

**inStem-Civil Works- Extension of storage space for waste material dumping**

**Scope of work**

<b>SL No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>
1	Earth work in excavation by mechanical means (hydraulic excavator) / manual means OVER AREAS (exceeding 30cm in depth and also exceeding 1.50m in width as well as 10sqm on plan) in ALL KINDS OF SOILS up to a depth not exceeding 1.50m including disposal of excavated earth, load up to 50m and lift up to 1.50m etc., complete all as per specifications. (Disposed earth to be levelled by breaking clods if any and neatly dressed)	cum	6.00
2	Providing and laying cement concrete using 40mm nominal size graded hard granite stone aggregate obtained from approved quarry including compaction, finishing top surface to level, curing, cost of formwork, etc; complete as per specifications. Mix ratio specified is for cement: coarse river sand: graded stone aggregate. IN FOUNDATION AND PLINTH/SUB-BASE TO FLOORS		
	PCC 1:4:8	cum	1.80
3	Providing and laying cement concrete using 20mm nominal size graded hard granite stone aggregate obtained from approved quarry including compaction, finishing top surface to level, curing, cost of formwork, etc; complete all as per specifications. Mix ratio specified is for cement: coarse river sand: graded stone aggregate. IN FOUNDATION AND PLINTH/SUB-BASE TO FLOORS		
3.1	PCC 1:3:6	cum	7.50
4	Supplying, fabricating, assembling, hoisting / erecting and fixing in position at all heights and with all leads, structural steel works of welded built-up sections, all as per structural drawings and as per detailed specifications (for materials and workmanship) in the situations described hereinafter including a) cutting of components to required lengths / widths and shapes/profiles, b) smooth machining of edges / faces, c) welding (electric arc welding) at joints of built-up sections/ single sections for required weld lengths and sizes and d) painting all over with two coats of Synthetic enamel paint of approved quality, make and colour/shade over one coat of red oxide zinc chromate primer with surfaces duly prepared to receive painting etc., complete all as directed by the engineer-in-charge.		

	NOTE : The contractor shall submit fabrication shop drawings for work involved based on construction drawings (that may be issued during construction period) for approval by engineer-in-charge. The fabrication work shall start only after approval to the fabrication drawings. Any change required in the fabrication drawings shall be carried out at no extra cost over the quoted rates. Fabrication shall be in a perfectly workmanship like manner and as provided in Section V and VI of IS 800 and IS 7215. Welding shall be carried out by qualified welders. Electrodes for welding, the procedure, selection, test and inspection shall conform to provisions in IS 816, IS 818, IS 822, and IS 833. Erection/hoisting shall commence only after passing of fabricated parts by the engineer-in-charge.		
4.1	Structural steel works in welded built-up sections of roof purlins, side cladding supports, roof purlins/ truss bracings and tie runners, gutter supports, glazing supports and the like fabricated with MS Flats of any thickness and size, Tees, MS square section and MS rods as in sag rods/ tie rods of any diameter	MT	0.1250
4.2	Structural steel works as in item 03 above but with MS Channels, MS angles and other sections	MT	0.2500
5	Supplying, fabricating, assembling, hoisting / erecting and fixing in position at all heights and with all leads, structural Galvanised Iron (G.I) works of welded built-up sections, all as per structural drawings and as per detailed specifications (for materials and workmanship) in the situations described hereinafter including a) cutting of components to required lengths / widths and shapes/profiles, b) smooth machining of edges / faces, c) welding (electric arc welding) at joints of built-up sections/ single sections for required weld lengths and sizes and d) painting all over with two coats of Synthetic enamel paint of approved quality, make and colour/shade over one coat of red oxide zinc chromate primer with surfaces duly prepared to receive painting etc., complete all as directed by the engineer-in-charge.		
	NOTE : The contractor shall submit fabrication shop drawings for work involved based on construction drawings (that may be issued during construction period) for approval by engineer-in-charge. The fabrication work shall start only after approval to the fabrication drawings. Any change required in the fabrication drawings shall be carried out at no extra cost over the quoted rates. Fabrication shall be in a perfectly workmanship like manner and as provided in Section V and VI of IS 800 and IS 7215. Welding shall be carried out by qualified welders. Electrodes for welding, the procedure, selection, test and inspection shall conform to provisions in IS 816, IS 818, IS 822, and IS 833. Erection/hoisting shall commence only after passing of fabricated parts by the engineer-in-charge.		
	Structural Galvanised Iron (G.I) works as in item 05 above but with medium class GI pipes of any diameter, including bending the pipes	Kg	350.0000

6	<p>Providing and constructing Solid Cement Concrete Block masonry in cement mortar 1:6 (cement : coarse river sand) using factory made, load bearing, approved quality cement concrete blocks of specified size, Grade C (4.0), as per IS 2185 (Part 1), density of blocks not less than 1800kg/cum, minimum average compressive strength of units is 4.0N/mm<sup>2</sup> and minimum strength of individual unit is 3.2N/mm<sup>2</sup>, setting in position, curing, raking out joints wherever required etc., complete all leads and all as per specifications and directions of engineer-in-charge in</p> <p>FOUNDATION AND PLINTH</p>		
	For 200mm thick walls using (400x200x200)mm size blocks	cum	6.00
7	<p>Pointing on brick work with cement mortar 1:3 (cement : M sand) including raking out joints, scaffolding, curing, finishing neat, etc; complete all as per specifications UPTO 10m LEVEL ABOVE GL</p>		
	Flush pointing	sqm	60.00
8	<p>Providing and fixing the good quality GI Fly proof mesh of size 1/16" x 26 to MS sections with bolt and nuts including cost of materials ,labours, transportation etc., complete all as per specification and as directed by Engineer In charge (The mesh sample will be approved by the dept.)</p>	sqm	58.00
9	<p>Providing and fixing pre-coated galvanised iron profile (Approved pattern) sheets of green tile coloured roofing sheet (size, shape and pitch of corrugation as approved by Engineer-In-Charge ) 0.45 to 0.50 mm (+0.05%) total coated thickness with Zinc coating 120grams per sqm as per IS:277, in 240mpa 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 25microns minimum to avoid scratches during transportation and should be supplied in single length up to 12meter or as directed by Engineer incharge. The shall be fixed using self drilling/self tapping screws of size (5.5x55mm) with EPDM seal, complete up to 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.</p>	sqm	75.00
10	<p>Providing and fixing 15 cm wide, 45 cm overall semi-circular plain G.S. sheet gutter with iron brackets 40x3mm size, bolts, nuts and washers etc., including making necessary connections with rain water pipes complete.</p>		
10.1	0.80 mm thick with zinc coating not less than 275 gm/m <sup>2</sup> metre	Rm	25.00

11	Providing and laying cement concrete interlocking paver blocks flooring using 60mm thick blocks of approved shape, size and colours with required combination of colours of blocks having load bearing strength not less than M30 grade manufactured by M/s. Besser Blocks / M/s. Nitco / M/s. Malu Group or equivalent, close jointed over bed of 75mm thick river sand to a tight pattern, laid to proper line and level including bedding down the completed surface with a plate vibrator or by firmly topping level with mallet and a large flat piece of timber, finishing by brushing clean dry sand over the surface to fill all the joints thoroughly including fixing the edge restraint laying blocks etc., complete all as per manufacturers specifications and directions of engineer-in-charge. (Rate to include cost of paver blocks, sand and labour etc.). The arrangement of pattern of blocks shall be as per architectural drawings	Sqm	25.00
12	Supplying and fixing MS tower bolt of size 250 x 10 mm including necessary fixture as per standard specification.	Nos	8.00
13	Supplying and fixing MS Aldrop of size 250mm including necessary fixture as per standard specification.	Nos	4.00
14	Supplying and fixing MS handles of size 150mm including necessary fixture as per standard specification.	Nos	4.00
15	Supplying and fixing MS but hinges of size 250 mm including necessary fixture as per standard specification.	Nos	12.00