

রাজ্য নগর উন্নয়ন সংস্থা

STATE URBAN DEVELOPMENT AGENCY

“ইলগাস ভবন”, এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ
 “ILGUS BHAVAN”, H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

SUDA-116/2015/1214

09.09.2015

ক্রমিক নং

তারিখ

NOTICE INVITING TENDER (ABRIDGED)

Sealed Tenders in 2(two) bid system (Technical & Financial) in specified printed form are invited for the following work(s) from reliable, resourceful, experienced and bonafide Contractors and will be received in the tender box kept SUDA office, up to specified date and time and will be opened one hour later on the same date or later as will be notified, in the presence of contractors or their authorized representatives who may willing to be present at the time of opening.

- 1) Name of Work (Ch Head)
- 2) Estimated Cost of work put to tender
- 3) Time allotted for completion of work
- 4) Eligibility criteria to participate in tender

Renovation of floor & Construction of Toilet with plumbing and sanitary works including ancillary works at 2nd floor of SUDA Building.

Rs.4,17,216/- (Rupees four lakh seventeen thousand two hundred sixteen only)

50 days from the date of issue of work order.

The willing contractors will have to apply for participation in the tender in their printed letter head containing full mailing address with present telephone number (both landline & Mobile Phone No.) along with required documents as mentioned herein below.

- i) Valid PAN Card, Trade License and Professional Tax Clearance Certificate.
- ii) Labour supply Contractors should have to fulfill all clause under notification no.1137-IR/IR/MISC-11/11 dated 14.11.2011 of Labour Department, Govt. of West Bengal within 30 (Thirty) days of issuing of Work Order.
- iii) Bye Law, PAN Card, Trade License, Professional Tax Clearance Certificate, Last year audit report for Un-employed Engineer's co-op Society Ltd. At least 40% Credential in support of Experience Certificate/ Proof of Executing satisfactorily completed at least one single job of similar nature under Govt. of West Bengal/ Central Govt. during last 5 (five) years from the date of issue of this notice under Acceptance-cum-work-order along with payment certificate or completion certificate, mentioning name of work, Tender amount, Name and address of client, Amount put to tender, Date of commencement of work, Date of completion of work, Final bill value.

- 5) Earnest Money

2% on the estimated amount - Rs.
 (To be deposited in the form of Bank Draft issued by any Nationalized Bank in favour of the Director, SUDA

- 6) Security Deposit

8% of the bill value (to be deducted from the bill)

দূরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com

Account Section : 2358 6408

- 7) Last date and time for receipt of application for participation (off line) in the tender 23.09.2015 up to 3 p.m.
- 8) Last date and time for receipt of tender papers in sealed cover (off line) along with permission certificate and EMD On 24.09.2015 up to 2.00 p.m.
(in the tender Box kept in the SUDA office)
- 9) Date of opening of technical bid 24.09.2015 at 3.00 p.m.
- 10) Selection of technically qualified bidders 28.09.2015
(To be notified through website)
- 11) Financial Bid 29.09.2015 at 2 p.m.
- 12) Detailed N.I.T. & terms and conditions, Specified tender forms & other relevant tender documents (Price Schedule) will be available and/ or downloaded from the Departmental website (www.wbdma.gov.in/www.changeekolkata.org)
- 13) No exemption of Earnest Money deposit will be entertained for any tenderer and/ or any case.
- 14) The contractors should quote in his own writing in figure as well in words the rate in percentage "AT PAR" ABOVE/ BELOW.
- 15) Canvassing as regards to the issue of tenders and related to such tender process in any form would reject the candidature of the participant without assigning any reason.
- 16) Even after submission of tender, the tender will not be taken into consideration during evaluation, if the papers submitted by any agency in support of eligibility are found to be baseless/ false in the event of verification from the concerned authority.
- 17) A case of 1% of the cost of construction works will be deducted from the bills of the contractors and remit the amount so collected to the "W.B. Building and other Construction Works Welfare Board" as notification No.1182 IR dated 20.09.2005 of the Labour Department.
- 18) If any contractors fails to start the work within 7 (seven) days from issuing the date of work order / formal tender the work order will be cancelled and relevant clauses of the condition of the contract shall deemed to have executed by the tendering authority. No litigation to this effect shall entertain by the tender inviting authority; this is incorporated to deliver time bound Public works.
- 19) If any date fall on holidays or on day's bandh or national calamity, the dates automatically defer to next working days.
- 20) Tender inviting Authority reserves his right to rectify/ replace/ substitute any rate of the priced schedule put to tender in case of any in advertent / typographical mistake both in figure as well as in words prior to execution of formal Tender.
- 21) Necessary mandatory deduction towards S.T., I.T., VAT etc. will be made as per relevant Govt. Orders.
- 22) The successful tenderer will have to execute formal agreement as within specified time period as per instruction from this end and during execution of formal agreement price of tender documents accompanied with the cost will have to be paid by the successful Tenderer @ Rs.750/-.
- 23) There shall be no provision of Arbitration.


Director 9/9/2015

SUDA-116/2015/1214/1(8)

Date.09.09.2015

Copy forwarded for information and wide circulation to :

- 1) Project Director, CMU
- 2) C.E. MED
- 3) D.S (CSC) Prasashan Bhavan, KMDA.
- 4) Joint Director, ILGUS
- 5) Member-Secretary, West Bengal Valuation Board
- 6) Director of Local Bodies
- 7) Financial Adviser, SUDA
- 8) Notice Board


Director 9/9/2015

Estimate

Name of work: **Renovation of damaged floor including construction of toilet with plumbing and sanitary works, including other ancillary works at 2nd floor of SUDA Bhaban**

Item No.	Description of item	Quantity	Unit	Rate (Rs)	Amount (Rs)
1	Dismantling artificial stone flooring up to 50 mm. thick by carefully chiselling without damaging the base and removing rubbish as directed within a lead of 75 mtr. a) At 2 nd floor [Ref: PWD SoR '14 Pg - 8, It. No. 6]	155	Sq. Mtr	62.00	9610.00
2	Dismantling all types of masonry excepting cement concrete plain or reinforced, stacking serviceable materials at site and removing rubbish as directed within a lead of 75 mtr. a) At 2 nd floor [Ref: PWD SoR 14 Pg - 7, It. No. 1]	3	Sq. Mtr	551.00	1653.00
3	Stripping off worn out plaster and raking out joints of walls, ceilings etc. up to any height and in any floor including removing rubbish within a lead of 75 mtr. as directed. (a) at 2 nd floor [Ref: PWD SoR '14 Pg - 8, It. No. 10]	8	Sq. Mtr.	19.00	152.00
4	125 mm. thick brick work with first class bricks in cement mortar 1:4 (a) At 2 nd floor [Ref: PWD SoR '14 Pg - 31, It. No. 29]	7	Sq. Mtr.	795.00	5565.00
5	75 mm. thick brick work with first class bricks set in cement and sand mortar 1:4 in 2 nd floor including H.B. netting in every alternate layers [Ref: PWD SoR '14 Pg - 32, It. No. 34a]	5	Sq. mtr.	549.00	2745.00
6	Extra for using approved H.B. netting in every third layer in above item in ay floor [Ref: PWD SoR '14 Pg - 31, It. No. 31]	9	Sq. Mtr.	46.00	414.00
7	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding/staging where necessary (Ground floor). [Excluding cost of chipping over concrete surface] i) With 1:4 cement mortar a) 20 mm thick plaster [Ref: PWD SoR '14 Pg - 151, It. No. 2(ii)]	12	Sq. Mtr	206.00	2472.00

8	<p>Supplying and laying true to line and level vitrified tiles of approved brand (size not less than 600 mm X 600 mm X 10 mm thick) in floor, skirting etc. set in 20 mm sand cement mortar (1:4) and 2 mm thick cement slurry back side of tiles using cement @ 2.91 Kg./sq.M. or using polymerized adhesive (6 mm thick layer applied directly over finished artificial stone floor/Mosaic etc. without any backing course) laid after application slurry using 1.75 Kg. of cement per sq.M. below mortar only, joints grouted with admixture of white cement and coloring pigment to match with colour of tiles / epoxy grout materials of approved make as directed and removal of wax coating of top surface of tiles with warm water and polishing the tiles using soft and dry cloth up to mirror finish complete including the cost of materials, labour and all other incidental charges complete true to the manufacturer's specification and direction of Engineer-in-Charge. (White cement, synthetic adhesive and grout material to be supplied by the contractor)</p> <p>a) At 2nd floor [Ref: PWD Schedule (B)/Pg No. 47/Item No. 16]</p>	155	Sq. Mtr.	1970.00	3,05,350.00
9	<p>Supplying, fitting and fixing first quality ceramic tiles in walls and floors to match with the existing work and phone numbers of key stones (10 mm.) fixed with araldite at the back of each tile and finishing the joints with white cement mixed with coloring oxide if required to match the color of tiles including roughening of concrete surface, if necessary or by synthetic adhesive and grout materials etc.</p> <p>A) Wall With sand and cement mortar (1:3) 50 mm. thick and 2 mm. thick cement slurry at backside of tiles using cement @2.91 kg/sq. mtr. and joint filling using white cement slurry @ 0.20 kg/sq. mtr.</p> <p>(a) Area of each tile up to 0.09 sq. mtr (i) Other than color decorative including white [Ref: PWD Schedule (B)/Pg-52&53, It. No. 30]</p>	20	Sq. mtr	801.00	16020.00
10	<p>Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm. nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes</p> <p>i) Pakur Variety (a) 2nd floor [Ref: PWD SoR '14 Pg - 14, It. No. 7]</p>	0.25	Sq. mtr.	5389.00	1347.25
11	<p>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.</p> <p>(i) Tor steel/Mild Steel (a) For works beyond the roof of ground floor/initial 4 m At 2nd floor [Ref: PWD SoR '14 Pg - 27, It. No. 15]</p>	0.035	MT	68556.00	2399.46

12	Hire and labour charges for shuttering with centering and necessary staging up to 4 m using approved stout props and thick hardwood 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. (a) 25 mm to 30 mm thick wooden shuttering as per decision and direction of Engineer-in-Charge. At 2 nd floor [Ref: PWD SoR '14 Pg - 26, It. No. 12a]	2	Sq. mtr.	378.00	756.00
13	Supplying, fitting and fixing E.W.C. in white glazed vitreous chinaware of approved make complete in position with necessary bolts, nuts etc. a) With 'P' trap [Ref: PWD (Sanitary & Plumbing) '14, Pg – 65, It. No. 2]	1	each	1776.00	1776.00
14	Supplying, fitting and fixing flat back urinal (half stall urinal) in white vitreous chinaware of approved make in position with brass screws on 75 mm X 75 mm X 75 mm wooden box complete. (i) 590 mm X 390 mm X 380 mm [Ref: PWD (Sanitary & Plumbing) 14, Pg – 66, It. No. 6]	2	each	2990.00	5980.00
15	Supplying, fitting and fixing white vitreous china based best quality approved make wash basin with C.I. rackets on 75 mm X 75 mm C.P. waste fittings of 32 mm dia., 1 approved quality brass C.P. Pillar Cock of 50 mm. dia., C.P. Chain with rubber plug of 30 mm dia., approved quality P.V.C. waste pipe with C.P. nut 32 mm dia., 900 mm long approved quality P.V.C. connection pipe with heavy brass C.P. nut including mending good all damages and painting the brackets with two coats of approved paint (i) 550 mm X 400 MM size [Ref: PWD (Sanitary & Plumbing) '14, Pg – 31, It. No. 2]	1	each	2504.00	2504.00
16	Supplying, fitting and fixing pedestal of approved make for wash basin (white) [Ref: PWD (Sanitary & Plumbing) '14, Pg – 31, It. No. 3]	1	each	1911.00	1911.00
17	Supplying, fitting and fixing 10 ltr. P.V.C. low down cistern conforming to I.S. specification with P.V.C. complete, C.I. brackets including two coats of painting to bracket etc. [Ref: PWD (Sanitary & Plumbing) '14, Pg – 27, It. No. 2]	1	each	1181.00	1181.00
18	Supplying, fitting and fixing alloy iron with brass spindle bib cock/stop cock of approved brand and make spray painted and tested to 21 kg/sq. cm (i) 15 mm [Ref: PWD (Sanitary & Plumbing) '14, Pg – 6, It. No. G]	3	each	195.00	585.00
19	Supplying, fitting and fixing peets valve full way gun metal standard pattern best quality of approved brand bearing I.S.I. marking with fittings (tested to 21 kg/sq. cm) (i) 25 mm dia. [Ref: PWD (Sanitary & Plumbing) '14, Pg – 4, It. No. 4]	1	each	1137.00	1137.00

20	<p>Supplying, fitting and fixing shower of approved brand and make</p> <p>(a) Hand shower (health faucet) with 1 mtr flexible tube with wall hook (equivalent to code no 537 and model allied of Jaquar or similar)</p> <p>[Ref: PWD (Sanitary & Plumbing) '14, Pg – 4, It. No. 3f]</p>	1	each	1611.00	1611.00
21	<p>Supplying, fitting and fixing GI pipes of Tata make with all necessary accessories, specials viz., socket, belt, Tee, Union, cross, elbow, nipple, long screw, reducing socket, reducing Tee, sort piece, etc. fitted with holder bats clumps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint with any position above ground.</p> <p>(Payment will be made on the center line measurements of total pipe line including all specials. No separate payment will be made for accessories, specials, payment for painting will be made separately).</p> <p>(A) For exposed work</p> <p>(a) (i) 15 mm dia. Medium quality</p> <p>(b) (i) 25 mm dia. Medium quality</p> <p>[Ref: PWD (Sanitary & Plumbing) '14, Pg – 2, It. No. 1]</p>	8 10	Mtr. Mtr.	220.00 354.00	1760.00 3540.00
22	<p>Chromium plated angular Stop Cock with wall flange (equivalent to code no. 5053 and model Florentine of Jaquar or similar brand)</p> <p>[Ref: PWD (Sanitary & Plumbing) '14, Pg – 6, It. No. d]</p>	4	each	1046.00	4184.00
23	<p>Supplying, fitting and fixing urinal flush pipe fitting of approved brand</p> <p>(a) C.P. urinal flush pipe fitting range of two</p> <p>[Ref: PWD (Sanitary & Plumbing) '14, Pg-67, It. No. 12]</p>	1	each	1179.00	1179.00
24	<p>Supplying, fitting and fixing 18 mm thick marble partition slab with chawk with doongry marbel square cut both side polished with two front corners rounded and edges polished</p> <p>[Ref: PWD (Sanitary & Plumbing) '14, Pg-67, It. No. 13]</p>	1	Sq. mtr.	1710.00	1710.00
25	<p>Supplying, fitting and fixing level edged mirror 5.5 mm thick silver red as per I.S. 3438/1965 together with brass C.P. hinges</p> <p>(i) 600 mm X 450 mm</p> <p>[Ref: PWD (Sanitary & Plumbing)'14,Pg – 67, It. No. 15]</p>	1	each	619.00	619.00
26	<p>Supplying, fitting and fixing liquid soap container</p> <p>(a) Fibre glass</p> <p>[Ref: PWD (Sanitary & Plumbing)'14,Pg – 68,It. No. 17]</p>	2	each	240.00	480.00
27	<p>Supplying, fitting and fixing soap holder</p> <p>(a) Fiber glass</p> <p>[Ref: PWD (Sanitary & Plumbing)'14,Pg – 68, It. No. 18]</p>	1	each	71.00	71.00

28	Supplying, fitting and fixing towel rail with two brackets (a) C.P. over brass (i) 25 mm dia. and 450 mm long [Ref: PWD (Sanitary & Plumbing)'14, Pg – 68, It. No. 22]	1	each	494.00	494.00
29	Supplying, fitting and fixing porcelain toilet paper holder of approved make with wooden spindle as necessary (i) Roll type size 250 mm X 125 mm [Ref: PWD (Sanitary & Plumbing)'14, Pg – 68, It. No. 23]	1	each	375.00	375.00
30	Supply of UPVC pipes (B type and fittings conforming to IS:13592-1992) (A) (i) Single socket 3 mtr length (a) 110 mm (ii) Double Socket (a) 110 mm (B) Fitting (i) Coupler (a) 110 mm (ii) Bend 87.5 (a) 110 mm (iii) Bend 45 (a) 110 mm (iv) Door Bend (a) 110 mm (v) Pipe Clip (a) 110 mm (vi) Vent Cowl (a) 110 mm (vii) P Trap (110 X 110) (viii) Pass over (a) 110 mm (ix) Socket plug (a) 110 mm [Ref: PWD (Sanitary & Plumbing)'14, Pg–57,58,59,60,61 It. No. 23] Rubber Ring (a) 110 mm (C) Rubber Lubricant 500 ml (D) Solvent Cement 250 ml	3 6 4 3 2 3 8 1 1 1 1 12 1 2	Mtr. Mtr. each each each each each each each each each each each 500 ml 250 ml	348.00 375.00 101.00 143.00 106.00 176.00 25.00 39.00 335.00 486.00 64.00 9.00 223.00 123.00	1044.00 2250.00 404.00 429.00 212.00 528.00 200.00 39.00 335.00 486.00 64.00 108.00 223.00 246.00
31	Labour for fitting and fixing UPVC pipes for above ground work including cost of jointing materials etc. fitting and fixing all necessary specials, cutting pipes, cutting holes in walls or R.C. floor where necessary and mending good all damages excluding the cost of masonry or concrete work, if necessary, but including the cost and fitting and fixing holder bat clamps (any floor) or for underground work including cutting trenches upto 1.5 meter and refilling the same complete as per direction of the Engineer-in-Charge. (Payment will be made on centre line measurement of the total pipeline including specials). (A) Above ground (i) 110 mm dia. [Ref: PWD (Sanitary & Plumbing) '14, Pg – 62, It. No. 24]	9	Mtr.	57.00	513.00

32	Wood work in door and window frame fitted and fixed in position complete including a protective coat of painting at the contract surface of the frame excluding cost of concrete, iron butt hinges and MS clamps (A) Sal Malaysian [Ref: PWD (Building) '14, Pg – 85 It. No. 1]	0.03	Mtr Cube	96098.00	2882.94
33	Supplying, fitting and fixing door frame with MS angles as per drawing and direction of required section. The holes for counter sunk machine screw and nuts will be such as to fit 8 mm to 10 mm iron screw. The counter sunk nut to be welded. The nuts are to be welded after careful checking with screw. All welding spots should be properly filled or rounded smooth including cost of welding hinges for hinge cleats, lugs for hasp bolt, socket bolt etc. and necessary MS clamps of 25 mm X 6 mm flat to 25 mm long as per direction welded to the frame fitted and fixed in position excluding cost of concrete. [Ref: PWD (Building) '14, Pg – 86 It. No. 1A]	2	Kg	91.00	182.00
34	Supplying solid flush type doors of commercial quality, the timber frame consisting of top and bottom rail and side styles of well seasoned timber 65 mm wide each and the entire frame fitted with 37.55 mm wide battens places both ways in order to make the door of solid core and internal lipping with garjan or similar wood veneers using phenol formaldehyde as glue etc. complete including, fitting, fixing, shutters in position but excluding the cost of hinges and other fittings. (A) 32 mm thick shutters (single leaf) [Ref: PWD (Building) '14, Pg – 119 It. No. 101]	2	Sq. mtr	2785.00	5570.00
35	Supplying, fitting and fixing 30 mm thick factory made solid panel PVC door shutter consisting of outer frame made out of MS tubes of 19 gaze thickness and size 19 mm X 19 mm for tiles, top and bottom rails, MS frame shall have cost of steel primes of approved make and manufacture MS frame covered with 5 mm thick heat molded PVC 'C' channel of size 30 mm thick, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on either sides forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm tapered in 45 degree on the inner side to form top and bottom rail and 150 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top bottom and lock rail shall be provided either side of the panel with 10 mm (5 mm X 2 mm) thick 20 mm wide cross PVC sheet as gap insert for top rail and bottom rail. Paneling of 5 mm thick both side PVC sheet to be fitted in the MS frame welded/shield to the styles and rails with 7 mm (5 mm + 2 mm) thick X 15 mm wide PVC sheet bidding on inner side and joint together with solvent cement adhesive. [Ref: PWD (Building) '14, Pg – 133 It. No. 145]	1.60	Sq. mtr	2277.00	3643.20

36	Removing loose scales blisters etc. from old painted surface and thoroughly smoothening the surface to make the same suitable for receiving fresh coat of paint. [Ref: PWD (Building) '14, Pg – 161 It. No. 1]	9	Sq. mtr	22.00	198.00
37	Priming one coat on timber or plaster surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc. [Ref: PWD (Building) '14, Pg – 162 It. No. 7]	15	Sq. mtr.	41.00	615.00
38	Applying acrylic emulsion paint of approved make and brand on walls and ceiling including sand papering in intermediate course including putty to be done under specific instruction of Superintending Engineer (Two coats) (i) Standard Quality [Ref: PWD (Building) '14, Pg – 163 It. No. 9]	15	Sq. mtr.	67.00	1005.00
39	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. (A) On timber or plaster surface With super gloss (high gloss) (i) Two coats white in shade [Ref: PWD (Building) '14, Pg – 162 It. No. 8]	3	Sq. mtr.	85.00	255.00
40	Supplying, fitting and fixing cast iron soil pipe only conforming to I.S. 3989/1970 and I.S. 1729/1964 with bobbins, nails etc. including making holes in the wall, floor, etc. and cutting trenches etc. in any floor through masonry concrete, if necessary, and mending good damages with necessary jointing materials and painting two coats to the exposed surface with approved paint complete (measurement will be made along the center line of the total pipe line in fitted condition including specials, payment for specials and painting will however be paid separately. (a) With valamoid joints including ceiling with sand cement mortar (4:1) upto quarter depth (i) 100 mm dia. (internal) [Ref: PWD (Sanitary & Drainage) '14, Pg – 49 It. No. 1]	9	Mtr.	795.00	7155.00
41	Supplying, fitting and fixing cast iron single branch equal with door conforming to I.S. 1729/1970 including joining and painting two coats to the exposed surface with approved paint complete (payment of painting will however be paid separately) (a) With valamoid joints including ceiling with sand cement mortar (4:1) (i) 100 mm dia. [Ref: PWD (Sanitary & Drainage) '14, Pg – 49 It. No. 2]	1	Each	923.00	923.00
42	Supplying, fitting and fixing cast iron double branch equal with door conforming to I.S. 1729/1970 including joining and painting two coats to the exposed surface with approved paint complete (payment of painting will however be paid separately) (a)With valamoid joints including ceiling with sand cement mortar (4:1) (i)100 mm dia. [Ref: PWD (Sanitary & Drainage) '14, Pg – 50 It. No. 3]	1	Each	1069.00	1069.00

43	<p>Supplying, fitting and fixing H.C.I. bend with door conforming to I.S.S. including jointing complete and painting two coats to the exposed surface with approved paint complete (payment of painting will however be paid separately)</p> <p>(a) With valamoid joints including ceiling with sand cement mortar (4:1)</p> <p>(i) 100 mm dia.</p> <p>[Ref: PWD (Sanitary & Drainage) '14, Pg – 50 It. No. 4]</p>	1	Each	624.00	624.00
44	<p>Supplying, fitting and fixing approved patent vent cowl I.C.I. conforming to I.S.S and painting two coats to the exposed surface with approved paint complete (payment of painting will however be paid separately)</p> <p>(i) 100 mm dia.</p> <p>[Ref: PWD (Sanitary & Drainage) '14, Pg – 53 It. No. 9]</p>	1	each	427.00	427.00
45	<p>Supplying, fitting and fixing aluminum domical grating</p> <p>(i) 100 mm</p> <p>[Ref: PWD (Sanitary & Drainage) '14, Pg – 53 It. No.10]</p>	2	Each	57.00	114.00
46	<p>Supplying, fitting and fixing cast iron " P " or "s" trap conforming to I.S. 3989/1970 and 1729/1964 including lead caulked joints and painting two coats to the exposed surface. Painting to be paid separately.</p> <p>(A) P Trap</p> <p>(i) 100 mm</p> <p>(B) S Trap</p> <p>(ii) 100 mm</p> <p>[Ref: PWD (Sanitary & Drainage) '14, Pg – 54 It. No.14]</p>	1	Each	1094.00	1094.00
		1	each	923.00	923.00
47	<p>Supplying, fitting and fixing cast iron extension pipes for using in traps only (connector) conforming to IS 3989/1970 and 1729/1964 including lead caulked joints complete and painting two coats to the exposed surface with approved paint complete (payment of painting will however be paid separately)</p> <p>(i) 100 mm X 600 mm</p> <p>[Ref: PWD (Sanitary & Drainage) '14, Pg – 54 It. No.15]</p>	1	Each	792.00	792.00
48	<p>Supplying, fitting and fixing with cement jointing 3:1 salt glazed stone ware pipe including excavation of earth up to 1.5 mtr depth in all sorts of soil both mixed or unmixed and refilling (but excluding concreting at bottom and sides)</p> <p>(ii) 100 mm</p> <p>[Ref: PWD (Sanitary & Drainage) '14, Pg–55 It. No.16]</p>	3	Mtr.	330.00	990.00
49	<p>Supplying, fitting and fixing with cement jointing (3:1) with jute gasket soaked in cement mortar</p> <p>(a) Stone ware bend</p> <p>(i) 100 mm</p> <p>[Ref: PWD (Sanitary & Drainage) '14, Pg – 55 It. No.17]</p>	3	Each	343.00	1029.00

50	Labour for taking out steel door and window frame for repair and refixing the same (or replacement by new one) including mending good damages (excluding the cost of repair of damages) and applying a protective coat of paint Up tp 1 sq. mtr of area of frame [Ref: PWD (Building SOR) '14, Pg – 84, It. No. 47]	1	each	129.00	129.00
51	Renewing hinge of steel shutter including taking out old one by cutting and fixing new hinges by welding and mending good damages complete. [Ref: PWD (Building SOR) '14, Pg – 81, It. No. 30]	1	Each	217.00	217.00
52	Supplying, fitting and fixing windows and ventilators with or without integrated grills conforming to IS 1038-1975 and manufactured from rolled steel section conforming to IS 7452-1974 with nonfiction projecting type box type hinges glazing clips plugs locking bracket handle plates etc. including hoisting in position, straightening if required fixing lugs with stone chips 20 mm down cutting holes and mending good damages to match with existing surface complete in all respect excluding glazing. In second floor Flash butt welded windows and ventilators (a) Fixed type steel windows as per IS sizes with horizontal glazing bars	0.50	Sq. mtr	1436.00	718.00
Sub-total :					4,17,216.85
Contingency @3% :					12516.50
Total :					4,29,733.35
					Say Rs 4,29,733.00

Asstt
26/5/15.

STATE URBAN DEVELOPMENT AGENCY

Abridged Tender Notice No. SUDA-116/2015/1214 Dated 09.09.2015

TENDER NO. 01/DIR/SUDA OF 2015-2016

TENDER DOCUMENTS

FOR

**RENOVATION OF FLOOR & CONSTRUCTION OF TOILET WITH
PLUMBING AND SANITARY WORKS INCLUDING ANCILLARY
WORKS AT 2nd FLOOR OF SUDA BUILDING**

ISSUED TO _____

_____ DATE _____

DIRECTOR, SUDA

‘ILGUS’ BHAVAN, H.C. BLOCK, SECTOR-III, BIDHANNAGAR,
KOLKATA- 700106

COST OF TENDER:750/-

STATE URBAN DEVELOPMENT AGENCY

ITEM RATE TENDER AND CONTRACT FOR WORKS

GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS

1. All works proposed for execution by contract will be notified in a form of invitation to tender posted in the public places and signed by the Officer-in-charge.
This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out of the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit to be deposited by the successful tendered and percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work, signed for the purpose of identification by the Officer-in-charge shall also be opened for inspection by the contractor at the office of the Officer-in-charge during office hours.
2. In the event of the tender being submitted by a firm, it must be signed separately by each member thereof or, in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of-attorney authorising him to do so. Such power-of-attorney must be produced with tender, and say in the case of a firm carried on by one member of joint family, it must disclose that the firm is duly registered under the Indian Partnership Act,
3. Receipts for payments made on account of a work, when executed by a firm must also be signed by the several partners except where the contractors are described in their tenders as a firm, in which case the receipts must be signed in the name of the firm by one of the partners or by some other person having authority to give effectual receipts for firm.
4. Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Tenders which propose any alteration in the work specified in the said form of invitation to tender; or in the time allowed for carrying out the work or which contain any other conditions of any sort, will be liable to rejection. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit a tender for each. Tenders shall have the name and numbers of the work to which they refer written outside the envelope,
5. The Officer-in-charge, or his duly authorised assistant will open tenders in the presence of any intending contractors who may be present at the time and will enter the amount of the several tenders in a Comparative Statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money forwarded therewith shall thereupon be given to the contractor, who shall thereupon for the purpose of identification sign copies of the specification and other documents mentioned in Rule - 1. In the event of tender being rejected, the earnest money forwarded with such unaccepted tender shall be refunded within 10 days from the date on which the tender is decided; provided the contractor(s) present himself/themselves before the Officer-in-charge to take the refund.
6. The accepting authority reserves the right to reject any or all the tender without assigning any reasons and he will not be bound to accept either the lowest tender, or any of the tender. •
7. The receipt of any accountant or clerk for any money paid by the contractor will not be considered as any acknowledgement of payment to the officer and the contractor shall be

responsible for seeing that he procures a receipt signed by the Officer-in-charge, or duly authorised Cashier.

8. The memorandum or work tendered for, and the schedule of materials to be supplied by the SUDA and their issue rates, shall be filled in and completed in the office of the Officer-in-charge before the tender form issued. If a form is issued to an intending contractor without having been so filled in and completed, he shall request the office to have this done before he completes and delivers this tender.

TENDER FOR WORKS

I/We hereby tender for the execution for the SUDA of the work specified in the underwritten memorandum within the time specified in such memorandum at the rates specified therein, and accordance in all respects with the specifications, designs, drawings. and instructions in writing referred to in Rule -1 hereof and in clause II of the annexed conditions and with such materials are provided for and in all other respects in accordance with such conditions as far as applicable.

MEMORANDUM

(a) General description

(a) If several
sub work are
included They
should be
detailed in a
separate list

(b) Estimated Amount `.

(C) Earnest Money deposited in details `.

(d) Security Deposit (including earnest money) `.

(e) Percentage. if any. to be deducted from bills `.

(..... Percent)

f) Time allowed for the work from date of written
order to commence Day/1

Item No.	Item of work	Unit	Per	Rate tendered	
				In figures	In Words

Should this tender be accepted I / We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed hereto so far as applicable, or in default thereof to forfeit and pay to the SUDA or his successors in office the sums 61 money mentioned in the said conditions.

*Give Particulars and numbers

The sum of `..... * is herewith forwarded as earnest money the full value of which is to be absolutely forfeited to the SUDA or its successors in office, without prejudice to any other rights or remedies of the said SUDA or its successors in office, should I / We fail to commence the work specified in the above memorandum otherwise the said sum of `..... shall be detained by SUDA on account of the security deposit specified in Clause No. 1 of the said conditions of the contract.

Signature of contractor before submission of tender

Signature of Witness to Contractors signature

Dated, the _____ day of _____ 20

Witness

\$ Signature of the officer by whom accepted

Address

Occupation

The above tender is hereby accepted by me on behalf of the SUDA
Dated, the _____ day of _____ 20

CONDITIONS OF CONTRACT

Clause 1 - The person/persons, whose tenders may be accepted (hereafter deed the contractors) shall permit the SUDA at the time of making any payment to him for work done under the contract to deduct such sum as along with the sum.....

Security deposit

already deposited as earnest money will amount to 10% of the Tendered amount.

Such deductions to be held by SUDA by way of security deposit provided always that the SUDA for this purpose shall be entitled to recover 8 % of the amount of each running bill till the balance of the amount of security deposit is realised, All compensation or other sums of money payable by the contractor under terms of this contract may be deducted from or paid by the sale of a sufficient part of his security deposit, or from the interest arising there from or from any sums which may be due to or may become due to the contractor by SUDA on any account whatsoever and in the event of his/their security deposit being reduced by reason of any such deductions or sale as foresaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by Scheduled/Nationalized Banks of Government securities (if deposited for more than 12 months) endorsed In favour of the SUDA any sum or sums which may have been deducted from, or raised by sale of his/their security deposit or any part thereof, The security deposit shall be collected from the running bills of the contractor at the rates mentioned above and the earnest money, if deposited in cash at the time of tenders, will be treated as part of the security deposit.

Clause 2 - The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the order to commence work is given to the contractor, The work shall throughout the stipulated period for contract be proceeded with all due diligence (time being deemed to be the essence of the contract, on the part of the contractor) and the contractor shall pay as compensation all amount equal to one per cent, or such smaller amount as the Director (whose decision in writing shall be final) may decide on the amount of the tender, amount of the whole work as shown in the tender, for everyday that the work remains uncommenced or unfinished after the proper elates. The contractor shall commence execution of such part of the work as may be notified to him within days from the date of order for commencement or work and diligently continue such work and further to ensure good progress during the execution of the work and he shall be bound in all cases in which the time allowed for any work exceeds one month, complete one-fourth of the whole of the work, before one-fourth of the whole time allowed under the contract has elapsed, one-half of the work, before one-half of such time has elapsed, and three-fourth of the work before three fourth of such time has elapsed.

Compensation for delay

In the event of the contractor failing to comply with any of the conditions herein he shall be liable to pay as compensation an amount equal to one per Cent Or such smaller amount as, the Director (whose decision in writing shall be final) may decide on the said tender amount of the whole work for everyday that the due quantity of work remains incomplete PROVIDED ALWAYS that the entire amount of compensation to paid under provisions of this clause shall not exceed **ten per cent** of the tendered amount of work as shown in the tender.

Action when
whole of security
deposit is
forfeited

Clause 3 - In any case in which under any clause or clauses of this contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit (whether paid in one sum or deducted by instalment) the Executive Engineer, on behalf of the SUDA shall have power to adopt any of the following course as he may deem best suited to interest of SUDA.

- a) To rescind the contract (of which rescission notice in writing to the contractor under the hand of the Engineer in Charge shall be conclusive evidence) and in which case the security deposit of the contractor shall stand forfeited, and be absolutely at the disposal of SUDA.
- b) To employ labour paid by SUDA and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and the price of the materials (for the amount of Which cost and price a certificate of the Engineer in Charge shall be final and conclusive against the contractor) and crediting him with the value of the work done in all respects in the same manner and the same rates as if it had been Carried out by the contractor under the terms of this contract; the Certificate of the Engineer in Charge as to the work done shall be final and conclusive against the contractor.
- c) To measure up the work of the contractor, and to take such part thereof as shall be unexecuted out of his hands and to give it to another contractor to complete, in which case any expense which may be incurred in excess of the sum which have been paid to the original contractor, if the whole work had been executed try him of the amount of which excess the certificate in writing of the Engineer in Charge shall be final and conclusive, shall be borne and paid by the original contractor and may be deducted from any money due to him SUDA under the contract or otherwise, or from his security deposits or the proceeds of sale thereof, of a sufficient part thereof.

In the event of any of the above course being adopted by the Engineer in Charge the contractor shall have no claim to compensation for any loss sustained by him reason of his having purchased, or procured any materials, or entered into any engagement or made any advances on account of or with a view to executing of the work or the performance of the contract. (And in case the Contract shall be rescinded under the provision aforesaid) the contractor shall not be entitled to cover or be paid any sum for any work thereof actually performed under this contract, unless and until the Engineer in

Charge will have certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified,

Contractor
remains liable
to pay
Compensation if
action not taken
under Clause-3

Clause 4 -In any case in which any of the powers Conferred upon the Engineer in Charge by Clause 3 hereof. shall have become exercisable and the same shall not be exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such power shall notwithstanding be exercisable in the event of any future case of default be the contractor for which by any clause or clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit, and the liability of the contractor for past and future compensation shall remain unaffected in the event of the Engineer in Charge putting in force either of the powers (a) or (b) vested in him under the preceding clause, he may, if so desire, take possession of all or any tools, plants, materials and stores, in or upon the works, or the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in account at the contract rates or in case of these not being applicable the Engineer in Charge whose certificate thereof shall be final, otherwise the Engineer in Charge may by notice in writing to the contractor or his clerk of the works, foreman or other authorized agent required him to remove such tools, plant, materials or stores from the premises (within a time to be specified in such notice) and in the event of the contractor failing to comply with any such requisition the Engineer in Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor at his risk in all respects and the certificate of the Engineer in Charge as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

Power to take
possession of,
or require
removal of or
sell contractors
plant

Clause 5 - If the contractor desires an extension of the time for completion of the works on the grounds of his having been unavoidable hindered in its execution, the contractor shall give an immediate report of such hindrance to the Engineer in Charge in writing and if he desires an extension of time for completion of the work on the ground thereof, he shall apply in writing to the Engineer in Charge within 7 days of the date of cessation of such hindrance on account of which he desires such extension as aforesaid and the Engineer in Charge shall (if in his opinion which shall be final reasonable grounds be shown thereof) recommend Such extension of time, as may, in the opinion, be necessary or proper to the final authority i.e. Director, SUDA as the case may

Extension time

Clause 6 - On completion of the work, the contractor shall be furnished with a certificate by the Engineer in Charge (hereunder called the Director) of such completion, nor shall the work be considered to be completed until the contractor

shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials and rubbish and cleaned of the dirt from all wood-work, door, windows, walls, floors, or other parts of any building, in, upon or about which the work is to be executed, or of which he may had have possession for the purpose of the execution thereof not until the work shall have been measured by the Director who measurement shall be binding and conclusive against the contractor. If the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials and cleaning of dirt on or before the date fixed for the completion of the work, the Director may at the expense of the contractor remove such scaffolding, surplus material and rubbish, and dispose of the same as he thinks fit and clean of such did as aforesaid and the contractor shall forthwith pay the amount of all expenses so incurred and shall have not claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realised by the sale thereof.

Final Certificate

Clause 7 - No payment shall be made for work estimated to cost less than Rupees one

thousand, till after the whole of the works have been completed and a certificate of completion given. But in the case of works estimated to cost more than Rupees one thousand, the contractor shall on submitting the bill thereof be entitled to receive a monthly payment proportionate to the part thereof, then approved and passed by the Director whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. But all such intermediate payments shall be regarded as payment by way of advance against the final payment only and not as payment for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilful work to be removed and taken away and reconstructed, or re-erected, or be considered as an admission of the due performance of the contract, or any part thereof in any respect of the accruing of any claim nor shall it conclude, determine, or affect in any way the powers of the Director under these conditions or any of them as the final settlement and adjustment of accounts or otherwise or in any other way very effect of the contract. The final bill shall be submitted by the contractor within one month of the date fixed for completion of the work, otherwise the Director's Certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on all parties.

Payment on intermediate certificate to be regarded as advance

Bills to be submitted monthly

Clause 8 - A bill shall be submitted by the contractor each month on or before the date fixed by the Director for all work executed in the previous month and the Director shall take or cause to be taken the requisite measurement for the purpose of having the same verified and claim, as far admissible, adjusted if possible before expiry of ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Director may depute, a subordinate to measure up the said work in the presence of the contractor, counter signature to the

measurement list will be sufficient warrant and the Director may prepare a bill from such list which shall be binding on the contractor in all respect.

Bills to be on printed forms

Clause 9 -The contractor shall submit all bills on the printed forms to be had on application at the office of the Engineer-in charge, and the charges in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender at the rates here-in-after provided for such work.

Payment on contractor's bill to bank

Clause 9A - (1) Payment due to the contractor may, if so desired by him be made to his Bank instead or direct to him, provided that the contractor furnishes to the Director;

- (1) an authorisation in the form of a regally valid document irrevocable power or attorney conferring authority on the Bank to receive payment ; and
- (ii) his own acceptance of the correctness of the account made out as being due to him by SUDA or his signature on the bill or other claim preferred against Government before settlement by the Director of the account or claim by payment to the Bank. While the receipt given by such Bank shall constitute a full and sufficient discharge for the payment, the contractor should, wherever possible, present his bills duly received and discharged through Bankers.
- (2) In the case of bills which the contractor present for payment direct and which are not endorsed in favour of the Bank, while efforts will be made to secure payment to the financing Bank, payments made to the contractor should be accepted as full acquittance so far as SUDA is concerned. As part of the arrangement the financing Bank should give SUDA a letter to this effect.

Now 1 — The procedure will not effect the usual rights of SUDA to deduct from contractors bill (whether endorsed in favour of a Bank or not) any sum due to SUDA in account of penalties, overpayment etc. on this or any other contract with the SUDA.

Note 2 — Nothing herein contained shall operate to create in (avow of the Bank any rights or equities vis-a-vis the Director, SUDA.

Clause 10 –Deleted

Stores Works to be executed in accordance with drawing, orders etc.

Clause 11 - The contractor shall execute the whole and every part of work in the most substantial and workmanlike manner and both as regards materials and otherwise in every respect in strict accordance with the specifications, The contractor shall also confirm exactly, fully faithfully to designs, drawings and instructions, in writing relating to the work signed by the Director and lodged in his office and to which the contractor shall be entitled to have access as such office, or in the site of the work kettle purpose of inspection during office hours, and the contractor shall if he so require, be entitled at his own expense to make or cause to be made copies of the specification, and of all such designs, drawings, and instructions as aforesaid.

Alteration in specification and designs

Clause 12 - The Director shall have power to make any alteration or omissions from, additions to or substitutions for the original specifications, drawings, designs and instructions, that may appear to him to be necessary or advisable during the progress of the work, and the contractor shall be bound to carry out the work in

Do not invalidate

accordance with any instruction which may be given to him in writing signed by the Director, and such alterations, omissions, additions or substitutions shall not invalidate the contract, and any altered, additional or substituted work which the contractor may be directed to do in the manner above specified as part of the work, shall be carried out by the contractor on the same conditions in all respect on which he agreed to do the main work on the same basis of rates as are specified in the tender for the main work. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work and the certificate of the Director shall be conclusive as to such proportion. If the altered, additional or substituted work includes any class of work, for which no rate is specified in this contract, that class of work shall be carried out at the rates entered in the schedule of rates of the Presidency Circle. P.W.D./P.W.D. (Roads), Govt. of West Bengal the contract specified in the documents minus/ plus the percentage which the total tendered amount bears to the estimated cost of the entire work put to tender and if the altered, additional or substituted work is not entered in the said schedule of rates, then the contractor shall within seven days of the date of his receipt of the order to carry out the work inform the Director of the rate which is his intention to charge for such class of work. If the Director does not agree to this rate he shall, by notice in writing, be at liberty to cancel his order to carry out such class of work and arrange to do it in such manner as he may consider advisable providing always that if the contractor shall commence work or incur any expenditure in regard thereto before the rate shall have been determined as lastly hereinbefore mentioned then and in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rate as shall be fixed by the Director. In the event of the dispute, the decision of the Director shall be final.

No
compensation
for alteration in
or restriction of
work to be
carried out

Clause 13- If at any time after the commencement of the work the SUDA shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out, the Director shall give notice in writing of the fact to the contractor who shall have not claim to any payment or compensation, whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out, nor has he any claim for compensation by reason of any alteration having been made in the original specification, drawings, designs, and instructions which shall involve any curtailment of the work as originally contemplated.

Action and
compensation
payable in
case of bad
work

Clause 14 - If it shall appear to the Director or his Subordinate-in charge of the work that any work has been executed with unsound, imperfect or unskilful, workmanship or with materials of any inferior description, or of a quality inferior to that contracted for or otherwise not in accordance with the contract the contractor shall on demand in writing from the Director specifying the work materials or articles complained of notwithstanding that the same construct the work so specified in whole or in part, as the case may require, or as the case may or article at his own proper charge and cost and in the event of his failing to do so within a period to be specified by the Director in his demand aforesaid then the contractor shall be liable to pay compensation at the rate of one per cent of the amount of the estimate for every day not exceeding 10 days which his failure to do so shall continue and in

thecaseofanysuchfailure the Director may rectify or remove, and re-execute the workorremoveandreplace with others the materials or articles Complained of, as the case maybeattheriskandexpense in all respect of the contractor.

Work to be open to inspection

Clause 15 - All works under or in course of extension or executed in pursuance of the Contract shall at all times be open to the inspection and supervision of the Director and his subordinates and the contractor shall at all times during the usual working hours and at all other times at which reasonable notice of the mention of Director and his subordinates to visit the work shall have been given to the contract, either himself be present to receive order and instructions or have a responsible agentdulyaccreditedinwriting present for that purpose. Orders given to the agent shall be considered to have the same force as if they had been given to the contractor himself,

Contractor of responsible agent to be present

Clause 16 - The Contractor shall give not less than five days notice in writing to the Director or his subordinate-in-charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured, and correct dimensions thereof be taken before the same is so covered up or placed beyond the reach of measurement and shall not covered up or placed beyond the reach of measurement without such notice having been given or consent obtained the same shall be uncovered at the contractor's expense, or in default thereof no payment of allowance shall be made for such work or the materials with which the same was excused

Notice to be given before work is cover up

Contractor liable for damage done and for imperfections for three months after certificate

Clause 17 -It the contractor or his workmen or servants shall break. deface, injureordestroy any part of a building. in which they may be working or any building, road,roadkerbs,enclosure, water pipes, cables, drains, electric or telephone post or wires, trees. Grassorgrassland or cultivated ground contiguous to the premises on which the work oranypartofit is being executed or if any damage shall happen to the work, while in progressfromanycause whatsoever or any Imperfections become apparent in it within threemonths(sixmonths in the case of a road work) after a certificate final or otherwise of itscompletionshallhavebeen given by the Director as aforesaid, the contractor shallmadethesamegoodat his other workmen and deduct the expense (of which the certificateoftheDirector) shall or from his security deposit, or the proceeds of thesaleorofthereofasufficientportion thereof.

The Security deposit of the contractor made in the manner provided in clauses thereof shall be refundable on the expiry of 3 months alter the issue of the certificates final or otherwise of the completion of the work, subject to the condition that no such refund of security deposit shall be allowedtill the final bill has been prepared and

passed. Provided further that in the case of any work (whether building, electrical, sanitary and plumbing etc.) where is the Director is satisfied that the contractor after completion of the major portion of the contract is unable to execute remaining part of the work for reason beyond his control, the Director in his discretion may make a proportionate refund of the security deposit to the contractor.

The contractor shall be responsible for rectifying the defects in the work noticed within 6 months from the date of the completion of the work and the portion of the security deposit relating to the work shall be refunded after the expiry of this period.

Contractor to supply plant, ladders scaffolding etc.

Clause 18 -The contractor shall supply at his own cost, material (except such special materials, if any, as may in accordance with the contract be supplied from, the Director's Stores), plant, tools, appliances, implements ladders, cordage, tackle, scaffolding and temporary works requisite for the proper execution of the work whether original altered or substituted and whether included in the specification or other documents forming part of the contract metered to in this condition or not or which may be necessary for the purpose of satisfying or complying with the requirements of the Director as to any matter, as to which under these conditions he is entitled to be satisfied or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of person with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work of materials. Failing his so doing the same may be provided by the Director at the expense of the contractor and the expense may be deducted from any money due to the contractor under the contract, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The contractor shall also provide all necessary fencing and lights required to protect the public from accident, and shall be bound to bear the expenses of defence of every Suit action of other proceeding at law that may be brought by any person for injury sustained owing to the neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of contractor be paid to compromise any claim by any such person.

And is liable for damage arising, from non-arising, from non-provision of light, fencing etc.

Clause 18A -Contractor shall be responsible for and shall take proper care and caution in respect of all machinery, tools and implements as may be made over by the SUDA to the contractor for use in the execution of the works under this contract and shall be liable for any loss or any damage caused to the said rollers, machinery, tools and implements by reason. whatsoever, during the period the same are in possession of the contractor and shall on demand pay to SUDA of such amount as may be fixed by the SUDA for such loss and damage, the decision of the SUDA in that respect being final, should the

contractor fail or neglect to pay such amount on demand the SUDA shall have the right and be entitled, in addition to the other rights and remedies available to it to deduct such amount from the amount of security deposited by the contractor and/or any amount remaining payable to the contractor for any work done by the contractor.

Clause 18B - In every case in which by virtue of the provisions of Section 12, Sub-section (1) of the Workmen's Compensation Act, 1923 SUDA is obliged to pay compensation to a workman employed by the contractor, In execution of the works. SUDA will recover from the contractor the amount of the compensation so paid, and without prejudice to the right SUDA under Section 12, Sub-section (2) of the said Act, SUDA shall be at liberty to recover such amount or any part thereof by deduction ii from the security deposit or from any sum due by the SUDA to the contractor whether under this contract or otherwise.

SUDA shall not be bound to contest any claim made against Section 12 Subsection (i) of the said act, except on the written request by the contractor and upon his given to SUDA full security for all costs for which SUDA might become liable in consequence of contesting such claim.

Labour

1se 19 - No female labour shall be employed.

1se 19A - No labour below the age of 18 years shall be employed on the work.

Clause 19B - Payment of wages of labour -

(a) "The contractor shall pay to labour employed by him either directly or through sub-contractor, wages not less than wages as defined in CPWD contractor's Labour Regulations in so far as such regulations have application within the State of West Bengal or as per the provision of the Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour Regulation and Abolition) Central Rules 1971 wherever applicable.

(b) The Contractor shall notwithstanding the provision of any contract of the contrary cause to pay fair wages to labour indirectly engaged on the work, including one engaged by his sub-contractors in connection with the said work, as if the labour has been employed by him.

(C) In respect of all labour directly or indirectly employed in the work for performance of the contractor's part of this agreement the contractor &balloon- ply with or cause to be complied with the Central Rubric Works Department Contractors Labour. Regulations as mentioned in Sub-pars (a) above made from time to lime in regard to payment of wage, wage period, deductions from wages, recovery of wages not paid and deductions unauthorisedly made, maintenance of wage books or wage slips, publications of scales of wades and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour

(Regulation and Abolition) Act 1970 and the Contract Labour (Regulation and Abolition) Rules 1971 wherever applicable,

- (d) The Director concerned shall have the right to deduct from the moneys from moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers non-payment of wages or deductions made from his or their wages which are not justified by their terms of contract or non-observance of the Regulations as mentioned above,
- (e) The contractor shall comply with the provisions of Wages Act, 1936, minimum Wages Act, 1945, Employee Liability Act, 1938 Industrial Dispute Act, 1947, Maternity Benefit Act, 1951 and the Contract Labour (Regulations and Abolition) Act, 1970 or the modification thereof or any other Laws relating thereto and the Rules made thereunder from time to time.
- (f) The contractor shall indemnify SUDA against payment to be made under and for the observance of the laws aforesaid and the CPWD Contractor's Labour Regulations having application within the State of West Bengal without prejudice to his right to claim indemnity from his sub-contractors.
- (g) The Regulation aforesaid shall be deemed to be a part-of his contract and any breach thereof shall be deemed to be breach of contract."

Work on
Sundays

Clause 20 - No work shall be done on Sunday without the sanction in writing of the Director

Work not to be
sublet

Clause 21 - The contract shall not be assigned or sublet without specific order from SUDA in respect of specified sub-contractor. And if the contractor shall assign or sublet his contract or attempt so to do, or become involvement or commence any insolvency proceedings or make any composition with his creditors, or attempt so to do or if any bribe, gratuity, gift, loan, perquisite, reward or advantage, pecuniary or otherwise shall either directly or indirectly be given, promised or offered by the contractor or may of his servants or agents to any public officer or person in the employee of SUDA in any relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Director may thereupon by notice in writing rescind the contract, the security deposit of the contractor shall thereupon stand forfeited and the absolutely at disposal of SUDA and the same consequences shall ensure as if the contract had been rescinded under Clause 3 thereof and in addition, the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

Contractor may be
rescinded and security
deposit forfeited for
subletting bribing or if
contractor become
insolvent

Sum payable by way of
compensation to be
considered as reasonable
compensation without
reference to actual loss

Clause 22 - All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to apply to the use of SUDA without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

Change in Constitution
of the Firm

Clause 23 -In the case of a tender by partners any change in the Constitution of the Firm shall forthwith notified by the contractor do tie Director for the information.

Work to be under
direction of Director

Clause 24 - All works to be executed under the contract shall be executed under the direction and subject to the approval in all respect of the Directorfor the time being, who shall be entitled to direct at what pointer points and in what manner they are to be commenced, and from time to be carried on.

Stores of
Foreign
manufacture
to obtained
from SUDA

Clause 25 - When the estimate on which the tender is made includes lump sums in respect of part of the work, the contractors shall be entitled to payment in respect of the items of work involved or the parts of the work in question the same rates as are payable under this contract for such item, or if the part of the work in question is not, in the opinion of the Director, capable of the measurement, the Director may at his discretion pay the lump sums amount entered in the estimate, to the contractor with regard to any sum or sums payable to him under the provisions of the clause.

Action where
no specification

Clause 26 - In the case or any class of work for which there is no such specification mentioned as in Rule 1, such work shall be carried out in accordance with the Specification and in the event of there being no specification then in such case the work shall be carried out in all respect in accordance with the instructions and requirement of the Director.

Definition of
work

Clause 27 - The expression "work of works" where used in the conditions shall unless there be something either in the subject or context repugnant to such construction be constructed, and taken to meant the works by or by virtue of the contract contracted to be executed, whether temporary or permanent and whether original, altered, substituted or additional.

Clause 28 - The contractor(s) shall at his/their own cost provide his/their labour with hutting on an approved site, and shall make arrangement for conservancy and sanitation in the labour camp to the satisfaction of the local Public Health and Medical Authorities. He/They shall also at his/their own cost make arrangements for the laying of pipelines for water supply to his/ their labour camp from the existing mainswherever applicable, and shall pay all fees, charges and expenses in connection therewith and incidental thereto.

1. ELIGIBILITY TO PURCHASE TENDER DOCUMENTS

Intending tenderers will have to satisfy about their eligibility as stated in Details N.I.T. and for this purpose they will have to submit along with Technical Bid (Part-I) the documentary evidence about the following.

- a) Tenderers will have to deposit cost of tender documents (Rs. 750) through Bank Draft in favour of Director, SUDA drawn on any Nationalized / Schedule Bank payable at KOLKATA, along with their application.
- b) Evidence to prove past experience, capabilities and financial resources of the intending tenderers to do such type of work in Photo Copies. Original documents may be verified by the Tendering Authority at his discretion.
- c) Clearance certificate of VAT valid at least up to date of opening of tenders and valid VAT Registration Certificate in Photo Copies. Original documents may be verified by the Tendering Authority at his discretion.
- d) Professional Tax Challan, Vat Registration Certificate with current e-challan of Vat in Photo copies. Original documents may be verified by Tendering Authority at his discretion.
- e) PAN Card of the tenderer issued by the respective Department.

Note : In order establish the credential, the tenderer must submit certified copies of his earlier works not similar nature and copies of receipt of payment by him. He should also give a written declaration in the form of an "Affidavit" before Notary so as to correctness of the copies of all documents submitted and a declaration of penalty, debarment etc. faced by him under any Govt. / Semi Govt. / Autonomous Body / Institution etc. Clear provision should be made to the effect that the original documents any be verified by the Tendering Authority at his discretion.

.3 PREPATION OF TENDER

- a) The tender shall be on the basis of an overall percentage on the rates of the specific priced schedule. The tenderer shall quote his rate in figure as well as in words on the 2nd page of the Printed Tender Form in the following form:
 - i) "I / We agree to carry out the work mentioned in the memorandum at PAR with the rates shown in the specific period schedule of probable items with approximate quantities.
 - ii) "I / We agree to carry out the work mentioned in the memorandum at% (..... percent) ABOVE / BELOW the rates shown in the specific price schedule of probable items approximate quantities.

The said quotation, in the exact working of any one of the Forms (i) or (ii) above, must be written on page ---2 only of the printed tender form and nowhere else. For this purpose the various columns the various columns in the lower half of the page---2 of the printed tender forms should be ignored and across the full width of the page. The quotation shall be clearly and legibly written and the whole written must be by the hard of the person signing the tender and with the same pen and ink. Failure to do so may invalidate the tender. The condition may be suitably relaxed in case of tenderer unable to write in English. Correction in the quotation should be avoided and if this becomes unavoidable, the entire rate (and not a portion only) shall be scored out and signed not simply initialled) by the tender in token of such cancellation. A fresh rate in one of the specified forms and in the specified manner shall then be correctly written.

- b) In the event of the tender being submitted by the firm it must be signed by a member or members of the firm having legal authority to do so and called for legal documents in support thereof must be produced for inspection and the same in the case of a firm carried out by one member of a joint family it must disclose that the firm is duly registered under the Indian Partnership Act. Any tender signed by a member not holding a power of attorney shall be treated informal.
- c) Before submission of the tender, the tenderer must see that the memorandum at page—2 of the printed tender form is properly filled in and all particulars given in the tender must sign in the space allotted in page—3 and 11 of the printed tender form and the declaration by the tenderer (at the end of the special terms and conditions). The signature in page—3 of the printed tender form must be properly witnessed in the space allotted for the purpose. The tenderer must also sign at the bottom of each page of the printed tender form and other tender documents. Overwriting shall not be allowed. All corrections, additions, alteration etc. must be duly signed.
- d) Before submission of tender the tenderer must see that whether the specific schedule of items of works with probable quantities attached with the tender documents contain priced items or un-priced items. In the event of un-priced items the tenderer shall first quote his rated for each items of work in the “Specific priced Schedule” under column “Rate” both in words and figures. The tenderer shall then quote their rate on 2nd page of the Printed Tender Form.

5. EARNEST MONEY

- a) The Earnest Money i.e. 2% of the estimated amount shall be in the form of Bank Draft / Pay Order drawn on any Nationalized / Scheduled Bank en-cashable at KOLKATA and payable in favour of “**State Urban Development Agency**”. No cash or cheque or token will be accepted as Earnest Money.
- b) The earnest money deposited by an unsuccessful tenderer will be refunded on application from the office of the Director, SUDA.

6.0 SECURITY DEPOSIT

The successful tenderer will have to provide as security for the work an amount in terms of clause ---1 of the printed tender form.

6.1 The earnest money (i.e. 2% of the amount put to tender) already deposited as per clause—5 above shall be converted into part of the Security Deposit.

6.2 The balance sum required to make the security for the work done shall be recovered progressively by deduction from each running account bill at 8% (Eight Percent) for each such bill subjected to the ceiling in terms of clause—1 of the printed tender Form Amount of security deposit will be 10 (Ten Percent) of the amount of contract without any upper ceiling. 8% (Eight Percent) will be deducted from the progressive bills or may at the option of the contractor, may furnished in the form of Bank Guarantee in any Nationalized Bank in prescribed format in favour of Tender Inviting Authority.

7.0 INCOMR TAX

Income Tax will be deducted from the Contractor’s bill at the rate in accordance with the orders / circulars of the Govt. of India in force during the contractual period. The tenderer shall declare his permanent income tax account number, issued by the income tax authority, in the tender.

8.0 SALE TAX / VAT

Sale tax / Vat will be deducted from the Contractor's bill at the rate in accordance with the orders circulars Of the Govt. of West Bengal in force during the contractual period. The tenderer shall declare his Sales Tax Registration Number in the tender.

9.0 CANVASSING

Canvassing in connection with tender is strictly prohibited and the tender submitted by the contractors, who resort to canvassing, will liable for rejection.

10.0 REJECTION OF TENDER

Tenders, which do not fulfill any of the above condition of are incomplete in any respect, are liable for reject.

11.0 OPENING OF TENDERS

Completed tender documents along with earnest money, are to be placed in a sealed cover with the name of work, name and address of the tenderer super scribed on the cover. The sealed cover containing the tender is to be submitted within the specified date & time inserting into the Tender Box kept in the room of the authority receiving the tenders. The tenders will be opened by the authority receiving tenders or by his authorized representative on the date and time mentioned in Detail NIT or as soon as possible thereafter in the presence of such tenderers or their authorizes representative who may be present.

12.0 ACCEPTANCE OF TENDER

The acceptance of tender will rest with the concerned Director, SUDA who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all the tenders received without assigning any reason thereof.

13.0 WITHDRAWAL OF TENDER

A tender once submitted shall not be withdrawn within a period of 120 (one hundred twenty) days from the last date of receipt of tenders. If a tenderer withdraws his tender without giving any satisfactory explanation for such withdrawal, he shall be disqualified from submitting any tender for works under SUDA for a minimum period of 1 year.

14.0 COPIES OF AGREEMENT-Deleted

15.0 WORK PROGRAMME

The contractor, on receipt of the letter of acceptance of his tender, shall submit to the Director, SUDA / Director the work programme in the form of CPM work chart and / or in Bar chart in duplicate.

16.0 COMMENCE OF WORK

The Contractor shall to start the work within 7 (Seven) days from the date of issue of written order to commence work.

17.0 FORFEITURE INITIAL SECURITY

Failure of the part of the Contractor in depositing the additional amount of initial security where so required in terms of clause 5.2 above or in furnishing additional copies of the contract documents in terms of clause 15 & 15.1 above or in timely commencement or work as required shall constitute a breach of the contractual obligation. This will render the contract liable to terminate with forfeiture of the amount of initial security as per clause 5.1 and clause 5.2 that may be lying with SUDA at that time without any reference to the Contractor.

18.0 RATE INCLUSIVE OF ALL CHARGES

The rate quoted by the tenderer shall be inclusive of all charged e.g. Sales Tax, Income Tax, Octroi, Toll, Ferry Charges, Local Charges, Royalties, Turn Over Tax and all other charges as applicable.

19.0 NIGHT WORK

The Contractor must be prepared to continue work during night if so required by the nature of work involved speeding up the progress in order to keep up the time schedule. When the work at night is to be carried out, the contractor shall obtain prior permission from the Director, SUDA / Engineer-in Charge for such night work and shall at his own cost and expenses make adequate arrangements for lighting and provide necessary facilities for such night work. No extra payment shall be made for the purpose.

20.0 CONTRACT LABOUR

The Contractor shall have to comply with the provisions of Contract Labour (Regulation and Abolition) Act. 1970 and rules made the under (W.B. Contract Labour Regulation and Abolition Rules, 1970) including amendments thereof and license so obtained from the competent authority will have to be produced to the Director, SUDA / Engineer-in Charge in absence of which the contractor will not be entitled to receive any payment for the works done by him under the contract.

21.0 CESS

1% (one percent) Cess of the cost of construction will be deducted from Contractor's bill employing 10 (ten) or more construction workers in any building other construction work, under section (7) seven of the Building or other Construction workers' (RECS) Act,1996 and Building and other Construction Workers' Welfare Cess Act.1996 and the Rules frame these under.

SPECIAL TERMS & CONDITION

1.1 GENERAL

All works are to be carried out in accordance with Special Terms and Special Specification as mentioned herein after.

1.1.1 In addition to the above General specification of the Schedule of Rates of P.W.D. Govt. of West Bengal for the year 2014. Any change on any subsequent dates will have no effect so far as this tender is concerned.

1.2.2 In addition to the above General specifications of the Schedule of Rates of Presidency Circle—I, P.W.D. Govt. of West Bengal (briefly referred to as the "P.C. Schedule" of latest edition of relevant disciple) shall be applicable.

The “P.C. Schedule” referred to above shall comprise the following two schedules (Taken together) of Presidency Circle—I, P.W.D. Govt. of West Bengal for the year 2014. Any change on any subsequent date will have no effect so far as this tender is concerned.

a) Schedule of Rates for Plumbing works, Sanitary and Drainage work etc. (briefly referred to as the Plumbing Schedule)

1.1.2 The specifications for works not covered by the specifications referred in clause-1.1, 1.1.1 or 1.1.2 shall be governed by B.I.S code of practices. Most specification IRC codes of practice and as per base practice according to the direction of the Director, SUDA / Engineer-in Charge.

1.2 The contract documents are to be taken as a whole. The several documents for the contract are to be taken as mutually explanatory of one another. If, however, the stipulations of the different documents be at variance in any respect, one will override the others (only in so far as these are at variance) in order of precedence as given below :

1. Letter of Intent (L.O.I.)
2. Notice Inviting Tenders
3. Special Terms & Conditions
4. Special Specifications
5. Specific Priced Schedule
6. The painted Tender Form (SUDA form No.1)
7. The Schedule (as defined on clauses-1.1.1 above)
8. P.C. schedule (as defined on clauses-1.1.2 above)

2. ENHANCEMENT OF TENDER RATE

In no circumstances, the tendered rate shall be enhanced after acceptance of the tender.

3.1 EXPLANATION OF TERMS

Heading and marginal notes are only for conveniences of reference have no contractual significance.

3.2 Words importing the singular also includes the plural and vice-versa where the context so requires.

3.3 The words “Approved” or “Direct” appearing anywhere in the tender documents shall indicate (unless specifically mentioned otherwise) the approval or direction of the Director, SUDA / Engineer-in Charge.

3.4 The term “At the site of work” or “Near the site of work” Wherever it appears in the tender documents, shall mean anywhere within 150 (one hundred and fifty) meters from the actual site of work.

3.5 The word “Department” appearing anywhere in the tender documents, shall mean SUDA.

3.6 The Director, SUDA / Engineer-in Charge shall mean the Director, SUDA concerned as mentioned in clause 1 (b) of the tender notice.

3.7 The Sub-divisional officer shall mean the concerned Assistant-in-Charge of the work authorized to carry out on behalf of the Director, SUDA / Engineer-in Charge, general supervision, issue of day to day instructions and to approve materials and workmanship.

4. CHARACTER OF SITE

Before submission of tenders, the intending tenderer shall inspect the site of work and get them thoroughly acquainted with local conditions and difficulties under which the work will have to be carried out. They should consider, among others, the nature of soil, climate conditions of the locality, dearth of water in the area of work, condition of the existing roads, transport facilities, nonexistence of roads in many places etc. Extra cost involved due to above factors to be borne by the contractor and should, therefore, be include in the rates to be quoted by them.

5. INCIDENTAL FEES

All rates to be quoted by the contractors shall be inclusive of all incidental fees and charges, e.g. Royalties, Ferry charges, Octroi and Toll Tax of Materials, Electricity, Water and other charges of Municipalities or Statutory Bodies, Sale Tax, Income Tax etc. Nothing extra will be paid such account.

6.1 STATUTORY OBLIGATIONS

The Contractor shall give all notices and pay all fees required to be given by any statue or any regulation or bye-law of any local or other statue authority which any be applicable to the works and shall keep SUDA indemnified against all penalties and liabilities of every kind for breach of such statue, regulation or bye-law.

6.2 The Contractor shall indemnify the SUDA against any loss / harms and also against all claims, demands, suit and preceding on account of infringement of any patent rights, design, trade mark or name of other protected rights in respect of any constructional plant, machine, work material thing process used for in connection with the work or temporary works.

7.1 SAFETY PRECAUTIONS

All necessary precautions are to be taken by the contractor for the safety of his workmen and of the general public. The work must be done in such a way as not to damage any property, existing structure or public utility services during work. Close co-operation must be ensured with other contractor or contractors working the area of work. All claims arising out of any damage to the existing structures or properties due to works of the contractor shall be borne by the contractor.

7.2 The Contractor shall provide necessary fencing and lightning arrangements around the trench excavated by him and / or at the site of work for the safety of his workmen and of the general public. Such arrangement shall not be paid for separately and the cost thereof shall be included in the Contractor's rate for the work.

8. IDLE LABOUR

Whatever may be the reason no claim for idle labour, additional cost of establishment, hire and labour charges for Tools & Plants will be entertained.

9. CLEARANCE OF SITE

9.1 The site must be cleared by the Contractor from time to time in the course of execution of the work.

9.2 On completion of work, all temporary works shall be removed by the Contractor. All scars of construction shall be obliterated and the whole site left in a clean and workman like manner, to the entire satisfaction of the Director, SUDA. No separate payment shall be made for these, the cost thereof being deemed to have been included in the Contractor's rate for the work.

13. SERVICEABLE MATERIALS

All serviceable materials obtained from excavations or from dismantling of existing structure shall remain the property of SUDA. The responsibility for stacking materials as are considered serviceable by the Director, SUDA and handling over the same to the Director, SUDA/Director shall lie fully with the Contractor and nothing will be paid on this account. In case of any loss or damage of serviceable materials prior to handling over the same as aforesaid full value thereof will be recovered from the Contractor's bill at rates as assessed by the Director, SUDA/Director.

14. UNSERVICEABLE MATERIALS

The contractor shall remove all unserviceable materials to the place as directed. He should level and dress the work site on completion of the relevant portion of work as per direction of the Director, SUDA/Director of work. No extra payment will be made on this account.

15. QUALITY OF MATERIALS

All materials brought to the site must be to the approval of the Director, SUDA /Director. Rejected materials must be removed by the Contractor from the site within 24 hours of the issue of orders to that effect. In case of non-compliance with such orders, the Director, SUDA/Director shall have the authority to cause removal at the cost and expense of the Contractor and the Contractor shall not be entitled to claim any loss or damage on that account.

16. MATERIALS AND LABOUR

All materials and labour (skilled & unskilled) including their water supply, sanitation, procurement of food staff, medical aids etc. are to be arranged for the Contractor. Cost of transport of materials and labour and allied items aforesaid shall have to be borne by the Contractor and included in his rate for the work.

17. UNSKILLED LABOUR

For all items of work under contract unskilled labourers will have to be local labourer. Normally, without the consent of the Director, SUDA/Director, no unskilled labourer shall be imported from any district other than that where the work is to be executed imported labourers could be engaged with the permission of the Director, SUDA/Director, when the exigency or progress of works demands. Seventy percent of the unskilled labours shall never have to be recruited locally.

18.1 CONTRACTOR'S AGENT OF REPRESENTATIVE

The Contractor shall not assign the agreement or sublet any portion of the work. The Contractor shall appoint authorized representative and requisite technical personnel (one Diploma and one Graduate Engineer) in respect of one or more of the following purpose only:

- a) General day to day management of the work.
- b) To requisition SUDA materials, to receive the same and sign Hand Receipt/materials issue notes thereof.
- c) To attend measurements when taken by SUDA Officers and to sign the records of such measurements.

18.2 The selection of the authorized representatives is subject to the prior approval of the Director, SUDA/Director and the Contractor shall seek in writing such approval giving therein the name and address of the representatives he wants to appoint and the specific purpose for which the representative will be authorized for. Even after first

approval, the Director, SUDA/Director may issue at any subsequent date, revised directions about such authorized representative and the Contractor shall be bound to abide by such directions. The Director, SUDA/Director shall not be bound to assign any reason for any of his directions with regard to the appointment of authorized representatives.

18.3 The provisions of Power of Attorney, if any, must be to the approval of SUDA. Otherwise SUDA shall not be bound to take consignee of such Power of Attorney.

20.1 GODOWN, LABOUR SHED ETC.

The Contractor shall make his own arrangements for storage space and godown for his tools and plants, materials and shall also erect at his own cost necessary sheds and godown of adequate capacity at the site of work or proper safety of SUDA materials such as cement, steel materials etc. that may be issued from time to time. All these shall have the approval of the Director, SUDA/Director. The sheds and godowns shall be readily accessible and be open to inspection to any Officer of SUDA at any time during the tendency of the contract.

20.2 The Contractor shall arrange for temporary sheds, latrines, water supply etc. for the accommodation of the use of his staff. These shall be properly maintained all through the period of construction in clean and hygiene condition to the satisfaction of the Director, SUDA/Director.

20.3 The locations of godown, stacking place other temporary structures must be to the prior approval of the Director, SUDA/Director. The land, if available within the site will be given free of rent. Any land outside the work site as may be required for the purpose will have to be arranged by the Contractor himself at his own cost.

20.4 On completion of the work all sheds, godowns, vats, platform etc. erected by the Contractor for constructional purpose, shall have to be removed by him at his own cost and the ground restored to its original condition to the satisfaction of the Director, SUDA/Director.

21.1 SITE ORDER BOOK

The Contractor shall within 7 (seven) days of the receipt of the order to take up works, supply at his own cost SITE ORDER BOOK to Assistant Engineer concerned. The site order book shall be kept at the site of work under the custody of the Assistant Engineer or his authorized representative. The site order book shall have machine numbered pages in triplicate. Directions or instructions from SUDA Officials issued to the Contractor will be entered (in triplicate) in the site order book (except when such directions or instructions are given by separate letters). The Contractor or his authorized representative shall regularly note the entries in the site order book and also record thereon the action taken or being taken by him complying with the said directions or instructions or any relevant point relating to the work, Contractor or his authorized representative may take away the duplicate page of the work order book for his own record.

21.2 The first page of the work order book shall contain the following particulars:

- a) Name of the work
- b) Reference to contact no.
- c) Date of opening the site order book

- d) Name and Address of the Contractor (with Phone no. if any)
- e) Signature of the Contractor
- f) Name and Address of the authorized representative who is authorized to act on behalf of the Contractor
- g) Specific purpose for which the Contractor's representative is authorized to act on behalf of the Contractor
- h) Signature of the authorized representative duly attested by the Contractor
- i) Signature of the Assistant Engineer concerned
- j) Date of written order to commence work
- k) Time of completion of work with date
- l) Extension of time granted, if any
- m) Date of actual completion of works
- n) Date of recording of final measurements

Entries vide (m) & (n) above shall be filled in on completion of work and before the site order book is recorded in the office of the Assistant Engineer concerned.

22.1 **ADDITIONAL ITEMS BEYOND THE SCOPE OF THE CONTRACT**

During the process of the job under the contract if any additional item of works quantities beyond the scope of the contract is required to be done as per the opinion of the Director, SUDA/Director, such additional items and quantities shall have to be executed by the Contractor as supplementary items when so directed by the Director, SUDA/Director.

- 22.2 Notwithstanding what has been stated in clause 12 of the printed tender form, the rates of supplementary items of works will be determined according to sub-clauses in order of precedence as given below
 - 22.2.1 The rates shall be analyzed to the maximum extent possible from the rates of allied items of work appearing in the specific priced schedule.
 - 22.2.2 To complete the analysis, if necessary, the rates appearing in the "Schedule" (as defined under clause – 1.1.1 above) shall be applicable for the portion remaining after application of clause – 22.2.1
 - 22.2.3 To complete the analysis, if necessary, the rates appearing in the "P.C Schedule" (as defined under clause – 1.1.2. above) shall be applicable for the portion remaining after application of clause – 22.2.1 and 22.2.2
 - 22.2.4 If the analysis cannot be completed even after application of clause – 22.2.1, 22.2.2 and 22.2.3 above, the balance shall be determined from the market rates of materials and labour.

- 22.2.5 The contractual percentage shall be applicable in regard to the portion of the analysis based on clauses 22.2.1, 22.2.2. and 22.2.3 above.
- 22.2.6 Profit inclusive of overhead charges shall be added at the rate of 10 (ten) percent in regard to the portion of the analysis based on clause – 22.2.4 above.
- 22.2.7 Contractor shall have to satisfy the Director, SUDA/Director regarding the quality of materials used for the purpose of construction, any dispute arising about the quality of the materials the decision of the Director, SUDA/Director will be final and bindings.

23 **INDENT AND ISSUE OF SUDA MATERIALS**

Issue of SUDA materials may be of two categories:

- A) Materials for which value is to be recovered from the running bill of the contractor
- B) Materials which are issued direct to work (in respect of item the rates of which do not include the cost of these materials).
- 23.1.1 For materials under category – ‘A’ the value of the materials issued to the Contractor on usual Hand Receipts/Materials/issued notes shall be recovered from the bills of the Contractor in one instalment as may be decided by the Director, SUDA/Director.
- 23.1.2 For materials under category – ‘B’, the Contractor will act as the custodian of the department and he shall take charge of the materials against appropriate receipt signed by him. The Contractor shall remain responsible for proper storage and safe custody of such materials. The rates for relevant items of work shall be deemed to be inclusive of reasonable consideration for such duties and responsibilities of the custodian.
- 23.1.3 All materials whatever be the category thereof issued by the department shall be properly stored by the Contractor in suitable godown near the site of work. Under circumstances what-so-ever, shall any material be removed from the site of work without prior written permission of the Director, SUDA/Director.
- The Contractor shall be responsible for any damage or loss of such materials unless he can satisfy the Director, SUDA/Director that the reasons for such damage or loss were due to circumstances beyond his controls.
- The Contractor shall also have to satisfy the Director, SUDA/Director regarding the proper utilization of such materials.
- The rate quoted should be inclusive of the cost of carriage, loading, unloading head load carriage stacking etc. of all construction materials to work site through any sort of carriage way.
The agency will have to arrange for containers for carriage of BULK BITUMEN. No additional cost of carriage and hire charge of container is allowed.
- In respect of items (b) and (c) above materials would be issued in lengths as available with the department. Cut pieces of steel materials left surplus on completion of work, shall not be taken back if the same be considered as unsuitable for utilization in the other works.
- 23.2.2 If in the interest of work, any materials other than these mentioned in clause 23.2 above be issued to the Contractor, the issue rate of such materials shall be based on the then market rate or stock issue rate, whichever is higher. Such issue rate shall be decided by the Director, SUDA/Director and his decision shall be binding.
- 23.3 The Contractor shall have to satisfy the Director, SUDA/Director of the proper use of SUDA materials.

- 23.3.1 The value of any materials which cannot be satisfactorily accounted for, shall be recovered from the Contractor's bill or other dues at DOUBLE the issue rate (where such rate is specified) and where the issue rate is not specified, at double the stock issue rate or double the then market rate (whichever is higher). The quantities of materials for which such value as to be recovery and the rates of such recovered shall be decided by the Director, SUDA/Director.
- 23.3.2 Any material which may be surplus on completion of the work may, at the discretion of the Director, SUDA/Director be taken back provided the same are of non-perishable nature and have not been damaged in any way.
- 23.5.1 The consumption of different materials of construction against the various items of work will be assessed on the basis of the 'Chart for consumption of Materials' given in the "Schedule" unless specifically mentioned otherwise in the technical specifications. If any item is not available in the "Schedule", the same shall have to be obtained from "P.C. Schedule". The permissible variation as given in the preamble to the said chart for consumption of materials, will normally apply provided what has been stated under the clauses herein below. The Director, SUDA/Director under the special circumstances shall be component to allow (for recorded reasons) for a greater variation.
- 23.5.2 It is found that the Contractor has used less materials than that assessed in terms of Clause 24.5.1 above, the value of the quantity of materials less used shall of recovered from the Contractor at 5 (five) percent in excess of the issue rate of such materials where such rate is specified, where the issue rate is not specified, the recovery shall be at 5 (five) percent in excess of the stock issue rate of he then market rate (whichever is higher). In both the case, the Contractor shall not be entitled to claim or receive the materials, the cost of which has been thus recovered.
- 23.5.3 If it is found that the Contractor has used any material in excess of the requirement as assessed in terms of Clause 23.5.1 the value of the materials used in excess shall be recovered from the Contractor in terms of clause 23.3.1 thereof.
- 23.6 Indents for all materials to be issued by SUDA shall be submitted by the Contractor to the Director, SUDA/Director or any other Officer or Officers as may be appointed by him in this respect, well in advance as to allow sufficient time to the SUDA to procure the materials. The Director, SUDA/Director shall have full discretion to specify the maximum and minimum quantities as which the indents are to be submitted and also any other stipulation he may deem necessary in this connection. He will also have the full right to modify such stipulations as may be found necessary by him from time to time.
- 23.7.1 The SUDA does not assume any responsibility to supply materials strictly according to indent as may be submitted by the Contractor. No compensation will be paid for delay in issuing any material to the Contractor but reasonable extension of time will be allowed for delay in accordance with clause – 5 of conditions of contract in page-5 of printed Tender form, if in the opinion of the Director, SUDA/Director such delay is responsible for stoppage or slow progress of the work. In such an event, the Contractor shall have the liberty procure cement and steel bars from the open market on receipt of prior permission from the Director, SUDA/Director. Necessary test certificates of such materials shall then be submitted to the Director, SUDA/Engineer-in -Charge. Nothing extra on such account will be admissible.

24 **WORK PROGRAMME**

The Contractor, on receipt of the letter of acceptance of his tender, shall submit to the Director, SUDA/Director the work programme in the form of CPM Network Chart and or in Bar Chart, each in triplicate for his approval.

24.1 The work must be taken up within 7 (seven) days from the date of issue of work order and be complete in all respects within the specified time of completion as mentioned in Detailed Notice Inviting Tender.

24.2 The Contractor shall submit the work programmes clearly showing the materials, men and equipments and a time table divided into four equal periods of progress of the work, for the approval of the Director, SUDA/Director who will have authority to make additions, alteration and substitution to such programme in consultation with the Contractor, unless the same is subsequently found impracticable in some or all respect, in the opinion of the Director, SUDA/Director and is modified by him. The stipulations laid down in clause 2 of the condition of contract in the printed tender form regarding the division and progress as provided in the said clause, shall be deemed to have sufficiently complied with if the actual progress of work does not fail short of the progress as laid down in the approved time table for one-fourth, half and three fourth of the time allowed for the work. The work programme shall be submitted in the form of CPM Network Chart and or in Bar Chart each in triplicate.

25.1 **SETTING OUT OF WORK**

The Contractor shall be responsible for the true and perfect setting out of the works and for the correctness of the position, levels, dimensions and alignment of all parts of the work. If at any time during the progress of the work any error shall appear or arise on the position, levels, dimensions or alignment of any parts of the works the Contractor on being directed to do so by the Director, SUDA/Director shall at their own expenses rectify such error to the satisfaction of the Director, SUDA/Director.

25.2 Any setting out that may be done or checked by the Director, SUDA/Director or his representative or any line or level that may have been given or checked by either of them shall not in any way relive the Contractor of his responsibility for the correctness thereof.

25.3 Before starting the work, the Contractor must at his own cost and expense, erect temporary pillars as may be required in suitable places as directed by the Director, SUDA/Director. These pillars from whom the layout of all important levels and alignment will be fixed, must be at such locations and of such a nature as not to be disturbed in the process of construction. The Contractor shall provide all instruments, appliances and labour required for setting out of the works and for the use of and attendance upon the Director, SUDA/Director and / or his authorized representative whenever required for any purpose in connection with the works.

26.1 **WORKING DRAWINGS**

It is to be clearly understood that drawings forming a part of the tender documents, are only for the purpose of indicating the type and nature of work involved. These are subject to be subsequently modified and / or supplemented by other drawings, as required during actual execution of the work.

26.2 All works shall be carried out in conforming to drawings approved by SUDA. In token of such approval the drawings shall bear the signature of the Director, SUDA/Director before the same are issued for execution if the work in accordance there with. Such approval on drawings may be furnished on piecemeal as and when required during the progress of the work. The Contractor shall keep in touch with the Director, SUDA/Director about the drawings that may be under checking or in the process of approval and keep him informed well in advance of the particular drawing and drawings he would next required for the smooth progress of work.

27.1 **WORKMANSHIP AND TESTING**

All materials and workmanship shall be of the respective kind described in the contract and shall be subject from time to time to such test as the Director, SUDA/Director may direct at at the place of manufacture of fabrication or on the site or at any such places. The Contractor shall provide such assistance, instruments, machines, labour and materials as the Director, SUDA/Director may require for examining, measuring and for testing the works and the quality, weight or quantity of the materials used and shall supply samples for testing as may be selected and required by the Director, SUDA/Director.

27.2 The Contractor shall keep in mind that officials of quality control unit of SUDA may be deputed at the site of works for testing of materials and workmanship. The Contractor shall extend necessary help in performing such tests.

28 **CO-OPERATION AND CO-ORDINATION WITH OTHER CONTRACTORS**

During the tendency of this contract SUDA shall have the liberty to engage a number of Contractors for ancillary works (not provided in this contract) on completion of any part of the job and the Contractor shall extend co-operation to other Contractors.

29 **COMPLETION DRAWINGS WITH PHOTOGRAPH**

Contractor are required to furnish stage wise photograph for the work and immediately on completion of the work the Contractor shall submit completion drawings in 6 (six) copies including original tracing along with C.D. in Auto Cad software. Each for the work executed by him under the contract for approval of the Director, SUDA/Director. The Contractor's rate shall be inclusive of such costs.

30 **REGISTRATION OF ESTABLISHMENT & COLLECTION OF CESS**

As per Building and other construction workers (RECS) Act 1996 and Building and other construction workers Welfare Cess Act 1996 and rules framed there under, the Contractor employing more than ten construction workers should obtain registration from the registering officer (Assistant Labour Commissioner at regional labour offices) and an amount @ 1% as Cess shall be deducted from the progressive bill for the work executed as per G.O. No. 853-F dated 01.02.006 issued by Finance Department, Govt. of West Bengal., Finance Deptt. Memo No. 6895-F Dt. 11.09.2006 and memo no 100 (7A)/LC dt.30.08.2006 from the Labour Commissioner, W.B.

31 **INCOME TAX**

Income Tax will be deducted from the Contractor's bill at the rate in accordance with the orders / circulars of the Govt. of India in force during the contractual period. The tenderer shall declare his permanent income tax account number issued by the income tax authority, in the tender.

32 **SALES TAX / VAT**

Sales Tax/VAT will be deducted from the Contractor's bill at the rate in accordance with the orders / circulars of the Govt. of West BENGAL IN FORCE DURING THE CONTRACTUAL PERIOD. The tenderer shall declare his Sales Tax Registration Number in the tender.

33 **SECURITY DEPOSIT**

The successful tenderer will have to provide as security for the work an amount in terms of clause – 1 of the printed tender form.

The earnest money (at 2% of the amount put to tender) already deposited as per clause– 37 above shall be converted into part of the security deposit. The balance sum required to make the security for the work done shall be recovered progressively by deduction from each running account bill at 8% (Eight Percent) for each such bill subject to the ceiling in terms of clause above of the printed tender Form. Amount of security deposit will be 10 (Ten percent) of the amount of contract without any upper ceiling. 8% (Eight percent) will be deducted from the progressive bills. Or may at the option of the contractor, may furnish in the form of Bank Guarantee in any Nationalized Bank in the prescribed format in favour of Tender Inviting Authority.

34 **RELEASE OF SECURITY DEPOSIT**

Release of normal Security Deposit will be after 06 (Six) months after completion of work.

_____ Signature of the Tender Inviting Authority	_____ Signature of the Tenderer	_____ Signature of the Tender Accepting Authority
---	---------------------------------------	--

DECLARATION BY THE TENDERER

- I. I/We have inspected the site of works and have made me / us fully acquainted with local conditions on and around the site of works . I / We shall be bound by the conditions laid down in the Notice Inviting Tenders, Special Terms & Conditions , Special Specifications, General Specifications, Specific Priced Schedule and also printed Tender Form No. I (as amended). I / We have gone through the “P.W.D. (Roads) Schedule” , P.W.D. (WB) Schedule of Rates” , B.I.S. codes of practices, relevant MOST specification and IRC codes of practices as mentioned in Clause above of the Special Terms & Conditions. My / Our tenders is offered taking due consideration of all the stipulations of contract documents. I / We shall also uniformly maintain such progress with the works as may be directed by the Director of the work to ensure completion of same within the target date.
- II. My / Our Permanent Income Tax Account No. is
- III. My / Our Sales Tax Registration No. is
- IV. a) I / We declare that I have no relative working under T & T Sector of KMDA
- b) I / We declare that the under noted personnel of T.T. Sector, KMDA is related to me / us.

Name	Relationship	Designation with office Address
Sri.....
.....

**Postal address with Telephone No.
& Mobile No., if any of the tenderer**

(Dated & Signature of the

GENERAL SPECIFICATIONS

1. All works including materials to be used in works shall conform to Indian Standard Specification as published by Bureau of Indian Standard from time to time and as approved by the Director.

2.0 MATERIALS

Items of materials to be used in the work, not covered by the following specifications, shall conform to relevant B.I.S. Codes of practices and as per base practice as approved by the Director. The Contractor's rate for the job shall be inclusive of cost of all materials including taxes, handling, carriage, storage, guarding etc. all complete.

2.1 BRICKS

All Bricks shall be of approved quality of Standard Specifications, made of good brick earth, uniform deep red, cherry or copper colour, thoroughly burnt in klin (machined made) without being verified, regular in shape and of standard dimensions and shall be free from cracks, chips, flaws, stones or humps of any kind and shall not show appreciable signs of efflorescence either dry or subsequent to soaking in water. The size of bricks shall be $9^{3/4} \times 4^{3/4} \times 2^{3/4}$ (conventional), 190 X 90 X 90 mm (modular). The bricks shall emit a clear ringing sound on being struck and have a minimum crushing strength of 105 kg/sq.cm. All the bricks which absorb water more than 20% of their own dry weight after 24 hours immersion in cold water shall be rejected. Specification for Building Bricks shall conform to IS : 1077.

2.2.1 COARSE AGGREGATES FOR CEMENT CONCRETE WORKS

Stone chips or stone ballast for cement concrete (plain or reinforced) shall be hard, of uniform and fine texture, free from faults or planes of weakness and free from weathered faces. The ballast or chips must be free from loam, clay or any surface coating, free from organic matter or other impurities and screened, free of dust. Stone of black and hard variety as is generally available from quarries in pakur or chandil areas will be normally used. Stone aggregates from other sources may also be used provided the same is found suitable in the opinion of the Director. The opinion of Director must be recorded in writing. The ballast or chips shall be obtained by breaking from large blocks and must be more or less cubical in shape.

2.2.2 The grading of coarse aggregates for cement concrete works shall be in conformity with the requirements laid down in IS : 383-1970 including amendments upto date. The contractor shall arrange to supply single sized coarse aggregates. Such single sized coarse aggregates of different nominal sizes shall be mixed at

Site with other ingredients of concrete either directly in the mixture or on the platform in suitable proportions to get the desired overall grading of aggregates as per I.S. Specifications. Such proportions may be decided on making sieve analysis of the aggregates brought to the site, for obtaining better density and strength of concrete. The maximum size of aggregates shall not be more than 20 mm.

2.3 JHAMA CHIPS FOR CEMENT CONCRETE WORKS

Jhama chips for cement concrete work shall be obtained by breaking good quality Jhama bats, must not be spongy or with any coating of foreign materials and shall be homogeneous in texture. The chips shall be more or less cubical in shape. These shall be screened for removal of dust and if so necessary in the opinion of the Director, shall be washed at the cost and expense of the contractor.

2.4 SAND

All sand shall be clean sharp and free from clay, loam, organic or any other foreign matter, shall be obtained from approved source. The contractor shall get the sample of sand to be used in different kinds or work approved by the Director before using the same in work. Sand which in the opinion of the Director or his representative is dirty, must be washed to his satisfaction at the cost and expenses of the contractor.

2.4.1 Sand for all cement concrete work must be coarse. The sand shall pass through a mesh 4.75 mm. square measured in the clear. Sand shall not used for concrete works if contains more than 10% of fine grains passing through a 76 mesh seive as used for cement test, nor should the fineness modulus be less than 2.00 unless specific permission is obtained from the Director.

2.4.2 Medium sand may be used for cement mortar for masonry, plaster etc., and also for bituminous works of road. Fineness modulus shall be between 2 to 1.8

2.4.3 Sand filling in plinth or foundation shall be donewith fine sand or Silver Sand.

2.5.1 CEMENT

Ordinary Portland cement shall conform to I.S. : 283-1967

2.5.2 No cement excepting those supplied by KMDA shall be used in work or brought to site by contractor. Cement bags must be stored in a water-tight shed having wooden floor or platforms raised at least 50 mm from ground or as approved by the Engineer-in- Charge. Cement which is partly set or which is lumpy or caked is to be treated as damaged and shall be removed from the site immediately.

2.5.3 FLY ASH

Grade of Fly ash of concrete works conforming to I.S. : 3812(Part-II) Construction of road embankment with fly ash conforming to IRC : SP : 58

2.6 WATER

Water used for both mixing and curing shall be potable and free from injurious amounts of deleterious materials which are likely to effect the strength or durability of concrete, water containing any sugar, excess of acid, alkali or salt shall not be allowed for use. The PH value of water shall be between 6 to 8.

2.7.1 STEEL

Where deformed high strength reinforcement bars are specified in the design of R.C.C. construction, the Contractor shall use Tor Steel conforming IS : 1786-1965 (with latest revision). All steel shall be clean and free from loose mill scales, dust, loose rust and coats of paints, oil or other coatings before its use in the work.

2.7.2 All other structural steel to be used in the work shall conform to IS : 226(upto latest revisions)

3.0 EXECUTION

All works shall be carried out in proper workman like manner. Items of works not covered by the following, shall be carried out relevant B.I.S. codes of practice and as per base practices according to the direction of the Director and to his satisfaction. The cost of all stages of works shall be deemed to have been included in the rate to be quoted by the contractor.

3.1 EXCAVATION OF FOUNDATION AND FILLING UP TRENCHES

Excavation for information shall be done sa per drawing and direction of the Director. The excavated areas around the foundation structures are to filled up properly to the required levels with earth obtained from excavation of foundation and also with carried earth if necessary in layers not exceeding 150 mm at a time.

3.3.1 CEMENT CONCRETE WORKS (PLAIN OR REINFORCED) SHUTTERING AND STAGING

Wherever necessary, shuttering and staging must be provided and the cost thereof will be deemed to have been covered by the rate quoted by the contractor. Shuttering may be of approved dressed timber true to line, not less than 25 mm thick, surface to be in contact with concrete are to be planed smooth except where otherwise stated. As an alternative, sufficiently rigid steel shuttering may be used. In every case, joints of the shuttering are to be such as to prevent the loss of liquid from concrete. In timber shuttering the joints must be perfectly closed and the entire shuttering surface shall be covered with polythene sheets of approved quality. In case of steel shuttering also the joints are to be similarly lined.

All shuttering and framing must adequately be stayed and braced to the satisfaction of the Director for properly supporting the concrete during the period of hardening. It shall be so constructed that it may be removed without shock or vibration to the concrete.

Before the concrete is placed, the shuttering shall, if considered necessary, be coated with and approved preparation for preventing the adhesion of the concrete to the moulds, and it is to be of such a nature and so applied that the surface of the finished concrete is not stained. Care shall also be taken that such approved preparation shall be kept out of contact with the reinforcement.

In no circumstances shall forms be struck until the concrete reaches a strength of at least twice the stress of which the concrete may be subjected at the time of striking.

Interior of all moulds and boxes must be thoroughly washed out with a hosepipe or otherwise so as to be perfectly clean and free from all extraneous matter prior to the deposition of concrete.

All form works shall be removed without shock or vibration. Before the form work is stripped, the concrete surface shall be exposed where necessary in order to ascertain that the concrete has hardened sufficiently. In normal weather and with ordinary cement vertical or side shuttering may be removed after three days and the bottom shuttering of horizontal members after fourteen days in case of slabs and twenty one days in case of beams and cantilevers etc. from the date of placing the last portion of the concrete in the structure. The above are the minimum and may be extended if found necessary. Before stripping the shuttering of structural members the contractor shall take previous permission of the Director or his representative. No plugs, bolts, ties, hold fasts or any other appliances whatsoever for the purpose of supporting the shuttering are to be fixed in the structure or placed in such a way that damage might result to the work in removing the same when the shuttering is struck.

3.3.2 SCAFFOLDING

The scaffolding with steel pipe must be strong and rigid stiffened with necessary cross bracers and always decked and boarded on the stills with close boarded ceiling and swings to prevent any injury to persons or materials. The Contractor shall have to allow other traders to make reasonable use of his scaffolding as and when directed by the Director.

If for the interest of the work contractors have to erect scaffolding in other's properties including local bodies or corporation, the arrangement for the same including the cost of licensing fees etc. shall have to be borne by the contractor and the department should be kept free from any liability on this account.

3.3.3 MIXING OF CONCRETE

(The Structural concrete & ready mix concrete)

Boxes of suitable size shall be used for measuring sand and aggregate in specified proportion. The unit of measurement for cement shall be bag of cement weighing 50 kg and this shall be taken as 0.035 cubic metre. While measuring the aggregate, shaking, ramming or hammering shall not be done, the proportioning of sand shall be on the basis of its dry volume and in case of damp sand, allowance for bulking be made. The aggregate in each batch of concrete are to be so proportioned as to contain full bags of cement.

Normally all structural concrete shall be mixed in mixture machine of appropriate proportion, shall have to be vibrated with suitable vibrator. Mixing shall be continued until there is a uniform distribution of the materials and the mass is uniform in colour and consistency, but in no case shall the mixing be done for less than two minutes. For particular job the Director may allow hand mixing and or hand tapping of concrete. In case of hand mixing concrete, extra cement up to 10% over the standard requirement of cement for machine mix of particular mix shall have to be provided by the Contractor at his own cost.

As the bulking of sand may vary from day to day and at different parts of the day on account of varying moisture content, frequent tests for bulking shall be carried out with the sand to be used and the amount of bulking allowed for in the field mix so as to keep the actual proportion constant throughout.

Only such quantities of concrete as are required for immediate use are to be mixed at any one time. Sufficient water is to be added to obtain proper workability so that the mixture may flow readily round the reinforcements and into every part of the moulds. The workability shall be measured by the amount of slump. The quantity of water to be used for each mix of 50 kg cement to give the required consistency shall not be more than 34 litres for 1:3:6 mix, 3:6 mix, 32 litres for 1:2:4 mix, 30 litres for 1:1^{1/2}:3 mix and 27 litres for 1:1:2 mix. In the case of Vibrated concrete, the limit specified may be used suitably reduced to avoid segregation.

The total water content in each batch of concrete shall always be kept constant as the amount previously determined by experiments. The quantity of water to be actually added may, therefore, vary depending on the moisture content in the aggregates. In actual job, if the quantity of the ingredients remain constant the amount of slump may be taken as good guide indicating the total water content in the mixture. The consistency and consequently the water content of the concrete shall, therefore, be kept constant and checked from time to time as work proceeds by means of standard slump tests. The slump tests shall be carried out with concrete immediately after it has been mixed and before any initial set has commenced, the sample being taken preferably at the point where the concrete is being delivered for placing in the moulds.

The mould shall be filled about one-fourth of its height with concrete which shall then be tamped, using 25 strokes of a 18 mm. diameter steel rod, 80 cm long and bullet-pointed at the lower end. The filling shall be compacted in successive layers similar to the first and the top struck off so that the mould is exactly filled.

The mould shall then be removed by rising vertically immediately after filling. The moulded concrete shall then be allowed to subside and the height of the specimen measured after coming to rest.

The consistency shall be recorded in terms of millimeters of the subsidence of the specimen during the test, which is known as slump.

The following slumps shall be adopted for different works.

1.	Type of Work	Slumps	
		Vibrators are used	Vibrators are not used
*	Concrete in foundation footings, retaining walls and pavements.	10 to 25 mm	50 to 75 mm
*	Concrete in R.C.C. foundation footings and retaining walls. S, slabs and columns simply reinforced.	10 to 25 mm	80 mm
*	R.C.C. section or section with congested steel.	25 to 40 mm	100 to 125 mm
*		40 to 50 mm	125 to 150 mm

I.S.: 456-2000 allows use of nominal mix of concrete upto grade M20 and may be allowed in works at the discretion of Director and will be guided by the provision of IS : 456- 2000. For graded of concrete above M20, design mix has to be adopted. For determination of mix proportion for design mix concrete, the target strength should be higher than the specified characteristic strength to ensure that characteristic strength is attained at 28 days.

Target strength = Characteristic strength + 1.65 X standard deviation. Standard deviation for different grades of concrete in absence of any test may be taken as per IS : 456-2000 as follows:-

Grade of concrete	Assumed standard deviation N / MM ²
M 10	3.5
M 15	3.5
M 20	4.0
M 25	4.0
M 30	5.0

Once the target strength of cube moulds with specific mix design is obtained in the laboratory, it may be inferred that the corresponding characteristic strength of concrete, prepared with the materials used in the test mould (s) cured under identical condition as that of the test specimen, shall be obtained at site at 28 days.

An approximate formula for expressing the strength of concrete at age 't' (in days) is given below :-

$$f_t = \left(\frac{t}{28} \right)^a \times f_{28}$$

where f_{28} is the strength at 28 days,
 $a = 4.7$
and $b = 0.833$

3.3.3.1 ACCEPTANCE CRITERIA

The concrete shall be deemed to comply with the strength requirements if :

- a) Every sample has a test strength not less than the characteristic value ; or
- b) The strength of one or more samples though less than the characteristic value, is in each case not less than the greater of :
 - 1) The characteristic strength minus 1.35 times the standard deviation ; and
 - 2) 0.80 times the characteristic strength, and average strength of all the samples is not less than the characteristic strength plus

$$1.65 - \sqrt{\frac{1.65}{\text{Number of samples}} \times \text{Times the standard deviation}}$$

The concrete shall be deemed not to comply with the strength requirements if :

- c) The strength of any sample is less than the greater of :
 - 1) The characteristic strength minus 1.35 times the standard deviation ; and
 - 2) 0.80 times the characteristic strength ; or
- d) The average strength of all the samples is not less than the characteristic strength plus

$$1.65 - \sqrt{\frac{3}{\text{Number of samples}} \times \text{Times the standard deviation}}$$

Concrete which does not meet the strength requirements as specified in (a) and (b) above but has a strength greater than that required by (c) and (d) may, at the discretion of the designer, be accepted as being structurally adequate without further testing.

If the concrete is deemed not to comply pursuant to (c) or (d) above the structural adequacy of the parts affected shall be investigated and any consequential action as needed shall be taken.

Concrete of each grade shall be assessed separately.

Concrete shall be assessed daily for compliance.

Concrete is liable to be rejected if (i) it is porous or honey-combed ; (ii) its placing has been interrupted without providing a proper construction joint, (iii) the reinforcement has been displaced beyond the tolerances specified; or (iv) construction tolerances have not been met, however, the hardened concrete may be accepted after carrying out suitable remedial measures to the satisfaction of the Director.

3.3.3.2 FREQUENCY OF SAMPLING

Sampling procedure – A random sampling procedure shall be adopted to ensure that each concrete batch shall have a reasonable chance of being tested, that is, the sampling should be spread over the entire period of concreting and cover all mixing units.

Frequency : - The minimum frequency of sampling of concrete of each grade shall be in accordance with the following ;

Quantity of concrete in the Work, M ³	Number of samples
5	2
0	3
0	4
Above	4

one additional sample for each additional 50 M³ or part thereof.

3.3.3.3 TEST SPECIMEN

Three test specimens shall be made from each sample for testing at 28 days. Additional cubes may be required for various purposes such as to determine the strength of concrete at 7 days or at the time of striking the form work, or to determine the duration of curing, or to check the testing error. Additional cubes may also be required for testing cubes cured by accelerated methods as described in IS : 9013. The specimen shall be tested as described in IS : 516.

3.3.3.4 TEST RESULTS OF SAMPLE

The test results of the samples shall be the average of the strength of three specimens. The individual variation should not be more than @ 15 percent of the average if more, the test results of the sample are invalid.

3.3.4 PLACING OF CONCRETE

Concrete shall be handled from the place of mixing to the place of final deposit as rapidly as practicable by methods which will prevent the segregation or loss of the ingredients. It shall be deposited as nearly as practicable in the final position to avoid re-handling or flowing. Unless specially permitted by the Director, concrete shall not be dropped freely from a height of more than 2 metres.

Before placing the concrete, the moulds shall be cleaned for savings, pieces of wood or other rubbish. When placing the concrete, the fine materials must be carefully worked against the mould so that the faces of the concrete shall left perfectly smooth and free from honey-combing upto withdrawal of the moulds. Any defect in this respect must be dealt with by the contractor as directed by the Director without any extra charges therefor.

Depositing concrete under water shall not be allowed without specific permission from Director. The method of concreting to be adopted in such cases shall have to be previously approved by him.

3.3.5 COMPACTION OF CONCRETING

During placing and also immediately after deposition, the concrete shall be thoroughly compacted by ramming spreading etc. until it has been made to penetrate and fill all the spaces between and around the steel rods, around embedded fixtures, and into the corners for formwork in such a manner as to ensure a solid mass entirely free from voids. If so directed by the Director, in addition to usual ramming, spreading etc. sufficient number and suitable type of vibrators may have to be used on important jobs to enable working with homogeneity. It is imperative that the work should be done quickly as well as efficiently and adequate number of hands must therefore be employed to ensure this. Mechanical vibrators used shall comply with IS : 2505, IS : 2506, IS : 2514 and IS :4656.

Concrete shall be placed and compacted in its final position before setting has commenced and shall not subsequently be disturbed.

3.3.6 CONTINUOUS CONCRETING

Concreting shall be carried out continuously upto construction joints, the position and arrangement of which shall be predetermined by the Director or his representative. Any rest, pauses, such as for meal, shall also be subject to his approval. All concreting work should be so programmed as not to necessitate work at night. If for any reason this becomes imperative, the Contractor shall obtain previous permission of the Director or hrs representative and make proper lighting arrangement to his satisfaction.

3.3.7 PROTECTION AND CURING

The Contractor shall adequately protect freshly laid concrete, about 1 to 2 hours after its laying from too rapid drying due to sunshine, drying winds etc. and also from rains or surface water and shocks. About 24 hours after laying of concrete, the surface shall be cured by flooding with water of minimum 25 mm depth or by covering with wet absorbent materials. The curing shall be done for a minimum period of 10 days. Over the foundation concrete the masonry work may be started after 48 hours of its laying, but the curing of cement concrete shall be continued along with masonry work for a minimum period of 10 days.

In case of cement concrete used as sub-grade for flooring, the flooring may be commenced with 48 hours of the laying of sub-grade. In case it is not possible to do so due to exigencies of work, the sub-grade shall be roughened with steel wire brush without disturbing the concrete, wetted and neat cement slurry at the rate of 1.75 kg. of cement per square metre applied to the base before laying floor. The curing to be continued along with top layer of flooring for a minimum period of 10 days.

3.3.8 CONSTRUCTION JOINTS

All construction joints in slabs and other horizontal members are to be formed by inserting vertical boards against which the concrete deposited can be properly rammed. The positions where such construction joints may be made will be indicated by the Director or his representative.

In the case of horizontal joint any excess mortar or laitance shall be moved from the surface after the concrete is deposited and before it has set.

When the work has to be commenced on a surface which has hardened, such surface shall be well roughened and all laitance removed, the surface shall then be swept clean, thoroughly wetted and covered with a thin layer of mortar composed of equal volumes of cement and sand.

3.3.9 'TEST FOR CONCRETE

For R.C.C. work, (where concrete is specified by strength) the mix should not be leaner than 1 : 1½ : 3 so as to give ultimate crushing strength not less than 20 N/MN² at 28 days cured under field condition. The mix for the concrete is to be so adopted and the slumps is to so allowed as to give specified strength **and** proper workability at the existing site conditions. Contractor shall remain fully responsible for producing concrete of specified strength in the actual job and therefore cast at his own cost test specimens of 15 cm. cube as already specified during work and cure the same in similar way as for laid concrete for being tested for strength. Each set of test specimen shall be taken to cover the quantity of concrete laid on the job during the period from the time of taking the previous set of specimens and the quantity will be estimated by the Director from records maintained by him.

The interior surface of the mould and base plate shall be lightly oiled before the concrete is placed in the mould.

a) When the job concrete is compacted by ordinary methods, the test specimen shall be molded by placing the fresh concrete in the mould in three layers, each approximately one-third of the volume of the mould. In placing each scoopful of concrete, the scoop shall be moved around the top edge of the mould as the concrete there slides from it in order to ensure a uniform distribution of concrete within the mould. Each layer shall be rodded, 25 times with a 16 mm rod, 60cm in length, bullet pointed at the lower end and the strokes shall be distributed in a uniform manner over the cross-section of the mould and shall penetrate into the underlying layer. The bottom layer shall be rodded, throughout its depth. After the top layer has been rodded, the surface of the concrete shall be struck off with a trowel and covered with a glass plate at least 6.5mm thick or a machined metal plate. The whole process of moulding shall be carried out in such a manner as to preclude the alteration of the water-cement ratio of the concrete, by loss of water either by leakage from the bottom or overflow from the top of the mould.

b) When the job concrete is placed by vibration and consistency of the concrete is such that the test specimens cannot be properly moulded by hand rodding as described under, the specimens shall be vibrated to give a compaction corresponding to that of the job concrete. The fresh concrete shall be placed in the mould in two layers, each approximately half the volume of the mould. In placing each scoopful of concrete, the scoop shall be moved around the top edge of the mould as the concrete there slides from it, in order to ensure a symmetrical distribution of concrete within the mould. Either internal or external vibrator may be used. The vibration of each layer shall not be continued longer than is necessary to secure the required density. Internal vibrators shall be of appropriate size and shall penetrate only the layer to be compacted. In compacting the first layer, the vibrators shall not be allowed to rest on the bottom of the mould. In placing the concrete for the top layer, the mould shall be filled to the extent that there will be no mortar loss during vibration. After vibrating the second layer, enough concrete shall be added to bring the level above the top of the mould. The surface of the concrete shall then be struck off with a trowel and covered with a glass or steel plate as specified under (a) above. The whole process of moulding shall be carried out in such a manner as to preclude the alteration of water-cement ratio of the concrete by loss of water either by leakage from the bottom or overflow from the top of the mould.

After curing, the specimen properly wrapped shall be made over to the Director or his representative who will arrange to have them tested at 28 days from the date of casting. If there is any delay for any reason whatsoever the result of the test

shall nevertheless be valid and will be applicable as per rules in each case for all test specimen whatsoever. The Contractor shall be responsible for proper packing of the specimens at his own cost, for safe and convenient transport of the same from the site to the testing laboratory. The cost of testing the test moulds and other charges including cost of carriage of the test moulds from the work site to the particular laboratory (both ways) and other incidental charges in this connection will have to be borne by the Contractor.

In case of concrete showing, on the result of the cube tests, strength less than that specified in (a) and (b) of the Acceptance Criteria but has a strength greater than (c) & (d) of the said Acceptance Criteria concrete may, at the discretion of the Director, be accepted as being structurally adequate without further testing.

If the concrete is deemed not to comply pursuant to (c) & (d) of the Acceptance Criteria, the Structural adequacy of the parts affected may be investigated as per provision of Clause 16.3 and I or clause 16.5 of I.S. 456-1978 i.e. core test and / or load test, as the case may be before rejection on the application of the Contractor with the undertaking to bear the cost of such tests.

If the strength of the concrete is such that it satisfies provisions made in sub clause 16.3.3 and / or sub-clause 16.5.3 of I.S. 456-2000 concrete in the member represented by such tests shall be considered acceptable but the Engineer-in-

Charge shall have the full power to fix the rate of deduction @ Rs.200/-per cubic metre.

In case the test results do not satisfy the relevant requirement of the proceeding paragraph, the volume of concrete so deficient shall be deemed to be unacceptable and shall be removed from the structure and replaced by fresh concrete of specified strength and the Contractor shall, in the case, have to carry out the instruction of the Director Irrespective of the amount of loss; inconvenience and difficulties involved

The Contractor shall remain liable to act /to carry out instructions under the provisions of this clause, not with standing issuing-by the Director of any certificate or the passing of any bills or accounts.

3.4 1st CLASS BRICK WORK

Cement mortar shall be prepared by mixing sand and cement in specified proportion. Sand shall be measured on the basis of its dry volume. In case of damp sand, its quantity shall be increased suitably to allow for bulkage.

Brickwork shall be laid in English bond. The brick shall be laid by larrying method; a layer of mortar shall be spread on full width for suitable length of the lower courses. Each brick shall first be laid so as to project over the one below, both at the end and at the side, then pressed into the mortar and shoved into final position so as to embed the brick and to fill its inside face fully with mortar. Cut bricks shall not be used except where necessary.

The walls shall be taken up truly plumb with plumb bob. The thickness of brick courses shall be kept uniform and for this purpose, wooden straight edge with graduations giving thickness of each brick course including joint shall be used. All courses shall be laid truly horizontal and all vertical joints shall be truly vertical.

Vertical joints in alternate course shall come directly one over the other. A set of tools comprising wooden straight edge, masons spirit level, square, half meter rule, line and pins, string and plumb shall be kept for every 3 masons for frequent checking during progress of work. Faces of walls found not in plumb shall be dismantled.

Both the faces of walls of thickness greater than 25cm (10") shall be kept in proper plane. All the connected brickwork shall be carried up nearly at one level and no portion of the work shall be left than 1m below the rest of the work. Where this is not possible, the work shall be racked according to bond (and not left toothed) at an angle not steeper than 45°. Bricks shall be so laid that all joints are quite full of mortar. The thickness of joints shall not exceed 10 mm. (2/5)". Bricks shall be laid with frogs upward except in the top course where from shall be placed downward. The face joints shall be racked to a minimum depth of 15 mm (3/5") by racking tools daily during the progress of work when the mortar is still

green, so as to provide proper key for plastering pointing to be done. Where plastering pointing is not required to be done, the joints shall be struck flush and finished at the time of laying.

The face of brickwork shall be cleaned the very day that brick work is laid daily and all mortar dropping removed.

Green work shall be protected from rain suitable covering. The brick work shall be kept wet for period at least 7 days. The top masonry work shall be left flooded at the close of the day.

Scaffolding shall be sound and strong and holes left in masonry work for supporting the scaffolding shall be filled and made good, before plastering.

3.5 DAMP PROOF COURSE

This shall be laid to specified thickness over walls for the full thickness for the super structure walls. The surface shall be leveled and prepared before laying the cement concrete. Edges of damp proof course shall be straight, and even vertical. Side shuttering shall consist of wooden form and shall be strong and properly fixed so that it does not get disturbed during compaction and the mortar does not leak through. The concrete mix shall be of workable consistency and shall be tamped through to make a dense mass. When the sides are removed the surface should come out smooth without any honey-combing. The damp proof course shall be laid continuous and the surface shall be double chequered. Damp proof course shall be cured for at least seven days, after which it shall be allowed to dry. Water proofing materials of approved quality shall be added to the concrete mixture in accordance with the manufacturer's specifications stating the quantity of water proofing material in liters or kg. per 50 kg of cement and will be paid for separately, similarly, polymer based paint used under damp proof course as per manufacturer's specification shall also be paid separately.

3.6 CEMENT PLASTER,

The proportion of mortar for exterior or interior plaster shall be as specified in the items of work.

The plaster shall be of thickness as specified and the surface shall be similarly cured as for cement concrete. The molding shall be carried out as shown in the drawing and shall be separately measured in overall length unless otherwise specified in the items. Interior corners and edges of openings if so directed by the Director shall be rounded off or chamfered with the same mortar for which no extra payment will be allowed. All cement concrete surface should be chipped off properly before taking up to the plastering work.

3.7 ARTIFICIAL STONE FLOORING

The Artificial stone flooring shall be laid in panels of shape and size as directed. The casting of the panels will be so programmed as to prevent bonding on the freshly laid panel with advancement panels.

Unless otherwise specified, the underlay shall be with graded stone chips 12mm. down, the thickness of topping shall be of 10mm thick and coloring pigment as may be required shall only be added with the topping. The topping and the underlay shall not be laid in one operation. After laying the 'Underlay' the surface shall be left out to dry. The topping shall be laid only after the underlay is sufficiently dried and initially set and after thoroughly brushing with hand wire brush and sweeping clean and after application of slurry. The topping shall be finished with an English towel and a piece of clean dry linen. During all the stages the required level shall be carefully observed and maintained. Suitable grading, where required shall be provided in the flooring for water drainage as directed by the Director.

The corner between floor and wall shall be rounded off as directed by the Director for which no separate payment shall be made. All cement concrete surfaces should be chipped off properly before taking up the flooring work.