

NEW TOWN KOLKATA DEVELOPMENT AUTHORITY

(A Statutory Authority Under Government of West Bengal)
3, Major Arterial Road, New Town, Kolkata - 700 156

Memo. No. 851/ NKDA/Engg – 36/2010 (X)

Date: 18 /02/2020

NOTICE INVITING e-TENDER

Notice Inviting e-Tender No: WBNKDA/ 36/EE-I/NKDA/2019-20

Executive Engineer I, New Town Kolkata Development Authority invites detail proposals in two part method (Technical and financial) from resourceful, reliable, bona-fide and experienced working contractors of KMDA, WBHIDCO, PWD, PHED, Railways and other Govt. and semi Govt. organizations having experience in similar nature of work, and are requested to submit their offer for the work detailed below.

(Submission of Bid through **online**)

List of Schemes :-

Name of work	Estimated Amount (Rs.)	Earnest Money (Rs.)	Price of Tender Documents (Rs.)	Period of completion
Street signage at 421 locations of AA-I, new town	Rs.11,17,85,389/- (Rupees eleven crore seventeen lakh eighty five thousand three hundred eighty nine only)	Rs.22,36,000/- (Rupees twenty two lakh thirty six thousand only)	Rs.10,005.00 Each set. To be paid only by the successful bidder during the time of agreement	18 months

1. In the event of e-filling, intending bidder should download the tender documents from the website <http://wbtenders.gov.in> directly with the help of Digital Signature Certificate. All the bidder shall have to submit earnest money & necessary earnest money will be deposited by the bidder through the following payment mode as finance dept. order no-3975-F (Y) dated 28th July 2016
 - i) Net banking (any of the banks listed in the ICICI Bank payment gateway in case of payment through ICICI payment gateway).
 - ii) RTGS/NEFT through bank account in any bank. The EMD shall be deposited in favour of "New Town Kolkata Development Authority" payable at Kolkata.
2. Both Technical bid and financial bid are to be submitted concurrently duly digitally signed in the website <https://wbtenders.gov.in>. The acceptance of lowest bid is not obligatory.
3. Corrigendum, further notices and responses to queries if any will be published in the website <https://wbtenders.gov.in> at the appropriate section.
4. Tender documents may be downloaded from website and submission of Technical Bid and Financial Bid will be done as per Time Schedule stated in Sl. No. 19 of this NleT.
5. The selection will be through a **Combined Quality and Cost Based**

System (CQCBS) with weightage to technical and financial score in the ratio of 70:30 The decision of the competent authority of New Town Kolkata Development Authority will be final and absolute in this respect. The list of Qualified Bidders will be displayed in the e tender site.

6. In term of Finance Department, Audit Branch, Govt. of West Bengal's Notification no.4374-F(Y) dated 13th July, 2017, the bidder has to uploaded valid 15-digit Goods and service Taxpayer Identification Number (GSTN) under GST Act, 2017, along with his bid. The bidder should note that bid submitted without GSTIN will be summarily rejected
7. In term of finance dept. Govt. of West Bengal G.O. no-4608-F (Y) dated 18th July 2018 when bid rate is 80% or less of Estimated Amount put to tender, the Bidder shall submit Additional Performance Security @ 10 % of the Tendered Amount from any Schedule commercial Bank, before issuance of work order.
8. The Additional performance security shall be submitted in the form of Bank Guarantee from any scheduled Bank before issuance of the work order. If the bidder fails to submit the additional performance security within seven working days from the date of issuance of Letter of Acceptance, his earnest money will be forfeited and other necessary action as per NIT like blacklisting of the contractor, etc. may be taken. The bank Guarantee shall have to be valid up to end of the contract period and shall be renewed accordingly, if required.

9. **Eligibility criteria for participation in the tender.**

- a) The bidder should be a registered Indian Company under "The Company Act, 1956"/ Partnership firm/ Proprietorship firm/LLP.
- b) Similar nature of single work of the minimum value of Rs 4, 50, 00,000/- (Rupees Four Crore Fifty Lakh only) during last 5(five) years prior to the date of issue of the tender notice.

OR

- c) Intending tenderer may also produce credential of 02 (two) similar nature of completed work, each of minimum value of Rs.3,40,00,000/- (Rupees three crore forty lakh only) during last 5(five) years prior to the date of issue of the tender notice.

OR

- d) Intending tenderer may also produce credential of one single running work of similar nature which has been completed to the extent of 80% or more and value of which is not less than the estimated value. In case of running works, only those tenderers who will submit the certificate of satisfactory running work from the concerned Executive Engineer, or equivalent competent authority will be eligible for the tender. In the required certificate it should be clearly stated that the work is in progress satisfactorily and also that no penal action has been initiated against the executing agency, i.e, the tenderer.
 - i. Payment certificate will not be treated as credential.

- ii. Credential certificate issued by the Executive Engineer or equivalent or competent authority of a state/central Government, state/ central Government undertaking statutory/ Autonomous bodies constituted under the central/ state statute, on the executed value of completed/ running work will be taken as credential.
- e) Intending Tenderer must be financially sound with a minimum average turnover of Rs.6 crore, (Rupees 6 crore only) during the last three financial years (FY 2016-17, 2017-18, 2018-19) and having a trade license, G.S.T Registration certificate and Profession Tax certificate.
- f) PAN Card, Income Tax Return Acknowledgement Receipt for the last 03 (Three) Assessment years, P.T. Deposit Challan for the year 2018-2019.
- g) Registered Partnership Deed for Partnership Firms only along with Power of Attorney since executed under any Judicial Magistrate/First Class Magistrate is to be submitted. The company shall furnish the Article of Association and Memorandum as on-statutory documents.
- h) Joint Ventures/MOU will not be allowed.
- i) Sub vendors may be engaged on getting their credentials vetted by NKDA in the post tender phase.
- j) Three consecutive years' (2016-17, 2017-18, 2018-19) Audited Accounts to be submitted along with Tender documents.

10. Similar work means

- a) Design, procure, Fabricate/ construct, Install, Operate and Maintain the urban infrastructures with Information or commercial displays such as Information Panels, Public Bus Shelters, smart skywalks, Public toilets and maintenance of the display spaces on the urban infrastructure including the Static and Digital / LED display panels.

OR

- b) Construction involving erection of structures on street side locations including electrical and electronic equipment, road indicator signages together with CCTV and panic buttons.

11. Fund for this project has been made available from the Smart City Mission by the **New Town Kolkata Green Smart City Corporation Limited.**

12. On-going payments or part payment for work may be allowed to the executing agency as per existing rules. Subject to deduction of security deposit, progressive payment may be made against the completed or partly completed item of works. Such interim payments, shall be made as running account bill (s), however, shall not constructed to mean that the respective items / components have

finally been approved and accepted by NKDA and the contractor shall not be absolved of his responsibility to set right any deficiency of such paid items / components at his/ their own cost, for rectifying all defects which are subsequently being noted or found.

13. No claim for interest or compensation will be entertained in respect to any money or balance of payment which may be due or alleged to be due to the contractor owing to any dispute between the contractor and NKDA or in respect to any delay in making payment of progressive or final bill of the work, to the contractor.

14. Payment for the works done by the contractor will be based on recorded and accepted measurement at various stages of work. Acceptance of measurements put for payment to be invariably made by putting signature (with seal) of the contractor (or his/ their authorized representative). The contractor or his / their authorized representatives are advised to take measurements jointly with the officials of NKDA. In case of failure on his/their part either to take measurement jointly and /or acceptance of the recorded measurement, within a reasonable time, measurement taken by the department shall be considered as final for making payment. Similar acceptance is also essential for level records and survey data, field books etc.

15. No advance and secured advance will be considered.

16. Idle labour, idle rent and hire charges etc.:

No claim of any category and type, on this ground shall be entertained. The contractor and NKDA shall make every effort that such situation does not arise.

17. Testing and Testing Equipment: Testing of materials, to be used in work and the quality of finished work on quality control aspect, is to be undertaken by the contractor at their own cost, with facilities provided at site and / or through approved (by NKDA) Test Houses / Laboratories. All materials and workmanship shall be in accordance with the specifications laid down in the contract and also as per P.W.D.(Buildings& Road Scheduled) and IS Codes . The Engineer-in-Charge reserves the right ,examine and measure the material / workmanship direct at the place of manufacture, fabrication or at the site of works or any suitable place. The contractor shall provide such assistance, instrument machine, labour and materials as the Engineer-in- Charge may require for examining, measuring and testing the works and quality, weight or quantity of materials used and shall supply samples for testing as may be selected and required by the Engineer-in-Charge without any extra cost. Beside this, he/they will carry out tests from outside Laboratory as per instruction of Engineer-in-Charge. The cost of all such tests would be borne by the agency.

Should the Chief Engineer or his representative consider it necessary to satisfy himself / themselves as to quality of work, the contractor shall offer sample of work done as necessary, pull down reasonable part of the work required for inspection and testing. The contractor shall bear the cost of pulling down and shall make good the same at their own cost and to the full satisfaction of E-I-C without any claim for payment.

18. Security Deposit:

Retention money towards performance Security amounting to 8% (eight percent) of the value of the work shall be deducted from the running account bill of the tenderer as per prevailing order. No interest will be paid on the money retained for Security Deposit.

19. Date and Time Schedule:

Sl. No.	Particulars	Date & Time
1	Date of uploading of NleT and other documents (online)	18/02/2020.
2	Date, time and venue of pre bid meeting	24/02/2020 at 3.00 P.M. Conference Hall of NKDA at 01, MAR, New Town, Kolkata - 700156
3	Documents download start date (Online)	18/02/2020 from 6.55 P.M.
4	Documents download end date (Online)	11/03/2020 upto 6.55P.M.
5	Bid submission start date (On line)	18/02/2020 from 6.55 P.M.
6	Bid Submission closing (On line)	11/03/2020 upto 6.55P.M.
7	Bid opening date for Technical Proposals (Online)	13/03/2020 at 6.55 P.M
8	Date time and venue for technical presentation	Will be intimated in due course
9	Last date of uploading list for Technically qualified Bidder (online)	Will be intimated in due course
10	Date of opening of Financial Proposal (online)	Will be intimated in due course
11	Last date of intimation to the successful bidder	Will be intimated in due course

20. Earnest Money for the successful tenderer will be retained and converted as Initial Security deposit. The Balance security deposit @ 8% will be deducted from on-going bills to cover the total value of work done.

a) The security deposit of the successful tenderer will be refunded after defect liability period as stipulated in relevant clause of the agreement to be made in WBF2911(ii).

21. The tenderers are bound by the terms & conditions of WBF 2911(ii) along with specification, notice for calling Tenders, Special terms & condition, Information to Bidders, Schedule of works etc, which forms a part and parcel of this contract.

22. Income Tax & G.S.T will be deducted as per Govt. orders issued from time to time and would be applicable on the date of making payment

of the bills. Building & other construction workers cess @ 1.0% will be deducted from progressive bills in pursuance with G.O. no. 599A/ 4M – 28 / 06 dated 27/09/2006.

23. The Bidder, at his own responsibility and risk is encouraged to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender, before submitting offer with full satisfaction. The cost of visiting the site, shall be at his own expenses.
24. The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the Department. New Town Kolkata Development Authority reserves the right to accept or reject any offer without assigning any reason whatsoever and is not liable for any reimbursement of any cost that might have been incurred by any Tenderer at any stage of Bidding.
25. Prospective applicants are advised to note carefully the minimum qualification criteria before tendering the bids.
26. **Conditional / Incomplete tender will not be accepted under any circumstances.**
27. **The intending tenderers are required to quote the rate online. The rate should be inclusive of all components and taxes.**
28. Contractor shall have to comply with the provisions of (a) the contract labour (Regulation Abolition) Act. 1970 (b) Apprentice Act. 1961 and (c) minimum wages Act. 1948 and the notification (s) thereof or any other laws relating thereto and the rules made and order issued there under from time to time.
29. During scrutiny, if it comes to the notice of the tender inviting authority that the credential or any other paper found incorrect / manufactured / fabricated, that bidder would not be allowed to participate in the tender and that application will be rejected without any prejudice.
30. Before issuance of WORK ORDER, the Tender Inviting Authority may verify the credential and other documents of the lowest tenderer if found necessary. After verification if it is found that the documents submitted by the lowest tenderer is either manufactured or false in that case work order will not be issued in favour of the said Tenderer under any circumstances and his/their offer will be treated as cancelled.

31. If any discrepancy arises between two similar clauses on different notification, the clause superseding others will be solely as per the discretion of the Tender inviting authority
32. The successful Tendered whose tender is accepted shall make formal agreement in WBF 2911 (ii) along with bid documents in triplicate, within 7 (seven) days from the date of issue of work order by Executive Engineer I, New Town Kolkata Development Authority on payment of usual charges which is non-refundable under any circumstances and submit the same duly signed by him/them to this office. If the contractor fails to perform the formalities within the specified period the Tender is liable to be cancelled and the Earnest Money will be forfeited as per relevant clauses under memorandum of WBF 2911(ii).
33. **Qualification criteria:**
The tender inviting and Accepting Authority will determine the eligibility of each bidder. The bidders shall have to meet all the minimum criteria as stipulated in relevant clauses of this NleT.
34. The eligibility of a bidder will be ascertained on the basis of the document(s) submitted in support of the minimum criteria. If any document submitted by a bidder is either manufactured or false, in such **cases the eligibility of the bidder / tenderer will be rejected at any stage** without any prejudice to take any penal action against him/them as may be deemed fit by the Tender Accepting Authority.

AND

The agency must have the capacity to engage laborers as directed by EIC.

35. The eligibility will be determined through a scoring as described in the **Technical Scoring** table below. There may be a minimum qualifying score for being eligible for opening of financial bid.
36. The final selection will be made on the basis of the composite CQCBS score with 70:30 weightage on Technical and Financial Score
37. The Applicant shall be selected under the Combined Quality cum Cost Based System (CQCBS) with weightages of 70:30 (70% for technical proposal and 30% for financial proposal) and procedures described in this RFP. The Technical Evaluation shall be based on following parameters of technical scoring

Technical Scoring:

Sl. No.	Criteria		Score	Supporting document to be submitted	Maximum Score
1	Average Turnover of last three financial years (2016-17, 2017-18, 2018-19)	Rs. 6 Crore = 5 marks "2 marks" for every added 5 crores More than Rs. 6 crores	Max 15	Copies of Audited Accounts for the last three financial years (2016-17, 2017-18, 2018-19) attested by the authorised signatory submitting the bid	15
2	Quality Certification	ISO 9001:2015	10	Copy of ISO 9001:2015 certificate duly attested by the authorised signatory submitting the bid	10
3	Local Presence	Office in West Bengal	5	Copy of trade Licence/Electricity Bill/Post Paid Telephone Bill clearly mentioning the name of the bidder same in name and style as used in the bidding process duly attested by the authorised signatory submitting the bid	5
		No office in West Bengal	0		
4	Similar work	(A)Design, procure, Fabricate/ construct, Install, Operate and Maintain the urban the urban infrastructures with Information or commercial displays such as Information Panels, Public Bus Shelters, smart skywalks, Public toilets and maintenance of the display spaces on the urban infrastructure including the Static and Digital / LED display panels (100% Complete).	10	Copy of completion certificate or 80% completion certificate from an officer not below the rank of an executive engineer of PWD duly attested by the authorised signatory submitting the bid	10

Sl. No.	Criteria		Score	Supporting document to be submitted	Maximum Score
		(B)Construction involving erection of structures on street side locations including electrical and electronic equipment, road indicator signages together with CCTV and panic buttons (100% Complete)	8		
		80% Complete of (A)	7		
		80% Complete of (B)	5		
5	Age of the qualifying credential	80% completed as within a month from the date of bidding	5	Copy of completion certificate or 80% completion certificate from an officer not below the rank of an executive engineer of PWD (Equivalence indicated) duly attested by the authorised signatory submitting the bid. This certificate should show the date of completion/80% completion clearly	20
		Completion within 5 years from the date of submission of the bid	8		
		Completion within 4 years from the date of submission of the bid	10		
		Completion within 3 years from the date of submission of the bid	15		
		Completion within 2 years from the date of submission of the bid	20		
6	Execution team	Assigned Quality of team to be working on the project Civil, IT Expert& Electrical Maintenance Expert	5	Project Team chart with detail CV showing employment and expertise	5
7	OEM tie up	OEM tie up for CCTV	5	Copy of OEM authorization certificate duly attested by the authorised signatory submitting the bid	5
		No OEM tie up for CCTV	0		5
		OEM tie up for PC	5		
		No OEM tie up for PC	0		
8	Technical Presentation	Understanding of the project concept	10	Presentation showing details of proposed methodology, technology and appreciation of the projects concept. Preference will be given for evidenced demonstrated innovations and implementation experiences	25
		Soundness of methodology	5		
		Fitness of the proposed technology with the requirements	5		
		Any innovative but tested/implemented concept	5		
TOTAL MAXIMUM SCORE					100

- i. The Financial offer of only the bidders who qualify with 50 points in technical score will be opened for evaluation.
 - ii. The highest financial score of 100 will be awarded to the technically qualified bidder who quotes the least amount and the other qualified bidders will get proportionately lower score as follows:
 - a. If the financial offer of least cost bidder is L and that of another higher cost bidder is N then the financial score of the higher cost bidder FS will be $FS=100 \times (L/N)$
 - iii. The technical score will be given a weightage of 70% and there will be a 30% weightage on the financial score and final selection will be made on the basis of the composite score as follows:
 - a. If the Technical score of a bidder out of 100 is T where $T > 50$, and their Financial Score calculated as at ii.a above is FS out of 100, then the final CQCBS score of this bidder will be

$$S = 70\% \text{ of } T + 30\% \text{ of } FS$$
 - iv. The bidder scoring highest composite score will be the selected bidder subject to compliance with all other relevant terms and conditions.
- 38.** The agency should supply the materials as per confirming to IS mark and specification laid down in schedule and also to be taken approval from EIC / his representatives before utilize in work.
- 39. No. price preference and other concession as per order no. 1110F dated: 10/02/2006 will be allowed.**
- 40.** Agencies are required to give a work programme preferably in the form of a bar- chart and to get it approved by the EIC (Engineer-in-Charge) before commencement of work and if progress of work abruptly differs from such work programme, the undersigned may terminate the work order at any point of time and penal action as per Tender Terms and conditions will be imposed.
- 41.** Unless otherwise stipulated, all the works are to be done as per general conditions and general specifications of the latest edition of 'PWD (W.B) schedule of Rates for Building, Roads, and Sanitary Plumbing' works for the working area.
- 42.** In case of any inadvertent typographical mistake in the specific price schedule of rates, the same will be treated to be so corrected as to confirm with the prevailing relevant schedule of rates and/or technically sanctioned estimate.
- 43.** Intending tenderer should note that he may have to work simultaneously with other contractors already entrusted with other work or with contractors to be entrusted with other work in future in the same site. The contractor will have to work in close co-operation and harmony with all the contractors engaged in the project. Any claim for idle labour, for any reason whatsoever, will not be entertained under any circumstances.

44. NKDA will not be held responsible for making payment against any anticipated profit and/or compensation for any losses or price escalation whatsoever for the works as stated in the annexure of this NeIT. Rates should be quoted accordingly.
45. The address as furnished by the contractor shall be deemed as the postal address of this office. Any notice or instruction to be given to the contractor under the terms of contract shall be deemed to have been served if it has been delivered to his authorized agent (on the strength of authorization) or representative or sent by registered letter to his official address as furnished.
46. Arbitration clause of WBF 2911(ii) stands deleted.
47. New Town Kolkata Development Authority reserves the right to increase or decrease the quantum of work as stipulated in the schedule of work for which no change of rate will be allowed.
48. Participation in this tender deems that the applicant is fully agreeable to abide all terms and conditions as stated in this Notice Inviting e tender as well as WBF 2911(ii).
49. Mobilization advance, time / cost overrun and consequent cost escalation for any material, labour, etc. will not be allowed.
50. All materials are to be procured and supplied at site of work by the tendered / firm at his / their own cost from approved reputed dealer / manufacturer. Departmental materials will not be issued under any circumstances unless any such provision is made and accepted latter by both the parties. Department unless otherwise stated means New Town Kolkata Development Authority.
51. The offer shall remain valid for 180 days from the date of opening of the tender.

52. Brief Scope of work:

Completion of the following work as per design and guidance of the Engineer in Charge (EIC) to the satisfaction of the EIC at 421 locations on street sides of Action Area I of New Town Kolkata:

- i) Visit to each and every site to identify the most feasible exact site for positioning the signages.
- ii) Preparation of detail working engineering drawing for installation of the signages
- iii) Preparation of foundation for installation of signage posts at each of the 421 sites as per design and to the satisfaction of EIC.
- iv) Erection of MS box frame structure at each of the 421 sites as per design and to the satisfaction of the EIC
- v) Fitting of CCTV, panic button, static map and back lit display board (with site specific appropriate directional signs) as per design and guidance of the EIC to the satisfaction of EIC, complete with electrical fittings.
- vi) Connections to underground power supply mains for the electrical fittings and to the optical fiber backbone for the CCTV.
- vii) Finishing with appropriate painting and cladding.

- viii) Complete installation and testing of all components to the satisfaction of the EIC.

53. Enclosure:

- ix) Location plan
- x) Proposed Design
- xi) Approved make list and technical specifications.

Executive Engineer I

New Town Kolkata Development Authority

Memo. No. 851/ NKDA/Engg – 36/2010 (IX)

Date: 18 /02/2020

Copy forwarded for information to:-

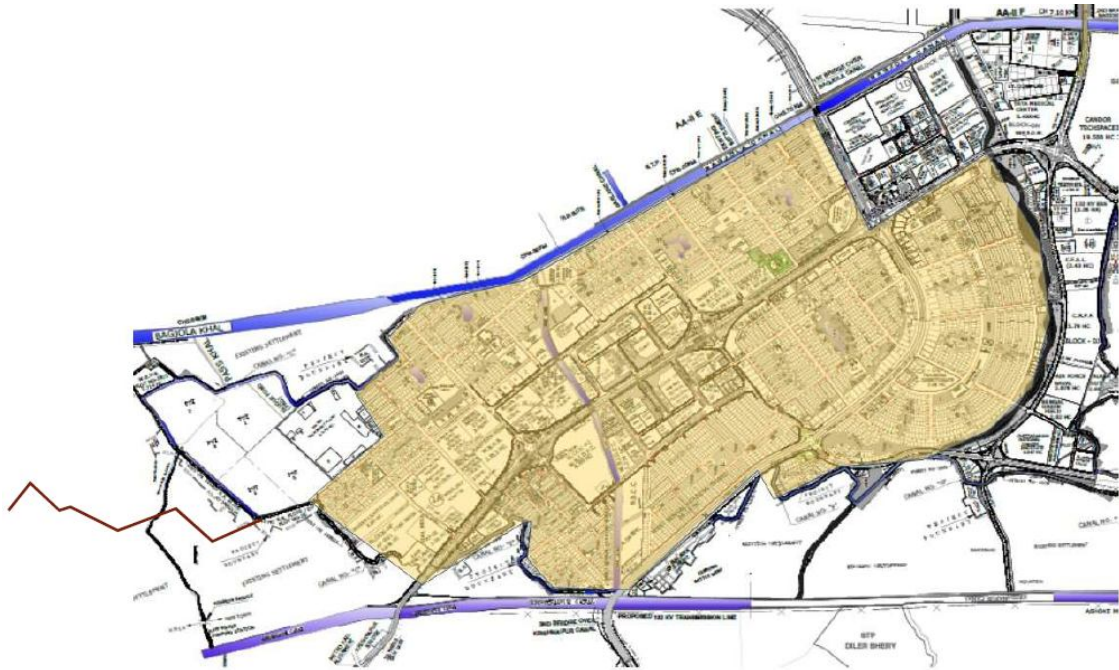
1. The Chief Executive Officer, New Town Kolkata Development Authority.
2. The Chief Engineer, New Town Kolkata Development Authority
3. The Chief Executive Officer, New Town Kolkata Green Smart City Corporation Limited
4. Administrative Officer I & II New Town Kolkata Development Authority
5. Chief Finance officer, NKGSCCL
6. Chief Technical Officer, NKGSCCL
7. Technical Officer, NKGSCCL
8. The Finance Officer, New Town Kolkata Development Authority
9. Executive Engineer-II, Executive Engineer III, Executive Engineer IV& ME NewTown Kolkata Development Authority
10. The Estimator/ Sr. Accountant / Cashier, New Town Kolkata Development Authority.
11. Office NoticeBoard.
12. Official Website of New Town Kolkata Development Authority (www.nkdamar.org)

Executive Engineer I

New Town Kolkata Development Authority

PROJECT LOCATION

The street signages have been conceptualized at 421 locations all over Action Area I, Newtown. The project site majorly consists of mixed-use development with residential being predominant. All the neighborhood level roads and major intersections within the site area are considered, where the existing street signage will be revamped to maintain consistency, legibility and uniformity throughout all the signage classes.



Proposed location of project site in Action Area I



Site Photographs



Neighbourhood Road No.31



Neighbourhood Road No.27



Neighbourhood Road No. 20



Intersection near Tank No.3

Proposed Design

Design Concept

1. Vibrant

In order to complement the cityscape and brand of Kolkata, inspiration has been sought in the colours of the city, from its architecture and nature, through its art, heritage, culture and city brands. The city brand offers a strong vibrant colour palette from which to build a signage family that will help creating an identity of the neighbourhood.

2. Earthy colours

Earthy colours have been used to provide enough contrast against the sign's surroundings to make it visible, but also to complement in appearance. The adopted colour contrast provides high legibility of text and graphics, making the sign recognizable as part of a family of signs.

3. Icons/ pictograms

Icons have an important role in way finding to communicate meaning at a glance on complicated mapping or signage. Icons adapted are suitable for use at small sizes on detailed mapping but also at larger sizes on signage that are designed to be viewed at distance.

4. Integration

Like any urban features, signage can benefit greatly by being integrated with public art through sculptures & road paintings to create an information facility that not only serves general public, but also acts as the "gateway" for the area. Integration of fun elements will stimulate user orientation and overall experience.

5. Smart features

Smart features have been considered to improve the overall user experience. The below are the proposed smart elements

- a) Smart LED Lights
- b) Interactive maps
- c) CCTV camera
- d) Public address system
- e) Air quality monitoring sensors

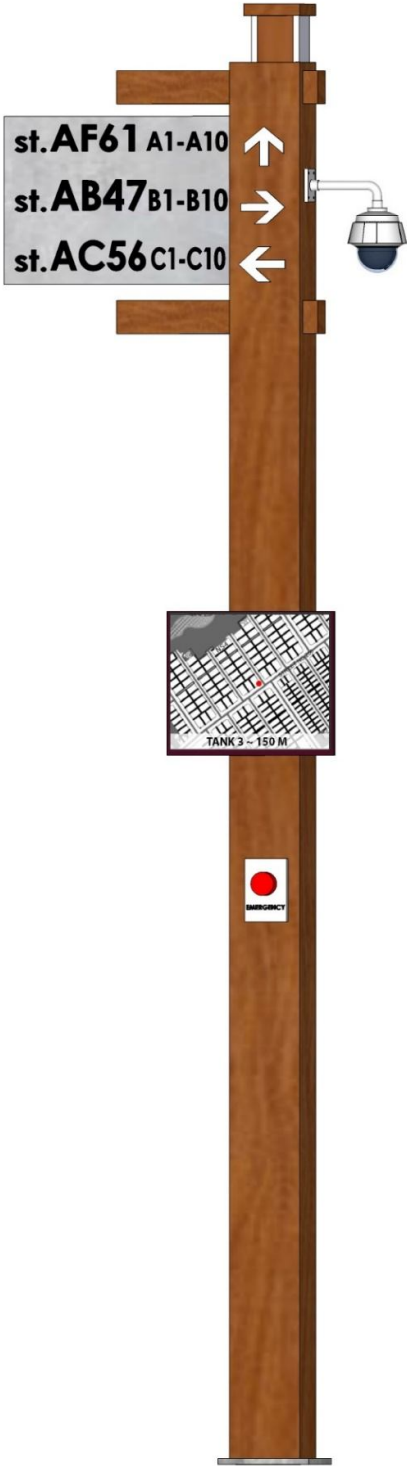
Design Parameters

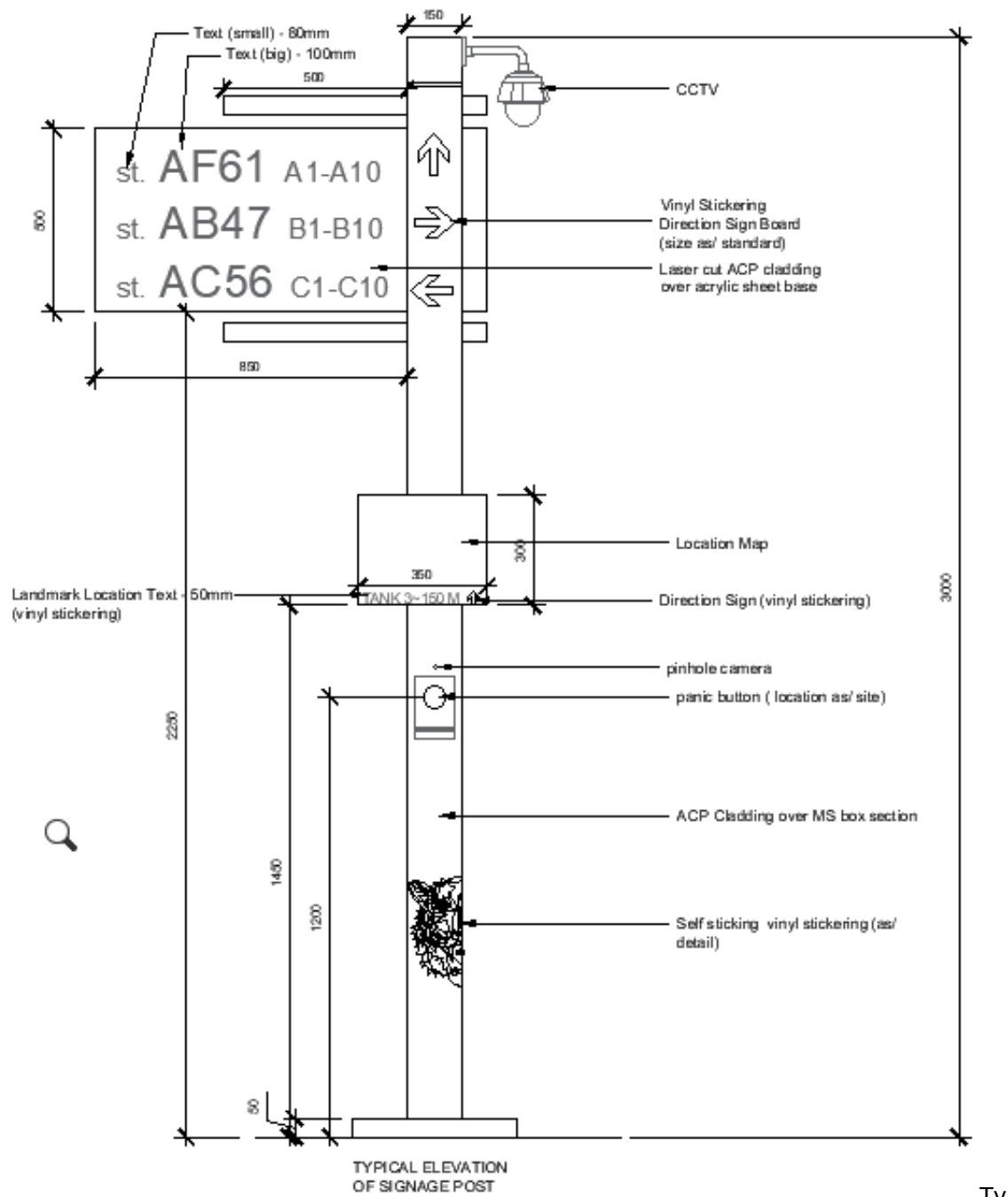
The following parameters have been considered while designing for an effective and coherent

Information system/signage family for New Town Kolkata Green Smart City.

- o Longevity
- o Inclusivity
- o Lighting
- o Branding
- o Vandalism proof
- o Graphic application
- o Signage positioning & placement
- o Durability and ease of maintenance
- o Safety & Surveillance
- o Use of technology
- o Consideration of anthropometry

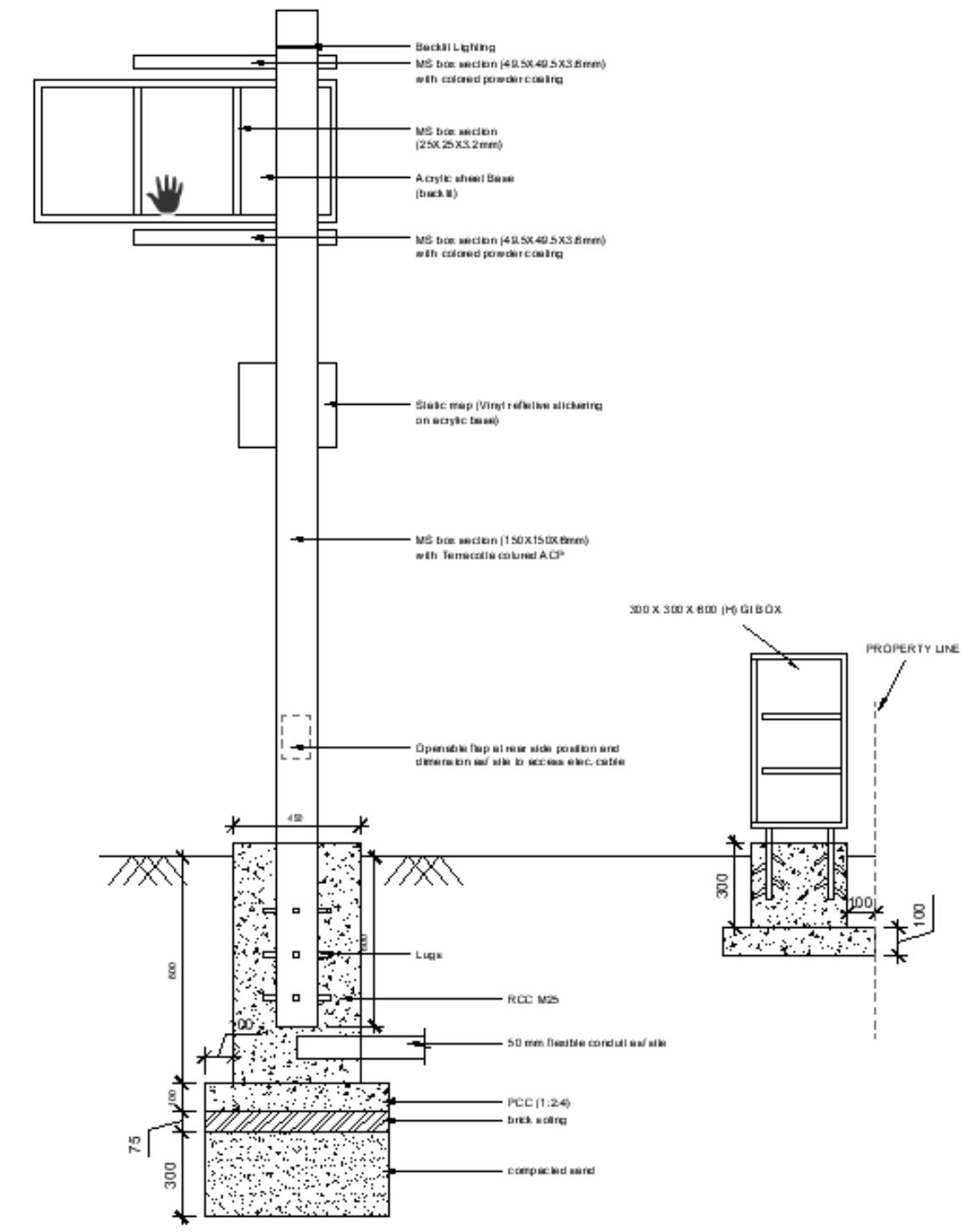
Design of Street Signage:

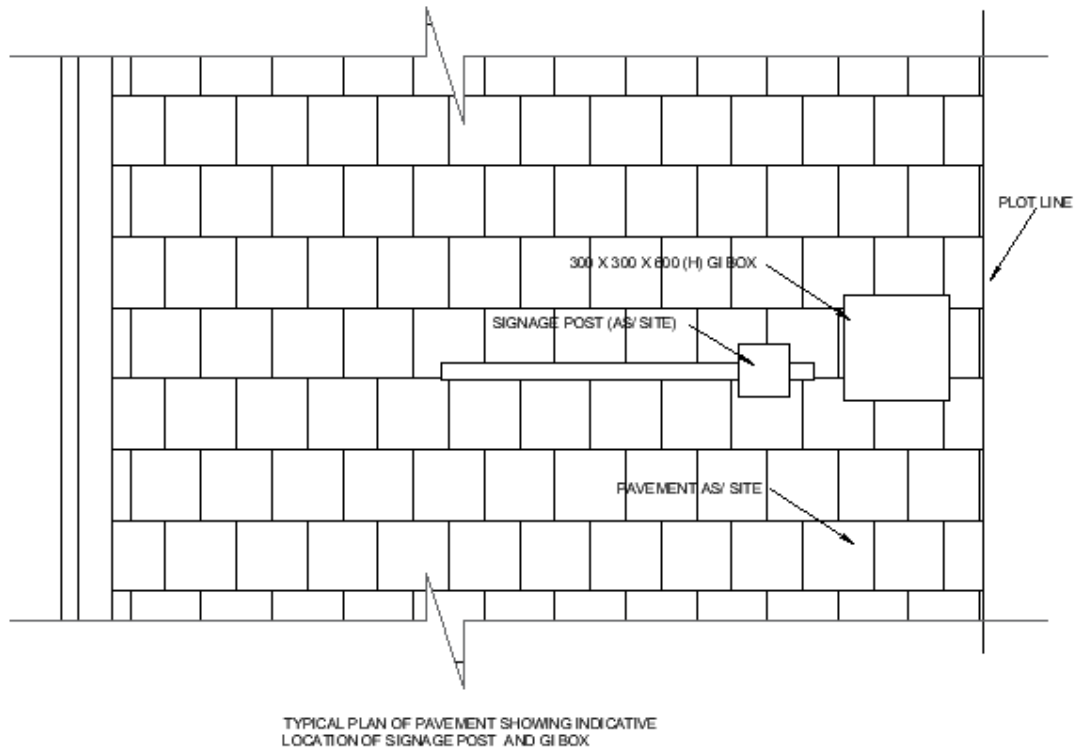




pical section of street signage.

Ty





Typical Section of Foundation Details.

Technical Specifications and Approved Make List

Foundation

- a) PCC: Ordinary Cement concrete (mix 1:2:4) with graded stone chips of Pakur variety (6mm nominal size) as per relevant IS codes. (IS 456:2000)
- b) RCC: Controlled Cement concrete of M 25 Grade with well graded stone chips (20 mm nominal size) as per design of concrete relevant to IS: 456 and relevant special publications. Consumption of cement will not be less than 300 Kg of cement with Superplasticizer per cubic meter of controlled concrete but actual consumption will be determined on the basis of preliminary test and job mix formula.
- c) SHUTTERING: Shuttering with centering and necessary staging up to 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for columns and beams, curved or straight including fitting, fixing and striking out after completion of works.
- d) REINFORCEMENT STEEL: Reinforcement for reinforced concrete work of Tor steel from SAIL/ TATA/RINL or Equivalent make in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction.

Structure

MAIN FRAME STRUCTURE: M.S. structural works with hollow sections of size 75mm x 75mm x 2mm & 40mm x 40mm x 2.6mm (square or rectangular shape) conforming to IS:806-1968 & IS: 1161-1998 connected to one another with bracket, gusset, cleat as per design, drawing & direction of Engineer-in-Charge complete including cutting to requisite shape & size, fabrication including metal arc welding conforming to IS: 816-1969 & IS: 9595 using electrodes of approved make and brand conforming to IS:814-2004, haulage, hoisting and erection all complete.

Priming & Painting

Priming one coat on steel with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc. Painting with two coats of (with any shade except white) best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, as necessary.

ICT Components

☐ Smart LED Lights

Supplying & Installation of Smart Solar LED street lights of 30W | 60Wp mono crystalline silicon panel & 30W LED with high efficiency SMD LEDs with CRI >80, lighting system efficiency up to 120 Lm/W, CCT – 6000o K to 6500oK, with full Power up to 12 hrs and Saving mode up to 48 hrs; Integrated with PIR sensor and MPPT charge controller with 90 to 96 efficiency.

☐ Interactive maps

Interactive outdoor screen (32") with IP65 casing displaying map, landmarks, snippet on art/culture/history etc and play ads at pre-defined slots. Touch Screen with 10-point capacitive touch

☐ CCTV camera

(1) Bullet camera 50/60 FPS, 1920X1080 to 160X90 resolution to 2 MB counter, remote zoom, remote focus, supporting micro SD card.

(2) Thin/Mini pc, Cloud Computer, Intel Chipset, 4GB RAM, 32GB SSD min, Windows 7/10, Built-in Wi-fi.

(3) UPS 600 VA Backup Power Supply, Automatic voltage regulator, Wide input voltage range, Cold start function, discharge overcharge and overload protection, Auto restart while AC recovery.

(4) Dongle with 4G speed, download speed up to 150 Mbps, upload speed up to 50 Mbps, upto or more than 10 devices connection.

(5) Pin Camera with inbuilt LED and infrared/night vision, waterproof, min 170 degree wide angle, min 2 MP.

(6) Panic Button.

<u>SPECIFICATIONS</u>			
Proposed Technology Enabled Smart Street Signage At AA-I New Town Kolkata, By NewTown Kolkata Green Smart City Corporation Limited			
SI No	Reference	Description	Make List
1	Item No- (A) 2a, Page No- 1/315 of PWD Schedule of Rates-2017 (Building Works)	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete. Depth of excavation not exceeding 1,500 mm.	
2	Item No- (A) 3 a, Page No- 2/315 of PWD Schedule of Rates-2017 (Building Works)	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work).With earth obtained from excavation of foundation.	
3	Item No- (A) 4 A, Page No- 2/315 of PWD Schedule of Rates-2017 (Building Works)	Filling in foundation or plinth by silver sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand. (payment to be made on measurement of finished quantity).	As per direction of EIC
4	PWD BLD P- 14 It-1	Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	As per direction of EIC
5	Item No- (C) 4 a, Page No- 24/315 of PWD Schedule of Rates-2017 (Building Works) updated in 3rd CORRIGENG A SI No 27 Rate Analysis-1	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement,if any, in ground floor as per relevant IS codes.	Ultratech/Ambuja /ACC

6	Item No- (C) 6 i, Page No- 24/315 of PWD Schedule of Rates-2017 (Building Works) updated in 3rd CORRIGENG A SI No 29 Rate Analysis-1	Controlled Cement concrete with well graded stone chips (20 mm nominal size) excluding shuttering and reinforcement with complete design of concrete as per IS : 456 and relevant special publications, submission of job mix formula after preliminary mix design after testing of concrete cubes as per direction of Engineer-in charge. Consumption of cement will not be less than 300 Kg of cement with Super plasticiser per cubic meter of controlled concrete but actual consumption will be determined on the basis of preliminary test and job mix foumula. In ground floor and foundation.[using concrete mixture] M 25 Grade	As per direction of EIC
7	Item No- (C) 36 f, Page No- 42/315 of PWD Schedule of Rates-2017 (Building Works)	Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works (upto roof of ground floor) 25 mm to 30 mm shuttering without staging in foundation	As per direction of EIC
8	Item No- (C) 40 a (i) I, Page No- 43/315 of PWD Schedule of Rates-2017 (Building Works) updated in 8th CORRIGENG A	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction. SAIL/TATA/RINL	SAIL/TATA/RINL

9	Item No- (F) 2A i) a), Page No- 101/315 of PWD Schedule of Rates-2017 (Building Works) Updated in 3rd CORRIGENG A SI No 3 pg- 85/96	M.S. structural works with hollow sections (square or rectangular shape) conforming to IS: 806-1968 & IS:1161-1998) connected to one another with bracket, gusset, cleat as per design, drawing & direction of Engineer-in-Charge complete including cutting to requisite shape & size, fabrication including metal arc welding conforming to IS: 816-1969 & IS: 9595 using electrodes of approved make and brand conforming to IS:814- 2004, haulage, hoisting and erection all complete. The rate includes the cost of all M.S. Hollow section, all consumables such as electrodes, gas and hire charges of all tools and plants and labour required for execution and all incidental chages (such as electricity, labour insurance) etc. complete. Payment to be made on the basis of calculated weight of structural memebhrs of MS Holow Section as specified in relevent IS code in finished work. Payment for gusset, bracket, cleat may be made by adding the actual weight of such items with weight of finished structural members. The rates are considered for a hight of erection 8 m. / 2nd floor level from the ground.	SAIL/TISCO/UTKARS H
10	Item No- (K) A 1 a), Page No- 200/315 of PWD Schedule of Rates-2017 (Building Works)	Priming one coat on steel or other metal surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc.	Berger/ Asian Paints/ ICICI/ Nerolac
11	Item No- (K) A 2 b iv), Page No- 200/315 of PWD Schedule of Rates-2017 (Building Works)	Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary : (b) On steel or other metal surface :- (iv) Two coats (with any shade except white)	Berger/ Asian Paints/ ICICI/ Nerolac

12	Market rate	Providing and fixing exterior quality Aluminium Composite Panel (ACP) wall cladding on existing Al. /MS frame work with GI brackets, ACP fixed on the existing frame work by folding the edges of ACP panel (Engraving the rear surface of ACP sheet) with CP angles, cleats and stainless Steel screws forming grooves at the periphery of ACP panel. Such grooves filled with foam and silicon sealant etc. complete with all materials (but including the cost of silicon sealant), labour, scaffolding and all other incidental charges complete in all respect as per specification and direction of Engineer-in-charge. (Mode of payment is on finished surface area of ACP) a) 4mm thick FR Grade	Aludecor/ Alstrong/Timex Bond/Alstone
13	Market rate	Supplying, providing and fixing of Glow sign board of size & Shape as per the design including Lettering fabricated out of 4mm Acrylic Sheet and required MS angle support to form steady structure with necessary lighting arrangement to provide a good visibility. The manufacturing to be done as per the design provided & approved by engineer incharge including all lead, lifts, labours, scaffolding as necessary all complete.	As per direction of EIC
14	Market rate	Supplying, providing and fixing of self sticking Vinyl sticker with Customized designing. The manufacturing to be done as per the design provided & approved by engineer incharge including all lead, lifts, labours, scaffolding as necessary all complete.	As per direction of EIC
15	Market rate	Supplying, providing and fixing of Static Map with Customized designing. The manufacturing to be done as per the design provided & approved by engineer incharge including all lead, lifts, labours, scaffolding as necessary all complete.	As per direction of EIC
		Electrical works	
13		Supply and Installation of the following 1.1kV grade armoured XLPE/PVC insulated Al./Cu conductor cable in Underground (GI/PVC)complete as required and as per specification.	Havells/Finolex/KEC/ KEI
		4Cx4Sq.mm,XLPE,Armoured,Al.Cable	
		2Cx2.5Sq.mm,PVC,Armoured,Cu.Cable	

14	PWD SOR Vol-1- Electrical Works-2017 ,F-6, Item-11	Supplying and fixing medium guage GI pipe (ISI-medium) Protection with necessary fittings and jointing materials as required	Jindal/ Tata/ RINL
15	PWD SOR Vol-1- Electrical Works-2017 ,F-6, Item-11,(c)	40mm dia	
16	PWD SOR Vol-1- Electrical Works-2017 ,F-6, Item-11,(d)	50mm dia	
17	PWD SOR Vol-1- Electrical Works-2017 G-2 Item-5	Connecting the equipments to earth busbar including S & F GI (Hot Dip) wire of size as below on wall/floor with staples buried inside wall/floor as required and making connection to equipments with bolts, nuts, washers, cable lugs etc. as required and mending good damages	As per direction of EIC
		Solid GI wire:	
18	PWD SOR Vol-1- Electrical Works-2017, 5(a)(iii)	No. 8 SWG	
19		Supply and fixing of Outdoor GI Junction Box along with Canopy, pedestal, suitable for 2Nos. 4Cx16Sq.mm cable or as per requirement,IP55, stainless steel (grade-304) of minimum thickness 2mm,provision for light and socket complete as per requirement	Legrand /Schneider/Seimens/ ABB/L&T/ Havells
20		Supply & fixing of 9/10W LED light, 230V complete with required accessories Make:(Philips/Bajaj/Wipro)	Philips/Bajaj/Wipro
21		Supply & fixing Street light Astronomical timer complete with required accessories	
		ICT COMPONENT	
22		Supply, installation, testing and Commissioning of of bullet camera 50/60 FPS, 1920X1080 to 160X90 resolution to 2 MB counter, remote zoom, remote focus, supporting micro SD card	Bosch, Honeywell, Hikvision, Dahua, Axis, Pelco, Tyco, Infinova or equivalent
23		Supply, installation, testing and commissioning of Thin/Mini pc, Cloud Computer, Intel Chipset, 4GB RAM, 32GB SSD min, Windows 7/10, Built-in Wi-fi	Dell, Intel, Lenovo

24		Supply, installation, testing and commissioning of UPS 600 VA Backup Power Supply, Automatic voltage regulator, Wide input voltage range, Cold start function, discharge overcharge and overload protection, Auto restart while AC recovery	Iball, Vguard, Intex, Microtek
25		Supply, installation, testing and commissioning of Dongle with 4G speed, download speed up to 150 Mbps, upload speed up to 50 Mbps, upto or more than 10 devices connection inclusive of network service charges for 5 years	Jio, Airtel, Hwawei
26		Supply, installation, testing and commissioning of Pin Camera with inbuilt LED and infrared/night vision, waterproof, min 170 degree wide angle, min 2 MP	Generic
27		Supply, installation, testing and commissioning of panic button	As per the Direction of EIC
28		Supply, installation, testing and commissioning of Software	As per the Direction of EIC

Signature Not Verified

Digitally signed by SANDEEP GANGULY
Date: 2020.02.18 18:33:48 IST
Location: West Bengal-WB