

# **TENDER**

## **FOR**

**Construction of 24 Demonstration Houses  
including Infrastructure Works (Civil Work,  
Internal Water Supply, Sanitation, Electrical,  
Pathways, Septic Tank, under Ground Tank, Street  
Lighting, etc.) at Barwaripur, Raibareli (U.P.)**

**(Composite Work)**

**(Ref.No.BMT/CBM/DHPRaibareli/2012/01)**



**Building Materials & Technology Promotion Council  
Ministry of Housing & Urban Poverty Alleviation, Govt. of India  
Core-5A, First Floor, India Habitat Centre  
Lodhi Road, New Delhi-110003**

**Phone: +91-11-24636705; Fax: +91-11-24642849;**

**E-mail: [bmtpc@del2.vsnl.net.in](mailto:bmtpc@del2.vsnl.net.in); Website: [www.bmtpc.org](http://www.bmtpc.org)**



## **TENDER NOTICE**

BMTPC invites sealed offers in two bid system from experienced, reputed and eligible construction agencies/PSUs/contractors including State agencies, Housing Boards, Building Centres and NGOs, having experience in alternate cost-effective building materials and technologies for construction of 24 houses (G+1) having plinth area of 32 sqm each including on-site infrastructure at Barwaripur, Rai Bareilly, U.P. in the manner as described in the detailed Tender Document available on BMTPC's website [www.bmtpc.org](http://www.bmtpc.org). Any further changes/relevant information would be intimated only on the website of the Council.

**Building Materials & Technology Promotion Council**, (Ministry of Housing & Urban Poverty Alleviation, Govt. of India), Core-5A, 1st Floor, India Habitat Centre, Lodhi Road, New Delhi-110003, Tel:011-24638096/97.

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at Barwaripur, Raibareli (U.P.)  
(Composite Work)  
(Ref.No.BMT/CBM/DHPRaibareli/2012/01)**

**Part-A  
(Technical Bid)**



**Building Materials & Technology Promotion Council  
Ministry of Housing & Urban Poverty Alleviation, Govt. of India  
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**Phone: +91-11-24636705; Fax: +91-11-24642849;  
E-mail: [bmtpc@del2.vsnl.net.in](mailto:bmtpc@del2.vsnl.net.in); Website: [www.bmtpc.org](http://www.bmtpc.org)**

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Name of Work: Construction of 24 Demonstration Houses

Sub Head: Construction of 24 Demonstration Houses including Infrastructure Works (Civil Work, Internal Water Supply, Sanitation, Electrical, Pathways, Septic Tank, under Ground Tank, Street Lighting, etc.) at Barwaripur, Raibareli

### **PART-A (TECHNICAL BID)**

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**Chief (PMT & Admn.)**



## निर्माण सामग्री एवं प्रौद्योगिकी संवर्द्धन परिषद

आवास और शहरी गरीबी उपशमन मंत्रालय, भारत सरकार

### **Building Materials & Technology Promotion Council**

Ministry of Housing & Urban Poverty alleviation, Government of India

Core-5A, 1<sup>st</sup> Floor, India Habitat Centre, Lodhi Road, New Delhi

Phone: +91-11-24636704, Fax: +91-11-24642849

Website: www.bmtpc.org Email: bmtpc@del12.vsnl.net.in

### **TENDER NOTICE**

1. Sealed tenders are invited under Two-Bid System from registered construction agencies, PSUs including State agencies, Housing Boards, Building Centres & NGOs, having experience in execution of construction work using alternative cost effective building materials and technologies such as Rat Trap Bond Masonry, Filler Slab, Precast Staircase etc. for the construction of 24 Demonstration Houses including infrastructure works at Barwaripur, Raibareili (U.P.) at an estimated cost of ₹ 9041874/-.
  - i) Name of works: Construction of 24 demonstration houses including infrastructure works (civil work, internal water supply, sanitation, electrical, pathways, septic tank, under ground tank, street lighting, etc.) at Barwaripur, Raibareili.
  - ii) Estimated Cost: ₹ 9041874/-
  - iii) Time allowed: Nine Months to be reckoned after fifteen days of the date of written orders to commence the work or from the first day of handing over the site whichever is later.
  - iv) The site for the works is available in full.
  - v) EMD: ₹ 180837/- (2% of Estimated Cost)
  - vi) Cost of Tender ₹ 500/- (Non refundable)
  - vii) Sale of Tender: 9.10.2012 upto 28.10.2012 on all working days between 1100 h – 1300 h and 1430 h – 1700 h through the office of Chief (PMT & Admn.), Building Materials & Technology Promotion Council (BMTPC), Core- 5A, 1<sup>st</sup> Floor, India Habitat Centre, Lodhi Road, New Delhi – 110003.
  - viii) Last date of submission of tender 29.10.2012 till 1400 hrs.
  - ix) Pre Bid Meeting 19.10.2012 at 1500 hrs.

x) Opening of Technical Bids 29.10.2012 at 1500 hrs.

Tenders can also be down-loaded through the BMTPC website: [www.bmtpc.org](http://www.bmtpc.org). In case of down loading, the tenderer shall have to pay the cost of Tender Form ₹ 500/- in the form of DD favoring BMTPC, New Delhi. The tender is to be submitted on the prescribed format in Two Bids in separate cover in the following manner:

Part A - Bid containing Technical Specification & Earnest Money Deposit.

Part B - Bid containing Financial Offer

The Envelop containing Technical Bid and Financial Offer should be marked as **Technical Bid** and **Financial Bid** separately and submitted in another envelop duly sealed superscribed "**Tender for Construction of Demonstration Houses at Raibareli**".

The EMD, cost of tender & all requisite documents must be attached with the Technical Bid.

The Financial Bid should contain the rates only.

These bids will be opened in two stages. The bid containing technical Specification and Earned Money deposit will be opened at the 1<sup>st</sup> stage on 29<sup>th</sup> October 2012 at 1500 hrs. and if the same is found to be acceptable the bid containing financial offer shall be opened in 2<sup>nd</sup> stage on 1<sup>st</sup> November, 2012 at 1500 hrs.

Incomplete & Conditional tenders shall be summarily rejected.

The tender duly filled in should be sent by post so as to reach BMTPC Office before due date and time at the following address. Tenders received late due to postal delay or some reasons will be the responsibility of the tenderer, and shall not be accepted.

Tenderer should read the General Condition and Terms & Condition and instruction and other conditions carefully before filling the tender.

### **ADDRESS**

Chief (PMT & Admn.),  
Building Materials & Technology Promotion Council (BMTPC)  
Core-5A, 1<sup>st</sup> Floor,  
India Habitat Centre, Lodhi Road,  
New Delhi - 110 003

## 1.1

### **Eligibility**

- 1.1.1 Tender will be issued to individual / proprietary firms in partnership or limited companies/corporation, PSUs, State agencies, Housing boards, Building Centres, NGOs. Joint ventures will not be permitted
- 1.1.2 The tenderer shall have to fulfill the qualifying criteria as laid down in para 1.2.1 to 1.2.2 of the tender notice, failing which financial offer will be returned unopened.
- 1.1.3 This is a technology oriented project and therefore the tenderer should have sound technological base and have adequate exposure in such field.
- 1.1.4 The tenderer should have valid VAT Registration. Copies of latest VAT returns filed with VAT Dept. along with certificate of the tenderer that these returns have been filed with VAT Dept must be submitted.

## 1.2.

### **Qualifying Criteria**

- 1.2.1. Agencies shall have experience of executing work with alternate cost effective technologies such as Rat Trap Bond Masonry, Filler Slab, Precast chajja, Staircase etc. Agencies must have executed similar work of value given below during last 5 years i.e. work completed on and after 1<sup>st</sup> September, 2007 with proper evidence of proof.
  - a. Three similar completed works each costing not less than 40% of the project cost.
  - b. Two similar completed works each costing not less than 50% of the project cost.
  - c. One similar completed work costing not less than 80% of the project cost.

### **Definition of similar works:**

Construction of houses / building using alternate cost effective technologies such as Rat Trap Bond Masonry, Filler Slab, Plank & Joist System etc.

The tenderer shall submit certificate of successful completion of the works executed by them in the prescribed proforma.

1.2.2. The average Annual turnover of the agency / tenderer shall not be less than ₹ 30,000,00 (Rupees: thirty lakhs) per year for the last three years.

Chief (PMT & ADMN)  
For and Behalf of BMTPC



## **2. GENERAL CONDITIONS & INSTRUCTION TO THE TENDERERS**

- 2.1. Incomplete and conditional tenders shall be summarily rejected.
- 2.2. Rates are to be quoted in words and figures. All correction must be attested by the tenderer.
- 2.3. The amount of each item should be worked out and requisite total given. All the columns of the Tender Form shall be duly and properly filled in separately. The rates and units shall not be over written in the price scheduled.
- 2.4. The Tenderer should fully understand the site condition and have proper assessment of work. They are advised to visit the site and know the actual ground condition, means of access to the site the accommodation they may require and in general shall themselves obtain all necessary information as to risks contingencies and other circumstances which may influence or affect their tender. A Tenderer shall deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The Tenderer shall be responsible for arranging and monitoring at his own cost all materials, tools and plants water, electricity access, facilities of workers and other services required for execution of the work unless otherwise specifically provided for in the contract document. Submission of tender by a tenderer implies that he has read the notice and all other contract documents and made himself aware of the scope and specification of the work to be done.
- 2.5. Prescribed enclosures are attached with Technical Bid.
- 2.6. Technical Bid and Price Bid should be signed by the same authorized signatory.
- 2.7. Any additional information required by BMTPC in respect of the work experience shall be submitted by the tenders with in three days, failing which the offer shall not be entertained.
- 2.8. The taxes, as applicable must be quoted clearly and separately. If the taxes are not quoted separately, it will be presumed that the rates quoted are inclusive of taxes.
- 2.9. The tenderer shall furnish a declaration to this effect (In case of downloaded tender) that no addition / deletion / correction have been made in the tender document submitted and it is identical to the tender document appearing in the Website. Every page of downloaded tender shall be signed by the tenderer with stamp seal of his firm / organization.
- 2.10. The Tenderer should give full and correct address alongwith the tender. If there is any change of address during currency of contract the same should be

intimated to the department immediately, otherwise BMTPC is not responsible for wrong delivery or delay of the notices etc. served to the above works.

- 2.11. Technical Bid received without EMD of Rs.180837 and cost of tender in the form of Demand Draft / Bankers Cheque shall be summarily rejected.
- 2.12. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner thereof, 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 produced with the tender and it must disclose that the firm is duly registered under the Indian Partnership Act.
- 2.13. Wherever the tenderer furnishes power of attorney the same should be registered and accompanied with an affidavit from tenderer.
- 2.14. 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 tenderers are described in their tender as a firm, in which case the receipt 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.
- 2.15. Tenders which propose any alternation in the work specified in the said form of invitation of tender or in the time allowed for carrying out the work, or which contain any other condition of any sort, will be liable to rejection.
- 2.16. The Tenderer whose tender is accepted will be required to furnish by way of Security Deposit for due fulfillment of his contract, such sum as will amount to 10% of the tender value of work, subject to a maximum of Rs. 10 lakhs only. The security deposit will be collected by deductions from the running bills of the tenderer at the rates mentioned above and the earnest money, if any deposited at the time of tender, will be treated as a part of the security deposit. 10% of the bill shall be kept as defect liability and shall be released after six months from the date completion of work.
- 2.17. The acceptance of tender will rest with the Competent Authority who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all of the tenders received, without assigning any reasons. All tenders in which any or all of the prescribed conditions are not fulfilled or are incomplete in any respect including that of conditional rebate is put forth by the tenderer shall be summarily rejected are liable to be rejected.
- 2.18. Tenders containing any condition leading to unknown/indefinite liabilities are liable to be summarily rejected.

- 2.19. If at all any rebate(s) is/are to be offered, the tenderer shall first quote his rates strictly on the terms and conditions stipulated in the tender document and then show separately any rebate(s). Failure to follow this procedure will render to summary rejection.
- 2.20. Canvassing in connection with tenders is strictly prohibited and the tender submitted by the tenderers who resort to canvassing will be liable to rejection.
- 2.21. All rates shall be quoted only on the proper form of the tender.
- 2.22. On acceptance of the tender, the name of the accredited representative(s) of the tenderer who would be responsible for taking instructions from the Engineer-in-charge shall be communicated to the Engineer-in-charge.
- 2.23. VAT or any other tax on material in respect of this contract shall be payable by the tenderer and the Council will not entertain any claim whatsoever in this respect. The tenderer should have valid VAT registration.
- 2.24. All the taxes as applicable under Govt. of India rules shall be deducted from the bills of the tenderer.
- 2.25. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or administrative duties in an Engineering Department of the Govt. of India is allowed to work as a tenderer for a period of two years of his retirement from Govt. service without the previous permission of the Govt. of India. This contract is liable to be cancelled if either the tenderer or any of his employees is found at any time to be such a person who had not obtained the permission of the Govt. of India as aforesaid before submission of the tender or engagement in the tenderer's service.
- 2.26. Tender for work shall remain open for acceptance for a period of ninety days from the date of opening of tenders. Should the tenderer fail to keep the tender open for acceptance as stated above or if the tenderer withdraws his tender before the expiry of the said period or makes any modifications in the terms and conditions of the tender which are not acceptable to the Council, then the Council without prejudice to any other right or remedy be at liberty to forfeit the Earnest Money.
- 2.27. The tenderer shall submit list of works, with value which were executed by him so far and which are in hand at present in the Technical Bid.
- 2.28. The tenderer submit list of manpower & machinery available with them for execution of work.
- 2.29. In the event of any unforeseen event directly interfering with the execution of work arising during the currency of the contract, such as insurrection, restraint

imposed by the Government act of legislative or other authority, wars, hostilities, act of the public enemy, civil commotion, sabotage, fire, floods, explosions, epidemics, quarantine restrictions strikes, lockouts, or act of God, the tenderer shall within a week, from the commencement thereof, notify the same in writing to the Engineer-in-charge with reasonable evidence thereof. If the Force Major condition(s) mentioned above be in force for a period of 90 days or more at any time, the Engineer-in-charge shall have the option to terminate the contract on expiry of 90 days of commencement of such major by giving 14 days notice to the tenderer in writing. In case of such termination, no damages shall be claimed by either party against the other, save and except those which had occurred under any other clause of this contract prior to such termination.

- 2.30. The Tenderer should furnish a legal document in the form of an Affidavit in the prescribed proforma for guaranteeing the truth and accuracy of all statements and all answers / questions made. The affidavit will also authorize BMTPC to approach anyone to verify the statements or enquire about the tenderer, competence and general reputation.
- 2.31. A Committee constituted by BMTPC will open tenders in the presence of intending tenderers who may be present at the time.
- 2.32. The Tenderer shall have to bear the cost of non-judicial stamp paper of appropriate value for preparation of Contract Agreement of the work.
- 2.33. Government Departments are exempted from making payments towards cost of Tender Document & Earnest Money.
- 2.34. A Tender be liable to disqualification if he has:
- a) Made misleading or false representation or deliberately suppressed the information in the form, statements and enclosures required in the part qualification documents.
  - b) Records of poor performance such as abandoning work, not properly completing the contract of financial failures/ weakness etc.

Accepted by me  
(Signature of the Agency)  
With Complete Address and Seal

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Tel No.** \_\_\_\_\_

**Fax No.** \_\_\_\_\_

**Email** \_\_\_\_\_



## निर्माण सामग्री एवं प्रौद्योगिकी संवर्द्धन परिषद

आवास और शहरी गरीबी उपशमन मंत्रालय, भारत सरकार

### **Building Materials & Technology Promotion Council**

Ministry of Housing & Urban Poverty alleviation, Government of India

Core-5A, 1<sup>st</sup> Floor, India Habitat Centre, Lodhi Road, New Delhi

Phone: +91-11-24636704, Fax: +91-11-24642849

Website: www.bmtpc.org

Email: bmtpc@del12.vsnl.net.in

Tender Form No. \_\_\_\_\_

Last date of submission \_\_\_\_\_

### **TECHNICAL BID**

**Note:** Tenderer must read carefully the Instructions & Conditions before filling the particulars in this part.

#### **Instructions to the Tenderers** :

##### **1. Credentials of the Tenderers**

- 1.1 Name of the Agency with Regn. No. \_\_\_\_\_
- 1.2 Office Address and Contact No. \_\_\_\_\_
- 1.3 Legal status of the agency (attach copies of original document(s) defining legal status. \_\_\_\_\_
- 1.4 Organization Chart  
(Please attached) \_\_\_\_\_
- 1.5 Designation of individual who is authorized to act for organization. \_\_\_\_\_
- 1.6 WCT No. \_\_\_\_\_
- 1.7 PAN No.  
(with documentary evidence) \_\_\_\_\_
- 1.8 Annual turnover last three years supported with documentary evidence) Details by the Tenderer is to be To be submitted in prescribed proforma Appendix 'A'.

furnished duly supported by figures in Balance sheet/ profit and loss account, duly certified by the Chartered accountant as submitted by the tenderer in Income Tax Department (copies attached)

2. Other details

2.1 Past Experience (last five years with all necessary documentary evidence)

SL. Nos.	Year	Name of the Organization	Cost of the work (Executed)	Officer Concd. In the Organization with T.N.	Period From-- to ---	What technologies (Specification) were used in construction
1	2007-08					
2	2008-09					
3	2009-10					
4	2010-11					
5	2011-12					

Performance Report of works executed are required to be submitted in the prescribed proforma Appendix "B"

2.2 Particular of registration with various Govt. bodies (attach Photocopies Organization/place

i) -----

ii) -----

iii) -----

2.3 Has the firm been ever debarred/ Black Listed by any organization?  
If 'Yes' the details thereof.

2.4 Similar work/ any other work in hand at present

\_\_\_\_\_

2.5 Was the applicant ever required to suspend construction for a period of more than six months continuously after commencement of construction? If so, give the name of the project and reasons thereof.

\_\_\_\_\_

2.6 Has the applicant or his constituent partner even abandoned the work awarded to him incomplete? If so give the name of the project and reason thereof)

\_\_\_\_\_

2.7 Was the applicant or any constituent partner, in case of partnership firm ever been convicted by a Court of Law/ If so the details.

\_\_\_\_\_

2.8 Any other documentary proof in support of experience in execution of construction with alternate cost effective materials / technologies.

\_\_\_\_\_

2.9 Particularly of Demand Draft paid as Earnest Money

\_\_\_\_\_

Amount : ₹ 180837/- and ₹ 500/-

DD Nos. : \_\_\_\_\_

Issuing Bank with date of issue : \_\_\_\_\_

(Signature of the Tenderer)  
With Complete address and seal

**Name:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Tel No.** \_\_\_\_\_  
**Fax No.** \_\_\_\_\_  
**Email** \_\_\_\_\_

**FINANCIAL INFORMATION**

**Turnover in last three years**

Turn Over in ₹ Lakh(T)	2009-2010 T1	2010-2011 T2	2011-2012 T3	Average <u>T1+T2+T3</u>
Turn over in ₹ lakh				
Gross Annual turnover as construction work				
Profit / Loss				



**PERFORMANCE REPORT OF WORKS REFERRED TO IN ITEM 2.1**

**(To be submitted separately for each project)**

1. Name of the work / project and location
2. Estimated cost
3. Tendered Cost
4. Date of Commencement
5. Date of completion                      a) Stipulated                      b) Actual
6. 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 Behaviour                      Very Good/ Good / Fair/ Poor
7. Any Other Remark related to the project

**Executive Engineer or equivalent with date**

**Signature of Tenderer**

### **ITEM RATE TENDER FOR WORK**

I/We hereby tender for the execution for the BMTPC work specified in the underwritten memorandum within the time specified in such memorandum at the rates, specified therein, and in accordance in all respects with the specifications, designs, drawings and instructions and the Terms & Conditions of Contract including CPWD General Conditions of Contract 2008 as applicable and in all respects in accordance with such conditions so far as possible.

#### **MEMORANDUM**

a) General Description

Construction of 24 Demonstration Houses including Infrastructure Works at Barwaripur, Raibareli (U.P.)

b) Estimated Cost ₹: 9041874/-

c) Earnest Money ₹: 180837/-

d) Security deposit: @ 10% of the tendered value of work put to tender subject to a maximum of ₹ 10 Lacs.

e) The security deposit will be collected by deductions from the running bills of the tenderer at the rates mentioned above and the earnest money, if deposited at the time of tender, will be treated as part of security deposit.

f) Time allowed nine months to be reckoned after fifteen days of the date of written orders to commence the work or from the first day of handing over the site whichever is later.

Should this tender be accepted, in whole or in part, I/We Agree:

- (i) To abide by and fulfill all the terms and provisions of the said conditions annexed hereto and all the terms and provisions contained in notice inviting tender so far as applicable, and/or in default thereof to forfeit and pay to the BMTPC, the sum of money mentioned in the said conditions. A sum of ₹ 180837/- is hereby forwarded in demand draft of a scheduled bank as earnest money. If I/We fail to commence the work specified in the memorandum, I/We agree that the said BMTPC, 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 them towards security deposit mentioned against clause (d) of the above mentioned memorandum.
- ii) To execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, upto a maximum of 30% (percent), at the

rates quoted in the tender documents and those in excess of that limit, at the rates to be determined based on analysis on market rates with prior approval of the Competent Authority.

I/We hereby declare that I /We shall treat the tender documents drawings and other records connected with the work as secret/ confidential documents and shall not communicate information / derived there from to any person other than a person to whom I/We am/are may authorize to communicate the same or use the information in any manner prejudicial to the safety of the BMTPC.

Dated \_\_\_\_\_

The \_\_\_\_\_ day of \_\_\_\_\_ 200 \_\_\_\_\_

Witness\* \_\_\_\_\_

Address \_\_\_\_\_

Tel No. \_\_\_\_\_ Fax No. \_\_\_\_\_

Occupation \_\_\_\_\_

\_\_\_\_\_  
**AGENCY \*\***

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Tel No.** \_\_\_\_\_

**Fax No.** \_\_\_\_\_

**Email** \_\_\_\_\_

\_\_\_\_\_  
The above tender is hereby accepted by me on behalf of “**BMTPC**”

Dated \_\_\_\_\_

The \_\_\_\_\_ day of \_\_\_\_\_ 200 \_\_\_\_\_

**DESIGNATION OF THE OFFICER \*\*\***

- \* Signature of witness to tenderer's signature.
- \*\* Signature of the Agency
- \*\*\* Signature of the officer by whom accepted

## **BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL**

### **UNDERTAKING / DECLARATION**

I/We have read the CPWD General Conditions of Contract 2008 with all its amendments/ modification and agree to abide by all the terms and conditions of the above said pamphlet. I/We also agree that the same shall also form part of the contract.

**Signature of Authorized  
Representative of the Agency**

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**Tel No.** \_\_\_\_\_

**Fax No.** \_\_\_\_\_

**Email** \_\_\_\_\_

## **ADDITIONAL CONDITION & SPECIFICATION**

### **1. GENERAL SPECIFICATIONS**

- 1.1 The Civil works shall be carried out as per Central Public Works Department Specifications 1996 Volume I to VI with upto date correction slips and Revised CPWD Specifications 2002 Part II for cement mortar, cement concrete and RCC works. In case of civil works, should there be any difference between the Central Public Works Department specifications mentioned above and the specifications of schedule of quantities, the latter i.e. specification of schedule of quantities, shall prevail. For items of work not covered in C.P.W.D. specifications or where the C.P.W.D. specifications are silent on any particular point, the relevant specification or code of practice of the Bureau of Indian Standard shall be followed. For items of alternative technologies, BMTPC standards Good construction practice should be followed.
- 1.2 This is a technology oriented project and therefore, the tenderer should have sound technological base and have executed building works and have adequate experience in such field.
- 1.3 Should any clarification be needed regarding the specifications of any work the written instructions from the Engineer-in-charge shall be obtained.
- 1.4 Main Civil tenderer appointed for this work shall also execute the electrical works. He should either be an eligible tenderer himself or associate with himself an electrical tenderer for execution of electrical work. The eligible electrical tenderer shall be enlisted in appropriate class with CPWD, MES, Railways, P & T or State PWD provided such electrical tenderers obtain necessary license to work as electrical tenderer from competent authority within a specified period of 30 days from the date of award of work.
- 1.5 The materials to be used must be got approved from the Competent Authority of the Council.

### **2. DRAWINGS**

- 2.1 The drawings specified in the brief specifications could be seen in the office of Chief (Admn), BMTPC, New Delhi, during working hours.

## **BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL**

### **SPECIAL CONDITIONS**

1. No tools and plant will be supplied by the Council and the tenderer will have to make their own arrangements for providing necessary tools and plant required for proper completion of work.
2. The work shall be executed as per programme drawn by the tenderer in consultation with the Engineer-in-charge including on holidays and beyond office hours.
3. The tenderes are advised to inspect and examine the site, the means of access to site, shall themselves ascertain all necessary information on to risk, contingency and other circumstance which may influence or affect their tender. A tender shall be deemed to have full knowledge of the site whether he inspect it or not and no extra charges consequent any misunderstanding or otherwise shall be allowed for the work and study specifications and conditions carefully before tendering.
4. Any damage done by the tenderer to any existing work, structure during the course of execution of the work tendered for shall be made good by him at his own cost, to the satisfaction of the Engineer-in-Charge.
5. The tenderer shall maintain in good condition the work executed till the completion of the entire work allocated to the tenderer, as well as, during the maintenance period.
6. No compensation shall be paid to the tenderer for any damage caused by rain, floods, natural calamity & human made disaster during the execution of the work. He should make good all such damages at his cost and no claim on this account will be entertained.
7. Royalty or any nature of tax at prevalent rates shall have to be paid by the tenderer on all the materials collected by him for execution of the work direct to the revenue authority of the State Government.
8. The sample of materials are got to be tested in approved laboratory as and when desired & should be approved from the Engineer-in-Charge before the sample is bought to the site of work/used in the work.
9. The tenderer has to remove all malba etc. from the premises, throw it outside the municipal limits and has to hand over the site in a neat and clean manner at his own cost.

11. The tenderer shall make his own arrangement for electricity & water required for execution of the work and nothing extra shall be paid for the same.
12. In case of composite contracts wherein Electrical works form a part of the composite works, the main tenderer shall ensure that the Electrical works are executed by the subtenderer (who shall be approved by the tender accepting authority) having appropriate registration for electrical work of this magnitude and possessing prescribed Electrical license for undertaking such work. Name(s) of the party(ies) should be indicated while submitting the tender. Soon after the award of work separate agreement for Electrical work shall be concluded with the OM (Elect) of the Council for execution and finalization of payments regarding Electrical sub-work.
13. The work shall be carried out as per IE Rules/CPWD General Specifications 1994 Part -1 for Internal & Part -11 for External Electrical work with upto date correction slips. For Non-scheduled items, BIS/ Manufacturer's specifications shall be followed.
14. The work shall be carried out by an Electrical Tenderer of appropriate class possessing requisite license and authority to handle this type of installation covered by the contract.
15. Requirement, if any of local Electricity Authority/Electrical Inspectorate in respect of approval of the installation and sanction of Electrical power shall also be complied with the tenderer on furnishing requisite documents; plans, schematic diagrams etc.
16. All inter-connections on the main board and distribution boards shall be done with suitable size of cables drawn in conduits and end-terminations with appropriate lungs/thimbles.
17. All steel poles, switch boards, sheet metal panels, MS clamps, etc. shall be applied with primer coat of paint before erection. Final painting shall be done in two coats after erection.
18. Execution of work shall be supervised by technical personnel of appropriate rank as required under the rules.
19. The tenderer will co-relate electrical works with the progress of civil engineering works. He will ensure that the electrical works are completed, installation test reports submitted to Electrical supply authorities and approved by the Electrical Inspectorate concerned immediately after the civil works are completed.
20. The tenderer shall submit a detailed programme of execution of work showing activities distinctly along with Bar Chart within fifteen days of the award of work.

21. The tenderer shall provide & erect a display board of required size & shape and print over it the details about the salient features of the project as desired by the Engineer-in-Charge.
22. The Tenderer shall take precautions to avoid accidents and shall follow the 'Safety procedure' as per appendix 'C' CPWD specifications referred above.
23. In case of any dispute, the decision of Executive Director, BMTPC shall be final and binding on both the parties.
24. Legal jurisdiction shall be Courts of Delhi/New Delhi only.
25. Income Tax and Surcharge other taxes

All the taxes fixed by Ministry of Finance, GOI, shall be deducted from all the running bills of the tenderer should there be any increase in rate of Income Tax and surcharge during execution of contract, the same shall be payable by the tenderer.

**Chief (PMT & Admn)  
For & On Behalf of BMTPC**

**Accepted by me  
Signature of Tenderer & Seal**

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Tel No.** \_\_\_\_\_

**Fax No.** \_\_\_\_\_

**Email** \_\_\_\_\_



## **BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL**

### **Salient Features/ Interpretation of various clauses of the General Condition of Contract of CPWD**

1. Officer inviting tender : Chief (PMT & Admn.)
2. Engineer-in- Charge : Chief (BM)
3. Accepting Authority : Executive Director
4. Clause 2 --- Authority for fixing compensation : Executive Director
5. Clause -2A : Applicable
6. Clause 5 ---Authority to give fair & reasonal Extension of Time for completion of work : Executive Director
7. Clause 10 : Not Applicable
8. Clause 10 A : Applicable
9. Clause 10 B (i) : Applicable
10. Clause 10 B (ii) : Interest free mobilization advance not exceeding 5% of the tendered value may be given, if requested by the tenderer in writing within one month of the order to commence the work. In such a case the tenderer will execute a bank guarantee bond from a scheduled bank for full amount of the mobilization advance before such advance is released.
11. Clause 10 B (iii) : Not Applicable
12. Clause 10 B (iv) : Applicable without interest recovery
13. Clause 10 B (v) : Applicable
14. Clause 10 B (vi) : Applicable without interest recovery

15. Clause 10 C & 10 CA : Not Applicable
16. Clause 10 CC : Not Applicable
17. Clause 11 : Specifications for Civil & Electrical works to be followed as given in the contract
18. Clause 12 :
- a. Deviation limit beyond which Clauses 12.2 & 12.3 shall apply for Building work & infrastructure work : 30%
- b. Deviation limit beyond which Clauses 12.2 & 12.3 shall apply for Foundation work : 100%
19. Clause 16 : Executive Director  
Competent Authority for deciding reduced rates upto 5% of contract value for Civil & Electrical works
20. Clause 17 : Applicable  
Maintenance Period
21. Clause 42 :  
Variations permissible on theoretical quantities
- (a) Cement : 2% Plus/ Minus
- (b) Bitumen : 2.5%Plus only and Nil on Minus side
- (c) Steel reinforcement & Structural steel sections : 2% plus/ minus
- (d) All other materials : Nil

**Note:**

- i) In General Condition of Contract (GCC)-2008, wherever, President of India / Director General / Chief Engineer/ Superintending Engineer appears it will be meant as Executive Director, BMTPC.
- ii) In place of Government / Technical examiner it will be BMTPC in this case.

**BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL**

## ORGANISATION CHART

The tenderer shall list below key men giving short resume of their experience together with estimated peak and average force that he proposes to employ on this contract.

S. No.	Designation of key Personnel	Name and short resume of experience	No.
--------	------------------------------	-------------------------------------	-----

## LABOUR FORCE

Estimated Peak Force.....

Estimated Average Force.....

**Signature of Tenderer**

**Name:** \_\_\_\_\_

**Address:**

**Tel No.**

**Fax No.** \_\_\_\_\_

Email

## LIST OF PREFERRED MAKES FOR CIVIL / SANITARY WORKS

S.No.	Material	Preferred Make
1.	(i) Ordinary Portland Cement (Grey) Or Pozzollona Portland Cement (PPC) (ii) White Cement	: ACC, L&T, Vikram, Birla, J&K, JP Rewa, 43 grade (Con forming to IS:8112) Conforming to IS:1489 (Part 1) Birla White / J.K. White
2.	Steel	: SAIL, TISCO, Rashtiya Ispat (RINL)
3.	Veneered Particle Board	: Novapan, Kitply, Anchor, National
4.	Laminated Particle Board	: Novapan, Kitply, National
5.	Flushdoor shutters	: Kutty Flush door, Kitply Swastik, Green Ply woods, Inds., Vidya Ply and Board Pvt. Ltd. (Kanchan).
6.	Factory made paneled door shutters	: Pioneer Timber products Chandigarh, Everest Pathankot, Drone Timber, Timber Mohali, M/s Jain Door Private Ltd. Kundli.
7.	Steel Windows / Pressed Steel frames	: San Harvic Steelman Industries, Metal Windows, AGEW.
8.	Water Proofing Compound	: Forsoc, Cico, Pidilite. Impermo by M/s Snowcem, Sika.
9.	M.S. Pipe	: Tata, Jindal (Hissar), Jindal (Ghaziabad), Surya
10.	PVC Pipe and Fittings	: Supreme, AKG, Finolex, Prince
11.	Oil Bound Distemper	: Nerolac Washable OBD, Burger Bison Acrylic) Asian Paints (Tractor Acrylic)
12.	Dry Distemper	: Burger (Castle) or equivalent
13.	Synthetic Enamel Paint	: ICI (Dulux Gloss), Nerolac Burger (Luxol Hugloss), Asian Paints (Premium Apcolite Gloss)
14.	Steel Primer	: ICI, Narolac, Burger, Asian Paints
15.	Wood Primer	: ICI, Narolac, Burger, Asian Paints
16.	Mosaic Tiles	: Nitco, Modern, NTC
17.	Ceramic Glazed Tiles	: Kajaria, NITCO, Ssoman, Orient
18.	Dash / Anchoring Fasteners	: HILTI/Fischer
19.	Nuts/Bolts and Screws	: GKW, Atul
20.	Stainless Steel Sink (Out of Salem Steel only)	: Neelkanth, Nirali, Jayna
21.	Float Valve	: IVC, Leader
22.	Admixtures	: Fosroc, MBT, Sika, CICO, Asian Shielicon Chembond
23.	Viterous China Sanitary Ware	: Parryware, Hindustan Sanitaryware, Neycer, Cera
24.	Plastic seat cover of W.C.	: Commander, Diplamate, Hindware
25.	PVC Flushing Cistern	: Commander, Coral, Hindware (Slim line)
26.	CP Fittings / Mixer Pillar taps Washers	: Jaquare, MARC, Kingstone Gem,

27.	CP Accessories	: Parko MARC, Jaquar, Kingston, Parko, Gem.
28.	Centrifugally Cast (Spun) Iron Pipes	: R.I.F., NECO, B.C., SKF, HIF & fittings B.S.T., Tata, Jindal Hissar
29.	G.I. Pipes	: R, Unik, Ks, RM
30.	G.I. Fittings	: Electrasteel, Kesoram
31.	C.I. Pipes (Class LA/A)	: Leader, Zoloto, Kilburn, CIM, Valves, Sant
32.	Gun metal Vaalves	: Zoloto, Sant, L&K, Leaer
33.	Brass stop and Big Cock	: Prefect, Hind
34.	Stoneware pipes and Gully traps	: Atul, Modi Guard, Golden
35.	Mirror Glass	: Indal/Hindalco/Jindal
36.	Aluminium	: Suncontrol/Wonder Polymer
37.	Masking tapes	: Kundan / Punja / Atul
38.	Stainless steel screw for fabrication and fixing of windows	
39.	Proposed Treatment on MS bracket	Galvanized brackets as per IS:4759-1996, 610 gms/sqm.(Microns) 80-90
40.	Stainless steel bolts/washers and nuts	: Kundan / Punja / Atul
41.	Stainless steel pressure plate screw	: Kundan / Punja / Atul
42.	Stainless steel friction stay	: Earl Behari / Anand
43.	EPDM gasket	: Roop / Anand
44.	6mm thick clear float glass	Modi / St. Gobain / Gujarat Guardian Ltd. / Float Glass of India
45.	Weather silicon make and grade	: Dow Corning / Wacker / GE
46.	PVC continuous fillet for periphery packing of glazing/curtain wall	: Roop / Anand / Forex Plastic
47.	RCC Frame	: Mechanically Made

## **BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL**

### **PROFORMA FOR AGREEMENT**

THIS AGREEMENT made this .....day of ..... between the BMTPC, established under the MoHUPA, having its Office at Core 5A, 1<sup>st</sup> Floor, India Habitat Centre, Lodhi Road, New Delhi – 110003 (which expression shall mean and include its successor or successors in office and assignee) acting through the Chief (PMT & Admn.), BMTPC, New Delhi hereinafter called, 'The Council' on the one part and M/s/Sri ..... hereinafter called the "Tenderer" which expression shall mean and include their heirs, executors, administrators and assignee) on the other part.

WHEREAS The Council being desirous of having provided and executed certain works mentioned, enumerated or referred to in the specifications, conditions of contract, schedule of quantities of work, drawings, and other documents consisting of the "Tender" and acceptance thereof, copy hereto annexed, all of which are deemed to form part of this contract and are included in the term CONTRACT whenever herein used.

AND WHEREAS The Council accepted the tender of Tenderer ..... for the provision and the execution of the said work at the rates stated in the Schedule of quantities of work (hereinafter called the "Schedule of rates") upon the terms and subject to the condition of contract.

NOW THIS AGREEMENT WITNESSTH & IT IS HEREBY agreed and declared as follows:

1. In consideration of the payments to be made to the tenderer for the work to be executed by him, the tenderer does hereby covenant with the Council that the tenderer shall and will duly provide, execute, and complete the said works on or before the dates mentioned in the said conditions attached to the tender documents and shall maintain the same at his own cost for a period of six months thereafter, perform another acts and things in the contract mentioned or described of which are to be implied there from or may be reasonably necessary, for the completion of the said works and in the manner and subject to the terms and conditions of stipulations mentioned in the correct.
2. In consideration of the due provision, execution, and completion of the said works the Council does hereby, agree with the tenderer that the Council will pay to the tenderer the respective amount for the work actually done by him at the "Schedule of Rate" as contained in the appended schedule and such other sums as may become payable to the tenderer under the provisions of the contract, such payments to be made at such time and in such manner as provided for in this agreement.

3. The tenderer has furnished a sum of ₹ ..... as Earnest Money and agrees that the balance Security Deposit amounting to ₹ ..... shall be recovered from the bills payable to the tenderer from time to time till the whole of the Security Deposit of ₹ ..... stipulated in the memorandum of the tender and clause of the "Condition of the Contract" is recovered.
4. In consideration of the due provision, execution and completion of the said works the tenderer does hereby agree to pay the Council the sum as may be due to the Council for the services, if any, rendered by the Council to the tenderer, and such other sum or sums as may become payable to the Council towards loss/damage to the Council equipment, materials, plant and machinery, liquidated damages, if any as set forth in the said Conditions of contract such payments to be made at such time and in such a manner as is provided in the contract.

IN WITNESS WHERE OF the parties have executed these presents in duplicate the date and year first above written.

SIGNED AND DELIVERED FOR AND ON BEHALF OF M/s /Shri .....  
.....

IN THE PRESENCE OF  
WITNESS     1.  
                  2.

SIGNED AND DELIVERED FOR AND ON BEHALF OF  
BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL (BMTPC)  
IN THE PRESENCE OF  
WITNESS     1.  
                  2.

# **TENDER**

## **FOR**

**Construction of 24 Demonstration Houses including  
Infrastructure Works (Civil Work, Internal Water  
Supply, Sanitation, Electrical, Pathways, Septic  
Tank, under Ground Tank, Street Lighting, etc.) at  
Barwaripur, Raibareli (U.P.)**

**(Composite Work)**

**(Ref.No.BMT/CBM/DHPRaibareli/2012/01)**

**Part-B  
(Financial Bid)**



**Building Materials & Technology Promotion Council  
Ministry of Housing & Urban Poverty Alleviation, Govt. of India  
Core-5A, First Floor, India Habitat Centre  
Lodhi Road, New Delhi-110003**

**Phone: +91-11-24636705; Fax: +91-11-24642849;  
E-mail: [bmtpc@del2.vsnl.net.in](mailto:bmtpc@del2.vsnl.net.in); Website: [www.bmtpc.org](http://www.bmtpc.org)**



## **INDEX**

Name of Work: Construction of 24 Demonstration Houses

Sub Head: Construction of 24 Demonstration Houses including Infrastructure Works (Civil Work, Internal Water Supply, Sanitation, Electrical, Pathways, Septic Tank, under Ground Tank, Street Lighting, etc.) at Barwaripur, Raibareli (U.P.)

### **PART-B (FINANCIAL BID)**

S. No.	Description	PAGE NO.
1.	SCHEDULE-A (ABSTRACT OF COST)	1
2.	PROFORMA FOR QUOTING REBATE	2
3.	BILL OF QUANTITIES	3-18
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The Part B: Financial Bid of Tender Document contains Pages 29 in Chronological order

**Chief (PMT & Admn.)**

### **SCHEDULE-A (ABSTRACT OF COST)**

Name of Work:

Construction of 24 Demonstration Houses

Sub Head:

Construction of 24 Demonstration Houses including Infrastructure Works (Civil Work, Internal Water Supply, Sanitation, Electrical, Pathways, Septic Tank, under Ground Tank, Street Lighting, etc.) at Barwaripur, Raibareli

S. No.	Sub Head	Amount (In Figures)	Amount (In Words)
1.	Earth work		
2.	Concrete work		
3.	RCC work		
4.	Brick work		
5.	Wood work		
6.	Flooring		
7.	Roofing		
8.	Finishing		
9.	Miscellaneous works		
10.	Sanitary installations & Drainage		
11.	Sanitary Installation (PHE)		
12.	Water Supply		
13.	Electrical Item		
14.	External Development Work		
15.	External Electrical Work		
	Total=		

## **2.0 PROFORMA FOR QUOTING REBATE**

I/We offer on unconditional rebate of .....% (.....  
.....) on my rendered rates.  
(in words)

Tenderer's Signature

**CONSTRUCTION OF 24 DEMONSTRATION HOUSES (G+1) WITH COST EFFECTIVE TECHNOLOGIES AT BARWARIPUR, RAE BARELI, UP**

**BILL OF QUANTITIES**

S.No.	DSR ITEM No.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
<b>1</b>		<b>SUB HEAD -1- EARTH WORK</b>				
1.1		Earth work in excavation by mechanical means (Hydraulic Excavator )/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sum on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including taking out the excavated soil and depositing and refilling of jhiri with watering & ramming and disposal of surplus excavated soil as directed with in a lead of 50 meter. All kinds of soils	Cum	327.00		
1.2		Supplying chemical emulsion in sealed containers including delivery as specified.				
		Chlorpyrifos/Lindane emulsifiable concentrate of 20%	Litre	60.00		
1.3		Diluting and injection Chloropyrifos Emulsifiable concentrate 20% with 1% concentration for PRE-CONSTRUCTIONAL Anti termite treatment as per IS 6313 part III as amended from time to time and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor along the external perimeter of building expansion joints, over the top surface of consolidated earth of which aproch is to be laid surrounding of pipes and conduits etc. complete as per specification (Plinth floor area only shall be measured for payment and excluding the cost of chemical emulsion)	Sqm	384.00		
1.4		Filling available excavated earth in trenches, plinth, sides of foundation etc in layers not exceeding 20 cm in depth, consolidatng each deposited layer by ramming and watering , lead upto 50m and lift upto 1.5m	Cum	320.00		
1.5		Supplying and filling in plinth with sand under floors including watering, ramming, consolidaing and dressing complete.	Cum	37.00		
		<b>SUB TOTAL</b>				

<b>2</b>		<b>SUB HEAD - II- CONCRETE</b>				
2.1		Providing and laying in position cement concrete including curing, compaction etc. complete in specified grade excluding the cost of centering shuttering- All work upto plinth level- In 1:5:10 (1 cement : 5 coarse sand:10 graded stone aggregate 40mm nominal size).				
			Cum	50.00		
2.2		Rcc work in plinth and string courses, struts etc, upto floor V level excluding cost of centering, shuttering, finishing, and reinforcement, 1:1:5:3 (1 cement : 1:5 coarse sand:3 graded stone aggregate 20mm nominal size)				
			cum	11.00		
2.3		Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircase and spiral stair cases up to floor five level, excluding the cost of centering, shuttering, finishing & reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand :3 graded stone aggregate 20mm nominal size.)				
	5.3		Cum	55.00		
2.4		Laying reinforced brick concrete slab with and including supply of first class bricks laid in cement concret M20 grade concret with graded stone aggregate of 20mm nominal size as per design excluding supply of reinforcement and its bending but including its fixing in position and binding the same with 24 B.W.G.G.I. binding wire and including centering and shuttering and necessary curing and also including cost of binding wire ,supply of all material, labour and T & P etc. required for proper completion of work.				
	SOR 535		Cum	86.00		
2.5		Providing and laying RCC M 20 grade filler slab in sloping or flat, as per design & drawings, steel reinforcement, terrocota pottery and centering & shuttering complete giving excellent finish---115 mm thick Beams of the roof will be measured with the slab upto 115mm depth. surface area will be measured for the payment.				
			Sqm	480.00		
2.6		Centering and Shuttering with plywood or steel sheets including strutting, propping bracing both ways and removal of formwork for				
2.6.1		suspended floors, roofs, landing, balconies and access platform				
			Sqm	145.00		

2.6.2		Lintels, beams, plinth beams, girders, bresummers and cantilevers	Sqm	265.00		
2.7		Reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete - TMT bars	Kg	14000.00		
2.8	5.12	Providing, fixing & hoisting upto floor five level Precast cement concrete for sring course, steps, window sill, shelves etc. including required centring, shuttering but excluding cost of reinforcement with mix 1:2:4 (1 cement:2 coarse sand: 4 graded stone aggregate with 20 mm nominal size)	Cum	4.50		
2.9	5.18.2	Providing precast C.C.Jali with mix 1:2:4 (1 cement:2 coarse sand: 4 graded stone aggregate with 6 mm nominal size) reinforced with 1.6 mm dia. Mild steel reinforcement including centring shuttering, fixing and finishing with CM 1:3 complete	Sqm	18.00		
		<b>SUB TOTAL</b>				
<b>3</b>		<b>SUB HEAD -III- BRICK WORKS</b>				
3.1	6.1.2	Brick work with common burnt clay F.P.S. bricks of class designation 7.5 in in foundation and plinth in cement mortar 1:6.	Cum	385.00		
3.2		Brick work with F.P.S. bricks of class designation 10 as per IS 107:1992 in superstructure above plinth level upto floor V level in all shapes and sizes in cement mortar 1:4 (1 cement :4 coarse sand) in Rat-trap Bond complete.	Cum	396.00		
3.3	6.1.2.2	Half Brick work with F.P.S. bricks of class designation 7.5 in superstructure cement mortar 1:4 as per IS 107:1992.	Sqm	417.00		
		<b>SUB TOTAL</b>				
<b>4</b>		<b>SUB HEAD - IV- WOOD/STEEL WORK/PVC WORK</b>				
4.1		Providing and fixing mechanically made precast single/double rebated R..C. Door Window and ventilator frames (Chowkhats) in concrete mix of not less than M25 including minimum of 3 bars of 6mm dia or equivalent of 1.5% reinforcement of the section area of concrete member whichever is more incl. horns. and hold fast :				
4.1.1		Size 100 x 60mm	Mtr.	471.50		
4.1.2		Size 125 x 60mm	Mtr.	122.40		

4.2		Providing and fixing external grade board solid core single leaf flush door shutters ISI 2202(Part1)-1999 marked using Phenol formal dehyderesin in glue both sides with approved steel fittings complete as per annexure 'A' :30 mm thick Commercial Veneer both side	Sqm	201.00		
4.3		Providing and fixing steel glazed doors windows and ventilator shutters of standard rolled steel section joints mitred and welded with steel lugs 13x3mm, 10cm. long embedded in cement concrete block 15x10x10cm. of 1:3:6 (1cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws with fixing clips or with bolts and nuts as required including providing and fixing of plain glass panes 4mm thick with cooper glazing clips and special metal sash putty of approved make or metal beading with screws complete including priming coat of approval steel primer, excluding the cost of metal beading and other fitting except necessary hinges of pivots steel handles peg stay etc. as required :				
4.3.1		Window side hung ( openable	Sqm	116.64		
		Supplying and fixing fixed wire gauge of 14 mesh x 24 gauge to the metal frame of rolled section by metal beading 20x3mm with suitable screw at not exceeding 150mm distance.	Sqm.	116.64		
		Providing and fixing Square bars or other flat welded to window, ventilations etc.	Kg.	500.00		
4.4		PVC Doors MAKE Sintex/equivalent 25 mm thick	Sqm	80.64		
4.5		Proving and fixing M.S. fan clamp type I or II of 16mm dia M.S. bar bent to shape with hooked ends in R.C.C., slabs, beams during laying including painting at the exposed of loop, all as per standered design complete.	Nos	48.00		
4.6		Providing and fixing ISI marked 85x42mm oxidised M.S. pull bolt lock conforming to IS 7534 with necessary screws, bolts, nuts and washers etc. complete	Nos	84.00		
4.7		Providing and fixing ISI marked Oxidised M.S sliding door bolts with nuts and screws etc. complete - 250-16mm	Nos	108.00		
4.8		Providing and fixing ISI marked oxidised M.S. tower bolt with nuts screws, bolts, etc. complete				
4.8.1		200x10mm	Nos	108.00		

4.8.2		100x10mm	Nos	108.00		
4.9		Providing and fixing ISI marked oxidised M.S. handles conforming to IS : 4992 with necessary screws etc. complete				
4.9.1		125mm	Nos	216.00		
		<b>SUB TOTAL</b>				
<b>5</b>		<b>SUB HEAD -V- FLOORING</b>				
5.1	SOR 600	5cm (2") thick 1:1.5:3 plain cement concrete floor with cement and red oxide( 3.5 kg per 50 kg of cement), approved coarse sand and 2 cm graded approved stone laid in panels finished with 3mm floating coat of neat cement or cement and marble dust in 5:1 including 8 cm thick base conc. In 1:4:8 with 40mm grade stone aggregate complete	Sqm	620.00		
5.2		Providing and fixing Ist quality ceramic glazed floor tiles conforming to IS:15622 of approved make				
	5.2.1	Glazed floor tile for bath & W.C.	Sqm	50.50		
	5.2.2	Glazed wall tile for kitchen	Sqm	18.00		
		<b>SUB TOTAL</b>				
<b>6</b>		<b>SUB HEAD -VI- ROOFING</b>				
6.1		providing 100mm thick average mud phuska damped brick earth on roof laid to slope	Sqm	87.00		
6.2	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down gauge) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design : In 75x75mm deep chase	Metre	156.00		
6.3	12.22	Making khurras 450 x 450mm with average minimum thickness 50mm cement concrete 1 : 2:4 over P.V.C. Sheet 1 Mtr. x 1 Mtr. x 40micron finished with 12mm cement plaster 1 : 3 and one coat of neat cement, rounding edges and making and finishing the out let complete.	Each	12		
6.4	12.20	Providing and fixing on roof pressed clay tiles (manglore tiles) of 20 mm thickness on roof jointed with cement mortar 1:4 mixe with 2% integral water proofing, laid over bed of 20mm thick cement mortar 1:4	Sqm	75.00		
6.5	12.44	Providing and fixing to the inlet mouth of rain water pipe cast iron grating of 15 cmm dia. And weighing not less than 440 gm.		12.00		
		<b>SUB TOTAL</b>				
<b>7</b>		<b>SUB HEAD -VII- FINISHING/PAINTING</b>				



7.1.1		20 mm Cement Plaster of Mix--1:6 (1 Cement:6 Fine sand	Sqm	249.00		
7.1.2		12 mm Cement Plaster of Mix--1:6 (1 Cement:6 fine sand	Sqm	2845.00		
7.2	13.31.1	Pointing on brick work sruck pointing	Sqm	1275.00		
7.3		Colour washing such as green, blue or buff to give an even shade: New work (two or more coats) with a base coat of white washing with limeor more coats)	Sqm	2845.00		
7.4	13.44.1	Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg./10sqm)	Sqm	249.00		
7.5		Painting with synthetic enamel paint of approved brand and manufacture to give an even shade: Two or more coat on new work.	Sqm	645.00		
		<b>SUB TOTAL</b>				
<b>8</b>		<b>SUB HEAD -IX- MISCELLANEOUS</b>				
8.1		Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement:3 coarse :6 graded stone aggregate 20 mm nominal size) over75 mm bed by dry brick ballast 40 mm nominal size well remmed and consolidated and grouted with fine sand including finishing the top smooth	Sqm	92.00		
8.2		Providing and laying water proffing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proffing cement compound consisting of applying:a) First layer of slurry of cement @ 0.488 kg/Sqm. Mixed with water proofing cement compound @ .253 kg./sqm. This layer will be allowed to air cure for 4 hours. b) second layer of slurry of cement @ 0.242 kg./sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes prepration of surface, treatment and lealing of all joints, corners, junctions of pipe and masonry with polymer mixed slurry)	Sqm	30.00		
		<b>SUB TOTAL</b>				
		<b>TOTAL FOR CIVIL WORK</b>				

9		<b>SUB HEAD -VII- WATER SUPPLY &amp; SANTARY</b>				
9.1	17.1.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand iron "p" or 'S' trap, 10 litre low level white PVC flushing cistern with manually controlled device (handle lever) conforming to IS :7231, with all fitting and fixtures complete including cutting and making good the walls and floors wherever required: White vitreous china orrisa pattern WC pan of size 580x440 mm with intergal type foot rests	Each	24		
9.2	17.7.4	Providing and fixing white vitreous china wash basin with C.I./M.S. brackets, 15 mm C.P. brass pillar tap, 32mm C.P. brass waste of standard pattern, including painting of fitting and of fittings and brackets, cutting and making good the walls wherever required: White vitreous China wash basin size 550x440 mm with a single 15mm C.P. brass pillar taps.	Each	24		
9.3	17.9.1	Providing and fixing white Glazed fire clay Kitchen sink of size 600x450x250mm with CI brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required.	Each	24		
9.4		Providing and fixing 3 Layers PP-R Pipes SDR 7.4 UV stabilized & anti-microbial fusion welded, having thermal stability for hot & cold water supply including all PP-R plain & brass threaded polypropylene random fittings including fixing pipes with clamps at 1.00 m spacing including testing of joints complete as per direction of Engineer in charge fittings and clamps, including cutting : internal work --- exposed on wall				
9.4.1		PN - 16 pipe, 16mm OD	Rmt	210.00		
9.4.2		PN - 16 pipe, 20mm OD	Rmt	120.00		
9.5		Providing & fixing brass bib cock of approved quality : 15 mm nominal bore	Each	96		
9.6		P/F brass stop cock of approved quality				
9.6.1		15mm nominal bore	Each	24		
9.6.2		20mm nominal bore	Each	12.00		

9.7		Providing and fixing PVC soil /vent/waste SWR pipe of required diameter conforming to IS - 13592:1992 and IS 4985:200 to withstand 2.5 kg./cm <sup>2</sup> pressure including necessary fixtures and fittings, such s bends,tees, single junctions, double junction and joining with rubber rings and lubricants on wall by means of clips or in ground including necessary excavation , laying filling, trench testing etc. complete				
9.7.1		110mm dia pipe	Metre	180.00		
9.7.2		75mm dia pipe	Metre	90.00		
9.8		Providing and fixing square mouth SW gully Trap Grade A complete with Ci grating brick Masonary Chambers with water tight CI cover with frame of 300x300 mm size (inside ) the weight of cover to be not less then 4.50g and frame to be not less than 2.70kg. as per standered design 100x100 mm size P type with FPS bricks of class designation 105	Each	12.00		
9.9		Constructing brick masonary chamber for underground C.I. Inspection chamber and bend with brick work in cement 1:4 (1 cement:4 Coars sand) C.I. cover with frame (light duty)455x610mm internal dimension, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) R.C.C.top slab with 1:2:4 mix (1cement:2 coarse sand:4 graded stone aggregate with 20 mm nominal size), foundation concrete 1:5:10(1cement:5 fine sand:10 graded stone aggregate with 40 mm nominal size), inside plastering 12mm thick with cement mortar 1:3 ( 1 cement:3 sand)finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design inside dimension 455x610mm and 45 cm deep for single pipe line with common burnt clay of F.P.S. brics of class designation 7.5	Each	12		
19.30.1.1						
9.10		Providing & fixing 100 mm dia PVC cowl fixing with adhesive as per specification	Each	24		
9.11		providing and placing on terrace (at all floor levels) polythylene water storage tank IS: 12701 marked with cover and suitable locking arrangment and making necessary holes for inlet, outlet and overflow pipes including fittings and the base support for tank: 500 litre capacity	Each	24		
		<b>SUB TOTAL</b>				

I		<b>TOTAL CIVIL WORK</b>				
II		<b>ELECTRIFICATION @ 5% (Min. 16 points in each unit with copper wiring, MCB etc. as per drawing)</b>				
III		<b>WATER SUPPLY &amp; SANITARY</b>				
IV		<b>TOTAL COST FOR 24 UNITS</b>				
V		<b>COST OF ONE UNIT</b>				
IV		<b>AVG. PLINTH AREA OF ONE UNIT</b>				
		<b>SUB HEAD -X- INFRASTRUCTURE WORK</b>				
I		<b>PAVEMENT &amp; DRAIN COVER</b>				
1		Supplying, stacking & filling of good earth at site including royalty and carriage upto all leads & lifts.	Cum	366.00		
2		Banking earth in layers not exceeding 20cm in depth. Breaking clods, watering, rolling each layer with 1/2 tonne roller or steel rammers and rolling every third and top most layer with power roller of 8 tonnes and dressing up in embankments for filling up ground depressions, upto all leads and lifts: All kinds of soil	Cum	366.00		
3		Earth work in excavation by mechanical means (Hydraulic Excavator )/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including taking out the excavated soil and depositing and refilling of jhiri with watering & ramming and disposal of surplus excavated soil as directed with in a lead of 50 metre. All kinds of soils	Cum	32.00		
4		Providing and laying in position cement concrete including curing, compaction etc. complete in specified grade excluding the cost of centering shuttering- All work upto plinth level- In 1:5:10 (1 cement : 5 coarse sand:10 graded stone aggregate 40mm nominal size).	Cum	15.50		
5		Brick work with common burnt clay F.P.S. bricks of class designation 7.5 in foundation and plinth in cement mortar 1:6 (1 cement::6 coarse sand)	Cum	22.00		

6		Providing and laying Damp proof coarse 50 mm thick with cement concrete 1:2:4(1 cement : 2 coarse sand:4 graded stone aggregate 20mm nominal size)	Sqm	20.00		
7	16.68	Providing and laying 60 mm thick factory made cement concrete grass paver blocks of M-30 grade made by block making machine with strong vibratory compaction and of approved size and design / shape laid in required colour and patternover and including 50mm thick compacted bed of course sand, filling the joints with coarse sand and planting grass in between pavers etc. all complre as per the direction of Engineer - in - charge	Sqm	330.00		
8		Providing and fixing factory made precast RCC perforated drain covers having concreteof strength not less than M-25, of size 1000x450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50mm dia perforation @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50mm x 1.6 mm complete, all as per direction of Engineer-in -charge edge binding with M.S.	Each	50.00		
		<b>SUB TOTAL</b>				
<b>II</b>		<b>LANDSCAPING - HORTIOCULTURE</b>				
1	23.15	half brick circular tree guard in bricks internal dia. 1.25 metre and ht 1.20 m above ground and 0.2 m below	Each	40.00		
2	23.2	Supplying & stacking of good earth at site including royalty and carriage with all leads & lifts (earth measured in stacks will be reduced by 20% for payment.)	Cum	40.00		
3	23.4	Supplying & stacking at site dump manure from approved source including all lead and lifts (manure measured in stacks will be reduced by 8% for payment.) - screened through seive of of IS designation 20mm	Cum	20.00		
4	23.3	Supplying & stacking sludge at site including royalty & carriage with all leads & lifts (sludge manure measured in stacks will be reduced by 8% for payment.)	Cum	20.00		
5	23.8	Spreading of sludge/damp manure or/and good earth in required thickness (cost of sludge/damp manure or / and good earth to paid seperately)	Cum	80.00		
6	23.9	Mixing earth and sludge or manure in proportion specific or directed.	Cum	80.00		

7	23.14	Digging holes or ordinary soil and refilling the same with excavated earth mixed with manure of sludge in the ratio of 2:1 by volume (2 part of stacked volume of earth after reduction by 20% :1 part 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 seperately)				
7.1		a) Holes 1.2 m dia and 1.2 m deep	Each	30.00		
7.2		b) Holes 0.6m dia and 0.6m deep	Each	30.00		
		<b>SUB TOTAL</b>				
<b>III</b>		<b>WATER SUPPLY</b>				
1		Excavating trenches of required width for pipes, cables etc. including excavation for sockets and dressign of sides, ramming of bottoms, depth upto 1.5m including getting out the excavated soil, and then returning the soil as required in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering etc. and disposal of surplus excavaed soil as directed, within a lead of 50m --- All kinds of soil.				
1.1	2.10.1.1	Pipes, cables etc. not exceeding 80 mm dia.	Cum	9.00		
2	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia.	Cum	25.00		
3	18.27	Providing and laying S&S centrifugally cast (spun) iron pipes (class LA) confoming to IS-1536:100mm dia pipe	Metre	60.00		
4	18.26	Providing and layong flanged CI standered specials such as tees bends, collars, tapres etc suitable for flanged jointing as per IS:1538 -- upto 300mm dia.	Quintal	5.00		
5	18.30.2	Providing and laying flanged joints to double flanged C.I./D.I. pipes and specials including testing of joints : 100mm dia pipe	Each	40.00		

6		Constructing brick masonry chamber 60x60x75cm inside with 75 class designation brick work in cement 1:4 (1 cement:4 Coars sand) with sluice valve, C.I. surface box 100mm top dia, 160 mm bottom dia and 180mm deep (inside) with chained lid and RCC top slab 1:2:4 (1 cement: 2coarse sand:4 graded stone aggregate 20mm nominal size) necessary foundation concrete 1:5:10 (1 cement: 5fine: sand:10 graded stone aggregate 40mm nominal size) and inside plastering with 1:3 (1 cement: 3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standered design : with FPS bricks of class designation 7.5				
	18.36.1		Each	3.00		
		<b>SUB TOTAL</b>				
<b>IV</b>		<b>SEWERAGE DISPOSAL</b>				
1		Excavating trenches of required width for pipes, cable etc. including excavation for sockets, and dressing of sides, eamming of bottoms, depth upto 1.5m including getting uot the excavated soil, and then rerturning the soil as required, in layers not exceeding 20cm in depth including consolidatong each deposited layer by ramming , watering, etc. and disposal of surplus excavated soil as directed, within a lead of 50m -- All kinds of sol	Cum	40.00		
2		Providing, laying and jointing of SW pipes grade a with stiff mixture of cement mortar in the proportion of 1:1 (1 cement:1 fine stand) inclning testing of joints etc complet: 150 mm dia	Metre	100.00		
	19.1.2					
3		Providing and laying cement Concrete 1:5:10 (1 cement : 5 coarse sand :10graded stone aggregate 40 mm nominal size) all around SW pipes including bed concrete as per standered design: 150 mm dia SW. pipe	Cum	20.00		
	19.2.2					
4		Construction of septic Tank in all types of soil with 40 Cm .thick masonry in CM 1:6, 15 Cm thick C.C bed of 1:5:10, M-15 grade C.C flooring & over stone slab covering ,80 mm thick slab ,jointing of slab in CM 1:3. Ralthal, Kharanja, 50 mm thick stone partition walls, 20 mm thick plaster in CM 1:6 finished with neat floating cement, 4 Nos C.I foot rests of approved design ,two No. 450 mm dia each Ferro cement cover with frame, earth work etc. complete as per approved drawing including disposal of surplus earth within a lead of 50 mtr:-				

		Size 230 x110 x150 cm.(for 20 users)	Each	6		
5	19.33	Constructing soakpit 1.20x1.20x1.20 filled with brick bats including SW drain pipe 100 mm dia. And 1.20 m long complete as per standard design.	Each	6		
		<b>SUB TOTAL</b>				
<b>V</b>		<b>STREET LIGHTING &amp; ELECTRICAL CONNECTIONS OF BUILDINGS</b>				
<b>I</b>		<b>CIVIL WORK</b>				
a	14.4	Excavating Trenches of Required width for pipes, Cables etc including excavation for sockets and dressing of sides, ramming of bottom, depth upto 1.5 m including getting out the excavated soil and then returning the soil as required in layers not exceeding 20 cm in depth including consolidation of each deposited layer by ramming watering etc and disposing of surplus excavated soil as directed within a lead of 50m all kind of soil / back filling after cable laying, compaction and dressing for cable trench in hard soil (service cable)	Cum	20.00		
b	14.10	providing & laying cement concrete in 1:2:4 (1 cement :2 coarse sand : 4 graded stone aggregate 40 mm nominal size) and curing complete including the cost of formwork in foundation and floors.	Cum	10.00		
<b>II</b>		<b>STRUCTURAL STEEL WORK</b>				
a		Cutting welding , surface cleaning at site and erection of ISMC/ISA (size 100x50x6) supports, brackets,MS Nuts & bolts etc with two coats of red oxide and two coats of aluminium / synthetic enamel paint	kg	500.00		
<b>III</b>		<b>ERECTION WORK</b>				
		Receiving,loading, transportation, unloading at site, safe storage, installation, testing and commissioning of following items as per REL standard drawings.				
		<b>Poles And Accessories</b>				
a		6 mt high RCC pole	Nos.	15.00		

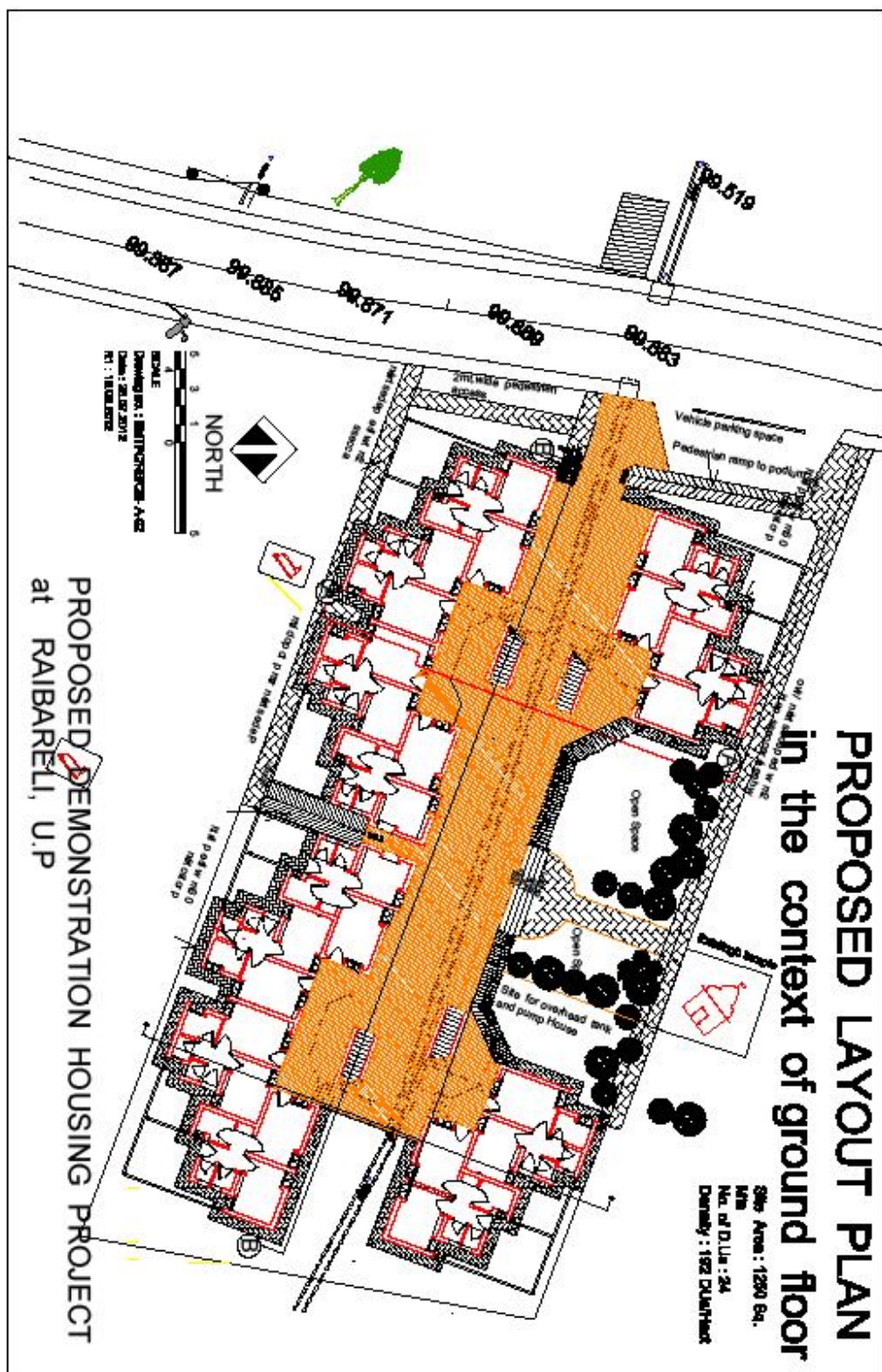


b	12.1	Supplying and erection of stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, turn buckle ( 20 mm X 60 cm ), 7/ 4.00 mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size ) foundation including excavation and refilling etc. as required.	Each	15.00		
c	12.10	Supplying of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) cross arm for 2 wire over head line complete with clamps, bolts, nuts and washer etc including drilling of holes for insulator pins etc (as per drawing) and painting with primer and finished paint as required .	Set	15.00		
d	12.13	Supplying and erection of galvanised 'D' iron clamps complete with shackle insulator (75 mm X 90 mm), G. I. bolts, nuts and washers, coach screws etc. as required.	Set	15.00		
<b>IV</b>		<b>CABLE &amp; ACCESSORIES</b>				
		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
a		Upto 35 sq. mm	Metre	100.00		
b		Above 35 sq. mm and upto 95 sq. mm	Metre	100.00		
c		Above 95 sq. mm and upto 185 sq. mm	Metre	50.00		
<b>D</b>		Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
a		3 X 35 sq. mm (28mm)	Each	15		
b		3 X 95 sq. mm (38mm)	Each	15		
c		3 X 150 sq. mm (50mm)	Each	15		

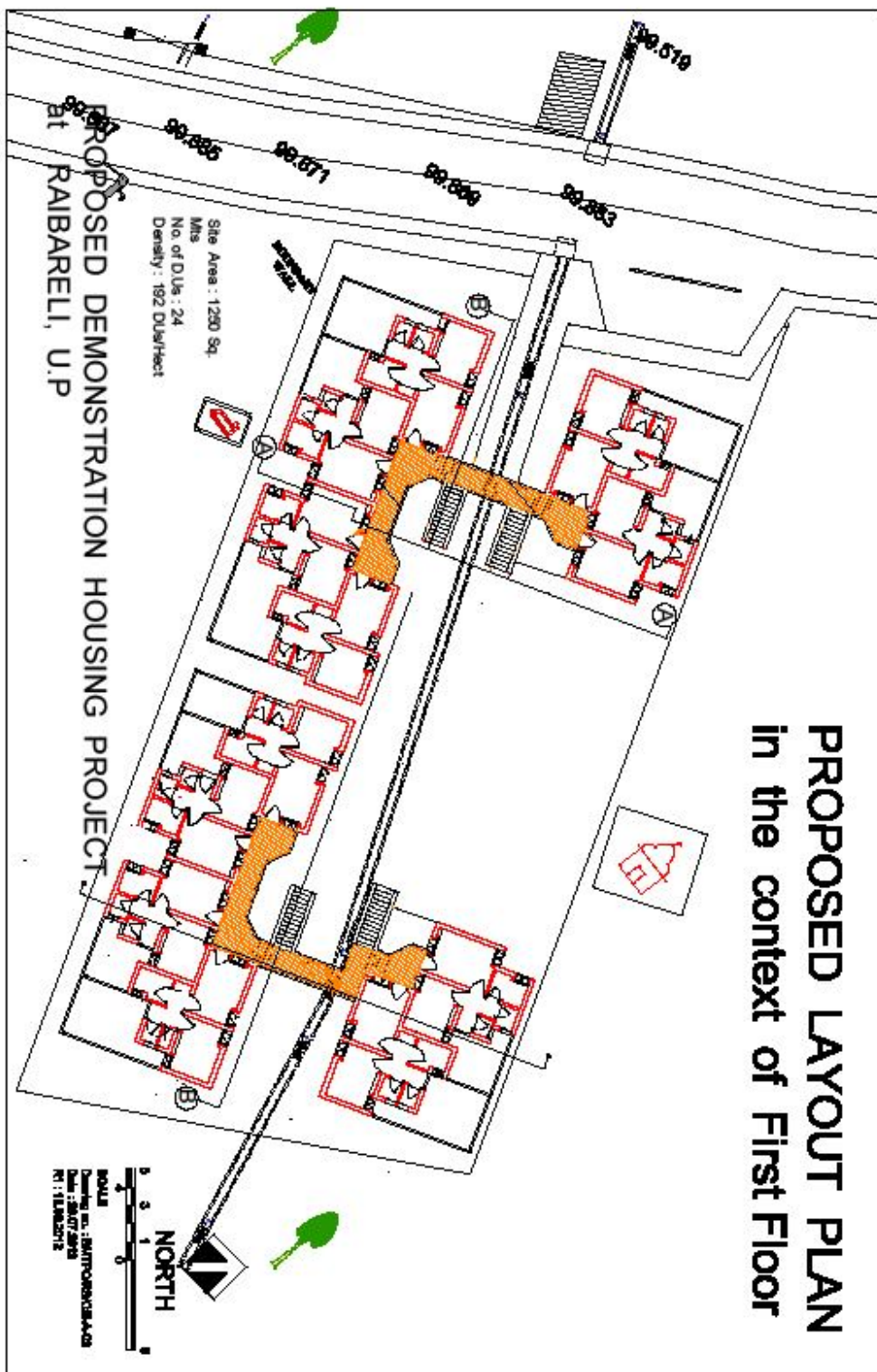
V		<b>STREET LIGHT</b>				
		P & F IP-43 protected street light luminaire on existing bracket suitable for FTL, made out from CRCA sheet steel finished with stove enamelled paint, having deep drawn aluminium alloy canopy reflector cum control gear tray, clear ribbed acrylic diffuser held with synthetic gasket, with all necessary accessories copper wound ballast, capacitor, starter, holder prewired with pvc insulated copper conductor including making connection testing etc. as required. (with tube)				
		1 X 36 Watt	Each	15		
VI		Supply and Drawing of PVC insulated PVC sheathed three core copper conductor multistrand cable 1100v grade in existing pipe including making connection by suitable thimbles and property ferruled as reqd. of following size				
		1.5(7/0.52) sqmm Nominal cross section area	Each	15		
VII		Providing and fixing of bracket made out of B class GI pipe 38 mm dia in required size and shape fixed with MS clamps and nuts bolts on poles etc as required	Each	15.00		
VIII		Supply, Installation, Testing and Commissioning of KIOSK TYPE <b>STREET LIGHT DISTRIBUTION PILLAR BOX</b> MADE OF 2 mm CRCA MS sheet of IP 55 protection comprising of following items	Each	1		
a		Incoming-1 no.63 Amp Four Pole MCCB 16 kA Rating				
b		Busbar - Aluminium, 50 Amps, Uniformly Rated, Continuous Duty, 415 V AC, TPN with color coded Heat Shrink Sleeves supported on SMC type grip supports.				
c		Mechanical time switch having One day & week reserve programme and minimum 100 hours reserve and AC1 rating of 16-20 amperes including making connection, programming etc. as required- 1 no.				
d		Out going- 10 nos. of Single Pole 10/16 Amp MCB 10 kA Rating	Nos			
		<b>Total</b>				

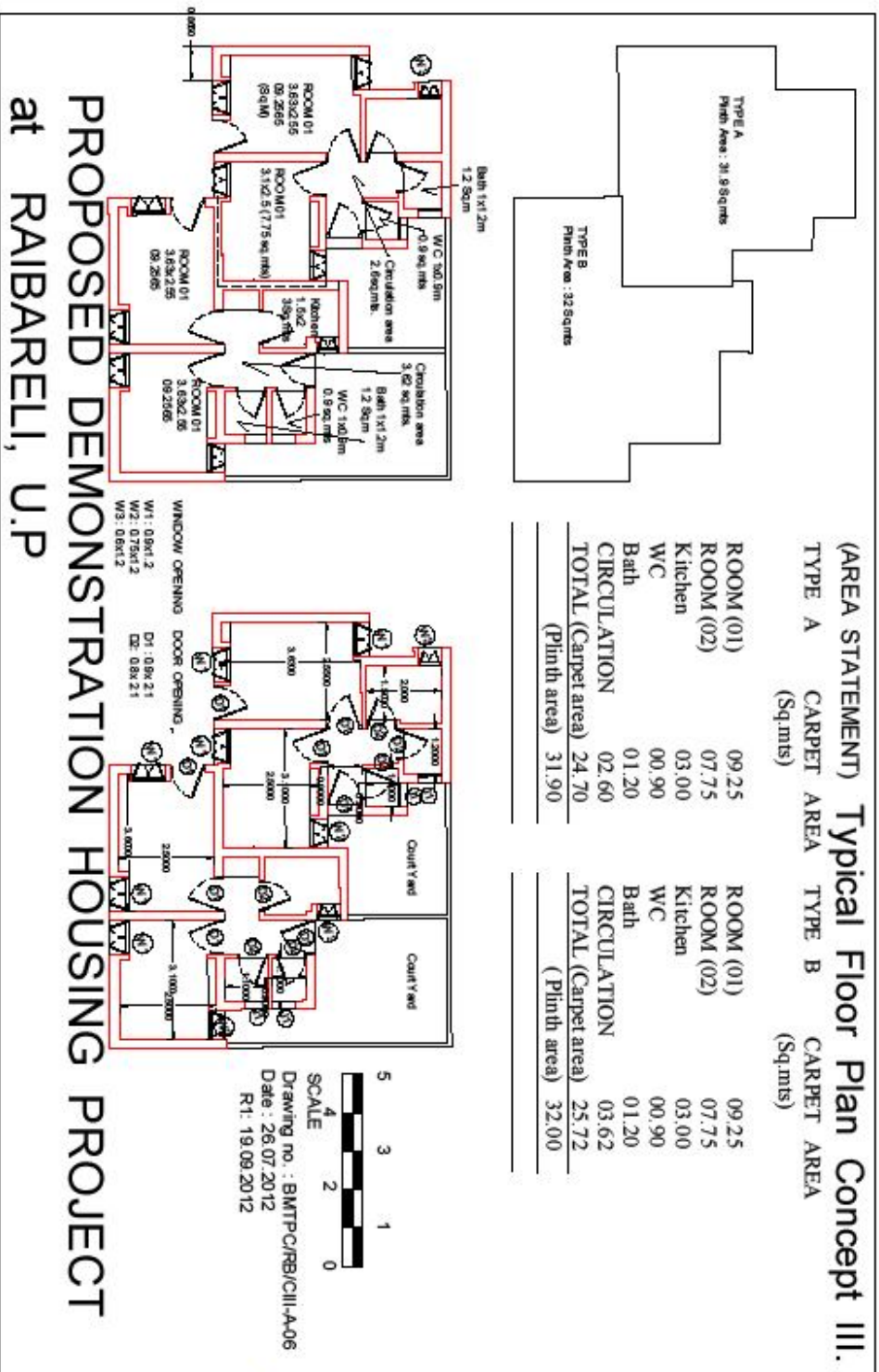
<b>IX</b>		<b>EARTHING</b>				
		Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	Each	2		
		<b>SUB TOTAL</b>				
		<b>GRAND TOTAL</b>				

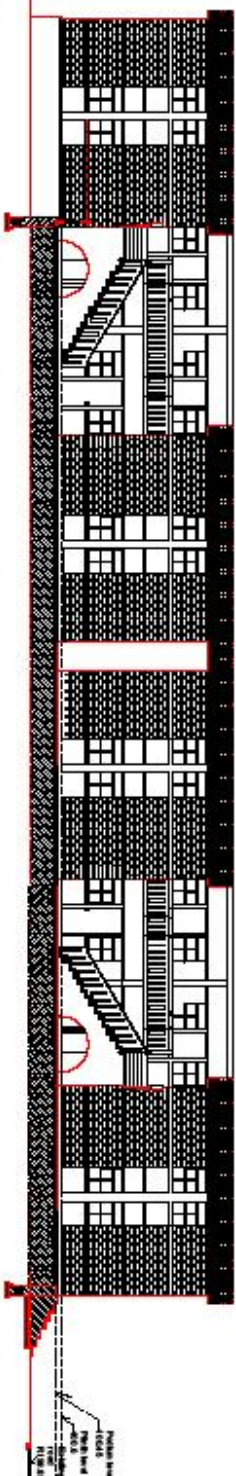
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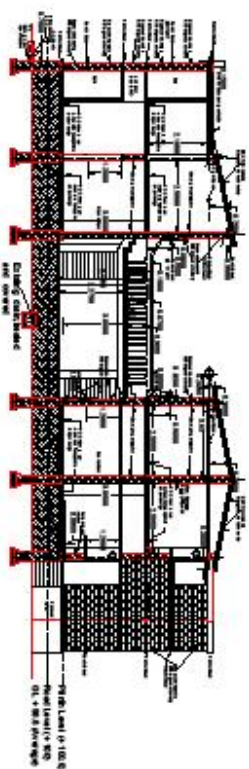






Sectional elevation at B - B

Section and Elevation



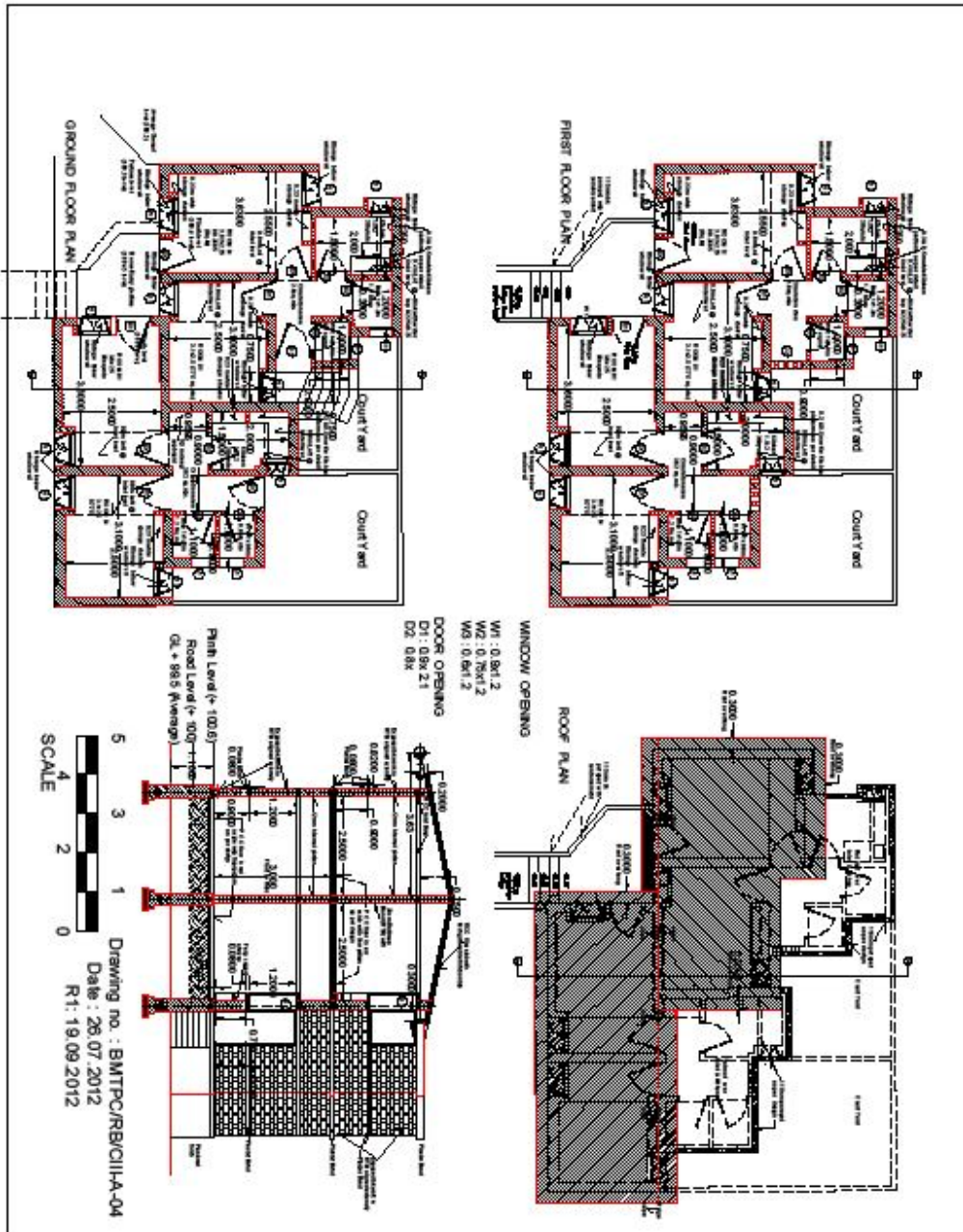
Sectional elevation at A - A

Note : Refer Drawing nos. BMTPCRB/CIL/ A-02 A-03, for section line reference.  
 SCALE  
 Drawing no. : BMTPCRB/CIL/A-01  
 Date : 14.08.2012  
 R1 - 18.09.2012

Section and Elevation

# PROPOSED DEMONSTRATION HOUSING PROJECT at RAIBARELLI, U.P

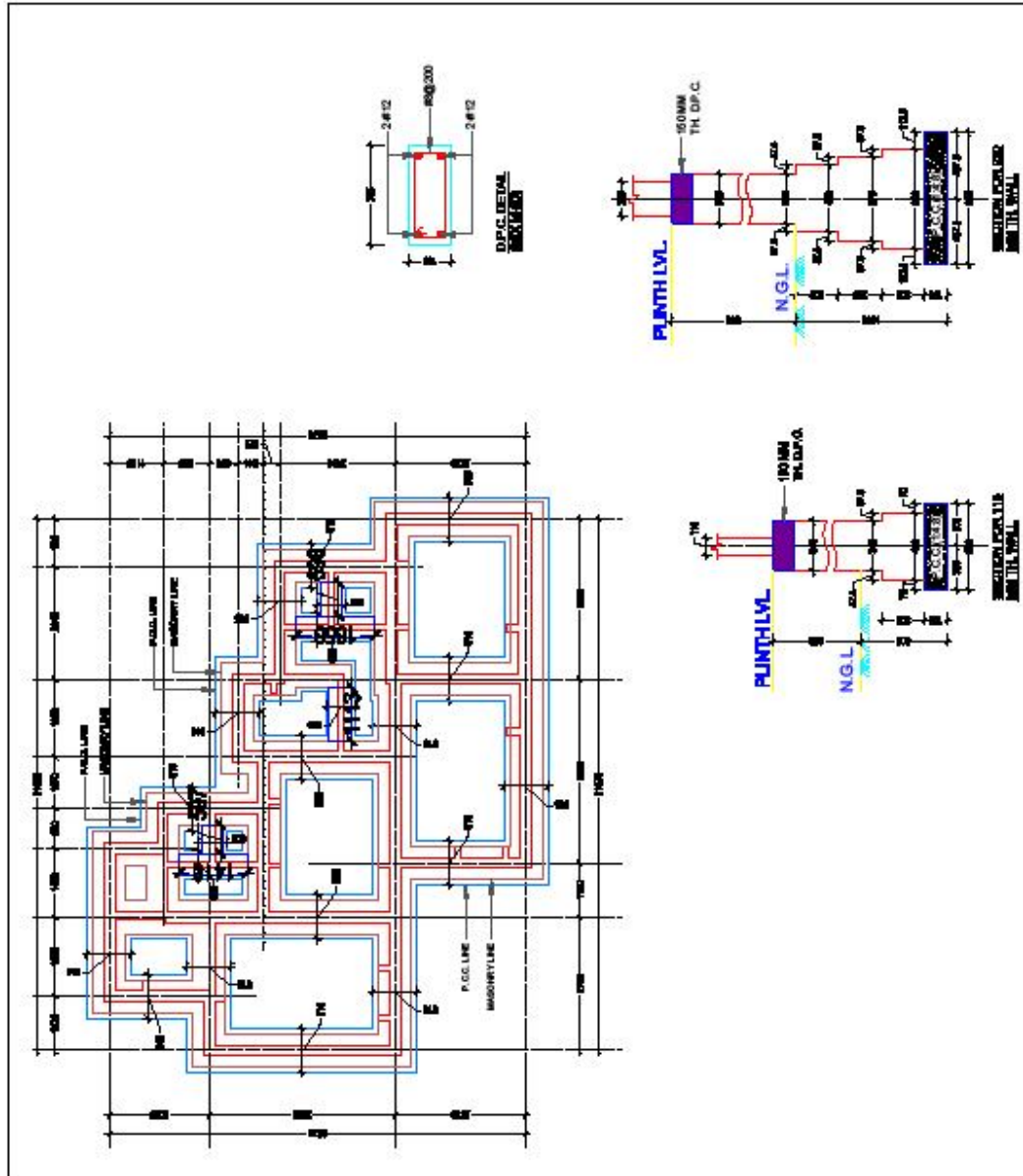






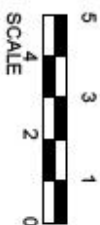
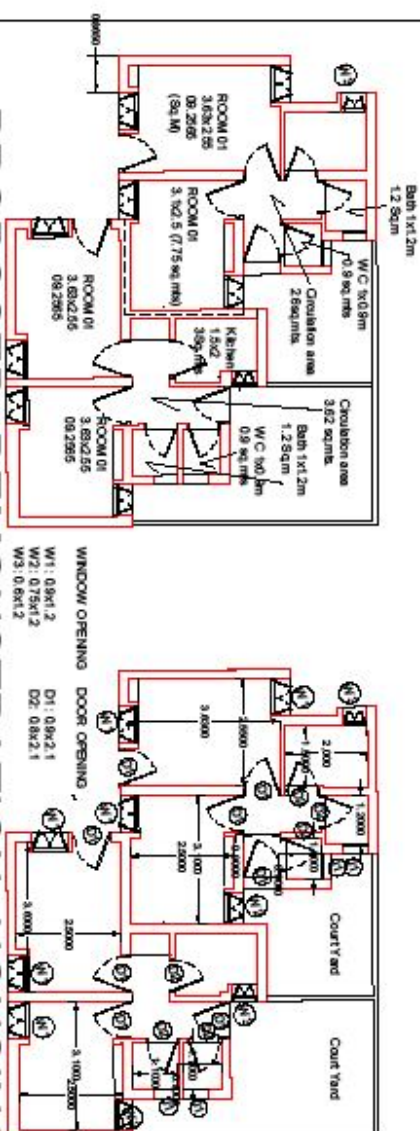
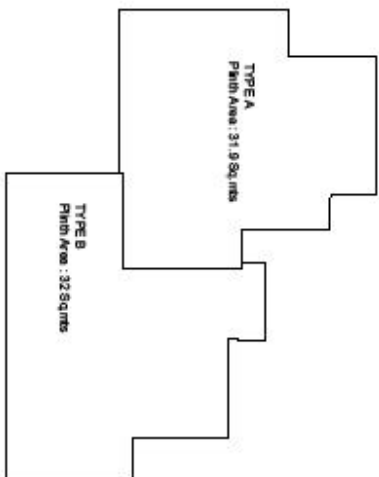






TYPE A	CARPET AREA (Sq.mts)	TYPE B	CARPET AREA (Sq.mts)
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ROOM (01)	09.25	ROOM (01)	09.25
ROOM (02)	07.75	ROOM (02)	07.75
Kitchen	03.00	Kitchen	03.00
WC	00.90	WC	00.90
Bath	01.20	Bath	01.20
CIRCULATION	02.60	CIRCULATION	03.62
TOTAL (Carpet area)	24.70	TOTAL (Carpet area)	25.72
(Plinth area)	31.90	(Plinth area)	32.00



Drawing no. : BMT/PC/RB/C111-A-06  
Date : 26.07.2012  
R1 : 19.09.2012

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