

SCHEDULE OF QUANTITY

Name of the work: "Construction of staircase with roof shed, waterproofing and replacement of pipeline of SA (A & B) Block at CSIR-CMERI New Colony Campus, Dgp-9.

| Item No. | Description | Unit | Qty. | Rate (Rs) | Amount (Rs) |
|----------|--|------|------|----------------|-------------|
| 1 | Cleaning the concrete surface by removing dirt and debris, marking defective locations and removing loose concrete by careful stripping untill hard surface is exposed, cutting the concrete to regular shape, wire brushing the exposed surface and removing debris from site complete as per direction of the Engineer - in - Charge. | Sqm | 3.75 | Rs. Rupees. | |
| 2 | Cleaning the exposed reinforcement preferably upto full diameter by wire brush, applying two coats of polymer based rust removing compound left for 24 hours, removing the coating and then applying two (2) coats of polymer modified anti corrosive protective coating formulated to inhibit the corrosion of reinforcement as per manufacturer's specification] [Mode of measurement: The affected surface area of reinforcement shall be considered for payment] | Sqm | 2 | Rs. Rupees. | |
| 3 | Removing corroded worn out portion of reinforcement (when the area of bar is damaged by more than 25%) by cutting and replacing the same by a new bar of requisite diameter by welding with old bar, including cost of reinforcement, complete in all respect including removing unserviceable materials from site as per direction of the Engineer - in - charge. Note : Payment on weight (Kg.) of new reinforcement. | Kg | 30 | Rs. Rupees. | |
| 4 | Applying epoxy based reactive joining agent for joining the old concrete with fresh concrete to be applied within manufacturer's specified time as per manufacturers specification. (0.4 Kg / m ² of concrete surface). | Sqm | 3.75 | Rs. Rupees. | |
| 5 | Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material at a specified location as per direction of Engineer - in - charge. | Cum | 2 | Rs. Rupees. | |
| 6 | Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3 (1 cement : 1.5 coarse | Cum | 30 | Rs. Rupees. | |
| 7 | Centering and shuttering including strutting, propping etc. and removal of form for : Stairs | Sqm | 65 | Rs. Rupees. | |

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| 14 | Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete. Ridges plain (500 - 600mm) | Metre | 11 | Rs. Rupees. | |
| 15 | Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete. | Sqm | 3300 | Rs. Rupees. | |
| 16 | Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade : New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm) | Sqm | 4400 | Rs. Rupees. | |
| 17 | Applying priming coat : With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood) | Sqm | 650 | Rs. Rupees. | |
| 18 | Applying priming coat : With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat) | Sqm | 55 | Rs. Rupees. | |
| 19 | Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work | Sqm | 920 | Rs. Rupees. | |
| 20 | Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer-in-charge. | Cum | 72 | Rs. Rupees. | |

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|--------|--|------|------|-------------|-------------|
| 25 | Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level: Cement mortar 1:4 (1 cement : 4 coarse sand) | Sqm | 24 | Rs. Rupees. | |
| 26 | 12mm cement plaster of mix 1:4 (1 cement: 4 coarse sand) | Sqm | 260 | Rs. Rupees. | |
| 27 | Labour for dismantling G.I. pipe with fittings, excavation and refilling trenches after taking out the pipes/ making good the walls including stacking of pipes at a location specified by Engineer-in-charge. | | | Rs. Rupees. | |
| | a) 15 - 32 mm nominal bore | Mtr | 200 | Rs. Rupees. | |
| | b) 40 - 65 mm nominal bore | Mtr | 92 | Rs. Rupees. | |
| 28 | Supplying, fitting and fixing G.I. pipes of TATA make with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accessories, specials. Payment for painting will be made separately): (A) For Exposed Work | | | | |
| | a) 15 mm dia. medium quality | Mtr | 40 | Rs. Rupees. | |

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23/09/16

23/5/16 B

APPENDIX – 25

(Reference para 22.5(1))

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

The Agreement made this day of two thousand and between son of of (hereinafter called the Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called Government of the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the Contract) dated and made between the GUARANTOR of the one part and the Government of the other part, whereby the Contractor, *inter alia*, undertook to render the buildings and structures in the said contract recited completely water and leak-proof.

AND WHEREAS GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for five years from the date of giving of water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak-proof and the minimum life of such water proofing treatment shall be five years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose:

- (a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof;
- (b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts;
- (c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found, render the building water-proof to the satisfaction of the Engineer-in-Charge at his cost, and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-Charge calling upon him to rectify the defects, failing which the work shall be got done by the Department by some other contractor at the GUARANTOR'S cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if GUARANTOR fails to execute the water proofing or commits breach thereunder then the GUARANTOR will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government the decision of the Engineer-in-Charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligor and by and for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

Signed, sealed and delivered by OBLIGOR in the presence of—

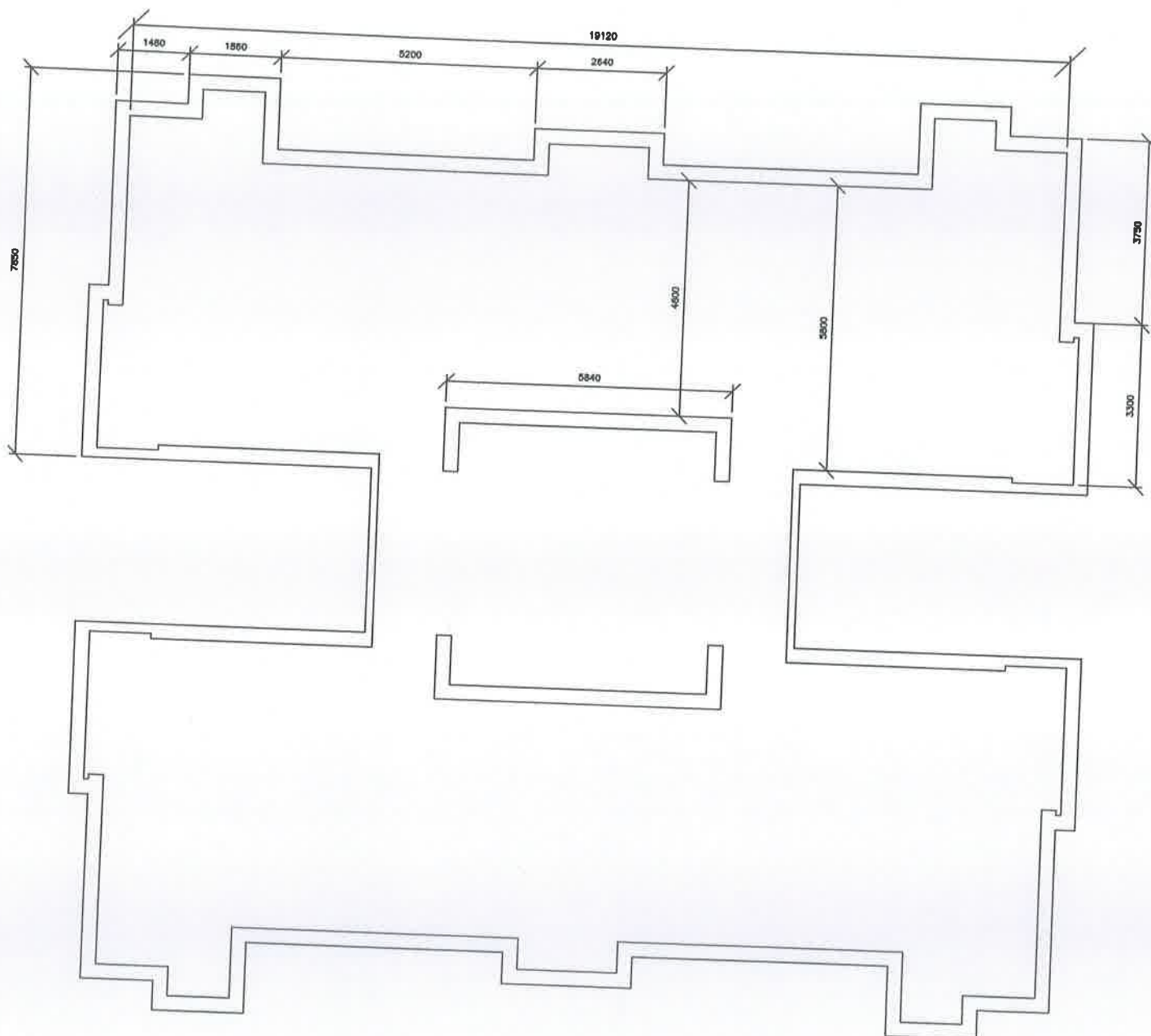
- 1.
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Signed for and on behalf of THE PRESIDENT OF INDIA by in the presence of—

- 1.
- 2.

Day L. Singh
23/09/16

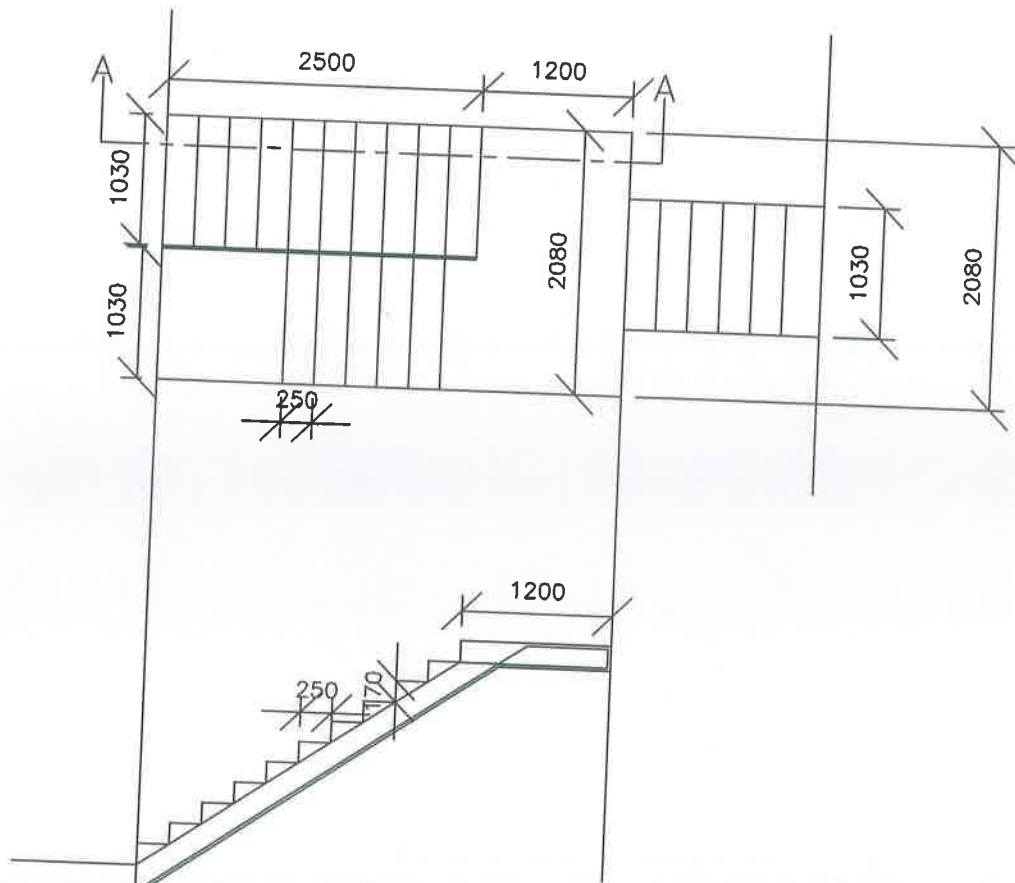
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22/5/16



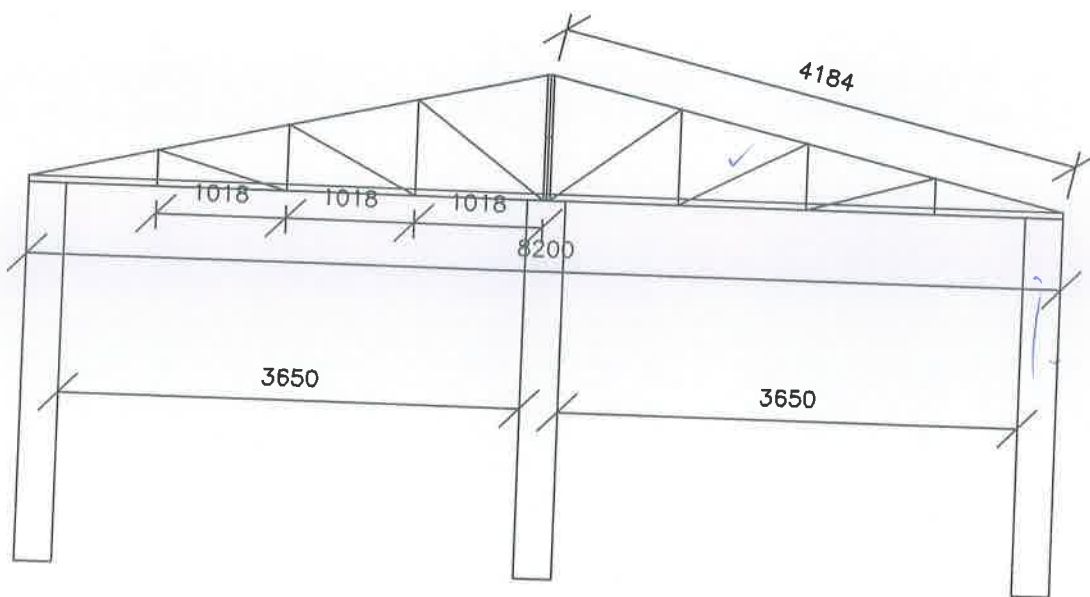
ROOF AREA OF SCIENTIST APARTMENT

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23/09/16

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22/10/16



Proposed RCC STAIRCASE



Proposed Shed for RCC STAIRCASE

Jay L. Gupta
23/09/16

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23/09/16

**CSIR-CENTRAL MECHANICAL ENGINEERING RESEARCH INSTITUTE
(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)
M.G.AVENUE, DURGAPUR- 713209, INDIA**

List of Quarters & Scope of work

23.09.2016

NAME OF THE WORK: Construction of staircase with roof shed, waterproofing and replacement of pipeline of SA (A & B) Block at CSIR-CMERI New Colony Campus, Dgp-9.

LIST OF QUATERS: Scientist Apartments (A & B) Block

SCOPE OF WORK: The scope of work includes the following:

1. Construction of RCC Staircase with steel railing of scientist apartments (A & B) block.
2. Construction of tubular trusses roof shed with precoated galvanised iron profile sheets.
3. External painting of wall with Premium Acrylic Smooth exterior paint with Silicone additives of required shade.
4. Synthetic enamel paint with primer for railing, trusses and external doors and windows.
5. Water-proofing treatment of roof by grading roof with Cement concrete 1:2:4 admixed plasocrete super/epoxy/latex compound of approved brand and in the proportion as per the manufacturer specification and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane.
6. Demolishing brickwork wherever damaged in parapets with new brickwork and plastering the internal walls of parapet.
7. Replacement of G.I.Pipes at roof level after dismantling the same and providing control gate valve.

Submitted by

A.K. Gupta
23/09/16
A.K. Gupta
(AEE, Civil)

[Signature]
23/09/16

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M.G.AVENUE, DURGAPUR- 713209, INDIA**

NAME OF WORK: Construction of staircase with roof shed, waterproofing and replacement of pipeline of SA (A & B) Block at CSIR-CMERI New Colony Campus, Dgp-9.

LIST OF APPROVED MAKES FOR CIVIL WORK.

1. The Contractor shall obtain approval from the Engineer-In-Charge before placing order for any specific material or engaging any of the specialized agencies.
2. Wherever applicable. The Engineer-In-Charge may approve any material equivalent to that specified in the tender subject to proof being offered by the Contractor for equivalence to his satisfaction.
3. Unless otherwise specified, in the tender document all the materials which are ISI Marked shall be used in the work and if the ISI marked materials are not available, materials conforming to IS shall be used, and for the materials which are neither ISI marked not conform to IS, the manufacturer's Specification shall be followed.

| S. No. | Description | Approved Makes |
|--------|--|---|
| 1 | CEMENT | ACC, LAFARGE, ULTRATECH, |
| 2 | COARSE SAND | CONFORMING TO ZONE -III |
| 3 | Water-proofing material/Epoxy based reactive joining agent | Dr. FIXIT, FOSROC, SIKA |
| 4 | APP (Atactic Polypropylene Polymer) | Dr. FIXIT, BITUMAT |
| 5 | PRIMER, PAINTS, CEMENT PAINT | 1st Quality paints of Asian/ Berger /Nerolac / AkzoNobel. |
| 6 | G.I.PIPES | TATA MAKE |
| 7 | G.I. Fittings | UNIK/R brand/KS/Zoloto-M/KENT/ISI MARKED |
| 8 | GUNMETAL WHEEL VALVE | HM/LEADER/SHAKTI |
| 9 | Precoated Galvanised Iron Profile Sheets/Ridges | Tata Durashine Roofing Sheets |
| 10 | Built up Tubular (round, square or rectangular hollow tubes etc.)/ Built up Sections/ Framed Work | TATA MAKE |
| 11 | Steel Reinforcement | TATA/SAIL |

Jay L. Gupta
23/09/16