

DELHI DEVELOPMENT AUTHORITY

NIT NO. 4/EE/SWD-6/07-08

PRESS TENDER NOTICE
INVITATION TO TECHNICAL/FINANCIAL BID

Sealed tenders are **re-invited** on Turnkey Basis in two parts i.e. technical and financial bids, in separate sealed covers for the following work from firms/contractors who fulfill the following conditions, upto 3.00 P.M., on the date indicated below. Technical bid shall be opened on the same day at 3.30 P.M. at Vikas Minar, DDA Office, New Delhi.

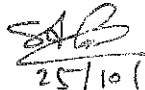
S.No.	Name of work	Area in Hact.	Estimated cost Earnest Money	Period of completion Cost of tender	Last date of sale Date of opening
1.	C/o LIG Houses on Turnkey project at Sector-14, Dwarka Ph.II (Balance work). R/F: M/s.V.R.M.(India) Ltd.	2.4	Rs.12,18,15,106/- Rs. 10,00,000/-	20 Months Rs.10,000/-	12.11.08 17.11.08

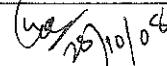
2 Contractors who fulfill the following requirements shall be eligible to apply.
Joint ventures not accepted.

- a) Should have satisfactory completed three works of multi-storied building with or without basement (at least one of them in Central Government/Central Autonomous body/Central PSU) each costing 40% of estimated cost or two works each costing 50% of the estimated cost or one work costing 80% of the estimated cost of the above nature during the last seven years ending last day of the month i.e. 31st March 2008.
- b) Should have had average annual financial turn over on construction work of at least 30% of estimated cost put to tender during the last three years ending 31st March 2008.
- c) Should not have incurred any loss in more than two years during the last five years ending 31st March, 2008.
- d) Should submit a bank solvency certificate of 40% of estimated cost but not less than 5.00 crores.

3. Tenders documents can be obtained on payment of cost of tender Rs.10,000/- (non-refundable) on production of valid Certificate of Registration with Works Contract Cell, Sales Tax Department/VAT Deptt. of GNCTD Delhi and the Tax Clearance Certificate in Form-XI, from Sr. Accounts Officer (CAU), DWK, Central Tendering Unit, Vikas Minar and Divisional Office.

4. The Earnest Money shall be deposited along with the tenders in the appropriate form as given in PWD-6 attached with the tender documents. Tender of the contractors who do not enclose earnest money in the prescribed manner shall be summarily rejected.
5. If any information furnished by the applicant is found incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of work in DDA. The department reserves the right to verify the particulars furnished by the applicant independently.
6. The cost of respective works completed by an Agency shall be suitably enhanced @ 5% for each subsequent year following the financial year in which that particular work had been completed to bring it at par with the present cost. Enhancement on similar lines shall also be effected in respect of Turnover of the Agencies.
7. The contractor should also enclose other documents like valid I.T.C.C., enlistment registration certificate/valid registration with works contract cell of Sale Tax Deptt. of GNCTD and Tax Clearance certificate issued by works contract Cell GNCTD Delhi in Form-XI etc. while submitting application for tender form.
8. Earnest Money amounting to Rs. 10,00,000/- in the shape of demand draft/call deposit receipt of FDR of a scheduled bank guaranteed by Reserve Bank of India must be placed in sealed envelope 'A' along with other document required for technical bid. The FDR should be valid for a period of one year or more after lat date of sale of tender and the same should be pledged in favour of Sr. Accounts Officer, CAU/DWK, DDA. No interest shall be paid on Earnest Money so deposited with DDA.
9. Cess under the provision of Building and other construction workers (RE & CS) Act, 1996 and the Building and other constructions Workers' Welfare Cess Act 1996 @ 1% of the cost of construction/project shall be deducted at source from the bill paid to the contractor.


25/10/08
(ER. SHAKEEL AHMAD)
EXECUTIVE ENGINEER:SWD-6
DDA: DWARKA: NEWDELHI.


25/10/08

Contd..P-3/-

I N D E X

		Pages	
		From	To
1.	Method of submission of tender.	2	2
2.	List of documents to be submitted and certificate of submission of plans.	3	4
3.	Abbreviations	5	6
4.	Additional conditions	7	9
5.	Development/Architect Control Norms	10	11
6.	Standard design control for R.C.C. load bearing masonry, construction	12	13
7.	Salient feature of the site	14	14
8.	Tender Notice & Bid Documents	15	35
9.	PWD-6	36	41
10.	Memorandum & Proforma	42	46
11.	General rules directions for contractors, condition of contract, General Specification and guidelines	47	78
12.	Specimen for cement register & typical sketch for cement godown	79	80
13.	Model rules for Protection of worker's and DDA's Contractor labour Regulations.	81	93
14.	General Specification & Conditions for building work, Civil work, Electrical work and Horticulture work.	94	126
15.	Specification for Internal Development Works	127	135
16.	Minimum Acceptable Specifications	136	146
17.	Schedule of work done stage wise	147	150
18.	Schedule of payment stage wise(Balance work)	151	154
19.	Annexures of Electrical Materials & Conditions (A to C)	155	157
20.	Schedule 'B' (Annexure-"D")	158	158
21.	List of Approved Drawings (Annexure 'E')	159	160
22.	Preliminary soil investigation report & drawing.	161	189
23.	Approved Drawings	47 Nos.	

24. Classification / Correction / Additional Information 190 to 194

METHOD OF SUBMISSION OF TENDER

The contractor is to submit the tender in following two separate sealed covers marked "A" & "B" i.e. Technical & Financial Bids with name of work "C/O LIG Houses on Turnkey Project at Sector-14 Dwarka Ph.II(Balance work)".

PACKET-A

Technical bid shall contain all the information.

PACKET-B Price Bid/Financial Bid

Both envelopes shall be sealed in a third envelope with the name of work on the top and the date of opening and Name of Firm.

The contractor should ensure that the cost quoted appear only in the price bid and no where else.

Technical bid and price bid shall be submitted simultaneously on due date. Only technical bid shall be opened on that date, price bid shall be kept sealed. Later on, a date shall be fixed for opening of the price bid and bid of only those contractors whose technical bids are found acceptable by the DDA shall be opened.

The contractor shall submit an undertaking that there is no condition attached with Price bid.

Bid shall remain valid for a period of 90 days from the date of opening of bid.

LIST OF DOCUMENTS, DETAILS REQUIRED TO BE SUBMITTED BY THE BIDDERS.

1. Earnest money in the required shape.
2. Income Tax clearance Certificate as per Clause 17 of PWD-6.
3. Registration with the Sales Tax Deptt. Its clearance as per clause 18 of PWD-6.
4. Proposed layout plan in the scale of 1:500 minimum.
5. Proposed plans, sections, elevations of the structures proposed to be constructed (scale 1:100 minimum).
6. Proposed specifications for each structure for all the works involved in the project besides those mentioned in this tender documents.
7. Salient features proposed in design, drawings and the proposal being offered.
8. List of works in hand and their cost. Details of similar works executed during the last seven years.
9. Proposed programme schedule for execution of the work.
- 10.a. Proposed equipment and T & P machinery etc. required for execution of the work.
- b. Machinery, T & P, equipment in possession of the bidder and T & P machinery etc. proposed to be arranged from other sources.
11. Financial arrangement proposed (i) Bank Solvency Certificate (Rs.5.00 crores) (ii) Documents (in support) for the completion of work.
12. Specifically for this work, persons proposed to be deputed their name, experience & qualifications.
13. Tender documents. (In envelope B)
14. Certificate for building plans (refer page 4) regarding safety requirements.
15. Any other relevant document as desired by the tenderer.

21.

NOTE: A list of drawings already approved by the competent authority as Annexed 'E' at page 159 to 160.

A.....
C.....
D.....

CERTIFICATE

The following certificates are to be submitted along with the building plans while submitting:

1. Certified that the building plans to be submitted for approval shall satisfy the safety requirements as stipulated under clause 18 of building bye laws 1983 (with upto date amendments) and the information given therein is factually correct to the best of our knowledge and understanding.
2. It is also certified that the structural design including safety from natural hazards shall be prepared by duly qualified structural engineer.

Signature of Contractor with date _____ Signature of the _____

Name in Block Letters _____ Architect with date _____

Address _____ Name in Block Letters _____

Address _____

Regn.No. _____

A.....
C.....
D.....
OW.....

ABBREVIATION USED IN THIS SPECIFICATION (CIVIL WORK)

S.NO.	Abbreviation	Detail
01	D.D.A.	Delhi Development Authority.
02.	M.C.D.	Municipal Corporation of Delhi.
03.	D.J.B.	Delhi Jal Board.
04.	D.V.B.	Delhi Vidyut Board.
05.	Specification.	CPWD Specification 1996 Vol. 1-6 with up to date correction slips.
06.	M.T.N.L.	Mahanagar Telephone Nigam Limited.
07.	C.D.O.	Central Design Organisation.
08.	I.I.T.	Indian Institute of Technology, Delhi.
09.	E.I.L.	Engineers India Limited.
10.	N.B.C.C.	National Building Construction Corporation Ltd.
11.	L.I.G.	Lower Income Group.
12.	M.I.G.	Middle Income Group.
13.	W.C.	Water Closet.
14.	G.I.	Galvanized Iron.
15.	S.C.I.	Sand Cast Iron.
16.	U.G.T/R	Underground storage Tank/Reservoir.
17.	C.C.1:1½:3	Cement concrete 1:1 ½:3 i.e. 1 cement:1 ½ coarse sand: 3 graded stone aggregate of approved nominal size.
18.	C.C.1:2:4	Cement concrete 1:2:4 i.e. 1 cement: 2 coarse sand : 4 graded stone aggregate of approved nominal size.
19.	C.C.1:3:6	Cement concrete 1:3:6 i.e. 1 cement: 3 coarse sand : 6 graded stone aggregate of approved nominal size.
20.	C.C.1:4:8	Cement concrete 1:4:8 i.e. 1 cement: 4 coarse sand : 8 graded stone aggregate of approved nominal size.
21.	C.C.1:5:10	Cement concrete 1:5:10 i.e. 1 cement :5 coarse sand : 10 graded stone aggregate of approved nominal size.
22.	BW 1:3	Brick work in cement mortar 1:3 i.e.1 cement: 3 coarse sand/fine sand.

A.....
C.....
D.....

23.	BW 1:4	Brick work in cement mortar 1:4 i.e.1 cement: 4 coarse sand/fine sand.
24.	BW 1:6	Brick work in cement mortar 1:6 i.e.1 cement: 6 coarse sand/fine sand.
25.	RCC pipe	Reinforced cement concrete pipe.
26.	ISI	Indian Standard Institute.
27.	M.S.	Mild Steel.
28.	m	Meter
29.	cm	Centimeter.
30.	mm	Millimeter.
31.	kg.	Kilogram.
32.	Sq.m.	Square meter.
33.	A.C.	Asbestos Cement.
34.	C.P.	Chromium plated.
35.	HDPE	High Density Polythylene.
36.	S.F.R.C.	Steel Fibre Reinforced Concrete.
37.	S.W.	Stone Ware.
38.	B.I.S.	Bureau of Indian Standard.
39.	F.D.A.	Food Drug Administration.
40.	C.B.R.I.	Central Building Research Institute.
41.	i/c	Including.
42.	S/S	Socketed & Spigot.
43.	NP2	Non Pressure Class 2.
44.	NP3	Non Pressure Class 3
45.	C.M.1:2	Cement Mortar 1:2 i.e.1 Cement: 2 fine sand/coarse sand.
46.	I.L.	Invert Level.
47.	w.r.t.	With Respect to
48.	CGHS	Cooperative Group Housing Society.
49.	D.U.s.	Dwelling Units.
50.	MPD	Master Plan Delhi.
51.	Hact.	Hactare.
52.	BBL	Building By Laws.
53.	FAR	Floor Area Ratio
54.	ESS	Electric Sub-Station.
55.	n.s.	Nominal Size.

A.....
C.....
D.....
OW.....

ADDITIONAL CONDITIONS

The balance work shall be executed on turnkey basis. The original work awarded to M/s VRM (India) Ltd. had been rescinded by the competent authority and tenders floated to complete the balance work. The original scope of work is also to be read along with the brief description of balance work required to be executed is detailed below:

1. Agency to inspect the site of work before tendering for execution of balance work on as is where is basis and be acquainted with site conditions along with approved drawings enclosed with tender documents, w.r.t. to the work executed/to be executed.
2. The remaining drawings will have to be submitted by the agency including design & approval from the competent authority.
3. The agency should examine the various items in schedule 'B' at page 158 (Annexure-"D") & quote the rates accordingly.
4. The list of electrical material available at site of work on as is where is basis as per annexure 'A' & 'B' respectively for internal and external electrification at page 155 to 156 may be seen. This material will be issued to the agency & shall keep this in consideration at the time of tendering.
- 4.1 The scope of work includes execution of work on Turnkey basis includes planning, designing, earth filling, civil works including its electrification, infrastructure, services like street-lighting, sewerage, water supply, drainage, roads, Horticulture, landscaping, provision of dual water supply system, rain water harvesting and also construction of Community Hall, Shopping Centre, Boundary wall, electric sub-station with transformer & equipment to be installed in it, laying of H.T. cables, L.T. network, service cables etc. and making the units complete & habitable including watch & ward for 3(three) years from the date of recorded completion. This scope of work given in the NIT is only indicative and not exhaustive. The agency shall be responsible for execution of all items required for completing these houses in all respects to make these units habitable and ready for occupation as well as functioning of all services, making environment fit for habitation without any additional cost, complete as per direction of Engineer-in-Charge.
- 4.2 The flats will be maintained till these are handed over to the Engineer-in-Charge in good condition and free from all defects.
- 4.3 ~~The services will be handed over to the various local bodies by the agency after its completion as per approved plans, etc. as stated in the NIT also.~~
- 4.4 The agency will also be responsible for getting the fire fighting arrangements, approved from the Delhi Fire Services before execution of the water supply scheme.
- 4.5 The flats shall be five storeyed framed structure (760 Nos) with plinth area of 42 sqm. each.

A.....

C.....

D.....

OW.....

5. The construction of all the planned buildings work i.e. structure like UGR, Community Hall, Shopping Centre, Pump House, completion of Boundary Wall etc. all complete as per approved designs and drawings and specifications including complete finishing of the kitchen (including sink), toilet(including W.C., wash basin, tap, cocks etc) complete.
6. Planning, designing and execution of internal sanitary, water supply, drainage system etc. complete for the buildings planned including all its fittings, fixtures, testing etc. complete. The necessary arrangements is to be provided for supply of water through Dual pipe system i.e. Tube well water duly chlorinated (including chlorination arrangement) would be pumped through underground storage tanks to overhead tanks of each house and piped to non drinking areas in each DU's as directed by the Engineer-in-Charge. Municipal water obtained from peripheral pipe lines would be stored in separate underground reservoirs and pumped to separate overhead tanks of individual houses and pumped to drinking areas through separate piping system. Any modification, if required, in already executed services will have to be got redesigned/approved from competent authority after submitting design/drawing by the Agency.
7. Planning, designing and execution of all services like water supply, sewerage, drainage system, roads, paths and all connected sub structures and super structures, as per bye-laws and norms of the local bodies including making connections with the peripheral services after getting the services design approved from the local bodies. All costs/fees etc. involved for the same shall be borne by the Agency. Department's role shall be limited only to sign the application/drawings/documents for submission to the local bodies in the capacity of the owner for approval.
8. Planning, designing and construction/installation of underground reservoirs, its pump houses for water supply, for fire fighting tank including installing of pumps, including stand by pumps, D.G.set, as per approved drawings/specifications or as directed by Engineer-in-charge.
9. Planning, Designing and execution of the roof top rain water harvesting system for recharging the sub soil water including laying of pipe lines and const. of sub/super structures. The designs, system shall be for a minimum of 25mm per hr. intensity of rainfall and shall be got approved from Engineer-in-Charge.
10. Preparation of land scaping plan including parks, planters and other details etc. for the hort. work and execution of the same including providing unfiltered water supply lines, boring of tube well, construction of its pump house and installation of pumps there in. Development of parks, const. of its boundary wall, provision of railings, wicket gates, water hydrants etc. complete. The Grassing, creepers, planting trees, etc. shall be completed as per the specifications and drawings approved by the Engineer-in-charge.

A.....

C.....

D.....

OW.....

11. Planning, Designing and execution of all external and internal electrification works including laying of cables for street lighting, providing poles, lights, fittings and fixtures, telephones house connections, const. of sub stations and obtaining the necessary approval from BSES/MTNL. The internal electrification/telephone work includes conduiting , providing wiring, switch boxes, fitting and fixtures etc. complete.
12. The filling of earth, its supply, disposal of surplus earth as the case may be is to be completed as directed by Engineer-in-Charge.
The above scope of work includes cost of all materials, manpower, equipments, T&P fixtures, accessories, royalties, taxes, watch and ward and all others essential elements for completion of the work, nothing extra shall be payable.
13. Planning, Designing and const. of boundary walls, for work area, M.S. gates, wicket gates, dustbins, sign boards, guide maps, location boards, direction boards, numbering of houses etc. all complete as per the drawing approved and direction of the Engineer-in-charge.
14. Setting up a testing laboratory at site equipped with the apparatus needed for spot testing during construction & after wards as directed by the Engineer-in-charge.
15. Taking all precautionary measures to safeguard against any accidents for the contractor's employees labour, general public, and supervisory staff of DDA by providing all necessary safety equipment, helmets etc. at work site.
16. It also includes maintenance, cleaning, desilting drains, pipe lines laid by the agency etc. all work executed by the agency to the entire satisfaction of the Engineer-in-charge till the work is handed over to DDA. All plants equipment and labour for this purpose shall be arranged by contractors for the same.
17. Contractor shall construct and provide necessary furniture and facilities and maintain site office for the use of DDA staff within works area as directed by the Engineer-in-charge.
18. The contractor shall submit the schedule of quantities of items, detailed measurements and their specifications as finally approved for execution(four sets) within six months from the date of start for official use.
19. The details as above is only indicative and not exhaustive. In addition to the above the contractor shall be responsible for executing all the items required for completing the houses in all respect to make the dwelling units habitable and ready for occupation and also all services, make the environment fit for habitation with electrical, horticultural, rain water harvesting works complete as per direction of Engineer-in-Charge.

A.....

C.....

D.....

OW

Development/ Architectural Controls/Norms

The available site consists of 2.40 Hect. and shall accommodate 760 dwelling units. Development control norms are mentioned below:

1. Ground Coverage. 33%
2. FAR (Max.perm). 167
3. Size of Unit 38-42 sq.mt.(all inclusive)consisting of 2 rooms, kitchen, bath and WC as per BBL norms and an outdoor balcony of 1x2 mt. for outdoor sittings.
4. Pattern of Units Ground+ 4 storeyed having maximum 15mt. height and provision of lift by allottees if required in future.
5. Density 300 DUs/Hect.(Min).
6. Parking 1.33 ECS/100 sq.mt.
7. Set backs As per MPD Norms.
8. Other norms: As applied to CGHS by Building Deptt. for each unit of 500 DUs(approx) as mentioned below:

Minimum Setbacks:-

The provision of minimum setbacks for different sizes of plots for all categories shall be as per the following table unless otherwise prescribed.

S.No.	Plot Size(in sqm)	Min.Setbacks.			
		Front	Rear	Side (1)	Side. (2)
1.	Up to 60	0	0	0	0
2.	Above 60 & upto 150	3	0	0	0
3.	Above 150 and Upto 300	3	3	0	0
4.	Above 300 & Upto 500	3	3	3	0
5.	Above 500 & upto 1000	6	3	3	3
6.	Above 1000 & upto 2000	9	3	3	3
7.	Above 2000 & UPTO 4000	9	6	6	6
8.	Above 4000 & upto 10000	15	6	6	6
9.	Above 10,000	15	9	9	9

A.....
C.....
D.....
OW.....

- i) In case the permissible coverage is not achieved with setbacks, the setbacks of the preceding category may be allowed.
 - ii) In case of residential plots upto 150 sqm. rear setbacks shall be 2mx2m at corner, the open courts of the plots in rear and side to be adjacent.
 - iii) These provisions of setbacks are subjects to requirement of height and ventilation as per building bye-laws.
 - iv) In case of layout is sanctioned with more than the minimum prescribed setbacks, the same shall be followed in sanction of the building plans.
 - v) The authority could relax setbacks in special circumstances.
- | | |
|---|---|
| a) Society Office/Community Hall | 310 sqmt. to be counted in ground coverage and not in FAR. |
| b) Shops | 90 sqm. mt.(to be counted in FAR) |
| c) Chowkidar Hut | 10 sqmt. |
| d) ESS size 10mx8m | Nos. in relation to number of houses as per DVB norms which can be provided in set back line subject to set backs to be provided from the built form of ESS. The building exterior to match with the built form of flats. |
| e) Mandatory provision of Rain Water Harvesting and dual water supply for drinking and non-drinking areas within the sites. | |

A.....
C.....
D.....
OW.....

STRUCTURAL DESIGN CONTROLS

01. All dwelling units shall be constructed with R.C.C. framed construction design.
02. 115 mm thick walls and those above cantilever are to be non-load bearing, which will be constructed after deshuttering the slab above, unless specified otherwise.
03. Projections provided for ornamental effect in elevation shall be suitably anchored back to the main structure.
04. Masonry where supported on cantilevers shall be firmly tied to main structure in accordance with IS-4326-1993.
05. Between adjoining footings at different levels, a clear horizontal distance shall be maintained so that slope of the joining line of footing bed is not steeper than 1 vertical: 2 horizontal. Where required suitable, drop in steps shall be provided in the foundation bed, maintaining a slope not steeper than 1 vertical: 2 horizontal for the cross wall also.
06. Expansion joints are to be provided as per requirements (IS-3414-1986/and IS-4326-1003).

FOR LOAD BEARING MASONRY CONSTRUCTION(where ever required)

07. All the provision of IS-1905-1987 shall be followed.
08. Cement mortar for foundation masonry with bricks 75 class designation shall be minimum 1:6 (1 cement: 6 fine sand) from foundation level to first off-set below plinth).
09. No shuttering shall be provided for the column faces flushing 230 mm thick masonry walls. The walls shall be constructed prior to the casting of the columns, so as to provide proper bond between RCC and masonry.
10. Lintel bands shall be provided in all storeys as per IS-4326-1993.
11. Lintel bands reinforcement shall be continuous through columns, lintels over opening and junctions of walls.
12. Suitable bed blocks shall be provided under the beams.
13. 230mm load bearing brick work in cup board, provided in the rooms, will be stopped at lintel level for casting loft slab over it. Further all brick work shall be continuous from foundation to the terrace level except RCC slabs/lintels mentioned therein.
14. Thickness of walls shall not be reduced for any fixture. In case such recession in masonry is necessary, reinforced cement concrete precast box of suitable shape shall be provided when brick work proceeds.
15. Vertical reinforcement bars at corner & junctions of walls shall be provided at all floors as per IS-4326-1993.
16. Minimum 200mm thick lean concrete shall be provided under masonry wall sections in foundations.

A.....
C.....
D.....
OW.....

FOR R.C.C.WORK

17. All the provisions of IS-456-2000 shall be followed.
18. Unless noted otherwise, all Reinforced Cement concrete in super structure work shall be done in Minimum M-20 design mix concrete as per CPWD specifications 1996 and IS-456-2000.
19. High Yield strength deformed bars conforming to IS-1786-1985 (Grade Fe 415) shall be used.
20. The development length for reinforcement in tension, unless otherwise specified, shall be 47 times the bar diameter for concrete grade M-20 and 40.3 times the bar diameter for the concrete grade M-25.
21. Nominal cover to all steel reinforcement including secondary reinforcement & stirrups, unless shown otherwise in drawings, shall be as follows. These are for fire rating of 1 hour.
 - i) Slab - 20mm
 - ii) Beams - 20mm
 - iii) Columns - 40mm
 - iv) Footings - 50mm.
22. Bearing for the slab shall be for full brick width of the wall/beam.
23. 75mm Minimum thick lean concrete shall be provided under RCC foundation.
24. Unless mentioned otherwise foundation reinforced cement concrete shall be of grade M-25.
25. Ductility reinforcement detailing, for earthquake resistant designs, shall be provided as per IS-12920.
26. Height of the columns pedestal(including depth of the footing) shall be not less than 32.2 larger dia of the columns bar in M-25 grade concrete+ cover to footing.
27. Additional reinforcement be provided around cutouts opening as per SP 34(S&T) 1987.
28. Floor slabs shall be minimum 100mm thick.

MATERIALS

29. Lean concrete shall not be leaner than 1:5:10 (1 cement: 5 sand: 10 graded stone aggregated 40mm n.s.).
30. Use of cinder & brick ballast or concrete with brick aggregate for filling in depressed portion of toilets/kitchen slabs shall not be permitted.

LIST OF INDIAN STANDARD/GUIDELINES FOR HAZARD SAFETY.

For Earthquake Protection.

1. IS: 1893-1984 "Criteria for Earthquake Resistant Design of Structures (Fourth Revision)" June 1986.
2. IS : 13920-1993 "Ductile Detailing of Reinforced Concrete Structures subjected to Seismic Forces Code of Practice" November 1993.
3. IS: 4326-1993 "Earthquake Resistant Design and Construction of Building – Code of Practice (Second Revision)" October-1993.
 - A.....
 - C.....
 - D.....
 - OW.....

SALIENT FEATURES OF THE SITE

The site for this housing project is situated in Sector-14, Dwarka, Phase-II.

It consists of 2.4 hecets of land free of encroachment and there is no hindrance to execute the work.

It is bounded by :

South : Site for 66 KV ESS
North : Unauthorised Colony & DIT
East : DDA Housing Sector-13
West : Unauthorised Colony

The site plan indicating the surrounding roads, only the peripheral services like storm water drains peripheral sewer lines, peripheral water supply lines and nearest electrical lines will be supplied at the time of award of work. All services will be available on peripheral roads bounding the Pocket so the invert level, cross section of storm water drains, dia meter of sewer lines, size of water supply lines and water head available in water supply lines will be available at that time.

The nearest bench mark for the levels is located at culvert of Mundka minor marked on plan. The contractor shall fix a permanent bench mark at the site of work. A tentative soil investigation report is attached which is just an indicative. The contractor shall have to get the detailed soil investigation done at his own cost. A provisional plinth level for the buildings in this pocket shall be

However final plinth level will be decided soon after actual start of work at site. At few spot levels of the site have also been marked on the plan. These data is for general guidelines. Changes if any would not effect the agreed rates and no claim on this account shall be entertained.

A.....
C.....
D.....
OW.....

DELHI DEVELOPMENT AUTHORITY

INVITATION TO TECHNICAL/FINANCIAL BID

Sealed tenders are invited on Turnkey Basis in two parts i.e. technical bid and financial bid, in separate sealed covers for the following work from firms/contractors who fulfill the following conditions, upto 3.00 P.M. on the date indicated below. Technical bid shall be opened on the same day at 3.30 P.M. at Vikas Minar, DDA Office, New Delhi.

S.No.	Name of work	Area in Hect.	Estimated cost. Earnest Money	Period of completion Cost of tender	Last date of sale Date of opening
1.	C/o LIG Houses on Turnkey project at Sector-14 Dwarka Ph.II (Balance work). R/F M/s V.R.M. (India)Ltd.	2.4	Rs.12,18,15,106/- Rs.10,00,000/-	20Months. Rs.10,000/-	

2. Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures not accepted.
 - a) Should have satisfactory completed three works of multi storeyed building with or without basement (at least one of them in Central Government/Central Autonomous body/Central PSU) each costing 40% of estimated cost or two works each costing 50% of the estimated cost or one work costing 80% of the estimated cost of the above nature during the last seven years ending last day of the month i.e. 31st March 2007.
 - b) Should have had average annual financial turn over of construction work of at least 30% of estimated cost put to tender during the last three years ending 31st March, 2007.
 - c) Should not have incurred any loss in more than two years during the last five years ending 31st March, 2007.
 - d) Should submit a bank solvency certificate of 40% of estimated cost but not less than 5.00 crores.
3. Tenders documents can be obtained on payment of cost of tender Rs.10,000/- (non-refundable) on production of valid Certificate of Registration with Work Contract Cell, Sales Tax Department/VAT Deptt. of GNCTD Delhi and the Tax Clearance Certificate in form - XI, from Sr. A.O.(CAU)DWK, DDA, Centralised Tender Office at Vikas Minar and Divisional Office.

A.....
C.....
D.....
OW.....

4. The Earnest Money shall be deposited along with the tenders in the appropriate form as given in PWD-6 attached with the tender documents. Tender of the contractors who do not enclose earnest money in the prescribed manner shall be summarily rejected.
5. If any information furnished by the applicant is found incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of work in DDA. The department reserves the right to verify the particulars furnished by the applicant independently.
6. The cost of respective works completed by an Agency shall be suitably enhanced @ 5% for each subsequent year following the financial year in which that particular work had been completed to bring it at par with the present cost. Enhancement on similar lines shall also be effected in respect of Turnover of the Agencies.
7. The contractor should also enclose other documents like valid ITCC, enlistment registration certificate/valid registration with works contract cell of Sale Tax Deptt. of GNCTD and Tax Clearance certificate issued by work contract cell GNCT Delhi in form XI etc. while submitting application for tender form.
8. Earnest money amounting to Rs.10,00,000/- in the shape of demand draft/call deposit receipt of FDR of a scheduled bank guaranteed by Reserve Bank of India must be placed in sealed envelope 'A' alongwith other document required for technical bid. The FDR should be valid for a period of one year or more after last date of sale of tender and the same should be pledged in favour of the 'Sr. Accounts Officer CAU(Dwarka)Zone. No interest shall be paid on Earnest money so deposited with DDA.
9. Cess under the provision of Building and other construction workers' (RE & CS) Act,1996 and the Building and Other Constructions Workers' Welfare Cess Act 1996 @1% of the cost of construction/project shall be deducted at source from the bill paid to the contractor.

NOT TO BE PUBLISHED

A.....
C.....
D.....
OW.....

SECTION-1

BRIEF PARTICULARS OF THE WORK

1. Salient details of work for which Technical bid applications are invited are as under:-

S.No.	Name of work	Area in Hect.	Estimated cost. Earnest Money	Earnest Money	Period of completion Cost of tender	Last d sale Date o openin
1.	CC/o LIG Houses on Turnkey project at Sector-14 Dwarka Ph.II (Balance work). R/F M/s V.R.M. (India)Ltd.	2.4	Rs.12.18,15,106/- Rs.10,00,000/-	Rs.10,00,000/-	20Months. Rs.10,000/-	

2. The work is situated in Dwarka, New Delhi-110075.

3. General features and major components of the work are as under:-

- (i) R.C.C.
- (ii) Brick work
- (iii) Internal & external water supply, sewerage, roads, Horticulture operations and drainage system.
- (iv) Internal Electrical L.T. cable, Poles, D.G. Set Pump etc.
- (v) Fire Fighting arrangements.
- (v) Under Ground Tank(Design & Drawing).
- (vi) Horticulture work including land scaping.
- (vii) Community Hall & Shopping Center.
- (viii) Fire Fighting arrangements.

4. The work shall be executed on the Turnkey basis. DDA shall provide requisite semi developed land with semi built up houses on as is where is basis. Intending tenderers/Bidders have to provide development plan of land if required. The Architectural, structural & service designs and drawings if required, will have to be provided. All designs & drawings shall be got approved from DDA and other respective agencies by the Bidder. If any change in already approved drawings is required, it will be the job of bidder. (The copy of the drawing enclosed).

5. The houses would be required to be completed in all respects in a period of 20 months.

A.....
C.....
D.....
OW.....

6. The firms/contractors should possess adequate financial & technical resources to design and execute the work including related developmental works, services, internal/external electrification and landscaping works etc. The entire construction materials including cement, steel, pipe etc. shall have to be arranged by the firms/contractors at their own cost.
7. The works are to be carried out with best quality, using latest technology with maximum use of machinery.
8. The works will be awarded on lump sum cost basis and payments will be made at various stages of construction as specified in the tender papers.
9. Work shall be executed according to General/Special conditions of Contract/Modified additional conditions for DDA works, latest CPWD specification relevant & prevalent IS code.

SECTION -II

- 1.0 General:
- 1.1 Letter of transmittal and forms for pre-qualification are given in Section-III.
- 1.2 ALL INFORMATION CALLED FOR IN THE ENCLOSED FORMS SHOULD BE FURNISHED AGAINST THE RELEVANT COLUMNS IN THE FORMS. IF FOR ANY REASONS, INFORMATION IS FURNISHED ON SEPARATE SHEET, THIS FACTOR SHOULD BE MENTIONED AGAINST THE RELEVANT COLUMN. EVEN IF NO INFORMATION IS TO BE PROVIDED IN A COLUMN, "NIL" OR "NO SUCH CASE" ENTRY SHOULD BE MADE IN THAT COLUMN. IF ANY PARTICULAR/QUERY IS NOT APPLICABLE IN CASE OF THE APPLICANT, IT SHOULD BE STATED AS "NOT APPLICABLE". THE APPLICANTS ARE CAUTIONED THAT NOT GIVING COMPLETE INFORMATION CALLED FOR IN THE APPLICATION FORMS OR NOT GIVING IT IN CLEAR TERMS OR MAKING ANY CHANGE IN THE PRESCRIBED FORMS OR DELIBERATELY SUPPRESSING THE INFORMATION, MAY RESULT THE APPLICANT BEING SUMMARILY DISQUALIFIED. APPLICATIONS MADE BY TELEGRAM OR TELEX AND THOSE RECEIVED LATE WILL NOT BE ENTERTAINED.
- 1.3 The application should be type-written. The applicant should sign each page of the application.
- 1.4 overwriting should be avoided. Correction, if any, should be made by neatly crossing out, initials, dating and rewriting. Pages of the pre-qualification document are numbered. Additional sheets, if any, added by the contractor should also be numbered by him. They should be submitted as a package with signed letter of transmittal.
- 1.5 References, information and certificate from the respective clients certifying suitability, technical know how or capability of the applicant should be signed by an officer not below the rank of Superintending Engineer/Chief Project Manager or equivalent.

A.....
C.....
D.....
OW.....

- 1.6 The applicant is advised to attach any additional information which he thinks it necessary with regards to his capabilities to establish that the applicant is capable in all respects to successfully complete the envisaged work. He is, however, advised not to attach superfluous information. No further information will be entertained after Technical Bid document is submitted, unless it is called for by the DDA. The technical Bid document is prescribed form duly completed and signed shall be submitted in a sealed cover. The sealed cover super-scribed Technical Bid document for construction of LIG Houses on Turnkey basis at Sector-14, Dwarka, Ph.II(Balance work) at the risk & cost of M/s VRM(India) Ltd., can be put in the tender box at the Centralized Tender office at Vikas Minar, New Delhi, up to 3.00 P.M. dated _____ submitted in connection with Technical Bid will be treated confidential and will not be returned.
- 1.7 Any information furnished by the applicant found to be incorrect, either immediately or at a later date, would render him liable to be debarred from tendering/taking up of work in DDA. If such applicant happens to be enlisted contractor of any class in DDA, his name shall also be removed from the approved list of contractors.
- 1.9 Prospective applicants may request clarification of the project requirements and technical bid documents. Any clarification given by the Employer will be forwarded to all those who have purchased the technical bid document. No request for clarification will be considered later on.
- 2.0 **DEFINITION:**
- 2.1 In this document the following words and expressions have the meaning hereby assigned to them.
- 2.2 Employer means DDA acting through the Executive Engineer, SWD-6.
- 2.3 Applicant: Means the individual, proprietary firm in partnership limited company, private or public or corporation.
- 2.4 "Year" means "Financial Year" unless stated otherwise:
- 3.0 **METHOD OF APPLICATION:**
- 3.1 If the applicant is an individual, the application shall be signed by him above his full typewritten name and current address.
- 3.2 If the applicant is a proprietary firm, the application shall be signed by the proprietor above his full typewritten name and the full name of his firm with its current address.
- 3.3 If the application is made by firm in partnership, it shall be signed by all the partners of the firm above their full typewritten names and current address or alternatively by a partner holding power of attorney for the firm. In such case a certified copy of the power of attorney, should accompany the application. A certified copy of the partnership deed and current address of all the partners of the firm shall also accompany the application.

A.....
C.....
D.....
OW.....

- 3.4 If the application is made by a limited company or a corporation, it shall be signed by a duly authorized person holding power of attorney for signing the application in this case a certified copy of the power of attorney shall accompany the application. Such limited company or corporation may be required to furnish satisfactory evidence of its existence before the Technical Bid application is filed.

4.0 FINAL DECISION MAKING AUTHORITY

The employer reserves the right to accept or reject any application and to annul the Technical Bid process and reject all applications at anytime without thereby incurring any liability to the affected applicants or specifying the grounds for the Employer's action.

5.0 SITE VISIT.

The applicant is advised to visit and examine the site of work and its surroundings and obtain for himself at his own responsibility all information that may be necessary for preparing the Technical Bid application. The cost of visiting the site shall be at applicant's expense.

6.0 INITIAL CRITERIA FOR ELIGIBILITY FOR TECHNICAL BID.

6.1 Should have satisfactorily completed three works of multi-storeyed building with or without basement (at least one of them in Central Government/Central Autonomous Body/Central PSU) each costing 40% of the estimated cost or two works each costing 50% of the estimated cost of one work costing 80% of the estimated cost of the above nature during the last seven years ending last day of the month i.e. 31st March, 2007 of this purpose cost of work shall mean gross value of the completed work including the cost of materials supplied by the Govt./Client, but excluding those supplied free of cost. This should be certified by an office not below the rank of Superintending Engineer, Chief Project Manager or equivalent.

6.2 Should have had average annual financial turn over on construction work of at least 30% of estimated cost put to tender on construction works during the last three years ending 31st March, 2007.

6.3 Should not have incurred any loss in more than two years during the last five years ending 31st March, 2007.

6.4 The bidding capacity of the contractor should be equal to or more than the cost of the work. The bidding capacity shall be worked out by the following formula:

$$\text{Bidding capacity} = A \cdot N^2 - B$$

Where

A= Maximum, value of construction works executed in any one year during the last seven years taking into account the completed as well as works in progress

N= Number of years prescribed for completion of work for which pre-qualification application has been invited.

B= Value of existing commitments and on going works to be completed during the period of completion of work for which pre-qualification has been invited.

A.....
C.....
D.....
OW

6.5 Should submit a bank solvency certificate of 40% of estimated cost but not less than 5.00 crores.

6.6 The applicant should own construction equipment as per list required for the proper and timely execution of the work. Else, he should certify that he would be able to manage the equipment by hiring etc. and submit the list of firms from whom he proposes to hire.

6.7 The applicant should have sufficient number of Technical and Administrative employees for the proper execution of the contract. The applicant should submit a list of these employees stating clearly how these would be involved in this work.

6.8 The applicant's performance for each work completed in the last seven years and in hand should be certified by an officer not below the rank of Executive Engineer or equivalent and should be obtained in sealed cover.

6.9 The cost of the respective works completed by an Agency shall be suitably enhanced @ 5% for each subsequent year following the financial year in which that particular work had been completed to bring it at par with the present cost enhancement on similar lines shall also be effected in respect of turnover of the Agencies.

7.0 EVALUATION CRITERIA FOR TECHNICAL.BID.

7.1 For the purpose of Technical bid, applicants will be evaluated in the following manner:-

7.1.1 The initial criteria prescribed in para 6.1 to 6.9 above in respect of experience of similar class of works completed, bidding capacity and financial turnover etc. will be scrutinized and the applicant's eligibility for Technical bid for the work be determined.

7.1.2 The applicants qualifying the initial criteria as set out in 6.1 to 6.9 above will be evaluated for following criteria by scoring method on the basis of details furnished by them.

a)	Financial Strength (Form 'A')	Maximum 20 Marks
b)	Experience in similar nature of works during last seven years(Form 'B')	Maximum 20 Marks
c)	Performance on works(Form 'D')	Maximum 40 Marks
d)	Personnel and Establishment (Form 'E' & 'E-I)	Maximum 10 Marks
e)	Plant Equipment (Form 'F')	Maximum 10 Marks

Total 100 Marks

A.....
C.....
D.....
OW.....

7.1.3 To pre-qualify, the applicant must secure at least sixty percent marks in criteria (a) & (b) above (i.e. Financial Strength & Experience in works of similar nature) fifty percent marks in each of the other criteria and seventy percent marks in aggregate. The department, however, reserve the right to restrict the list of Technical bid qualified contractors to any number deemed suitable by it.

7.2 Even though an applicant may satisfy the above requirements, they are subject to be qualified if they have:

a) Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosure required in the pre-qualification document.

b) Record of poor performance such as abandoning work not properly completing the Contract poor quality of work or financial failures/weaknesses etc.

8.0 FINANCIAL INFORMATION:

Applicant should furnish the following financial information:

a) Annual financial statement for the last five years (in Form "A"). These should be supported by audited balance sheets and profit and loss accounts duly certified by a Chartered Accountant, as submitted by the applicant to the Income Tax Department.

b) Name and address of the banker's identification of individuals familiar with the applicant's financial standing and a banker's statement on availability of credit.

9.0 EXPERIENCE IN WORKS HIGHLIGHTING EXPERIENCE IN SIMILAR WORKS:

9.1 Applicant should furnish the following:

a) List of all works of similar class successfully completed during the last seven years (in Form "B")

b) List of the projects under execution or awarded (in Form "C").

9.2 Particulars of completed works and performance of the applicant duly authenticated/certified by an officer not below the rank of Superintending Engineer/Chief Manager or equivalent should be furnished separately for each work completed or in progress (in Form "D").

10.0 ORGANISATION INFORMATION:

IN APPLICANT IS REQUIRED TO SUBMIT THE FOLLOWING INFORMATION IN RESPECT OF HIS ORGANISATION (IN FORM "E" & "E-I").

a) Name & Postal Address i.e. Telephone & Telex Number etc.

b) Copies of original documents defining the legal status, place of Registration and principal places of business.

A.....
C.....
D.....
OW.....

- c) Names & Title of Directors and Officers to be concerned with the work with designation of individuals authorized to act for the organization.
- d) Information on any litigation in which the applicant was involved during the last five years, including any current litigation.
- e) Authorization for employer to seek detailed references.
- f) Number of Technical & Administrative Employees in parent company, subsidiary company and how these would be involved in this work (in Form "E-1").
- g) E Mail ID

11.0 CONSTRUCTION PLANT & EQUIPMENT:

Applicant should furnish the list of construction plant and equipment including steel centering shuttering and scaffolding likely to be used in carrying out the work (in Form "F").

Details of any other plant & equipment with applicant may also be indicated.

12.0 LETTER OF TRANSMITTAL:

The applicant should submit the letter of transmittal attached with Technical Bid documents.

13.0 FINANCIAL BID:

After evaluation of Technical Bid applications, a list of qualified agencies will be prepared. Thereafter, only those agencies who qualify in the Technical Bid, their Financial Bid will be opened at 11.00 A.M. on _____ (date to be intimated separately).

14.0 AWARD CRITERIA:

14.1 The Employer reserves the right to:

- a) Amend the scope and value of contract to the bidder.
- b) Reject any or all the bids without assigning any reason.

14.2 For any of the above actions, the Employer shall neither be liable for any damages nor be under any obligation to inform the applicants of the grounds for the same.

14.3 Any efforts on the part of the applicant or his agent to exercise influence or to pressurize the employer would result in rejection of his application. Canvassing of any kind is prohibited.

A.....
C.....
D.....
OW.....

SECTION-II

LETTER OF TRANSMITTAL

From:

To

The Executive Engineer,
SWD-6, DDA, Central Nursery,
Sector-5, Dwarka,
New Delhi.

Sub: C/o LIG Houses on turnkey project at Sector-14 Dwarka, Ph.II.

Sir,

Having examined the details given in Press-Notice for Technical Bid and Financial Bid documents for the above work, we hereby submit our bids in separate sealed cover.

2. I/We submit the following certificate in support of our suitability, technical know how and capability for having successfully completed the following works:-

Name of Work:

Certificate from:

1.

1.

2.

2.

3.

3.

Enclosures:

Seal of applicant

Date of submission

Signature of Applicant(s)

A.....
C.....
D.....
OW.....

FORM 'A'

FINANCIAL INFORMATION

1. Financial analysis. Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last five years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (copies to be attached).

02-03	03-04	04-05	05-06	06-07

i) Gross Annual turnover on construction works

ii) Profit/Loss

iii) Financial Position :

- a) Cash
- b) Current Assets.
- c) Current Liabilities
- d) Working capital(b-c)
- e) Current Ratio :
Current Assets/
Current Liabilities (b/c)
- f) Acid Test Ratio

Quick Assets/Current
Liabilities A/c

iv) Current Income Tax Clearance
Certificate

v) Solvency Certificate from Bankers of
Applicant

vi) Financial arrangements for carrying
out the proposed work

Signature of Chartered Account with Seal

Signature of applicant(s)

A.....
C.....
D.....
OW.....

FORM 'B'

DETAILS OF ALL WORKS SIMILAR CLASS COMPLETED DURING THE LAST SEVEN YEARS
ENDING LAST DAY OF THE MONTH

S. No.	Name of Work/Proj. and Location	Owner of Sponsoring organization	Cost of work in Crores	Date of Commence ment as per contract	Stipulated date of completion	Actual date of completion	Litigation/ arbitration pending/ in progress with details*	Name of Address/ telephone of officer to whom reference may be made	Remarks
1.	2.	3.	4.	5.	6.	7.	8.	9.	10

*Indicate gross amount claimed and amount awarded by the Abridrator.

A.....
C.....
D.....
OW.....

SIGNATURE OF APPLICANTS (S)

FORM 'C'

PROJECT UNDER EXECUTION OF AWARDED

S. No.	Name of Work/Proj. and Location	Owner of Sponsoring organization	Cost of work in Crores	Date of Commence ment as per contract	Stipulated date of completion	Upto date percentage of progress of work	Slow progress if any & reasons thereof	Name of Address/ telephone of officer to whom reference may be made	Remarks
1.	2.	3.	4.	5.	6.	7.	8.	9.	10

A.....
C.....
D.....
OW.....

SIGNATURE OF APPLICANTS (S)

PERFORMANCE REPORT OF WORKS REFERRED TO IN
FORM 'B' & 'C'

1. Name of work/project & location
2. Agreement No.
3. Estimated Cost.
4. Tendered Cost.
5. Date of Start
6. Date of completion
 - a) Stipulated date of completion
 - b) Actual date of completion.
7. Amount of compensation levied for delayed completion if any,
8. Amount and reduced rate item if any.
9. Performance report
 - i) Quality of work Very Good / good / Fair / Poor
 - ii) Financial Soundness Very Good / good / Fair / Poor
 - iii) Technical proficiency Very Good / good / Fair / Poor
 - iv) Resourcefulness Very Good / good / Fair / Poor
 - v) General Behavior Very Good / good / Fair / Poor

Date :

**SUPERINTENDING ENGINEER/
CHIEF ENGINEER MANAGER
OR EQUIVALENT**

A.....
C.....
D.....
OW.....

FORM 'E'
STRUCTURE & ORGANISATION

1. Name & Address of the Applicant
2. Telephone No./Telex No./Fax No.
3. Legal status of the applicant (attach copies of original document defining the legal status(s),
 - a) An individual
 - b) A proprietary firm
 - c) A Firm in partnership
 - d) A Limited Company or Corporation
4. Particulars of Registration with various government boodies (attach attested photocopy)
 - a) Registration Number
 - b) Organisation / place of Registration.
5. Names and Titles of Directors & officers with designation to be concerned with this work with designation of individual authorized to act for the organization.
6. Designation of individuals authorized to act for the organization.
7. Where you ever required to suspend construction for a period of more than six months continuously after you commenced the construction? If so, give the name of the project and give reasons thereof.
8. Have you or your constituent partner ever left the work awarded to you incomplete? (If so, give name of the project and given reasons for not completing the work.
9. Has the applicant, or any constituent partner in case of partnership firm, ever been convicted by court of law? If so, give details.
10. Have you or your constituent partner been debarred/black listed for tendering in any organisation at any time? If so, give details.
11. In which field of Civil Engineering construction, you claim specialisation and interest.
12. Any other information considered necessary but not included above.

SIGNATURE OF APPLICANT(S)

A.....
C.....
D.....
OW.....

DETAILS OF TECHNICAL AND ADMINISTRATIVE PERSONNEL TO BE EMPLOYED FOR THE WORK

S. No.	Designation	Total number	Number available for this work	Name	Qualification	Professional experience of details of work carried out	How these would be involved in this work	Remarks
1.	2.	3.	4.	5.	6.	7.	8.	9.

A.....
C.....
D.....
OW.....

SIGNATURE OF APPLICANTS (S)

DETAILS OF CONSTRUCTION PLANT & EQUIPMENT LIKELY TO BE
USED IN CARRYING OUT THE WORK

S. No.	Name of equipment	Nos.	Capacity or type	Age	Condition	Ownership Status			Current Location	Remarks
						Presently Owned	Leased	To be purchased		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
A.	Earth moving Equipment 1. Excavators (Various sizes)									
B.	Equipment for Housing and Lifting 1. Tower Crane 2. Building Hoist									
C.	Equipment for Concrete work									
	1. Concrete batching plant.									
	2. Concrete pump									
	3. Concrete Transit mixer									
	4. Concrete mixer (Diesel)									
	5. Concrete mixer (electrical)									
	6. Needle vibrator (electrical)									
	7. Needle Vibrator (petrol)									
	8. Tube Vibrator (Electrical/Petrol)									

A.....
C.....
D.....
OW.....

S. No.	Name of equipment	Nos.	Capacity or type	Age	Condition	Ownership Status		
						Presently Owned	Leased	To be purchased
1.	2.	3.	4.	5.	6.	7.	8.	9.
D.	Equipment for Building work							
	1. Block making machine							
	2. Bar, Bending Machine							
	3. Bar, Cutting Machine							
	4. Wood Thickness Planner							
	5. Drilling Machine							
	6. Circular Saw Machine							
	7. Welding Generators							
	8. welding Transformers							
	9. Cube testing Machine							
	10. M.S. Pipes							
	11. Steel Shuttering							
	12. Steel Scaffolding							
	13. Grinding/Polishing Machine.							
E.	Equipment for Road work							
	1. Road rollers							
	2. Bitumen paver finishers							
	3. Hot Mix Plant							

A.....
C.....
D.....
CMV

S. No.	Name of equipment	Nos.	Capacity or type	Age	Condition	Ownership Status		
						Presently Owned	Leased	To be purchased
1.	2.	3.	4.	5.	6.	7.	8.	9.
	4. Spreaders							
	5. Earth Rammers							
	6. Vibratory Road Roller							
F.	Equipment for Transportation							
	1. Tippers							
	2. Trucks							
G.	Pneumatic Equipment							
	1. Air compressor (Diesel)							
H.	Dewatering Equipment							
	1. Pump Dewatering (Diesel)							
	2. Pump Dewatering (Electrical)							
I.	Power Equipment							
	1. Diesel Generators							
J.	Any other Plant/Equipment							
	1.							
	2.							

SIGNATURE OF APPLICANTS (S)

A.....
C.....
D.....
OW.....

**CRITERIA FOR EVALUATION OF THE PERFORMANCE OF
CONTRACTORS FOR TECHNICAL BID (NOT TO BE MADE AS
PART OF TECHNICAL BID DOCUMENT)**

Attributes				Evaluation
A.	Financial Strength	-20 marks	(i)	60% marks for minimum eligibility criteria
	(i) Average annual turn over	-12 marks	(ii)	100% marks for twice the minimum eligibility criteria or more
	(ii) Solvency Certificate	- 8 marks		In between (i) & (ii) –or pro-rate basis
B.	Experience in similar class Of work	- 20 marks	(i)	60% marks for minimum eligibility criteria
			(ii)	100% marks for twice the minimum eligibility criteria or more
				In between (i) & (ii) –or pro-rate basis

C. Performance on works (40 marks)

Parameter	Calculation	Score	Maximum marks	
	For points		25	
1.	Time Over Run (TOR)			
	If TOR	1.00	2.00	3.00 > 3.50
(a)	Without levy of compensation		25	20 10 0
(b)	With levy of compensation	25	10	05 0
(c)	Levy of compensation not decided	25	15	05 0

TOR = AT/ST, where AT = Actual Time; ST = Stipulated Time.

Note : marks for value in between the stages indicated above is to be determined by straight line verification basis.

2. Quality

(i)	Very	15	15
(ii)	Good	10	
(iii)	Fair	05	
(iv)	Poor	0	

A.....
C.....
D.....
OW.....

Personnel & Establishment (Max. 10 Marks)

- | | | |
|-------|-------------------------|------------------------------------|
| (i) | Graduate Engineer | 3 Marks for each |
| (ii) | Diploma holder Engineer | 2 marks for each upto max. 4 marks |
| (iii) | Supervisory/Foreman | 1 mark for each upto max. 5 marks |

Plant & Equipment (Max. 10 Marks)

- | | | |
|-------|-------------------------------|--|
| (i) | Batching Plant | 2 Marks |
| (ii) | Transit Mixer & Concrete PUMP | 2 Marks |
| (iii) | Trucks/Tippers | 2 Mark for each upto max. 4 marks |
| (iv) | Steel Shuttering | 2 Marks for each upto 800 sqm. |
| (v) | Special Equipment | 2 Marks (to be fixed as per requirement & the type of equipment to be decided by C.E.) |

A.....
C.....
D.....
OW.....

P.W.D. 6
DELHI DEVELOPMENT AUTHORITY
NOTICE INVITING TENDER
DIVISION SWD-6

1. Tenders on turnkey basis in the prescribed form are hereby invited on behalf of Delhi Development Authority for Construction of LIG Houses (Balance work) at Sector-14, Dwarka, Phase-II.

2. The Contract documents alongwith the proposed site plan for the work, its area location with its boundary dimensions, copy of architectural control preliminary soil investigation report of the referred site and any other document can be seen/purchased at the divisional office between 10:00 A.M. to 3:00 P.M. on any working day (except second Saturday, Sunday and public holidays).

2(A) The site for the work as per enclosed plan is available.

3. (i) The tenders and other documents shall be placed in two separately sealed covers to be issued by the Divisional Officer marked 'A' (Technical bid), containing all documents/information as per annexure details at page 5, 6 of the tender documents. 'B' as (price bid) duly superscribe the name of work, date of opening and name of contractor to whom the tender documents are sold. These tenders can be submitted by the contractor in the office of the Divisional Engineer upto seven days in advance excluding date of opening from 10:00 A.M. to 5:00 P.M. during working days except on the date of opening when it will be upto 3:00 P.M. only and received at Project Office, Manglapuri, Conference Room.

(ii) The envelop 'A' (Technical Bid) shall only be opened by the concerned Divisional Officer on the date fixed at 3:30 P.M. at Conference Room situated at Project Office, Manglapuri. The envelop 'B' (price bid) shall remain sealed and shall be open on a subsequent time and date which will be intimated separately. The contractor or one of their authorized representative having proper authority on letter head of the contractor will be allowed into the premises where tenders will be opened.

(iii) The Technical bid will first be scrutinized and approved with changes if any, and will be intimated to the respective tenderer with in a month from the date of receipts of tender. For execution of work as per approved changes the concerned tenderer will be asked to submit corresponding increase (or) decrease over their price bid with in fifteen days from the date of issue of letter. This increase (or) decrease will be submitted in a sealed envelop marked 'C' on time, date and place duly specified by Divisional Officer. Envelop 'B' & 'C' (if any) will be opened together on date, time and place specified by Divisional Engineer in the presence of tenderers of their authorised representative. The documents submitted in envelop 'A' i.e. Technical bid will be the sole property of the DDA.

A.....
C.....
D.....
OW.....

4. The tender documents are to be on PWD Form No. 12 which can be obtained from the office of Divisional Officer on payment of a sum of Rs.10,000/- in cash deposited with Sr. A.O. CAU (Dwarka) or demand draft of a scheduled bank guaranteed by Reserve Bank of India. The time allowed for carrying out the work will be 20 months from the 15th day after the date of written orders to commence the work.
5. The issue of tender form will be stopped. On _____ the Pre-bid conference will be held on _____ the last date of receipt of tenders is _____ upto 3:00 P.M.
6. When a contractor signs the tendered document in an Indian language the total amount tendered for the work should also be written in the same language. In case of a illiterate contractor the amount tendered should be attested by a witness.
7. Earnest money amounting to Rs.10,00,000/- in the shape of demand draft/call deposit receipt or FDR of a scheduled bank guaranteed by Reserve Bank of India must be placed in sealed envelop 'A' alongwith other document required for technical bid. The FDR should be valid for a period of one year or more after last date of sale of tender and the same should be pledged in favour of the 'Sr. Accounts Officer CAU (Dwarka) zone. No interest shall be paid on Earnest Money so deposited with DDA.
8. The contractor whose tender is accepted shall execute an agreement on Rs.50/- (non-judicial) Stamp Paper reiterating his acceptance for the execution of work on the amount and condition as set in the contract documents.
9. The contractor whose tender is accepted will be required to furnish by way of security deposit for the due fulfillment of his contract at uniform rate of 5% of the value of work done subject to a maximum of Rs.1,00,00,000/- (One Crore only).
The security deposit will be collected by deductions from each Running Bill of the contractors at the rate mentioned above and their earnest money, if deposited in Cash/bank draft at the time of tender will be treated as a part of security deposit.
10. The acceptance of tender will rest with the Works Advisory Board DDA who reserves themselves, the authority to reject any or all the tenders without assigning any reason. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected.
11. Canvassing in connection with the tender is strictly prohibited and tenders submitted by the contractor, who resorts to canvassing will be liable to be rejected and his earnest money shall be absolutely forfeited.

A.....
C.....
D.....
OW.....

12. The amount quoted on the proper form should be written in figures as well as in words.
- 12(a) Special care should be taken to write the amount in figures as well as in words. In case of figure the word Rupees should be written for the figure of Rs. _____ and 'P' _____ after the decimal figure i.e. Rs. 2.15 p and in case of word, the word Rupees should proceed and word Paisa should be written at the end. The rate in whole rupee should be followed by the word 'only' and it should invariably be in two decimal places so that interpolation is not possible.
13. It may please be carefully noted that no conditions whatsoever (beyond what are contained in the tender documents) shall be accepted by the Deptt. and the contractor are strictly prohibited from giving conditional tenders. If any contractor is not prepared to execute the work at the terms & conditions contained in the tender documents, he is requested not to submit for this work. It may be noted that if any contractor choses to submit conditional tenders, inspite of the clear directions given above, his tender shall be liable to be rejected summarily and his full earnest money shall stand forfeited. He will also be liable for being debarred from tendering in DDA for future work.
14. Payment to the contractor will be made stagewise as per schedule attached with the tendered documents. The monthly payment of the contractor will be made only when the gross amount of the work done during the previous months is not less than Rs. 50 lacs.
15. On acceptance of the tender, the name of the accredited representative of the contractor who will be responsible for taking instructions from the Divisional Officer shall be communicated to the Divisional Officer in writing.
16. Sale Tax/Works Contract Tax or any other tax on material in respect of this contract shall be payable by the contractor and DDA will not entertain any claim whatsoever, in this respect.
17. The contractor must place income tax clearance certificate on the revised form notified under OM No. 17829/55(i)86/Coord/dt. 28.7.81 in the envelop 'A' for technical bid.
18. The contractor must also place in envelope A, the valid certificate of registration with work contract cell of Sales Tax department of GNCTD and the tax clearance certificate on form XI (under rule 8(2) of the Delhi Sales Tax of (works contract rule 1999) issued by the said cell.
- 18(a) Cess under the provision of Building and other construction workers' (RE & CS) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act 1996 @1% of the cost of construction/project shall be deducted at source from the bill paid to the contractor.

A.....
C.....
D.....
OW.....

18. A contractor shall not be permitted to tender for works in the DDA zone (responsible for award and execution of contract in which any of his, near relative is posted as divisional accountant or as an officer in any capacity between the grades of C.E. and J.E. (both inclusive). He shall intimate the names of relations if any, who are working as Gr. A, B and C officer in DDA. He shall also intimate the names of the persons who are working with him in any capacity or two subsequently employed by him and who are near relative of any class I or class II officer in the DDA. Any breach of this condition by

the contractor would render him liable to action under Clause 17 of the agreement. In addition he would also be liable to be debarred from tendering in future. The contractor shall also give a list of non-gazetted DDA employees related to him.

19. No engineer of gazetted rank or other gazetted officer employed in Engineering or administrative duties in a engineering department of the Delhi Development Authority is allowed to work as contractor for a period of two years after his retirement from DDA. This contract is liable to be cancelled if either the contractor or any of his employees are found to be such a person who had not obtained the permission of Delhi Development Authority as aforesaid before submission of the tender or engagement in the contractor's services.

20. The technical and financial bid for the work shall remain open for acceptance for a period of 120 days from the date of opening of the tender. If any tenderer withdraws his offer before the said period or makes any modification then DDA shall without prejudice to the other rights or remedy be at liberty to forfeit the amount of the earnest-money absolutely.

21. The tender of the work shall not be witnessed by a contractor or contractors who himself/themselves has/have tendered for the same work. Failure to observe this condition, would render the tender of the contractor tendering for the work and tender of the tenderer witnessing both are liable to be rejected summarily.

23. After evaluation of Technical Bid applications, a list of qualified agencies will be prepared. Thereafter, only those agencies who qualify in the Technical Bid, their Financial Bid will be opened at 11.00 A.M. on _____ (date to be intimated separately).

24. The tender for the above work includes approval of all the balance remaining architectural drawings, structural drawings required for execution and completion of project including the building portion, internal as well as external sanitary water supply, electrification and drainage, roads and path, landscaping including plantation and development of tot lot/park rain harvesting within the area and other works as mentioned in tendered documents.

A.....
C.....
D.....
OW.....

25. All information called for in the enclosed forms should be furnished against the relevant columns in the forms. If for any reasons, information is furnished on separate sheet, this factor should be mentioned against the relevant column. Even if no information is to be provided in a column, "NIL" Or "No such case" entry should be made in that column. If any particular /query is not applicable in case of the applicant, it should be stated as "not applicable". The applicants are cautioned that not giving complete information called for in the application forms or not giving it in clear terms or making any change in the prescribed forms or deliberately suppressing the information, may result the applicant being summarily disqualified. Applications made by telegram or telex and those received late will not be entertained.
26. The tenderer shall inspect the site of work and study the existing position, stage of work alongwith a list of approved drawings as annexed 'E' on page 159 to 160, tendered documents and other conditions before submitting the tender.
27. The tenderer shall engage the services of specialized consultant/agencies required with the planning/execution of the above project after obtaining written permission of the Divisional Officer.
28. At the material required for completion of the project is to be arranged by the contractor except material as Annexed 'X' & 'Y'(Electrical) and no material shall be supplied by the Delhi Development Authority.
29. The contractor whose tender is accepted will be required to furnish the performance bond (unconditional) on Non-Judicial stamp paper of Rs.10/- on the prescribed performa (Annexed with tender document) in the shape of bank guarantee issued by a scheduled bank guaranteed by Reserve Bank of India for an amount equivalent to 5% of the contract value, as a security for compliance of his obligation in accordance with the contract within 15 days from the date of award of the work (Page-45).
30. The contractor will be required to furnish the guarantee bond on prescribed performa (annexed with the tender document) issued by scheduled bank guaranteed by Reserve Bank of India amounting to Rs.50,00,000/- (Rupees Fifty Lacs only) against any damage cause to the structure and against water proof as well as leakages after its completion for three years from the date of completion/taking over, on Non-judicial stamp paper of Rs.10/--(Page-46).

A.....
C.....
D.....
OW.....

31. Technical bid of a tenderer if not found within the specified parameters, mentioned in the tender documents, the price bid i.e. envelope- 'B' of the said tenderer shall not be opened and his offer for this work shall stand rejected. Decision of the Engineer-in-charge in this chapter shall be final and conclusive.

Executive Engineer
Signature of Divisional Officer
South Western Division No. 6
for and on behalf of D.D.A., New Delhi

A.....
C.....
D.....
OW.....

DELHI DEVELOPMENT AUTHORITY

MEMORANDUM

DIVISION : SWD-6

- A) Tender for the work of construction of L.I.G. Houses(Balance work) at Sector-14, Dwarka, Phase-II.
- I. To be submitted upto 3:00 P.M. Hours on _____.
 - II. To be opened in presence of tenderers who may be present at 3:30 P.M. hours on _____ in the conference room situated at Project Office Manglapuri.
 - III. Earnest Money : Rs. 10,00,000/- (Ten Lacs).
 - IV. Security Deposit : 5% of work done subject to maximum of Rs.1,00,00,000/- (Rupees One Crore).
 - V. Time allowed for the work from the 15th day after the date of written order to start the work is 20 months.
 - VI. Issued to _____ (Contractor).

Signature of Officer issuing the documents _____

Designation _____ ~~Executive Engineer~~

Date of Issue _____ South Western Division No. 0
D.D.A., New Delhi

A.....
C.....
D.....
OW.....

TENDER

"I/We hereby tender to the Vice-Chairman, DDA for the execution of the work specified in the under written memorandum. We undertake to execute the work within the specified time for the total sum of Rs. _____ (Rupees _____) and we further undertake that the work shall be executed entirely and in all respects in accordance with the specifications, drawings to be approved at later stage and instructions in writing, which may be issued by the Engineer-in-Charge from time to time for the proper and timely execution/completion of the work.

We further undertake to adhere to all the conditions of the tender as well as of the agreements and we shall be responsible for any violation thereof for which we shall be liable to pay necessary compensation and/or damages, as may be determined by the VC, DDA in his sole discretion."

I/We have read and examined the Notice Inviting Tender, Specifications applicable, General Rules & Directions, Conditions of Contract, additional Clauses of contract, Special Conditions and other documents and Rules referred to in the conditions of contract, and all other referred to in the conditions of contract, and all other contents in the tender documents for the referred work.

We agree to keep the tender open for 120 days from the due date of submission thereof and not to make any modification in its terms & conditions.

A sum of Rs. 10,00,000.00 (Rupees Ten Lacs only) is hereby forwarded in the shape of demand draft/call deposit receipt of a Scheduled Bank guaranteed by the Reserve Bank of India as earnest money. If I/We, fail to commence the work specified, I/We agree that the said Vice Chairman, DDA or his successors in office shall without prejudice to any other right or remedy be at liberty to forfeit the said earnest money absolutely, otherwise, the said earnest money shall be retained by him towards security deposit to execute all the works referred in the tender documents upon the terms and conditions contained or referred to therein.

I/We hereby declare that I/We shall treat the tender documents and other records connected with the work as secret/confidential documents and shall not communicate information or derived therefrom to any person to whom I/We may authorised to communicate the same or use the information in any manner prejudicial to the safety of the DDA.

Dated : _____

Signature of Contractor
Postal Address :

Witness :
Address :
Occupation :

A.....
C.....
D.....
OW.....

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned herein under) is accepted by me for and on behalf of the Vice Chairman, DDA, for a sum of Rs. _____.

The letters referred to below shall form part of this Contract/Agreement.

a.

b.

c.

For & On behalf of Chairman, DDA

Signature : _____

Designation : _____

Date : _____

A.....
C.....
D.....
OW.....

**PROFORMA FOR PERFORMANCE BANK GUARANTEE
(UNCONDITIONAL)**

To, _____ (name of employer)
_____ (address of employer)

WHEREAS _____ (name & address of contractor) (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to executed _____ (name of contract and brief description of work) having contract value of Rs. _____ hereinafter called the contract.

AND WHEREAS it has been stipulated by you in the said contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for an amount equivalent to 5% of contract value i.e. Rs. _____ as security for compliance with his obligations in accordance with the contract.

AND WHEREAS we have agreed to give the contractor such a Bank Guarantee; amounting to Rs. _____.

NOW THEREFORE we hereby affirm that we the Guarantor are responsible to you on behalf of the contractor, upto a total of Rs. _____ (amount of Guarantee) _____ (amount in words) such sum being payable in the types and proportions of currencies in which the contract price is payable and we undertaken to pay you, upon first written demand and without cavil or argument, any sum or sums within the limits of Rs. _____ (amount of Guarantee) as aforesaid without your needing to prove or to show ground or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or modification of the terms of the contract or of the works to be performed thereunder or of any of the contract documents which may be made between you and the contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid upto 365 days from the date of the Taking-Over after completion of project in all respect.

The Bank Guarantee can not be recoverable in any circumstances till it is released by the Engineer-in-Charge.

SIGNATURE AND SEAL OF THE GUARANTOR

NAME OF BANK _____
ADDRESS _____
DATE _____

A.....
C.....
D.....
OW.....

**PROFORMA FOR BANK GUARANTEE AGAINST STRUCTURAL DEFECTS,
WATER PROOF, LEAKAGES AFTER COMPLETION**

To, _____ (name of
employer) _____ (address
of employer)
WHEREAS _____ (name & address of
contractor) (hereinafter called "the Contractor") has undertaken, in pursuance
of Contract No. _____ dated _____ having contract value of
Rs. _____ and _____ had completed the work

AND WHEREAS it has been stipulated by you in the said contract that the Contractor shall furnish with a Bank Guarantee by scheduled bank duly guaranteed by the Reserve Bank of the India amounting to Rs. 50,00,000/- (Rupees Fifty Lacs only) against the structural defects caused to the structure by virtue of its structural failure and guarantee against water proofing for underground R.C.C. water reservoir as well as against leakages from sunken portions of the structure including terraces and terrace tank for a period of three years after the completion of referred period.

AND WHEREAS we have agreed to give the contractor such a Bank Guarantee amounting to Rs. 50,00,000/- (Rupees Fifty lacs only).

NOW THEREFORE we hereby affirm that we the Guarantor are responsible to you on behalf of the contractor, upto a total of Rs. _____ (amount of Guarantee) _____ (amount in words) such sum being payable in the types and proportions of currencies in which the contract price is payable and we undertaken to pay you, upon first written demand and without cavil or argument, any sum or sums within the limits of Rs. 50,00,000/- (Rupees Fifty lacs only) (amount of Guarantee) as aforesaid without your needing to prove or to show ground or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or modification of the terms of the contract or of the works to be performed thereunder or of any of the contract documents which may be made between you and the contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid for 3 years from the date of the Taking-Over after completion of project in all respect.

SIGNATURE AND SEAL OF THE GUARANTOR

NAME OF BANK _____
ADDRESS _____
DATE _____

A.....
C.....
D.....
OW.....

DELHI DEVELOPMENT AUTHORITY

CONTRACT FOR WORKS

**GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF
CONTRACTORS**

1. All work proposed for planning/designing and execution by contract will be notified in a form of invitation to tender for contractors who are on select list of DDA for Turnkey mega projects duly signed by the Divisional Officer.

It will state the scope of work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out 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 tenderer and the percentage, to be deducted from the bills. Copy of site plan, its area, location with its boundary dimension, development control, copy of preliminary soil investigation report and any other documents, required in connection with the work, as signed for the purpose of identification by the Divisional Officer will also be opened for inspection by the contractor(s) at the office of the Divisional Officer during officer hours.

2. A tender by a firm 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 authorizing him to do so, such power-of-attorney to be placed in sealed cover marked 'A' i.e. (Technical Bid).

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 contractor are described in their tender 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 the firm.

4. Any person who submits offer must fill up the usual printed form, stating the sum of money for which he is willing to undertake the work. Only one sum shall be mentioned. Tenders, which propose any alterations 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 contractor(s) who wish to tender for two or more works shall submit separate tender for each work. Tenders must have the name and number of the work to which they refer shall be written outside the envelope.

5. The Divisional Officer or his duly authorized assistant will open Envelope 'A' (Technical Bid) in the presence of any intending contractor(s) who may be present at the time, and will enter the same in a suitable form. A

A.....
C.....
D.....
OW.....

receipt for the earnest-money forwarded therewith shall thereupon be given to the contractor(s). The technical bid will first be scrutinized and approved with changes if any, will be intimated to the respective tenderers within a month of receipt of tenders. For execution of works as per approved changes mentioned above, the concerned tenderers will be asked to submit corresponding increase or decrease over their price bid. This increase or decrease will be submitted in a sealed envelope marked 'C' on time, date and place specified by the Divisional Officer. Envelope 'B' & 'C' will be opened together on date, time and place specified by Divisional Officer not later than 15 days from the date of issue of letter for the same in the presence of tenderer and or their authorized representatives.

6. The Officer inviting tenders shall have the right for rejecting all or any of the tender.
7. The receipt of an accountant or clerk for any money paid by the contractor(s) will not be considered as any acknowledgement of payment to the Divisional Officer and the contractor(s) shall be responsible for seeing that he/they procure(s) a receipt signed by a duly authorized cashier of the CAU (Dwarka) Zone.
8. The memorandum of work tendered for, shall be filled in and completed in the office of the Divisional Officer before the tender is issued. If a form is issued to an intending tenderer without having been so filled in and completed he shall request the office to have this done before he completes and delivers his tender.
9. The tenderer shall sign a declaration under the Official Secret Act for maintaining secrecy of the tender document drawings or other record connected with the work given to them.

DECLARATION

I/We hereby declare that I/We shall treat the tender documents drawing and other records connected with the work as secret/confidential documents and shall not communicate information/derived therefrom to any persons other than a person to whom I/we am/are authorized to communicate the same or use the information in any manner prejudicial to the safety for DDA.

Signature of the Contractor
Address : _____

A.....
C.....
D.....
OW.....

CONDITIONS OF CONTRACT

1. Interpretation clause -

- i. Chairman means the Chairman/DDA
- ii. Vice Chairman means Vice Chairman/DDA
- iii. DDA means Delhi Development Authority
- iv. The Divisional Officer means the Engineer-in-Charge/Executive Engineer of the Division concerned who shall sign the contract on behalf of DDA.
- v. The Superintending Engineer means the Superintending Engineer of the Circle of which the Division forms part.
- vi. Government means the Lt. Governor of Delhi.
- vii. The word Chief Engineer means concerned Zonal Chief Engineer of DDA.

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

The "site" shall mean the land and/or places on, in, into or through which the work is to be executed under contract or any adjacent land, path or street through which either the work is to be executed under the contract or to be allowed or used for the purpose of carrying out the contract.

Words importing the singular number also include the plural number and vice versa.

Market rate of an item shall be the rate as decided by the Engineer-in-Charge on the basis of prevailing cost of materials and labour at site at the time of award where the work is to be executed plus 10% to cover all over heads and profit.

Clause-2

The person/persons whose tender may be accepted (hereinafter called the contractor(s)) shall permit DDA at the time of making any payment to him for work done under the contract, to deduct such sum as alongwith the sum already deposited as earnest money which amount to security deposit at uniform rate of 5% (five percent) of the gross value of work done in each running bill subject to the maximum of Rs. 1,00,00,000/- (Rs. One Crore only).

Such deductions are to be held by DDA by way of security deposits provided always the DDA for this purpose shall be entitled to recover such sum/sums from the running bills as aforesaid till the balance amount of the

A.....
C.....
D.....
OW.....

security deposit is to be realized. All compensation or other sums of money payable by the contractor to DDA under the terms of the contract may be deducted from, his security deposit, or from any sums which may be due or may become due to the contractor by DDA on any account whatsoever, and in the event of his security deposit being reduced by reasons of any such deductions the contractor shall within 10 days thereafter make good in Cash to DDA security endorsed as aforesaid any sum or sums which may have been deducted from, his security deposit or any part thereof.

3. The contractor(s) is/are to provide everything of every sort and kind which may be necessary and requisite for the due and proper execution of the several works included in the contract whether original or altered according to the true intent and meaning of the drawings and specifications taken together, which are to be signed by the Divisional Officer and the contractor(s) whether the same may or may not particularly be described in the specifications or shown on the drawings provided that the same are reasonably to be inferred in reform and in case of any discrepancy between the drawings and the specification the Divisional Officer is to decide which shall be followed.

4. The contractor(s) is/are to set out the whole of the works in conjunction with an officer to be deputed by the Divisional Officer, and during the progress of the works to amend on the requisition of the Divisional Officer any errors which may arise therein and provide all the necessary labour and materials for so doing. The contractor(s) is/are to provide all plants, labour, and materials which may necessary and requisite for the works. All materials and workmanship are to be the best of their respective kinds. The contractor(s) is/are to leave the works in all respects clean and perfect after the completion thereof.

5. The copies of all architectural drawings duly approved by the Committee under the Chief Engineer and structural drawings duly approved by CDO/DDA/CPWD, any statutory body like Govt. organization I.I.T., SERC etc. and specifications contained in the tender documents shall be kept by the contractors on the site of the work. The decision for approval of structural drawing from any of the Govt. organization, CDO/DDA/IIT/CDO, CPWD, SERC etc. rests with the Divisional Engineer.

6. All work under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Chief Engineer, Superintending Engineer, CTE/TE of CVC, Chief Engineer Quality Control, DDA, or by the officer of vigilance of the authority and Divisional Officer including his subordinate and the contractor shall at all times during the usual working hours and at all other times at which reasonable notice of the intention of the Divisional Officer or his subordinate to visit the works shall have been given to the contractor(s), either himself/ themselves be present to receive orders and instructions or have a

A.....
C.....
D.....
OW.....

responsible agent duly accredited in writing present for that purpose. Orders given to the contractor(s) agent shall be considered to have the same force as if they had been given to the contractor(s) himself/themselves. The Divisional Officer may require the contractor(s) to dismiss any person in the contractor(s) employment upon the works who may be incompetent or misconduct himself and the contractor(s) is/are forthwith to comply with such requirements.

7. The contractor(s) is/are not to vary or deviate from the approved drawings, specifications or instructions to execute any extra work of any kind whatsoever unless the authority of the Divisional Officer to be sufficiently shown by an order in writing or by any plan or drawing expressly given and signed by him as an extra or variation or by any subsequent written approval signed by him. If compliance with the Divisional Officer's aforesaid order, plan or drawings, or approval involves extra work, and/or expense beyond that involved in the execution of the contract works then unless the same were issued in consequence of some breach of this contract on the part of the contractor(s), the later shall be paid the price of the said work (to be valued as hereinafter provided) and/or the expense aforesaid.

8. Duly authorized extras, omission and variation shall not violate the contract but shall be executed, measured, valued and certified by the Divisional Officer and added to or deducted from the amount of contract as the case may be. The valuation of such extras/substitution/reduction/deduction shall be based on market rates.

9. The contractor(s) shall give not less than five working days' notice in writing to the Divisional Officer before covering up or otherwise placing beyond the reach of measurements any work in order that additions, omissions and alterations not covered by the original contract may be measured, and correct dimensions thereof be taken before the same are so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach of measurement and work without the consent in writing of the Divisional Officer and if any work shall be covered up or placed beyond the reach of measurement without such notice having, been given or consent obtain, the same shall be uncovered at the contractor(s) expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

10. All work and materials brought by the contractor(s) or by his/their orders for the purpose of forming part of the works are to be considered to be the property of the DDA and the same are not to be removed or taken away by the contractor(s) or any other person without the consent in writing of the Divisional Officer, but the Chairman, DDA is not to be in any way answerable for any loss or damage that may happen to or in respect of any such work or materials either by the same being lost or stolen or injured by weather or otherwise.

A.....
C.....
D.....
OW.....

11. The Divisional Officer has full power to remove from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default the Divisional Officer be at liberty to employ other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Divisional Officer is also to have full power to require other proper materials to be substituted thereof and in case of default the Divisional Officer may cause the same to be supplied and all costs which may occur due to such removal and substituted are to be borne by the contractor(s).
12. If in the opinion of the Divisional Officer or his authorized subordinate incharge of the work or the Chief Engineer, Superintending Engineer, Chief Technical Examiner/Technical Examiner of Central Vigilance Commission, Chief Engineer Quality Control DDA or his authorized subordinates or the any officer of the Vigilance of DDA that any works which have been executed with unsound, imperfect or unskillful workmanship or with material of any inferior description or that any material or articles provided by him for the execution of the work are unsound or quality inferior or otherwise are not in accordance with standards as per opinion of the Engineer-in-Charge the contractor(s) shall, when required by the Divisional Office forthwith to re-execute the same and to substitute proper materials and workmanship. In the event of his failing to do so within a period to be specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the rate of one percent on the tendered amounting for every day not exceeding ten days while his failure to do so, shall continue and in the case of such failure, the Engineer-in-Charge may rectify or remove and re-execute the work or remove and replace with others, materials or articles complained of, as the case may be at the risk and expense in all respect of the contractor. This will be final and binding on the agency.
13. Any defects, shrinkage or other faults which may appear within one year from the completion of the building arising out of defective or improper materials or workmanship are upon the direction of the Divisional Officer to be amended and make good by the contractor(s) at his/their own cost and in case of a default the Divisional Officer may recover from the contractor(s) the cost of making good the works (of which the certificate of the Divisional Officer shall be final) from any sum that may be then, or at any time thereafter may become, due to the contractor(s) by DDA under the contract of otherwise, or from his/their security deposit or proceeds thereof or of a sufficient portion thereof.
14. From the commencement of the works to the completion of the same they are to be under the contractor(s) charge. The contractor(s) is/are to be held responsible for and to make good all injuries, damages and repairs occasioned or rendered necessary to the same by fire, rains, storm, traffic, flood or other cause and to hold the DDA harmless from any claims for

A.....
C.....
D.....
OW.....

injuries to persons or to structural damage to property happen from any neglect, default, want of proper care or misconduct on the part of the contractor(s) or of anyone in his/their employment during the execution of the works.

15. The divisional officer is to have full powers to send workmen upon the premises to execute fittings/fixtures and other works not included in the contract for whose operation the contractor(s) is/are to afford reasonable facility during ordinary working hours provided that such operations shall be carried on in such a manner as not to impede the progress of the work included in the contract but the contractor(s) is/are not to be responsible for any damage which may happen to be occasioned by any such fittings/fixtures or other works.

16. The works comprised in this tender are to be commenced immediately on receipt of written orders from the Divisional Officer to commence work. 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 15th day after the date on which the order to commence the work is issued to the contractor(s). The work shall throughout the stipulated period of the contract be proceeded with all due diligence (time being deemed to be of the essence of the contract(s) on the part of contractor(s) and the contractor and the contractor(s) shall pay as compensation an amount equal to one percent or such smaller amount as the Superintending Engineer (whose decision in writing shall be final) may decide, on the amount of the contract as shown in the tender for every day that the work remains uncommenced, or unfinished, after the proper dates and further, to ensure good progress during the execution of the work, the contractor(s) shall be bound, in all cases in which the time allowed for any work exceeds one month to complete one eighth of whole of the work before one fourth of the whole time allowed under the contract has elapsed three eighth of the work before one-half of such time has elapsed; and three-fourth of the work before three-fourths of such time has elapsed. In the event of the contractor(s) failing to comply with this condition he/they shall be liable to pay as compensation an amount equal to one percent or such small amount as the Superintending Engineer, (whose decision in writing shall be final may decide on the said amount of the contract for every day that the due quantity of work remains incomplete; provided always that entire amount of compensation to be paid under the provisions of this clause shall not exceed ten percent on the amount of the contract as shown in the tender.

17. In any case in which under any clauses of this contract the contractor shall have rendered himself/themselves liable to pay compensation amounting to the whole of his/their security deposit (whether paid in one sum or deducted by instalment) or committed a breach of any of the terms contained in Clause 26, the Divisional Officer on behalf of the D.D.A shall have power :-

A.....
C.....
D.....
OW.....

(a) To rescind the contract (of which rescission notice in writing to the contractor(s) under the hand of the Divisional Officer shall be conclusive evidence) and in which case the security deposit of the contractor(s) shall stand forfeited, and be absolutely at the disposal of D.D.A.

(b) To employ labour paid by the Delhi Development Authority and supply materials to carry out the work or any part of the work debiting the contractor(s) with the cost of the labour and the price of the materials (or the amount of which cost and price certified by the Engineer-in-Charge shall be final and conclusive against the contractor(s)) and crediting him/them with the value of the work done. The certificate of the Divisional Officer as to the value of the work done shall be final and conclusive against the contractor(s).

(c) To take such part of the work as shall be unexecuted out of his/their hands, and to give it to another/other contractor(s) to complete. In which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor(s) if the whole work had been executed by him/them (of the amount of which excess the certificate in writing of the Divisional Officer shall be final and conclusive) shall be borne and paid by the original contractor(s) and may be deducted from any money due to him/them by DDA under the contract or otherwise or from his/their security deposit or proceeds the sale thereof or a sufficient part thereof. The cost of the work to be executed by the contractors shall be determined based on market rates prevailing at the time of award.

In the event of any of the above courses being adopted by the Divisional Officer the contractor(s) shall have no claim to compensation for any loss sustained by him/them by reason of his/their having purchased or procured any materials or entered into any engagements, or made any advances on account of, or with a view to the execution of the work or the performance of the contract. And in case the contract shall be rescinded under the provisions aforesaid, the contractor(s) shall not be entitled to recover or be paid by any sum for any work therefore actually performed under this contract, unless and until the Divisional Officer will have certified in writing the performance of such work and the value payable in respect thereof, and he/they shall only be entitled to be paid the value so certified.

18. In any case in which any of the powers conferred upon the Divisional Officer by clause 17 thereof, shall have become exercisable and the same shall not be exercise, the non-exercised thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor(s) for which by any clause are clauses hereof he is/they are declared liable to pay compensation amounting to the whole of his/their security deposit, and the liability of the contractors for past and future compensation shall remain unaffected in the event of the Divisional Officer putting in force either of the powers (a) to (c) vested in him under the preceding clause he may, if he so desires take possession of all or any tools, plant materials and stores, in or

A.....
C.....
D.....
OW.....

upon the works or the site thereof or belonging to the contractor(s) or procured by him/they 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, at current market rates to be certified by the Divisional Officer whose certificate thereof shall be final otherwise the Divisional Officer may be noticed in writing of the contractor(s) or his/their clerk of the works, foremen or other authorized agent required him/they 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(s) failing to comply with any such requisition the Divisional Officer may remove them at the contractor(s) expense or sell them by auction or private sale on account of the contractor(s) and at his/their risk in all respects and the certificate of the Divisional Officer as to the expense of any such removal and the amount of the proceeds and expense of any such sale be final and conclusive against the contractor(s).

19. Provided never the less that if the contractor(s) shall be of the opinion that he is/they are entitled to any extension of time on account of the works being altered, varied or added to or on account of any delay by reason of any inclement weather or causes not under the control of the contractor(s), in consequence of orders to that effect from the Divisional Officer, which orders the Divisional Officer is hereby empowered to give him/they in any or either such cases it shall be competent for the Divisional Officer by an order in writing to extend the aforesaid period for final completion by such period or periods as he shall deem reasonable and the contractor(s) shall complete the works within such extended period or periods as aforesaid, provided that the contractor(s) shall not be entitled to any extension of time unless he/they shall, within three days after the happening of the event in respect of which he/they shall consider himself/themselves entitled to any extension give to Divisional Officer written notice of such claim to any extension of time and of the ground or grounds and of the amount thereof unless in any case the Divisional Officer shall in his discretion dispense with such notice and certify for an extension of time. Nevertheless and in case of any extension of time the aforesaid provisions for damages and their amount in default of due completion shall apply in case of non-completion of the works within the extended time. The Superintending Engineer for reasons stated may at his discretion waive the penalties of clause 16 even in the absence of notice or certificate.

20. The contract shall not be assigned or sub-let without the written approval of the Divisional Officer, and if the contractor(s) shall assign or sub-let his/their contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his/their creditors, or attempt to do so, 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(s) or any his/their servants or agents to any public officer or person in the employ of DDA in any way relating to his

A.....
C.....
D.....
OW.....

office or employment or if any such officer or person shall become in any way directly interested in the contract, the Engineer-in-Charge, on behalf of the DDA shall have powers to adopt any of the courses specified in clauses 16 as he may deem best suited to the interest of DDA and in the event of any of these courses being adopted the consequences specified in the said clause 16 shall ensue.

21. The Contractor(s) shall be paid as per schedule mentioned in the NIT specifying different stages and their percentage of total contract amount of part thereof payable on the completion of the stage or part thereof. These payments shall be determined as far as possible to make payment at monthly intervals. These on account payments to the contractor shall be made according to schedule or part thereof on the certificate of Divisional Officer that the work/part work has been completed upto the corresponding stage given in the schedule deducting the amount of security deposits, income tax and works contract tax when the work shall be completed, the contractor(s) is/are to be entitled to receive all moneys less deduction due or payable to him/them under or by virtue of the contract, except the sum deducted as security deposit, which will be retained for one year after the date of completion of the work. 90% of security deposit shall be refunded to the contractor(s) only if no defects, shrinkage or other faults appear in the works. Balance 10% will be paid after completion of three year if no leakages, dampness and defects in road works appears. The payments on account will be made stage wise or part thereof according to the completion of said stage or part thereof by the Divisional Officer, whose decision in this respect shall be final and binding.

The final bill for the work will be based on the tendered modified cost giving necessary effect to omissions, additions/substitution/deductions from the prescribed drawings specifications and instructions. The detailed measurements of such omissions, additions, substitution, reduction/deductions or variations to be recorded.

Provided always that no final or other certificate is to cover/relieve the contractor(s) from his/their liability under the provision of clause 12 whether or not the same may be notified by the Divisional Officer at the time or subsequently to the granting of the completion certificate.

22. Payments due to the contractor(s) shall if so desired by him/them be made to (financing banks instead of direct to him/them provided that the contractor(s) furnish(es) to the Divisional Officer (1) an authorization in the form of a legally valid document like a power-of-attorney conferring authority on the bank to receive payment and (2) his/their own acceptance of the correctness of the account made out as being due to him/them by DDA or his/their signature(s) on the bill or other claim preferred against DDA before settlement by the Divisional Officer of the account or claim by payment to the bank. While the receipt given by the bank holding a power of attorney or

A.....
C.....
D.....
OW.....

transfer deed from the contractor(s) constitutes a full and sufficient discharge for the payment, the contractor(s) should wherever possible present his/their bills duly receipted and discharged through his/their bankers.

23. A certificate of the Divisional Officer showing the final balance due or payable to the contractor(s) is to be conclusive evidence of the works having been duly completed and that the contractor(s) is/are entitled to receive payment of the final balance but without prejudice to the liability of the contractor(s) under the provisions of clause 12. No such certificate shall, however be given nor shall the work be considered to be completed until the contractor(s) shall have removed as required by clause 4 from the premises on which the work shall be executed all scaffolding surplus materials, rubbish and cleaned off the dirt from all wood-work doors, windows, walls or other parts of any building in upon or about which the work is to be executed or of which he/they may have had possession for the purpose of the execution thereof, nor until the additions, omissions and alterations referred to in clause 8 shall be measured by the Divisional Officer whose measurements shall be binding and conclusive against the contractor(s). If the contractor(s) shall fail to comply with the requirements of this clause as to remove the scaffolding, surplus materials, rubbish and cleaning off dirt on or before the date fixed for the completion of work, the Divisional Officer may at the expenses of the contractor remove such scaffolding, surplus materials and rubbish and dispose of the same as he thinks fit and clean off such dirt as aforesaid; and the contractor(s) shall forthwith pay the amount of all expenses so incurred, and shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

24. The contractor shall neither be entitled nor shall be claim the damages, loss of profit or compensation against the authority on any account, whatsoever, except the amounts specifically provided to be paid to him against the stages. In case any dispute thus arises between the parties in respect to the execution of the work, interpretation of the clauses of this agreement as well as the tendered documents and communication existing between the parties, the decision of the Vice Chairman, DDA there upon shall be final and binding.

25. No labourer below the age of fifteen years shall be employed on the work.

26. The contractor shall pay his labourers wages not less in amount than the wages notified by Delhi Administration GNCTD from time to time.

A.....
C.....
D.....
OW.....

Explanation - Payment of wages to labourers -

(a) The contractor shall pay not less than fair wage to labourers engaged by him on the work.

"Fair wage" mean wage whether for time or piece work notified at the time of inviting tenders for the work and where such wages have not been notified, the wages prescribed by the Delhi Administration and fair wage schedule notified by GNCTD from time to time shall apply.

(b) The contractor shall notwithstanding the provisions of any contract to the contrary, cause to be paid fair wages to labourers indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labourers had been immediately employed by him.

(bb) Under the provision of the Minimum Wages Act 1948 and the Minimum Wages (Central) Rules 1950 the contractor is bound to allow or cause to be allowed to the labourers directly or indirectly employed in the works one day's rest for six days of continuous work and pay wages at the same rates as for duty in the event of default, the Executive Engineer or sub-divisional officer concerned shall have the right to deduct the sum or sums not paid on account of wages for weekly holiday to any labourers, and pay the same to the persons entitled thereto, from any moneys due to the contractor.

(c) In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to be complied with the Delhi Administration Contractor's labour regulations made by the Lt. Governor from time to time in regard to payment of wages, wage, period of deduction from wages, recovery of not paid and deductions unauthorisedly made maintenance of wage book, wage slip, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of a like nature.

(d) The Executive Engineer or Sub-Divisional Officer connected shall have the right to deduct from the money due to the contractor any sum required or estimated to be required for making good the loss suffered by workers by reason of non-fulfillment of the condition of the contract for the benefit of the workers, non-payment of wages which are not justified by the terms of the contract or non-observance of the regulations.

(e) Vis-à-vis the D.D.A, the contractor, shall be primarily liable for all payments to be made under, and for the observance of the regulations aforesaid without prejudice to his right to claim indemnify from his sub-contractors.

A.....
C.....
D.....
OW.....

(f) The regulations aforesaid shall be deemed to be a part of the contract and any breach thereof shall be deemed to be breach to this contract.

26-A. In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this agreement, the contractor shall at his own expense arrange for the safety provisions as per safety code framed from time to time and shall at his own expense provided for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty of Rs. 500/- for each default and in addition the Engineer-in-Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the cost incurred in that behalf from the contractor.

Safety Code :-

- (i) Suitable scaffolding should be provided for workmen for all work that cannot safely be done from ground or from solid construction except such short period work as can be done safely from ladder, when a ladder is used an extra Mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than $1/4$ to $1=1/4$ horizontal and 1 vertical.
- (ii) Scaffolding or staging more than 4 meter above the ground or floor swing or suspended from as overhead support or erected with stationery support shall have a guard rail properly attached bolted braced and otherwise screwed at least 1 meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- (iii) Working Platform, Gangways, and Stairways should be so constructed that they should not sag unduly or unequally and if the height of the Platform or the Gangway or the Stairway is more than 4 meter above ground or floor level they should be closely boarded, should have adequate width and should be suitable fenced, as described in (ii) above.
- (iv) Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1 meter.
- (v) Safe means of success shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 meter in length while the width between side rail in hung ladder shall in no case be less than 29 cms for ladder upto and including 3 meter in length.

A.....
C.....
D.....
OW.....

For longer ladders this width should be increased at least 2 cms for each additional meter or length, uniform, step spacing shall not exceed 30 cms. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person of the public. The contractor shall also provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings of law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any damages and costs which may be awarded in any such suit action or proceedings to any such persons or which may with the consent of the contractor be paid to compromise any claim by any such person.

(vi) Excavation and Trenching :- All trenches, 1.2 meter or more in depth shall at all times be supplied with at least one ladder for each 30 meter in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 1 meter above the surface of the ground. The side of the trenches which are 1.5 meter or more in depth shall be stepped back to give suitable slope, or securely held by timber bracing, so as to avoid the danger of sides of collapse. The excavated materials shall not be placed within 1.5 meter of the edge of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

(vii) Demolition :- Before any demolition work is commenced and also during the progress of the work :-

- (a) All roads and open areas adjacent to the work sites shall either be closed or suitably protected.
- (b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
- (c) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials so as to render it unsafe.

(viii) All necessary personal safety equipment as considered adequate by the Engineer-in-Charge should be kept available for the use of the persons employed on the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by those concerned.

A.....
C.....
D.....
OW.....

- (a) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- (b) Those engaged in white washing and mixing or stacking of cement bags or any materials which is injurious to the eyes shall be provided with protective goggles.
- (c) Those engaged in welding works shall be provided with welder's protective eye-shield.
- (d) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- (e) When workers are employed in sewers and manholes, which are in use, the contractor shall ensure that the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to get into the manholes and the manholes so opened shall be cordoned with suitable railing and provided with warning signals or boards to prevent accident to the public.
- (f) The contractor shall not employ men below the age of 15 and women, on the work of painting with products containing lead in any form. Whenever men above the age of 15 are employed on the work of lead painting, the following precautions should be taken.
 - i. No paint containing lead or lead products shall be used except in the form of paste or ready-made paint.
 - ii. Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
 - iii. Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and cessation of work.
- (ix) When the work is done near any place where there is risk of drawing all necessary equipment should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provisions should be made for prompt first-aid treatment of all injuries likely to be sustained during the course of the work.
- (x) Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standard or conditions:-

A.....
 C.....
 D.....
 OW.....

- i. (a) These shall be of good mechanical construction sound material and adequate strength and free from patent defect and shall be kept in good condition and in good working order.
(b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and of adequate strength and free from patent defects.
- ii. Every crane driver or hoisting appliance operator shall be properly qualified and no person under an age of 21 years should be incharge of any hoisting machine including any scaffolding which give signal to the operator.
- iii. In case of every hoisting machine and of every chain ring hook shackleswivel and pulley block used in hoisting or lowering or as means of suspensions, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load of the conditions under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - (xi) Motors, gearing, transmission, electric, wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliance should be provided with such means as well reduce to the minimum risk of accidental descent of the load, adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers employed on electrical installations which are already energized insulating mats, wearing apparel such as gloves sleeves and boots as may be necessary should be provided. The workers should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
 - (xii) All scaffolds ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.
 - (xiii) These safety provisions should be brought to the notice of all concerned by display on a Notice Board at a prominent place at the workspot. The persons responsible for compliance of the Safety Code shall be named therein by the contractor.

A.....
C.....
D.....
OW.....

(xiv) To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be opened to inspection by the Labour Officer, Engineer-in-Charge, of the department or their representatives.

(xv) Notwithstanding the above clauses from (i) to (xiv) there is nothing in these to exempt the contractor from the operations of any other Act or Rules in force in the DDA.

26-B. The contractor shall submit, by the 4th and 19th of every month to the Engineer-in-Charge a true statement showing in respect of the second half of the proceeding month and the first half of the current month, respectively (1) the number of labourers employed by him on the work (2) their working hours (3) the wages paid to them (4) the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them and (5) the number of female workers who have been allowed Maternity Benefit according to clause 25-D and the amount paid to them failing which the contractor shall be liable to pay to DDA a sum not exceeding Rs. 500 for each default or materially incorrect statement. The decision of the Executive Engineer shall be final in deducting from any bill due to the contractor the amount levied as fine.

26-C. In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement the contractor shall comply with or cause to be complied with all rules framed by DDA from time to time for the protection of health and sanitary arrangements for workers employed by the D.D.A and its contractor.

26-D. Maternity Benefits Rules for female workers employed by contractor :

(i) Leave and pay during leave shall be regulated as follows :-

1) Leave - (i) In case of delivery : Maternity leave not exceeding 8 weeks. 4 weeks upto and including the day of delivery and 4 weeks following that day.

(ii) In case of miscarriage : Upto 3 weeks from the date of miscarriage.

2) Pay - (i) In case of delivery : Leave pay during maternity leave will be at the rate of the woman's average daily earnings calculated on the total wages earned on the days when full time work was done during a period of three months immediately proceeding the date on which she gives notice that she expects to be confined, or at the rate of Rs. 50/- per day whichever is greater.

A.....
C.....
D.....
OW.....

(ii) In case of miscarriage : Leave pay at the rate of average daily earnings calculated on the total wages earned on the days when full time work was done during a period of 3 months immediately proceeding the date of such miscarriage.

3) Conditions for the grant of Maternity Leave :- No Maternity Leave benefit shall be admissible to a woman unless she has been employed for a total period not less than 6 months immediately preceding the date on which she proceeds on leave.

The contractor shall maintain a register of Maternity Benefit in the prescribed form as shown below and the same shall be kept at the place of work. (Register of Maternity Benefit as specified).

Name of Work

Name of the Contractor

1. Name of the woman and her husband's name
2. Designation
3. Date of appointment
4. Date with months and year in which she is employed
5. Date of discharge/dismissed if any
6. Date of production of certificate in respect of pregnancy
7. Date on which woman informs about the expected delivery
8. Date of delivery/discharge/death.
9. Date of production of certificate in respect of delivery/miscarriage
10. Date with the amount of maternity/death, benefit paid in advance of expected delivery.
11. Date with the amount of subsequent payment of maternity benefit.
12. Name of the person nominated by the woman to receive the payment of the maternity benefit after her death.
13. If woman dies, the date of her death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date of payment.
14. Signature of the contractor authenticating entries in the register.
15. Remarks column for the use of Inspecting Officer.

A.....
C.....
D.....

26-E. In the event of contractor(s) committing a default or breach of any of the provisions of the D.D.A. Contractor's Labour Regulations and Model Rules for the protections of health and sanitary arrangement for the workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and Rules which is materially incorrect, he/they shall without prejudice to any other liability, pay to the DDA a sum not exceeding Rs. 2,000/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs. 2,000/- per day for each day of default subject to a maximum of 1.00 percent of the estimated cost of the work put to tender. The decision of the Engineer-in-Charge shall be final and binding to the parties.

26-F. The contractor(s) shall at his/their own cost provide his/their labour with a sufficient number of tents of the following specifications on a suitable plot of land to be approved by the Engineer-in-Charge.

1(a) The minimum height of each tent will be at the roof level shall be 2.10 mtr. (7 ft.) and the floor area to be provided will be at the rate of 2.7 Sq.M. (30 Sq.ft.) for each member of the worker's family staying with the labour.

(b) The contractor(s) shall in addition construct suitable cooking places having a minimum area of 1.80 m x 1.50 m (6' x 5') adjacent to the tent for each family.

(c) The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals be also provided for women.

(d) The contractor(s) shall construct sufficient number of bathing and washing places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened.

2(a) The floor of the tent shall be in bricks and shall be at least 15 cm above the surrounding ground. The tent shall be of Canvass Cloth (water proof) as may be approved by Divisional Officer and the contractor shall ensure that through out the period of their occupation, the tents remain water tight.

(b) There shall be kept an open space of at least 7.2 m between the rows of tents which may be reduced to 6 m according to the availability of site with the approval of the Engineer-in-Charge, back to back constructions will be allowed.

(3) Water Supply :- The contractor(s) shall provide adequate supply of water for use of labourers. The provision shall not be less than 2 gallons of

A.....
C.....
D.....
OW.....

pure and wholesome water per head per day for drinking purposes and 3 gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry shall be provided. The contractor(s) shall also at his/their own cost make arrangements for laying pipe lines for water supply to his/their labour camp from the existing mains wherever available and shall pay all fees & charges thereof.

- (4) The site selected for the camp shall be on high ground.
- (5) Disposal of Excreta : The contractor(s) shall make necessary arrangements for the disposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor(s) shall make arrangements for the removal of the excreta through the Municipal Committee/Authority and inform it about the number of labourers employed so that arrangements may be made by such committees/authority for the removal of the excreta. All charges on this account shall be borne by the contractor and paid direct to the municipality/authority. The contractor shall provide one sweeper for every 8 seats in case of dry system.
- (6) Drainage : The contractor(s) shall provide sufficient arrangements for draining away sludge water so as to keep the camp neat and tidy.
- (7) The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.
- (8) Sanitation : The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.

26-G. In the event of the contractor(s) committing a default or breach of any of the provisions of the DDA contractor's labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time for furnishing any information or submitting or filing any statement under the provisions of the above regulations and rules which is materially incorrect, he/they shall without prejudice to any other liability pay to the Delhi Development Authority a sum not exceeding Rs.5000/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.500/- per day for each day of default subject to a maximum of 0.5 percent (Zero point five percent) of the tendered cost. The decision of the Engineer-in-Charge shall be final and binding to the parties.

A.....
C.....
D.....
OW.....

27. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be levied for the use by D.D.A without reference to the actual loss or damage sustained, and whether or not any damage shall have been sustained.
28. Where the contractor is a partnership firm the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by contractor. If previous approval as aforesaid is not obtained the contract shall be deemed to have been assigned in contravention of Clause 20 hereof and the same action may be taken and the same consequences shall ensue as provided in the said clause 20.
29. Decision of the Suptdg. Engineer concerned regarding quantum of reduction as well as justification thereof in respect of rates for work below the specification shall be final and binding to the contractor, justified rates so approved and quantum of reduction made shall not be challenged in the arbitration, if any, at later stage.
30. If at any time after the commencement of the work the DDA shall for any reason whatsoever not required the whole part works thereof as specified in the tender to be carried out, the Divisional Officer on behalf of DDA shall give notice in writing of the fact to the contractor(s) who shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he/they might have derived from the execution of the work not having been carried out or either shall he/they have any claim for compensation by reasons of any alteration having been made in the original specifications approved drawings and instructions which shall involve any curtailment or increase of the work as originally contemplated.
31. In the case of any class of work for which there is no such specification as is mentioned in Rule 1 such work shall be carried out in accordance with the instructions and directions of the Divisional Officer.
32. After the completion of the work, the theoretical quantity of the materials to be used in different items of work shall be calculated as under :
- i. Cement shall be calculated on the basis of statement showing quantities of cement to be used in different items of work provided in the DSR-97 with upto-date correction slips. In case of any of the item is executed for which the standard constants for the consumption of cement are not available in the above mentioned statement or cannot be derived from the said statement the same shall be calculated on the basis of standard formula to be laid down by the Superintending

A.....
C.....
D.....
OW.....

Engineer concerned. Over this theoretical quantity of cement a variation upto 2% plus/minus shall be allowed. Difference in the Quantity of cement actually issued to the contractor on the work and theoretical quantity so calculated including authorized variation, if difference is on the minus side, necessary recovery of the said quantity of cement shall be recovered at the market rate prevailing at the time of finalization of this statement.

- ii. After completion of the work theoretical quantity of steel shall be taken as the quantity required to be consumed as per the design or as authorized by the Engineer-in-Charge including authorized lappages plus 3% wastages due to cutting into pieces. Over this theoretical quantities 2% Plus/Minus shall be allowed as variation due to wastage being more or less. Theoretical consumption statement will be prepared dia-wise of the steel used at work. Difference in the Quantity of steel actually consumed by the contractor in the work and Theoretical Quantity so calculated including authorized variation, if difference is on the minus side, necessary recovery of the said quantity of steel shall be recovered at the market rate prevailing at the time of finalization of the statement.
- iii. After the completion of the work theoretical quantity of bitumen to be used at work shall be calculated on the basis of CPWD schedule showing the quantity of bitumen in different items of work provided in the DSR-97 with upto date correction slips. Over the said theoretical quantity of bitumen a variation of 2.5% plus shall be allowed. Difference in the Quantity of bitumen actually consumed by the contractor in the work and Theoretical quantity so calculated including authorized variation, if difference is on the minus side. The work executed with less bitumen shall be rejected and the work is to be re-executed by the agency at his cost. Provision made in this clause are without prejudice to the rights of the DDA to take action against contractor under the conditions of the contract or for not doing the work according to the prescribed specification.

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

D.D.A. shall not be bound to contest any claim made against it under Section 12 Sub-Section (1) of the said Act, except on the written request of

A.....
C.....
D.....
OW.....

the contractor(s) and upon his/their giving to DDA full security for all cost which DDA might become liable in consequence of contesting such claim.

34. All works to be executed under the contract shall be executed under the direction of Divisional Officer and subject to the approval in all respects by the Superintending Engineer of the Circle for the time being who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

35. Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Divisional Officer on behalf of the DDA shall have the option of terminating the contract without compensation to the contractor.

36. Whenever any claim against the contractor for the payment of a sum or money arises out under the contract, DDA shall be entitled to recover such sum by appropriating, in part or whole the security deposit of the contractor. In the event of the security deposit being insufficient, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due from the contractor under this or any other contract with DDA should this sum be not sufficient to cover the full amount recoverable the contractor shall pay to DDA on demand the balance remaining due. If the contractor fails to pay to DDA on demand, the said amount of the authority shall be recoverable as an arrears of land revenue and the contractor shall not take any objection to the set process being adopted for recovery of such amount.

37. Sales-Tax/work contract tax or any other tax on materials in respect of this contract shall be payable by contractor and Delhi Development Authority shall not entertain any claim whatsoever in this respect.

38. DDA shall have the right to cause an audit and technical examination of the works and the final bill of the contractor including all supporting vouchers abstracts, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed by him to have been done by them under the contract and found not to have been executed, the contractor shall be liable to refund the amount of the overpayment and it shall be lawful for DDA to recover the same from him in the manner prescribed in sub-clause (1) of this clause or in any other manner legally permissible and if as a result of audit and technical examination it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such underpayment shall be duly paid by DDA to the contractor.

A.....
C.....
D.....
OW.....

PROVIDED that DDA shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled for payment of any sum paid short where such payment has been agreed upon between the Superintending Engineer or Executive Engineer on the one hand and the contractor on the other hand under any term of the contract permitting payment for work after assessment by the Superintending Engineer or the Executive Engineer.

Signature of Contractor

**Signature of
Divisional Officer**

A.....
C.....
D.....
OW.....

39. Payment due to increase/decrease of Material supplied or services rendered in prices/wages, after Receipt of tender for work (time period more than 18 months).

If the price of materials and/or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied subject to the condition that such compensation for escalation in prices, shall be available only for the work done during the stipulated period of the contract. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:

- i) The base date for working out such escalation shall be the date of award.
- ii) The cost of work on which escalation will be payable shall be reckoned as 85% of the cost of work as per the bills, running or final excluding any work for which payment is made at prevailing market rates. In the case of materials brought to site for which any secured advance is included in the bill the full value of such materials as assessed by the Engineer-in-Charge (and not the reduced amount for which secured advance has been paid) shall be added to the cost of work shown - in the bill for operation of this clause. Similarly, when such materials are incorporated in the work and the secured advance is deducted from the bill, the full assessed value of the materials originally considered for operation of this clause should be deducted from the cost of work shown in the running or final bill
- iii) Components of materials, labour POL etc. shall be pre determined for every work and incorporated in the conditions of contract attached to the tender papers. The decision of the Engineer-in-Charge in working out such percentage shall be binding on the contractor.
- iv) The compensation for escalation for materials and POL shall be worked out as per the formula given below:

$$a) \quad VM = W \times \frac{X}{100} \times \frac{M1-M10}{M10}$$

VM= Variation in material cost i.e. increase or decrease in the

Amount in rupees to be paid or recovered.

W = Cost of work done worked out as indicated in sub para (ii) above.

X = Component of materials expressed as per cent of the Total value of work.

M 1 & M 10: All India whole sale index for all commodities for the period under reckoning as published by the Economic Advisor to Government of India, Ministry of Industry & Commerce for the period under consideration and that valid on the date of award.

$$b) \quad VF = W \times \frac{Z}{100} \times \frac{(F1-F10)}{F10}$$

VF = Variation in cost of fuel, oil and lubricant increase Or decrease in rupees to be paid or recovered.

W =

Value of work done, worked out as indicated in the Sub para (ii) above.

Z =

Component of POL expressed as percent to total Value of work as indicated under. The special Conditions of F I & F10 Average index number of Wholesale price for group (fuel power, light and Lubricants) – as published weekly by the Economic Adviser to Govt. of India, Ministry of Industry for the period under reckoning and the valid on the Date of award.

v) The following principles shall followed while working out the indices mentioned in para iv above.

- a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per the bills paid during the three calendar months of the said quarter. The first such payment shall be made at the end of three month excluding the month(0) in which the tender was accepted and thereafter at the three months interval. On the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.
- b) The index (M1/F1 etc) relevant to any quarter/period for which such compensation is paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to date of completion after the quarter covered by the last such installment of payment is less than three months, the index M1 & F1 shall be the average of the indices for the month failing within that period.

vi) The compensation for escalation for labour shall be worked out as per the formula given below:

$$VL = W \times \frac{Y}{100} \times \frac{(L1 - L10)}{L10}$$

VL: Variation in labour cost i.e. amount of increase or decrease in Rupees to be paid or recovered.

W: Value of work done, worked out as indicated in sub para (ii) above.

Y: Component of labour expressed as a percentage of the total value of the work.

L 10 Minimum daily wage in rupees of an unskilled adult male mazdoor fixed under any law, statutory rule or order as on date of award.

L1. Minimum wage in rupees of an unskilled adult male mazdoor, under any law, statutory rule or order as applicable on the last date of quarter previous to the under consideration.

vii) The following principles will be followed while working out the compensation as per para (vi) above.

- a) The minimum wage of an unskilled male mazdoor mentioned in sub para (vi) above shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.

- b) The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials and/or POL is paid under this clause. If such revision of minimum wage takes place during any such quarterly intervals the escalation compensation shall be payable at revised rates only for work done in subsequent quarters.
- c) Irrespective of variations in minimum wages of any category of labour for the purpose of this clause, the variation in the rates for an unskilled adult male mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.
- viii) In the event of price materials and/or wages of labour required for execution of the work decrease/s there shall be downward adjustment of the cost of work so that such price of materials and/or wages labour shall be deductible from the cost of work under this contract and in this regard the formula herein before stated under this clause shall mutatis-mutandis apply provided that:
 - a) No such adjustment for the decrease in the price of materials and/or wages of labour above mentioned would be made in case of contracts in which the stipulated period of completion of the work is 18 months or less.
 - b) The Engineer-in-Charge shall otherwise be entitled to lay down the procedure by which the provision of this sub clause shall be implemented from time to time and the decision of the Engineer-in-Charge in this behalf shall be final and binding on the contractor.
- ix) The component of material, labour, POL, as indicated in para (iii) above have been pre-determined as below:

		For civil & Internal Electrical works	For external electrical works For overhead works	For electrical cables.
			(a)	(b)
a)	Material	75%	80%	60%
b)	Labour	25%	20%	40%
c)	POL	NIL%	NIL%	NIL%
Total Component		100%	100%	100%

Signature of Contractor(s)

Signature of Divisional Officer.

A.....
C.....
D.....
OW.....

ADDITIONAL CLAUSES OF CONTRACT

1. Damage to works in consequence of hostilities or warlike operations.

The work (whether fully constructed or not) and all material machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk and cost of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or war like operations the contractor shall, when ordered in writing by the Engineer-in-Charge, remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates, in accordance with the provision of this agreement for the work of clearing all type of debris, stacking or removal of serviceable materials salvaged from the damaged work and shall be paid at the contract rates, in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable materials and for the reconstruction of all work ordered by the Engineer-in-Charge such payment being in addition to compensation upto value of the work originally executed before being damaged or destroyed and not paid for in case of works damaged or destroyed but not already measured and paid for the compensation shall be assessed by the Divisional Officer upto Rs. 50 lacs and by the Superintending Engineer for higher amount. The Contractor shall be paid for the damaged structure suffered and for restarting the material at the rates to be decided by the Chief Engineer based on market rates in accordance with the provision of this Agreement. The certificate of Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final binding on all parties to this contract.

PROVIDED always that the compensation shall be payable for any loss in consequences of hostilities war like operation (a) unless the contractor had taken all such precautions against Air Raid as are deemed necessary by the A.R.P. Office or the Engineer-in-Charge (b) for any materials etc. not on the site of the work or for any tools, Plant, Machinery, Scaffolding, Temporary building and other things not intended for the work.

In the event of the contractor having to carry out reconstruction as aforesaid he shall be allowed such extension of time for its completion as is considered reasonable by the Divisional Officer.

A.....
C.....
D.....
OW.....

2. Specification as regard Cement, Steel, Bitumen etc.

- i) Ordinary Portland cement of grade 33 and manufactured by a reputed company shall be used in the work. Any other higher grade of the cement manufactured by a reputed company if technically required can also be used as directed by the Engineer-in-Charge without any extra cost.
 - ii) Cement bags shall be stored in separate godown (as per typical godown sketch attached) with weather proof roofs and walls. Each godown shall be provided with a single door with two locks. The key of one lock shall remain with DDA's JE-in-Charge of work, and that of other lock with the authorized agent of the contractor at the site of work, so that the cement is removed from the godown according to the daily requirement with the knowledge of both the parties. The cement bags shall be stacked on proper floors consisting of two layers of dry bricks laid on well consolidated earth at a level of atleast one foot above ground level. These stacks shall be in rows of 2 and 10 in height with a minimum 2'-9" clear space around the bags should be placed horizontally continuous in each line as shown in the accompanying sketch. Before use the cement will be got tested for 1st godown and then start the work, Test report of the 2nd godown shall be made available before consumption of entire cement in first godown. The day-to-day receipt and issue accounts of cement shall be maintained by the JE-in-charge and signed daily by the contractor or his authorized agent (as per specimen of register attached). Material will be issued to the contractor during working hours as per rules of DDA framed from time to time. Minimum two cement godowns should be filled with Tested Cement.
 - iii) Cold Twisted Tor Steel only shall be brought at site from the reputed manufacturer and it should not be re-rolled steel. Only tested steel shall be allowed for use in the work.
 - iv) Bitumen of penetration of 80/100 only manufactured by a reputed company shall be allowed for use in the work.
- 3. The contractor shall employ the following technical staff during the execution of the work.**
- i) Technical Project Manager who shall be graduate civil engineer from a recognized Institute with 15 years experience but atleast five years in the capacity of Project Manager of Mega Project.
 - ii) Two graduate engineers/diploma engineer in civil engineering from a recognized institute with atleast 5 years/15 years experience respectively of mega project.
 - iii) One graduate engineer/diploma engineer in electrical engineering from a recognized Institute with atleast 5 years/15 years experience respectively of mega project..

A.....
C.....
D.....
OW.....

- iv) One horticulturist having qualification as B.Sc.(Agriculture) with five years experience in land scaping, plantation grassing etc.
The above referred technical staff should be available at site to take the direction/instruction from time to time. In case the contractor fails to employ the technical staff as above he shall be liable to pay an amount of Rs.20,000/- (Rs.twenty thousand only) for each month of default in case of technical project manager, Rs.10,000/- (Rs.ten thousand only) per month for default in case of each graduate/diploma civil/electrical engineer and Rs.8000/- (eight thousand only) per month for default in case of Horticulturists.
The decision of Engineer- in-charge as to the period for which the required technical staff was not employed by the contractor and reasonableness of the amount to be deducted on this account shall be final and binding on the contractor.

4. Completion Certificate.

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice the Engineer-in-Charge shall inspect the work and if there is no defect in the work shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defect(a) to be rectified by the contractor and/or(b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be completed until the contractor shall have removed all defects pointed out earlier or subsequently and also removed from the premises on which the work had been executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site erected or constructed by the contractor) and cleaned off the dirt from all wood work doors, windows, walls, floors or other parts of the building, in, upon, or about which the work has executed or of which he may have /had possession for the purpose of the execution thereof, and not until the work have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc. and dispose of the same as he thinks fit and clean off such dirt as aforesaid and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum, actually realized by the sale thereof.

A.....
C.....
D.....
OW.....

5. Payment of Final Bill

The final bill shall be submitted by the contractor within three months of physical completion of the work or within one month from the date of the final certificate of completion furnished by the Superintending Engineer whichever is later. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, (the quantities and rates as approved by Engineer-in-Charge) will, as far as possible be made within the period of six months. The period being reckoned from the date of submission of final bill as stated above. This is subject to submission of final bill as stated above. This is subject to submission of detailed account of material as well as dismantled material.

6. Dismantled material Govt. Property

The contractor shall treat all materials obtained during dismantling of a structure during the execution of work at site etc. as DDA property and such materials shall be disposed off to the best advantage of DDA according to the instructions in writing issued by the Engineer-in-Charge.

7. Unauthorized Occupation

It shall be the responsibility of the contractor to see that the building site under construction is not occupied by any body unauthorizedly during construction, or afterwards till it is handed over to the Engineer-in-Charge with vacant possession of complete building site. If such building site though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building/building site in that possession. Any delay in acceptance on this account will be treated as the delay in completion of work and for such delay a levy upto 1% of tendered value of work may be imposed by the Superintending Engineer whose decision shall be final and binding both with regard to the justification and quantum and be binding on the contractor. This decision of Superintending Engineer will not be open to any arbitration/litigation.

However, the Superintending Engineer, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

8. Release of security deposit after labour clearance

Security Deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer, as soon as the work is virtually completed. The contractor shall apply for the clearance certificate to the Labour Officer under intimation to the Engineer-in-Charge. The Engineer-in-Charge on receipt of the said communication shall write to the Labour Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security Deposit will be released if otherwise due.

A.....
C.....
D.....
OW.....

9. Handing over of Flats

Three months before the likely date of completion of flats, in all respects contractor shall intimate to the Engineer-in-Charge the following :

(A) The contractor shall submit the cost of construction of different part of the project i.e. cost of flat, excluding cost of courtyard, cost of development of site and other miscellaneous items as directed by Engineer-in-Charge.

(B) The agency shall lay the services as per approval plan approved by various civic authorities like DJB, MCD, DVB etc. On completion of services the agency will submit the required number of completion plan to various authorities for handing over of these services to the concerned department like DJB, MCD, DVB etc. and will ensure physical handing over of these services to them. The DDA also reserve the right to withhold the amount which is likely to be payable to these agencies as a deficiency charges. The decision of the Engineer-in-Charge in this regard will be final and binding on the agency.

See
Correction
Slip No 1
A,

10. The contractor shall furnish an unconditional bond on non-judicial stamp paper of Rs. 10/- on prescribed proforma (as per Annexure attached with tender documents) in the shape of bank guarantee issued by a scheduled bank duly guaranteed by the Reserve Bank of India for an amount equivalent to 5% of contract value for executing the work in terms of design specifications, contract conditions, etc. as prescribed in the tender documents. This shall be furnished at the time of drawing agreement. This shall be released after the final completion of work duly recorded by the competent authority.

11. The contractor will submit a Bank Guarantee on non-judicial stamp paper of Rs.10/- in the form (as per Annexure attached) with the tender documents issued by a scheduled bank duly guaranteed by the Reserve Bank of India amounting to Rs. 50,00,000/- (fifty lakh), against the structural defects caused to the structure by virtue of its structural failure and also guarantee for water proofing against leakages from underground water reservoir as well as sunken portions of the structure including terraces of wherever water proofing treatment has been provided by the contractor for a period of three years after the completion of the referred project.

9. Handing over of Flats

Three months before the likely date of completion of flats, in all respects contractor shall intimate to the Engineer-in-Charge the following :

(A) The contractor shall submit the cost of construction of different part of the project i.e. cost of flat, excluding cost of courtyard, cost of development of site and other miscellaneous items as directed by Engineer-in-Charge.

(B) The agency shall lay the services as per approval plan approved by various civic authorities like DJB, MCD, DVB etc. On completion of services the agency will submit the required number of completion plan to various authorities for handing over of these services to the concerned department like DJB, MCD, DVB etc. and will ensure physical handing over of these services to them. The DDA also reserve the right to withhold the amount which is likely to be payable to these agencies as a deficiency charges. The decision of the Engineer-in-Charge in this regard will be final and binding on the agency.

C.S. 1

9 (B) "The agency shall lay the services as per approval plan approved by various civic authorities like DJB, MCD, DVB, etc. On completion of services the agency shall submit the required number of completion plans to DDA. The services shall be handed over by DDA itself and the deficiency charges, if any, incurred on this account (i.e. non-judicial stamp attached by a tenderer of design and tendered by the agency) shall be recoverable from M/s V.R.M. (India) Ltd. at the time of finalization of their rescinded contract."

wherever water proofing treatment has been provided by the contractor for a period of three years after the completion of the referred project.

Signature of Contractor

Signature of Divisional Officer

See
Correction
Slip No 1
A,

{ A
C
D
OW } = Nil

R
E & P II

Shaf
21/10/08 AS (P)

Red
21/10/08

non-judicial
stamp attached
by a tenderer
of design and
tendered by the
agency
i.e. non-judicial stamp
attached by a tenderer
of design and tendered
by the agency
shall be recoverable
from M/s V.R.M. (India)
Ltd. at the time of
finalization of their
rescinded contract.

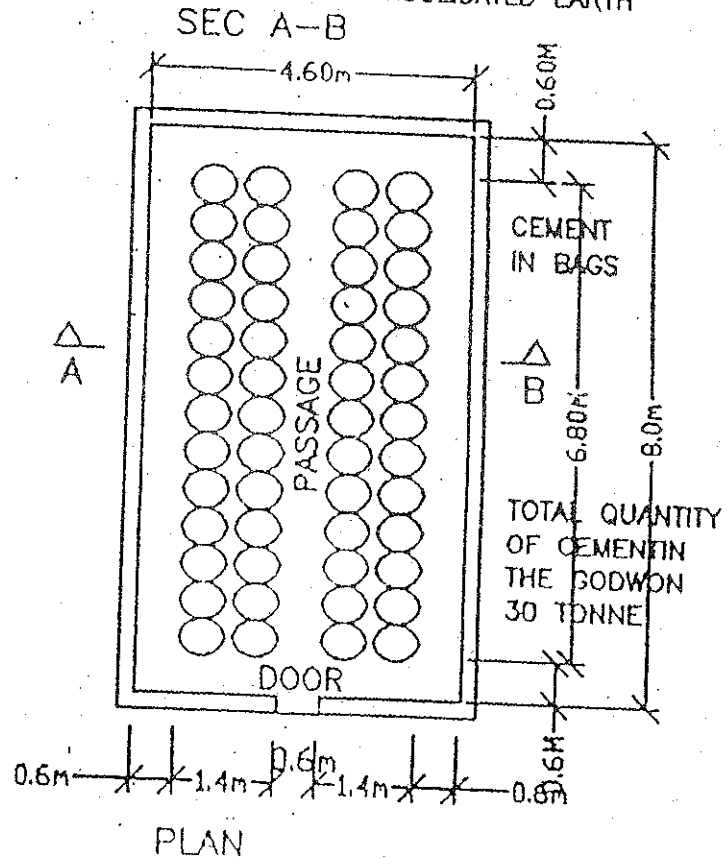
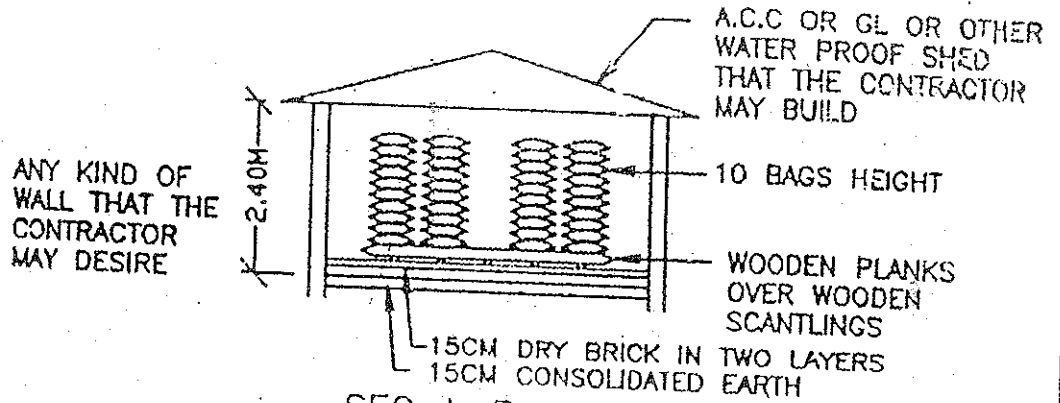
BLANK

CEMENT REGISTER (SPECIMEN)

Date	Store No.	Qty. recd.	Progressive received	Store No.	Date	Qty. issued	Qty. recd.	Net Qty. Back	Balance issued	Progressive in stores	Item on which Issued	Signature of JE. Cont./ Rep.	Remarks/ Test Check of AA&EE
1/	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.

A.....
 C.....
 D.....
 OW.....

TYPICAL CEMENT GODWON AT SITE OF WORK



**MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY
ARRANGEMENTS FOR WORKERS EMPLOYED BY DDA OR ITS
CONTRACTORS**

1. Application

These rules shall apply to all building and construction works under charge of Delhi Development Authority.

2. Definitions

(1) Work place means a place at which at an average, fifty or more workers are employed in connection with construction work.

(2) "Large work place" means a place at which, at an average 500 or more workers are employed in connection with construction work.

3. First Aid

(a) At every work place, there shall be provided and maintained in a readily accessible place first aid appliance including an adequate supply of sterilized dressing and sterilized cotton wool. The appliances shall be kept in good order and in large work place they shall be placed under the charge of a reasonable person who shall be readily available during working hours.

(b) At large places where hospital facilities are not available within easy distance of works the first Aid post shall be established and be run by a trained compounder.

(c) Whereas large work places are at remote from regular hospitals, an indoor ward shall be provided with one bed for every 250 employees.

(d) Where large work places are situated in cities town or in their suburbs and no beds are considered necessary owing to the proximity of city or town hospital suitable transport shall be provided to facilitate removal of urgent cases of the hospital. At other work places, some conveyance facilities, such as a car, shall be kept readily available to take injured person or persons suddenly taken seriously ill to the nearest hospital.

4. Drinking Water

(a) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.

A.....
C.....
D.....
OW.....

(b) Where drinking water is obtained from an intermittent public water supply each work place shall be provided with storage where such drinking water shall be stored.

(c) Every water supply of storage shall be at a distance of not less than 15.0 meter from any latrine drain or other source of pollution where water has to be drawn from an existing well which is within such proximity of latrine drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap-door which shall be dust and water proof.

(d) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. Washing and Bathing Place

(i) Adequate washing and bathing places shall be provided, separately for men and women.

(ii) Such places shall be kept in clean hygienic and in dried condition.

6. Scale of Accommodation in latrines and urinals

	No. of Seats
(a) Where the number of persons does not exceed 50	2
(b) Where the number of persons exceed 50 but does not exceeds 100	3
(c) For every additional 100 persons.	3 per 100

7. Latrines and Urinals for Women

If women are employed, separate latrines and urinals, screened from those for men and marked in the cernacular in conspicuous letters "For women only" shall be provided on the scale laid in the rule 6. Those for men shall be similarly marked "For men only" A poster showing figure of a man and women shall also be exhibited at the entrance of latrines, for each sex. There shall be adequate supply of water close to the urinals and latrines.

8. Latrines and Urinals

Except in work places provided with water flushed latrines, connected with a water borne sewage system all latrines shall be provided with receptacles on dry earth system which shall be cleaned at least four

A.....
C.....
D.....
OW.....

times daily and at least, twice during working hours and kept in a strictly sanitary condition. The receptacles shall be tarred inside and outside at least once a year.

9. Construction of Latrines

The inside well shall be constructed of masonry of some suitable heat resisting non-absorbent material and shall be cement washed in side and out side at least once a year. The dates of cement washing shall be noted in a register maintained for this purpose and kept available for inspection. Latrine will not be of a standard lower than borehole system and should have thatched roofs.

10. Disposal of excreta

Unless otherwise arranged for by the local sanitary authority arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator approved by the Assistant Director of Public Health or the Municipal Medical Officer of Health, as the case may be in whose jurisdiction the work place is situated. Alternatively, excreta may be disposed of by putting a layer of nightsoil at the bottom of pucca tank prepared for the purpose and covering it with a 6" layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn into manure).

11. Provision of Shelters during rest

At every work place there shall be provided free of cost two suitable sheds one for meals and the other for rest separately for men and women for the use of labour. The height of the shelter shall not be less than 3.5 meter (11 feet) from the floor to the lowest part of the roof. The sheds should be roofed with at least thatch and mud flooring provided with a dwarf wall around not less than 2-½ feet (76 cms). Sheds should be kept clean and the space should be on the basis of at least 5 square feet per head.

12. Creches

- a) At every work place at which 50 or more women workers are ordinarily employed there shall be provided two huts/tent for the use of children under the age of 6 years, belonging to such women. One hut shall be used for infants games and play and the other as their bed room. The huts shall not be constructed on a lower standard than the following :

A.....
C.....
D.....
OW.....

- i) Thatched roofs
- ii) mud floors and walls
- iii) planks spread over the mud floor and covered with matting.

The huts shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweeper to keep the place clean. There shall be two dais in attendance. Sanitary utensils shall be provided to the satisfaction of the Health Officer of the area concerned. The use of the hut shall be restricted to children, their attendants and mothers of the children.

- b) Where the number of women workers is more than 25 but less than 50 the contractor shall provide at least one hut and one Dais to look after the children of women workers.
- c) The size of crèche or crèches shall vary according to the number of women workers.
- d) The crèche or crèches shall be properly maintained and necessary equipment like toys, etc. shall be provided.

CANTEEN

A cooked food canteen on moderate scale shall be provided for the benefit of workers wherever it is considered expedient.

13. The above rules shall be incorporated in the contracts and the notices inviting tenders and shall form an integral part of the contracts.

DELHI DEVELOPMENT AUTHORITY CONTRACTORS LABOUR REGULATIONS

Short title:

1. These regulations may be called the "Delhi Development Authority Contractors" labour regulation.
2. Definition : In these regulations, unless otherwise expressed or indicated, the following words and expressions shall have the meaning hereby assigned to them respectively that is to say :

(i) "Labour" means workers employed by a Delhi Development Authority Contractors directly or indirectly his behalf on a payment not exceeding Rs. 2,418/- per month and will not include supervisory staff like Overseers etc.

A.....
C.....
D.....
OW.....

- (ii) "Fair Wages" means wages whether for time or piece of work notified at the time of inviting tenders for the work and where such wages have not been so notified, and will not be less than the minimum rates of wages fixed by Delhi Administration vide No. F 12(1)88/MW/Lab/93 dated 9.3.2000 effective from 1.2.2000 for that class of employees engaged on the same type of work in the same area.
 - (iii) "Contractor" shall include every person whether sub-contractor or head man or agent employing labour on the work taken on contract.
 - (iv) "Wages" shall have the same meaning as defined in the payment of Wages Act and include time and piece rate wages.
- 2(a) Normally working hours of an adult employee shall not exceed 8 hours a day. Working day shall be so arranged that inclusive of interval for rest, it shall not spread over more than 12 hours on any day.
- (b) When an adult worker is made to work for more than 8 hours on any day or for more than 48 hours in any week he shall be paid overtime for the extra hours put in by him at double the ordinary rate of wages.
- (c) Every worker shall be given a paid weekly holiday normally on Sunday in accordance with the provision of the minimum wages (central) Rules 1950 as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act 1948 or not.
3. Display of Notice regarding wages etc. The contractor shall:
- (a) Before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clean and legible condition in conspicuous place on the work notice in English and in the local Indian Language spoken by the majority of the workers giving the rates of wages which have been certified by the Executive Engineer, the Superintending Engineer, the Chief Engineer or Regional Labour Commissioner as fair wages and the hours of work for which such wages are earned and the actual wages being paid.
- (b) Send a copy of such notices to the certifying officer.
4. **Payment of wages :**
- (i) Wages due to every worker shall be paid to him direct.
- (ii) All wages shall be paid in current coin or currency or in both.
- (iii) Arrears claimed after 3 months after the completion of the work shall not be entertained.

A.....
C.....
D.....
OW.....

- (iv) Wages of every worker employed on the contract shall be paid (a) in case of establishment in which wage period is one week within 3 days from the end of the wage period and (b) in the case of other establishment before the expiry of the 7th day or 10th day from the end of the wage period according to the number of workers.
- (v) When the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the day succeeding the one on which his employment is terminated.
- (vi) All payment of wages shall be made on a working day except when the work is completed before the expiry of the wages period in which case final payment shall be made within 48 hours of the last working day at work site and during the working time.

Note: The term "working day" means a day on which the work on which the labour is employed is in progress.

5. Fixation of wage periods

- (i) The contractor shall fix the wage period in respect of which the wages shall be payable.
- (ii) No wage period shall exceed one month.

6. Wage book and wage slips etc.

- (i) The contractor shall maintain a wage book of each worker in such form as may be convenient at the place of work but the same shall include the following particulars :
 - (a) Name of the worker
 - (b) Rate of daily or monthly wages
 - (c) Nature of work on which employed
 - (d) Total number of days worked during each wage period
 - (e) Dates and periods for which worked overtime
 - (f) Gross wages payable for the work during wage period
 - (g) All deduction made from the wage with an indication in each case of the ground for which the deduction is made.
 - (h) Wages actually paid for each wage period
 - (i) Signature or thumb impression of the workers
- (ii) The contractor shall also issue a wage slip containing the aforesaid particulars to each of workers employed by him on the work at least a day before the day of disbursement of wages.

A.....
C.....
D.....
OW.....

(iii) The contractor shall issue an Employment Card in the prescribed form III to each worker on the day of work of entry into his employment. If the worker has already any such card with him from the previous employer the contractor shall merely endorse that Employment Card with the relevant entries. On termination of employment, the employment card shall again be endorsed by the contractor and returned to the worker.

(iv) The contractor shall issue an attendance cum wage card as per Form IV enclosed, to each worker on the day of work or entry into his employment.

7. **Register of Unpaid Wages :** The contractor shall maintain a register of unpaid wages in such form as may be convenient at the place of work but the same shall include the following particulars :

- a) Full particulars of the labourers whose wages have not been paid.
- b) Reference number of the muster roll and wages register.
- c) Rate of wages.
- d) Wage period.
- e) Total amount not paid.
- f) Reasons for not making payment.
- g) How the amount of unpaid wages was utilized.
- h) Acquaintance with dates.

8. **Register of Accidents :** The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars :

- a) Full particulars of the labourers who met with accident.
- b) Rate of wages
- c) Sex
- d) Age
- e) Nature of accident and cause of accident
- f) Time and date of accident
- g) Date and time when admitted in hospital
- h) Date of discharge from the hospital
- i) Period of treatment and result of treatment
- j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
- k) Claim required to be paid under Workmen's Compensation Act.
- l) Date of payment of compensation.

A.....
C.....
D.....
OW.....

- m) Amount paid with details of the person to whom the same was paid.
- n) Authority by whom the compensation was assessed.
- o) Remarks.

9. Fines and deductions which may be made from wages :

- (i) The wages of worker shall be paid to him without any deductions of any kind except the following :
 - a) Fines
 - b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.
 - c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account for where such damage or losses directly attributable to his neglect or default.
 - d) Deduction for recovery of advances or for adjustment of over payment of wages advance granted shall be entered in a register.
 - e) Any other deduction which the Central Government may require from time to time.
 - f) No fine should be imposed on a worker save in respect of such acts and omissions on his part as have been approved by the Chief Labour Commissioner.
- (ii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- (iii) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three naya paise in a rupee of the total wages payable to him in respect of that wage period.
- (iv) No fine imposed on an worker shall be recovered from him by instalment or after the expiry of sixty days from the date on which it was imposed.
- (v) Every fine shall be deemed to have been imposed on the act of omission in respect of which it was imposed.

A.....
C.....
D.....
OW.....

10. Register of Fines, etc.

- (i) The contractor shall maintain a register of fines and a register of deduction for damage or loss in Form No. 1 and 2 respectively which should be kept in the place of work.
- (ii) The contractor shall maintain in both English and the local Indian Language a list approved by the Chief Labour Commissioner clearly stating the act and omissions for which penalty or fine may be imposed on a workman and display it in a good condition in a conspicuous place on the work.

11. Preservation of Registers

The wage book, the wage slips, the register of unpaid wages, the register of accidents, the register of fines, deductions required to be maintained under these regulations shall be preserved for 12 months after the date of last entry made in them and shall be made available for inspection by the Engineer-in-Charge or Labour Welfare Officer or any other officer authorized by Ministry of Urban Affairs, Govt. of India on the behalf.

12. Power of Labour Welfare Officers to make investigations of enquiry

The Labour Welfare Officer or any other person authorized by the Central Government on their behalf shall have power to make enquiry with a view to ascertaining and enforcing due and proper observance of the fair wages clauses and the provisions of their regulations. He shall investigate into any complaint regarding the default made by the contractor or sub-contractor in regard to such provision.

- 13.** The Labour Welfare Officer or other person authorized as aforesaid shall submit a report of result of his investigation or enquiries to the Executive Engineer concerned indicating the extent, if any to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the contractor under Clause 14 of these regulations, actual payment to labourers will be made by the Executive Engineer after the Regional Labour Commissioner has given his decision on such appeal.

- (a) The Executive Engineer shall arrange payments to the labourers concerned within 45 days from the receipt of the report from the Labour Welfare Officer or the Regional Labour Commissioner as the case may be.

A.....
C.....
D.....
OW.....

14. Appeal against the decision of Labour Welfare Officer. Any person aggrieved by the decision and recommendations of the Labour Welfare Officer or other person so authorized may appeal against such decision to the Regional Labour Commissioner concerned within 30 days from the date of decision forwarding simultaneously a copy of his appeal to the Executive Engineer concerned but subject to such appeal the decision of the officer shall be final and binding upon the contractor.
15. **Prohibition regarding Representation through lawyer**
- (i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by :
- a) An officer of a registered trade union of which he is a member.
 - b) An officer of a federation of trade unions to which the trade union referred to in Clause (a) is affiliated.
 - c) Where the employer is not a member of any registered trade union by an officer of a registered trade union connected with or by any other workman, employed in the industry in which the worker is employed.
- (ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by :
- a) An officer of an association of employers of which he is a member.
 - b) An officer of a federation of association employers to which the association referred to in clause (a) is affiliated.
 - c) Where the employer is not a member of any association of employee by an officer of association of employers, connected with, of by any other employer engaged in the industry in which the employer is engaged.
- (iii) No party shall be entitled to be represented by a legal practitioner in any investigations or enquiry under these regulations.
16. **Inspection of Books and Slips**
- The contractor shall allow inspection of the wages book and the wages slips, the register of unpaid wages, the register of accident, and the register of fines and deductions to any of his workers or to his agent at a convenient time and place after the due notice is received from the labour welfare officer or any other persons authorized by the Central Government on his behalf.
17. **Submissions of Returns**
- The contractor shall submit periodical returns as may be specified from time to time.
18. **Amendment**
- The DDA may from time to time add to or amend the regulations and on any questions as to the application, interpretations or effect of these regulations the decision of the Chief Labour Commissioner or Deputy Chief Commissioner (Labour) to the Government of India or any other person authorized by the Central Government in that behalf shall be final.

A.....
C.....
D.....
OW.....

FORM - III
EMPLOYMENT CARD [REGULATION 6 (III)]

Name and sex of the worker :

Age or Date of Birth :

Father's Name :

Identification mark :

Address :

Particulars of next of kin (wife and children). If any or of dependants in case the worker has no wife or children.

Name :

Full address of dependants :

(Specify village, district and state)

S. No.	Name & Address of employer (specify whether a contractors or sub-contractor)	Particulars of location work site & description of work done	Total period for which the worker is employed (from..... to.....)	Actual number of days worked	Leave taken no. of days should be specified
1	2	3	4	5	6

BACKSIDE OF THE CARD

S. No. as on reverse	Nature of work done by the worker	Wage Period	Wage rate (with particulars of unit in case of place of work)	Total wage earned by worker during the period shown under Col. 5	Remarks	Sign. of employees
1	2	3	4	5	6	7

N.B. If the worker is employed both on place and the rates, relevant: entries in each case should be made separately.

A.....
C.....
D.....
OW.....

**FORM IV (SEE SUB CLAUSE (V) OF CLAUSE 6)
ATTENDANCE CUM WAGE CARD**

Card No.

Dated

Name of the contractor

Name of the work

Name of the worker

Address

Designation

Date of wages

Date	Name & Address of employer (specify whether a contractors or sub-contractor)	Particulars of location work site & description of work done
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		

BACKSIDE OF THE CARD

Period	Date on which over time worked	Gross wages payable	Deduction if any	Actual wages paid	Date of payment	Sign. of the worker

A.....
C.....
D.....
OW.....

List of Acts and Omissions for which fine can be imposed :

1. Willful insubordination or disobedience, whether alone or in combination with another.
2. Theft, fraud or dishonest in connection with contractor's business or property of the DDA.
3. Taking or giving bribes or any illegal gratification.
4. Habitual late attendance.
5. Drunkness, fighting, riotous or disorderly or indecent behaviour.
6. Smoking near or ground the area where combustible or other materials are stacked.
7. Habitual negligence.
8. Habitual indiscipline.
9. Causing damage to work in progress or to property of the DDA or the contractor.
10. Sleeping on duty.
11. Malingering or slowing down work.
12. Giving false information regarding name, age, father's name.
13. Habitual loss of wage cards supplied by the employers.
14. Unauthorized use of employer's property or manufacturing or making of unauthorized articles at the work places.
15. Bad workmanship in constructions and maintenance by skilled workers which is not approved by the Department and for which contractors are compelled to and rectification.
16. Making false complaints and or misleading statements.
17. Engaging in trade within the premises of the establishment.
18. Any authorized divulgence of business affairs of the employers.
19. Collection or canvassing for the collection of any money within the premises of any establishment unless authorized by the employers.
20. Holding meeting inside the premises without previous sanction of the employer.
21. Threatening or intimidating any workman or employee during the working hours within the premises.

A.....
C.....
D.....
OW.....

GENERAL SPECIFICATIONS & CONDITIONS

The contractor must get acquainted with the proposed site for the work and the work area shall be the area shown in the site plan of the scheme attached with tender documents. The contractor should study, the specifications, conditions, carefully before tendering.

This is a turnkey contract. While efforts have been made to cover the scope of work as defined under specifications and narration etc., but there may be some ambiguities or missing items, but the contractor shall be responsible for executing all the items required for completion of houses in all respects, to make these habitable and ready for occupation and to make services functional and operational.

1. Progress monitoring : Contractor shall submit monthly progress report indicating the financial as well as physical progress of the work till the works are completed. The work will be executed as per CPM/PERT chart, to be submitted by contractor duly signed along with tenders. The contractor will be responsible for completion of job as per CPM/PERT Mile stone chart.
2. All that is contained anywhere in this tender document as narration, specifications, scheduled of inventories, sketches etc. form part of agreement.
3. The contractor shall cut, leave or form holes, recesses, chases, etc. in concrete, brick work, walls, ceilings, floors and in any other situations as required or as directed by the Engineer-in-Charge and make good, the same in cement concrete 1:2:4/cement sand mortar (1:3) and finished to match the adjoining surfaces.
 - 3.1 Any hole and/or opening required to be left/made for any fittings or fixtures or pipes shall be made/left as the work proceeds, cutting the RCC works, subsequently shall not be permitted under any circumstances.
 - 3.2 All clamps, bolts, fittings/fixture etc. required to be embedded in RCC work shall be done as the work proceeds, embedding subsequently by cutting/drilling or dismantling RCC work shall not be permitted under any circumstances.
4. Amount quoted by the tenderer shall be deemed to include for any minor details/items of works and/or construction which are obviously and fairly intended and which may not have been included in these documents but which are essential for execution and entire completion of the work.

A.....
C.....
D.....
OW.....

- 4.1 Decision of the Accepting Officer as to whether any minor detail of work and/or construction is obviously and fairly intended to be included in the contract shall be final, conclusive and binding.
- 4.2 However, some of the items, for example, which shall be deemed to be essential for the execution and entire completion of work are detailed as under :
 - i) Dwarf wall in situations like verandah passages etc. not indicated.
 - ii) Lintels over doors, windows and opening with plaster, drip, grooves not shown for Sun Shades/Chajjas.
- 4.3 In all the above and similar cases the details indicated elsewhere in the drawings which are similar or near to the missed out items of work shall be followed. In the absence of any other similar or near detail, minimum essential requirement for completion of work from structural and utility point of view shall be deemed to be included in the quoted amount. In the event of any dispute, decision of the Engineer-in-Charge thereon shall be final, conclusive and binding.
- 4.4 Any discrepancies and omissions can be sorted out through mutual consultation as far as possible but decision of Engineer-in-Charge shall be final and binding on all such items.
5. The material brought at site to be used in the work like Cement, Cold twisted tor steel, pig lead, bitumen, paint, primer, cement paint etc. will be kept in joint custody of department and the contractor. The record of its consumption would be signed by the contractor and the Junior Engineer of DDA shall maintain these records.
6. Specifications to be followed for execution of work shall be as under :
 - 6.1 The entire work shall be done as per C.P.W.D. specification 1996 Vol. I to VI with up to date correction slip. If the specification for any item are not available in the C.P.W.D. specification referred above relevant I.S.I. specification shall be followed. In case I.S.I. specification are also not available the decision of divisional officer shall be final. The ambiguity in regards to interpretation of specification, the decision of the divisional officer shall be final and binding. Whenever any reference to any Indian Standard specifications occurs in the documents relating to this contract the same shall be inclusive of all amendments issued there to or revisions thereof if any, upto the date of receipt of tenders.

A.....
C.....
D.....
OW.....

- 6.2 Samples of building material, door & window fitting, sanitary wares and other article required for completion of work shall be got approved from Engineer-in-Charge before this use in the work. Preference shall be given to those articles which bears I.S.I. certification mark. In case article bearing ISI certification mark are not available, the quality of the sample brought by contractor shall be judged by the standard laid down in the relevant ISI specification. All materials and articles brought by the contractor to the site for its use shall confirm to sample approved which shall be preserve till the completion of work.
- 6.3 The work will be carried out in the manner complying in all respects with the requirements of relevant bye-laws of the municipal corporation of Delhi, DJB, DFS, DVB or as directed by the Engineer-in-Charge.
- 6.4 The contractor shall conduct performance tests for the entire installations as per standards/specifications before the work is finally accepted and reasonable amount, shall be withheld from the sums due to the contractor is absence of such test.
- 6.5 The JE at site shall maintain the Register for cement, steel, bitumen and paint etc. and also other Registers as required by the Engineer-in-Charge and these shall be signed by the contractor or his authorized agent and the Junior Engineer-in-Charge of the work.
- 6.6 The contractor shall make his own arrangement for temporary electrical connection if required and make necessary payment for the same direct to D.V.B.
- 6.7 Samples of item of work shall be prepared for approval before starting the item of work said item of as specified by the Engineer-in-Charge.
- 6.8 For all precast concrete work an unyielding platform with smooth finished surface shall be made. The members shall have to be cast in approved rigid moulds. Use of bricks, loose planks and battens and similar non-rigid sides of moulds shall not be permitted. Vibrators must be used for compaction of concrete. All faces of the members must come out smooth. Curing shall either be under water or by covering with wet gunny bags for minimum 14 days. Hopper mixer of full bag capacity shall be used for all civil works except RCC work which will be executed with batch mix plant.

A.....
C.....
D.....
OW.....

AE(P)

EE(P)II

- 6.9 For accommodating electric conduits from the Distribution Board, continuous nitch shall be formed in the brick work with half or one fourth bricks.
- 6.10 The hinges of door shutter shall be fully welded to angle iron/T-iron frames and eyes and hooks required for pull bolt, tower bolts etc. shall be provided to such frames as per requirements. Nothing extra shall be paid for this work or for providing wooden padding for fixing the fittings to shutters to suit angle iron, T-iron frames.
- 6.11 Welding wherever required in the work like in grill, railing, etc. shall be done in full length of the contact area.
- 6.12 For various fitting internal services dimension given in the following table shall be maintained.

S.No.	Item	Height from floor level (mm)	Distance face of wall (mm)
i.	<u>Bathroom</u>		
	Bib Cock	800	200
	Shower Rose	2100	500
	Stop Cocks Shower Rose	1100	
ii.	<u>W.C.</u>		
	Bib Cock	250	100
	Flushing cistern (high) level	1950	
	Bottom (top of bracket)		
iii.	<u>Other Fittings</u>		
	Wash Basin (front edge)	800	
	Mirror (bottom)	1200	
	Mirror (top)	1800	
	Glass Shelf	1050	
	Towel Rail	1100	
	Kitchen Sink	900	
	Kitchen Bib Cock	500	200

A.....
C.....
D.....
OW.....

- 6.13 S.F.R.C. covers for manholes etc. if provided shall have DDA and year of manufacture as engraved.
- 6.14 The contractor shall employ licensed plumber for water supply and sewerage work.
- 6.15 S.C.I. pipes for sanitary and G.I. Pipes for water supply if fixed in R.C.C. members like columns, beams etc. it shall be fixed with scrub plugs.
- 6.16 The contractor shall be responsible for all protection of sanitary, water supply, electrical fittings and fixture against pilferage breakage during period of installation until the completion of work and handed over to the DDA/allottee.
- 6.17 Earth excavated from trenches shall be stacked at a distance from the top edge of excavation equal to the depth of trench below ground level or equal to 5 M whichever is greater.

7. **BRICKS**

The contractor will make his own arrangement for the entire quantity of bricks required for the work, quality of bricks shall be judged as per applicable specifications and brick work is to be done with F.P.S. Bricks.

8. **TESTING OF MATERIALS**

When required by the Engineer-in-Charge the contractor shall supply for the purpose of testing, samples of all materials proposed to be used in the works. Samples submitted either to govern bulk supplies or required for testing before use shall be in suitable packages to contain them shall be provided free of charge by the contractor. Testing charges, if any shall be borne by the contractor. All expenditure required to be incurred for taking the samples, conveyance, packing, testing etc. shall be borne by contractor himself.

9. **WATER PROOFING TREATMENT FOR SUNKEN PORTION TOILETS & SUNKEN PORTION OF KITCHEN, W.C. etc.**

- (i) 40 mm dia G.I. Pipe (Class 'B') spout in the shaft shall be fixed.
- (ii) All sides of sunken portion including base of the slab shall be plastered with cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound as recommended by manufacturer finished with a neat coat of cement including rounding the edges.

A.....
C.....
D.....
OW.....

- (iii) Bitumen @ 1.7 kg/sqm with residual petroleum bitumen of penetration 80/100 of approved quality after cleaning the surface with a piece of cloth lightly soaked in kerosene oil shall be done on plastered surface.
 - (iv) PVC sheet of 400 micron shall be laid over all the bitumen painted surfaces.
 - (v) The sunken portion shall be filled with cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate of 40 mm nominal size) mixed with water proofing compound (as recommended by the manufacturer).
- 10. Due care shall be taken by the contractor to ensure the execution of brick masonry walls in plumbs. For this purpose the contractor shall be required to provide (Rigid M.S. pipe scaffolding from outside the building).
 - 11. The chromium plating on the body and cover of stop/bib cock as well as pillar taps shall conform to IS 1795-1961 as amended from time to time. The pressure of water to be withstand by the C.P. Pillar Taps/ C.P. Bib Cocks and C.P. Stop Cocks shall be as per clause 9.1 of I.S. 1795-1961 as amended from time to time.
 - 12. Contractor shall be required to use only controlled mixed concrete for RCC work by making necessary arrangements for the weigh batching plant either at site or shall bring ready mixed concrete from other site of work or other works. The contractor shall be required to use only mechanical mixer with lifting hoppers of full bag capacity for other cement concrete works.
 - 13. The contractor shall bear all incidental charges for storage and safe custody of material.
 - 14. All materials brought at site for use in the work shall be got approved by the Engineer-in-Charge of the works on receipt of the same at site, before use.
 - 15. The contractor shall not be compensated for any damage caused by rains or other natural calamities during the execution of the works and no such claim on this account will be entertained.
 - 16. The water shall be tested quarterly with regard to its suitability for use in Construction works.

A.....
C.....
D.....
OW.....

17. The rigid scaffolding of M.S. pipe for doing the brick work for all external walls shall be done from outside. The supports shall be sound and strong, with horizontal pipes. The contractor shall be responsible for providing and maintaining sufficiently strong scaffolding so as to withstand all loads likely to come upon it. Due care shall be taken by the contractor to ensure the execution of brick masonry walls in plumbs.
18. Any permission if required from police authorities or other departments for closing/cutting of road will be obtained by the contractor.
19. The contractor shall submit the plans of all services in original along with their forwarding letter issued by the approving authority i.e. local body (which will be the property of DDA) to the engineer in charge.
20. The amount quoted in the tender also includes all works required to be executed under sub-soil water.
21. Should there be any discrepancy due to in complete description/ambiguity or omission in the drawings and other documents, whether original or supplementary, forming the contract, either found on completion or during currency of the installation work, the contractor shall immediately, on discovering the same, draw the attention of the Engineer-in-charge, decision of the Engineer-in-Charge shall be final and binding on the contractor.

Anti Malaria Measures

The contractor shall at his own expenses make necessary arrangement for undertaking Anti-Malaria measures including drainage at places such as abandoned Haudies, Water Tanks, excavated sites etc. Where water is likely to stagnate and cause mosquito breeding. The contractor shall comply with every reasonable directions of the Engineer-in-Charge.

Signature of Contractor

**Signature of Divisional
Officer**

A.....
C.....
D.....
OW.....

HORTICULTURE WORKS

Specification for Horticulture Works

1. The work will be carried out as per C.P.W.D. specification 1996 Vol. I to VI with upto date correction slips.
2. The all liabilities of the labour is the responsibilities of the contractor and that of not D.D.A.
3. 250 Nos. of Trees, 1000 Nos. of Shrubs, 2500 ground cover, 2500 Nos. of hedge plants, creeper etc. will be planted/Hac. List enclosed.
4. At least 225 mm good earth will be provided by the contractor for lawn area and 25 mm cow dung manure.
5. At least one tube well required with pump house with irrigation system for lawn area and planters etc. the maximum distance of the hydrant of 20 mm size will be 25 mtr.
6. Green area will be bounded by 1-meter high boundary wall from adjoining path/RCC and 1 meter height railing over this wall.
7. Path in green area will be C.C. tiles with grass joints as per direction of landscape architect.
8. The contractor shall arrange his own T & P required for development as well as maintenance.
9. Tree plants will be protected by the treeguard.
10. Tree/Shrub/Creeper/Hedge plant will be approved by the Engineer-in-charge from the enclosed list.
11. The quantity can be increased or decreased by 20% as per sole discretion of Engineer-in-Charge.
12. The payment will be made of actual work done.
13. Trenching in ordinary soil upto a depth of 30 cm including removal and stacking of serviceable materials and then disposing of by spreading and neatly leveling with in a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/and manure before and after flooding trench with water.

A.....
C.....
D.....
OW.....

14. Supplying and stacking of good earth at site including royalty and carriage upto all leads and lifts (earth measured in stacks will be reduced by 20% for payments).
15. Supplying and stacking cow dung at site including royalty and carriage upto all leads and lifts (sludge measured in stacks will be reduced by 8% for payments).
16. Flooding the ground with water including making kiaries and dismantling the same.
17. Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted weeds.
18. Fine dressing the ground to levels specified.
19. Mixing earth and sludge or manure in proportion 2:1 and to thickness of 150 mm.
20. Spreading of sludge, dump manure or/and good earth in required thickness.
21. Grass with Doob grass including watering and maintenance of the lawn for till the grass forms a thick lawn free from weeds and fit for moving including supplying good earth if needed. Grass to be planted in rows 5 cm apart in either direction.
22. Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm refilling the good earth after breaking clods and mixing with sludge or manure in the ratio of 2:1 (2 part of stacked volume of earth after reduction by 20% : 1 part of stacked volume of sludge or manure after reduction 8%) flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m lift upto 1.5 m complete.

A.....
C.....
D.....
OW.....

23. Digging holes in ordinary soil and refilling the same with the good earth mixed with manure or sludge in the ratio 2:1 by volume (2 part of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water dressing including removal of rubbish and surplus earth if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately).
 - i) Holes 1.2 m dia and 1.2 m deep
 - ii) Holes 60 cm dia and 60 cm deep
24. Supplying best quality container grown healthy trees of 210 cm minimum height, of species as specified. All trees to be approved before planting.
25. Supplying best quality pot grown healthy climber plants, with minimum 90 cm stem length of species specified, inclusive of preparation and cultivation. All plants to be approved before planting.
26. Supplying best quality pot grown healthy shrub plants, with minimum 120 cm tail of species specified, inclusive of preparation and cultivation of shrub beds as specified. All plants to be approved before planting.
27. Supplying chemical emulsion in sealed containers for termites 50 ml for tree and 35 ml for shrub etc. including delivery as specified.
28. Providing and Fixing MS circular tree guard 50 cm internal dia with overall height 2 m framed at 3 Nos. of vertical angle iron 25 x 25 x 3 mm including splayed out wend at lowest end upto on extra of 5 cm with 3 Nos. 25 x 3 mm MS flat rings and 2 Nos. MS vertical flat 25mm x 3m after opening system welded full in length meeting point providing and fixing of steel wire mesh fabric of 1.4 m and 10 SWG of 7.5 x angle circular rings of MS iron flat 2/3rd portion welded with 3 Nos. MS hinges 50 x 37 x 1.5 mm with 2 Nos. vertical MS flat 1/3rd portion or wire mesh will be work as door openable. The other side 3 Nos. MS flat 25 mm and x 3 mm and 0 mm long welded with the end of door leaf which will be fixed with angle by 3 Nos. nut & bolt of 6 mm dia and 25 mm long with washer of painting with ready mixed paint of approved brand and of required shade over a priming coat of ready mixed zinc chromate yellow primer of approved brand and manufacture as per attached drawing detail of cost for 1 No. tree guard.

A.....
C.....
D.....
OW.....

GENERAL

SCOPE

29. All plant materials shall be healthy, sound, vigorous, free from plant diseases, insect, pests, or their eggs, and shall have healthy, well-developed root systems. All plants shall be hardy under climatic conditions similar to those in the locality of the project. Plants supplied shall conform to the names listed on both the plan and the plant list. No plant material will be accepted if branches are damaged or broken. All material must be protected from the Sun and Weather until planted.

All nursery stock shall be inspected and approved by the Landscape Architect/Engineering-in-Charge.

All plants shall conform to the requirements specified in the plant list, except that plants larger than specified may be used if approved, but use of such plant shall not increase the contract price.

If the use of the large plant is approved, the spread of roots or ball of earth shall be increased in proportion to the size of the plant. Deliver plants with legible identification labels.

30. **TOP SOIL :** (Good earth) P.H. range 6.5 to 7.5

Top soil or good earth shall be a friable loam typical. It shall be free of subsoil, stones, earth clods, sticks, roots or other objectionable extraneous matter or debris. It shall contain no toxic material. No top soil shall be delivered in a muddy condition. The P.H value of the soil in between 6.5 to 7.5.

31. **FERTILISER**

Dry farm yard manure shall be used. Measurement shall be in stacks, with 8% reduction for payment. It shall be free from extraneous matter, harmful bacteria, insects or chemicals.

32. **ROOT SYSTEM**

The root system shall be conducive to successful transplantation. Where necessary, the root-ball shall be preserved by support with Hessian or other suitable material. On soils where retention of a good ball is not possible, the roots should be suitable/protected in some other way which should not cause any damage to roots.

A.....
C.....
D.....
OW.....

33. MARKING

Each specimen of tree and shrub, or each bundle, shall be legibly labelled with the following particulars.

34. TREE PLANTING

Trees should be supplied with adequate protection as approved. After delivery, if planting is not to be carried out immediately, balled plants should be placed check to check and the ball covered with sand to prevent drying out, bare-rooted plants can be heeled in by placing the roots in a prepared trench and covering them with earth which should be watered into avoid air pockets around the roots.

35. PLANTING

No tree pits shall be dug until final tree positions have been pegged out for approval.

Care shall be taken that the plant sapling when planted is not buried deeper than in the nursery, or in the pot. Planting should not be carried out in water logged soil.

Plants trees at the original soil depth the soil marks on the stem is an indication of this and it should be maintained on the finished level, allowing for setting or the soil after planting. All plastic and other imperishable containers should be removed before planting. Any broken or damaged roots should be cut back to sound growth.

36. FERTILIZING

Fertilizing shall be carried out by application in rotation of the following fertilizers, every 60 days from the beginning of the monsoon till the end of winter :

Organic well-rotted dry farmyard manure 0.05 cum of 1 tassa.

Urea 25 gm

or

Potassium sulphate 25 gm

All shrubs which are supplied pot grown, shall be well soaked prior to planting.

Watering in an subsequent frequent watering of summer planted container-grown plants is essential.

A.....
C.....
D.....
OW.....

37. In the absence of rain, in the Monsoon the lawn shall be watered with sprinklers every, three days soaking the soil through to a depth of at least 20 cm.

Damage, failure or dying back of grass due to heat etc. shall be the responsibility of the Contractor.

38. The contractor is to exercise care in the use of rotary cultivator and mowing machines to reduce to a minimum the hazards of flying stones and brickbats. All rotary mowing machines are to be fitted with safety guards.

39. **NURSERY STOCK**

Planting should be carried out as soon as possible after reaching site. Where planting must be necessarily be delayed care should be taken to protect the plants from pilfering of damage from people or animals. Plants with bare roots should be heeled-in as soon as received or otherwise protected from drying out, and others set closely together and protected from the wind. If planting is to be delayed for more than a week, packaged plants should be unpacked, the bundles opened up and each group of plants separately and clearly labelled. If for any reason the surface of the roots becomes dry the roots should be thoroughly soaked before planting.

40. A **"NO CLAIM CERTIFICATE"** in the prescribed form or a list of claims not included in the final bill with full details.

The Engineer-in-charge shall examine and certify the final bill for payment after satisfying that the works have been satisfactorily completed and that all properties, works and things removed or disturbed or damaged in consequences of the Works have been properly replaced and made good and all expenses and demands incurred or made by one Company or in respect of any damage or loss by, from or consequences of the Works have been satisfied, all material have been returned and the site cleared.

41. **COMPLETION CERTIFICATE**

The works shall be deemed to have been completed in all respects on the day the Engineer-in-Charge certifies that the works have been so completed in accordance with this Contract, takes over the completed works and issues a Certificate to that effect. The Defect Liability period will start from the said date of completion/handing over of the work.

A.....
C.....
D.....
OW.....

42. PENALTY

If at any time during the tenure of the contract is found that any material like manure, sweet earth etc. has not been brought/less quantities utilized in the work than specified, the cost of the difference of materials less brought/utilized will be deducted as under :

- The cost of material will be worked out at current market rate as assessed by the Engineer-in-Charge adding 30% (THIRTY PERCENT) extra of above cost as Company's overhead charges/penalty.
- Once this cost deduction is made as above from the bill, in no case the same will be refunded.

43. CONTRACTOR'S CO-ORDINATION

If during the course of the Contractors work other works of the Company or of the other Company's Contractors are also in progress within the same plant/site the contractor is to use his best efforts to work in harmony with all the others and in the best overall interest of the Project/Work.

LIST OF TREES

1. Anchocephalus cadamba
2. Alstonia scholaris
3. Azadirachta indica
4. Caryota urens
5. Cassia fistula
6. Cassia siamiae
7. Callistemon lanceolatus
8. Chorisia speciosa
9. Colvillea racemosa
10. Cupressus sempervirens
11. Cycas revoluta
12. Eugenia operculata
13. Ficus benjamina
14. Ficus krishnae
15. Grevillea robusta
16. Lagerstroemia flos-reginae
17. Livistonia chinensis
18. Millettia ovalifolia
19. Mimusops elengi
20. Oreodoxa regia
21. Peltophorum ferrugineum
22. Plumeria alba
23. Terminalia bellerica
24. Tabebuia rosea

A.....
C.....
D.....
OW.....

LIST OF SHRUBS

25. *Acalypha macafeana*
26. *Acalypha marginata*
27. *Acalypha godseffiana*
28. *Areca catechu*
29. *Bougainvillea* (Varieties)
30. *Brunfelsia Americana*
31. *Calliandra brevipes*
32. *Cestum nocturnum*
33. *Clerodendron inerme*
34. *Duranta plumerei*
35. *Duranta plumerei* (Gold)
36. *Duranta plumerei* (Variegata)
37. *Ficus benamina*
38. *Ficus benamina*
39. *Ficus panda* (Golden top)
40. *Franciscea bicolor*
41. *Furcraea watsoniana*
42. *Gardenia jasminoides*
43. *Jatropha pandurifolia*
44. *Jasminum grandiflorum*
45. *Jasminum sambac*
46. *Jacobinia coccinea*
47. *Lawsonia*
48. *Hamelia petans*
49. *Hibiscus rosasinensis*
50. *Nerium oleander* (variegata)
51. *Plumbago cupensis*
52. *Pseuderanthemum reticulatum*
53. *Russelia juncea*
54. *Sanchesia nobilis variegata*
55. *Tabernaemontana*
56. *Bigonia venusta*
57. *Clerodendron splendens*
58. *Ficus stipulate*

CREEPER

59. *Tecoma grandiflora*
60. *Vernonia indica*

A.....
C.....
D.....
OW.....

GROUND FLOOR

61. Alternanthera (red)
62. Alternanthera (green)
63. Alternanthera (variegated)
64. Asparagus sprengeri
65. Catheranthus roseus
66. Crassula argentea (Jade)
67. Juniperus prostrats
68. Kelanchoe
69. Lantana sellowiana
70. Lantana depreessa
71. Rhoeo discolor
72. Scindapsus aureus
73. Setcresia
74. Synognium
75. Tradescantia zebrine poendula
76. Wadelia trilobata

SPECIFICATION FOR WORK

1.0 MAINTENANCE FOR WORK OF LAWNS DOOB GRASS (CYNODON DECTYLONG) : Refer Item No. 1

1.1 The grass in lawns shall regularly cut with garden swords and moved with lawn movers. The thickness of the grass shall not be allowed to increase beyond 60 mm. The minimum thickness of grass shall be maintained as 50mm. The thickness shall be measured from top of the soil surface. The grass shall also be kept free from all kinds of weeds.

1.2 The grass lawns shall be kept constantly rolled to give cushioning effect to the grass. Manuring of the grass lawns shall also be done regularly so as to keep the grass green. The manuring of the lawn shall be spread in the months of DECEMBER & JANUARY or as directed by the Engineer-in-Charge.

2.0 FOR MAINTENANCE OF CURBING FOR FIRE CONTROL MEASURE ARE : Refer Item No. 2

2.1 The grass in area shall regularly be cut with garden swords and mowed with lawn mowers. The thickness of the grass shall not be allowed to increase beyond 60 mm, the minimum thickness of grass shall be maintained as 50mm. Thickness shall be measured from top of the said surface. The grass shall also be kept free from all kinds of wild grass/bushes.

2.2 The existing grass shall be scrapped, if required, or as directed by the Engineer-in-Charge. The scrapped materials shall be disposed off at convenient point to be decided by the Engineer-in-Charge. Thereafter, the area will be suitably flooded with water and left for a fortnight for new grass to come up.

A.....
C.....
D.....
OW.....

2.3 Manuring of the grass area shall also be spread in the month of December/January or as directed by the Engineer-in-Charge.

3.0 FOR WORK OF TREE PLANTS AND TREES : Refer Item No. 3

3.1 The area around the tree plants upto a minimum of two fts around from trunk of the tree plants trees shall be kept free from grass and all kinds of weeds. Hoeing of this area around the trees shall be done regularly. The plants shall also be watered regularly as required and as directed by the Engineer-in-Charge. Hoeing shall also be done after every watering as per the direction of Engineer-in-Charge. For proper upkeep of the trees unwanted branches of the trees/tree plants shall be removed at regular intervals as required and as directed by the Engineer-in-Charge. The tree plants/tree shall also be kept free of any diseases, insects or pest by regularly spraying insecticides as required and as directed by the Engineer-in-Charge.

3.2 The complete areas where the tree plants/trees are planted in open field shall be kept free from grass and all kinds of weeds throughout the year.

4.0 FOR WORK OF HEDGES : Refer Item No. 4

4.1 The area around hedges plants shall be kept from all kinds of grass and weeds. Hoeing of the area around hedge plants shall be done regularly as required and as directed by the Engineer-in-charge. The hedge plants shall be watered regularly as required and as directed by the Engineer-in-Charge.

4.2 Pruning and trimming are the most important items for proper shaping of hedges, therefore, special care and attention will be paid to prune and cut the hedge as required and as directed by the Engineer-in-Charge.

5.0 FOR WORK OF FLOWER BEDS : Refer Item No. 5

5.1 The contractor will maintain seasonal flower beds and rose beds including preparation of bed, supply of seeds and seeding chemicals, cow dung manure, watering, inter-culturing etc. as per direction of the Engineer-in-Charge so that maximum healthy flowers/plants are available throughout the year, for flowerbeds as per the requirement. In case any casualty of flower to negligence or poor maintenance by the Contractor occurs, the same will be replaced by a healthy and acceptable plant, as per the direction of the Engineer-in-charge.

OTHER SPECIFICATION

The following yardsticks should be followed for maintenance of Horticulture Works.

- A. MINIMUM ONE MALI FOR ONE ACRE OF LAWN.
- B. MINIMUM ONE MALI FOR 300 NOS. OF TREES/PLANTS.
- C. MINIMUM ONE MALI FOR 3000 RUNNING METRES OF HEDGES.
- D. MINIMUM ONE MALI FOR 100 NOS. OF FLOWER BEDS.

A.....
C.....
D.....
OW.....

INTERNAL ELECTRIFICATION

1. SCOPE OF WORK : The internal electrification work of the residential building consists of the following items :

1. Providing recessed conduit & wiring.
2. Providing switch boxes & switches for controlling light points, fan points, power points, TV outlets and telephone outlets i/c making edges wherever required.
3. Providing sub-distribution board inside the flat, submain pipe & wiring from mainboard/meter board to sub-distribution board, Circuit wiring covering of light points, fan points, exhaust point, call bell point, light plug points, power plug points, TV outlets & telephone outlets provided inside the flat.
4. Providing main distribution board & meter board.
5. Providing telephone junction box.
6. Providing fittings as and where required.
7. Providing T.V. Junction Box.
8. Provision of suitable pipe, for DVB cables, telephone cables and T.V. cables from meter board to "Kuchcha" portion having necessary brick masonry chamber of suitable size wherever required.
9. The electrical installation shall be carried out in accordance with the CPWD General specifications for electrical works Part-I (Internal) 1994 and Part-II (External) 1994 and shall be in conformity with Indian Electricity Act, 1910, Indian Electricity Rule-1956, relevant Indian Standard Codes of Practice, Supplementary Regulations of State Electricity Department and Electricity Undertaking? Board concerned.
10. After completing the work, necessary test results as envisaged in CPWD specifications shall be recorded and submitted to the Department. The results have to be within the permissible limits. Test report forms for obtaining service connections (energy meters) from DVB duly signed by the persons as required by the D.V.B.

A.....
C.....
D.....
OW.....

2. INTERNAL ELECTRIC INSTALLATION SHALL BE CARRIED OUT IN RECESSED CONDUIT WIRING SYSTEM AS PER SPECIFICATION GIVEN BELOW :

1. Conduit : PVC conduit. (The horizontal chase more than 60 cm shall not allowed).
2. Wiring :
 - a) Submain - Al. conductor wiring.
 - b) Point & Circuit - Copper conductor wiring.
3. Switch & Socket :
 - a) Switch - Piano type.
 - b) Power Socket - Six-pin type. Power outlet in bathroom shall be controlled by DP, MCB housed in MS enclosure. Enclosure & MCB of same make.
4. Switch Boxes : M.S. Sheet - Galvanised.
5. Sub-Distribution : Factory fabricated prewired boards with MCB, DB, MS Sheet enclosure & MCB of same make & shall be installed at suitable location inside the flat with 2mm thick acrylic sheet cover, natural link, Kit Kat, bus bar chamber, wooden boards for electric meters. The boards shall be located in a suitable lockable enclosure in common portion at ground floor so as to make them inaccessible to the unauthorized person and to children.
6. Main Board Main Distribution Boards
7. Fan Box : 16 SWG MS Sheet and Size as per drawing.
8. Bulk Head Fitting : Aluminium casted body with heat resistance glass cover, lampholder and wire guard etc.

A.....
C.....
D.....
OW.....

9. Earthing : As per CPWD specifications depending upon the site conditions and requirements.
10. Connector : Porcelain.
11. Testing : Entire installation to be tested in accordance to CPWD specifications for Electrical Part-1 (Internal 1994).
12. Staircase and Common Service Points : Staircase points to be controlled by twin-control switches whereas common service points to be controlled in group Control system.
13. Materials : Material bearing ISI/BIS certification mark to be used. Where materials bearing ISI mark not available, material conforming to relevant IS Code be made available. List of acceptable materials enclosed as per Annexure-A. The contractor shall produce samples of all the material to be used in the work for approval of the Engineer-in-Charge.
14. Fittings :
 - a) The light points where no fitting is to be provided under this contract shall be provided with extended wire for phase & neutral for at least 25 cm in length.
 - b) Three pin type ceiling rose shall be provided for exhaust fan point.
15. Inventory : Enclosed as per Annexure-B.

A.....
C.....
D.....
OW.....

Annexure 'A'

**LIST OF ACCEPTABLE MATERIALS AND THEIR MAKES IN RESPECT OF
INTERNAL ELECTRIFICATION**

<u>S.No.</u>	<u>Item</u>	<u>Make</u>
1.	P.V.C. Conduit	BEC/Precision/Allwin/NIC/AKG with ISI mark.
2.	Copper wire	National Grandlay/Plaza/Kalinga with ISI mark.
3.	Al. Conductor Cable	National Grandlay/Plaza/Kalinga with ISI mark.
4.	Phenolic Laminated Sheet	Hylam/Formica/Caprihans
5.	PVC cement resin	Polypack/BEC Plast
6.	Brass batton/ Angle holder	Antex/Kinjal/Phoenix ISI marked.
7.	Piano switch/Socket	Anchor/Kone/CPL/Precision ISI marked.
8. a)	MCB	L&T/MDS/Indokopp/ISI marked.
b)	SDB	L&F/MDS/Indokopp/ISI marked.
9.	G.I. earth pipe for earthing	BST/Jindal/ISI marked.

A.....
C.....
D.....
OW.....

INTERNAL ELECTRIFICATION OF HOUSES
(CATEGORY WISE) TENTATIVE REQUIREMENTS

<u>S.No.</u>	<u>Description</u>	<u>L.I.G.</u>	<u>M.I.G.</u>
1.	Light Point	9	15
2.	Light Plug Point	3	4
3.	Power Plug Point	3	5
4.	Fan Point	2	4
5.	Call Bell Point	1	1
6.	Exhaust Fan Point	1	1
7.	Call Bell/Buzzer	1	1
8.	Staircase Light Point	(Number of Floors + 1)	
9.	Batten/Angular Holder	2	3
10.	Telephone Outlet	1	2
11.	T.V. outlet	1	2
12.	M.C.B.D.B. Enclosure	8 way	12 way
13.	No. of MCB	1 No.-DP	1 No.-DP
		5 No.-SP	8 No.-SP
		1 No.-Spare	2 No. Spare
14.	Light Point Wiring	1.5 mm ²	1.5 mm ²
15.	Sub-main wiring	2 x 10 mm ² 2 x 10 mm ²	1 x 6 mm ² 1 x 6 mm ²
16.	5A Light/15/16 Amp. Power Plug Wiring	2 x 4 mm ²	2 x 4 mm ²
17.	Circuit Wiring	2 x 1.5 mm ²	2 x 1.5 mm ²
18.	Telephone Wiring	2 core, 0.61 mm dia tinned copper conductor	
19.	T.V. Outlet Wiring	75 ohm Coaxial	75 ohm Coaxial
20.	Bulk Head	1	1
A.....			
C.....			
D.....			
OW.....			

(B) EXTERNAL ELECTRIFICATION

1. SCOPE OF WORK: The external electrification work of the Housing Pocket consists of the following items :

1. Construction of required No. of sub-station buildings as per norms of D.V.B.
2. Providing sub-station equipments i/c transformers.
3. Providing H.T. feed (From the nearest D.V.B. source and from sub-station to sub-station building).
4. Providing L.T. network with required number of feeder pillar/service pillars.
5. Providing service cables upto the each meter board from feeder pillar.
6. Providing street lighting work/piazza lighting as and where required, level of lighting should be as per NEC.
7. The number of 11 KV Sub-stations are to be designed strictly as per D.V.B. norms and construction activity of the Sub-station building is to be carried out as per design followed by D.V.B.
8. The agency shall prepare the detailed design for providing H.T. feed, L.T. network, sub-station equipments including transformers, service cable, street light and get the same approved from the design wing of D.V.B. before start of the work. The firms shall have to make arrangement regarding handing over of entire installations to D.V.B. after testing and commissioning of the same.
9. The work of providing light points, fan points, call bell points, light plug points, piano type switches/socket outlet/bell push.
10. The contractor shall have to arrange fitness/clearance certificate from the office of Chief Electrical Inspector, Delhi Admn. for electric installation, if required by the Engineer-in-Charge. However, the fees for such certificates, to be paid to Delhi Admn. shall be borne by the Department.

A.....
C.....
D.....
OW.....

2. EXTERNAL ELECTRIFICATION SHALL BE CARRIED OUT AS PER SPECIFICATIONS GIVEN BELOW:

1. The external specification work is to be carried out as per C.P.W.D. general specifications for electrical works (Part-II) - External - 1994, general specifications for electrical works (Part-4 Sub-Station-1982 amended upto date).

2. Feeder Pillar :

The feeder pillar shall be floor mounted, fabricated of 2mm thick M.S. sheet with double doors (i.e. front and back side), hinged covers with locking arrangement suitable for continuous operation on 415 V (nominal), 3 phase, 4 wire, 50 Hz supply. Adequate space shall be provided below the same for safe bending and termination of cables.

3. L.T. Panel Board :

The general construction of the L.T. board shall conform to IS:8623/77. The cubical type switch board shall be fabricated of M.S. steel sheet not less than 2.00 mm thick. All cable entries shall be through gland plates for each cable entry.

4. Materials :

List of acceptable makes given in Annexure "C".

5. Guarantee :

The installation shall be covered by the condition that the whole installation or any part thereof found defective within the guaranteed period shall be replaced by the contractor free of charge in a reasonable time. The guarantee shall cover following:-

- a) Quality, strength and performance of the material and equipments used.
 - b) Safe electrical and mechanical strength of all parts of the equipments under all specified conditions of operation/satisfactory performance.
 - c) Prompt service during guarantee period.
 - d) Attending to consequential damages in the equipments and material supplied and installed by tenderer.
6. The work of providing light points, fan points, call bell points, light plug point, piano type switches/socket outlet/bell push.

A.....
C.....
D.....
OW.....

Annexure 'C'

**LIST OF ACCEPTABLE MATERIAL AND THEIR MAKES IN RESPECT OF
EXTERNAL ELECTRIFICATION**

<u>S.No.</u>	<u>Item</u>	<u>I.S. Code Reference</u>	<u>Make</u>
1.	Power Transformer	-	Bharat Bijlee Ltd. ALSTOM, Crompton Greaves Ltd., New Government Electric Factory Ltd. Kirloskar Factory Co. Ltd.
2.	11 KV panel board with switch gear including contractors	-	Jyoti Ltd. Siemens India Ltd. Mysore Electric Industries Crompton Greaves Ltd. ALSTOM Kirloskar Factory Co. Ltd. A.B.B. New Government Electric Industries
3.	415/433 Volt Switch Gear/ Control Gear	-	Larsen & Toubro Ltd. Siemens India Ltd. ALSTOM Crompton Greaves Ltd./ Schneider
4.	Cables (HT/LT)	IS-1554	Asian Cables & Industries Fort Gloster Industries Ltd. Cable Corporation of India Universal Cables Ltd. Indian Cable Ltd. Grandly Power Cables.
5.	Power Capacitors	-	Universal Cables Ltd. Madhav Capacitors (P) Ltd. Khatua Junker BHEL Ltd. Asea Brown Boveri ALSTOM
6.	415/433 Volt MCCBs	-	Larsen & Toubro Ltd. Siemens India Ltd. Crompton Greaves Ltd.
	A.....		
	C.....		
	D.....		
	OW.....		

7. a)	Relay (Protection)	-	Jyoti Ltd. Easun Reyrolles Relays Mysore Electric Industries ALSTOM Siemens India Ltd. A.B.B.
b)	Automatic Power Factor Correction Relay	-	Neutronics Standard Avomac Syntrol
8.	Battery	-	Standard Furukawa Exide Industries Ltd. AMCO Batteries Ltd.
9.	(CTs & PTs) for 11KV panel	-	As per standard fitment of switch gear/panel manufacturer.
10.	Battery Charger	-	Uptron Powertronics (Shreetron) Baroda Power Electronics AFCO Industrial & Chemicals Ltd. Reltronix Exide India Ltd. AMCO
11.	Fire Extinguishers	-	Steelage Industries Ltd. Kooverji Devshi & Co. Pvt. Ltd. Vijay Fire Protection Systems Pvt. Ltd.
12.	Swages Steel tubular pole	IS:2713 Part-I & II	ISI marked or conforming to relevant IS.
13.	Street light fitting	IS:10322 Part-I to V and Technical Specification	Philips Crompton Greaves Ltd. Bajaj Keselec
14.	HPSV Lamp	-	Philips Osram

A.....

C.....

D.....

15.	Street Lighting Fluorescent fittings	-	Philips Crompton Greaves Ltd. Bajaj Keselec
16.	Capacitor and ballast for control gear compartment	IS:1569 (for capacitor) IS:6616 (for Ballast)	As per standard fittings of manufacturer.
17.	PVC insulated, copper conductor cables	IS:694	National Plaza ECKO with ISI mark.
18.	Switch disconnecter fuse unit	IS:13947	L&T Siemens ALSTOM
19.	Miniature Circuit Breaker (MCB)	IS:8828	ISI marked MDS, Standard Krupp, Havells Breaking Capacity 9 KA, G-Series.
20.	GI Pipe	IS:1239	TATA Jindal JTC with ISI marks.
21.	Earthing	IS:3040-1987 (Amended upto date)	

(C) WATER SUPPLY ARRANGEMENT

1. **SCOPE OF WORK** : The water supply arrangement for the Housing pocket consists of the following items :-

1. Providing Underground Tank of the capacity calculated in accordance to guidelines of Delhi Jal Board norms.
2. Providing booster pumping station of suitable size to accommodate number of booster pumping sets alongwith provision of 50% standby arrangements included all allied accessories and items such as sluice valve, C.I. flanged type pipe, flanged type bend, taper and puddle pipe where-ever required.

A.....
C.....
D.....
OW.....

3. Providing number of tube-well as per data available.
4. Providing cubical type L&T panel board suitable for operation of booster pump sets and D.G. set provided at site.
5. Providing suitable size of separate room for D.G. set.
6. Providing water level indicator.
7. Submission of test report duly filled in for receiving electrical connection from DVB, as required by Engineer-in-Charge.

2. WATER SUPPLY ARRANGEMENT SHALL BE CARRIED OUT AS PER SPECIFICATIONS GIVEN BELOW :

1. The booster pump set shall be designed as per the technical data available i.e. discharge and head calculated on the basis of actual water requirement. The model and make of the pump and motor shall be based on the performance curve and duties of the pump of the individual manufacturer.
2. Submersible pumps shall be designed on the basis of the technical datas of the bore developed at site. 100% standby submersible pump set for each tubewell shall be arranged.
3. C.I. pipe, bend, tee, puddle pipe etc. shall be of double flanged type.
4. All sizes of sluice valve, C.I. pipe, bend, tee, taper and puddle pipe required at site shall be as per the design covered under the I.S. code.
5. The work including any modification/alteration/addition ordered subsequently shall be carried out as per the following specifications indicated in order of their precedence.
 - i) Indian Electricity Rules 1956 as amended upto date.
 - ii) Technical specifications attached herewith.
 - iii) Relevant BIS codes as amended upto date.
 - iv) CPWD specifications for electrical work (Part-1) Internal 1994, (Part-II) External 1994 with correction slips upto the date of the tender, general specifications for electrical work (Part-IV) sub-station) as amended upto date.

A.....
C.....
D.....
OW.....

6. The work of providing light points, fan points, call bell points, light plug points, piano type switches/socket outlet/bell push.
7. Testing of Installation :
 - i) The entire system shall be tested to the satisfaction of Engineer-in-Charge.
 - ii) Test shall be performed in the presence of Engineer-in-Charge or his authorized representative.
 - iii) The contractor shall provide all labour, equipment and material required for performance of the tests.
8. Guarantee:
 - i) The installation shall be covered by the condition that the whole installation or any part thereof found defective within the guaranteed period shall be replaced by the contractor free of charge in a reasonable time. The guarantee shall cover following :
 - a) Quality, strength and performance of the material and equipment used.
 - b) Safe electrical and mechanical strength of all parts of the equipment under all specified conditions of operation/satisfactory performance.
 - c) Prompt service during guarantee period.
 - d). Attending to consequential damages in the equipments supplied and installed by the tender.
 - ii) Guarantee period of 12 months shall be counted from the date of handing over the installation to the department after satisfactory testing and commissioning.
9. Pump sets :
 - a) Pumps-the centrifugal pump shall be of cast iron body consist of steel shaft and dynamically balanced CI impeller. The pump shall be capable of developing the required total head of rated capacity. The curve shall be submitted along with tender and the contractor shall indicate the make/model of the pump to be supplied.

A.....
C.....
D.....
OW.....

- b) Pumps shall run smooth without undue noise and vibration.
- c) Pump shall be furnished complete with flexible coupling alongwith coupling guard bolted to the base plate.
- d) Base plate for pump motor shall be common. Suitable holes shall be provided for grouting. Foundation bolts shall be completed with nuts and washers.

10. Induction Motor :

- i) Design requirement-The motor shall generally conform to IS:325. Additionally the specific requirement mentioned in the following clauses shall also be met.
- ii) The guaranteed performance of the motor shall be met with tolerance specified as admissible and its minimum efficiency shall be 85%.
- iii) The motor winding shall be given a further treatment with epoxy paint to withstand atmospheric conditions polluted by hydrogen.
- iv) The tenderer shall indicate the actual horse power ratings make of the motor to be provided. The motor shall be wound with class 'B' insulation and shall be of continuous rating.
- v) The motor shall be capable of giving rated output without reduction in the expected life span even when operated continuously vide the following supply conditions.
 - a) Variation in supply voltage $\pm 10\%$.
 - b) Variation in supply frequency $\pm 5\%$
 - c) Combined voltage and frequency variation $\pm 10\%$
- vi)
 - a) The motor construction shall be suitable for easy disassembling and reassembling and shall permit easy removal of any part of the motor for inspection and repairs.
 - b) Motor weighing more than 25kg. shall be provided with eye bolt, lugs or other means to facilitate safe lifting.
- vii) Bearings Greased ball bearing shall be or reputed make, the bearing shall be so constructed that the loss of lubricating fluid is kept to a minimum and greasing shall be possible without any dismantling operations.
- viii) Terminal Box - (a) Terminal box shall be of weather proof construction designed for outdoor service to eliminate entry of dust and water, gaskets of neoprene or approved equivalent shall be provided at cover joints between box and motor frame.

A.....
C.....
D.....
OW.....

- (b) The terminal shall be of the stud type with necessary plain washers, spring washers and check nuts. These shall be designed for the current carrying capacity and shall ensure ample phase to phase and phase to ground clearance.

11. Diesel Generating Set :

These specifications covers :

- i) The details of equipment to be supplied.
- ii) Inspection of equipment as may be necessary and delivery at site.
- iii) Installation, testing, commissioning and handing over the equipment in working order to the deptt.

The generating set of required capacity as such to generate 415/440 volts at 0.8 PF (lag) suitable for 50 Hz. 3 phase 4 wire system. Engine shall be water cooled vertical, individual cylinder heads electric start compression ignition, 4 stroke multicylinder design to run continuous at 1500 RPM.

12. Alternator :

Self executed, self regulated, three phase, 50 C/S, 1500 RPM screen protected, drip proof conforming to IS:4712/2613 of Kirloskar/NGEF/Jyoti.

13. The work of providing light points, fan points, call bell points, light plug point, piano type switches/socket outlet/bell push.

14. Earthing : As per IS:3040-1987 (Amended upto date).

A.....
C.....
D.....
OW.....

Annexure 'D'

**LIST OF ACCEPTABLE MATERIALS & THEIR MAKES IN
RESPECT OF WATER SUPPLY ARRANGEMENT**

<u>S.No.</u>	<u>Item</u>	<u>Make</u>	
1.	Pumps	Kirloskar Brothers Limited Mather & Platt (I) Ltd. Jyoti Ltd. Beacon Wier Ltd.	(KBL) (M&P) JYOTI) (BEACON)
2.	Motors	Kirloskar Electric Co. Ltd. New Government Electric Factory Ltd. Siemens India Ltd. Jyoti Ltd. Hindustan Brown Boveri Bharat Heavy Electric Ltd. Crompton Greaves Ltd.	(KEC) (NGEF) (SIEMENS) (JYOTI) (HBB) (BHEL) (CGL)
3.	Non-return and sluice valves	Kirloskar Electric Co. Ltd. Indian Valve Company	(KBL) (IVC)
4.	Cast Iron Pipes & Fittings and dismantling joints	Baroda Rolling Mills The Indian Iron & Steel Co. Ltd. Bharat Industrial Corporation Oriental Castings	(BRM) (IISCO) (BIC) (OC)
5.	415V Switchgear/ Control gear	Larsen & Toubro Ltd. Siemens India Ltd. English Electric G.E.C. ALSTOM Crompton Greaves Ltd.	(L&T) (SIEMENS) (EE)
6.	Cables	Asian Cable Corporation Ltd. Fort Gloster Industries Ltd. Cable Corporation of India Universal Cables Indian Cable Co. Grandlay Power Cables	(ASIAN) (FGI) (CCI) (UNISTAR) (ICC) (GRANDLAY)

A.....
C.....
D.....
OW.....

7.	Instrument & Meter	Universal Electric Ltd. Automatic Electric Ltd. Meco Instruments (P) Ltd. Industrial Motors (P) Ltd. Havells Pvt. Ltd.	(UEL) (AEL) (MEL) (IML) (HAVELS)
8.	Star-delta-Starter	Larsen & Toubro Ltd. Siemens (I) Ltd. Jyoti Ltd.	(L&T) (SIEMENS) (JYOTI)
9.	D.O.L. Starter	Larsen & Toubro Ltd. Cutler Hammer GEC ALSTOM	(L&T)
10.	Pressure Gauge	Manometers India Ltd. H. GURU Instruments Pvt. Lt General Instruments (P) Ltd. A.N. Instruments	3)
11.	Fire Extinguishers	Steelage Industries Kooverji Devshi & Co. Pvt. Ltd. Vijay Fire Protection Systems Pvt. Ltd.	
12.	Diesel Engine	Cummins India Ltd. Cater-Pillar Ltd.	(CUMMINS) (Cater-Pillar)
13.	Synchronous Alternator	Kirloskar Electric Company Ltd. New Govt. Electric Factory Ltd. Crompton (Stamford) AVK SEG Jyoti	(KEC)
14.	Battery	Standard Batteries Ltd. Exide Batteries AMCO Batteries	

A.....
C.....
D.....
OW.....

SPECIFICATION FOR INTERNAL DEVELOPMENT WORKS

A. SPECIFICATIONS FOR WATER SUPPLY :

1. **SCOPE :** It includes excavation for pipes, laying of centrifugally cast iron S&S pipes (spun) class-LA with necessary fittings, sluice valves, fire hydrants, air valves with necessary brick chambers, jointing of pipes and fittings, accessories, refilling of trenches and testing for leakage disinfection etc. complete to the satisfaction of Engineer-in-Charge as per approved scheme in the specified boundary/area.
2. The water line system shall be laid as per the scheme approved by Delhi Jal Board. The sluice valves, fire-hydrants and air valves shall be ISI marked. Any modification in this scheme approved by Engineer-in-Charge shall not violate terms of the contract. The work shall be executed as per CPWD specification 1996 Vol. 1 to VI with up to date correction slips respectively and the relevant, ISI codes shall be followed.
3. **EXCAVATION :** The work includes excavation in all types of strata. For proper jointing of pipes and fittings the bottom of the trench & sides at the relevant places should be sufficient for doing proper lead caulking of joints. The top of the pipes would have at least cushion of 60 cms from the finished surface under road berms and 1.2 M under roads or as per direction of Engineer-in-Charge.
4. S&S centrifugally cast (spun) iron pipes class LA duly approved by the Engineer-in-Charge shall be used in the work. All collar jointed/flanged /socketed fittings shall be of heavy class.
5. **LAYING :** The cast iron pipes shall be laid at site as per alignment shown in the approved drawings. In case it is considered necessary by the Engineer-in-Charge to alter the alignment as per site situations so as to accommodate laying of other services viz. Storm water drain, sewerage, Horticulture pipes and Electric cables, no extra claims for the same would be entertained. While laying the pipes, it may be ensured that these water supply pipes have a horizontal and vertical separation of 3 mtrs and 0.50 mtr respectively from the sewer pipes. The water line should in no case run below sewer line.
6. **JOINTING :** Water supply pipes, fittings and specials shall be jointed together with pig lead or flanged joints where necessary as per direction of Engineer-in-Charge. The pig lead brought at site shall be got tested from DDA approved laboratory and only after the results are found to be satisfactory the same would be allowed to be used in the work and shall remain in joint custody. The day to day consumption of lead shall be maintained by the Jr. Engineer and the same would be signed by the contractor as well. The quantity of lead to be used in joints of pipes, fittings and specials would be as per CPWD specifications/ISI codes.

A.....
C.....
D.....
OW.....

7. **CHAMBERS** : Suitable brick chambers for housing the fire, hydrants and sluice valves shall be constructed in brick masonry with bricks of class designation 75 in cement mortar 1:5. the brick chambers shall have leveling course of CC-1:5:10, the chamber shall be plastered with cement mortar 1:3, 12 mm thick with a floating coat of neat cement. The chambers shall have RCC slab on top with required opening for operation of valves as per specifications M.S., indicating plate showing the positions of fire hydrants and sluice valves shall also be provided.
 8. Cement concrete 1:2:4, thrust blocks shall be provided as per CPWD specifications for the various fittings/accessories.
 9. **DIS-INFECTION/TESTING** : After the work has been completed the lines shall be flushed with water containing bleaching powder @ 0.5 gms per ltr. of water and cleaned with fresh water and the operation repeated 3 times till the sample of water is approved by Municipal Laboratory.
- Pipes laid shall be tested at twice the maximum allowable pressure to check water tightness of the joints and to detect any hair cracks in the pipes. After satisfactory completion of the work, 5 sets of completion plans showing the alignment of lines, location of air valves, sluice valves, fire hydrants along with the service plan (in original) approved by D.J.B. along with its forwarding letter to the engineer-in-charge shall be submitted to the Engineer-in-Charge by the contractor.
10. The work may be inspected by officials of MCD, DJB or any other agency during execution.
 11. U.G.R. of required capacity with boosting arrangement in pump house i/c necessary installation for supply of water in the houses as per approval accorded by D.J.B. and engineer-in-charge.

Note: The specific requirement as per approval accorded by Delhi Jal Board shall also be complied with.

B. SPECIFICATION FOR SEWERAGE

The work shall be executed as per approval according by D.J.B. in design and drawings by Engineer-in-Charge/DJB shall be final and binding on the contractor and will not be open to questions. This work shall include excavation in all stratas, laying stone ware, RCC NP2/NP3 S/S Pipes, construction of manholes providing S.F.R.C. manhole covers, frames, heavy duty, foot rests with necessary brick work in cement mortar, plaster, bed concrete and concrete upto haunches and around the pipes wherever required.

A.....
C.....
D.....
OW.....

GENERAL :

1. The work will be done as per D.J.B./MCD standards & in accordance with C.P.W.D. specification 1996, Vol. 1 to VI with upto date correction slips respectively wherever applicable.
2. The reference bench mark shall tally with G.T.S. bench mark.

Circular Manholes

Manholes shall be provided :

- at starting point of each line
- at all change points
(Gradient, size of the pipe, alignment)
- at all junction points of two or more lines. Manholes should be so spaced that each properly discharges in the direction of flow, and maximum centre to centre spacing of manholes will be as per prevailing DJB bye-laws.

Sizes of manholes

	<u>For Depth of manhole between</u>	<u>Bottom diameter of manhole</u>
i)	0.914 mtr. To 1.68 mtr. (3'-0" to 5'-6")	0.914 mtr. (3'-0")
ii)	1.68 mtr. To 2.28 mtr. (5'-6" to 7'-6")	1.220 mtr. (4'-0")
iii)	Beyond 2.28 M	1.520 mtr. (5'-0")

for depth less than 0.914 mtr. rectangular manholes of size 90 x 80 cms shall be provided.

3. The circular manholes shall be of minimum depth of 0.914 m.
4. The depth of the manhole shall be taken as vertical distance between top level of SFRC cover and invert level of channel in the manhole. The work includes excavation in all types of soils for construction of manholes complete with orange colour safety foot rest of minimum 6mm thick plastic in capsulated as per IS:10910.
5. All manholes to be plastered both inside and outside with cement mortar 1:4 (1 cement : 4 coarse sand) with a floating coat of neat cement inside.

A.....
C.....
D.....
OW.....

6. When sewer is being laid under sub soil water 15 cm thick stone soiling shall be provided under concrete bedding and 23 cm thick under manholes.
7. Heavy duty S.F.R.C. manhole frames and covers 560 mm internal dia will be provided weighing 182 kg and to be tested as per IS 1726 (Part-I) for heavy duty loads. The covers shall be embossed "DDA with its year of manufacture and worked "SEWER" and ISI mark.....
8. **Drop Connection** : Normally, no sewer line shall have a drop of more than 0.610 mtr. in any case. Wherever, the drop is more, a drop connection arrangement, shall be provided as per sketch in CPWD specification 1996.
9. **Pipes** : Laying of sewerage lines shall include excavation in all types of soils, providing and laying of RCC, S&S pipes NP2/NP3 as specified with rubber ring joints, testing and refilling etc. the completion of job to the satisfaction of Engineer-in-Charge and according to the specifications prescribed.
 - i) The S/S R.C.C. NP-2/NP-3 pipes as per requirement/approved scheme ISI marked will be used, with rubber ring & cement mortar joints.
 - ii) Pipes laid at a depth less than 0.910 m under road berms and green belts and more than 4.57 m shall be encased with 1:4:8 (1 cement : 4 fine sand : 8 graded stone agg. 40 mm nominal size) cement concrete 15 cm thick on all sides including under the pipes.
 - iii) Extra excavation of at least 0.23 m width in each side will be done for proper jointing of pipes at the location of sockets.
 - iv) No sewer line shall be laid within a distance of 3.25 M from building line in case of roads. In case of service lanes/roads the sewer shall be laid at centre of the lanes.
 - v) The minimum size of pipe to be used shall be as per approved scheme.
 - vi) In case the pipe are laid under sub soil water level, the encasement shall be done with 1:3:6 (1 cement : 3 coarse sand : 6 graded stone agg. 40 mm nominal size) instead of CC 1:4:8 (1 cement : 4 fine sand : 8 graded stone agg. 40 mm nominal size) cement concrete.

A.....
C.....
D.....
OW.....