

GOVERNMENT OF INDIA

भारत सरकार



NORTH EASTERN RAILWAY

पूर्वोत्तर रेलवे

TENDER DOCUMENT
निविदा प्रपत्र

NAME OF WORK :- Provision of electric lifting barrier gate at L-xing gate No.
6A,8ML,3ML,4ML ,5A & 8A in Lucknow Lucknow Area.

कार्य का नाम :- लखनऊ क्षेत्र में स्थित समपार फाटक संख्या 6ए,8एमएल,3एमएल,4एमएल,5ए एवं
8ए पर इलेक्ट्रिक लिफ्टिंग बैरियर का प्रावधान ।

Tender Notice No :- 1 of 2010 (Sl. No :-1)

(Not Transferable)
(अहस्तांतरणीय)

Date & Time of Tender Opening :- At 15.30 Hrs on 03.03.2010

M/S_____

Price Rs.5000/-

मूल्य रु0 5000/-

(Postage Extra) Rs.500/-

(डाक व्यय अतिरिक्त)रु0 500/-

Check list for the Tenderer

1. Whether tenderer has signed all the pages of tender document .
2. Whether tenderer has quoted the rates of the items of schedule of work in figure as well as in words .
3. Whether tenderer has enclosed the EMD of requisite amount in acceptable form .
4. If the firm is partner ship , whether tenderer has enclosed the partnership deed .
5. Whether the tenderer has enclosed all the supportive documents to qualify the minimum eligibility criteria viz (a) completion certificate of single similar nature work of value not less than 35% of advertised tender value in last three financial year & current financial year. (b) total contract amount received during last three financial years and current financial year should be a minimum of 150% of the advertised tender value as per payment certificate issued by the employer/client, audited balance sheet duly certified by the chartered accountant.

Sig. of Tenderer

INDEX

<u>S.No</u>	<u>SUBJECT</u>	<u>PAGE NO</u>
1	Cover page	1
2	Check list for tenderer	2
3	Index	3
4	Instruction to tenderer	4
5	Tender Notice	5
6	Tender Form (1st.Sheet)	6
7	Tender Form (2 nd Sheet)	7-11
8	Special Condition of contract	12-16
9	Technical Specification	17-20
10	Schedule of Works	21-22
11	Annexure	23-26

INSTRUCTION TO TENDER (S) WILLING TO SUBMIT TENDER DOCUMENT AFTER DOWN LOADING FROM WEBSITE GIVEN BELOW

TENDER DOCUMENT

FOR

WORK MENTIONED AGAINST

OPEN TENDER NOTICE NO 1 / 2010 SERIAL NO.1

1.0 INSTRUCTION

- 1.1 Tenderer(s) who are submitting downloaded (from website) tender documents must enclose with the tender form a non refundable tender fee of **Rs. 5000/-** in form of Bank Draft issued by State Bank of India or of any of the nationalized bank or schedule Banks (other than the state Bank of India and the nationalized Banks) approved by the Reserve Bank of India for this purpose, in favour of FA& CAO / North .Eastern railway payable at Lucknow . Tender offers not accompanying the requisite tender fee shall be summarily rejected .
- 1.2 A certified copy of original tender document is available in the tender section of Divl. Sig. & Telecom / North Eastern Railway / Lucknow which may be seen on any working day during prescribed period for sale of tender form .
- 1.3 Tenderer(s) , on award of contract , will have to enter into agreement with railway in format of above mentioned original tender document s. Tenderer(s) shall not have any right / claim to insist on signing of contract agreements in format on which tender documents were submitted by him after down loading from website .
- 1.4 If during process of tender finalisation , it is detected that tenderer has submitted tender documents after making any changes/ additions/ deletions in the tender documents downloaded from website , then the earnest money deposited by the tenderer shall be forfeited by the railway . Further , if after award of contract it is detected that tenderer has submitted tender documents after making any changes / additions/ deletions in the tender documents downloaded from website then railway will take action to remove the contractor from the work in terms of clause 62 of GCC/1999 and initiate such further action against contractor as considered necessary .

Signature of tenderer (s)
Dated

DRM/S&T
Lucknow

NORTH EASTERN RAILWAY

Sealed open tenders (Tender Nos. DRM/S&T/LJN Tender Notice No. 01 /2010) are invited by Divisional Railway Manager (Signal & Telecom) / Lucknow / N.E. Railway for and on behalf of the President of India for the following works :-

Tender Notice No. & Description of work.	Approx. Value (Rs.)	E.M.D. Money (Rs.)
Tender Notice No 01/2010 (S.No.-1) Provision of Electric lifting barrier gate at L-xing gate No. 6A, 8ML,3ML,4ML,5A & 8A in Lucknow area	50,09,095/-	1,00,190/-
	Cost of Tender Forms – Rs. 5,000/-	
	Completion time/period from the date of issue of acceptance letter.:- 06 months	
Tender Notice No 01/2010 (S.No.-2) Replacement of old Voice data loggers with 100% hot standby in control test room / Lucknow	11,28,960/-	22,580/-
	Cost of Tender Forms – Rs. 2,000/-	
	Completion time/period from the date of issue of acceptance letter.:- 04 months	
• Receipt of tender upto 14.30 hrs. on 03.03.2010 • Date of opening 15.30 hrs. on 03.03.2010 Detailed tender notice, Eligibility criteria, terms & conditions is available at North Eastern Railway’s website : http://www.nerailway.gov.in and Govt. of India’s Website : http://www.tenders.gov.in Divl. Signal & Telecom Engineer , N.E.Railway / Lucknow (On behalf of President of India)		

NORTH EASTERN RAILWAY

(Tender form (First Sheet)

Tender No. N/16/2010/OT/ 1

Name of work :- Provision of electric lifting barrier gate at L-xing gate No.
6A,8ML,3ML,4ML ,5A & 8A in Lucknow Area

To,

The President of India,
Acting through the DRM(S&T)
North Eastern Railway / Lucknow.

1. I/We -----have read various conditions of tender attached here to and agree to abide by the said conditions. I/We also agree to keep this tender open for acceptance for a period of 90 days from the date fixed for opening of the same and in default thereof. I/We will be liable for forfeiture of my/our Earnest Money. I/We offer to do the work for North Eastern Railway at the rates quoted in the attached schedule and hereby bind myself /ourselves to complete the work in all respect with in all respect within **180 days** from the date of issue of letter of acceptance of the tender.
- 2 I/We also hereby agree to abide by the general Conditions of Contract of N.E. Railway along with all subsequent amendments therein and to carry out the work according to the special conditions of contract and specification for materials and works laid down by the Railway for the present contract.
- 3 A sum of Rs is herewith forwarded as Earnest Money. The full value of the Earnest Money shall stand forfeited without prejudice to any other rights or remedies in case my/our Tender is accepted and if :-
 - (a) I/.We do not execute the contract documents within **15** days after receipt of notice issued by the Railway that such documents are ready. And
 - (b) I/We do not commence the work within **15** days after receipt of orders to that effect.
- 4 Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicted in the letter of acceptance of my/our offer for this work..

Signature of Tenderer (s)
Date :-
Address of the Tenderer(s)

Tender From (Second Sheet)

Instructions to Tenderer and Conditions of Tender

- 1 The following documents form part of Tender / contract :-
 - (a) Tender Forms : (First Sheet & Second Sheet)
 - (b) Special Conditions of contract (Enclosed)
 - (c) Technical s Specifications (Enclosed)
 - (d) Schedule of approximate quantities (Enclosed).
- 1.1 General Conditions of contract and Standard specification for materials issued by RDSO is applicable as Amended / corrected up to latest Correction Slip, copies of which can be seen in the office of Sr. Divl. S&T Engineer, N.E. Railway, Lucknow or obtained from the office of the Chief &T Engineer, N.E. Railway or Director General ,RDSO on payment of prescribed charges.
- 1.2 All General and detailed drawing (if any) pertaining to this work will be issued by the Engineer in charge of the work or his representative (From time to time) with all changes and modification .
- 1.3 Indian railway Signal Engineering Manual and Tele communication engineering Manual corrected up to printed correction slip up to date & schedule of standard Dimensions for Broad gauge & Meter Gauge shall be strictly follow by the tenderer and site engineer Incharge of the work .
- 2.0 Drawing of the work :-

The drawing of the work can be seen in the office of GM (S&T) / GKP and/ or DRM /S&T , Lucknow at any time during the office Hours . The drawings are only for the guidance of tenderer(s) . Detailed working drawing mentioned above will be given by the DRM(S&T) / N.E. Railway Lucknow or his representative from time to time on usual payment .
- 3.0 The tenderer (S) must quote his/ their rates separately for all the items shown in the schedule of approximate quantity attached .The quoted rate should be inclusive of all kind of leviable taxes, transportation, Packing & forwarding charges . The quantities shown in the schedule are given as guide and are approximate only and are subject to variation according to the needs of railway. Railway does not guarantee work under each item of schedule .
- 4.0 Tender er containing erasures and / or alterations of the tender documents are liable to be rejected. Any correction made by the tenderer(s) in his / their entries must be duly attested by him /them .
- 5.0 The works are required to be completed with in a period of **180 days** from the date of issue of acceptance letter .
- 6.0 Earnest Money**
- 6.1 The tender must be accompanied by a sum of **Rs. 100190 /-** as earnest money deposited in cash or in any of the acceptable forms (FDR/TDR/ Demand Draft) duly pledged in favour of **FA& CAO, N.E. Railway , Payable at Lucknow** failing which the tender will be summarily rejected . **Bank guarantee and cheque will not be accepted as Earnest money .**
- 6.2 The earnest money should be in cash or in any of the following forms
 - a Deposit receipt, pay orders, demand drafts. These forms of the earnest money could be either of the state bank of India or any of the nationalized banks or the schedule bank (other than the state bank of India and the nationalized banks) approved by the reserve Bank of India for this purpose.

Signature of tenderer

- 6.3 The tender shall keep the offer open for a minimum period of **90** days from the date of opening of the tender . It is understood that the tender document has been sold / issued to the tenderers and the tenderer s is /are permitted to tender in consideration of the stipulation on his / their part that after submitting his / their tender subject to the period being extended further, if required by mutual agreement from time to time , he will not resile from his offer or modify the terms & conditions thereof in a manner not acceptable to the Sr. DSTE/ DSTE/ N.E. Railway / Lucknow , should the tenderer s fail to observe or comply with forgoing stipulation , the amount deposited as earnest money for the due performance of the above stipulation shall be forfeited by the railway .
- 6.4 If the tender is accepted, the amount of earnest money will be retained and adjust as security deposit for the due and faithful fulfillment of the contract . This amount of security deposit shall be forfeited if the tenderer/ contractor(s) fail to execute the contract agreement within 15 days from the date of acceptance letter issued by the railway or to commence the work within 15 days after receipt of the date of receipt of acceptance letter issued by the railway .
- 6.4 The earnest money of unsuccessful tenderer(s) will be returned to the unsuccessful tenderers with in reasonable time , but the railway shall not be responsible for any loss or depreciation that may happen to the security for the due performance of the stipulation to keep the offer open for the period specified in the tender document or to the earnest money while in their possession nor be liable to pay interest there upon .
- 7.0 Security Deposit**
- 7.1 The earnest money deposited by the contractor with his tender will be retained by the railway as part of security for the due and faithful fulfillment of the contract by the contractor. The balance to make up the security deposit , the rate for which are given below , may be deposited by the contractor in cash or may be recovered by percentage deduction from the contractor's " on account" bills. Provided also that in case of defaulting contractor the railway may retain any amount due for payment to the contractor on the pending " on account bills" so that the amounts so retained may not exceed 10% of the total value of the contract .
- 7.2 Unless otherwise specified in the special condition of contract , if any, the security deposit/ rate of recovery/ mode of recovery shall be as under :-
- a. The security deposit for each work should be 5 % of the contract value .
 - b. The rate of recovery should be at the rate of 10% of the bill amount till the full security deposit is recovered .
 - c. Security deposit will be recovered only from the running bill of the contract and no other mode of collecting SD such as SD in the form of instruments like BG, FD etc. shall be accepted toward security deposit.
- 7.3 The Security deposit, However shall be released only after the expiry of the maintenance period and after passing the final bill based on No claim certificate
- 7.4 No interest will be payable upon the security deposit or amounts payable to the contractor under the contract , but govt securities deposited in terms of sub clause(7.1) of this clause will be payable with interest accrued thereon.
- 8.0 Performance Guarantee**
- 8.1 The successful bidder shall submit a Performance Guarantee (PG) amounting to 5% of the contract value in the form of irrevocable bank guarantee or any of the following forms .
- i. a deposit of cash , ii. Irrevocable bank guarantee, iii. Government securities including state loan bond at 5% below the market value, iv. Deposit receipt, pay orders , demand draft and guarantee bonds (these forms of performance guarantee could be either of the State Bank of India or of any of the nationalized bank or schedule Banks (other than the state Bank of India and the nationalized Banks) approved by the Reserve Bank of India for this purpose as circulated vide Railway board's letter no. 2003/CWE-I/CT/4/Pt-I dt 23.05.07.

Signature of tenderer

Tender From (Second Sheet)

Tender No. N/16/2010/OT/ 1

- 8.2 The performance Guarantee shall be submitted by the successful bidder after the letter of acceptance has been issued, but before the signing of the agreement. The agreement should normally be signed within 15 days after the issue of LOA and the performance guarantee shall be submitted within this time limit. This guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case the time for completion of work gets extended, the contractor shall get the validity of performance guarantee extended to cover such extended time for completion of work plus 60 days.
- 8.3 The performance Guarantee shall be released after the physical completion of the work based on the completion certificate issued by the competent authority stating that the contractor has completed the work in all respects satisfactorily.
- 8.4 Wherever the contract is rescinded, the security deposit shall be forfeited and the performance Guarantee shall be encashed and the balance work shall be got done independently without risk & cost of the failed contractor. The failed contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a JV or a partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work either in his/her individual capacity or as a partner of any other JV / Partnership firm.
- 8.5 The engineer shall not make a claim under the performance guarantee except for amounts to which the president of India is entitled under the contract (notwithstanding and/or without prejudice to any other provision in the contract agreement) in the event of :-
- a Failure by the contractor to extend the validity of the performance guarantee as described herein above, in which event the engineer may claim the full amount of the performance guarantee.
 - b. Failure by the contractor to pay president of India any amount due, either as agreed by the contractor or determined under any of the clauses/ conditions of the agreement, within 30 days of the service of notice to this effect by engineer.
 - c The contract being determined or rescinded under provision of the GCC the performance guarantee shall be forfeited in full and shall be absolutely at the disposal of the president of India.
- 9.0 **RIGHTS OF THE RAILWAYS TO DEAL WITH TENDER :-**
- 9.1 The authority for the acceptance of the tender will rest with the railway. It shall not be obligatory on the said authority to accept the lowest tender or any other tender and no tenderers shall demand any explanation for the cause of rejection of his / their tender nor the railway undertake to assign reasons for declining to consider or reject any particular tender or tenders.
- 9.2 If the tender(s) deliberately gives/give wrong information in his/ their tender creates/ create circumstances for the acceptance of his /their tender, the Railway reserves the rights to reject such tender at any stage without assigning any reason.
- 9.3 If the tenderers expires after the submission of his / their tender or after the acceptance of his / their tender the railway shall deem such tender cancelled. If a partner of a firm expires after the submission of their tender or after the acceptance of their tender, the railway shall deem such tender as cancelled unless the firm retains its character.

Signature of tenderer

Tender From (Second Sheet)

Tender No. N/16/2010/OT/ 1

SUBMISSION OF TENDER PAPER

- 11.1 Tender must be enclosed in sealed cover , super scribed “ Tender No. N/16/2010/OT/ 1and must be sent by registered post to the addressee DRM (S&T) , N.E. Railway , Ashok Marg Lucknow so as to reach this office not later than **14.30** hrs on the **03.03.10** or deposited in the special box allotted for the purpose of S&T department in the Tender cell situated at main gate of D.R.M. office/N.E. railway / Ashok Marg Lucknow . This special box will be sealed at **14.30** hrs on **03.03.10** The tender will be opened at **15.30** hours on the same day. The tender papers will not be sold after 12.00 hours on **03.03.10**.
- 11.2 Duly filled in tender paper (it should be filled very carefully avoiding any ambiguity)
- 11.3 Earnest money of proper value in acceptable form (viz . TDR/FDR/Demand Draft duly pledged in favour of **FA & CAO , N E Railway , payable at Lucknow**
- 11.4 All the supportive documents/ certificates should be enclosed to full fill the minimum eligibility criteria fixed as per para 3 of special condition of contract.
List of compliance to the tender condition and technical specification as per profarma given in annexure I

11.5	Deviation statement , i.e. list of deviations to the tender conditions and technical specification as per pro forma given in annexure II
11.6	Offer by FAX
11.5.1	Offer received through FAX and found in the tender Box at the time of opening of tenders and complete in all respects and duly signed by the authorized signatory should be treated as in time offer subject to the firm / firms submitting post confirmation copy duly signed by the authorized person as per the tender conditions with in ten working days from the date of opening.
11.5.2	It shall be the sole responsibility of tenderers to ensure that the offers submitted by the FAX are dropped in appropriate tender box in sealed cover/ covers and with in the prescribed time and date. The railway shall not responsible in any way for any delay in dropping the FAX offers in the appropriate tender box
12	The successful tenderer (s) shall be required to execute an agreement with the president of India acting through the Sr. DSTE/ DSTE/ NE railway Lucknow for carrying out the work according to the general condition of contract, special conditions/ specification annexed to the tender and specifications for the work and materials as amended/ corrected up to date as mentioned in tender form (first sheet)
13	PARTNER SHIP DEEDS / POWER OF ATTORNEY ETC
13.1	The tenderer shall clearly specify whether the tender is submitted on his own or on behalf of partner ship concern. If the tender is submitted on behalf of partner ship concern, he should submit the certified copy of partner ship deed along with the tender and authorization to sign the tender documents on behalf of partner ship firm . If these documents are not enclosed along with tender documents the tender will be treated as having been submitted by the individual signing the tender documents. The Railway will not be bounded by any power of attorney granted by the tenderer, or by changes in the composition of the firm made subsequent to the execution of the contract. It may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor.
13.2	The tenderer whether sole proprietor, a limited company or a partnership firm if they want to act through agent or individual partner(S) should submit along with the tender or at a later stage, a power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/ they be partner(s) of the firm or any other person specifically authorizing him / them to submit the tender, sign the agreement, receive money, witness measurement, sign measurement books, compromise, settle, relinquish any claim(s), preferred by the firm and sign “ No claim certificate” and refer all or any disputes to arbitration.
	Signature of tenderer

14	EMPLOYMENT / PARTNERSHIP ETC. OF RETIRED RAILWAY EMPLOYEES :-
a	Should a tenderer be a retired Engineer of the Gazetted Rank or any other Gazetted Officer working before his retirement whether in the executives or administrative capacity, or whether holding a pensionable post or not, in the Signal & Telecomm. Or any department of the railway owned and administered by the President of India for the time being or should a tenderer being partnership firm have as one of its partners a retired Engineer or retired Gazetted Officer as aforesaid, or should a tenderer being an incorporated company have any such retired Engineer or retired Officer as one of its Directors, or should a tenderer have in his employment any retired Engineer or retired Gazetted Officer as aforesaid, the full information as to the date of retirement of such Engineer or Gazetted Officer from the said service and in case where such Engineer or officer had not retired from Government Service at least 2 years prior to the date of submission of the tender as to whether permission for taking such contract, or if the contractor be partnership firm or an incorporated company, to become a partner or Director as the case may be, or to take the employment under the contractor, has been obtained by the tenderer or the Engineer or Officer, as the case may be from the President of India or any office, duly authorized by him in this behalf, shall be clearly stated in writing at the time of submitting the tender. Tenderer without the information above referred to or a statement to the effect that no such retired Engineer or retired Gazetted Officer is so associated with the tenderer, as the case may be shall be rejected.
B	Should a tenderer or contractor being an individual on the list of approved Contractors, have a relative(s) or in the case of partnership firm or company of contractor one or more of his share holder(s) or a relative of the share holder(s) employee in Gazetted capacity in the Signal & Telecommunication Department of the N.E. Railway, the authority inviting tenders shall be informed of the fact at the time of submission of tender, failing which the tender may be disqualified / rejected or if such fact subsequently comes to light, the contractor may be rescinded in accordance with the provision in clause 62 of the general condition of contracts.
15	In case any tenderer(s) does /do not offer rate for all items of work his / their tender will be considered invalid.

List of compliance to tender condition and technical specification

Sl. No	Para No of Tender condition / technical specification	Compliance status	Remark

List of deviation : Annexure :-II

Sl. No	Para No of Tender condition / technical specification	Deviation from the contents of para of tender condition and technical specification

Signature of tenderer

SPECIAL CONDITION OF CONTRACT

1	SCOPE OF WORK :- As per Technical specification
2	WORK TO BE DONE BY RAILWAY :- As Per Technical specification and instruction of site engineer In charge
3	Minimum Eligibility Criteria :-
3.1	Tenderer s should have completed successfully at least one work of similar nature of value not less than 35% of the advertised tender value of the work during the current financial year & last three financial years.
3.2	Total contract amount received by the tenderer during the last three financial years and the current financial year should be a minimum of 150% of the advertised tender value as per payment certificate issued by the employer/ client, audited balance sheet duly certified by the chartered accountant .
3.3	Similar Nature Work :- As per G. M.(S&T)'s letter no. N/235/3/7(HQ) dated 02-08-2007 with latest amendment the above works fall under the category of "Electro –mechanical / Electrical signaling works – General" and the following works are as similar works.
i	Supply , installation , testing & commissioning of signaling gears for panel interlocking including indoor & out door gears.
ii	Installation, testing & commissioning of signaling indoor works
iii	Out door signaling works including trenching, laying of signaling cables and termination , foundation & erection of signal posts & location boxes.
iv	Addition/ alteration testing & commissioning work of electro – Mechanical / electrical signaling works
v	Supply & installation of exothermic welding.
vi	Cable laying .
vii	Supply , installation , testing & commissioning of electric lifting barrier.
viii	Interlocking of Lifting barrier gate with CLS .
ix	Supply , installation , testing & commissioning work of data logger.
x	Supply , installation , testing & commissioning work of SSDAC.
xi	Supply , installation , testing & commissioning work of Lightning & Surge protection .
xii	Supply installation testing & commissioning of Magneto telephone .
4.0	DRAWING TO BE FURNISHED BY THE RAILWAY :-
	All the drawings required for execution of the work will be furnished by Railway.
5.0	Following documents should be enclosed along with the Tender
a	List of personnel, organization available on hand and proposed to be engaged for the subject work.
b	List of Plant & Machinery available on hand (own) and proposed to be inducted (own and hired to be given separately) for the subject work.
c	List of works. Completed in the last three financial years giving description of work, organization for whom executed, approximate value of contract at the time of award, date of award and date of scheduled completion of work. Date of actual start, actual completion and final value of contract should also be given.
D	List of works on hand indication description of work, contract value, approximate value of balance work yet to be done and date of award.
Not e	1. In case of item © and (d) above, supportive documents/certificates from the organizations with whom they worked/ are working should be enclosed
	2. Certificate from private individuals for whom such works are executed / being executed should not be accepted.
6.0	SECURITY OF MATERIALS :-
	Security of all materials supplied by the contractor / Railway for the work, shall be the contractor's responsibility and he shall arrange to guard the same from thefts by outsiders or his labour. In the event of any loss, the contractor(s) shall be responsible for the same. No compensation will be allowed to contractor for his plant, or material lost or damaged by any cause what-so-ever.
7.0	PRECAUTIONS :-
(i)	The contractor(s) shall observe all the rules and regulation in relation to safety of the personnel and Railway operation.
(ii)	The contractor(s) shall not start any work that may cause interference with the existing signaling/telecom circuits until protection has been provided by the Railway.
(iii)	When the work is required to be carried out on the track itself or as close to the track as may cause a hazard to rail traffic, the work shall be carried out under the supervision of the authorized Railway Representatives at site.
	Signature of Tenderer

SPECIAL CONDITION OF CONTRACT

8	Period of completion of the work :-
A	Time of Completion
i	Entire work as per schedule should be completed with in a period of 180 days from the date of issue of letter of acceptance except for any delay due to :-
a	Non supply of materials by the railway administration if any .
b	Decision not given by the railway administration on technical matters referred to by the contractor
c	Hindrance created by any other department .
d	Non inter locking or disconnection , if there be, not permitted by operating department causing delay to the work
e	Due to any force major clause
ii	The delay in completion of works, which attributed by the contractor to the railways cause mentioned above should be advised in writing to the railway Engineer immediately by the contractor for rectification / investigation . If such advice in writing is not given , the delay will not be accepted by the railway and no extension will be granted on this account
iii	On completion of all works at any station by the contractor and when the work is ready for commissioning , the contractor shall give one weeks notice in writing to the railway engineer , to take charge of the work , and only on the receipt of such notice and on satisfaction that the work is completed in all respects after proper testing, the railway Engineer shall take over the installation at the station and commission the same after testing the equipment fully and satisfying himself that the same is fit to be commissioning . In case of defective installation rendering it unsafe for being commissioned , the railway engineer will advise the contractor in writing giving the particulars of the defects for rectification
B	TIME LIMITATION
	Subject to any requirement in contract as completion of any portion or portions of the work before completion of the whole , the contractor shall fully and finally complete the whole of the work comprised in the contract by the date entered in the contract , provided that if any modification have been ordered which in the opinion of the railway Engineer have materially increased the magnitude of the work the such extension of the contracted date of completion may be granted as shall appear to the railway Engineer to be reasonable in the circumstances , provided more over that the contractor shall be responsible for requesting such extension of the as he may consider necessary as soon as a cause their of shall arise and in any case not less than one month before the expiry of the original date fixed for completion of the work .
C	DELAY AND EXTENSION OF TIME
	If in the opinion of the engineer the progress of work has any time been delayed by any act or neglect of the Railway's Employees Locks out , fire , unusual delay in transportation unavoidable casualties or any cause beyond the contractors control or delay authorized by the Railway Engineer or any cause which the Railway Engineer shall decide to justify the delay , then the time of completion of the work may be extended for such reasonable time as the Railway engineer on behalf of railway may decide.
D	EXTENSION OF TIME ON RAILWAY ACCOUNT
	In the event of any failure or delay by the railway to hand over the contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the railway due to any other cause what so ever , then such failure of delay shall in no way effects or vitiate the contract or alter the character there of or entitle the contractor to Rly damages or compensation their for but any such case , the railway may grant such extension or extension of the completion date as may be considered reasonable .
E	TIME TO BE ESSENCE OF THE CONTRACT
	The time for completing the work by date or extend date fixed for completion shall be deemed to be of the essence of the contract and if the contractor shall fail to complete the work with in time prescribed , the railway shall , if satisfied that the work can be completed by the contractor with in reasonable short time , there after be entitled , with out prejudice to any other right or remedy available on the behalf , to cover by way ascertained and liquidated damages a sum equivalent to one half of one percent of the contract value of the works for each week or part of week the contractor is in default and allow the contractor such further extension of time as railway engineer may decide . If the railway is not satisfied that the work can be completed by the contractor or and in the event of failure on the part of the contractor to complete the work with in the further extension of time allowed as aforesaid , the railway shall be entitled with out prejudice to appropriate contractors security deposit and rescind the contract whether or not actual damages is caused by default .
	Signature of Tenderer

SPECIAL CONDITION OF CONTRACT

9	OTHER RAILWAY STORES :-
	If any material to be supplied by the contractor is supplied by the railway either at the contractor request or not in order to prevent any procedural delay in the execution of the work likely to occur due to contractor inability to make adequate arrangement for supply there of or other wise , recovery will be made from contractor's bill at the book rate or the last purchase rate paid by the railway which ever is higher plus 5 % on account of initial freight and 2% on account of incidental charges together with supervision charges at the rate of 12.5% of the total cost of inclusive of materials freight, incidental charges and freight between the railway source of supply at the site of work , shall be to the contractors account , subject to the further stipulation that if the price agreed to be paid to the contractor by the railway administration is higher than the total amount recoverable arrived at above inclusive of freight incidental and supervision charges , the recovery will be affected at the rate accepted as per the contract. If however the materials required by the contractor is not available in railway stock or the railway decides not to supply the same , be that for what so ever reason , the railway shall not be bound to arrange for supply at cost quoted above or at any other cost nor will this fact be accepted as an excuse for delay in execution of work . .
10	VARIATION CLAUSE :-
I	The variation of quantity of work up to 25% shall no degree affect the validity of the contract and shall be performed by the contractor as provided their in and be subject to the same conditions, stipulations and obligations originally included and approval for in specifications and drawing and the amount to be paid their of shall be calculated in accordance with the adopted rates of schedule .
II	The contractor is bound to notify the engineer at least 7 days before the necessity for the execution of any item in excess of 25% of the quantity provided in the agreement.
a	Individual NS items in contract s shall be shall be operated with variation of plus or minus 25% and payment would be made as per the agreement rate.
b	In case of increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable , the same shall be got executed by floating fresh tender . If floating fresh tender is considered not practicable, negotiation may be held with the existing contractor for arriving at reasonable rates for additional quantities in excess of 125% of agreement quantity. No Execution / Supply of quantity in excess of 125% shall be done with out prior approval of competent authority.
c	The limit for varying quantities for minor value of items shall be 100% (as against 25% prescribed for other items) . A minor value item for this purpose is defined as an item whose original agreement value is less than 1% of the total original contract value.
d	No such quantity variation limit shall apply for foundation items.
III	In the event of any reduction in the quantity of the work to be executed for any reason what so ever the contractor shall not be entitled to any compensation but shall be paid only for the actual amount of work done .
11.	TESTING :-
(i)	The Contractor (s) shall make such tests as many be necessary to demonstrate to the satisfaction of the Railway that the apparatus and the system as installed are in accordance with the drawing, specification and contract. The contractor (s) shall provide such instruments and apparatus as may be necessary for conducting these tests.
(ii)	After the execution of the work is completed by the contractor(s), he /they will inform Sr. DSTE / N.E. Railway , Lucknow who will appoint a testing committee consisting of the Engineer of the Railway and One Engineer of the contractor(s). The Committee after completing the testing will submit a certificate in respect of execution and functioning of the work as per approved plans, circuit and drawing etc.
(iii)	All Signalling Installations should be tested strictly in accordance with the provisions made in the Signal Engineering Manual. The contractor shall chalk out a testing procedure for testing, the above mentioned equipment's / installations and shall submit the same for approval of the Sr. DSTE /N.E. Railway, Lucknow. The testing shall then be done accordingly after the same is approved by Sr. DSTE,N.E. Railway, Lucknow. The testing procedure will incorporate the following tests also:-
a	The wiring of installation has been done strictly according to the approved wiring Diagram.
b	The wires have been terminated at the terminals as per Wiring Diagrams.
c	All the equipment's have been installed according to the approved Plan and Lay out.
d	All the equipment's as installed are in good condition and are functioning properly.
e	Insulation Resistance of each circuit is adequate and there is no leakage to earth and or to other circuit.
f	The Insulation Resistance shall not be less than 10 Mega Ohm between conductor and conductor / ground.
g	The wiring should be checked both the continuity test as well as by wire count on terminals / relay contacts,
h	Any other test required by the Railway not covered in the specification to satisfy the integrity of the installation will also be conducted.
	Signature of Tenderer

SPECIAL CONDITION OF CONTRACT

(v)	All the parameters of test conducted must be recorded and signed jointly by railway Engineer-in-charge at site and the contractor and report
12	INSPECTION
	All the materials / equipments to be supplied by the contractor shall be inspected by the authority as specified in the technical specification of each items. Inspection charges of RDSO/ RITES / any other agency as advised by the Railway shall be borne by the Railway .
13	MEASUREMENT OF WORK
	The measurement of quantities for the purpose of payment to the contractor shall be under taken item wise jointly by the representative of the Engineer and the contractor in course of and on completion of works included in schedule (Annexure) attached here to
14	MODE OF PAYMENT
i	80% payment shall be made against the completion of each activity of schedule of work as per terms and condition of the contract .
ii	Balance of 20% payments ,if pending for any completed item shall be paid after completion of the entire work. However , if due to any circumstances (which are not on account of the contractor) , the entire work is not getting completed and the Sr. DSTE/LJN or his authorized representative are satisfied that the balance work will be delayed due to some circumstances which are beyond the control of the contractor and the contractor is willing to close the contract, full payment against completed activities will be released irrespective of completion of entire work .
15	COMPLETION OF WORK AND COMMENCEMENT OF WARRENTY PERIOD
15. 1.	The work under the scope of present tender shall be defined as completed after completion of following stages of work
a	All the items of schedule of work have been supplied , tested , inspected and accepted by consignee and a certificate issued of this purpose unless any variation/deletion in schedule is approved by competent authority .
b	All the items supplied by the contractor or railway as the case may be are installed tested , commissioned and put into service unless any variation / deletion in schedule is approved by competent authority .
15. 2	The warranty period for the complete work as well as equipments supplied shall commence only after commissioning report jointly signed by the contractor and railway representative nominated / declared for the purpose
16. 0	FUNCTIONING OF THE SYSTEM DURING WARRENTY PERIOD
16. 1	After The installation is placed in service by the railway , contractor shall be responsible for the proper functioning of the system for a period of 12 months (warranty period)
16.. 2	All faults appearing and their rectification shall be periodically advised to the contractor .
16.. 3	Due to analysis of failures , if design deficiency is pointed out by the railway , the contractor shall rectify the deficiency at his own cost .
16.. 4	All equipment and system supplied by the contractor shall be guaranteed against all kind of latent/ patent defects for a period of 12 months from the date of commissioning of system and placing it in service .
16.. 5	During the period of warranty , the contractor shall remain responsible to arrange replacement and for setting right at his own cost any equipment supplied by him which is of defective manufacturing or design or becomes unworkable due to any cause what so ever . The decision of the railway administration in this regard to direct the contractor to attend to any damage or defect in work shall be final and binding on the contractor .
16. 6	If it becomes necessary for the contractor to replace or renew any defective portion of the system under this clause the provisions of this clause shall apply to the expiry of six months from the date of such replacement or renewal or until the end of warranty period which ever may be later . If any defect is not remedied with in reasonable time, the railway may proceed to do the work at contractors risk & expense, but with out prejudice to any other rights which the railway may have against the contractor in respect of such defect .
	Signature of Tenderer Date

SPECIAL CONDITION OF CONTRACT

16.7	All inspection , replacement or renewal carried out by the contractor during the warranty period shall be subject to the same condition of the contract .
16.8	Until the final certificate shall have been issued the contractor shall have the right of entry at his own risk and expense by himself or duly authorize representative, whose names shall have previously been communicated on writing to the railways.
16.9	The defective part(s) shall be replaced / repaired within 96 Hrs. A penalty of Rs. 200/- shall be imposed for each extra 24 hrs if the tenderer fails to repair/ rectify the faulty system within 96 hrs from the date & time of reported fault .
16.10	Railway representative i.e. consignee of the system shall maintain a register during warranty period about recording the failures & date and time of reporting to the contractor.
17	INSURANCE
	The equipment shall be insured for any damage due to any reason like fire , electronic / electrical short circuits , sabotage , / terrorist activity for the period of one year or till the acceptance after commissioning whichever is earlier and the insurance charges will have to be borne by the contractor .
18.0	PERCAUTION FOR USE OF ROAD VEHICLE
	Road vehicle can move along the track after suitable cordoning of track with minimum clear distance of 6 meter from the center of the nearest track . for movement of road vehicle during night hours, adequate measures for safety of rails traffic should be taken by the contractor prior to such movement in consultation with the engineer / supervisor in charge of the work.
19	STAMP DUTY
	Stamp duty shall be payable @ Rs. 70/- per thousand on security deposit if it is in the form of NSC/FDR and if it is in the form of cash it will be @ 125/- per thousand on thousand on security deposit . Till finalization of the special leave petition by the supreme court , Before execution of contract agreement , Tenderer will have to deposit the stamp duty of Rs. 100/- along with an affidavit “ if an order shall be passed by supreme court in above Special Leave Petition in favour of Govt. then tenderer will have to deposit the balance stamp duty in addition to Rs. 100/- against the appropriate head of the deptt.
	Tenderer will ensure the genuineness of the stamp papers / stamps being utilized . It will be the responsibility of the party entering into agreement with the railway for its genuineness . Signature of Tenderer (s) Dated

Technical Specification

General

1. **Electrical Lifting Barrier :-**

- A. Contractor shall supply the electrical lifting barrier set (24VDC) as per RDSO specification No. RDSO/SPN/180/2005 with latest amendment Each set containing of 2 Nos of Lifting barrier pedestals 32 feet Long MS booms with 2 stop boards Boom light boxes , MS counter weights and 3 nos of boom support with boom solenoid locking but with out fringes along with hand generator to operate 2 barriers of one set. Hand generator to have necessary switches/ buttons to operate one or both barriers as per requirement of Engineer Incharge or operate with pushbuttons in case supply is available . The materials shall be procured from the RDSO approved manufacturer duly inspected by the RDSO .

It also includes emergency key locking materials and motorized locking from the supplier having reasonable past performance of satisfactory working of motorized locking.

- B. Contractor shall install, test, & commission the Electrical Lifting Barrier as per guide lines issued by RDSO from time to time . Material / equipment shall be supplied to SSE/Signal /LJN .

2. **: LAYING OF SIGNALLING CABLES :**

While laying the underground Signalling cables, the following instructions will be followed rigidly in RE area :

- (a) The trench has to be dug generally straight and parallel to the railway track. For this, a rope should be stretched straight and marking should be done by the lime powder. After that only, digging of the trench shall be started. When it is required to dig perpendicular to the track or at an angle to the track it should be generally straight in that alignment. Location of this cable route for point/track circuits/gate location/signals etc. within the station section/block section will be given by the engineer-in charge and cable laying has to be done within these marks, Necessary instructions will be issued by the Engineer-in-charge of the work as and when necessary in this regard. Whenever considered necessary the contractor will also seek instructions from the engineer-in-charge. The digging of trench under the track shall be started by the contractor only after the requisite amount of cables are available and the alignment of the route (for cables) under the track has been approved by the engineer-in-charge and advised so to the contractor as per RE standard .
- (b) The main cable trench should be 110 cm deep and the width shall be as mentioned in para (c) within the station yard (within the Home signals) except on platforms, level crossings, track crossings and for tail cables and the cable trench outside the station yard, where it will be 100 cm deep and 30 cm wide. If the depth of cable trench can not be maintained due to some technical problems the pro-rata payment shall be made to the contractor. The issue shall be decided by DSTE/ASTE (Con) jointly with contractor.
- (c) In the station section or in block section the cable trenching and cable laying shall be done as per the drawing No. CSTE/Con/GKP/SK-3/2001 attached and as per the direction of engineer -in-charge.
- (a) Where only signal / power cable is to be laid:-
Where only one type of cable either signal or power cable is to be laid the trench shall be 30 Cm wide and the cable is laid as per the instruction mentioned in Para -(f). The bricks used shall be **8 bricks per running meter** of the cable trench as shown in the drawing Figure no. (i).
- (i) Where power & signal both type of cables are to be laid: -
The trench should be 30 cm. wide and a partition is made by putting bricks in the trench length wise as to produce a partition wall 11.5 cm wide of height 7.5 cm as shown in the drawing after laying the cable and providing covering of soft soil 5 cm the trench is covered by putting 2 bricks length wise parallel to the length of trench so as to provide **12 bricks per running meter** as shown in the Figure no. (ii).
- (ii) Where large number of power and signal cable both are to be laid: -
Where power cable is laid along with signal cables the partition is required between these cables for safe and proper working of signaling circuits, so the trench shall be 35 cm. wide and before laying the cable, bricks

are laid in the trench in such a manner to produce a partition of height 7.5 cm and 11.5 cm width between signal and power cable as per the drawing mentioned above. After the bricks are laid for partition the cable laying work is started carefully so that the partition does not break.

After the cable laying is done the soft soil of about 5 cm height is filled in the trench to cover the cable and then the bricks as shown in the drawing (one side straight and other side breadth wise) is laid in the trench. After ward the cable trench is filled with soft soil and rammed after providing cable markers. The earth level after filling the trench should be about 20 cm. above the original ground level over the trench. The **bricks shall be sixteen in number per running meter** as shown in the Figure no. (iii).

- (d) The work of trenching under the tracks shall be done only under the personal supervision of railway engineer-in-charge who will take necessary precautions in regard to safety of train running. The trenching route, shall be so decided that it does not interfere with passenger safety. The trench must not be put in open condition for a long time.
- (e) The contractor shall stack 2nd class bricks, well baked, at site of work in the quantity as mentioned in the schedule or as the case may be. Total number of bricks shall be inspected and passed by the site engineer, it shall be recorded in the material passing register at site and also a certificate will be issued by him to this effect, to the contractor. No broken brick shall be passed by the site engineer. After laying the cable, the contractor shall arrange the safe transport of bricks for use in cable trench and no broken bricks shall be used for laying.
- (f) The cable will be issued to contractor at SSE/Sig/'s godown at Luckow . The contractor will be responsible for loading, transporting of cables and its safe unloading at the site of work. Before taking over the cable from the railway, Contractor should test the cable and get himself satisfied that there is no defect in the cable. Any damage to the cable during laying etc. subsequently shall entirely be the responsibility of the contractor and the railway can realize the cost of damaged cables.
The cable in the drum shall be megered before bringing it at site and only good cables shall be brought at site and test report should be given to SSE/SE/Sig/ LJN before laying. The laying is to be done by the contractor on the direction of the railway engineer-in-charge at site. For the safety of cable, the drum should be kept on two ends on jack, with a shaft threaded in the cable drum and the cable should be released by rolling the drums, so that there is no twist in the cable. This aspect must be ensured by the contractor. While pulling the cable, it should be supported by adequate number of staff at an interval of minimum 10 metres, so that the cable do not get scratched/ damaged while pulling. The cable/ cables shall be laid on the soft ground at the bottom of the trench. After laying the cable/cables in the trench these should be first covered with soft soil for about 50mm and thereafter should be covered with 2nd class bricks breath-wise, 8 bricks per running metre approximately as protective covering except where pipes are provided. Thereafter the trench should be filled up with earth and rammed after providing cable markers to be supplied by the Railway at an interval of not more than 30 metres as per item no. 1.8 and at places where cable run changes direction along the cable route as per direction of the engineer-in-charge. The earth level after filling the trench should be about 20 cms above the original ground level over the trench as per RE standard
- (g) Circular pits of suitable sizes will have to be dug near each location box/ apparatus case/signal/points machine/track lead Jn. Box enroute as per direction of Engineer-in charge for provision of extra cable coils approximately 4 to 5 metre length for each cable to facilitate termination, at no extra cost. The pits are also to be filled up to the ground level after the cable coils are properly placed in the pit.
- (h) Cable laying should commence only after the trench has been approved by the Railway's Engineer-in-charge. The laying of cable/cables should be started by the contractor under proper direction and supervision of engineer-in-charge as indicated in para (a) to (g) above. While laying the cable proper care should be taken to ensure that no twists/kinks/damages of any type are caused in the cable so that its life is not reduced in the long run, for this, while laying the cable, the drum should be mounted on proper jacks.
- (i) The work of digging of trench, laying of cables and filling of trench etc., once started should proceed continuously in full tempo and not left incomplete. After completion of the work the railway engineer-in-charge should certify that the cable laying and trench filling is over and the work has been carried out to his full satisfaction and as per specifications.
- (j) While crossing, the track/tracks/level crossing/platforms/taking from over head line poles to the ground, the cable/cables is / are to be laid through pipes as per the direction of Railway's Engineer-in-charge at site. The cable laying at culverts/bridges (except major bridges)/underground sub-way will be done through by providing G.I. pipes of suitable size. These pipes should be suitably fixed with clamps/ fixing arrangement. The cable laid through pipes as mentioned above will be treated as cable laid in normal ground for measurement purpose. Fixing arrangements for such pipe shall be provided by the contractor at his cost. Both ends of pipe when laid on

bridges/culverts & along through poles shall be supported by masonry work/ clamping with M.S. flat using nuts & bolts at contractor's cost. The surface of platform / level crossing dug for cable trench shall be repaired by the contractor at his cost.

- (k) Cable shall not be normally taken over the track at the time of cable laying by the contractor, as this is likely to cause accident to trains and damage to cable. If at any time, the cable has to be taken across the track, it shall be done only in the presence of the engineer's representative after the safety precautions have been taken.
- (l) The testing of cables for the insulation resistance between conductor to conductor and individual conductor to earth, and continuity test of each core of the cable must be carried out before and after the laying of the cable in the trench. All parameters measured must be recorded in tabular form by the contractor. The sample of the tabular form will be supplied by Engineer-in-charge and signed jointly by the railway engineer-in-charge and the contractor/contractor's representative at site and submitted to Engineer – in-charge of the work.
- (m) As a result of the measurement of cable testing, if any cable or cables found defective the same should be withdrawn from the trench and fresh cable of good quality shall be laid by the contractor at no extra labour charges and the contractor shall be responsible for defective cable. After laying the cables, the empty drums and un-used signaling cables shall be deposited in the stores of Sr. Section Engineer (Sig)/ LJN. Loading, unloading and transportation of empty drums and un-used signaling cables shall be at the contractor's cost.
- (n) If, at any stage, it is detected that the contractor has dug the trench and laid the cables at a depth less than specified or less bricks/broken bricks have been used, the contractor shall re-dig the trench to complete depth and provide intact bricks in trench. In this process if the cable is damaged, the contractor shall pay the cost of cables and he shall replace the cable without delay. If any twist is detected in the cable laid, the contractors shall be responsible to replace the cable as if it is damaged.
- (o) The contractor shall insert all the laid cables in the relay room at station / end location through the ducts already constructed in the buildings. After these cables are terminated on the terminal boards the ducts shall be filled with sand up to the floor level and which then shall be plastered in order that the rooms may have a clean look. Likewise the contractor shall insert all the laid cables into the apparatus case/Jn. Box erected for the purpose. Sand will be supplied by the contractor.

Item No.3: CASTING OF FOUNDATION FOR SINGLE CASES/HALF CASES/ 50 WAY JN. BOXES AND THEIR INSTALLATION:

The activity includes casting of foundation for the single case as per Sketch No. RE/S&T/Sig/Tenders-9/85, half case as per sketch No. RE/S&T/Sig/Tenders/8/85 and 50 way JB as per Sketch No. RE/S&T/Sig/Tenders/SK/5A/91 of R.E. The ratio of the concrete mixture should be 1 part cement : 3 parts coarse sand : 6 parts stone chips, the plastering shall be done as provided in the sketch. The foundations shall be well cured before installation of apparatus cases.

Miniature E type locks shall be provided to the location boxes. Doors of single and half cases boxes shall be provided with two miniature E type locks (one in the front and the other in the rear side door), where a 50 way JB shall be provided with one E type lock only, in its front door, these locks shall be of ward No.41 and as per RDSO Drg. No. SA-3474/M. The apparatus cases shall be installed as per the directions of the Engineer at site. For these apparatus cases if any earthwork is required it will be done by the contractor up to the ground level at his cost. If a situation arises when large amount of earth works (i.e. more than one cubic metre) is required for making the raised platform of soil on which the foundation is to be cast, then in that case the amount of extra earthwork done shall be paid separately. Apparatus cases installed side by side shall be at the same height for a good look and have proper inter-spacing to facilitate proper painting.

The contractor shall supply all the materials except single cases/half cases/50 way Junction Boxes. The apparatus cases will be supplied at the stores of SSE/Sig/Lucknow, the transportation cost for which shall be borne by the contractor.

Item No.4 : ARA TERMINAL 6 Way :-

The contractor shall supply ARA terminal block 6 way made of PBT as per RDSO drawing No. S-23756 Alt.3 and as per IRS Specification No. IRS : S-75/91 with latest amendment, if any, which shall be procured from **RDSO approved** firms only, followed by RDSO inspection before making over the supply to consignee

Item 5 PVC wire 16/0.20mm:-

Contractor shall supply the PVC wire of size 16/0.20 mm conforming to IRS:S-76/89 with latest amendment and of 650/1100 volts grade, followed by inspection certificate of Consignee.

Item No.6 : SUPPLY OF ELECTRIC KEY TRANSMITTER (Rotary) :

The contractor shall supply Electric Key Transmitter (Rotary type) conforming to Specification No. IRS : S-21/2001 and RDSO Drg. No. SA-22601 Adv Alt.4 (Double Key) with latest amendment if any, which shall be procured from RDSO approved firms only, followed by **RDSO inspection** certificate before making over the supply to consignee

Item No.7: INSTALLATION OF (EKT/HKT) ELECTRICAL KEY TRANSMITTER:-

The contractor shall install the Electrical Key transmitter at the place decided by the Engineer at site. The following activities include the supply of material required for installation of EKT/HKT:-

- (i) Grouting 4 bolts of size 12mm x 100mm forked at one end to the wall for fixing wooden board.
- (ii) Supply and installation of wooden board of size 50mm x 450mm x 25mm thick, duly frame worked to have a good look and its fixing on wall with the help of already grouted nuts & bolts.
- (iii) Cutting of wall for conducting the cable inside the wall from ground up to wooden board and plastering after wards to give the good finish.
- (iv) Drilling holes in the wooden board to take out the cable for connection and fixing of HKT/EKT on the board by wooden screws.
- (v) Providing underground cable from battery to HKT and from overhead lines to HKT and plastering floor wherever required. If some G.I. pipe etc. is required for the activity, the same will be supplied by the Railway. Laying of cables has been covered by separate activity in schedule. Cutting armour and removing outer sheath of the cable and the termination of cable core in HKT/EKT at proper place.
- (vi) Testing of HKT/EKT after installation for proper working and to the satisfaction of Engineer-in-charge at site. The railway will provide Electrical Key transmitter/HKT only at the stores of SSE/Con./; the transportation charges from the stores to site of work shall be borne by the contractor at his own cost.

8. : **LEVER LOCK WITH CC :**

The contractor shall procure Electric Lever Lock and Circuit Controller combined (DW)-40 mm stroke as per RDSO Drg. No.SA – 21201/M (Adv) Alt.5 with latest amendment if any from RDSO approved firms only followed by RDSO inspection before making over the supply to the consignee. The **RDSO inspection certificates** for DW lever locks shall be handed over to the consignee.

The DW lever lock shall be equipped with the following :-

- (i) Contact arrangement - to Drg, No. SA – 21366/M Alt.1
- (ii) Lever lock - to Drg., No. SA-21234/M Alt. 2
- (iii) Contact roller - to Drg. No.20292 (Adv).

N.E. Railway

Schedule of quantity

Name of work :- Provision of electric lifting barrier gate at L-xing gate No. 6A,8ML,3ML,4ML ,5A & 8A in Lucknow Area

Sl.No.	Description of Work	Quantity	Unit	Rate		Amount
				In figure	In words	
1A	Supply of electrically operated lifting barrier set (24VDC) as per RDSO specification NO. RDSO /SPN/180 /2005 or latest amendment with Two MS Booms of 32 feet each in four section of 8 feet as per item no. 1A of attached technical specification .	10	Set			
1B.	Installation, complete wiring , testing and commissioning of electrically operated lifting barrier as per standard practice and instruction of site Engineer Incharge & item no. 1B of attached technical specification .	10	Set			
2.1	Excavation of cable trench of 110 cms. Depth and 30 cms. wide in all kinds of soil within station limit & block section both for main & tail cables as per cable route chart to be given by engineer-at-site and it's refilling with the same excavated soft soil consolidating by ramming to the level of 20 cm. above the ground level over the trench as per item no. 2 of attached technical specification .	10000	Mtre			
2.2	Excavation of cable trench of 100 cms depth and 30 cms. Wide at level/track crossing & platform as per cable route chart to be given by Engineer-at-site and it's refilling with the same excavated soft soil consolidating by ramming to the level of 20 cm. above the ground level over the trench as per item no. 2 of attached technical specification .	300	Mtre			
2.3	Excavation of trenchless track under Railway track/busy road etc.at a depth of 100 cms below ground level and culvert/river,(in HDD portion),laying of 100 mm dia GI pipe of medium grade in it(GI pipe shall be supplied by the contractor) as per item no. 2 of attached technical specification .	100	Mtre			
2.4	Laying of signalling cable of sorts supplied by railway as per cable route plan approved by railway and The cable laying includes laying of cable in trenches, through pipes etc as per item no. 2 of attached technical specification .	16	Km			

2.5	Supply and placing of 2nd class bricks in the trench @ 8 bricks per running meter as per item no. 2 of attached technical specification .	10000	Mtr			
3	Casting of foundation and installation of apparatus cases/JBs including supply of all materials(except apparatus cases and JB's) concreting material and as per item no. 3 of attached technical specification .					
(I)	Apparatus cases single.	8	No			
(ii)	50 Way JB.	4	No			
4	Supply of ARA terminal 6 way and as per item no. 4 of attached technical specification .	325	No			
5	Supply of PVC wire of size 16/.20mm and as per item no. 5 of attached technical specification .	11000	Mtr			
6	Supply & installation of Electric type K.T. and as per item no. 6 & 7 of attached technical specification .	10	No			
7	Supply of circuit controller 4 way DW type as per technical specification Item No 8 of attached technical specification	20	No			
	Total in Figure					
	Total In words :-					

Note

1. The work will be completed with in 180 days from the date of acceptance of tender .
- 2 The work will be maintained for the maintenance period of 12 months from the date of completion of the work
- 3 In addition to attached schedule , general condition of contract 1999 edition with all correction slip will apply on contract .
- 4 Item No.1A,4 ,6 &7 shall be inspected by the RDSO and other items shall be inspected by the Railway representative I.e. consignee and officer in charge of the work .

Divl. Railway Manager (S&T)
N.E, Railway
Lucknow

Sig. of Tenderer
Seal
Date

Annexure A

List of personnel , organization, available in hand and proposed to be engaged for the subject work .

(A) List of personnel , organization available in hand to be engaged for the subject work.

(B) List of personnel , organization proposed to be engaged for the subject work .

Signature of tenderer

Annexure B

List of plant & machinery available on hand (own) and proposed to be inducted for the subject work

(A) List of plant & machinery available on hand (own) for the subject work.

(B) List of plant & machinery proposed to be inducted (Hired) for the subject work.

Signature of tenderer

Annexure C

List of works completed in last three financial years

Sl. No.	Description of works	Organization for whom executed	Approx. value of contract	Date of award	Date of scheduled completion of work	Date of actual start	Date of actual completion of work	Final value of contract
---------	----------------------	--------------------------------	---------------------------	---------------	--------------------------------------	----------------------	-----------------------------------	-------------------------

- Note:- 1. Supportive documents/ certificates from the organizations with whom they worked should be enclosed .
2. Certificate from private individual for whom such works executed will not be accepted.

Signature of tenderer

List of works on Hand

Sl. No	Description of works	CA Value	Approximate value of balance work yet to be done	Date of award
--------	----------------------	----------	--	---------------

- Note:-
1. Supportive documents/ certificates from the organization s with whom they worked should be enclosed .
 2. Certificate from private individual for whom such works executed will not be accepted.

Signature of tenderer