
CHENNAI METRO RAIL LIMITED

TENDER NO. CMRL/T&A/001/2016

TENDER DOCUMENT

**FOR SUPPLY, INSTALLATION, TESTING, COMMISSIONING,
TRAINING AND MAINTENANCE OF X-RAY BAGGAGE SCANNER
EQUIPMENT**



CHENNAI METRO RAIL LIMITED

**CMRL Depot, Admin Building, Poonamallee High Road,
Koyambedu, Chennai-600107, Tamilnadu, India
Phone: 044-23792000, Fax: 044- 23792200**

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CHENNAI METRO RAIL LIMITED

TENDER NO. CMRL/T&A/001/2016

Date: 26.05.2016

FOR SUPPLY, INSTALLATION, TESTING, COMMISSIONING, TRAINING & MAINTENANCE OF X-RAY BAGGAGE SCANNERS

Open Tender (2 envelope bidding) is being invited by the General Manager (Telecom & AFC), Chennai Metro Rail Limited.

The tender document comprises of the following:

- A. Notice inviting Tenderer
- B. Instructions to Tenderers
- C. Form of Tender
- D. General Conditions of Contract
- E. Special Conditions of Contract
- F. Schedule of requirement
- G. Technical Specifications
- H. Annexures 1 to 11

Tenders shall be submitted to the General Manager (Telecom & AFC), CMRL at the address given above not later than mentioned date and time.

Please note carefully the requirements for submitting tenders, and the date and time for submittal. Late and delayed tenders will be summarily rejected.

Offers shall be valid for a period of **120 days** from the last date of submission of Tenders, and shall be accompanied by Earnest Money Deposit as described in clause-5 of the instruction to tenderer.

A. NOTICE INVITING TENDER

Invitation to Open Tender (2 Bid Envelope System) for Chennai Metro Rail Limited, Chennai

Open Tender (2 envelope bidding) is invited by Chennai Metro Rail Limited. (CMRL) for "Supply, installation, testing, commissioning, training and maintenance" of following items for CMRL, as per the details given below:

S.N	Tender no.	Description	Qty.	Cost of Tender Document (inclusive of TNVAT @5%)	Tender Security (EMD)	Last date & time of Submission of bids (bids received late will not be entertained) Upto 14:00 Hrs on	Time of Opening Bids at 15:00 hrs. On
1	CMRL/T&A/001/2016	Supply, installation, testing, commissioning, training and maintenance of X-Ray Baggage Scanners	07	Rs.10000/- (Hard Copy) Rs.8000/- (Soft Copy)	Rs.2,24,000 (Rupees two lakh twenty four thousand only)	21.06.2016	21.06.2016

1. ELIGIBILITY CRITERIA: As mentioned in the tender document

2. SALE OF TENDER DOCUMENT

- 2.1 Non Transferable Bid Document containing description of the items and terms & conditions can be purchased from the office of the General Manager, Telecom & AFC against the payment of the cost of bid document through a crossed demand draft/pay order issued by Nationalized/scheduled commercial bank of India, payable to "Chennai Metro Rail Limited" at Chennai or same can be downloaded from CMRL's official website. The sale timings of the bid document will be 10.00hrs. to 17.00 hrs. excluding lunch recess from 13.00 hrs. to 1.30 hrs. on all working days. The sale of document will be closed at 18.00 hrs. on previous day to the last date of submission of Bids.
- 2.2 Tender document can also be downloaded from CMRL's web site mentioned above, in which case the cost of the tender document, in the form as mentioned above, may be submitted in a separate envelope along with the technical bid.
- 2.3 Addendum/corrigendum, if any, will not be published in the newspaper and the same will be uploaded on CMRL's website mentioned above. Hence, all the prospective bidders are requested to check the CMRL website on a regular basis.

NOTICE INVITING TENDER

DATE OF ISSUING OF TENDER DOCS	31.05.2016
LAST DATE OF ISSUE OF TENDER DOC	20.06.2016
LAST DATE & TIME OF SUBMISSION OF BID	21.06.2016, 14:00 Hrs
PRE-BID MEETING	09.06.2016, 11:00 Hrs
DATE & TIME OF OPENING OF BID	21.06.2016, 15:00 Hrs
PLACE OF OPENING OF BIDS	Chennai Metro Rail Limited, CMRL Depot, Admin Building, Poonamallee High Road, Koyambedu, Chennai 600 107
ADDRESS FOR COMMUNICATION	General Manager (Telecom & AFC), Chennai Metro Rail Limited, CMRL Depot, Admin Building, Poonamallee High Road, Koyambedu, Chennai 600 107

B. INSTRUCTIONS TO TENDERERS

1. GENERAL INSTRUCTIONS

- 1.1 General Manager (Telecom & AFC) on behalf of CMRL invites tenders from certified, established and reliable manufacturers for the supply of X-Ray baggage scanner equipment as set forth in the "Schedule of Requirements".
- 1.2 The Tenderer shall bear all costs associated with the preparation and submission of its tender. All offers in the prescribed format at **Annexure-1** should be submitted by the prescribed date and time fixed for the receipt of offers as set forth in the tender papers. Offers received after the stipulated time and date, will be summarily rejected.
- 1.3 All information in the offer must be in English. Information in any other language must be accompanied by its authenticated translation in English and signed by the authorized person who is signing the document. In the event of any dispute between an offer in a language other than English and its English translation, the English translation shall prevail.

1.4 Clarification of Tender Documents and Pre-Bid Meeting

Any clarification to be sought by the prospective bidders must be raised only during Pre-Bid meeting by the authorized representatives who shall be physically present at the Pre-Bid meeting. In this regard it is required by the representatives to bring in their authorization letter from the participating firm. Clarification for the queries raised in Pre-Bid meeting will be published /displayed at CMRL's website /Notice board. No separate communication in this regard will be further entertained. However, it may be noted that clarifications do not form part of the tender document and it is only published in the website for the clarity of the prospective bidders.

1.5 Amendment of Tender Documents

Any amendments to this tender document will be published in the CMRL's official website /notice board. Prospective bidders are requested to regularly check the same in their own interest. Amendment once issued are part of the tender document and if there is any dispute between the amendment and original tender document, amendment will prevail.

2. COMPLIANCE WITH TECHNICAL SPECIFICATION

- 2.1. The equipment offered should be in accordance with the stipulated technical specifications in "Schedule of Requirements".
- 2.2. The bidders must comply with the stipulated technical specifications as mentioned in the tender documents.

3. INDIAN REPRESENTATIVE & HIS SERVICES/ FACILITIES IN INDIA

- 3.1. The foreign tenderer shall include in his offer the name of the person /firm who will be acting as his representative in India in respect of his offer. He shall also indicate the after sales service facilities through his representative in India.
- 3.2. Foreign firms quoting directly against the inquiry or through their representatives must specify the servicing facilities in India
- 3.3. Tenderers of foreign firms should furnish following particulars. They are also required to complete the check List as per **Annexure-6(a)**

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- (i) The name and address of the Indian representative.
 - (ii) The precise relationship between the foreign manufacturer /principals and their Indian representative.
 - (iii) The mutual interest which the manufacturer /principal and the Indian representative have in the business of each other.
 - (iv) Foreign Tenderer has to submit a certificate that bidder is not having any Commission Agent in India and no agency commission will be paid, otherwise it shall be sufficient ground for rejecting of his offer. Indian representative should also mention Income tax permanent account number and certification of registration of OEM and registration of Indian representative.
 - (v) All services namely supply installation, commissioning, training and maintenance (including DLP & CAMC) need to be rendered by the Indian representative.
 - (vi) Certificates /documents indicating for Past performance of last 3 years.
 - (vii) Information in Form No. 10F of income tax act 1961 is to be submitted.

4. QUALIFYING REQUIREMENTS OF BIDDERS

4.1. The bidder shall provide documentary proof to the Purchaser to show that:-

- (a) Either Bidder himself should be licensed manufacturer who regularly manufactures the items offered.

or

The firm he is representing should be licensed manufacturer who regularly manufactures the items offered.

- (b) Bidder should have supplied in India or abroad, in last three years upto 31/03/2016, at least one order of similar nature (supply, installation, testing, commissioning, training & maintenance of x-ray baggage scanners) of value not less Rs.0.9 Crore or two orders each of value not less than Rs.0.56 Crore or three orders each of value not less than Rs.0.45 Crore, in Government /Government undertaking /semi Government / Govt. Controlled Institutions /Reputed private organizations in India or Abroad.
- (c) Bidder should have at least three years' experience of supply, installation, commissioning, training and maintenance of the items quoted. And the items quoted by them should have satisfactory performance during last three years preferably. In case of latest technological development the equipment quoted must have at least 2 years of proven reliability (along with satisfactory performance certificate from the past orders as mentioned above).
- (d) Bidder should have at least turnover of not less than Rs.10 Crores per year during the last three years and status to meet the obligations under the contract for which he is required to submit a report from a recognized bank or a financial institution.
- (e) Manufacturer should have adequate plant and manufacture capacity to manufacture and supply the items offered within the delivery schedule as mentioned in the tender document.
- (f) Manufacturer has established quality control system to monitor quality check at all stages of the manufacturing process (Certificates like ISO or CE or EUR 1 complied are to be attached).

(g) An undertaking to the effect to be given by the bidder (in case of representative, both Manufacturer and its representative have to submit) that **they have not been black listed /debarred by any government/government-undertaking/ semi-government/ govt.controlled institutions/ reputed private organizations in India or Abroad.**

(h) Manufacturer and the bidder must submit documentary evidence of the firms' profitability of the preceding three years (2013-14, 2014-15 and 2015-16).

4.2. For purposes of clause-4.1, the tenderers should additionally submit:-

a). A performance statement as in **Annexure-2**, giving a list of major supplies executed in India in last 3 years of the items offered by him, giving details of the Purchaser's name and address, order no. and the date and the quantity supplied and whether the supply was made within the delivery schedule;. Purchase order of past performance to be enclosed masking the price.

b). Details of experience of installation and maintenance of the items in India and certificate from user of having satisfactory performance of the items offered to be enclosed.

5. EARNEST MONEY DEPOSIT

5.1. The Earnest Money Deposit shall be only in the forms as mentioned below:

Demand Draft for Rs. 2,24,000 (Rupees Two Lakh Twenty Four thousand only) in favor of "Chennai Metro Rail Limited", payable at Chennai from any Nationalized Bank /scheduled commercial bank. The validity of the same should be at least 60 days from the date of opening of the tender.

5.2. No interest will be paid by the Purchaser on the Earnest Money Deposit.

5.3. The Earnest Money Deposit is liable to be forfeited if the tenderer withdraw or amends, impairs or derogates from the tender in any respect within the period of validity of his offer.

5.4. The Earnest Money Deposit of the successful tenderer will be returned after the Contract Performance Bank Guarantee as required (Clause-8 of the General conditions of contract) is furnished.

5.5. If the successful tenderer fails to furnish a Performance Bank Guarantee as specified in clause-8 of the General Condition of Contract, then the Earnest Money Deposit shall be liable to be forfeited by the Purchaser.

5.6. The Earnest Money Deposit of all unsuccessful tenderers will be returned by the Purchaser on conclusion of the tender through NEFT only. **Annexure-11** for refund of EMD through NEFT needs to be filled in by the bidders along with a cancelled cheque leaf to be attached while submitting the bids.

5.7. Any tender not accompanied by Earnest Money Deposit in the approved forms given in clause 5.1 shall be summarily rejected.

6. SUBMISSION OF OFFERS

6.1 All offers shall be in typed format only. No hand written bids will be accepted.

i) This is a two envelope bidding open tender. Tenderer has to submit their offer in two different packets. One packet will be for technical bid as packet 'A' and another packet will be for financial bid as packet 'B'.

ii). Technical bid (packet A) will be opened on due date (as per Notice inviting Tender or subsequent change in date as intimated in CMRL website). This packet must contain following:

- a) Earnest Money Deposit
- b) Technical bid
- c) Documents related to qualifying requirement of the tenderer.
- d) Cost of tender document in the currency as indicated in NIT and undertaking for downloading declaration (**Annexure- 7**) if the tender document is downloaded from CMRL's website.
- e) Checklist as per **Annexure-6(a)** to be filled.

iii). Financial bid (packet B) will be in the separate sealed envelope, which will contain

- a) Price bid as per format given in tender document as **Annexure- 1**.
- b) In case tenderer's bid does not qualify in technical bid, bidders unopened financial bid will be returned in sealed condition without opening.

6.2. Any individual signing the tender or other documents connected therein should specify whether he is signing: -

- (i) As sole proprietor of the concern or as attorney of the sole proprietor
- (ii) As a Director, Manager or Secretary in the case of a limited company duly authorized by a resolution passed by the board of directors or in pursuance of the authority conferred by Memorandum of Association.

6.3 The original power of attorney or other documents empowering the individual or individuals to sign should be furnished to the Purchaser for verification.

6.4. The price shall be written both in figures and words in the prescribed offer form. The bidder must specify the entire break up cost including applicable taxes while quoting.

6.5 The Tenderer shall seal the packet A (Technical Bid) and packet B (Financial Bid) in an outer envelope bigger envelope super scribing "FOR SUPPLY, INSTALLATION, TESTING, COMMISSIONING TRAINING AND MAINTENANCE OF X-RAY BAGGAGE SCANNERS"

6.5.1 The inner and outer envelopes shall

- (a) Be addressed to the CMRL at the address given in the notice inviting tender
- (b) Bear the tender Number on all the envelopes.

6.5.2 Unsealed bids will be summarily rejected.

6.5.3 Offers shall be as per the requirement of the Tender documents.

6.5.4 Offers are required from the actual manufacturers of the equipment or Indian representatives in case of foreign manufacturer, who should submit a letter of authority from their Principals as in **Annexure- 4**.

6.5.5 Each page of the offer must be numbered consecutively, should bear the tender number and should be signed & sealed by the tenderer at the bottom. A reference to the total number of pages comprising the offer must be made at the top right hand corner of the first page.

6.5.6. The tenderer should avoid ambiguity in his offer e.g. if his offer to his standard sizes, lengths dimensions, he should specifically state them in details without any ambiguity. Brief descriptions such as 'standard lengths' etc. should be avoided in the offer.

(a) Tenderer shall give a breakdown of the prices in the manner and details called in for statement of prices as given in **Annexure-1**.

7. PRICE BASIS

7.1. All the bidders are required to quote in Indian National Rupee (INR) on DDP (Delivered Duty Paid) basis. The delivery of the equipment will be made to respective Metro stations depending upon readiness of the site in Chennai metro rail stations.

7.2 CURRENCY OF PAYMENT

The contract price will be paid only in the Indian National Rupee (INR).

7.3 The prices quoted shall be final and not subject to any variation.

8. INSURANCE

8.1. All risk cover like transit storage and insurance (90days from delivery) shall be arranged by the successful bidder.

8.2. In case of imported equipment, the successful bidder needs to get the required waiver certificates/documents if any from the purchaser well in advance. All such benefits arising on ground of waiver of various tax components must be passed to the purchaser.

9. SPACE FOR TEMPORARY STORAGE IN CHENNAI

In case, if any site is not ready for installation, bidder should make arrangement for temporary storage in Chennai for a period of 120 days and take necessary action for safeguarding against all possible measures. No additional amount will be paid towards the same.

10. OPENING OF TENDERS

10.1. Opening and Evaluation of Technical Tenders

- a. CMRL will open the bids in the presence of bidder's designated representatives who choose to attend, at the time, date, and location as stipulated. All bidders or their Representatives must bring with them an authority letter on the letterhead of the bidder or their Indian Representative (as the case may be) duly signed by Competent Authority to attend the Tender opening, failing which they will not be allowed to attend the opening of the Tenders at CMRL.
- b. CMRL shall read out and prepare a record of the tender opening that shall include as a minimum: Bidders names, designation, authority letter, any such other details as the CMRL may consider appropriate, will be announced by the CMRL at the opening.
- c. First Technical Bid will be opened and examined as per Eligibility Criteria of the tender document and as per Schedule of Requirements of the Tender Documents.

FINANCIAL BID WILL ONLY BE OPENED OF THOSE BIDDERS, WHO QUALIFY IN THE TECHNICAL EVALUATION.

- d. CMRL will examine the technical bid based on the requirement mentioned in the tender document.
- e. The determination of a Tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence.

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- f. **CMRL at its liberty may ask for clarifications on the documents submitted already by the bidders, however no additional /new documents will be allowed to be submitted after opening of the technical bids. Bidders must ensure that all the required documents are submitted along with the bids itself.**
- g. Completely filled check list as mentioned in **Annexure-6(a)**.

10.2 Opening of Financial Bid

- i) Financial bids of only technically qualified bidders will be opened at a date and venue which shall be informed duly in advance by CMRL to the technically responsive bidders.
- ii) CMRL shall read out and prepare a record of the Financial Bid opening that shall include, as a minimum: the name of the Bidders representative organization name, Tender Price. The Bidder's representatives who are present are requested to sign the record. If there is a discrepancy between words and figures, the amount in words will prevail.
- iii. The CMRL will examine the Tenders for their completeness in every aspect as mentioned in the tender document.

10.3 Evaluation criteria:

The successful bidder (who is technically responsive) will be decided upon the lowest cost quoted L1 for the total equipment to be supplied at the destination stations of Chennai Metro rail stations. The offers received from bidders should indicate the rate of ED, CST/ST etc. as leviable on particular item. In case concessional duty or taxes are applicable, the tenderer should quote accordingly. Evaluation of offers will be made on destination stations inclusive of all taxes and Duties.

The CAMC (Comprehensive annual maintenance charges) will not be considered for arriving on L1 (Lowest Bidder) under evaluation criteria.

11. ACCEPTANCE OF TENDER

- 11.1. The purchaser may accept or reject any tender without assigning any reason.
- 11.2. **The Purchaser reserves the right to increase or decrease the quantity up to 25% of the quantity offered by the successful tenderer. The bidder is bound to accept the increase or decrease in the tendered quantity upto 25% under this clause without any change in unit price.**
- 11.3. Successful bidder will be communicated by CMRL.

12. EFFECT AND VALIDITY OF OFFER

- 12.1. The submission of any offer connected with these specifications and documents shall constitute an agreement that the tenderer shall have no cause of action and claim, against the Purchaser for rejection of offer. The Purchaser shall always be at liberty to reject or accept any offer or offers at his sole discretion and any such action will not be called into question and the tenderer shall have no claim in that regard against the Purchaser.
- 12.2. The offer shall be kept valid for acceptance for a minimum period of 120 (one hundred and twenty) calendar days from the date of opening of the technical bids.

13. GENERAL

The tenderers must ensure that the conditions laid down for submission of offers detailed in the preceding paras, are completely and correctly fulfilled. Offers, which are not complete in all respects

as stipulated above, may be summarily rejected. For tender's guidance in submitting complete offers, a check List has been enclosed with the tender documents **Annexure-6(a)** which must be filled with the tender.

14. LAST DATE OF RECEIPT OF TENDERS

The offer complete in all respects should reach the Chennai Metro Rail Limited, Chennai, not later than the time and date as specified in the "NIT" or any change in date as intimated in CMRL website.. The tenderer is required to put the tender document into the tender box in the office of Chennai Metro Rail Limited.

15. CHECK LIST

A check List has been included at **Annexure-6(a)** of this document. Bid submitted without checklist is liable to be rejected. The tenderers must fill the Check List & submit along with their offer

C. FORM OF TENDER

CONTRACT CONDITIONS:

Amount of Performance Guarantee	As mentioned in General Conditions of contract Sub-Clause 8
Liquidated Damages	As mentioned in General Conditions of contract Sub-Clause 11
Warranty	As per SCC Clause No.8
Earnest Money Deposit	Earnest Money /Tender Guarantee of INR 2,24,000 (Indian Rupee Two lakh twenty four thousand only) in the form of Demand Draft ONLY from an Indian Nationalized /Scheduled Commercial Bank in favor of "Chennai Metro Rail Ltd.", payable at Chennai
Delivery Schedule	As per GCC Clause No.10
Contractors Name & Address	
Purchasers Name & Address	Chennai Metro Rail Limited, CMRL Depot, Admin Building, Poonamallee High Road, Koyambedu, Chennai -600 107

D. GENERAL CONDITIONS OF CONTRACT (GCC)

1. DEFINITION AND INTERPRETATION

In the contract, unless the context otherwise requires:

- 1.1 "Acceptance of Tender" means the letter or memorandum communicating to the Contractor the acceptance of his tender.
- 1.2 "Consignee" means where the equipment are required by the acceptance of the tender to be dispatched by rail, road, air or streamer, the person specified in the Acceptance of tender to whom they are to be delivered at the destination stations.
- 1.3 "Contract" means and includes Tender Invitation, Instructions to Tenderers, Tender, Acceptance of Tender, General Conditions of Contract, Special Conditions of Contract, schedule of Requirements, Technical Specification and Annexures particulars and the other conditions specified in the acceptance of tender, and amendments.
- 1.4 The "Contractor"/Bidder/Tenderer" means the person, firm or company with whom the order of the supply is placed/participated/intend to participate in the tender.
- 1.5 "Drawing" means the drawing or drawings specified in or annexed to the specification
- 1.6 The "Inspecting Officer" means the person/team of CMRL specified in the contract for the purpose of inspection of equipment and includes his/their authorized representatives
- 1.7 "Particulars" include:-
 - a). Specifications;
 - b). Drawings
 - c). "Proprietary mark" or "brand" means the mark and brand of the product which is owned by an industrial firm;
 - d). Any other details governing the construction, manufacture or supply of stores as may be prescribed by the contract.
- 1.8 "Inspection Test" means such test or tests as are prescribed by the specifications to be made by the purchaser or his nominee during installation, and commissioning.
 - a). "Purchase Officer" means the officer signing the acceptance of tender and includes any officer who has authority to execute the relevant contract on behalf of the Purchaser;
 - b). The "Purchaser" means Chennai Metro Rail Ltd (CMRL).
 - c). "Signed" includes stamped, except in the case of acceptance of tender or any amendment thereof;
 - d). "Site" mean the Stations as specified in the purchase order at which equipment is required to be delivered /installed by the Contractor under the contract or any other place approved by the Purchaser for the purpose in Chennai.

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- e). "Equipment" means the goods in the contract, which the Contractor has agreed to supply under the contract;
 - f). "Test" means such test as is prescribed by the particulars or considered necessary by the CMRL whether performed or made by the Inspecting Officer or any agency acting under the direction of the Inspecting Officer.
 - g). "Work" means all the work specified or set forth and required in and by the said specifications, drawings and "schedule of Requirements", hereto annexed or to be implied there from or incidental thereto, or to be hereafter specified or required in such explanatory instructions and drawings (being in conformity with the said original specifications, drawings and "Schedule of Requirements").;
 - h). The delivery of the equipment shall be deemed to take place in accordance with the terms of the contract, after approval by the Inspecting Officer /team from CMRL /its representatives the consignee at metro stations
 - i). "Writing" or "Written" includes matter either in whole or in part, in manuscript typewritten, or printed as the case may be.
 - j). Terms and expression not herein defined shall have the meanings assigned to them in the Indian Sale of Goods Act, 1930 or the Indian contract Act, or the General Clauses act, 1897 as the case may be.
 - k). "Facilities" means the Equipment to be supplied and installed as well as all the Installation Services to be carried out by the Contractor under the Contract.
 - l). "Purchaser" means the person named as such in the Tender Document and includes the legal successors or permitted assigns of the Purchaser.

2. CONTRACT DOCUMENTS

Subject to Article Order of Precedence of the Contract Agreement all documents forming part of the Contract (and all parts thereof) are intended to be correlative, complementary and mutually explanatory. The Contract document shall be read as a whole.

3. SEVEREABILITY

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

4. TIME FOR COMMENCEMENT AND COMPLETION

- 4.1. The Contractor shall commence work on the Facilities within the period specified in the SCC Clause No.21 and without prejudice to the Contractor shall thereafter proceed with the Facilities in accordance with the time schedule specified.

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- 4.2. The Contractor shall attain Completion of the Facilities (or of a part where a separate time for Completion of such part is specified in the Contract) within the time stated in the Tender Data Sheet.

5. CONTRACTOR'S RESPONSIBILITIES

- 5.1. The Contractor/Bidder shall design, manufacture, deliver, supply, install, commission, training and carry out defect liability period (DLP) and Comprehensive Annual Maintenance contract (CAMC) obligation (including associated purchases) with due care and diligence in accordance with the Contract.
- 5.2. The Contractor confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the Facilities provided by the Purchaser, The Contractor acknowledges that any failure, to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Facilities.
- 5.3. The Contractor shall comply with all laws in force in India. The laws will include all local, state, national or other laws that affect the performance of the Contract and bind upon the Contractor. The Contractor shall indemnify and hold harmless the Purchaser from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature arising or resulting from the violation of such laws by the Contractor or its personnel, including the Subcontractors and their personnel.

6. CONFIDENTIAL INFORMATION

- 6.1. The Purchaser and the Contractor shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party, any documents, data or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following termination of the Contract.
- 6.2. The Contractor shall not use such documents, data and other information received from the Purchaser for any purpose other than the design, procurement of Plant and Equipment, construction or such other work and services as are required for the performance of the Contract.

7. CONTRACT

- 7.1. This contract is for the supply, install, commissioning, training and maintenance of the equipment of the description, specifications and drawings, and in the quantities set forth in the contract on the date or dates specified therein. All equipment must be brand new and unused. Unpacking/seal opening has to be done in presence of CMRL/authorized representatives.
- 7.2. The whole contract is to be executed in the most approved, substantial and workmanship manner, to the entire satisfaction of the Purchaser or his nominee, who, both personally and may his deputies, shall have full power, at every stage of progress, to inspect the equipment at such times as he may deem fit and to reject any of the equipment which he may disapprove.

8. PERFORMANCE BANK GUARANTEE

- 8.1. The successful bidder shall furnish a Performance Bank Guarantee (PBG) valid for **seven and half years** in the proforma attached (**Annexure-5**) from a Nationalized Indian Bank, payable at a designated bank branch located in Chennai within 28 days from the receipt of Notification of Award (NOA) of the tender for an amount equivalent to 10% of the value of the NOA (cost of equipment plus total value of CAMC). The expenses to be incurred for the making Performance Bank Guarantee (PBG) shall be borne by the Contractor.
- 8.2 Failure to submit PBG within 28 days from the NOA will attract LD of 0.5% per week of the total NOA subject to maximum of 10% of the NOA value, after which the contract will be deemed to be cancelled.
- 8.3. The Purchaser shall be entitled on his part to forfeit the amount of the Performance Bank Guarantee in whole or in part in the event of any default, failure or neglect on the part of the Contractor in the fulfillment or performance in all respects of the contract under reference or any other contract with the Purchaser shall also be entitled to deduct from the amount of the Performance Bank Guarantee any loss or damage which the Purchaser may suffer.

9. TAXES AND DUTIES

- 9.1 The Contractor shall bear and pay all taxes, duties, levies and charges assessed on the Contractor, its Subcontractors or their employees by all municipal, state or national government authorities in connection with the Facilities in and outside India.
- 9.2 In the event of exemption or reduction of Custom Duties, Excise Duties, Sales Tax or any other Cess /Levy being granted by the Government in respect of the works, the benefit of the same shall be passed on to the purchaser.

10. DELIVERY

The Contractor shall be required by the Purchaser to deliver the equipment on Delivery Duty Paid (DDP) basis at Chennai metro rail stations, the quantities of the equipment detailed therein shall be delivered not later than the dates specified in the purchase order. The delivery will not be deemed to be complete until and unless the equipment are inspected and accepted by the Inspecting Officer /team of CMRL or its representatives

The bidder has to quote for all the equipment for all stations as per the schedule of requirement.

10.1 Notification of delivery

Notification of delivery and dispatch in regard to each and every installment shall be made to the Purchaser immediately on dispatch and delivery. The tracking number of transport mode along with necessary details for tracking of the dispatched equipment's needs to be communicated to the purchaser on every dispatch.

10.2 Time for delivery: the essence of the contract

The time and date specified in the contract or as extended for the delivery of the Equipment shall be deemed to be the essence of the contract and delivery must be completed not later than the dates so specified or extended by Purchaser.

10.3 Progress of Deliveries

The contractor shall allow reasonable facilities and free access to his works and records to the inspecting officer; progress officer or such other officer as may be nominated by the Purchaser for the purpose of ascertaining the progress of the deliveries under the contract.

10.4 Extension of Time for Delivery

The purchaser may extend the timeline for delivery of equipment (at one or more locations) at his own discretion due to the reasons which may be beyond the control of purchaser. The price quoted shall remain same even in case of extended delivery time line. However in case of extended delivery, the DLP and CAMC period calculation will be done as per the acceptance certificate issued by the purchaser

11. FAILURE AND TERMINATION

If the contractor fails to deliver the equipment or any installment thereof within the period fixed for such delivery in the contract or as extended or at any time repudiates the contract before the expiry of such period, the purchaser may without prejudice to his other rights:-

Recover from the Contractor as a penalty a sum equivalent to 0.5 % value of total NOA (contract value) per week subject to maximum of 10%, after which contract will be deemed as cancelled & PBG will be encashed by the purchaser.

12. CONSEQUENCES OF REJECTION

If on inspection of the equipment at site, are found to be not matching the requirement of purchaser as mentioned in the tender document and are being rejected by the Inspecting Officer/team of CMRL or its representatives, the Contractor would be required to make satisfactory supplies of brand new and unused equipment meeting the requirement as mentioned in the tender document within the stipulated period of delivery.

12.1 Removal of rejected stores

I. On rejection of any equipment submitted for inspection at a place other than the premises of the Contractor, such stores shall be removed by the Contractor at his own cost subject as herein after stipulated, within 10 days of the date of intimation of such rejection.

II. All rejected equipment shall in any event and circumstances remain and always are at the risk of the Contractor immediately on such rejection. If such equipment are not removed by the Contractor within the periods aforementioned, the Inspecting Officer/CMRL representatives or its authorized personnel may remove the rejected equipment .The purchaser shall, in addition, be entitled to recover from the Contractor the handling and storage charges on the rejected equipment after the expiry of the time-limit mentioned above.

13 FORCE MAJEURE

In the event of any unforeseen event during the currency of the Contract, such as earthquake, war, fires, floods, or acts of God, as a result of which, either party (purchaser/contractor) is prevented, or hindered in performing any of its obligations under the contract, then it shall within a week from the commencement thereof, notify the same in writing to the other party with reasonable evidence thereof. If the force majeure condition(s) mentioned above be in force for

a period of 90 days or more at any time, the either party shall have the option to terminate the contract on expiry of 90 days of commencement of such force majeure by giving 14 days' notice to the other party in writing. In case of such termination, no damages shall be claimed by either party against the other, save and except those which had occurred under any other clause of this contract prior to such termination.

14 PACKING AND MARKING

14.1. Packing

The Contractor shall pack at his own cost the equipment sufficiently and properly for transit by rail/road, air and/or sea so as to ensure their being free from loss or damage on arrival at their destination stations as specified in the purchase order. He shall decide the packing for the stores by taking into account the fact that the stores will have to undergo arduous transportation before reaching the destination and will have to be stored and handled in tropical climatic conditions (Including Monsoons) before being put to actual use.

Unless otherwise provided in the contract, all containers (including packing cases, boxes, tins, drums and wrappings) in which the stores are supplied by the Contractor shall be considered as non-returnable and their cost as having been included in the contract price.

Each packages shall contain a packing note specifying the name and address of the Contractor, the number and date of the acceptance of tender and the Designation of the Purchase Officer issuing the supply orders, the description of the equipment and the quantity contained therein.

14.2. Marking

The marking of all goods supplied shall comply with the requirement of the Indian Acts relating to merchandise marks or any amendment thereof and the rules made there under. The following marking of the material is required: -

The following particulars should be stenciled with indelible paint on all the materials/packages:-

- a. Contract No.
- b. Station Name
- c. Purchaser Name& logo.

In addition to the marking as specified above, distinguish color marks should be given so as to distinguish the ultimate Consignees in India

15 PAYMENT TERMS

The standard payment terms subject to recoveries, if any, by way of Liquidated Damages will be as under: -

15.1 Payment terms: -

- i). **90%** payment of the supply value of equipment will be made on submission of following documents:
 - a. Certificate from the purchasers of having receipt of Performance Bank Guarantee.

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- b. Invoice in duplicate.
 - c. Certificate from purchaser/ consignee indicating successful Installation, testing, commissioning, Training of equipment along with necessary operational training to its staff at the site as indicated in purchase order.
 - d. Insurance Copy (transit plus storage).
 - e. Packing list.
- ii) Out of 10% Balance amount:
 - a) 5% will be released at the end of first year of DLP period after deducting if any charges for delay in attending fault, as penalty and
 - b) 5% will be released at the end of second year of DLP and Final Acceptance Certificate after deducting any charges for delay in attending fault, as penalty.
 - iii) Payment of CAMC charges shall be made on quarterly basis at the end of the quarter against the consignee's certificate indicating that firm has successfully maintained the equipment during the claim period.

Payment should be followed strictly as per terms and conditions of Tender Documents and Tax as applicable will be deducted.

16 PAYMENT PROCEDURE

Payment for supply, installation, commissioning and training etc. shall be made by CMRL in (INR) Indian Rupees against the documents as mentioned in clause 15.1

17 CONSIGNEE'S RIGHT OF REJECTION

Notwithstanding any approval which the Inspecting Officer may have given in respect of the stores or any materials or other particulars or the work or workmanship involved in the performance of the contract (whether with or without any test carried out by the Contractor or the Inspecting Officer or under the direction of the Inspecting Officer) and notwithstanding delivery of the stores where so provided to the interim consignee, it shall be lawful for the consignee, on behalf of the Purchaser, to reject the stores or any part, portion of consignment thereof within 45 days after actual delivery thereof to him at the place or destination specified in the contract if such stores or part, portion of consignment thereof is not in all respects in conformity with the terms and conditions of the contract whether on account of any loss, deterioration or damage before dispatch or delivery or during transit or otherwise howsoever.

18 RESPONSIBILITY FOR COMPLETENESS

- (i) Any fittings or accessories which may not be specifically mentioned in the specifications but which are useful or necessary are to be provided by the Contractor without extra charge, and the equipment must meet the operational requirement at the place of delivery.
- (ii) The work (on turn-key basis) shall be performed at the stations specified in the purchase order.

(iii) All the charges incurred towards man-powers, materials, laying of cables, transportation, making the equipment operational etc. at the place of delivery shall be borne by the successful bidder.

19 INDEMNITY

- 19.1. The prices stated are to include all rights (if any) of patent, registered design or trade mark and the Bidder shall at all times indemnify the Purchaser against all claims which may be made in respect of the equipment for infringement of any right protected by patent, registration of designs or trade mark; provided always that in the event of any claim in respect of alleged breach of a patent, registered designs or trade mark being made against purchaser, the Purchaser shall notify the bidder of the same and the bidder shall, at his own expense, either settle any such dispute or conduct any litigation that may arise there from.
- 19.2. The bidder shall return all such property and shall be responsible for the full value thereof to be accessed by the Purchaser whose decision shall be final and binding on the bidder. The bidder shall be liable for loss or damage to such property from whatever cause happening while such property is in the possession of or under the control of the bidder, his servants, workmen or agents.

20 CORRUPT PRACTICES

The Bidder shall not offer or give or agree to give to any person in the employment of the Purchaser or working under the orders of the Purchaser any gift or consideration of any kind as an inducement or reward of doing or forbearing to do or having done or forborne to do any act in relation to the obtaining or execution of the contract or any other contract with the Purchaser or Government for showing any favor or for bearing to show disfavor to any person in relation to the contract or to any other contract with the Purchaser or Government. Any breach of the aforesaid condition by the Contractor, or any one employed by him or acting on his behalf, under Chapter IX of the Indian Penal code, 1860 or the Prevention of Corruption Act, 1947 or any other act enacted for the prevention of corruption by public servants shall entitle the Purchaser to cancel the contract and all or any other contracts with the Bidder and to recover from the bidder the amount of any loss arising from such cancellation in accordance with the provision of clause 11.

21 INSOLVENCY AND BREACH OF CONTRACT

- 21.1. The Purchaser may at any time, issue notice in writing summarily terminate the contract without compensation to the Contractor in any of the following events, that is to say: -
- i) If the Contractor being an individual or a firm:-. Any partner thereof, shall at any time, be adjudged insolvent or shall have a receiving order or order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or enter into any assignment or composition with his creditors or suspend payment or if the firm be dissolved under the Partnership Act, or

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- ii) If the Contractor being a company is wound up voluntarily or by the order of a Court or a Receiver, Liquidator, or Manager on behalf of the debenture holders is appointed, or circumstances shall have arisen which entitle the Court or Debenture holders to appoint a Receiver, Liquidator or Manager, or
 - iii) If the contractor commits any breach of the contract not herein specifically provided for.
 - iv) Provided always that such determination shall not prejudice any right of action or remedy which shall have accrued or shall accrue thereafter to the Purchaser and provided also the Contractor shall be liable to pay to the Purchaser any extra expenditure he is thereby put to and the Contractor shall, under no circumstances, be entitled to any gain on re purchase.

22 LAWS GOVERNING THE CONTRACT

- 22.1. This contract shall be governed by the Laws of India for the time being in force.
- 22.2. Irrespective of the place of delivery and the place of payment under the contract, the contract shall be deemed to have been made at the place in India from where the acceptance of tender has been issued.

23 ARBITRATION

- 23.1 In case of any disputes arising between the purchaser and the bidder, the matter will be referred to the Arbitrator solely appointed by MD, CMRL. All the decisions made by the Arbitrator shall be final and binding to both the parties.

23.2 Cost of Arbitration

The cost of arbitration shall be borne by the respective parties. The cost shall, inter alia, include the fees of the Arbitrator(s) as per rates fixed by the Employer from time to time.

23.3 Jurisdiction of Courts

Where recourse to a Court is to be made in respect of any matter, the Employer and the Contractor agree to the sole jurisdiction of courts in Chennai.

23.4 Suspension of Work On Account Of Arbitration

There should be no impact on the ongoing supply, installation, testing, commissioning, maintenance, operational requirement of equipment along with training to the staff of the purchased in case the matter is referred to Arbitration.

24 WARRANTY/DEFECT LIABILITY PERIOD(DLP)

Warranty/DLP is to be followed as mentioned in SCC Clause No.8.

E. SPECIAL CONDITIONS OF CONTRACT (SCC)

1. CONDITIONS GOVERNING THE CONTRACT

The special conditions of contract contained herein shall be supplemented to the general conditions of the contract and in event of any conflict or inconsistency between them; Special conditions of the contract will supersede the General conditions of the contract.

2. SCOPE OF WORK

The work (on turn-key basis) covered in the tender includes Supply, Installation, Testing and Commissioning including Training of X-RAY Baggage Scanning system at various metro stations as specified in the purchase order and Comprehensive Annual Maintenance Contract (CAMC) for 5 years after expiry of DLP(defect liability period) of 2 Years (24 months) from the date of commissioning.

- 2.1 Original Equipment Manufacturers (OEM/OEMs) of X-RAY Baggage Screening System or its authorized representative must have office in India. The address and contact details shall be submitted for verification.
- 2.2 All software and firmware upgrades for the system as applicable shall be free of cost for a period of seven years. A confirmation letter from the OEM/OEMs shall be submitted.
- 2.3 The power supply available at the stations shall be 230 V / 50 Hz AC which may vary from 160 Volts to 270 Volts. All modules of the system should work using this power supply only.
- 2.4 All the modules of X-RAY Baggage Screening System shall be modular in construction. In case of up-gradation of such modules in future, it shall be possible to upgrade them without replacing the entire product.

3. ELIGIBILITY CRITERIA

- 3.1 **The Principal Manufacturer of X-RAY Baggage Screening System or its authorized representatives in India is only eligible to quote for the tender. The manufacturer of the X-RAY Baggage Screening System should also have their office in India. The principal manufacturer or its authorized representative in India should have their own service centre. The relevant supportive documents shall be submitted along with the tender offer.**
- 3.2 A letter from the manufacturers (Memorandum of Understanding –MOU) shall be required and to be submitted along with tender document where in manufacturer has authorized the bidder to participate in this tender on their behalf. A letter from manufacturer is required confirming that all items being offered are not obsolete and are in their current manufacturing range and their spare parts will be made available for minimum period of seven years from the date of opening of the tender.
- 3.3 In case of any termination or dispute of contract /agreement /relationship between Indian representative and OEM (original Equipment Manufacturer), OEM will be laid with full

responsibility of carrying the DLP along with CAMC work as mentioned in the tender document. An undertaking for the same from the OEM is required to be submitted in the technical bid.

- 3.4 The tenderer should have service support facility located at Chennai or in case it doesn't have then it should develop such a facility within two months of issue of Letter of Acceptance(LOA).The tenderer should provide the address and contact details of these facility /provide an Undertaking letter to setup a facility from the OEM/OEMs.
- 3.5 AC or DC power distribution system shall be provided with MCB protection by the tenderer for the field equipment's and the equipment's in the operation and control centre.
- 3.6 All required fixing materials including mounts viz. screws, nuts, clamps, pipes, wires, terminals and miscellaneous materials etc. should be supplied by contractor as directed by CMRL. All the associated cable connectivity towards the functional requirements of the X-Ray baggage equipment in the supply, installation, commissioning and training at various stations are to be borne by the contractor at his own cost.
- 3.7 The work is to be carried out at the metro stations /places mentioned in the in the purchase order in Chennai.
- 3.8 Materials that are to be supplied by the Contractor for the execution of work are detailed in the SCC Clause No.21 with relevant specifications/ drawing reference mentioned in the tender document
Details of work : The tenderer shall execute the work as per scheme given below : Supply, Installation, Testing and Commissioning including Training of X-RAY Baggage Scanning system at CMRL metro stations as mentioned in the purchase order & Comprehensive Annual Maintenance Contract (CAMC) for 5years (60months) after expiry of DLP of 2 Years (24 Months) from the date of commissioning.
- 3.9 The tenderer must give an undertaking that any bugs/defects arising in the software will be attended free of cost and any improvements made to existing features should also be supplied free of cost.

4. **MAINTENANCE**

The contractor shall visit the site periodically and maintain the systems, sub-systems and associated equipment with their maintenance engineer for a period of first 2 Years (24 Months) of DLP period from the date of issue of acceptance certificate for the system/sub-system. The services of maintenance engineer shall be available for the period of first 2 Years (24 Months) of DLP period as and when required by the CMRL representative. The contractor shall ensure that the CMRL personnel are fully acquainted, trained and familiar with detailed procedure to be followed for proper testing, troubleshooting and satisfactory maintenance of the systems and sub-systems. In this period of maintenance any defect noticed in the design /manufacturing of the systems shall be attended to promptly and take necessary remedial measure, to replace the defective part free of cost and rectify the system design/manufacturing defect. During this period the contractor should deploy the skilled staff for maintaining all the equipment in good working conditions like cleaning of the system, checking log entry in the server and security of the network etc. CAMC works include repair and replacement of defective hardware and software, any future software or firmware up gradation equipment, systems and sub-systems and without any cost of spares.

5. MATERIALS

- 5.1 Materials to be supplied by the contractor for execution of the work are indicated in schedule. The contractor shall take delivery of the materials to metro Stations as specified in the purchase order. However any other material not specifically mentioned herewith but is required for supply, testing, commissioning, and training shall be provided by the bidder at his own cost.
- 5.2 The contractor will, however, have to procure all the tools and plants required for executing the labour portion of the work and before the actual commencement of the work the contractor will satisfy the CMRL that he has procured all the necessary tools plants required of the quality. The contractor shall engage his own labour and supervisor for the execution of the covered in the contract.
- 5.3 The contractor shall supply all the materials as mentioned in schedule and transport the equipment to the work site at his own cost

6. TECHNICAL DOCUMENTS

- 6.1 The following technical documents and other information are to be furnished along with the equipment are required to be submitted in the technical bid:
- a) Detailed technical description of each of the equipment offered
 - b) Documents for installation details etc.
 - c) Details regarding power supply equipment such as UPS, inverter
 - d) Manual for operation and maintenance of the equipment supplied.
 - e) Details of test accessories and test facilities provided along with write up testing and troubleshooting procedures. Technical literature of equipment to be supplied, along with the supply of materials.
 - f) All necessary software/ Originals CD/DVDs which are part of technical equipment.
 - g) Guarantee/Warranty certificate to include the Two year DLP period
 - h) List of consumable's and spare parts per equipment
- 6.2 An undertaking to the effect to be given by the bidder(in case of representatives both Manufacturer and its representative have to submit) stating their credentials as indicated in **Annexure 6(b)**

7. USE OF TECHNICAL TERMS AND CONDITIONS

Definition of technical terms and symbols used in circuit shall be as per Indian standard specification and where such specifications are not available; they should be of British standard specifications

8. WARRANTY/DEFECT LIABILITY PERIOD (DLP)

The contractor shall warranty that everything to be furnished under this contract shall be free from defects and faults in. design, materials, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for goods of the type ordered and in full conformity with the contract specifications and samples, if any and shall if operable, operate properly. This warranty shall commence from the date of issue of acceptance certificate of the installation. It shall be TWO Year (24 month) from the date of issue of acceptance certificate The contractor's liability in respect of any complaints/defect and/or claims shall be limited to the furnished and installation of replacement parts free of any charge or the repair of defective parts only to the extent that such replacement or repairs are attributable to

or arise from faulty workmanship of materials or design in the manufacture of the equipment, or wear and tear during normal use, provided that the defects are brought to the notice of the contractor within the warranty period. All replacement and repairs at the CMRL shall call upon the contractor to deliver or perform under this warranty shall be delivered and performed by the contractor promptly and satisfactorily. If the contractor desires, the replaced parts can be taken over by them for disposal as they deem fit within period of one month from the date of replacement. At the expiry of this period, no claim whatsoever shall be on the CMRL.

9. During Warranty and AMC

The contractor has to maintain minimum 10% of the spare parts of the equipment supplied to CMRL as on-site spares in Chennai for immediate replacement during failures at the tenderer's cost to reduce the downtime. The defective parts should be replaced at the earliest in the interest of the contractor to avoid penalty for down time in case of system fails. If the repair is expected to take long time, the contractor must provide a temporary spare from his stock, till they are able to return the original after repairs.

10. TENDERER'S DRAWING AND SPECIFICATION

Tenderer shall furnish with his tender, technical specifications and pamphlets, drawings or reference for all the equipment to be supplied for the contract.

11. SUPPLY OF MATERIALS TO SPECIFICATION

All the materials and equipment to be supplied and used for execution of work shall be of Industrial grade. The tenderer has to load, unload and transport the same to the worksite at his own cost. No additional amount will be paid by CMRL.

12. INSPECTION OF EQUIPMENTS

The bidder is required to furnish necessary documents / certificates duly approved by accredited laboratories/ agencies to support the following inspection test undertaken during manufacturing and prior to delivery as mentioned in Technical Specification and in the SCC of the Tender document. The documents /certificates are to be submitted by the bidder in the technical bid. All cost towards inspection will be borne by the bidder.

- a) If the product which arrives at the destination does not meet the requirements of the specification, it will be rejected.
- b) The cost of all tests and/or analysis affected at the manufacturer's or contractor's works shall also be borne by the contractor.

13. TENDERER's RESPONSIBILITY

All costs, damages and expenses which the Chennai Metro Rail Limited may have incurred or suffered and which are recoverable from the contractor under the terms of this contract or the relevant law may, at the discretion of the Chennai Metro Rail Limited be recovered by deducting the requisite amounts from any moneys due and payable or refundable to the contractor on any account whatsoever or by legal proceedings. The Chennai Metro Rail Limited also reserves the right and shall be entitled to retain payments due to the contractor under this contract and to set

off the same against all claims whether arising out of this contract or out of any other transaction whatsoever against the contractor.

14. ACCEPTANCE TESTS

- a) Immediately after the completion of the work at each station the contractor shall certify and advise the purchaser in writing that the installation is:
 - (i) Complete
 - (ii) Ready for satisfactory commercial service and
 - (iii) Ready to be handed over.
- b) Any component, modules, sub-assemblies or equipment failing during the commissioning test shall be replaced/repared free of cost by tenderer.
- c) CMRL shall issue an Acceptance certificate for successful commissioning of section covering all materials and services included in the Schedule of works after the final acceptance test as per the approved test procedure have been completed and the performance has been found to meet the specifications. CMRL decision in this respect shall be final. The Acceptance Certificate shall be signed by both the parties. The period of maintenance (DLP) of works shall commence from the date of issue of Acceptance Certificate.
- d) After the work has been completed & placed in service and Acceptance certificate issued by CMRL, the contractor shall be responsible for proper maintenance supervision of the work for a period of twenty four months from the date of commissioning. For this purpose he shall prepare a maintenance plan and make available the services of qualified maintenance engineer stationed at the location approved by CMRL who will guide and supervise the work of maintenance staff. The maintenance engineer of the tenderer will visit the total installation at least once in a month.
- e) During this period of maintenance supervision if any lacuna is noticed in the functioning, as a result of any work, the contractor will rectify the same free of cost. During such rectification if any faulty equipment/modules need replacement or repair, they shall be provided by the contractor from the set of equipment or modules that the contractor should bring to the site of installation in addition to all the materials to be supplied against this contract.

15. COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

The tenderer to ensure CAMC for 05years (FIVE years) after DLP period of 02 years(TWO years) including Hardware and software consumables, spares etc.

16. SCOPE OF COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

Preventive Maintenance service ONCE in 3 months (quarter), this will include-

- a) Detailed software check
- b) Detailed hardware check.
- c) Analysis of Alarms logs, Event logs and System Performance and taking corrective action.
- d) Corrective Maintenance of the complete System including software for the problem experienced and as reported by CMRL representative including defects, immediate replacement of faulty units of any type. The replacement units shall become the property of the "CMRL".
- e) The CMRL shall inform the contractor through telephone or through writing whenever problem occurs in proper functioning of equipment. The contractor shall confirm by issue of suitable case number regarding the complaint. The contractor must give the telephone

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- number on which the contractor may be contacted during any time of the day (24X7 hrs to attend to the complaint)
- f) Maintenance service covered under CAMC. Maximum restoration time shall not exceed 24 hours X-RAY Baggage Screening System or its sub system.
 - g) The X-RAY Baggage Screening System or its sub-systems shall be attended as early as possible from the instant information is given by CMRL representative by Phone /Fax/Email.
 - h) Complete hardware and software support to be extended by the contractor.
 - i) Carrying out any software changes
 - j) A log book will be maintained by the CMRL representatives in which day to day failures and problems notice will be entered and informed to the contractor giving date and time. The contractor's Engineer/ representative has to fill up the log book as per schedule maintenance checkup giving the details as well as corrective measures taken by the contractors engineer with date and time in the informed failure.
 - k) Trained and supervisory CMRL staff shall be permitted to minor urgent changes if required for which suitable log will be maintained by CMRL staff.
 - l) The firm should specify the name, contact number and address of the service personnel responsible for providing the Comprehensive Annual Maintenance service contract.
 - m) In addition to the preventive maintenance, the contractor shall attend break down calls whenever emergency arises and there will be no limit for such calls. All the tools and testing instruments required for checking testing and attending to routine maintenance and breakdowns shall be arranged by the contractor.
 - n) All the tools and testing instruments etc. required for checking testing and attending to routine maintenance and breakdowns shall be arranged by the successful bidder.
 - o) The contractor's staff will carry the routine spares required for preventive maintenance to ensure minimum down time without any additional cost. In addition to those spares contractor will also arrange other spares if required without any additional charges.
 - p) In case of major repairs necessitating removal of the equipment to the contractor's service center, the system or its parts are reinstalled at the owner's premises after repairing the set in working condition.
 - q) If the repair time is likely to exceed 24 hrs. then the contractor will provide a standby equipment at contractors cost.
 - r) The contractor shall depute only competent and efficient staff for routine maintenance as well as the break downs.
 - s) Contractor shall furnish to the CMRL the Name, Addresses and Telephone number of the Engineers responsible for the maintenance work. Name and telephone Number of Engineer who can be contacted after office hours and Sunday/Holydays shall also be furnished to the CMRL. Contractor shall provide identification to their Engineers and staff authorized to attend the maintenance work so as to facilitate verification by representative of CMRL.
 - t) Communication handed over to the contractor's personal at site / office shall deem to have reached their office.
 - u) At the end of each major break down repair, contractor's Engineers should prepare a service report and submit the same to the office of the authorized CMRL person concerned.
 - v) The tender shall also certify that the installation is done in accordance with the installation specified by the OEM/OEMs.
 - w) Only the engineering/technician trained and certified by the OEM/OEMs shall carry out the installation and commissioning for Equipment.

17. SERVICE TAX ON CAMC

Basic value of CAMC is 8% of basic cost of the machine. Service tax as applicable at that time will be reimbursed above basic CAMC rate.

18. PENALTY CLAUSE of CAMC & DLP

Penalty Clause of CAMC - Fault in machine shall be attended within two hours of reporting. The rectification time shall never exceed 24 hours. In case of delay of more than 24 hours, 0.5% of the value of the CAMC per machine will be levied for every 24 hours of delay in rectification of machine during CAMC period. Down time shall be reckoned from the time of intimation of failure to the firm

(b) Penalty clause during DLP:

During DLP period, 5% of the amount of the machine will be released at the end of 1st year and 2nd year respectively.

In case of delay in rectification for more than 24 hours, 1% (will be deducted)from the balance 5% of the amount to be released at the end of each year of DLP

(Please refer to example below for penalty clause during DLP)

For Example: If the balance amount to be released at the end of 1st year is Rs X and Rs Y at the end of 2nd year. Then penalty if any found will be deducted as 1% of Rs X for 1st year and 1% of Rs Y for 2nd year on every occasion in which the delay in rectification has taken more than 24hours to get resolved, for every 24 hours of delay. Maximum amount of penalty that could be recovered during DLP is 10% of the amount that will be DLP year. This will be calculated per machine wise only.

19. PAYMENT ON COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

Payment for one fourth of the total Annual Maintenance Contract value for one year including Service Tax shall be made after successful completion of the work for each quarter duly certified by the authorized representative of the CMRL. Payment shall be made on presentation of the following documents:

- (i) Certificate of satisfactory Maintenance of each quarter preceding the date of submission of Invoice to be given by the authorized CMRL representative.
- (ii) Invoice in Triplicate in showing the rate and the period for which CAMC charges are claimed.

20. DELIVEY PERIOD

The equipment in full needs to be delivered within 8 weeks from the date of placement of the Purchase order.

21. TIME FOR INSTALLATION AND COMMISSIONING

The equipment needs to be installed and commissioned within a period of 1 week from the time the site is made available. Further, care needs to be taken while shifting of the equipment to the stations so that other installations at the stations, flooring of the stations are not damaged. If any damage to other installations happens, the contractor has to make good of the same or the amount will be deducted from the invoices.

F. SCHEDULE OF REQUIREMENT

BILL OF QUANTITY

Total no of X-ray baggage scanners required to be supplied as per the specifications for various stations in Chennai Metro is: 7nos.

G. TECHNICAL SPECIFICATION

1. GENERAL

X-RAY Baggage Screening System shall be located at the specified location of CMRL metro stations or other places as per site requirement to screen passenger's baggage before permitting entry to platforms and vital locations of CMRL premises.

SCOPE

- a). The specification of X Ray Baggage Screening System covers technical specification and requirement of baggage screening systems consisting of X Ray machine, entry/exit stainless steel roller tables, Table and chair for operating the operator console, UPS, LCD color monitors, operator control console etc. for baggage screening at different locations of Metro stations .
- b). X Ray Baggage Screening System shall be networkable (Ethernet) as per site requirement. The machine should be capable of storing images and these images can be retrieved from a USB port using an external drive. The system shall be able to work continuously without interruption.

2. SYSTEM DESCRIPTION

- a) X Ray Baggage Screening System to be provided at Metro Stations of CMRL shall consist of X Ray machine, operator console with touch sensitive pad, stainless steel roller tables on entry and exit side, online UPS with maintenance free batteries for giving 30 minutes power back-up, LCD colour monitors, power cable, Combined Test Piece (CTP), Threat Image Projection (TIP) software etc.
- b) X Ray Baggage Screening System shall have tunnel size of 620 (+/- 8%) mm (width) x 420 (+/- 8 %) mm (height).

3. GENERAL REQUIREMENTS

- a). Original equipment Manufacturer or their authorized representative of X Ray Baggage Screening System shall have their service based in India.
- b). X Ray Baggage Screening System shall have quality system compliance (ISO 9001), CE complied and (AERB) Atomic Energy Regulatory Board of India certified. International Radiation Safety Standards like that of 21CFR1020.40 of USA or equivalent is desirable. Manufacturers will have to produce a certificate in this regard for the particular model proposed in the bid.
- c). The X-Ray machine shall comply with the film safety of ten passes of ISO 1600/33 DIN high-speed photographic film.
- d). All software and firmware upgrades shall be free of cost for a period of 7 year during (DLP plus CAMC). The PC of the machine shall be easily accessible and programmable.

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- e). The system should be capable of adapting to diverse operational requirements and evolving security challenges through easy customization of software-based controls and tools.
 - f). The power supply available at the Metro Station shall be 230V, 50Hz AC which may vary from 160 Volts to 270 Volts. All modules of the Screening System should work using this power supply only with requisite converters and voltage stabilizers of suitable capacity (Minimum of 2 KVA capacity).
 - g). The X Ray Baggage Screening System shall be capable of bidirectional screening operation.

4. TECHNICAL REQUIREMENTS

- a) X Ray Baggage Screening System for all type of Metro stations should mainly consist of the following:
 - i. X-Ray system
 - ii. Operator Control Console
 - iii. Inbuilt lockable drawer for console/screen monitor
 - iv. Entry/ Exit Roller Table and UPS
 - v. Power Stabilizer (Minimum of 2KVA or above from reputed supplier)
 - vi. Battery and Stabilizer Stand.
- b). The X-Ray machines should preferably be provided at specified location of the metro station or any other locations as decided by the purchaser in Chennai.
- c). The X Ray Baggage Screening System shall have imaging capabilities using dual-energy folded detector array having minimum number of diodes for following tunnel sizes:

For tunnel size 620 (+/- 8%) mm (width) x 420 (+/- 8 %) mm (height): Sensor > 1000 photo diodes
- d). The X Ray Baggage Screening System shall have transparent color feature providing a crisp, clear and robust color images enabling the operator to interpret threat objects with higher degree of confidence.
- e). The X Ray Baggage Screening System shall have an operator interface with a touch-sensitive pad /roller allowing operator for a continuous heads-up operation.
- f). The machine should be capable of discrimination of organic /inorganic stripping, reverse video, pseudo colour imaging, image annotation, real time continuous diagnostics and edge enhancement.
- g). The machine should have image zooming capability from minimum 2X – 16X zoom and continuous zoom up to 16X.
- h). Each machine should have Threat Image Protection (TIP) software which can insert fictitious threat image at periodic intervals and tracks operator responses, allowing supervisor to access the effectiveness of the screening operations and encouraging operator to stay alert.
- i). The system shall have image archive option that supports storage of up to minimum 20,000 images, determined by the user defined expiration dates or on a first-in, first out basis.

- j). The system shall have audio and visual alarm for a threat after it has compared scanned objects to data on known threats and shall highlight suspect items for further analysis.
- k). All the equipment's installed outside the control room shall be able to withstand 0 deg C to 50 Deg C and humidity of 95 % non-condensing. The storage temperature capacity should be -20 Deg C to 60 Deg C and airborne noise level of <70 dB (A)

5. HARDWARE REQUIREMENT

X-Ray System of Tunnel Size: 620 (+/- 8%) mm (width) x 420 (+/- 8 %) mm(height)

- i) The machine shall work on 230 V AC voltages, single phase, 50 Hz, 5 Amp max. The power supply available at the Metro Station shall be 230V/ 50Hz AC which may vary from 160 Volts to 270 Volts. The equipment should be able to with stand the voltage fluctuations
- ii) The X-Ray machine shall meet the following minimum technical requirements.

i.	Conveyor Length	As per OEM Specification
ii.	Conveyor Height	
iii.	Conveyor Speed	200 mm per second (minimum) or above
iv.	Conveyor Capacity	150+/-15% Kg (minimum)

- iii) **X Ray Requirements:** The X Ray machine shall have following minimum technical specification.

i.	Tank Voltage	180 kV with operating at 160 kV
ii.	Duty Cycle	100 %
iii.	Cooling	Sealed Oil Bath
iv.	Beam Orientation	Vertically upward
v.	X Ray Sensor	Sensor > 1000 photo diodes in folded array (L-shaped) configuration. In case of defective diode arrays scanning should be disabled and error message should be displayed on the screen.

- iv) **X ray Imaging and performance:** The X Ray machine shall have the following minimum technical specifications and features for imaging:

i.	Resolution	38 AWG guaranteed
ii.	Steel Penetration	35 mm guaranteed
iii.	Contrast Sensitivity	4096 gray level stored

iv.	Video resolution	1280 x 1024/ 24 bits/pixel colour
v.	Video Display	Two high resolution 17" LCD high-resolution, flicker free display Ergonomic, LCD colour monitor
vi.	Computer Processor	Intel 4 th generation processor as indicated in computer specification

- a). The machine should have features of multi energy X-ray imaging facility where materials of different atomic number will be displayed in different colors to distinguish between organic and inorganic materials. With this method to distinguish high density organic materials including explosives. Machine should have variable color or materials stripping to facilitate the operator to monitor images of organic materials for closer scrutiny. All suspicious items (Explosive High density, material narcotics) should be displayed in one mode and that should be on line.
- b). Radiation Safety: The machine must comply with requirements of health and safety regulations with regard to mechanical, electrical and radiation hazards. The radiation level should not exceed excepted health standard (0.1m R/Hr. at a distance of 5 cm from external housing). Before installation of the machine the supplier / manufacturer should furnish relevant certificate from (AERB) Atomic Energy Regulate Board of India regarding radiation safety. To comply with all applicable health & Radiation Safety regulations for X-Ray system.
- c). The company manufacturing the equipment should have ISO certification for manufacturing and serving of X-ray Screening machine.
- d). Film safety: Guaranteed safety for high speed films up to I50 - I1600. The machines should be film safe. In other words photographic films must not be damaged due to X-Ray examination.
- e). Machine should be rodent protected. **Dust proof cover is to be provided for covering when system is not in use.**
- f). Facility for variable contrasts must be incorporated to allow enhancement of lighter and darker portion of the image.
- g). The machine should be so designed that software enhancement can be easily implemented to take care of new technique in image processing and pattern recognition.
- h). Through put should be 300 bags per hour or more. All software features of machine should be online and password protected.
- i). Full diagnostic built in test facility. All models should have software controlled diagnosis report facility and system should give printout if printer is connected.
- j). All software features of machine should be online and password protected.
- k). Machine should be capable for recalling 20 previous images
- l). The operator personal identification number can be entered through the keyboard.
- m). Facility of image enhancement should be available.

-
- n). All models should have online recording facility and images can be recorded in CD R/W.
 - o). Lead impregnated safety screens should be available at either ends of the tunnel. Idle roller provided at either ends of the tunnel to facilitate placing of baggage at input and output.
 - p). System should work on one software only. All software features should be controlled from Keyboard of machine only. Keyboard function should be user friendly. To enable/ disable the software features system should not be rebooted.
 - q). If the machine fails to penetrate a particular item then an alarm video and audio both should be generated to notify the operator.
 - r). The threat image projection (TIP) system software to be incorporated in all X-Ray BIS operation.
 - s). Copy of all software including X-Ray software with recovery CD must be provided
 - t). Operational Training - Operating staff has to be provided free training
 - u). Operating & service manual shall be provided with each machine
 - v). Other Features to include following:
 - i). Edge & Variable edge enhancement.
 - ii). Inverse Video
 - iii). Fast initial warm-up
 - iv). Pseudo color
 - v). Date & time display.
 - v) Computer Specifications (minimum or better to be provided)**
 - 4th Generation Intel® Core™ i3-4170 Processor (3M Cache, 3.70 GHz)
 - Intel® Pentium® Processor G3260 (3M Cache, up to 3.30 GHz)
 - Intel® HD Integrated Graphics
 - RAM 4GB Single Channel DDR3 1600MHz
 - Hard Disk Drive: 500GB 7200 rpm serial ATA HDD.
 - Mouse: Optical, Keyboard: windows keyboard.
 - Bays: 4 no's (2nos 5.25 inches for Optical Media Drives and 2 No's 3.5 inches for Hard Disk Drives).
 - Ports: 6 No's USB_3.0 ports (with at least 2 in front), 1 serial port, Parallel port, 1 PS/2 Key board and 1 PS2 Mouse port, audio ports for microphone and headphone in front.

-
- Cabinet: Mini tower.
 - DMI: DMI 2.0 compliance and support.
 - CD-R/RW Drive: DVD writer
 - Networking facility: 10/100/1000 on board integrated Network Port with remote booting facility remote system installation, remote wake up, out of bad management using any standard management software.
 - Operating System: Windows latest Business version reloaded with Media and Documentation and certification of Authenticity.
 - Power Management: Screen blanking, hard disk and system idle mode in Power On, Set up password, power supply SMPS surge protected.

Note: Specified above are minimum requirements.

a. Operator Control Console

- i). Operator interface shall provide a simple, flexible and powerful way for operator to control the system and make maximum use of the imaging information.
- ii). The operator interface shall combine not more than three button conveyor control with a touch sensitive pad allowing heads-up operation.

b. Entry/ Exit roller Table:

- i). Two stainless steel roller tables shall be provided with each system, one at the entry side and other at the exit side.
- ii). Each roller table shall of at least entry 500mm and exit 1000mm size. The height should be adjustable according to the height of the system conveyor.

c. Uninterrupted Power Supply (UPS):

Each X-Ray system of the tunnel size 620 (+/- 8%) mm(width) x 420 (+/- 8 %) mm(height) shall have an external single phase 2kVA On-line UPS to support PC and electronics It should be of Standard manufacturer make with maintenance free battery to provide power back-up for at least 30 minutes.

- d. Combined Test Piece (CTP):** Each system shall have a Combined Test Piece (CTP) for testing the steel penetration, wire resolution, organic and inorganic material discrimination of the machine. Bidder to provide a test certificate for the accuracy of CTP from a Govt.Laboratory. This has to be provided along with every machine.

6. SOFTWARE REQUIREMENTS

Image Management Software

It shall offer a complete X-Ray image analysis solution that shall be pre-installed in the system's PC.

The software shall provide the following:

- Visual alerts to the operator in case of a threat or high density object.
- Operator logs
- Date, Time and Operator ID
- Entire toolbar shall be available on the screen for the operator to select and use required icon of the image analysis feature.
- Self-diagnostics tool with error message and system configuration tool.

Threat Image Projection (TIP) Software Features:

The TIP software shall perform the following applications:

- i). TIP software facility shall be incorporated in the X-Ray machines to assist supervisors in testing the operator alertness and training X-ray screeners to improve their ability in identifying specific threat object.
- ii). The system should create a threat object and the same should be superimposed on the monitoring screen while a bag is being screened. To acknowledge that the operator has seen the false object, operator shall use the required toolbar icon using the control panel that should cause the computer generated threat object to disappear from X-rayed bag image on the display screen. Each operator's action shall be recorded in the hard disc of the computer for the auditing purpose by the supervisor or other authorized person.
- iii). The TIP facility should have an image library containing at least 100 explosive devices, 100 knives and 100 firearms in various sizes, shapes, locations and orientations. However, the system shall have facility to expand the library to incorporate additional images.
- iv). The image library should contain images of threats at different orientation.
- v). Programming facility shall be available to project threat images at different intervals. The time period for threat image as well as image mix in percentage shall be user programmable.
- vi). The threat image projection facility shall have details of user data base such as screener name, organization, user ID number, level of access such as screener, administrator, maintenance schedule and password etc.
- vii). Access to start up menu should be restricted only to the authorized individuals. A login procedure by means of password or security key should provide restricted access.
- viii). The threat image projection should be capable of giving feedback message. No message will be presented if a screener correctly passed as clear bag. (HIT, MISS, ALARM message)
- ix). The system shall automatically prepare the daily log of events for each screener performance.

7. COMBINED TEST PIECE (CTP) TESTS REQUIREMENTS

a) Single Wire Resolution (Test No. 1)

The requirement is to display 38 AWG guaranteed (40 SWG typical) wire not covered by step wedge. A tick should indicate the visibility of appropriate wire. A set of un-insulated tinned copper wire of different sizes in SWG should be placed on a Perspex sheet. Wires are to be laid out in S shaped curves. The wires should be placed behind varying thickness of aluminum. Metallic marker should be provided using high density material, so that SWG numbers in the Video Display Unit (VDU) are clearly visible.

b) Useful Penetration (Test No. 2)

The test defines what level of details can be seen behind a thickness of known material. The CTP should have different gauges of wire behind varying thickness of aluminum. The requirement of this test is that the 26 SWG wire should be seen under second step wedge (5/16").

c) Material discrimination (Test No. 3)

The requirement is that different colors should be allocated to the sample of organic and inorganic substances. With multi energy X-Ray, it should be possible to distinguish between materials of different average atomic number for differentiating between organic and inorganic substances. The use of sugar and salt samples encapsulated on the test piece and various materials used in the construction of CTP should check the material discrimination facility.

d) Sample Penetration (Test No. 4):

The requirement is that the lead should be visible beneath 26mm of steel. This test defines what thickness of steel the machine should be able to penetrate.

e) Method of Testing:

The CTP should be viewed by using image enhancing facility till the operator is satisfied that the machine is working properly. The optimum position of CTP on the belt will depend on X-Ray source and detector arrangement. This should be ascertained from the service engineer, if need arises.

The best Result out of multiple scanning of CTP in both colour and black and white images shall be taken into account for a particular machine.

8. TEST REQUIREMENTS

a) Conditions of Tests:

- i). Unless otherwise specified all tests shall be carried out at ambient atmospheric conditions.
- ii). Inspection and testing shall be carried out to the effect that all requirements of this specification are complied with.
- iii). Inspection shall be carried out for complete unit of X-Ray Baggage Screening System along with associated accessories.

b) Type Tests:

For type test, one complete system of X-Ray Baggage Screening System shall be subjected to following tests as applicable.

- a) Visual Inspection
- b) Performance Test
- c) Factory Acceptance Test
- d) Endurance Test

c) Acceptance Tests:

The following shall constitute the acceptance tests which shall be carried out by the inspecting authority for the purpose of acceptance of complete systems in each site offered by the supplier.

- a) Visual Inspection of complete system
- b) Performance Test
- c) Endurance Test

Any other tests shall be carried out as considered necessary by the inspecting authority

d) Routine Tests:

The following shall comprise the routine tests and shall be conducted by manufacturer on every equipment and the test results will be submitted to the inspection authority before inspection. The application software in proper format, wherever applicable, shall also be submitted to the inspecting authority in advance.

- a) Visual inspection of complete system
- b) Performance Test

Any other tests shall be carried out as considered necessary by the inspecting authority.

9. TEST PROCEDURE

The test procedure shall be based on the published system design. The methodologies to be adopted for various tests shall be decided taking into account the system design/ configuration.

Visual Inspection

Each equipment of X-Ray Baggage Screening System shall be visually inspected to ensure compliance with the requirement of clauses mentioned in this specification. The visual inspection shall broadly include:

a) System Level checking:

- i). Constructional details
- ii). Dimensional check
- iii). General Workmanship
- iv). Configuration

b) Performance Test:

- i). The equipment shall comply with the requirements as specified in clauses of technical specification.

-
- ii). The PC Workstations for use of operators/ screeners and the administrators as mentioned in technical specification shall be of standard make only complying with all the parameters mentioned in the specification.

c) Endurance Test:

During type test, endurance test shall be conducted on complete system for continuous operation which shall be 168 Hrs at ambient room temperature without giving any deterioration in performance.

During acceptance test, endurance test shall be conducted on complete system for continuous operation which shall be 48 Hrs at ambient room temperature without giving any deterioration in performance.

10. QUALITY ASSURANCE

a) All materials and workmanship shall be of good quality.

- Since the quality of the equipment bears a direct relationship to the manufacturing process and the environment under which it is manufactured, the manufacturer shall ensure Quality Assurance Program of adequate standard.

- Validation and system of monitoring of QA procedure shall form a part of type approval. The necessary plant, machinery and test instruments as mentioned in Schedule of Technical Requirements (STR) shall be available with the manufacturer.

b) Along with the prototype sample for type test, the manufacturer shall submit the Quality Assurance Manual.

Consumables:

Following items in X-Ray machine have been identified as consumables by CMRL:

- (i) Lead coated flaps (ii) Battery (iii) Conveyor Belts.

The Vendor is required to supply following Number of brand new & unused consumables per machine free of cost during DLP + CAMC period (combined together):

(i) Lead coated flaps	10 Nos	per machine
(ii) Battery	05 Nos	per machine
(iii) Conveyor Belts	10 Nos	per machine

Further vendor is required to store at his own premises & supply these consumables as & when required by CMRL during DLP + CAMC period.

CMRL will make the payment towards the above mentioned consumables only after exhausting consumables (total quantity combined together for all machines) which are required to be supplied free cost during DLP + CAMC period.

The overall count of the consumables ,as per the total machines supplied will be the deciding factor for making any payment towards the consumables which will be over and above the required free supply of the consumables.

If any other consumable required other than the ones mentioned above, the supplier is required to supply the same free of cost throughout the DLP + CAMC period.

-
- a) Tenderer shall be paid 8% (Eight percent) of the total value of the equipment per year towards the comprehensive Annual Maintenance contract excluding taxes. i.e Basic value of CAMC is calculated based on basic cost of the machine (excluding taxes).
 - b) The availability of machine during DLP & CAMC shall not be less than 99% this will be calculated in following manner:

$$\frac{\text{Total Time} - \text{Down Time} \times 100}{\text{Total Time}}$$

Total time taken shall be revenue hours of operation of Chennai Metro.
Operation hours are from 05:00 AM to 11:30 pm every day.

11. TRAINING

- a) On-site training shall be provided to the CMRL staff/ security personnel which shall include complete assembly of each types of system through the use of various modules, integration of hardware with software and complete operation of the system.
- b) At the time of handover of the X ray baggage scanning system, concerned station staff in each station needs to be trained for operation and fault diagnosis etc. Apart from this, training for operators of the machine needs to be organized in 4 batches, each batch size not exceeding 15 operators. No additional payment will be made for this training.**
- c) Sets of training manual in two hard copies and two soft copies for each equipment containing details of the technical specifications, installation and commissioning, troubleshooting & maintenance schedule etc. shall be supplied along with the system.

ANNEXURES (1-11)

PRICE SCHEDULE FOR EQUIPMENT

1	2	3	4							5	
Brief Description of Equipment	Country of Origin	Qty (No.s)	Ex-Factory/Ex-Warehouse/Ex-showroom/Off-the Shelf	Excise Duty (if any) [%age & Value]	Sales Tax/VAT (if any) [%age & Value]	Packing and Forwarding charges	Carriage and Insurance upto destination	Incidental Services (including Installation, Commissioning, Supervision, Demonstration and Training)	Service Tax	Unit Price	Total Price
										(h) =a+b+c+d+e+f+g	(INR) 3X4(h)
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	

Tenderer will take extended insurance cover for a period up to 3 months beyond the date of delivery at ultimate consignee site.

Name:.....Business Address:

Date:

Signature of Tenderer:.....

Place:

Seal of Tenderer:.....

Contact Mobile No:

Email address:

PROFORMA FOR PAST PERFORMANCE

ANNEXURE 2

COMMERCIAL DETAILS & PAST PERFORMANCE

A. COMMERCIAL DETAILS

- a) . Name and address of the Banker. A copy of the Banker's report should be enclosed.
- b) . Last 3 years turn over i.e. 2013-14, 2014-15 & 2015-16. (Documentary evidence should be enclosed)
- c) . A copy of current valid ITCC (Income Tax) should be enclosed.

B. PAST PERFORMANCE

Details of orders for the quoted item executed should be furnished in the following format.(copy of PO to be enclosed)

SI No	Full address of purchaser	Order No. and date	Description of stores	Qty	Value of order	Date of delivery	Delivery Location

Date:

Signature:

Place:

Name of organization :

Designation:

Seal of the organization:

NOTE: In addition to above a certificate from the Purchaser should be enclosed to indicate that the contract was satisfactorily performed.

PROFORMA FOR EQUIPMENT AND QUALITY CONTROL EMPLOYED BY THE MANUFACTURER

1. NAME OF THE FIRM
2. LOCATION
 - 2.1 Postal Address.
 - i) Head Office
 - ii) Works/ Factory
 - 2.2 Telephone No. (with ISD/STD code).
 - i) Head Office
 - ii) Works/ Factory
 - 2.3 Telegraphic address & Telex/ Fax
 - i) Head Office
 - ii) Works/ Factory
3. DESCRIPTION OF FACTORY/WORKS
 - i) Total Land area
(in Sq. meters)
 - ii) Total covered area (in Sq. meters)
 - iii) Different sub-units (with details of covered/ uncovered area, etc.)
 - iv) Special features, if any:
4. NO. OF PERSONNEL EMPLOYED (CATEGORY-WISE)
 - I) Managerial *
 - II) Supervisory*
 - III) Skilled artisans
 - IV) Unskilled

* The qualification may also be indicated.

5. GENERAL INFORMATION-TECHNICAL

-
- 5.1 Description of different departments in the Factory/ Works
and function of each department, along with an organizational chart
 - 5.2 Detailed description of machinery and Plant in each department (make
and year of procurement/ commissioning to be provided. For
special type of equipment copy of Pamphlets/write ups to be
furnished so as to supplement the description.
 - 5.3 Details of raw-materials held in stock (state whether imported/ indigenous).
 - 5.4 Production capacity of the quoted items
Per month
Per year
 - 5.5 List of other items, which the firm regularly manufactures and
corresponding production capacity.
 - 6. DESIGN CAPABILITY**
 - 6.1 Details of Qualified Personnel (indicating qualification and experience)
 - 6.2 Other facilities available.
 - 7. MANUFACTURING PROCESS**
 - 7.1 Level of In-house Facilities
 - 7.2 Important items of Work done by Outside Vendors
 - 7.3 Brief details of manufacturing process relevant to the items quoted.
 - 8. QUALITY ASSURANCE**
 - 8.1 Is the firm certified for ISO 9000 or equivalent? If so, please give certification details.
(If firm is certified for ISO 9000 or
Equivalent, no further information on Para 8 is required to be filled in).

-
- 8.1.1 If no, does the firm contemplate to obtain ISO 9000 certification
What steps have been taken by the firm in that direction.
- 8.2 Does the factory have an established Quality Assurance programme
If yes, please enclose a copy of the write-up
if not, what plans are there, if any, for setting it up?
- 8.3 Details of Quality Assurance Organization.
Names of key personnel, their qualifications,
designations and position in overall management structure
(Explain with organization chart, if necessary).
- 8.4 Quality control testing Facilities and Laboratory equipment available.
- 8.5 Availability of gauges (Please give details)
- 8.6 Calibration of laboratory / test equipment/gauges,
Indicated in Para 8.4 and 8.5 above
- i) How is the calibration done?
- iii) Frequency of calibration. System to ensure that calibration of above equipment's
does not fall overdue.
- iv) Action taken if such calibration has fallen overdue.
- 8.7 Source of procurement of raw-materials, important bought-outs, steps taken to ensure their
quality.
- 8.8 Details of inspection/ checks done on material during various stages of the above
manufacturing process.
- 8.9 Have acceptable values for the parameters Inspected during above stage checks have
been laid down?

If yes, the action taken if value of the parameters inspected does not meet the
desired laid-down value.

8.10 System for documentation of the results of the above stage checks.

9. AFTER-SALES-SERVICE

9.1 Facilities Available **at** works and Branch Offices.

9.2 Assessment of Quality of service including Response Times.

Place Signature& Seal.....:

Date

Name

Designation.....

PROFORMA FOR AUTHORITY FROM MANUFACTURERS

To
.General Manager (Telecom & AFC),
CMRL Depot, Admin Building,
Poonamallee High Road, Koyambedu,
Chennai -600 107

Dear sir,

Sub :-

Wean established and reputable manufacturers of X Ray baggage scanner equipment having factories at.....and offices at do
Hereby authorize M/s..... (Name and address of Indian representative)to represent us, to bid, negotiate and conclude the contract on our behalf with you against
Tender No

No company/ firm or individual other than M/sare authorized to represent us in regard to this business against this specific tender.

Yours faithfully,

Date:

(Name & Designation) for & on behalf of M/s.....

Place

(Name of Manufacturers).....

Signature & Seal

Note : This letter of authority should be on the Letter-Head of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

**PROFORMA OF BANK GUARANTEE FOR CONTRACT
PERFORMANCE GUARANTEE BOND**

(Refer Clause 8 of General Conditions of Contract)

Ref Bank Guarantee No..... Date.....

1. This deed of Guarantee made this day of _____ between Bank of _____ (hereinafter called the “Bank”) of the one part, and Chennai Metro Rail Limited (hereinafter called the “the Employer”) of the other part.
2. Whereas Chennai Metro Rail Limited, has awarded the contract for _____
(Name of work as per clause 2 of SCC) (hereinafter called the contract) to _____
(hereinafter called the Contractor).
(Name of the Contractor)
3. AND WHEREAS the Contractor is bound by the said Contract to submit to the Employer a Performance Security for a total amount of Rs. _____ (Amount in figures and words).
4. Now we the Undersigned _____ (Name of the Bank) being fully authorized to sign and to incur obligations for and on behalf of and in the name of _____ (Full Name of Bank), hereby declare that the said Bank will guarantee the Employer the full amount of Rs. _____ (Amount in figures and Words) as stated above. This bank guarantee is payable at our designated bank branch ----- Located in Chennai.
5. After the Contractor has signed the aforementioned Contract with the Employer, the Bank is engaged to pay the Employer, any amount up to and inclusive of the aforementioned full amount upon written order from the Employer to indemnify the Employer for any liability of damage resulting from any defects or shortcomings of the Contractor or the debts he may have incurred to any parties involved in the Works under the Contract mentioned above, whether these defects or shortcomings or debts are actual or estimated or expected. The Bank will deliver the money required by the Employer immediately on demand without delay and demur any without reference to the Contractor and without the necessity of a previous notice or of judicial or administrative procedures and without it being necessary to prove to the Bank the liability or damages resulting from any defects or shortcomings or debts of the Contractor. The bank shall pay to the Employer any money so demanded notwithstanding any dispute/disputes raised by the Contractor in any suit or proceedings pending before any Court, Tribunal or Arbitrator/s relating thereto and the liability under this guarantee shall be absolute and unequivocal.
6. This Guarantee is valid till(The initial period for which this Guarantee will be valid for **7 years and 6-months (90 months)** longer than the anticipated expiry date of defect liability period as stated in **Clause 8** of the “General Conditions of Contract”).

7. At any time during the period in which this Guarantee is still valid, if the Employer agrees to grant a time extension to the Contractor or if the Contractor fails to complete the Works within the time of completion as stated in the Contract, or fails to discharge himself of the liability or damages or debts as stated under Para 5 above, it is understood that the Bank will extend this Guarantee under the same conditions for the required time on demand by the Employer and at the cost of the Contractor.
8. The Guarantee hereinbefore contained shall not be affected by any change in the Constitution of the Bank or of the Contractor.
9. The neglect or forbearance of the Employer in enforcement of payment of any moneys, the payment whereof is intended to be hereby secured or the giving of time by the Employer for the payment hereof shall in no way relieve the bank of their liability under this deed.
10. The expressions "the Employer", "the Bank" and "the Contractor" hereinbefore used shall include their respective successors and assigns.
11. Notwithstanding anything contained herein:
 - a) Our liability under this Bank Guarantee shall not exceed Rs..... (Rupees.....)
 - b) This Bank Guarantee shall be valid up to
 - c) We are liable to pay the guarantee amount or part thereof under this Bank Guarantee only & only if you serve upon us a written claim or demand on or before

In witness whereof I/We of the Bank have signed and sealed this guarantee on theday of(Month).....(Year) being herewith duly authorized.

For and on behalf of

TheBank.

Signature of Authorized Bank official:

Name :

Designation :

Stamp/Seal of the Bank:-----

Signed, sealed and delivered
For and on behalf of the
Bank by the above

Named _____ in

the presence of :

Witness 1.

Witness 2.

Signature

Signature.....

Name.....

Name.....

Address.....

Address.....

ANNEXURE- 6(a)

CHECK LIST (IMPORTANT NOTICE)

(A) The following check list is intended to help the tenderers in submitting offer which are complete. An incomplete offer is liable to be rejected. Tenderers are advised to go through the list carefully and take necessary action.

(B) Tenderers are also required to submit copy of the checklist, duly marked, along with their offer.

1. Have you submitted a complete offer?

It should consist of followings

- | | |
|---|--------------------------|
| (a) Price Schedule in prescribed Performa Annexure 1. | Submitted /Not submitted |
| (b) Letter of Authority as per Annexure 4 | Submitted /Not submitted |
| (c) EMD Deposit | Submitted /Not submitted |
| (d) Letter as per Clause 3.2 of SCC | Submitted /Not submitted |
| (e) Letter as per Clause 3.3 of SCC | Submitted /Not submitted |
| (f) Letter as per Clause 6.2 of SCC as Annexure 6(b) | Submitted /Not submitted |
| (g) Demand Draft for Tender document | Submitted /Not submitted |
| (h) Any other document part of the tender to be submitted | Submitted /Not submitted |

2. Have you submitted other supporting documents to establish your eligibility?
It may consist of the following :

- | | |
|---|--------------------------|
| (a) Required numbers of Certificates from the user as per(Annexure- 2) Para 4 of Instruction to Tenderers | Submitted /Not Submitted |
| (b) Income Tax Clearance Certificate | Submitted /Not Submitted |
| (c) Clause wise comments on Technical. Specifications, Clause 2.2 "Instructions to Tenderers | Submitted /Not Submitted |
| (d) Any other document asked by the purchaser if submitted, specify the Documents
OR
Any other document which the tenderer Considers relevant | Submitted /Not Submitted |
| (e) Form 10F as per income Tax act 1961 in case foreign suppliers. | Submitted /Not Submitted |

3. If you are a foreign firm have you submitted the detailed particulars of Indian representative and agreement with them- clause 3.3 of "Instructions to Tenderers".....
Submitted /Not submitted

Place: Signature & Seal of the Manufacturer/ Tenderer

Date :Name & Designation

ANNEXURE – 6(b)

UNDERTAKING BY MANUFACTURER/TENDERER
(Refer Clause 6.2 of Special Conditions of Contract)

Name of the Manufacturer/Tenderer

No	Criteria	Yes	No
1.	Has the Tenderer abandoned work in the last five years		
2.	Has the Tenderer delayed in similar work completion during orders executed in last five years		
3.	Has the Tenderer suffered bankruptcy/ insolvency in the last five years		
4.	Has the Tenderer been blacklisted by any organization		
5.	Has the Tenderer been penalized for poor quality of the work in the last five years		
6.	Has the Tenderer given any misleading information		
7.	Is the Tenderer financially sound		
8.	Any other document to be submitted by the tenderer		

.....

Place: Signature & Seal of the Manufacturer/ Tenderer

Date: Name & Designation

UNDERTAKING FOR DOWNLOADING THE TENDER DOCUMENTS FROM WEBSITES

I/We have downloaded the Tender documents from the Internet site www.chennaietrorail.gov.in and I/we have not tampered / modified the Tender documents in any manner. In case, if the same is found to be tampered / modified, I/we understand that my/our Tender will be summarily rejected and the money deposited will be forfeited and I am/we are liable to be banned from doing business with CMRL and/or prosecuted.

.....Signature & Seal of the Manufacturer/ Tenderer

Place

Date

UNDERTAKING BY THE BIDDER

An undertaking to the effect to be given by the bidder(in case of representatives both Manufacturer and its representative have to submit the undertaking)

This is to certify that M/S.....a reputed and certified manufacturer of the X-Ray Baggage scanning equipment has NOT been Black listed /Debarred by anyGovernment/Governmentundertaking/semiGovernment/Govt.ControlledInstitutions/projects/Reputed private organizations in India or Abroad.

Place:

Signature

Date:

Name and Designation

Seal of the Company

ACCEPTANCE CERTIFICATE FROM CONSIGNEE

Name of Consignee:

Designation:

CMRL Station Name:

Installed Machine Serial No :

Model No:

This is to certify that above mentioned X-Ray Baggage Machine has been successfully installed, commissioned, tested and necessary training for its day to day operations has been imparted by M/s..... to CMRL

The machine is in working in satisfactory condition.

Place

Date

Signature:

Seal:

Designation

FINAL ACCEPTANCE CERTIFICATE

(To be issued on completion of DLP)

Name of Consignee:

Designation:

CMRL Station Name:

Installed Machine Serial No :

Model No:

This is to certify that above mentioned X-Ray Baggage Machine has been successfully installed commissioned and all necessary trainings imparted to CMRL staff. The machine is in working condition and performance is satisfactory.

Place

Date

Signature:

Seal:

Designation

ANNEXURE-11

REFUND OF EMD THROUGH NEFT

- Name of the Firm/Bidder:
- Name of the account to which amount to be remitted:
- Complete Address:
- Name of the Bank:
- Branch:
- Address of the Bank Branch:
- Account Type:
- Account Number:
- IFS Code of the Bank Branch:
- MICR Code of the Bank Branch:
- Whether a cancelled Cheque of the Bidder/Firm is submitted: Yes or No (please tick)

Certified that the information furnished above is correct.

Signature of the authorized person of the firm/Bidder with seal & Date