

No 14/25/2016-OIDB

24.11.2016

**Miscellaneous Civil Works at OIDB Bhawan, Sector-73, Noida**

- 1 OIDB invites bids for the **Miscellaneous Civil works** at its facilities at Sector - 73, Noida.

Sr	Description	Details/dates
a	Period of issue of tender document	30.11.2016 to 20.12.2016
b	Last date and time of submission of bid	21.12.2016, 02.00PM
c	Date and time of opening of bid (Part-1)	21.12.2016 , 03.00PM
d	Earnest Money Deposit (EMD)	Rs. 20,000
e	Contact person	Ganesh C. Doval, DCF & AO
f	Place of submission& opening of bid	OIDB, 3 <sup>rd</sup> floor, 'C Wing, Sector-73, Noida
g	Pre-bid meeting period	09.12.2016

**2 BID QUALIFICATION CRITERIA (BQC)/ ELIGIBILITY CONDITONS**

- I Bidder should be CPWD/Noida/Greater Noida Authority registered contractor with its registered address at Delhi/NCR.

Or

having 2 years of similar work experience and annual average turnover of greater than 10 lakh in the last 2 years. Similar work means experience in maintenance of civil works at large or equivalent organization. Bidder shall submit work orders/performance certificate from any Govt. deptt., PSU or reputed Pvt. Ltd company.

- II Bidder should not be on holiday list/de-listed/black listed by OIDB or any of Govt, of India deptt./PSU

Bidder whose bid has been terminated due to unsatisfactory performance will not be considered

प्रधान कार्यालय :-  
ओ.आई.डी.बी. भवन, 'सी' ब्लॉक, तीसरी मंजिल,  
प्लॉट नं. 2, सेक्टर - 73, नोएडा-201301, उ.प्र.  
फोन : 91-120-2594602, 603, 604 फैक्स : 91-120-2594630  
वेबसाईट : www.oidb.gov.in

पंजीकृत कार्यालय :-  
301, वर्ल्ड ट्रेड सेंटर, नई दिल्ली - 110 001  
फोन : 91-11-23413540

Main Office :-  
OIDB Bhawan, 'C' Block, 3rd Floor  
Plot No. 2, Sector - 73, Noida-201301, Uttar Pradesh  
Phone : 91-120-2594602, 603, 604 Fax : 91-120-2594630  
Website : www.oidb.gov.in

Registered Office:-  
301, World Trade Centre, 3rd Floor, Babar Road, New Delhi - 110 001  
Phone : 91-11-23413540

- III Copies of following documents shall attached with the technical bid
- Service tax registration
  - PAN no
  - ESI registration No
  - EPF registration no
  - Labour licence no
  - Financial statement (balance sheet, profit and loss account for the year 2013-14, 2014-15 and 2015-16)
  - Work orders/performance certificates.

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**Scope of Work**

- OIDB Bhawan constructed over a plot of 16,000 SqM has a built up area of 45,000 SQM including two level basements. The maximum height of building is 45 M. Building is laid in square shape with four blocks.
- OIDB intend to line up an **Annual Rate Contract (ARC)** for the miscellaneous civil and allied works at OIDB Bhawan .
- Jobs will be relating to RCC , concrete, brick stone works. Jobs will also encompass Steel , flooring, roofing ,finishing, repair of building, sanitary, water supply ,drainage ,aluminum works, gypsum false ceiling work, etc.
- Other jobs not specifically mentioned will also be performed and the rates will be extrapolated with mutually agreed conditions.
- The estimated value of work is Rs. 10 lakh per annum. However, the value of work may vary as per the quantum of work either on lower or on higher side and to any extent. Bidder shall have no claim on this account.
- Bidder will quote unit rates against each item listed in schedule of rates. Executed quantities will be governed by the site requirements. Payment will be made on the basis of executed items, quantities and the agreed rates.
- The executed quantities may vary to any extent. Bidder will not have any extra claim to the excess quantities executed or no quantity executed for any/all items.

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**Offers will be submitted in two parts**

**Part -1 Techno-commercial**

**Envelope -1 ( to be super-scribed as EMD)**

- will contain EMD

**Envelope-2 (to be super-scribed on the face as Techno-commercial part-1)**

- will contain the BQC and the techno –commercial part

**Part-2 Financial/price part**

**Envelope-3 (to be super-scribed as commercial/price part) Part-2**

- Will contain quoted price

**NOTE**

- All the envelope (03) must be properly sealed and put in a separate (which too shall be sealed) so that complete bid is submitted in one envelope.
- On having found all the requirements stated as above in order (envelope-1 and 2), bidders will be informed about their having qualified technically. Date for price part Envelope -3 (Part-2 financial )opening will be intimated accordingly.

**5 Others**

- i. OADB reserves the right to annul the process of tendering without assigning any reason and at any time of the process. OADB will be under no obligation for any compensation on this account.
- ii. Bidder must acquaint himself/herself of the site and the conditions prevalent and the system of sewage treatment plant. No compensation will be entertained on this account later to the submission and acceptance of bids.
- iii. Bid should remain valid for 60 days from the date of opening of bids.
- iv. Tender document can be downloaded from the website [www.oidb.gov.in](http://www.oidb.gov.in) or Govt of India e-procurement portal .
- v. Those bidder(s) whose services have been terminated earlier by OADB will not be eligible to participate in this tender.
- vi. No consideration will be given for any delay in post/delivery of bid. Late/delayed bids will not be accepted.
- vii. Any corrigendum to this tender will be notified through aforesaid websites only. Bidders should remain in touch with the tender display sites.
- viii. Selection of successful bidder will be at the sole discretion of OADB and it reserves the right to accept or reject any or all proposals without assigning any reasons thereof.
- ix. Bidder is required to mention its company's name, address, email address , phone nos. etc. Bid should be addressed on bidder's company letter head.
- x. Any deviation or contradiction noticed in the bid document be brought to the knowledge of officer-in-charge and clarification may be asked for in case of any doubts.

- xi. EMD shall be paid in the shape of Demand Draft/Pay order drawn in favour of 'Oil Industry Development Board" payable at ' New Delhi'. Name of the bidder shall be written on the back of DD/pay order for EMD. It will be placed in a separate envelope to be named as 'Envelope -1'.  
xii. **Bidder must fill and submit format as per annexure -1 on its letter head.**  
xiii. Offer of Bidder/agency under liquidation and/or net worth of agency going negative will not be considered.



(Ganesh C Doval)  
Dy Chief Finance & Accounts officer

**Enclosure**

- Annexure-1 Check format –to be filled in by the bidder  
Annexure-2 Conditions of Contract  
Annexure-3 scope of Work  
Annexure-4<sup>2/4</sup> Schedule of rate ( Item rates to be quoted)

**Annexure -1**

**OIL INDUSTRY DEVELOPMENT BOARD  
SECTOR-73, NOIDA**

**CHECK FORMAT FOR BIDDING**

**Table-I**

<b>Sr</b>	<b>Description</b>	<b>Details</b>	<b>Doc. Submission</b>
1	Name of Work	Miscellaneous Civil Work	
2	Bid No	14/xx/2016-OIDB	
3	Name of Bidder	Please mention	
4	Bidder's Address	Please mention	
5	Tel No Land line No./Cell No.	Please mention	
6	PAN No	Please mention	Submit Copy of document
7	Service Tax No	Please mention	Submit Copy of document
8	VAT/Sales tax registration	Please mention	Submit Copy of document
9	Present assignment	Please mention	Give details as per table-I
10	Manpower details	Please mention	Give details as per table
11	EMD	Please mention	Give details of DD/pay-order
12	Confirm bidder is not on holiday/negative list	Please mention	
13	Acceptance of terms & conditions of NIT	All terms & conditions of NIT accepted.	

**Manpower details**

**Table-II**

<b>Sr</b>	<b>Name of Person</b>	<b>Experience</b>	<b>Designation</b>	<b>qualification</b>	<b>Working since when</b>
1	Give details	Give details	Give details	Give details	Give details
2	Give details	Give details	Give details	Give details	Give details
3	Give details	Give details	Give details	Give details	Give details
4	Give details	Give details	Give details	Give details	Give details

## **CERTIFICATE**

This is to certify that I/we before signing this tender have read and fully understood all the terms and conditions contained therein and have visited the site and undertake myself/ourselves to abide by them.

### **Note :**

Information desired above be submitted on bidder's company's letter head duly signed and stamped by the authorized representative of company.

Signature of Bidder  
Address/Tel.No/Seal/Date

**CONDITIONS OF CONTRACT**

**1 Bid Qualification Criteria (BQC)/ Eligibility Conditions**

I Bidder should be CPWD/Noida/Greater Noida Authority registered contractor with its registered address at Delhi/NCR.

Or

having 2 years of similar work experience and annual average turnover of greater than 10 lakh in the last 2 years. Similar work means experience in maintenance of civil works at large or equivalent organization. Bidder shall submit work orders/performance certificate from any Govt. deptt., PSU or reputed Pvt. Ltd companies.

II Bidder should not be on holiday list/de-listed/black listed by OI DB or any of Govt, of India deptt./PSU

Bidder whose bid has been terminated due to unsatisfactory performance will not be considered

III Copies of following documents shall attached with the technical bid

- Service tax registration
- PAN no
- ESI registration No
- EPF registration no
- Labour licence no
- Financial statement (balance sheet, profit and loss account for the year 2013-14, 2014-15 and 2015-16)
- Work orders/performance certificates.

**2 Period of the contract:**

The period of contract shall be two year from the date of start. Subject to satisfactory performance , OI DB reserves the right to extend the contract for a further period of one year on same terms and condition and rate. OI DB reserves the right to terminate the contract by giving 15 days notice and without assigning any reason thereof.

**3 Submission of Tenders:**

Late/delayed tenders due to any reason, whatsoever, will not be accepted/considered, at all, under any circumstances.

4 **Rate quoted by bidder:**

- i). The quoted rates shall be as per the format at annexure-4A.
- ii) Financial bid shall have only the item rates to be quoted by the bidder. It should not contain any condition or deviation. Bids with any such condition or rider are liable to be rejected.
- iii) Incomplete tender will not be considered.
- iv) Quoted rates will remain and firm during the currency of contract

5 **Payment terms:**

- Payment for the maintenance work carried out will be made on monthly basis, on submission of bills and measurements for the services rendered in that particular month. TDS and any other Government levies applicable shall be deducted on bill amount as per Government of India rules issued from time to time.
- Payment shall be made on actual quantities executed at the contracted rates.

6 **Security cum Performance guarantee:**

- i). The successful bidder shall be required to deposit an amount equal to 5% of the contract value within 15 days of issue of letter of intent, as Security cum Performance guarantee. EMD submitted earlier can be adjusted for this purpose to the extent of its value.
- ii) Security cum Performance guarantee will be discharged after completion of contractor's performance/warranty obligations under the contract.
- iii). If the contractor fails or neglects any of his obligations under the contract, OI&D reserve the right to forfeit either whole or any part of Security cum Performance guarantee furnished by the bidder as penalty for such failure.

7 **Sub-letting and split of work**

- Subletting of contract is not allowed.
- Splitting of work is not envisaged.

8 **Site Visit**

Bidder must acquaint himself/herself of the site and the conditions prevalent and the system of civil work required in the building. No compensation will be entertained on this account after the submission and acceptance of bids.

9 **Validity of bid**

Bid should remain valid for 60 days from the date of opening of bids. EMD of the bidders other than the lowest will be returned on the opening of bids. Photo copy of the DD/pay-order will be retained for records for these bidders. EMD of the lowest bidder will be retained with OADB. EMD will not earn any interest for the bidder.

10 **Late/delayed bids**

Bids received after the due date and time will not be considered. Unopened bids will be returned to the bidders

11 Price part of the bids shall be indicated in figures and words. When it is not possible to ascertain the correct rate and amount in the manner prescribed, the quoted rate in words shall be considered as final and evaluation shall be made accordingly.

12 **Safety of persons**

Bidder shall ensure the safety of the persons deployed by him and bidder himself will be responsible for the same. Bidder will indemnify OADB for any claim/litigation arising out of mishap, loss of life, injury, accident to the persons deployed by the bidder for the job at OADB.

13 **Termination/Cancellation of contract**

In the event of non-performance by the contractor OADB reserves the right to cancel the contract at any point of time, with a notice of one week, and engage the services of any other agency for the job at the risk and cost of the contractor.

Owner can terminate the contract at its sole and absolute discretion at any time by giving a notice of two weeks to the contractor. This will be without prejudice to the rights of the parties that have accrued on or before the date of termination of contract.

If at any stage, any information in regard to tender is found to be wrong, the consideration of bid/awarded tender may be cancelled/terminated and EMD/ performance Security will also be forfeited.

14 **Penalty**

Penalty @ 1% per week or part thereof limited to 5% of the sub-orders shall be leviable for non- execution / deficient execution of work in accordance with the scope defined. For repeated default contract is liable to be terminated.

OADB at its sole discretion extend the time of completion, on submission of justification for the delay.

15 **Taxes and duties**

Quoted price shall be inclusive of taxes and duties as applicable on the day of submission of bid. Any variation in the taxes and duties shall be payable as extra.

16 All payments will be released electronically either through ECS or RTGS. Contractor will give his necessary bank details in this respect.

17 **Force Majeure**

Neither party will be responsible for any failure to perform its obligation under the contract, if it is prevented or delayed in performing those obligations by an event of force majeure.

18 **Dispute resolution/arbitration**

All disputes shall be resolved by both the parties among themselves within 2 weeks of serving of notice by either party. In case of no resolution, case will be referred to the arbitrator. The arbitration will be conducted as per the arbitration act. The arbitral tribunal shall comprise of a sole arbitrator appointed by the OADB.

19 **Jurisdiction of court**

Contract shall be governed by the law of the country and court of Delhi shall have the jurisdiction over all disputes arising under this contract.

20 Rates of each and every item shall be quoted in figures and words. In case of any discrepancy in rates, the rates written in words shall be taken as final.

21 **Compliance to PF/ESI Rules**

This will be the responsibility of the bidder to comply with the statutory requirements.

22 Bidder should not be on holiday list/de-listed/black listed by OADB or any of Govt, of India deptt./PSU

Bidder whose bid has been terminated due to unsatisfactory performance will not be considered

23 Offer of Bidder/agency under liquidation and/or net worth of agency going negative will not be considered.

24 All the pages of tender document will be signed & stamped and returned as having accepted the provisions, conditions, scope of work etc.

25 Pre-bidding meeting has been assigned a time period for seeking any clarification, deviation, anomaly, contradiction to the NIT.

26 Amendment to the NIT, if required, upon submission and scrutiny of bids will be issued to the bidder. Any change due to this in the price part will be allowed to the extent of 'add on price/deletion price' as part of the price bid submitted with the main bid.

27 **Income tax**

OIDB shall be entitled to deduct Income Tax and surcharge thereon at source at the rates prevailing from all due payments. In addition to the above OIDB shall be entitled to deduct all statutory tax and duties as applicable.

28 **Defect Liability period**

For the services extended by the bidder and the quality of work performed, it will be guaranteed/warranted that the work executed will perform satisfactorily and for this purpose after the completion of job it will remain under guaranteed/warranted for 6 month from the date of completion.

29 **Items not covered/Deviation to work**

Any item of work /supply not covered shall be treated as variation/deviation. The rates for these items shall be worked out mutually based on CPWD norms. On failure to reach an agreement, the decision of officer-in-charges shall be final and binding.

30 **Resources available for the job**

Bidder will mention the details of machines available / to be made available for the job at OIDB.

31 **Agreement**

Successful bidder will enter into an agreement for the performance of contract as per the format enclosed with NIT

32 **Officer-in-Charge**

Officer-in-charge : Mr Ganesh C doval , DCF & AO or his nominee will be the officer-in-charge for the job. All correspondence in regards to contract will be addressed to him.

**Signature of bidder with stamp**

## Annexure-3

### SCOPE OF WORK

- OADB Bhawan constructed over a plot of 16,000 SqM has a built up area of 45,000 SQM including two level basements. The maximum height of building is 45 M. Building is laid in square shape with four blocks.
- OADB intend to line up an Annual Rate Contract (ARC) for the miscellaneous civil maintenance and allied works at OADB Bhawan .
- Jobs will be relating to RCC , concrete, brick stone works. Jobs will also encompass Steel , flooring, roofing ,finishing, repair of building, sanitary, water supply ,drainage ,aluminum works, gypsum false ceiling work, etc.
- Other jobs not specifically mentioned will also be performed and the rates will be extrapolated with mutually agreed conditions.
- The estimated value of work is Rs. 10 lakh per annum. However, the value of work may vary as per the quantum of work either on lower or on higher side and to any extent. Bidder shall have no claim on this account.
- Bidder will quote unit rates against each item listed in schedule of rates. Executed quantities will be governed by the site requirements. Payment will be made on the basis of executed items, quantities and the agreed rates.
- The executed quantities may vary to any extent. Bidder will not have any extra claim to the excess quantities executed or no quantity executed for any/all items.

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**FORMAT – Schedule of Rates (SOR)**  
**Financial PART**

**As per the Annexure (4A) attached separately.**

**Note**

1. Bidder may quote unit rates in the format Annexure-4A attached with the document.
2. Quoted price shall be without any conditions. Any offer with conditions shall be liable to be rejected.
3. Quoted rates will be inclusive taxes and duties. Any variation in taxes or duties after the bid closing date would be paid as extra by OIIB.
4. This part of the bid after filling-in the item rates shall be enclosed in a separate envelope to be named as ' PART-2' , Envelope no -3, Financial bid. The same will be written on top left hand corner of the envelope. Envelope will be sealed.
5. No column of SOR should be left blank. In the event of any column left blank

**Signature of bidder with stamp**

**CIVIL & STRUCTURAL WORKS MAINTENANCE**

**Annexure-4A**

INR

Sr.	DESCRIPTION	UNIT	RATE PER UNIT		AMT
			IN FIGURE	IN WORDS	
<b>01 EARTH WORKS</b>					
1	Excavation by mechanical means using JCB, Poclaines, trucks, dumpers or tractors etc, in all type of soil including dense soil (Poclanable) for all leads & lifts including strutting dense and propping wherever required including disposal/removal & transportation of surplus earth from site. The surplus earth/soil left out after its re-use will be contractors property.	Cum			
2	Earth work in excavation not exceeding 1.5m in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth, for all lifts and all leads including disposal/ removal & transportation of surplus earth from site. The surplus earth/ soil left out after its re-use will be contractor's property.	Cum			
3	Filling of available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc, in layers ; consolidating each deposited layer by mechanical compactor, rammer and watering, for all lifts and all leads including disposal/removal & transportation of surplus earth from site. The surplus earth/ soil thus left out will be contractor's property.	cum			
4	Supply ,filling,compaction and leveling of good quality earthtrenches in plinth, sides of foundation etc, without debris,stone, brick etc.	Cum			
<b>02 CEMENT CONCRETE &amp; REINFORCED CEMENT CONCRETE WORK</b>					
5	Providing and laying in position cement concrete 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregated 20 mm nominal size) including the cost of centering and shuttering for works upto plinth level.	cum			
6	Providing and laying position machine batched, machine mixed and machine vibrated design mix cement concrete of grade M25 for reinforced cement concrete structural elements for all height and levels, including the cost of centering, shuttering, finishing and reinforcement, but including admixtures in recommended proportions (as per IS 9103) to accelerate/ retard setting of concrete improve workability without impairing strength and durability in foundation.footing,bases,floors,walls roofs,ramps,stairs,shafts etc., and as per direction of officer-in-charge. Manually mixed upto 4 cum and machine batched over 4 cum.	cum			
7	Extra for providing M-35 instead of M-25	cum			
8	Extra for providing M-40 instead of M-25	cum			
9	Supply and laying/fixing of Mild steel bars	kg			
10	Supply and laying/fixing of Thermo-Mechanically Treated bars (TMT bars)	kg			
<b>03 MASONRY WORK</b>					
11	Brick work of class designation 75 with cement mortar 1:4 (1 cement : 4 coarse sand) above plinth level upto floor V level	cum			
12	Brick work of class designation 75 in superstructure with cement mortar 1:4 (1 cement: 4 coarse sand) for all floors above floor V level.	cum			

13	Providing & laying in position 150mm thick Reinforced Cement Concrete band of mix 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 20mm nominal size); at all height & all floors , wall including centering and shuttering & providing nominal MS reinforcement (reinforcement shall be measured & paid separately under respective item) complete as per directions of officer-in-charge.	sqm			
<b>04 STEEL WORK</b>					
14	Supplying, fabricating and fixing in position M.S. work for stairs (including spiral staircase), railings, parapets, walkways, gates, doors, door frames and all other required locations, consisting of M.S. pipes of various diameters, flats, angle, channel, square/circular bars, box sections, inserts, plates/ chequered plates, lugs, bolts, angles, hinges as required in horizontal/ vertical/ diagonal members as per drawing. All fixing etc. on M.S. sections including aligning in position with necessary supports and painted with a coat of zinc chromate primer and finishing with 'Duco' pr approved equivalent paint of required shade as per specifications.	kg			
<b>05 FLOORING</b>					
15	Providing and fixing 40mm thick cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finishing with a floating coat of neat cement including cement slurry, including cost of nosing of steps etc. complete in all respect.	sqm			
16	52mm thick cement concrete flooring with " Hardcrete" concrete hardener topping under layer 40mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick Hardcrete cement concrete consisting of mix 1:2 ( 1 cement hardener mix : 2 graded stone aggregate 6mm nominal size) by volume with which Hardcrete compound of Snowcem India Ltd. or equivalent is mixed @ 2 liter Hardcrete per 50kg of cement including cement slurry, including the cost of nosing of steps etc. complete in all respect.	sqm			
17	Providing and fixing/ repalcing kota stone slabs 25mm thick in risers of steps, skirting, dado and pillars flush with plaster and groove laid on 12mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and joined with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing , removal and disposal of old stone, complete as per specification and pattern shown in architectural drawing.	sqm			
18	Providing and fixing of wooden flooring with 9-10mm thick wooden laminate . Disposal of removed wooden laminates.	sqm			
19	Providing and fixing of solid wood floor ( Teak Wood) of 25mm thick blocks.	sqm			
<b>06 Aluminium Work</b>					
20	Providing and fixing M.S. structural work fabricated from standard section i.e. M.S. rounds, angles, channels, 'U' clamps including cutting to size, drilling, welding, required insert plats of fixed to "HILTI" dash fasteners of required specifications in RCC structural/masonry members for mounting of Aluminium frames ,as directed by officer-in-charge including cutting and making good the walls, floors and ceiling and painting with two coats of enamel paint over primer coat after rubbing and cleaning (for pipe supports, clamps, M.S. ladder and manhole tank covers, etc). wherever required.	kg			

13/01/2024

21	<p>Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings, the aluminium quality as per grade 6063 T5 or T6 as per BS 1474, including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the officer-in-charge. (The item includes cost of material such as deats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account).</p>	kg	
22	<p>Providing and fixing Aluminium sub-frame in tubular section of required size and thickness for door/windows, ventilators etc. for receiving main frame, fixed to the RCC columns/beam/walls/AAC block/brick wall with the help of adequate fasteners complete as per direction of officer-in-charge.</p>	kg	
23	<p>Supply, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc.including:</p>	sqm	
	<p>a) Structural analysis &amp; design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.</p>		
	<p>b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumifon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, deats, weather silicone sealant, backer rods etc.</p>		
24	<p>The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material &amp; labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation including base frame work for ACP cladding. The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete , as per the drawings, as per item description, as specified, as per the approved shop drawings and as directed by the officer-in-charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminium Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places.</p>	sqm	
	<p><b>Hard Finishes</b></p>		
25	<p>Providing and fixing/replacing dry cladding upto 10 metre heights with 30 mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of clamps, pins etc. and sealing the joints with approved weather sealant as per drawing and direction of officer-in-charge. ( The steel frame work shall be paid for separately).</p>		
a	<p>Red sand stone /Granite of machining quality and shade at site</p>	sqm	

10/11/2016  
 10/11/2016  
 10/11/2016

b	White sand stone of matching quality and shade at site	sqm	
26	Providing and fixing/replacing dry cladding upto 45 metre heights with 40 mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of clamps, pins etc. and sealing the joints with approved weather sealant as per drawing and direction of officer-in-charge.( The steel frame work shall be paid for separately).	sqm	
a	Red sand stone /Granite of matching quality and shade at site	sqm	
b	White sand stone of matching quality and shade at site	sqm	
27	Providing and fixing structural steel frame (for dry cladding with 30/40 mm thick gang saw cut with machine cut edges sand stone) on walls at all heights using M.S. square/ rectangular tube in the required pattern as per drawing, including cost of cutting, bending, welding etc. The frame work shall be fixed to the wall with the help of M.S. brackets/ lugs of angle iron/ flats etc. which shall be welded to the frame and embedded in brick wall with cement concrete block 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size) of size 300x230x300 mm, including cost of necessary centring and shuttering and with approved expansion hold fasteners on CC/RCC surface, including drilling necessary holes. Approved cramps/ pins etc. shall be welded to the frame work to support stone cladding, the steel work will be given a priming coat of Zinc primer as approved by officer-in-charge and painted with two or more coats of epoxy paint. The frame work shall be fixed in true horizontal & vertical lines/planes. (Only structural steel frame work shall be paid for separately and nothing extra shall be paid).	sqm	
a	Stone tile (polished) work for wall lining over 12 mm thick bed of cementmortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqmincluding pointing in white cement complete.	sqm	
b	Granite of any colour and shade	sqm	
28	Providing and fixing/replacing machine cut, mirror / eggshell polished , Marble stonework for wall lining (vener work) including dado, skirting, risers of stepetc., in required design and pattern wherever required, stones of differentinished surface texture, on 12 mm (average) thick cement mortar 1:3 (1cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3kg/sqm including pointing with white cement slurry admixed with pigmentf matching shade, including rubbing, curing, polishing etc. all completeas per drawings, and as directed by the officer-in-Charge.a. 18 mm thick Italian Marble stone slab,Perlato, Rosso verona, Fire Redor Dark Emperadore etc.	sqm	
29	Providing and laying/replacing flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the officer-in-charge. a. Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	
30	Marble stone flooring/replacing with 18 mm thick marble stone, as per sample of marble approved by officer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with : Black Zebra sqm	sqm	

31	Providing and laying/replacing machine cut, mirror polished, Italian Marble stone flooring laid in required pattern in linear portion of the building all complete , with 18 mm thick stone slab laid over 20 mm average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing etc. all complete as specified and as directed by the officer-in-Charge. a. 18 mm thick Italian Marble stone slab. Perlato, Rosso verona, Fire Red or Dark Emperadore etc	sqm			
	<b>07 VITRIFIED/CERAMIC/GLAZED TILES</b>				
32	Providing and fixing/replacing, 1st quality glazed ceramic tiles conforming to IS:13753 of required thickness as specified by manufacturer (NITCO,KAJARIA,H.R. Johnson or approved equivalent make) of approved colour and 200x200/300x300/300x450/600x600mm as approved by officer-in-charge on floors and walls (over head tank) over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with cement slurry @ 3.3 kg per sqm. including painting in white cement mixed with pigment of matching shade complete in all respect.	sqm			
33	Providing and fixing /replacing Chequered terrazzo tiles 50mm thick in floor jointed with neat cement slurry mixed with pigment to match the shade of the tiles including and complete on 20mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand)	sqm			
34	Providing and laying/replacing Vitrifed tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete. Size of Tile 600x600 mm/500x500/1000x1000	sqm			
35	Providing and laying/replacing Vitrifed tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately). Size of Tile 600x600 mm/500x500/1000x1000	sqm			
36	Providing and laying/replacing rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), including grouting the joints with white cement and matching pigments etc., complete.	sqm			
37	Providing and laying/replacing rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except white laid on 20mm thick cement mortar1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement & matching pigments etc. complete	sqm			
	<b>08 FINISHING</b>				
38	Plaster to wall and or repair work with 12mm thick cement plaster of mix 1:4 (1 cement : 4 fine sand) including providing 10x10 mm grooves in plaster at all junctions of masonry RCC work.	sqm			

39	Plaster to wall with 15mm thick cement plaster of mix 1:4 (1 cement : 4 fine sand) including providing 10x10 mm grooves in plaster at all junctions of masonry RCC work.	sqm		
40	6mm cement plaster to ceiling of mix of 1:3 (1 cement : 3 fine sand)	sqm		
41	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finishes with a floating coat of neat cement.	sqm		
42	Providing two or more coats on new or old work with 1 <sup>st</sup> quality acrylic washable distemper (ready made) of approved brand and manufacture and required shade and colour complete as per manufacturer's specification.	sqm		
43	Painting two or more coats on new or old work with synthetic enamel paint of approved brand and manufacture to give an even shade including providing a primer coat with ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanized iron/steel work.	sqm		
44	Providing and fixing 24gauge x 19mm size galvanized chicken wire mesh to junctions of concrete and masonry work and other locations where called for including cutting to required sizes with providing over laps of minimum 75 mm and fixing in position with necessary clips and U shaped galvanized wire nail etc. complete.	sqm		
	<b>09 WATER PROOFING WORKS</b>			
45	Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing using rough red sand stone slab 20mm thick with cement slurry mixed with water proofing compound 'Impermo' of Snowcem or equivalent conforming to IS: 2645 in recommended proportion with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:4 ( 1 cement : 4 coarse sand) 20mm thick with neat cement punning mixed with water proofing complete at all levels and as directed by officer-in-charge. Work shall be carried out by an approved water proofing specialized agency with performance guarantee for 10 years.	sqm		
46	Providing And laying integral cement based treatment for water proofing on the horizontal surface by fixing using rough red sand stone at all levels as directed by officer-in-charge of 1st layer of 20mm thick approved and specified rough red sand stone slab over a 25mm thick base of cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound 'Impermo" of snowcem or eq. conforming to IS 2645 in recommended proportion. Joints sealed and grouted with cement slurry mixed with water proofing compound. 2nd layer of 25mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportions. Finishing top with stone aggregate of 10 -12 mm nominal size spreading @ 8 cud/sqm thoroughly embedded in 2nd layer. Work will be carried out by an approved water proofing specialised agency with performance guarantee of 10 yrs.			

47

sqm

Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment roof, balconies, terraces etc. with average thickness of 120mm and minimum thickness at khurra as 65mm consisting of following operation.

- a) Applying and grouting slurry coat neat cement using 2.75kg/sqm. of cement admixed with proprietary water proofing compound conforming to IS:2645 over the RCC slab including cleaning the surface before treatment.
- b) Laying cement concrete using broken bricks/brick bats 25mm to 100mm size with filling gaps upto 50% depth with cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS:2645 over 20 thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed to IS: 2645 to required slope and treating similarly the adjoining walls upto 300mm height including rounding of junctions of walls and slabs.
- c) After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS:2645.
- d) Finishing the surface with 20mm thick joint less cement mortar of mix 1:4 (1 cement : 4 coarse sand) admixed with proprietary water proofing compound conforming to IS:2645 and finally finishing the surface with trowel with neat cement slurry and making 300 x 300mm square.
- e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and final test. All above operation to be done in order and as directed by officer-in-charge.

f) Work shall be carried out by an approved water proofing specialized agency with performance guarantee for 10 years.

sqm

12 mm cement plaster 1:3 ( 1 cement: 3 coarse sand) mixed with Armourcrete of M/s The Structural water Proofing Company Pvt. Ltd. or Tapecrete of M/s CICO Engg. Service @0.126 kg/sqm. as a protective layer over area finished with Armourcrete or Tapecrete.

48

49

sqm

Providing injection water proofing in following manner:

The surface shall be treated by making holes on the surface at 1.20m centre to centre on both ways and also at all joints, corners and fixing nozzles of 20mm dia pipe and inject Acrylic based waterproofing compound approved by officer-in-charge, mixed with neat cement slurry as per manufacturer's specifications. After grouting the pipe, nozzles shall be removed and pockets shall be made good. The external surface of the walls shall be neatly plastered with cement mortar 1:3 ( 1 cement : 3 coarse sand) and mixed with approved acrylic based water proofing compound in two layers of 12-15mm thick each so that the average thickness shall be 25 mm. The total operation has to be got done through specialized agency approved by officer-in-charge with Ten years guarantee .

12 mm cement plaster 1:3 ( 1 cement: 3 coarse sand) mixed with Armourcrete of M/s The Structural water Proofing Company Pvt. Ltd. or Tapecrete of M/s CICO Engg. Service @0.126 kg/sqm. as a protective layer over area finished with Armourcrete or Tapecrete.

**10 SANITARY INSTALLATION**

50	<p>Providing and fixing/replacing white vitreous china wall hung water closet with solid plastic white seat lid, with CP brass hinges and rubber buffers, 32mm dia CP concealed flush valve, 40mm CP flush bend, CI chair, Short length PVC pan connector connected through suitable solvent cement complete including painting of chair, cutting and good the walls and floors wherever required.</p> <p><b>Catalogue Nos.</b></p> <p><b>a) W.C Pan- Hindware wall mounting ultra 20006 or approved equivalent.</b>  <b>b) Flush Valve- Jaquar 1051 or approved equivalent.</b></p>				
51	<p>Providing and fixing/replacing white vitreous china flat back urinals size 590x390x375 mm including electronic sensor suitable for 2530 Volt AC supply, automatic flushing with concealed composite flush pipes with CP sprader, 32 mm domical waste with 32 mm cast brass bottle trap and pipe to wall flange complete including cutting and making good the wall and floor complete wherever required.</p> <p><b>Catalogue Nos.</b></p> <p><b>a) Urinal - Hindware 60002 or approved eq.</b>  <b>b) Auto Sensor - UTEC system model UT-1.1A or approved equivalent.</b>  <b>c) Bottle trap- Gem EuroSapphire 40010 or approved equivalent.</b></p>				each
52	<p>Providing and fixing/replacing white vitreous china oval shape under counter wash basin or size 560x450mm including painting of M.S. or C.I brackets and studs with auto sensor pillar tap suitable for with 32mm dia. C.P. cast brass bottle trap and union with pipe to wall and flange and rubber adaptor including cutting and making good the walls and floors complete:</p> <p><b>Catalogue Nos.</b></p> <p><b>a) Wash basin- Hindware was basin ZEN 10049 or approved equivalent.</b>  <b>b) Sensor tap- Jaquar 51071 or approved equivalent.</b>  <b>c) Bottle trap- Gem EuroSapphire 40010 or approved equivalent.</b></p>				each
53	<p>Providing and fixing fully ablation spray unit comprising of CP Flexible hose, spray, wall flange etc complete.</p> <p><b>Catalogue Nos.</b></p> <p><b>Ablution Spray - Gem EuroSapphire 35080 or approved equivalent.</b></p>				each
54	<p>Providing and fixing/ replacement of stainless steel single sink with single draining board approximate size 940x465mm with C.I. or RS bracket, CP waste with chain and plug, 40mm dia. C.P. 'P' trap with cleaning eye, wall mounted C.P. mixing fitting with swivel neck including painting of brackets cutting good the walls and floors complete</p> <p><b>Catalogue Nos.</b></p> <p><b>a) Stainless Steel Sink - Jayna SBS2 or approved equivalent.</b>  <b>b) Swivel Neck Mixer- Gem EuroSapphire 15010/11 or approved equivalent.</b></p>				each

55	Providing and fixing/ replacement of stainless steel double sink with single draining board approximate size 1040 x510 mm with C.I. or RS bracket, CP waste with chain and plug, 40mm dia. C.P. 'P' trap with cleaning eye, wall mounted C.P. mixing fitting with swivel neck including painting of brackets cutting good the walls and floors complete	each
	<b>Catalogue Nos.</b>	
	<b>a) Stainless Steel Sink – Jayna DBF -2 (dx) or approved equivalent.</b>	
56	<b>b) Swivel Neck Mixer- Gem EuroSapphire 15010/11 or approved equivalent.</b> Providing and fixing/replacing CP cast brass twin coat hooks and CP screws.	each
57	<b>a) Twin coat hook- Gem Accessories 39210 or approved equivalent.</b> Providing and fixing/replacing 32mm dia. 600mm long stainless steel Grab Bar fabricated in heavy class pipe with SS brackets fixed to wall with Ss screws complete for handicapped toilet.	each
	<b>Catalogue Nos.</b>	
	<b>a) Grab Bar- Gem Accessories 39230 or approved equivalent.</b> Providing and fixing/replacing towel rail complete 600mm long and 20mm dia. With brackets fixed to wooden cleats with C.P. brass screws including fasteners.	each
	<b>a) CP Towel rail- Gem 39230 or approved equivalent.</b>	
59	Providing and fixing/replacing Concealed Ss (Catalogue. Catalogue No. Gem Accessories 39281 or approved equivalent) toilet paper holder including cutting and making good the walls as required.	each
##	Providing and fixing/replacing 200mm dia. Rain Shower with 20mm dia. Inlet pipe fixed with 450mm long 20mm dia. GI (medium class) pipe as shower arm., 20mm bend fixing of GI pipe with composite pipe	each
	<b>a) CP Rain shower- Gem 39020 or approved equivalent</b>	
61	Providing and fixing/replacing CP brass Towel Ring	each
	<b>Catalogue. Catalogue Nos.</b>	
	<b>a) Gem Accessories 39230 or approved equivalent.</b> Providing and fixing/replacing Soap Dispenser	each
62	<b>Catalogue. Catalogue Nos.</b>	
	<b>a) Toshi A-605 N or approved equivalent</b>	
	<b>11 SOIL, WASTE,VENT,AND RAIN WATER PIPES</b>	
63	Providing and fixing/replacing centrifugally cast (spun) iron S&S soil, waste and vent pipes, including required accessories -bends,rubber washer,union,door,junction, unequal junction, caulked joints , clean out plug,socket etc.: Cutting,chases/holes in floor/wall slab sleeve ,sealing of spaces and making good.	mtr
a	150mm dia.	mtr
b	100mm dia.	mtr
c	75mm dia.	
##	Providing and fixing/replacing 100mm dia GI inlet fitting approximately 250mm long with one or two 32/40/50mm dia GI sockets welded and sipped in hot bitumen complete including making necessary connection with GI pipe and CI trap.	each

65	Providing and fixing/replacing CI spun iron trap of self cleansing design with or without vent arm complete, cost of each cutting and making good the walls and floors. 100mm inlet and 100mm outlet			
66	Providing and fixing/replacing 100% stainless steel "cockroach" trap of approved make and quality on top of floor trap. The rate includes the cost of all ancillary works as required to complete the work.			
a	150mm dia.	each		
b	100mm dia.	each		
67	Providing and fixing/replacement, in position cpvc pipe heavy duty and fittings (for waste pipe from individual fixture to floor trap/floor drain & vent pipe) including fixing at wall/ceiling level supported by galvanized clamps and hangers tec., cutting chases in wall and filling with 1:1 cement mortar.			
a	25mm nominal bore	Mtr		
b	32mm nominal bore	mtr		
c	40mm nominal bore	mtr		
d	50mm nominal bore	mtr		
68	Providing, fixing/replacing, jointing, testing and commissioning PVC (Class II) <b>Rain water downtake pipe conforming to IS:4985</b> cut to required lengths including all necessary fitting and specials. Fixing wall/ceiling level supported by galvanized steel clamps & hangers etc. making proper connection with cement solvent joint as per BIS/ manufacturer. Cutting, chases/ holes in floors/ walls/ slab.			
a	150mm dia.	mtr		
b	100mm dia.	mtr		
c	75mm dia.	mtr		
69	Providing, fixing/replacing, jointing, and testing in the <b>CI class LA pipe</b> for soil & waste installation conforming to IS: 1536. Cut to required lengths including all necessary fitting & specials such as bends, junctions, and offsets, access pieces (plan or door). Fixing at wall/ceiling level supported by galvanized steel clamps & hangers etc. making proper connection. Cutting, chases/holes in floors/walls/slab. Providing GI pipe sleeves of suitable higher size wherever pipes crossing a fire-rated wall or floor & sealing of space around pipe and pipe sleeve with glass in between and fire proof sealant at either end to the satisfaction of the Project Manager/Consultant and making good the same after pipe have been dully laid and testing complete. The piping shall proper connection with refined pig lead joint of required depth as per BIS/manufacture.			
a	150mm dia.	mtr		
70	Providing and fixing/replacing in position GI pipe and fitting or heavy class © conforming to IS:1239 (for waste pipe from individual fixture to floor trap/floor drain & vent pipe) including fixing at wall/ceiling level supported by galvanized clamps and hangers tec., cutting chases in wall and filling with 1:1 cement mortar, painting two coats of anti-corrosive bitumastic paint over one coat of primer wapping with one year of 400 micron sheet and finally one apply one coat of anti-corrosive paint.			
a	32mm nominal bore	mtr		
b	40mm nominal bore	mtr		
c	50mm nominal bore	mtr		

**12 WATER SUPPLY SYSTEM**

71	Providing and fixing/replacing GI/cPVC pipes complete with GI/cPVC fitting and clamps, including painting with two or more coats of synthetic enamel paint of approved quality and shade cutting and making good the walls (internal work)			
a	15mm - 32mm dia. nominal bore	mtr		
b	40mm - 50mm dia. nominal bore	mtr		
c	65mm-80mm dia. nominal bore	mtr		
d	100mm-150mm dia. nominal bore	mtr		
72	Providing and fixing 6mm thick nytryl rubber for hot water pipe insulation in wall chases.			
a	15-25mm dia.	mtr		
b	32-50mm dia.	mtr		
c	65-80 mm dia.	mtr		
d	100mm dia.	mtr		
73	Providing, replacing and laying polyethylene Aluminum polyethylene (PE_ALPE0 composite pressure pipes U.V. stabilized with carbon block having thermal stability for hot and cold water supplies, using brass internal sealing fitting, and conforming to IS code 15450-2004 with special compression fittings, ie., tees, elbows, reducers or threaded connectors etc., including clamps, jointing, testing, cutting, and making good the walls etc., complete as per specification given. Concealed installation including cutting chases and making good the walls etc., complete.			
a	1216 (16mm OD) pipe	mtr		
b	1620 (16mm OD) pipe	mtr		
c	2025 (16mm OD) pipe	mtr		
d	2532 (16mm OD) pipe	mtr		
e	3240 (16mm OD) pipe	mtr		
f	4150 (16mm OD) pipe	mtr		
g	150mm nominal bore	each		
74	Providing & fixing/replacing <b>CI dual plate wafer type check valve</b> tested to a pressure not less than 15kg/sqcm, including rubber gasket, flanges, union, nuts, bolts, washers & painting complete as required.			
a	80mm dia.	each		
b	100mm dia.	each		
c	150mm dia.	each		
75	Providing and fixing/replacing <b>Gun Metal horizontal flap non return valve</b> conforming to IS:778 and tested to a pressure not less than 15kg/sqcm, including rubber gasket, flanges, union, nuts, bolts, washers & painting complete as required.			
a	80mm dia.			
b	100mm dia.			
c	150mm dia.			

12 WATER SUPPLY SYSTEM

d	200mm dia				
76	Supplying and fixing/replacing Auto Air vent for water supply risers, suitable for pressure not less than 15kg/sq.cm.				
a	15 mm dia.	each			
b	20 mm dia.	each			
#	Providing, replacing and fixing pressure <b>reducing valve</b> with strainer delivering desired rate of floe with flanged connection. The complete system is tested to a pressure not than 10 kg/sq.cm and suitable to reduce the pressure upto 1 kg/sq.cm) including flanges/ unions, nuts, bolts and washers complete as required.				
a	40mm dia.	each			
b	50mm dia.	each			
c	65mm dia.	each			
#	Providing, replacing and fixing C P brass bib cock of approved quality conforming to IS:8931 15 mm dia. <b>Catalogue. Catalogue Nos.</b> <b>a) Bib cock – Gem EuroSapphire 101400 or approved equivalent.</b> <b>b) Wall flange – Gem EuroSapphire 00212 or approved equivalent.</b>	each			
79	Providing, replacing and fixing CP brass angle valve for basin mixer and geyser points of approved quality conforming to IS: 8931 15mm nominal bore.	each			
80	Providing, replacing and fixing 22 gauge GI tray (drip tray) of standard design with necessary fabrication, hanger and support under the horizontal suspended soil/waste header. Tray shall be installed in slop with drain connection at end. The installation shall be to the satisfaction/approval of officers-in-charge.	sqm			
81	Providing/replacing and fixing CP brass wall mixer with arrangement for overhead shower, concealed stop cock, bath spout, 115mm long bend pipe and diverter. <b>Catalogue. Catalogue Nos.</b> <b>a) Wall mixer for Overhead shower- Gem EuroSapphire 20020 or approved equivalent.</b> <b>b) Bent outlet- Gem EuroSapphire 34206 or approved equivalent.</b>	each			
82	Providing, replacing, fixing, testing and commissioning vertical storage type water heater suitable for 230 volts 50 cycles AC power supply with copper sheet stove enameled, thermostatic control, neon indicating lamp, CP. Supply pipes and non return valve on inlet fixed to walls with fasteners, bolts including cutting and making good the walls complete. <b>Catalogue. Catalogue Nos.</b> <b>Geyser- AO Smith or approved equivalent.</b>				

a	25 Ltrs. Capacity		each
b	50 Ltrs. Capacity		each
83	Providing and fixing/replacing M.S. puddle flanges fabricated of 750 mm long pipe pieces to R.C.C. water tanks wall/ slab. The entire fitting shall be hot dipped galvanized (Flanges shall conform to BS10 Table E)		
a	25-50 mm dia. (Screwed ends MS plate 6 mm thick: 100mm x 100mm plus dia of pipe)		each
b	65-80 mm dia. (Screwed ends MS plate 6 mm thick: 100mm x 100mm plus dia of pipe)		each
c	100-150 mm dia. (Screwed ends MS plate 6 mm thick: 250mm x 20mm plus dia of pipe)		each
d	200-250 mm dia. (Screwed ends MS plate 6 mm thick: 250mm x 200mm plus dia of pipe)		each
84	Providing and fixing/replacing G.I. Vent pipe with inverted 'U' bend at top overall height 600 mm, flange fixed at bottom for fixed with existing puddle flange bolts, nuts, washers, etc., complete in all respect including S.S. mosquito proof coupling of.		
a	50mm dia.		each
b	65mm dia.		each
c	80mm dia.		each
85	Providing, Replacing & testing & commissioning of dial type pressure gauge with pressure scale of 0 to 15 kg/cm2. Shall be included in cost.		each
86	Providing & complete testing kit with all chemicals complete suitable for conducting test on water quality. The test kit shall be suitable to measure TDS, PH, Hardness, iron content and other parameters (Make: Ion Exchange)		each
	<b>13 GYPSUM/FALSE CEILING WORK</b>		
87	Providing and fixing/replacing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing of gypsum board to ceiling section with 25mm long dry wall screws @230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the officer in Charge including the cost of painting.		

a	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I	sqm	
b	12.5 mm thick tapered edge gypsum fire resistant board conforming to IS: 2095- Part I	sqm	
c	12.5 mm thick tapered edge gypsum moisture resistant board	sqm	
88	<p>Providing and fixing/replacing tiled false ceiling of approved materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Officer-in-charge.</p>		
89	<p>Providing and fixing/replacing tiled false ceiling of approved materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by officer-in-charge.</p>		
90	<p>Providing, replacing , GI Metal Ceiling Lay in perforated Tegular edge global white color tiles of size 595x595 mm and 0.5 mm thick with 8 mm drop; made of GI sheet having galvanizing of 100 gms/sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coefficient ) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation, and backed with a black Glass fiber acoustical fleece</p>	sqm	

91	Providing, replacing ,12.5 mm thick square edge PVC Laminated Gypsum Tile of size 595x595 mm, made of Gypsum plasterboard, manufactured from natural gypsum as per IS 2095 part I and laminated with white 0.16mm thick fire retardant PVC film on the face side and 12micron metalized polyester on the back side with all edges sealed with the face side PVC film which goes around and wraps the edges and is bonded to the edgesand the back side metalized polyester film so as to make the tile a completely sealed unit.	sqm		
92	Providing, replacing ,12.5 mm thick fully Perforated Gypsum Board tile made from plasterboard having glass fibre conforming to IS: 2095 part I, of size 595x595 mm, having perforation of 9.7x9.7 mm at 19.4 mm c/c with center borders of 48 mm and the side borders of 30 mm, backed with non woven tissue on the back side, having an NRC ( Noise Reduction Coefficient) of 0.79, with 50 mm	sqm		
93	Providing, replacing ,Fully Perforated Gypsum Plaster Board of size 1200 x2400x12.5 mm having approx. 15 % perforated area with perforation size and pattern as approved by the officerinchargeand as per manufacturer's specification, with all 4 side tapered and backed by acoustical tissue with NRC value not less than 0.60			
<b>14 DEMOLISHION / DISMENTALLING WORK</b>				
94	Demolishing cement concrete manually/ by mechanical means including disposal of material as per direction of officer - in-charge			
a	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	cum		
b	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix	cum		
95	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material as per direction of officer - in- charge.	cum		
96	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material as per direction of officer - in- charge.	cum		
97	Dismantling tile work in floors and roofs laid in cement mortar including stacking material and its disposal.			
a	For thickness of tiles 10 mm to 25 mm	sqm		
b	For thickness of tiles above 25 mm and up to 40 mm	sqm		
98	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material .	sqm		
99	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable materials directed by officer-in-charge.	sqm		
100	Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kil ometre, stacking serviceable and unserviceable material separately including cutting reinforcement bars.	cum		
101	Disposal of building rubbish / maiba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by officer-in-charge, for all leads including all lifts involved	cum		
<b>15 PAINTING/COLOUR WASH ETC</b>				

102	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade		
a	One or more coats on old work	sqm	
103	White washing with lime to give an even shade :		
a	Old work (two or more coats)	sqm	
104	Removing white or colour wash by scraping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	sqm	
105	Distemping with dry distemper of approved brand and manufacture (one or more coats) and of required shade on old work to give an even shade.	sqm	
106	Distemping with oil bound washable distemper of approved brand and manufacture to give an even shade		
a	Old work (one or more coats)	sqm	
107	Painting (one or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture on old work :		
a	75 mm diameter pipes	metre	
b	100 mm diameter pipes	metre	
c	150 mm diameter pipes	metre	
108	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade :		
a	One or more coats on old work	sqm	
109	Polishing on wood work with ready made wax polish of approved brand and manufacture		
a	Old work	sqm	
110	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.		
a	One coat	sqm	
b	Two coats	Sqm	
111	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.		
a	One coat	sqm	
b	Two coats	Sqm	
112	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre		
113	With ready mixed red oxide zinc chromatic on steel / iron works having VOC content less than 250 grams/ litre	sqm	
114	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	sqm	
115	<b>16 MISCELLANEOUS</b> Supply and fixing of 12mm clear toughened glass	sqm	

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116	Supply and fixing of 200-300mm wide 0.8/1.0mm thick 3M opaque sheet	sqm
117	Supply and fixing of dorma make mortice lock , with separate handle and cylinder mounting ( one to one replacement)	each
118	Supply and fixing of cylinder for mortice lock-dorma make (one to one replacement)	each
119	Supply and fixing of double sided teak ply flush door of 40mm thickness including hinges and teak wood natural polish.	sqm
120	Supply ,instalation of wooden partition of thickness 65/80mm, wity both side teak ply, natural teak polishing etc. including required hardware	sqm
121	Granite, Marble, Italian marble, kota stone Floor cutting with diamond cutting machine including polishing	Sqm
122	Supply of carpentor with all tools and tackles	mandays
123	Supply of cabinet lock dorma make or approved equivalent make	each
124	supply of door hinges ( five knocks) Dorma make or approved equivalent make	each
125	Supply of Mortice lock Dorma make or approved equivalent make	each
126	Supply and fixing of floor mounted door closure Dorma or approved equivalent make	each
127	Supply of concealed door closure heavy duty- Dorma make.	each
128	Repair of fire door (Steel fabricated) in all respect , including grouting in wall , replacement of hinges, locks etc.	each
129	Cleaning of rain water harvesting pit ( 20,000 ltr water holding capacity), removal and disposal of muck, mud .	each