various subsequent letters exchanged as mentioned hereinafter.

(I) Notice Inviting Tender.

(II) Instructions to Tenderers.

(III) General and Special Conditions of Contract-April 2015 and any revisions thereafter.

(IV) Technical Specifications.

(V) Schedule of Quantities and list of approved makes/brands.

(VI) IRWO's letter No dated to the contractor for award of the contract and conveying acceptance there upon.

(VII) Contractor's Letter dated to the IRWO and acceptance of the award of contract.

(VIII) Drawings

6.0 Parties here to shall respectively aside by submitting themselves to the conditions and perform the agreement on their part respectively in such conditions contained.

As witness our hands-this _____ day and _____ 2024.

1. Signed by the said

2. Signed by the said

IRWO (First Party)

Contractor (Second Party)

In the Presence of
Signature

In the Presence of
Signature

The Balance Work of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector - 10 Raipur, Sonapat

STANDING INDEMNITY BOND FOR ON ACCOUNT PAYMENTS

(On requisite stamp value)

We, M/s _____ hereby undertake that we held at our stores depots at _____ for and on behalf of the Indian Railway Welfare Organisation acting in the premises through the Managing Director, IRWO, New Delhi hereinafter referred to as "the IRWO" all materials for which 'On Account' payments have been made to us against the contract for supply and erection of the material for the work of _____ on IRWO also referred to as vide Letter of Acceptance of tender no. _____ dated _____ and materials handed over to us by the IRWO for the purpose of execution of the said contract, until such time the material are duly erected or otherwise handed over to him.

We shall be entirely responsible for the safe custody and protection of the said materials against all risk till they are duly delivered as erected equipment to the IRWO, or as he may direct otherwise and shall indemnify the IRWO against any loss, damage, or deterioration whatsoever in respect of the said materials while in our possession and against disposal of surplus material. The said materials shall at all times be open to inspection by any officer authorized by IRWO of the work or his successor.

Should any loss, damage or deterioration of materials occur or surplus materials disposed off and refund becomes due, the IRWO shall be entitled to recover from us the full cost as per prices included in Schedule of prices to the contract (as applicable) and in respect of other materials as indicated in **BOQ** and also compensation for such loss or damage, if any along with the amount to be refunded without prejudice to any other remedies available to IRWO by deduction from any sum due or any sum which at any time hereafter become due to us under the said or any other contract.

Dated this _____ day _____ 20

(for and on behalf of)

Messer's _____ (contractor)

Signature of witness:

Name of witness in BLOCK LETTERS

Address.

The Balance Work of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector - 10 Raipur, Sonapat

Annexure-A

DETAILS OF CONTRACTUAL PAYMENT RECEIVED IN LAST THREE FINANCIAL YEARS AND CURRENT FINANCIAL YEAR.

SN	Name of work	Name of employer	Details of payment	For financial year	Total contract amount received
1	2	3	4	5	6

The Balance Work of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector - 10 Raipur, Sonapat

SPECIAL CONDITIONS OF CONTRACT

1.0 SCOPE OF WORK

1.1 GENERAL

The Balance Work of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector -10 Raipur, Sonapat

2.0 Clearance and commissioning of installation

2.1. Contractor shall arrange physical inspection and witness routine and acceptance test of all equipments/materials to be used for low, medium voltage at the respective manufacturer's works by IRWO Engineers and cost for such inspections shall be borne by contractor.

3.0 Water and Electricity:-

Contractor shall make his own arrangement for water and Electricity required by him for all the purposes, connected with the execution of work under this contract and no claim what so ever on this account shall be entertained.

4.0 Quality:

IRWO Engineers decision with regard to the quality of the material and workmanship will be final and binding, any material rejected by IRWO shall be immediately removed by the Contractor from the site. IRWO or their representative shall at all reasonable times have free access to the works and/or to the workshops, factories or other places, where materials are being prepared or constructed for the contract and also to any place where the material lying or from which they are being obtained and the contractor shall give every facility necessary for inspection and examinations and test of the material and workmanship.

5.0 Quantity of material :

Quantity of material as mentioned in BOQ is approximate. The contractor shall visit the site of work & work out quantities as per actual requirement at site before placing order for supply of material or placing order for manufacture of equipment.

Any other item of work not specifically mentioned in the BOQ and rates but required for completion of total work should be quoted and rates indicated separately, otherwise it will be considered that the same is covered in the item of BOQ and no extra payment will be made for this work .

6.0 Drawings For Approval

The Contractor shall prepare and submit to IRWO for their approval of detailed drawings before manufacturing of equipments. The drawings shall clearly indicate;

- (a) The general arrangement and schematic diagram of all equipments, size of sheet steel, bus bar, inter connections detail, make and rating of switchgear and other equipment etc.

- (b) The drawings shall also show all setting out details and physical dimensions of all components used in the system, location of fixing, cut out details etc.

7.0 Completion Drawings

The Contractors shall submit, either within one month of completion of work or before issuance of certificate of virtual completion or before submission of final bill three sets of complete drawings drawn at approved scale along with three properly bound sets of manuals of every equipment used to complete the work.

- Installation manuals of all the items used.
- Description of how equipments and systems operate with trouble shooting manuals.
- Line diagram of each system including main feature of equipment and showing method of setting controls.
- Spares reference and service manuals provided by manufacturer.

8.0 Site Management

The Contractor shall employ competent, electrical engineer to direct the work of electrical installations in accordance with the drawings and specifications. The same shall be available on the site to receive instructions from the IRWO representative as long as IRWO may consider necessary until the expiration of the "Defect Liability Period". The IRWO shall correlate the progress of the work in conjunction with all the relevant requirements of the SEB. The Contractor shall on the direction from the IRWO immediately dismiss from the works any person employed there on who may, in the opinion of the Engineer, be unsuitable or incompetent or who may misconduct himself and such person shall not be again employed or allowed on the work without the permission of IRWO.

9.0 Site Cleanliness

The contractor shall, from time to time during the works remove all rubbish, waste, redundant material etc. from the site and deposit all such rubbish and waste tidily at a position to be indicated by IRWO Engineer. On completion of the works, the contractor shall ensure that all tools, equipments, surplus material and rubbish have been removed from the site.

10.0 Copies of drawings to be kept at site

One copy of each drawing provided to contractor for work shall be kept at site and the same shall at all reasonable times be available for inspection and use by the IRWO or their representatives.

11.0 Inspection of Materials

All materials of approved makes shall be arranged as per technical specifications and in consultation with IRWO. The materials/equipments shall be inspected at manufacturer's works by IRWO. The material/equipment shall be brought at site after dispatch instructions are issued by IRWO.

12.0 Sub Standard Material

Any material rejected by IRWO or by any of their representatives shall be removed from the site within 24 hrs. of issue of instructions, failing this the project Engineer shall have the rights to get these so removed and the contractor shall have no claim what so ever in this regard. IRWO have the rights to get these so removed and the contractor shall have no claim what so ever in this regard.

13.0 Indemnity bond for on account payment

All on account payments shall be covered by a standing Indemnity bond as per approved Performa. The contractor will submit indemnity bond on non judicial stamp paper for safe custody of materials till handing over the installation.

14.0 Guarantee Period:

12 months from the date of commissioning. .

15.0 Mobilization advance:

No mobilization advance shall be paid for the work.

16.0 Payment Terms:

- (i) Contractor shall be entitled to be paid from time to time by way of "On-account payments" only for such work as in the opinion of the Engineer, he has executed at site subject to any deduction which may be made from the same.
- (ii) 70 % Payment of the item of the work shall be made on receipt & placement of materials & equipments in good condition at site.
- (iii) 10 % payment shall be made after erection of the materials/ equipments.
- (v) 20% payment on successful commissioning and handing over of all the materials & equipments to IRWO/RWA.

17.0 Transportation and Transit Insurance

The material & equipment shall be transported to the site of work i.e IRWO Complex at Sonapat (Haryana) by road transport only. The material shall be unloaded & placed at the nominated place by the contractor. Any transit required by Haryana state sales Tax department shall be arranged by the supplier/ contractor at his own cost.

The material shall be insured for any transit damage. The price shall be inclusive of the insurance charges to be borne by the supplier.

18.0 Site office

The contractor would be required to build his own cost a temporary office. The temporary office shall be demolished by the contractor on the completion of work and debris removed.

19.0 Price Escalation:

No escalation on account of labour wages and material will be payable.

20.0 Insurance for works and damage to persons and property

20.1 Insurance of works

The contractor at the time of signing the contract or before commencing the execution of the work without limiting his obligations and responsibilities shall insure the works at his own cost and keep them insured not only until the completion of the contract but up to satisfactory completion of the defect liability period including extended defect liability period, if any against all act of God including Fire, Theft, Riots, War, Floods etc. with Nationalized Insurance Agency in the joint names of the Employer and Contractor (the name of the former being placed first in the policy) for the full amount of the contract and inclusive of the full market value of the materials to be supplied free of cost by the Employer. Such policy shall cover the risks linked to the property of the Employer, free for assessing the claim and in connection with contractor's services generally therein. This policy however shall not cover any property of the contractor or of any sub contractor of Employees.

20.2 Insurance in respect of damages to persons and property.

- (i) The contractor shall be responsible for all injury to persons, animals or things and for all structural and decorative damage to property which may arise from the operation or neglect of himself or of any approved sub-contractor's or Employee's whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the

carrying out of this contract . The clause should be held to include any damage to buildings whether immediately adjacent or other wise and any damage to roads streets footpaths bridges sewerage, water supply & other services and works forming the subject of this contract by frost or other inclemency of the weather. The contractor shall indemnify the Employer and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claims made in respect of injury or damage under any Acts of Government tor otherwise and also in respect of any award of compensation of damages consequent upon such claims.

- (ii) The contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver up the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.
- (iii) The contractor shall indemnify the Employer against all claims which may be made against the Employer by any member of the public or other third party in respect of works in consequence there of and shall at his own expense arrange to effect and maintain, not only until the virtual completion of the contract, but upto satisfactory completion of the defect liability period including extended defect liability period, if any with any nationalized insurance Agency in the joint names of the Employer and the contractor against such risks and deposit such policy or policies with the Employer from time to time during the currency of this contract . The contractor shall similarly indemnify the Employer against all claims which may be made upon the employer whether under the Workman's Compensation Act or any other statute in force during the currency of this contract or at common law in respect of any employee of the contractor or any sub- contractor and shall at his own expense effect and maintain with an approved office a policy of insurance in the joint names of the employer and the contractor (The name of the employer appearing being place first in the policy) against such risks and deposit such policy or policies with the employer from time to time during the currency of the contract . The contractor shall be responsible for anything which may be excluded from the insurance policies above referred to and also for all other damages to any property arising out of and incidental to the negligent or defective carrying out of this contract. He shall also indemnify the Employer in respect of any cost charges or expenses arising out of any claim or proceedings and also in respect of any award of/or compensation of damages arising there from.
- (iv) If the contractor fails to comply with the terms of these conditions, the employer may insure the works and may deduct the amount of the premiums paid from any moneys that may be payable or become payable to the contractor or may as an option, not release running payment to the contractor until the contractor shall have complied with the terms of this condition.
- (v) Such insurance, whether effected by Employer or the contractor will not limit or bar the liability and obligation of the contractor to deliver the works to the Employer complete in all respects according to the contract . In case of loss or damage due to any of the aforesaid causes, the moneys payable under any such insurance shall be then received and retained by the Employer until the work are finally completed and satisfactorily maintained during the defect liability period including extended defect liability period if any and such moneys shall then be credited to the contractor in final settlement of accounts.
- (vi) The Employer shall be at liberty and is empowered to deduct the amount of any damage , compensation costs, charges and expenses arising or accruing from or in respect of any such claim or damage from any sum or sums due to or become due to the contractor including the security deposit.
- (vii) The contractor shall, as soon as any claim under the policy is settled or the work reinstated by the Insurance office should elect to do so, proceed with all due diligence with the completion of the works in the same manner as though the misfortune/accident has not occurred and in all respects under the same conditions of contract . The contractor in case of rebuilding or

reinstatement after accident shall be entitled to such extension of time from the Employer as deems fit.

(viii) The contractor shall deposit the original policy/policies and original receipt for the premiums with the employer within twenty one (21) days from the date of signing the contract/commencement of execution of works or unless otherwise instructed by the Employer.

(ix) The value of the insurance policy shall be the full value of the work as stipulated in the contract.

\

APPENDIX SHOWING IMPORTANT SCHEDULES

1.	SIGNING THE AGREEMENT	Within 15 days of the issue of letter of intent/order/acceptance as per GCC Clause 2.22.2.
2.	COMMENCEMENT OF WORK	Within 15 days of the issue of letter of intent/acceptance as per GCC clause 3.1.
3.	PERIOD OF COMPLETION	6 (Six) months from the date of issue of letter of intent/acceptance as per Tender Clause 1.2& 2.2
4.	COMPENSATION FOR DELAY/ LIQUIDATED DAMAGES	As per GCC Clause 2.28
5.	PERIOD AND VALUE OF RUNNING/ON ACCOUNT BILL.	As per GCC Clause 5.2(v)
6.	SECURITY DEPOSIT	As per Clause 2.19
7.	REFUND OF SECURITY DEPOSIT	Security deposit after expiry of 12 Months of maintenance/defect liability.
8.	INCOME TAX AND OTHER TAX DEDUCTION	At prevailing rate from each bill.
9.	GURANTEE PERIOD	18 (Eighteen) months from date of commissioning,
10.	PERIOD OF FINAL MEASUREMENT	45 days after completion of entire work as per GCC Clause 5.3.
11.	PERFORMANCE GUARANTEE	5 % of the accepted cost in 15 days from the date of issue of LOI as per GCC Clause 2.22.1

The Balance Work of fire fighting & fire alarm system in Indian Railway welfare organization for Group Housing Pocket –A and Pocket –B, sector - 10 Raipur, Sonapat

TECHNICAL SPECIFICATIONS

1.0 The scope of work for balance work of Fire Fighting System:-

- 1.1 Supply, installation, testing and commissioning of single headed stainless steel hydrant landing valve type-A.
- 1.2 Supply, installation, testing and commissioning of Non –percolating fire hose pipe type-A.
- 1.3 Supply, installation, testing and commissioning of short branch pipe.
- 1.4 Supply, installation, testing and commissioning of Weather proof Hose Cabinet,
- 1.5 Supply, fixing, testing and commissioning of portable type carbon die-oxide type fire extinguishers.
- 1.6 Supply, fixing, testing and commissioning of self illuminated /auto glow EXIT signs printed on photo luminescent sheet .
- 1.7 Supply and fixing of 25 mm dia heavy duty MS conduit pipe complete with accessories.
- 1.8 Supply installation, testing and commissioning of Batteries 12 V 7AH for fire alarm control and indication panel.
- 1.9 Repairing, testing and commissioning of fire alarm control and indicating panel.
- 1.10 Supply, fixing/laying, testing and commissioning of XLPE copper conductor armoured cables.

2.0 SPECIFICATION FOR FIRE FIGHTING SYSTEM

2.1 Hydrant Valves (Landing Valves)

Landing valves shall be 63mm dia oblique female instantaneous `Morris Pattern with caps and chains. Landing valves shall conform to IS: 5290 in all respects. Landing valves shall be installed on hydrant risers/down comer at a height of 1.0 to 1.2 mtr. from the floor level. The landing valves shall be connected to the wet riser/down comer stand pipes by means of a 100x100x 65mm tee the cost of which is deemed to be included in the unit rate for piping.

2.2 Hose Pipes

All hose pipes shall be of 63 mm diameter synthetic lined controlled percolation hose (IS: 8423) or reinforced rubber lined woven jacketed hose conforming to IS:636-1979 type II. The hose shall be capable of withstanding a water pressure of 17.6 kg/cm² without undue leakage or seating. Hose shall be provided with instantaneous spring lock couplings. the hose pipe shall be tested for bursting pressure of 37.2 kg/cm².

2.3 Branch Pipe Nozzle

Branch pipes shall be of Stainless Steel at the discharge end to receive the nozzle and provided at the other end with a leaded tin bronze ring to fit into the instantaneous coupling. Nozzle shall be of jet and spray (or fog) type of diameter of not less than 16 mm and not more than 25 mm. Nozzle shall be bronze Branch pipe and nozzle shall be of instantaneous pattern. Branch pipes and nozzles shall comply with IS: 903-1975.

2.4 Hose Cabinet

Hose cabinet shall be glass fronted with hinged door and lock. The cabinet shall be made of 1.6 mm thick MS sheet and spray painted to post office red colour. The hose cabinet shall comprise of the following :

- (i.) Hose reel of 30.0 mtr length with swing bracket, suitably reinforced support and connection to landing valve.
- (ii) 2 lengths of 15 mtr CANVAS/RRL hose pipes of 63 mm dia with couplings .
- (iii). Branch pipe and nozzle (One set).
- (iv). A suitable size glass fronted MS cabinet duly spray painted to accommodate (i) to (iii) above.
- (v). Supporting and grouting of cabinet (iv) above.

2.5 Portable type fire extinguisher

Carbon die –oxide type 4.5 Kg duly ISI marked & IS : 2878 body material MS type of siphon tube A1 type of discharge valve wheel fitted with one mtr hose horn and complete with initial charge, mounting hook and complete in all respect.

2.6 Self illuminated /auto glow Exit signs

The lettering is clear and legible so that it can be read properly from a distance .Exit signs will glow without electricity or batteries.

2.7 MS Conduit pipe

- (i) All rigid conduit pipes shall be of steel and ISI marked .The wall thickness shall be not less than 1.6 mm (16 SWG) for 25mm dia conduit pipe. This pipe shall be solid drawn or reamed by welding and finish with galvanized or stove enameled surface.
- (ii)Conduit accessories shall be threaded type, and under no circumstances pin grip type or clamp grip type accessories shall be used
- (ii) Saddles for surface conduit work on wall shall not be less than 0.55 mm (24 gauges) for conduit up to 25 mm dia and not less than 0.9 mm (20 SWG) for larger diameter.
Conduit pipes shall be fixed by saddles , secured to suitable approved plugs with screws in an approved manner at an interval of not more than 600 mm but on either side of the coupler or bend or similar fitting saddles shall be fixed at a distance of 30cm from the centre of such fitting

2.8 Non Return Valves

Non return valves shall be of cast iron with gun metal trims. The non return valve shall conform to IS: 5312. Non return valves shall be of flanged type. Spring loaded valves shall not be used. The valves shall be suitable for a working pressure of 15 Kg/cm². Wherever higher working pressure is involved NRV conforming to IS: 1868 class 300 shall be used.

2.9 Piping Work

The piping for hydrant system shall be MS Heavy class up to 150 mm diameter and 6 mm wall thickness for pipes and above 150 mm dia. The piping shall be of approved make conforming to IS: 1239 Part I. The pipe fittings shall be of wrought or mild steel of heavy class, conforming to IS: 1239-II Mild steel flanges shall be of heavy duty suitable for test pressure of 14 kg./cm² and shall conform to relevant IS table (IS 6392). Flanges shall be faced and insertion gasket shall be of butyl rubber/neoprene. The joint shall be capable of withstanding welded to each other by qualified welders. The sample of welding shall be subjected to dia penetration test. The welding work shall be commenced only after written approval of the IRWO.

Underground piping shall be coated and pypkote wrapped with two coats of coal tar hot enamel paints and two wraps of reinforced fiber glass tissue and a coat of coal tar enamel paint on the top of wrapping.

Underground piping shall be supported on masonry supporters at every 1.5 metre interval. The piping shall not be laid less than one meter below the ground level. The trench bed shall be rendered hard and level by ramming of earth. The trench shall be back-filled with sand and loose earth and rammed well.

Above ground piping shall be installed with angle iron supports / anchors / hangers at regular intervals. The spacing between supports shall not be more than 3.0 meters for straight lengths and supports shall be provided at every Tee/Bend valve so that piping does not bear undue strain during normal operation. All above ground piping including supports / hangers etc. shall be given two coats of post office and colour synthetic enamel painting over a coat of primer after installation and testing.

Pipes shall be of brand new quality with proper making of class of piping and make of the piping. The piping shall be thoroughly cleaned by flushing of water before the system is commissioned.

2.10 Sluice Valves

Sluice valves shall be of cast iron with gunmetal trims. Sluice valves of Kirloskar/Venus shall be supplied. Valves shall conforming PN 1.6 of IS: 780 shall be used. Flanges shall be as per IS:1536 or BS table D. Valve wheel shall have an arrow engraved or cast there on showing the direction of turning open or close operation. Valves shall be of being locked in open position. Valves which are ISI marked for type 2 class PN 1.6 shall only be used. Suitable locking arrangement for valves in OPEN position shall be supplied. **1. 2.12 Butter Fly Valves:**

The Butter Fly Valve shall be made of cast-iron to IS:210, grade FG 260 body, incircular shape and of high strength to take the minimum water pressure of 16 Kg/sq.cm. The disc shall be heavy duty C.I. with anti-corrosive epoxy or nickel coating. All Butter Fly Valves shall be PN 1.6 with flange drilling as per IS:1538

2.11 MS PIPE for down comer

The piping for hydrant system shall be MS Heavy class up to 150 mm diameter and 6 mm wall thickness for pipes and above 150 mm dia. The piping shall be of approved make conforming to IS: 1239 Part I. The pipe fittings shall be of wrought or mild steel of heavy class, conforming to IS: 1239-II. Mild steel flanges shall be of heavy duty suitable for test pressure of 14 kg./cm² and shall conform to relevant IS table (IS 6392). Flanges shall be faced and insertion gasket shall be of butyl rubber/neoprene

2.12 Testing

After laying and jointing, the piping shall be pressure tested by hydrostatic method. The piping shall be slowly filled with water in order to expel the air. The piping shall then be allowed to stand full of water for 24 hours. Any leakage or elsewhere shall be rectified. The pressure shall then be applied by means of a test pump (either hand operated or power operated). The test pressure shall not be less than 1.5 times the working pressure of the system. However, the test pressure may not exceed 14.0 kg./ in any case.

Pressure gauges used for the test shall accurate and shall preferably have been recalibrated before test. Capacity of pumps shall be checked with respect to the contractor's piping and equipment layout.

Test shall be conducted to determine the delivery head, flow and BHP of pumps after installation. The test results shall correspond to the contract ratings and performance curves. All the leaks and defects in joints revealed during the testing shall be rectified to the satisfaction of the Employer. The system shall also be tested for its desired performance and function by opening hydrant valves on each floor when landing valves on floor below are in open condition. The pressure setting of automatic starting device for fire pump shall also be checked for its correct operation. The test

results shall be recorded and counter signed by the Employer's representatives and submitted in triplicate for approval of the Employer.

A suitable orifice plate with shut off valves and balancing valves, Rota meter / manometer shall be employed for determining the rated capacity against discharge head specified.

2.13 Batteries

The maintenance free batteries 12 V 180AH of approved make. These batteries will be provided for starting of Diesel engine fire pump.

2.14 LT Control cables

Different sizes i.e 2 Core 1.5 sq mm/ 4 Core 1.5 sq mm/ 27 Core 1.5 sq mm XLPE insulated copper conductor armoured cables 1.1 KV grade should conform to IS:7098 (Part -1). The cables shall be supplied and bear the manufacturers identification mark. All cable joints shall be made in an approved manner as per accepted practice.

Cable gland shall be of heavy duty single compression type of brass, chrome plated .These shall have a screwed nipple with conduit thread and chuck nut. These shall be suitable for armoured cables. Cable connectors, lugs/sockets shall be of copper alloy, suitably tinned solder less crimping type.

3.0 Materials:-All materials whether to be consumed in the work or used temporarily shall conform to relevant IS specification, unless stated otherwise and shall be the best approved quality.

4.0 SAFETY:-

- (i) All the persons working on pole shall wear safety helmet, safety belt and safety shoes; similarly all the persons working on ground shall wear safety helmet and safety shoes.
- (ii) Communication through walky –talkie/ mobile phones shall be used in order to avoid any damage to workman or public on ground.

NOTE:-

- (i) **Similarly for GCC, the printed booklets available with IRWO which can be purchased by contractor at a cost of Rs 500/- .**

LIST OF MAKE FOR FIRE FIGHTING & FIRE ALARM SYSTEMS

S.No.	Items	Approved Makes
1	Yard Hydrants/ Landing valve	ATASEE/ PGC/ GFI/ G-Tech/Agni
2	Fire hose pipe	Minimax/, AFS/Flamex/ Agni / ATASEE
3	Short branch pipe	Minimax/ AFS/Flamex/ Agni / ATASEE
4	Fire hose cabinet	Minimax/ AFS/Flamex/ Agni / ATASEE
5	Fire Extinguisher	Agni/ G-Tech/ Eagle/ Atasi
6	EXIT Signs	Glow light/Auto glow/Legrand/PGC/Flamex
7	M.S. Conduit	BEC/ AKG/ Steel craft.
8	Battery	Exide, AMCO
9	LT Control cables	Skytone/Finolex/Grindlay/Havells
10	Dash Fastener	Fishter/ SDI/ Shiwa.
11	M.S PIPE	Jindal/Tata/Parkesh
12	Enamelled Paint/ Red oxide	Asian/Burger/Nerolac
13	Valves / Gun Metal Valves	Kirloskar/Leader/Sant
14	NRV	Kirloskar/Leader/Sant
15	Butter Fly Valve	Castle/Navtech/Arrow
16	Sprinkler	
	Note : Items which are not covered above shall be got approved from GM/Civil /IRWO/New Delhi	

Schedule Of Quantity For The Balance work of fire fighting & fire alarm system in Indian Railway Welfare Organization for Group Housing Pocket –A and Pocket –B, Sector -10 Raipur, Sonapat

Item.No	Description of Item	Qty.	Unit	Rate	Amount
1	Supply, Installation, Testing and Commissioning Non-percolating FIRE hose pipe (Type A), I.S.I marked 63mm diameter, 15m long with stainless steel male & female couplings (ISI marked) bound & riveted to hose pipes with stainless steel rivets and stainless steel wire as required.	308	NOS	3769	1160852
2	Supply, Installation, Testing and Commissioning Short Branch Pipe (ISI marked) Stainless-steel as per IS:903 63mm diameter male instantaneous inlet, male threaded outlet fitted with 15mm internal diameter nozzle as required.	198	NOS	1408	278784
3	Supply, Installation, Testing and Commissioning of portable type fire-extinguishers of following types I/C S/F bracket on wall complete as required.				
(a)	Carbon die-oxide type (4.5kgs), duly ISI marked (IS:2878), body material : M.S., type of siphon tube: A1, type of discharge valve: wheel, fitted with 1 mtr. hose-horn and complete with initial charge, mounting hook and complete in all respect as required.(for each floor)	203	Nos	3540	718620
4	Supply, Installation, Testing and Commissioning of weather proof Hose Cabinet of following sizes fabricated out of 1.6 mm thick M.S. sheet complete with glass in front having locking arrangement, with suitable to accomodate fire hoses , short branch pipes , necessary etc complete as required . Size :750 mm x 600 mm x 250 mm.	30	Nos	2000	60000
5	Supply,installation,Testing , Commissioning and replace of Batteries of 12 V / 180 AH for starting the Diesel engine driven fire pump as required.	2	set	15300	30600
6	Providing and Supply of Fire Door glass with minimum thickness 5 mm up to 2100 mm height or required actual at Site	80	SQM	1200	96000

Item.No	Description of Item	Qty.	Unit	Rate	Amount
7	Providing and fixing Fire Authority approved valves with S.S ball including all fittings Required				
	25mm dia	50	NOS	500	25000
8	Providing and fixing of cast iron butterfly valves with EPDM seat Projection tested to 10 kg/cm2 complete in all respect.				
	150 mm dia	20	NOS	7593	151860
9	Providing, fixing,Testing and Commissioning of cast Iron water dual type Horizontal/Vertical Non return valve with flages complete in all respect.				
a	150 mm dia	10	NOS	15073	150730
b	200 mm dia	3	NOS	24815	74445
10	Providing ,fixing,testing and Commissioning of 15 mm dia Quartzite bulb type G.M Sprinkler Head (Pendent/Upright/Conventional as required) (UL/FM/LPC/TAC Listed approved Chrome plated completed with decorating plate Set to operate at 68 oc	500	NOS	442	221000
11	Providing, fixing, testing and Commissioning of flow Switches suitable for fixing in 50mm to 100 mm dia complete with all accessories to provide indication in annunciator switch/ panel.	20	NOS	6368	127360
12	P/F/T/C Automatic air realse valves suitable for domestic water with 25 mm stop valve & 25 mm automatic air release valve complete.	34	NOS	500	17000
13	Providing & Fixing of M.S. black steel heavy duty (Class C) pipes (IS 1239 Part-1) and fitting like Flanges (MS steel at every 15 mtr length and as required) tees,elbows,junctions reducers etc. clamps structural steel supports as required at Site including cutting & making good the walls RCC work etc cutting chases & fittings the came with cement conc 1:2:4 with proper water proofing of RCC walls including painting the exposed pipes with desired shade of enamel over a coat of primer.				
a	150 mm dia	30	RM	3029	90870
b	200 mm dia	20	RM	4630	92600
c	250 mm dia	30	RM	5643	169290

Item.No	Description of Item	Qty.	Unit	Rate	Amount
14	Servicing and overhauling of Diesel engine driven fire pump with control panel suitable for automatic /manual operations including all part of engine checking cooling system, filters, pressure gauges and radiator etc complete in all respect actual required at Site which is Already installed in Pocket-A &B Pump Room .	2	Set	35000	70000
15	Servicing of all enclosed PA System operator console with microphone call facility both side with controller having in built amplifier of 25 watt for 50 zones with facility for DVD Music Player housed in free standing wall mounted rack with front openable front with glass etc.	5	NOS	15000	75000
16	Rewinding of 50HP 2950 rpm 3 phase 415 v 50 hz electrical driven Fire Pump in underground Pump Room of Pocket-B	1	NOS	40000	40000
17	Servicing & Overhauling of already fix 25 mm stop valve for hose reel pipe.	180	NOS	100	18000
18	Servicing & Overhauling of already fix Butter fly valves				
a	80 mm dia	40	NOS	400	16000
b	100 mm dia	2	NOS	500	1000
c	150 mm dia	26	NOS	1000	26000
19	Servicing & Overhauling of already fix Non-Return Valves				
a	150 mm dia	60	NOS	1000	60000
b	200 mm dia	7	NOS	1200	8400
20	Re-Painting of All MS Fire pipes with Synthetic enamel paint after cleaning of all dust and rust with two or more coats already Provided in Fire Shafts, Basement Roof , open area and pump rooms 25 mm dia to 250 mm dia				
a	25 mm dia	4800	RM	15	72000
b	40 mmdia	350	RM	24	8400
c	50 mm dia	800	RM	30	24000
d	65 mm dia	400	RM	39	15600
e	80 mm dia	1600	RM	48	76800
f	100 mm dia	1200	RM	60	72000
g	150 mm dia	3200	RM	90	288000
h	200 mm dia	98	RM	120	11760
i	250 mm dia	15	RM	151	2265

Item.No	Description of Item	Qty.	Unit	Rate	Amount
21	Re-Painting of All MS Fire doors with Synthetic enamel paint after cleaning of all dust and rust with two or more coats already Provided in Fire Shafts, from Basement to 15th floor complete in all respects.	198	NOS	690	136620
22	Credit to work (dismantle items)				
i	25 mm dia ball valve	50	NOS	-50	-2500
ii	150 mm dia butterfly valve	20	NOS	-760	-15200
iii	150 mm dia Non return valve	10	NOS	-1507	-15070
iv	200 mm dia butterfly valve	3	NOS	-2482	-7446
v	25 mm dia stop valve	34	NOS	-50	-1700
vi	150 mm dia M.S.Pipe	30	RM	-303	-9090
vii	200 mm dia M.S.Pipe	20	RM	-463	-9260
viii	250 mm dia M.S.Pipe	30	RM	-564	-16920
	Total Amount Without G.S.T				4409670
	Percentage (to be quoted by tenderer)				