

NAME OF WORK :		Construction of additional 16 class room building in Sri Meenakshi Government Arts College for women at Madurai					
		Schedule - A					
EMD: - Rs. 1,48,000/-		Date: 03.05.2022					
Sl. No	Qty	Description of Work	TN BP NO.	NBC NO.	Rate in figure and words	Unit	Amount
1	580 M ³ (Five hundred and eighty cubic metres)	Earthwork excavation for foundation in all soils and sub soils to full depth as may be directed except in hard rock requiring blasting inclusive of shoring shuttering, baling out water wherever necessary, refilling the foundation with excavated earth and depositing the surplus earth within compound in places shown by the departmental officers with an initial lead of 10 metre and initial lift of 2 metre and clearing and leveling the site etc., complete complying with standard specification and as directed by the departmental officers.	23 & 24	V, VI (S2)		1 M ³ (One cubic metre)	
2	90 M ³ (Ninety cubic metres)	Earthwork Open excavation in all soils and sub soils to full depth as may be directed except in hard rock requiring blasting inclusive of shoring shuttering, baling out water wherever necessary refilling the foundation with excavated earth other than sandy soil in layers of not more than 15 cm thick layers well rammed and depositing the surplus earth within compound in places shown by the departmental officers with an initial lead of 10 metre and initial lift of 2 metre and clearing and leveling the site etc., complete complying with standard specification and as directed by the departmental officers.	23 & 24	V, VI (S2)		1 M ³ (One cubic metre)	

3	96 M ³ (Ninety six cubic metres)	Cement concrete of mix 1:5:10 (One cement, five M sand and ten aggregate) using 40mm size ISS gauge hard broken granite stone for foundation including all incidental charges dewatering if found necessary and laid in layers of not more than 15cm thick, finishing and curing as directed by the Departmental Officers complete complying with standard specification. and flooring	23 & 28	VI (8.2) 8.3 VI (S5A) 4.2.1.3		1 M ³ (One cubic metre)	
4	275 M ³ (Two hundred and seventy five cubic metres)	Filling the basement with stone dust in layers of not more than 15cm thick, well, rammed watered and consolidated etc. complete complying with standard specification.	24 & 25	V, VI (S2)		1 M ³ (One cubic metre)	
5	40 M ³ (Forty cubic metres)	Supplying and filling the foundation and basement with filling M sand in layers of not more than 15cm thick well rammed, watered and consolidated as directed by the Departmental Officers complete complying with standard specification.	24 & 25	V, VI (S2)		1 M ³ (One cubic metre)	
6	145 M ² (One hundred and forty five square metres)	Supplying and erecting steel centering including supports for plane surfaces in foundation and basement and in all floors for reinforced cement concrete works such as columns footing, plinth beam, grade beam, staircase steps, bad block etc. which require only nominal strutting using M.S.sheets of size 90cmx60cm B.G.10 stiffened with mild steel angles of size 25x25x3mm for boarding laid over silver oak joists of size 10x 6.5cm spaced at about 90cm centre to centre and supported by casurina props of 10cm to 13cm dia spaced at 75cm centre to centre at suitable intervals etc. complete complying with standard specification.	30(S) 86 86 A V, VI (S3) VII	VII		1 M ² (One square metre)	

7		Supplying and erecting steel centering including supports for plane surfaces in foundation and basement and in all floors for reinforced cement concrete works such as columns footing, plinth beam, grade beam, staircase steps, bad block etc. which require only nominal strutting using M.S.sheets of size 90cmx60cm B.G.10 stiffened with mild steel angles of size 25x25x3mm for boarding laid over silver oak joists of size 10x 6.5cm spaced at about 90cm centre to centre and supported by casurina props of 10cm to 13cm dia spaced at 75cm centre to centre at suitable intervals etc. complete complying with standard specification.	30(S) 86 86 A V, VI (S3) VII	VII			
a	2220 M ² (Two thousand two hundred and twenty square metres)	Plain surfaces such as RCC floor slab, roof slab, rectangular square Tee or Ell beam, lintels, staircase waist slab, landing slab, landing beams, portico beams, portico slab etc.				1 M ² (One square metre)	
b	950 M ² (Nine hundred and fifty square metres)	Plain surface such as RCC. Square for rectangular columns top and bottom slab of sunshade boxing sill slab to window etc.				1 M ² (One square metre)	
8	1165 M ² (One thousand one hundred and sixty five square metre)	Providing additional strutting using casurina poles to centering of RCC slabs or plane surfaces for every additional 1 metre height or part there of but not less than 30cm over the initial height of 3m from floor level using casurina props of 10cm to 13cm dia including cross bracings etc., complete complying with standard specification and as directed by the departmental officer.	30			1 M ² (One square metre)	

9		Providing and lying in position , standardised Concrete Mix M20 Grade in accordance with IS 456-2000 using 20mm and down graded hard broken granite stone jelly for all RCC items of works with minimum cement content of 325 Kg/M3 and Maximum water cement ratio of 0.55 including admixture (plasticiser/super plasticiser) in recommended proportions as per IS 9103 as accelerate , retard setting of concrete improve workability without impairing strength and durability with about)5 cu.m) 7730 kg of 20mm machine crushed stone jelly and with about (3.3 cu.m) 5156 kg of 10-12mm machine crushed stone jelly and about (4.79 cu.m 7670 kg of M-sand , but excluding cost of reinforcement grill and fabricating charges centering and shuttering and also including laying vibrating with mechanical vibrators finishing curing ect., and providing fixtures like fan clamps in the RCC floor /roof slabs wherever necessary without claiming extra etc., complete complying with standard specification and as directed by the departmental officers. The coarse and fine aggregates to be used should comply with the requirements of IS standards (No separate payment will be made by the Department for the excess usage of Materials)	28	VI.8.2. 8.3. VI (S5A) 4.2.1.3			
a	97 M ³ (Ninety seven cubic metres)	Foundation and basement				1 M ³ (One cubic metre)	
b	63 M ³ (Sixty three cubic metres)	In Ground Floor				1 M ³ (One cubic metre)	

c	62 M ³ (Sixty two cubic metres)	In First floor				1 M ³ (One cubic metre)	
d	215 M ³ (Two hundred and fifteen cubic metres)	In Second floor				1 M ³ (One cubic metre)	
e	20 M ³ (Twenty cubic metres)	In Third floor				1 M ³ (One cubic metre)	
10	561 qtl (Five hundred and sixty one quintal)	Supplying, fabricating and placing in position of mild steel or ribbed tor steel grill for all reinforced cement concrete works including cost of steel and G.I. binding wire as directed and as per given by the Departmental Officers complete complying with standard specification.	97	VI (8.6) VII.3		1 qtl (One quintal)	

11		Dismantling Clearing away and carefully stacking materials					
a	53 M ³ (Fifty three cubic metres)	Dismantling Clearing away and carefully stacking materials useful for reuse for any thickness of brick / stone masonry in cement mortar walls under 3m high etc., complete complying with standard specification and as directed by the departmental officer.				1 M ³ (One cubic metre)	
b	8 M ³ (Eight cubic metres)	Dismantling, removing and carefully stacking Reinforced cement concrete and roughening the surface etc., complete complying with standard specification and as directed by the departmental officer.				1 M ³ (One cubic metre)	
c	6 M ³ (Six cubic metres)	Dismantling, clearing away and carefully stacking materials useful for re-use for any thickness of Plain cement concrete and roughening the surface etc., complete complying with standard specification and as directed by the departmental officer.				1 M ³ (One cubic metre)	
d	470 M ² (Four hundred and seventy square metres)	Dismantling clearing away and carefully stacking materials useful for reuse for any thickness of wethering course and pressed tiles of one course roof finish in cement mortar and stacking carefully away from the site for reuse etc. complete complying with standard specification and as directed by the departmental officers.				1 M ² (One square metre)	
e	78 M ² (Seventy eight square metres)	Dismantling clearing away and carefully stacking materials useful for reuse for any thickness of pantile (or) Mangalore tiled roof without roof timbers and stacking carefully away from the site for reuse etc. complete complying with standard specification and as directed by the departmental officers.				1 M ² (One square metre)	

f	1.30 M ³ (One point three zero cubic metres)	Dismantling clearing away and carefully stacking materials useful for reuse for any thickness of Country wood Rafter and stacking carefully away from the site for reuse etc. complete complying with standard specification and as directed by the departmental officers.				1 M ³ (One cubic metre)	
g	61 M ² (Sixty one square metres)	Dismantling, clearing away and carefully stacking materials useful for re-use for any thickness for removal of AC sheet roofing without roof timbers etc., complete complying with standard specification and as directed by the departmental officers.				1 M ² (One square metre)	
12		Brick work in cement mortar 1:6 (one cement and six M-sand) using III class kiln burnt country bricks of size 8^{3/4}"x4^{1/4}"x2^{3/4}" and finishing neatly curing etc., complete complying with standard specifications and as directed by the departmental officers. (Masonry projections wherever necessary for obtaining required elevation shall be done without extra cost).	31C	V, VI S(5) VII			
a	55 M ³ (Fifty five cubic metres)	Foundation and basement				1 M ³ (One cubic metre)	
b	58 M ³ (Fifty eight cubic metres)	In Ground Floor				1 M ³ (One cubic metre)	

c	60 M ³ (Sixty cubic metres)	In First floor				1 M ³ (One cubic metre)	
d	240 M ³ (Two hundred and forty cubic metres)	In Second floor				1 M ³ (One cubic metre)	
e	22 M ³ (Twenty two cubic metres)	In Third floor				1 M ³ (One cubic metre)	
13		Brick work in cement mortar 1:5 (one cement and five M-sand) using III class kiln burnt country bricks of size 8 3/4"x4 1/4"x2 3/4" and finishing neatly curing etc., complete complying with standard specifications and as directed by the departmental officers. (Masonry projections wherever necessary for obtaining required elevation shall be done without extra cost).	31C	V, VI S(5) VII			
a	33 M ³ (Thirty three cubic metres)	Foundation and basement				1 M ³ (One cubic metre)	

14	16 M ² (Sixteen square metres)	Damp proof Course with Cement Mortar 1:4 (One cement & four M sand) 12mm thick mixed with water proofing compound of approved quality confirming to ISS @ 2% by weight of cement used etc complete complying with standard specification and as directed by the departmental officers.	30	VI S3 SVA VI.3.13 .		1 M ² (One square metre)	
15	276 M ² (Two hundred and seventy six square metres)	<p>Providing Anti – termite treatment to soil adjacent and under building foundation, plinth periphery of the building by application of chemicals of IS 6313 part I to IV in stage to suit the progress of work consist as per the detailed specification as below (Measurements taken for the plinth area for the purpose of payment) including braking of termite mounds, making holes with crow bar, closing the holes after the treatment and including cost of chemicals, labour charges, transport & storing etc., complete and as directed by the departmental officers.(The chemical should be got approved by Executive Engineer before use on work).</p> <p>Stage -1 : Spraying Anti –termite chemical solution for the foundation before laying concrete, in bottom and sides of foundation.</p> <p>Stage-2 : Spraying Anti –termite chemical solution to the grade beam level, spraying has to done for to grade beam brick masonry contact with the back fill earth.</p> <p>Stage-3 : Spraying Anti –termite chemical solution on the sand for the flooring before laying the flooring concrete. This treatment has to be carried out and sand filling by making holes with crow bar to a depth of 60cms and at 60cms intervals on both direction and at junction of wall and flooring throughout.</p> <p>Stage -4 : Spraying Anti –termite chemical solution alround building outside by making holes with crow bar before laying plinth protection and the holes to be close after the treatment.</p>				1 M ² (One square metre)	

16	125.10 RM (One hundred and twenty five point one zero running metre)	Fabricating supplying and fixing in position CRCA pressed steel box section 18 gauge or 1.25mm thick for door frames of section size 105mmx60mmx1.25mm thick with necessary rebate of size 35x15mm for housing door shutters conforming to IS specification. Frames shall be fabricated to the specified door size with joints properly welded and grinded. Stiffeners with 25x3mm MS flat shall be provided around the frame at 60cm intervals. The cost shall also include for providing 3 Nos. of MS clamps with 25x3 flats each on either sides of door frame, providing bottom tie, with 10mm dia MS rod, providing necessary holes for receiving tower bolts 2 Nos. with stiffeners on inner side, providing the required number of I.O hinges of size 125x30mm for shutters properly welded to the frames, finishing the door with one coat of good quality red oxide primer with cement concrete 1:2:4 (One cement, two sand and four aggregate) using 20mm gauge hard broken granite stone jelly packed inside to the frame including cost of all materials, fabrication and conveyance to the site and fixing in position with necessary scaffolding etc., complete complying with standard specification and as directed by the departmental officer.				1 RM (One running metre)	
17		Supplying and fixing solid core particle board flush shutters of single leaf of nominal thickness of 30/32mm with necessary teak wood internal lipping conforming to IS 2202 with both styles commercial ply 3mm thick including supplying and fixing cost of wind appliances and furniture fittings such as 1 No.200x12mm aluminium tower bolt 2 Nos. 150x12mm aluminium tower bolt, 1 No.250x16mm alu.aldrop and 2 Nos.100mm 'D' type door handle.					
a	39 M ² (Thirty nine square metres)	Double leaf Door				1 M ² (One square metre)	

18		<p>Pre-Painted Galvanized Iron Windows (Air Tight Model) with Grill and Glass: Providing and fixing Ajanta Cave Model Window fabricated from roll formed sections made of galvanized steel colour coated / powder coated (Base steel as per IS 513 'D' quality, galvanized as per IS 277 with zinc of 120 grams / sqm.) with total coated thickness of 0.60mm. Paint specification: Coated sections should be with primer coat of epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with alkyd backer of 5-7 microns. Dimensions of sections: Section for shutter should be of 46mm x 46mm and external frame should be of 46mm x 52mm. Section for glass beading should be of 18mm x 25mm and Center mullion should be 46mm x 70mm. Fixing details: The frame and shutter sections should be cut to length, joined with corner brackets made of CRCA electro plated. Mullion section should be joined with frame / mullion using nylon mullion cap. Ethyl Propylene Diamine Monomer (EPDM) Gasket should be used all around glass in shutter between frame and glazed shutter and both sides of fixed glass. Accessories: Handle made of high grade aluminium powder coated and with nylon reciever. Gaskets made of Ethyl Propylene Diamine Monomer (EPDM). Corner brackets made of CRCA with zinc phosphating. Mullion caps made of glass filled nylon. Glass: Glass shutter and fixed glass portion should be provided with a glass of 5mm plain float glass. Grill: Windows should be provided with grill made of 10mm square MS bars welded to 12mm x 5mm flat at 4" intervals. total grill unit should be power coated and fixed to window frame with screws. The above frame should be fixed to brick/concrete masonry by using nylon self-expanding caps and driving MS electro plated 80mm long screwa into the caps through frames.</p>					
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a	141.20 M ² (One hundred and forty one point two zero square metres)	Three track				1 M ² (One square metre)	
19	6200 M ² (Six thousand two hundred square metres)	Fabricating, Supplying and fixing mild steel grill /door of various sizes including required steel outer frames conforming to ISI.specifications and as per the designs furnished and as directed by the Departmental Officers, including one coat of red oxide primer.The rate is inclusive of cost of all materials, taxes,labour charges, for fabrication,welding charges, finishing, assemble condition at site, fixing in position.Complete.					
20	6.30 M ² (Six point three zero square metres)	Manufacturing, Supplying and fixing of STEEL SHEETED DOOR with the following specification M.S.angles of size 40x40x6mm AT 3.5 kg/m are used for the outer frames and M.S.angles of size 35x35x5mm at 2.60 kg/m for the shutter frames.stiffeners with 32x6mm at 1.50 kg/m. M.S.flat is provided as the lock rail of the door and welded intact of both ends to the shutter frame 18 gauge C.R.Sheet of best quality is laid as panel in the shutter frames. and welded intact, M.S.flat 18x5mm at0.70 kg/m MS flat is welded over the 32x6mm at 1.50kg/ RM and M.S.flat on the rear side of the door sand witching the C.R.Sheet for rigidity with locking rail and bottom tie arrangements in between additional stiffeners with 18x5mm at 0.7 kg/m M.S.flat is provided diagonally on the rear side of the shutter 2 Nos. of hinges in case of single leaf and 4Nos. of hinges in double leaf shutter is provided 6 Nos. of hold fasts 200mm in length 40x40x6mm M.S. angle Tower bolt 2 Nos .one at top and the other at the bottom are provided 1No.aldrop is provided in case of double leaves door at lock rail section in the door. (Single leaf)				1 M ² (One square metre)	

21	42 RM (Forty two running metre)	Providing and fixing Stainless Steel hand rail made out of SS 304 grade 50.80 mm dia stainless steel tube of 1.60 mm thick at required locations to a height of 1000 mm from finished floor level welded to 38.30 mm dia stainless steel tube post of 1.60 mm thick as vertical at 1.00 m center to center with 3 nos of 25.40 mm dia horizontal stainless steel tubes of 160mm thick in between as per the details shown in the drawing and as directed. The rate shall include for grouting with concrete into necessary supporting arrangements of handrail verticals and in floor, welding the base cup of the post into slab reinforcement polishing, buffing and prectecting the hand rail surface etc., complete complying with standard specification and as directed by the departmental officers.				1 RM (One running metre)	
22	1325 M ² (One thousand three hundred and twenty five square metres)	Finishing the floor with new Vitrified tiles of approved quality and colour of size 600x 600 x 10mm (Double Charged) for flooring in all floors over a base layer of cement mortar 1:3 - 20mm thick and pointing with white cement using 0.30kg of white cement per square metre including adding suitable colour pigments to suit the colour of tiles are finishing perfectly and curing as directed by the Departmental Officers including cost of tiles, all materials and incidental charges, transportation charges and labour charges for laying tiles as directed by the Departmental Officers complete complying with standard specification.The tiles should be got approved by the Departmental Officers before use on work.				1 M ² (One square metre)	

23	140 M ² (One hundred and forty square metres)	Paving the floor with pre-polished concrete anti-skid tiles (Required shape and design) of 20mm thick of approved quality and colour laid in Cement Mortar 1:3 (One Cement and Three M.sand) 20mm thick and pointed with white cement mixed with colouring pigment at the rate of 0.40 Kg. / sq.m., curing, etc., complete complying with standard specification and as directed by the departmental officers. (The make and brand of the tiles should be got approved by Executive Engineer before use on works)	39 A			1 M ² (One square metre)	
24	270 M ² (Two hundred and seventy square metres)	Finishing the top of flooring with granolithic floor finish of following thickness with plain cement concrete of mix 1:2:4 (One cement, two sand and four aggregate) using 25mm / 10 to 12mm ISS gauge hard broken granite stone including finishing the top smooth and forming thread lining and curing etc., complete complying with standard specification and as directed by the Departmental officers	41	VI(3,5A)) 4,2,3,1, 6A,17 A		1 M ² (One square metre)	
25	250 RM (Two hundred and fifty running metre)	Supplying and fixing in position best approved of BIS quality of PVC rain water down fall pipes of size 110mm dia having a working pressure of 4 kg / sq.cm including cost of necessary PVC shoe, PVC bend, C.I. gratings of required dia. and special clamps, brass screws, nails etc., and fixing of cast iron gratings at junction of parapet and the RCC roof slab including finishing neatly etc., complete. The rate shall be inclusive of cost of removable iron grating. The PVC pipe shall be fixed on wall with special type of clamps. Special type "U" clamp at the centre of the pipe line shall be fixed in addition to those for more than 3.0M pipe length complying with standard specification.	97	VI (S6) VII.3		1 RM (One running metre)	

26	940 M ² (Nine hundred and forty square metres)	Finishing the top roof with one course of solar reflecting ceramic tiles of size 305x305x7mm thick of approved quality set in cement mortar 1:3 (One cement and three M.sand) (12mm thick) and mixed with for 10M2 / 4.00 kg Epoxy Packing conforming to ISS including curing etc., complete complying with standard specification and as directed by the Departmental officers.(The quality of solar reflecting ceramic tiles should be got approved by the departmental officers before use on works)	44-I	V2, VII.5 4.12 VII.13		1 M ² (One square metre)	
27	4100 M ² (Four thousand one hundred square metres)	Plastering with cement mortar 1:5 (One cement and five sand) 12mm thick in all floors including finishing and curing as directed by the Departmental Officers complete complying with standard specification.				1 M ² (One square metre)	
28	3160 M ² (Three thousand one hundred and sixty square metres)	Special ceiling plastering and finishing all reinforced cement concrete exposed surface such as reinforced cement concrete slab, sunshades, staircase steps landing slab with cement mortar 1:3 (One cement and three sand) 10mm thick including hacking the surface and providing necessary cement mortar nosing beadings wherever necessary using the same mortar as directed by the Departmental Officers complete complying with standard specification.				1 M ² (One square metre)	
29	7300 M ² (Seven thousand three hundred square metres)	Painting two coats of newly plastered wall surface with ready mixed plastic emulsion paint of first quality and of approved colour over a priming coat including preparing the surface, clean removal of dirt and including necessary plaster of paris putty wherever required etc., complete complying with standard specification. (The quality and colour of plastic emulsion paint should be got approved by the departmental officers before use on works)				1 M ² (One square metre)	

30	73.50 M ² (Seventy three point five zero square metres)	Supplying and fixing of ceramic chalk writing board made by Alliance N.B.Europe belgium on steel core the long lasting porcelain is fixed at tempratures upto 800,C with this process a scratch and spain resistance surface is created and becomes smooth and erasing free of Ghost limes virtually maintenance free this chalk board never accuries chalking in and total cleaning is accomplished with clear water the writting surface will not crack or peel even where solvents are sued to remove crayon paint or other foreign substances highly versable the entire writting area can become a display board with the help of magestic buttons under ordinary circumstances writting surface will not break like glass board so durability can be assured etc. complete				1 M ² (One square metre)	
31	100 M ² (One hundred square metres)	Painting the new wood work two coats with best approved first quality and colour of synthetic enamel paint over a priming coat of approved quality in all floors including cost of paint, labour and other materials like brushes, putty and scaffolding charges etc., complete complying with standard specification and as directed by the departmental officers. (The make quality and colour of paint should be got approved by the departmental officer before use on work).	66A	V.VII.3 & 15		1 M ² (One square metre)	
32	290 M ² (Two hundred and ninety square metres)	Painting the new iron work with two coats of best approved first quality and colour of synthetic enamel paint over the existing red oxide priming coat in all floors excluding cost of priming coat and including cost of painting materials, brushes, putty, preparation of surfaces and scaffolding charges etc., complete complying with standard specification and as directed by the departmental officer. (The quality and colour of paint should be got approved by the departmental officer before use on work).	66A	V.VII.3 & 15		1 M ² (One square metre)	

33	350 M ² (Three hundred and fifty square metres)	Supplying and laying of 63 mm thick high strength type of interlocking rubber moulded hydraulic pressed paver block of approved colour made up of designed concrete mix 1:1:2 using 10 to 12mm size HBG stone jelly in required shapes and sizes having minimum compressive strength of 40 N/mm ² to be laid in flurrying bone pattern with approved non sticking surface at top. The rate is inclusive of levelling the site, compacting with power compactor and sweeping the sand grouting and also inclusive of transportation charges, loading, unloading and labour charges for laying the paver block, etc. complete and as directed by the departmental officers				1 M ² (One square metre)	
34	10 M ² (Ten square metres)	Providing expansion joint of 20mm width in between RCC twin columns from top of pedestal to full height including filling the inner space with suitable non - absorbent, flexible and well compressible filler materials of approved quality and brand; finishing the sides of RCC columns with polysulphide sealants for a depth of 7.5mm on either side covering the inner space filled with filler materials as above etc., complete complying with standard specifications and as directed.				1 M ² (One square metre)	
35	10.70 RM (Ten point seven zero running metre)	Providing expansion joint of 20mm width in RCC roof slabs between RCC twin beams using PVC water bar of 150mm wide centre bulb of 4mm to 6mm thickness of approved quality and brand and including filling the inner space with suitable non - absorbent, flexible and well compressible filler materials of approved quality and covering top surface with GI sheet 30cm wide and 1.6mm thick using phill plugs, GI screws, limpet cup washers, bitumen washers, etc., complete complying with standard specifications and as directed.				1 RM (One running metre)	
					TOTAL		
				12%	GST		
		35 Items (Thirty five Items only)			GRAND TOTAL		