

NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI – 620 015 ESTATE MAINTENANCE DEPARTMENT

NOTICE INVITING TENDERS

Ref: NIT-T/EO/EMD/En. No 9/ 2015 -16

Date.11.01.2016

The **Estate Officer**, Estate Maintenance Department, NIT-Trichy - 620 015 invites on behalf of The Director, NIT, Trichy-620 015 sealed item rate tenders from the approved and eligible contractors of NITT/CPWD and those in the appropriate list of Tamil Nadu state PWD, Railways, MES and BSNL for the following work. Sealed tenders will be received by the Registrar, National Institute of Technology, Tiruchirappalli-15 up to **3.00 p.m. on 28.01.2016**. The tender will be **opened at 3.30.p.m** on **28.01.2016** at **Registrar Office**, in the presence of tenders who choose to present.

En.No	Est. Id No	Name of work	Estimate Cost Rs.	E.M.D Rs.	Extended Date for submission of tenders	Tender cost
9.1	98	Laying floor tiles in FF Class rooms, Corridor and HoD room in Chemical Engineering Department	9,46,614/-	18,950/-	28.01.2016	150/-
9.2	99	Providing false ceiling, flooring and polishing in HoD, Smart class room and lab in DEE.	6,63,275/-	13,300/-	28.01.2016	150/-
9.3	100	Providing aluminum partition wall for Dean Academic office and SAC first floor	5,49,445/-	11,000/-	28.01.2016	150/-
9.4	101	Providing Cycle shed in front of Opal-C Block	6,01,942/-	12,100/-	28.01.2016	150/-

Tender details in this regard may also be seen in the Notice board of office of the Estate office, Estate Maintenance Department, NIT, Trichy -15 during office hours on any working days.

The tender document can be downloaded from the Institute Web Site www.nitt.edu/home/others/tenders/. The tender cost and Earnest money should be enclosed along with tender schedule in the form of separate **D**emand **D**raft of any Nationalized bank Drawn in favour of "The **Director, NIT,Trichy – 15.**

Sd... Estate Officer

Due On: 28.01.2016

TENDER DOCUMENT

N/W: Laying Vitrified Floor Tiles in Chemical Engineering Department class rooms and corridor.

Ref: NITT/EMD/EO/Civil Works/En. No.9.1(98) /15-16,dated 11.01.2016

ITEM	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
No 1.1	Description and larger Vitalified tiles in different sizes	27.00	G			
1.1	Providing and laying Vitrified tiles in different sizes	27.00	Sqm			
	(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).					
1.1.1	Size of Tile 600x600 mm					
1.2	Providing and laying Vitrified tiles in floor with	450.00	Sqm			
	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, 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).					
1.2.1	Size of Tile 600x600 mm					

2.1	Providing and fixing false ceiling at all height including	65.00	Sqm		
2.1	providing and fixing of frame work made of special	05.00	Sqiii		
	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				
	25x10x0.50 mm 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 perimeter channels 0.5 mm thick 27 mm				
	high having flanges of 20 mm and 30 mm long, the				
	perimeter of ceiling fixed to wall/partition with the help of				
	rawl plugs at 450 mm centre, 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,				
	cutouts made with frame of perimeter channels suitably				
	fixed, all complete as per drawings, specification and				
	direction of the Engineer in Charge but excluding the cost				
	of painting with :				
2.1.1	12.5 mm thick tapered edge gypsum plain board				
	conforming to IS: 2095- Part I				
3.1	Applying one coat of water thinnable cement primer of	65.00	Sqm		
	approved brand and manufacture on wall surface :				
3.1.1	Water thinnable cement primer				

3.2.1	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work	65.00	Sqm		
4.1	White washing with lime to give an even shade:	510.00	Sqm		
4.1.1	Old work (one or more coats)				
4.2	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade	1050.00	Sqm		
4.2.1	One or more coats on old work				
4.3	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :	90.00	Sqm		
4.3.1	One or more coats on old work				
5.1	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.	3.10	Cum		
5.1.1	In cement mortar				

SIGNATURE OF CONTRACTOR

Due On: 28.01.2016

TENDER DOCUMENT

N/W: Providing false ceiling, flooring and polishing in HoD, Smart class room and lab in DEE.

Ref: NITT/EMD/EO/Civil Works/En. No.9.2(99) /15-16,dated 11.01.2016

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1.1	Providing and laying Vitrified 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).	10.00	Sqm			
1.1.1	Size of Tile 600x600 mm Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated	205.00	Sqm			
	filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.					
1.2.1	Size of Tile 600x600 mm					
1.3	Providing and laying Vitrified tiles in floor with 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, 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).	205.00	Sqm			
1.3.1	Size of Tile 600x600 mm					

2.1	Providing and fixing false ceiling at all height including	130.00	Sqm		
	providing and fixing of frame work made of special	20000	54111		
	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				
	25x10x0.50 mm 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 perimeter channels 0.5 mm thick 27 mm				
	high having flanges of 20 mm and 30 mm long, the				
	perimeter of ceiling fixed to wall/partition with the help of				
	rawl plugs at 450 mm centre, 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,				
	cutouts made with frame of perimeter channels suitably				
	fixed, all complete as per drawings, specification and				
	direction of the Engineer in Charge but excluding the cost				
	of painting with :				
2.1.1	12.5 mm thick tapered edge gypsum plain board				
	conforming to IS: 2095- Part I				
3.1	Applying one coat of water thinnable cement primer of	130.00	Sqm		
	approved brand and manufacture on wall surface :				
3.1.1	Water thinnable cement primer				
			l		

3.2	Finishing walls with Acrylic Smooth exterior paint of required shade:	200.00	Sqm		
3.2.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)				
3.3	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:	300.00	Sqm		
3.3.1	Two or more coats on new work				
3.4	Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture.	830.00	Sqm		
4.1	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.	11.00	Sqm		
4.1.1	For thickness of tiles 10 mm to 25 mm				
4.2	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	65.60	Sqm		
4.3	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	12.00	Cum		
5.1.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS: 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required: White Vitreous china Orissa pattern W.C. pan of size	4.00	Each		
3.1.1	580x440 mm with integral type foot rests				

5.2	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:	1.00	Each		
5.2.1	W.C. pan with ISI marked white solid plastic seat and lid Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS: 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required:	4.00	Each		
5.3.1	Single half stall urinal with 5 litre P.V.C. automatic flushing cistern				
5.4.1	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: White Vitreous China Wash basin size 630x450 mm with a	1.00	Each		
5.4.1	and making good the walls wherever require:				

SIGNATURE OF CONTRACTOR

Due On: 28.01.2016

TENDER DOCUMENT

N/W: Providing Aluminum Partition wall for Dean Academic Office and SAC First Floor

Ref: NITT/EMD/EO/Civil Works/En. No.9.3(100) /15-16,dated 11.01.2016

ITEM	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
No						
1.1	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS: 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	7.00	Each			
1.2	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete:	12.00	Each			
1.2.1	150x10 mm					
1.3	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete:	12.00	Each			
1.3.1	100 mm					
1.4	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.	6.00	Each			
1.4.1	Single rubber stopper					
1.5	Providing and fixing bright finished brass 100 mm mortice latch and lock, ISI marked, with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS: 1868) aluminium lever handles of approved quality with necessary screws etc. complete.	6.00	Each			

White washing with lime to give an even shade:	380.00	Sqm			
Old work (one or more coats)					
Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade	620.00	Sqm			
One or more coats on old work					
Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:	100.00	Sqm			
One or more coats on old work					
French spirit polishing:	60.00	Sqm			
One or more coats on old work					
Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately):	650.00	Kg			
Powder coated aluminium (minimum thickness of powder					
	Old work (one or more coats) Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade One or more coats on old work Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: One or more coats on old work French spirit polishing: One or more coats on old work Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately): For fixed portion	Old work (one or more coats) Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade One or more coats on old work Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: One or more coats on old work French spirit polishing: One or more coats on old work Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade One or more coats on old work Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: One or more coats on old work French spirit polishing: One or more coats on old work Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder	Old work (one or more coats) Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade One or more coats on old work Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: One or more coats on old work French spirit polishing: One or more coats on old work Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling. C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder	Old work (one or more coats) Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade One or more coats on old work Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: One or more coats on old work French spirit polishing: One or more coats on old work Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to 1S: 733 and 1S: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder

3.1.2.1	Finishing walls with Acrylic Smooth exterior paint of required shade: For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder	110.00	Kg	
3.2.1	coating 50 micron) Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade l Type ll, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	85.00	Sqm	
3.3.1	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5.00 mm thickness	50.00	Sqm	
4.1	Providing and fixing 6mm thick mirror of superior glass of required shape and size of brand Pilco,warrior, Saint gobain with 6 mm thick hard board backing:	10.00	Sqm	

SIGNATURE OF CONTRACTOR

Due On: 28.01.2016

TENDER DOCUMENT

N/W: Providing Cycle shed in front of Opal-C Block

Ref: NITT/EMD/EO/Civil Works/En. No.9.4(101) /15-16,dated 11.01.2016

ITEM	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
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 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	16.00	Cum			
2.	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	20.00	Cum			
3.	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	9.00	Cum			
4.	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:	5.00	Cum			
4.1	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)					
4.2	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	1.00	Cum			

5.1	Centering and shuttering including strutting, propping etc. and removal of form for :	38.00	Sqm		
5.1.1	Foundations, footings, bases of columns, etc. for mass concrete				
6.1	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.	1700.00	Kg		
6.1.1	Hot finished welded type tubes				
7.1	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with 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. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer- in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	225.00	Sqm		
81	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :	70.00	Sqm		
8.1.1	Two or more coats on new work				
9.1	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:	75.00	Sqm		
9.1.1	Asbestos sheet				

10	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	260.00	Sqm		
11	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	7.00	Cum		
12.1	Extra for depth for manholes	0.40	Metre		
12.1.1	Size 120x90 cm				
12.1.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 3.5				
13.1	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately):	2.00	Each		
13.1	Rectangular manhole 90x80 cm with rectangular cover 600x450 mm of grade LD - 2.5				