

Detailed Estimate of Rehabilitation and Seismic Retrofitting of School and BHU Structures (RAPID)					
Govt. BHU , yakmuch, Chagai					
Sr.No	Description of Items	QUANTITY	UNIT	RATES (Rs)	AMOUNT
C1	Dismantaling works				
1	Removing loose material of concrete of any thickness from ceiling, walls, floor, beams and columns, brushing and cleaning with solution of caustic soda the surface of brick masonry and concrete preparing of surfaces ,levelling as per instruction of the Engineers and disposing of the rubbish in any floor.	300	SFT		
2	Scraping, rubbing and cleaning emulsion finish distemper, snowcem and paints of all sort from walls and ceiling including, removal of rubbish in all floors.	3000	SFT		
3	Removing cement or lime plaster of any thickness from ceiling and disposing of the rubbish in any floor and chifed and cleaning of surfaces.	1050	SFT		
4	Excavation in foundation of buildings,bridges and other structures, depth upt 4 meters including dag bellings dressing,refilling around structures with excavated earth, watering and ramming lead upto 30 m lift up to 1.5 m.	30	CFT		
Sub-total of C1				Total	
C2	Rehabilitaiona and Restoration works				
1	Providing and laying plain machine mixed cement concrete 1:2:4 using coarse sand and crushed aggregate having maximum size upto 1-1/2" (38mm) & down gauge in foundation including levelling, compacting and curing as per instruction of engineer.	4	CFT		
2	Repair of small crack in walls, floor, beams and columns by chiesel out the crack using wire brush or portable drill with wire arrangement and apply rich mortar (1:2) with thin layer of rich cement slurry over lay or by some epoxies (LSR grouting through injection ) as per instruction of Engineer.	30	RFT		
3	Repair of major crack in walls, floor by chiesel out the crack using wire brush or portable drill with wire arrangement and drilling holes in both sides of the crack and grouting in U shaped metal units with short legs called staples or stiching dogs covering with thin layer of cement plaster as per instruction of Engineer.	30	RFT		
4	The damaged crushed concrete or honey combing in concrete of columns, footing, fountation, beams and walls, are to be repaired by removing the crushed concrete in the area and reconcreting with rich mix of concrete grout with Sikacrete 114 as per instruction of Engineer.	450	SFT		
5	Cement plaster (1:3) using Coarse Sand on soffits of ceiling, cantilever slabs, sides and soffits of beams, walls and columns in basement, plinth and ground floor including making edges, corners and curing as per intstruction of engineer.	500	SFT		
Sub-total of C2				Total	
C3	Seismic Retrofitting works				
1	Footing and Tie Beam				
1.1	Providing and laying cement concrete (1:1.5:3)using approved coarse sand and crushed aggregate 3/4" (19mm) & down gauge in foundation, ground floor, including leveling compacting and curing and plaster using cement slurry (1:3) as per instruction of engineer.	26	SFT		
1.2	Providing, fabricating and laying deformed Grade 40 steel reinforcement (deformed bar) for all kinds of R.C.C work in foundation, plinth and ground floor including the cost of straightening, removal of rust, cutting, bending, binding, wastage and providing such over-laps as are not shown on the drawings. The cost of binding wire and cement concrete spacer blocks or chairs for binding and holding the reinforcement in position is inclusive upto 30 ft. height	1.5	TON		
2	Beam/Column and Joint Jacketing and Horizontal Bandages and Vertical Splints				
2.1	Providing, fabricating and laying deformed Grade 40 steel reinforcement (deformed bar) for all kinds of R.C.C work in foundation, plinth and ground floor including the cost of straightening, removal of rust, cutting, bending, binding, wastage and providing such over-laps as are not shown on the drawings. The cost of binding wire and cement concrete spacer blocks or chairs for binding and holding the reinforcement in position is inclusive upto 30 ft. height	1.5	TON		
2.2	Drilling and grouting holes upto 3" (75 mm) dia in existing concrete for reinforcement bars.	250	RFT		
2.3	Providing and laying 1.5" rich concrete cement (1:1.5:3) using coarse sand and crushed aggregate 3/4" (19mm) and down gauge in columns of any shape in super structure including compacting, curing, cost of form-work & its removal in basement and ground floor and 0.5" plaster using cement slurry (1:3) as per instruction of engineer.	160	SFT		
2.4	Providing and laying 1.5" microconcrete (1:1.5:3) using Sikacrete 114 with appropriate design mix using sand and fine and crushed aggregate at wall, columns, beams and finished with 1/2" thick cement plaster 1:3 including curing as per instruction of Engineer.	1050	SFT		
Sub-total of C3				Total	
C4	Finishing works				
1	Providing and fixing glass panes of the following types in wooden or steel frames of doors, windows, ventilators etc complete in all respect including wooden gola beading in any floor, ceiling, wooden notice board with frame.	15	Nos		
2	White Wash of All School BHUs, & repair and retrofit finished work of approved shade in two or more coats over and including the cost of one priming coat of lie wash including dusting, filling the holes, cracksand removing inequalities, if any, at any height in any floor.	3000	SFT		
Sub-total of C4				Total	
Total C1+C2+C3+C4				Grand Total	

**Detailed Estimate of Rehabilitation and Seismic Retrofitting of School and BHU Structures (RAPID)**

**Govt. BHU , Padgah, Chagai**

Sr.No	Description of Items	QUANTITY	UNIT	RATES (Rs)	AMOUNT
<b>C1 Dismantling works</b>					
1	Removing loose material of concrete of any thickness from ceiling, walls, floor, beams and columns, brushing and cleaning with solution of caustic soda the surface of brick masonry and concrete preparing of surfaces ,levelling as per instruction of the Engineers and disposing of the rubbish in any floor.	270	SFT		
2	Scraping, rubbing and cleaning emulsion finish distemper, snowcem and paints of all sort from walls and ceiling including, removal of rubbish in all floors.	4000	SFT		
3	Removing cement or lime plaster of any thickness from ceiling and disposing of the rubbish in any floor and chipped and cleaning of surfaces.	1800	SFT		
4	Excavation in foundation of buildings,bridges and other structures, depth upto 4 meters including dag bellings dressing,refilling around structures with excavated earth, watering and ramming lead upto 30 m lift up to 1.5 m.	48	CFT		
Sub-total of C1				Total	
<b>C2 Rehabilitation and Restoration works</b>					
1	Providing and laying plain machine mixed cement concrete 1:2:4 using coarse sand and crushed aggregate having maximum size upto 1-1/2" (38mm) & down gauge in foundation including levelling, compacting and curing as per instruction of engineer.	24	CFT		
2	Repair of small crack in walls, floor, beams and columns by chisel out the crack using wire brush or portable drill with wire arrangement and apply rich mortar (1:2) with thin layer of rich cement slurry over lay or by some epoxies (LSR grouting through injection ) as per instruction of Engineer.	20	RFT		
3	Repair of major crack in walls, floor by chisel out the crack using wire brush or portable drill with wire arrangement and drilling holes in both sides of the crack and grouting in U shaped metal units with short legs called staples or stitching dogs covering with thin layer of cement plaster as per instruction of Engineer.	20	RFT		
4	The damaged crushed concrete or honey combing in concrete of columns, footing, foundation, beams and walls, are to be repaired by removing the crushed concrete in the area and re-concreting with rich mix of concrete grout with Sikacrete 114 as per instruction of Engineer.	120	SFT		
5	Cement plaster (1:3) using Coarse Sand on soffits of ceiling, cantilever slabs, sides and soffits of beams, walls and columns in basement, plinth and ground floor including making edges, corners and curing as per instruction of engineer.	4000	SFT		
Sub-total of C2				Total	
<b>Seismic Retrofitting works</b>					
<b>1 Footing and Tie Beam</b>					
1.1	Providing and laying cement concrete (1:1.5:3)using approved coarse sand and crushed aggregate 3/4" (19mm) & down gauge in foundation, ground floor, including leveling compacting and curing and plaster using cement slurry (1:3) as per instruction of engineer.	26	SFT		
1.2	Providing, fabricating and laying deformed Grade 40 steel reinforcement (deformed bar) for all kinds of R.C.C work in foundation, plinth and ground floor including the cost of straightening, removal of rust, cutting, bending, binding, wastage and providing such over-laps as are not shown on the drawings. The cost of binding wire and cement concrete spacer blocks or chairs for binding and holding the reinforcement in position is inclusive upto 30 ft. height	1	TON		
<b>2 Beam/Column and Joint Jacketing and Horizontal Bandages and Vertical Splints</b>					
2.1	Providing, fabricating and laying deformed Grade 40 steel reinforcement (deformed bar) for all kinds of R.C.C work in foundation, plinth and ground floor including the cost of straightening, removal of rust, cutting, bending, binding, wastage and providing such over-laps as are not shown on the drawings. The cost of binding wire and cement concrete spacer blocks or chairs for binding and holding the reinforcement in position is inclusive upto 30 ft. height	1.5	TON		
2.2	Drilling and grouting holes upto 3" (75 mm) dia in existing concrete for reinforcement bars.	250	RFT		
2.3	Providing and laying 1.5" rich concrete cement (1:1.5:3) using coarse sand and crushed aggregate 3/4" (19mm) and down gauge in columns of any shape in super structure including compacting, curing, cost of form-work & its removal in basement and ground floor and 0.5" plaster using cement slurry (1:3) as per instruction of engineer.	270	SFT		
2.4	Providing and laying 1.5" microconcrete (1:1.5:3) using Sikacrete 114 with appropriate design mix using sand and fine and crushed aggregate at wall, columns, beams and finished with 1/2" thick cement plaster 1:3 including curing as per instruction of Engineer.	1750	SFT		
Sub-total of C3				Total	
<b>C4 Finishing works</b>					
1	Providing and fixing glass panes of the following types in wooden or steel frames of doors, windows, ventilators etc complete in all respect including wooden gola beading in any floor, ceiling, wooden notice board with frame.	12	Nos		
2	White Wash of All School BHUs, & repair and retrofit finished work of approved shade in two or more coats over and including the cost of one priming coat of lie wash including dusting, filling the holes, cracks and removing inequalities, if any, at any height in any floor.	4000	SFT		
Sub-total of C4				Total	
Total C1+C2+C3+C4				Grand Total	