

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

Govt. Boys Primary School Killi Abdul Ali UC Kuchlak District Quetta

Sr.No	Description of Items	QUANTITY	UNIT	RATES (Rs)	AMOUNT
C1	Dismantling works				
1	Dismantling of RCC beam/columns/slab (Slab upto 6" thick) in panels using anti-vibration technique with antivibrant core cutting, necessary scaffolding and jacking arrangement, and including separating reinforcement from concrete, shifting debris within distance of one chain (30.5 m), complete in all respect, as per drawings and instructions of the Engineer in charge.	720	SFT		
2	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.	240	SFT		
3	Scraping, rubbing and cleaning emulsion finish distemper, snowcem and paints of all sort from walls and ceiling including, removal of rubbish in all floors.	3200	SFT		
4	Removing cement or lime plaster of any thickness from ceiling and disposing of the rubbish in any floor and chipped and cleaning of surfaces.	2100	SFT		
5	Excavation in foundation of buildings, bridges and other structures, depth up to 4 meters including dagg bellings dressing, refilling around structures with excavated earth, watering and ramming lead up to 30 m lift up to 1.5 m.	60	CFT		
	Sub-total of C1			Total	
C2	Rehabilitation and Restoration works				
1	Providing and laying plain machine mixed cement concrete 1:2:4 using coarse sand and crushed aggregate having maximum size up to 1-1/2" (38mm) & down gauge in foundation including levelling, compacting and curing as per instruction of engineer.	30	CFT		
2	Providing and laying 1:2:4 cement concrete using approved coarse sand and crushed aggregate 3/4" (19mm) and down gauge in beams, lintels, slabs and cantilevers of required shape or section including formwork and its removal compacting and curing in basement and ground floor.	720	CFT		
3	Providing and laying in situ cement concrete using approved coarse sand and crushed aggregate 3/4" (19mm) and down gauge in pillars and columns of any shape in super structure including compacting, curing, cost of form-work & its removal in basement and ground floor.	20	CFT		
4	Providing and laying 1:2:4 cement concrete floor using using crushed aggregate 3/4" (19mm) and down gauge in ground floor laid in panels including formwork, consolidation, finishing plaster and curing.	2200	CFT		
5	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.	45	RFT		
6	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.	40	RFT		
7	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.	80	SFT		
8	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.	3000	SFT		
	Sub-total of C2			Total	0.00
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.	30	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 overlaps 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 up to 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 overlaps 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 up to 30 ft. height	2.2	TON		
2.2	Drilling and grouting holes up to 3" (75 mm) dia in existing concrete for reinforcement bars.	300	RFT		
2.3	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.	2500	SFT		
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.	10	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.	4220	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. Girls Middle School Killi Muhammad Rahim Vazeerab, Kuchlak, Quetta

Sr.No	Description of Items	QUANTITY	UNIT	RATES (Rs)	AMOUNT
C1 Dismantling works					
1	Dismantling of RCC beam/columns/slab (Slab upto 6" thick) in panels using anti-vibration technique with antivibrant core cutting, necessary scaffolding and jacking arrangement, and including separating reinforcement from concrete, shifting debris within distance of one chain (30.5 m), complete in all respect, as per drawings and instructions of the Engineer in charge.	690	SFT		
2	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.	508	SFT		
3	Scraping, rubbing and cleaning emulsion finish distemper, snowcem and paints of all sort from walls and ceiling including, removal of rubbish in all floors.	4500	SFT		
4	Removing cement or lime plaster of any thickness from ceiling and disposing of the rubbish in any floor and chipped and cleaning of surfaces.	2000	SFT		
5	Excavation in foundation of buildings, bridges and other structures, depth up to 4 meters including dagg bellings dressing, refilling around structures with excavated earth, watering and ramming lead up to 30 m lift up to 1.5 m.	115	CFT		
Sub-total of C1				Total	
C2 Rehabilitation 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.	52	CFT		
2	Providing and laying 1:2:4 cement concrete using approved coarse sand and crushed aggregate 3/4" (19mm) and down gauge in beams, lintels, slabs and cantilevers of required shape or section including formwork and its removal compacting and curing in basement and ground floor.	1100	CFT		
3	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.	40	RFT		
4	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.	40	RFT		
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.	4400	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.	30	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	3	TON		
1.3	Grouting base plates, rails, anchor bolts foundation bolts and anchor frames of guide rails etc.	40	sft		
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	2.8	TON		
2.2	Drilling and grouting holes upto 3" (75 mm) dia in existing concrete for reinforcement bars.	400	RFT		
2.3	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.	2000	SFT		
3 Installation of steel sections					
3.1	Core Drilling, Fixing & Grouting of through bolts with MUNGO MIT 600 RE pure Epoxy with (Bolt Size : M16 grade 8.8) Hole Dia 6/8" (20 mm), with depth up to 8" (200 mm) Incl: Hammer/Core Drilling, cleaning, blowing, chemical injection & fixing of Bolts in concrete slabs, beams and columns as per drawings and instructions of the Engineer in charge.	80	RFT		
3.2	Providing & fixing of structural steel Girders(I-section)(Imported quality), including hoisting, fixing in position on MS, plate and cutting, welding & painting with two coats of Red Oxide as per drawings and instructions of the Engineer in charge.	1413	KG		
3.3	Providing and fixing mild steel J bolt M 16 anchor or holding down bolts with nuts and washers, welded with M.S. plates if required including painting two coats of black bitumastic paint including the cost of high strength concrete grout.	100	KG		
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, 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, cracks and removing inequalities, if any, at any height in any floor.	5000	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. Boys Middle School , Esa Khail, Kuchlak, Quetta

Sr.No	Description of Items	QUANTITY	UNIT	RATES (Rs)	AMOUNT
C1	Dismantling works				
1	Scraping, rubbing and cleaning emulsion finish distemper, snowcem and paints of all sort from walls and ceiling including, removal of rubbish in all floors.	4100	SFT		
2	Removing cement or lime plaster of any thickness from ceiling and disposing of the rubbish in any floor and chifed and cleaning of surfaces.	2100	SFT		
3	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.	115	CFT		
	Sub-total of C1			Total	
C2	Rehabilitationa and Restoration works				
1	Providing and laying 1:2:4 cement concrete using approved coarse sand and crushed aggregate 3/4" (19mm) and down gauge in beams, lintels, slabs and cantilevers of required shape or section including formwork and its removal compacting and curing in basement and ground floor.	1600	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 mortor (1:2) with thin layer of rich cement slurry over lay or by some epoxies (LSR grouting through injection) as per instruction of Engineer.	40	RFT		
3	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.	520	SFT		
4	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.	4100	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.	35	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		
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	2.2	TON		
2.2	Drilling and grouting holes upto 3" (75 mm) dia in existing concrete for reinforcement bars.	300	RFT		
2.3	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.	2700	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.	6000	SFT		
	Sub-total of C4			Total	
	Total C1+C2+C3+C4			Grand Total	