

Bharat Heavy Electricals Limited
High Pressure Boiler Plant
Tiruchirappalli – 620 014. India
Civil Engineering Department (Factory)

TENDER DOCUMENT (PRICE BID)

Name of work : Annual Maintenance Contract for
Factory Buildings, of civil &
structural steel building works,
interior decorations, water
supply, roads, railway sidings,
horticulture, housekeeping,
sanitation etc., in HPBP, SSTP,
Unit II, and connected peripheral
area in the entire Factory
complex of BHEL, Tiruchy

Value of work : Rs. 800.00 Lakh

Tender Notice No. : CF:TN:002/16-17

Tender Schedule No. : CF:TS:008/16-17

Period of Contract : 15 Months

Issued to :

**BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI - 620 014**

SCHEDULE - A

NAME OF WORK : Annual Maintenance Contract for Factory Buildings of civil & structural steel building works, interior decorations, water supply, roads, railway sidings, horticulture, housekeeping, sanitation etc., in HPBP, SSTP, Unit II, and connected peripheral area in the entire Factory complex of BHEL, Tiruchy.

I / We _____ have read the condition of tender attached hereto and agree to abide by such conditions. I/We offer to execute the works in **T.S No. CF:TS:008/16-17 for a period of 15 months** at the percentage below / at par / above the rates contained in BHEL Schedule of Rates 2013-14 quoted in the schedule appended below:

I / We further agree to sign an Agreement Bond to abide by the General Conditions of Contract and to carryout all works according to the specifications for materials and works of Bharat Heavy Electricals Limited, Tiruchirapalli-620 014. In case of acceptance of the tender by the BHEL, I/We bind myself/ourselves to execute the contract documents within 7 days after notice that my/our tender has been accepted and this contract has been awarded to me/us and thus failing which I/We shall have no objection to the forfeiture of the Earnest Money amount to **Rs.2,00,000/-** lodged with Bharat Heavy Electricals Limited, Tiruchirapalli-620 014.

I / We further agree to include all tools & plants and consumables required for the work in my / our scope but required power and water will be provided at one point by BHEL at free of cost and based on this, we have quoted our percentage.

S.No	Approx. Value of work	Below (- %) / At par (0%) / Above (+ %) of the rates provided in BHEL Schedules of Rates 2013-14.	
		In Figures	In Words
1	800.00 lakhs		

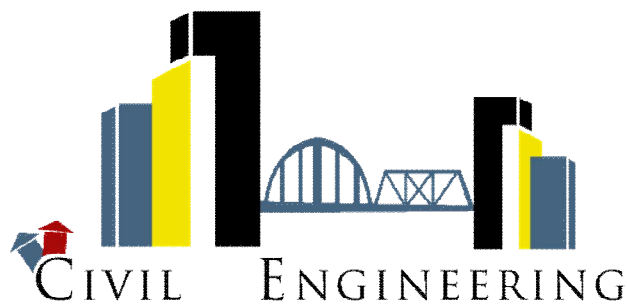
CONTRACTOR'S ADDRESS:

BHARAT HEAVY ELECTRICALS LIMITED

TIRUCHIRAPPALLI – 620 014

CIVIL ENGINEERING DEPARTMENT

**BHEL
SCHEDULE OF RATES
2013-14**



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I - EARTHWORK

Item No.	Description	Unit	Rate (Rs.P)
0101	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge.		
A	All kinds of soil except rock	CUM	125.80
B	Ordinary rock	CUM	201.70
C	Hard rock (requiring blasting)	CUM	363.55
D	Hard rock (blasting prohibited)	CUM	410.75
0102	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. <u>Rate also includes bailing or pumping out water during excavation due to subsoil water, rain etc.</u>		
A	All kinds of soil except rock	CUM	138.40
B	Ordinary rock	CUM	221.85
C	Hard rock (requiring blasting)	CUM	399.90
D	Hard rock (blasting prohibited)	CUM	451.80
0103	Earth work for Open excavation (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed.		
A	All kinds of soil except rock	CUM	178.10
B	Ordinary rock	CUM	188.55
C	Hard rock (requiring blasting)	CUM	334.30
D	Hard rock (blasting prohibited)	CUM	400.90
0104	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed in All kinds of soil	SQM	35.40

Item No.	Description	Unit	Rate (Rs.P)
0105	Surface dressing of the ground in all kinds of soil (excluding rock) including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.	SQM	8.70
0106	Open timbering in trenches including strutting and shoring complete. (Measurements to be taken of the face area timbered)		
A	Depth not exceeding 1.5 metre	SQM	52.25
B	Depth exceeding 1.5 metre but not exceeding 3 metre	SQM	55.20
C	Depth exceeding 3 metre but not exceeding 4.5 metre	SQM	60.10
0107A	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. In or under water and/ or liquid mud, including pumping out water as required.		
(i)	All kinds of soil except rock	CUM	25.15
(ii)	Ordinary rock	CUM	40.35
(iii)	Hard rock (requiring blasting)	CUM	72.70
(iv)	Hard rock (blasting prohibited)	CUM	82.15
	Extra for Earth work for Open excavation (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be levelled and neatly dressed. In or under water and/ or liquid mud, including pumping out water as required.		
(v)	All kinds of soil except rock	CUM	35.60
(vi)	Ordinary rock	CUM	37.70
(vii)	Hard rock (requiring blasting)	CUM	66.85
(viii)	Hard rock (blasting prohibited)	CUM	80.20
(ix)	Extra for earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed. All kinds of soil in or under water and/ or liquid mud, including pumping out water as required	SQM	7.10
(x)	Extra for Surface dressing of the ground in all kinds of soil (excluding rock) including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m in or under water and/ or liquid mud, including pumping out water as required.	SQM	1.75

Item No.	Description	Unit	Rate (Rs.P)
0107B	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. In or under foul position, including pumping out water as required.		
(i)	All kinds of soil except rock	CUM	31.45
(ii)	Ordinary rock	CUM	50.45
(iii)	Hard rock (requiring blasting)	CUM	90.90
(iv)	Hard rock (blasting prohibited)	CUM	102.70
	Extra for Earth work for Open excavation (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. In or under foul position, including pumping out water as required.		
(v)	All kinds of soil except rock	CUM	44.55
(vi)	Ordinary rock	CUM	47.15
(vii)	Hard rock (requiring blasting)	CUM	83.60
(viii)	Hard rock (blasting prohibited)	CUM	100.25
(ix)	Extra for earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed All kinds of soil in or under foul position, including pumping out water as required.	SQM	8.85
(x)	Extra for Surface dressing of the ground in all kinds of soil (excluding rock) including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m in or under foul position, including pumping out water as required.	SQM	2.20
	Note :- The extra percentage is applicable in respect of each item, but limited to quantities of work done in these difficult conditions. The unit, namely , metre depth, to be considered for payment, shall be the depth measured from the sub soil water level upto the centre of gravity of the quantity executed in difficult conditions. The depth shall be reckoned correct to 0.10 metre, 0.05 metre or more shall be taken as 0.10 metre and less than 0.05 metre ignored.		
0108	Extra for every additional lift of 1.5 metre or part thereof in :		
A	All kinds of soil Excluding Rock.	CUM	32.45
B	Ordinary or hard rock	CUM	58.20

Item No.	Description	Unit	Rate (Rs.P)
0109	Extra for every additional lead of 10 metre or part thereof over the initial lead for all kinds of soil.	CUM	32.45
0110	Supply and filling with river sand in foundation, plinth, under floor etc. including watering, ramming, consolidating and dressing complete.	CUM	502.95
0111	Supply and spreading/filling with stone dust complying with standard specifications.	CUM	250.40
0112	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 m and lift up to 1.5 m etc. complete.	CUM	78.90
0113	Labour charges for mixing the earth, red earth, sand, manure, coconut waste etc. thoroughly to the required proportion and carrying the same and filling it in the excavated pits/areas at various locations with all leads and lifts. Rate excludes cost of materials.	CUM	85.90
0114	Ploughing the existing ground in all kinds of soil to a depth of 15 to 25 cm and watering the same.	SQM	8.85
0115	Labour charges for breaking clods, consolidating, sectioning etc.	CUM	2.90
0116	Forming turving in slopes with initial watering, all as per instructions of Engineer-in-charge.	SQM	16.15
0117	Extra rate for consolidation of bunds etc. by means of the following, including watering.		
A	Hand roller	CUM	9.65
B	Power roller including hire charges.	CUM	16.15
0118	Benching hard rock upto an average 10 cm depth	SQM	315.70
0119	Drilling holes in hard granite/RCC structure:		
A	45 mm dia	RM	123.70
B	50 mm dia	RM	147.35
C	75mm dia	RM	167.35
0120	Bailing or pumping out water from trenches, foundations etc., at all depths wherever necessary as per standard specifications.	HP/Hr	65.05
0121	Clearing grass and removal of rubbish upto a distance of 50 metre.	SQM	2.30

Item No.	Description	Unit	Rate (Rs.P)
0122	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 metre above ground level and removal of rubbish upto a distance of 50 metre.	SQM	4.50
0123	Felling trees of girth (measured at a height of 1 metre above ground level) including cutting of trunks and branches, removing the roots from the soil and then filling the pit and depression, stacking of serviceable materials and disposal of unserviceable materials.		
A	Beyond 30 cm girth upto and including 60 cm girth	EACH	139.20
B	Beyond 60 cm girth upto and including 120 cm girth	EACH	613.65
C	Beyond 120 cm girth upto and including 240 cm girth	EACH	2831.15
D	Above 240 cm girth	EACH	5682.55
0124	Supplying Chlorpyrifos / Lindane emulsifiable concentrate of 20 % (chemical emulsion) in sealed containers at site of work.	LITRE	176.10
0125	Labour charges for pre-constructional anti-termite treatment by diluting and injecting chemical emulsion which will be supplied by BHEL at free of cost and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth, surrounding of pipes and conduits etc. complete , all as per standard specification. (Plinth area of building at ground floor only shall be measured for payment)	SQM	142.65
0126	Diluting and injecting pre-constructional anti-termite treatment by chemical emulsion and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth, surrounding of pipes and conduits etc. complete , all as per standard specification. (Plinth area of building at ground floor only shall be measured for payment). Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instructions of Engineer in charge.	SQM	477.25
0127	Labour charges for post-constructional anti-termite treatment by diluting and injecting chemical emulsion (will be supplied by BHEL at free of cost), all as per standard specification.		
A	Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete.	RM	11.35
B	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.	RM	17.40

Item No.	Description	Unit	Rate (Rs.P)
C	Treatment of soil under existing floors, using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm dia holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor. (Requirement of chemical emulsion - Chlorpyriphos/Lindane E.C 20 % with 1 % concentration - 5 litre / 9 SQM)	SQM	90.60
D	Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole. (Requirement of chemical emulsion - Chlorpyriphos/Lindane E.C 20 % with 1 % concentration - 1.70 litre / 10 RM)	RM	13.50
E	Treatment at points of contact of wood work by chemical emulsion Chlorpyriphos/Lindane (in oil or kerosene based solution) @ 0.50 litre per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same. Rate includes cost of kerosene but excludes chemical. (Requirement of chemical emulsion - Chlorpyriphos/Lindane E.C 20 % with 1 % concentration - 1.70 litre / 10 RM)	RM	123.80
0128	Diluting and injecting chemical emulsion (BIFLEX T.C 2.5 EC in 20 L/Equivalent) for post-constructional anti-termite treatment, all as per standard specification. Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instructions of Engineer in charge.		
A	Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete.	RM	66.30
B	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.	RM	72.35
C	Treatment of soil under existing floors, using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm dia holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor.	SQM	361.95
D	Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole.	RM	96.55

Item No.	Description	Unit	Rate (Rs.P)
E	Treatment at points of contact of wood work by chemical emulsion (in oil or kerosene based solution) @ 0.50 litre per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same. Rate includes cost of kerosene, chemical emulsion.	RM	206.80
0129	Hire charges for engaging earth moving machinery (Hydraulic Excavator) to attend to channeling works at river bed, pipe line burst works, cleaning the areas including uprooting thorny plants/heavy jungles/trees etc.of all heights and leveling the areas thereafter including all debris etc., all as per instructions of Engineer-in-charge. Rate includes hire, fuel, operation charges, to and fro charges for machinery, all labour and all other incidentals etc., complete.	HR	1100.00

Item No.	Description	Unit	Rate (Rs.P)
II - CONCRETE WORKS			
0201	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering.		
A	1:1:2 with graded stone aggregate 20 mm nominal size. CEMENT CONSUMPTION - 610.00 K.G PER CUM	CUM	2019.90
B	1:1.5:3 with graded stone aggregate 20 mm nominal size. CEMENT CONSUMPTION - 400.00 K.G/CUM	CUM	1972.65
C	1:2:4 with graded stone aggregate 20 mm nominal size. CEMENT CONSUMPTION - 320.00 K.G/CUM	CUM	2043.75
D	1:2:4 with graded stone aggregate 40 mm nominal size. CEMENT CONSUMPTION - 320.00 K.G/CUM	CUM	1866.15
E	1:3:6 with graded stone aggregate 40 mm nominal size. CEMENT CONSUMPTION - 220.00 K.G/CUM	CUM	1913.70
F	1:4:8 with graded stone aggregate 40 mm nominal size. CEMENT CONSUMPTION - 170.00 K.G/CUM	CUM	1908.50
G	1:5:10 with graded stone aggregate 40 mm nominal size. CEMENT CONSUMPTION - 130.00 K.G/CUM	CUM	1904.35
H	1:4:8 with graded stone aggregate 20 mm nominal size. CEMENT CONSUMPTION - 170.00 K.G/CUM	CUM	2117.30
0202	Providing and laying in position specified grade of reinforced cement concrete including vibration charges, curing etc. complete but excluding cost of centring, shuttering, finishing and reinforcement.		
A	1:1:2 with graded stone aggregate 20 mm nominal size - All works upto plinth level. CEMENT CONSUMPTION - 610.00 K.G/CUM	CUM	2211.60
B	1:1.5:3 with graded stone aggregate 20 mm nominal size - All works upto plinth level. CEMENT CONSUMPTION - 400.00 K.G/CUM	CUM	2164.35
C	1:2:4 with graded stone aggregate 20 mm nominal size - All works upto plinth level. CEMENT CONSUMPTION - 320.00 K.G/CUM	CUM	2235.45
D	1:1:2 with graded stone aggregate 20 mm nominal size - Above plinth to floor five level. CEMENT CONSUMPTION - 610.00 K.G/CUM	CUM	2822.35
E	1:1.5:3 with graded stone aggregate 20 mm nominal size - Above plinth to floor five level. CEMENT CONSUMPTION - 400.00 K.G/CUM	CUM	2775.10
F	1:2:4 with graded stone aggregate 20 mm nominal size - Above plinth to floor five level.	CUM	2846.20

Item No.	Description	Unit	Rate (Rs.P)
CEMENT CONSUMPTION - 320.00 K.G/CUM			
0203	Straightening, cutting, bending, placing in position of MS/CTD bars and binding with MS binding wires of 18/20 gauge etc. for reinforcement of RCC works. Rate includes cover blocks, cost of binding wire , conveyance of MS/CTD bars from BHEL stores to site of work, labour etc. complete. MS/CTD bars will be supplied by BHEL at Stores at free of cost.	MT	7439.40
0204	Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level.		
A	Foundations, footings, bases of columns, equipment foundations, precast slabs, kerbs etc. for mass concrete.	SQM	167.30
B	Walls (any thickness) including attached pilasters, plinth, stairs, chimney, shafts and string courses etc.	SQM	291.65
C	Suspended floors, roofs, landings, balconies, access platform and sunshades.	SQM	323.65
D	Lintels, beams, plinth beams, girders, bressumers and cantilevers	SQM	253.50
E	Columns, pillars, piers, abutments, posts and struts.	SQM	371.70
F	Arches, domes, vaults upto 6 m span	SQM	783.80
G	Well steining	SQM	465.50
H (i)	Extra for shuttering : Foundations, footings, bases of columns, equipment foundations, precast slabs, kerbs etc. for mass concrete in circular work.	SQM	33.45
H (ii)	Extra for shuttering : Lintels, beams, plinth beams, girders, bressumers and cantilevers in circular work.	SQM	50.70
H (iii)	Extra for shuttering : Columns, pillars, piers, abutments, posts and struts in circular work.	SQM	74.35
I	Pockets or holes in foundations for holding down bolts.	SQM	679.25
0205	Extra for additional height in centring, shuttering wherever required with adequate bracing, propping etc. including cost of de-shuttering and de-centring at all levels, over a height of 4.5 metre for every additional height of 1 metre or part there of. For suspended floors, roofs, landing, beams & balconies (Plan area to be measured)	SQM	165.25

Item No.	Description	Unit	Rate (Rs.P)
0206	Providing and laying in position machine batched, machine mixed and machine vibrated design mix of reinforced cement concrete of specified grade for structural elements using 10 to 20 mm hard broken granite stone jelly, excluding cost of centring, shuttering, finishing and reinforcement but including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, all as per directions of Engineer-in-charge. M-20 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.	CUM	2728.60
	CEMENT CONSUMPTION - 383.00 K.G PER CUM		
0207	Providing and laying in position machine batched, machine mixed and machine vibrated design mix of reinforced cement concrete of specified grade for structural elements using 10 to 20 mm hard broken granite stone jelly, excluding cost of centring, shuttering, finishing and reinforcement but including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, all as per directions of Engineer-in-charge.		
A	M-25 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.	CUM	2737.05
	CEMENT CONSUMPTION - 410.00 K.G PER CUM		
B	M-30 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.	CUM	2740.15
	CEMENT CONSUMPTION - 420.00 K.G PER CUM		
C	M-35 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.	CUM	2742.70
	CEMENT CONSUMPTION - 428.00 K.G PER CUM		
0208	Extra for laying plain / reinforced concrete in or under foul conditions.	CUM	125.20
0209	Providing vertical drops, fins, facias etc., for the following thickness with 1:2:4 cement concrete using 6 mm granite stone chips for inner core applied on chickenmesh and neatly plastered with cement mortar 1:4, 12mm thick on both faces, finishing, curing etc., complete. Rate includes cost of all materials and labour but excluding fabrication charges for reinforcement.		
A	75mm thick	SQM	842.60
	CEMENT CONSUMPTION - 24.76 K.G PER SQM		
B	60 mm thick	SQM	830.55
	CEMENT CONSUMPTION - 20.68 K.G PER SQM		

Item No.	Description	Unit	Rate (Rs.P)
0210	Providing, hoisting and fixing upto floor five level precast reinforced cement concrete elements like slabs etc. of 25 to 150 mm thick in required sizes with mix 1:2:4 using 10 to 20 mm size hard broken granite stone jelly for cupboards, shelves etc. including setting in cement mortar 1:3, cost of centring, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement and fabrication charges.	CUM	6332.65
CEMENT CONSUMPTION - 320.00 K.G PER CUM			
0211	Providing, hoisting and fixing upto floor V level plain cement concrete elements like slabs etc. of 25 to 150 mm thick of required sizes in mix 1:2:4 using 10 to 20 mm size hard broken granite stone jelly. Rate includes centring, shuttering & finishing with neat cement punning on exposed surfaces but excluding pointing.	CUM	5228.55
CEMENT CONSUMPTION - 320.00 K.G PER CUM			
0212	Carrying from departmental stores / stack yard and fixing in position of 25 to 150 mm thick Plain / R C C precast elements like slabs etc. to the correct line, level, plumb and alignment, all as per standard specifications. Rate excludes cost of precast slabs and pointing.	CUM	506.60
0213	Providing precast cement concrete Jali 1:2:4 using graded stone aggregate 6 mm nominal size with suitable reinforcement including centring and shuttering, roughening, cleaning, fixing and finishing in cement mortar 1:3 etc.complete. Rate excludes reinforcement steel & fabrication charges.		
A	50 mm thick CEMENT CONSUMPTION - 12.80 K.G PER SQM	SQM	538.75
B	40 mm thick CEMENT CONSUMPTION - 10.24 K.G PER SQM	SQM	461.70
0214	Providing and fixing RCC precast perforated lawn drain cover slabs of following thickness in mix 1:2:4 using graded stone aggregate 10 mm nominal size including moulding, shuttering, finishing, carrying and fixing in position etc., complete. Rate excludes reinforcement steel & fabrication charges.		
A	75 mm thick CEMENT CONSUMPTION - 19.84 K.G PER SQM	SQM	264.95
B	50 mm thick CEMENT CONSUMPTION - 12.80 K.G PER SQM	SQM	161.60

Item No.	Description	Unit	Rate (Rs.P)
0215	Precasting, carrying and fixing in position of RCC louvers including 60 mm thick side posts, 60 mm thick intermittent lintel and 100 mm thick top lintel, 40 mm thick louver slabs lintels etc. (all precast) in cement concrete 1:2:4 using graded stone aggregate 10 mm nominal size with specified reinforcement, all as per standard drawing and instructions of Engineer-in-charge. Rate includes supply and fixing of holdfasts, moulding, scaffolding for fixing at specified levels, finishing and also filling the gap between precast lintels with insitu cement concrete of mix 1:2:4 using 10 mm and down graded hard broken granite stone jelly and filling the gap recesses of side walls with C.M 1:5, cutting and forming chases in brick masonry, finishing jambs wherever necessary and making good all damages to suit the existing work but excluding cost of fabrication charges for reinforcement steel.	SQM	772.80
CEMENT CONSUMPTION - 34.73 K.G PER SQM			
0216	Precasting and fixing in position of RCC cable trench cover slabs of following thickness in mix 1:2:4 using graded stone aggregate 12 mm nominal size with top 15 mm thick finished with hardening compound of proportion one part of ironite or equivalent, four parts of cement and eight parts of 6 mm gauge hard granite stone chips (the proportion being by weight) including welding reinforcement rods to the frame work, all as per drawing, specifications and instructions of Engineer-in-charge but excluding cost of M.S frame work which will be paid separately. Reinforcement rods and M.S frames will be supplied by BHEL at stores at free of cost.		
A	69mm thick slab CEMENT CONSUMPTION - 26.03 K.G PER SQM	SQM	543.65
B	150mm thick slab CEMENT CONSUMPTION - 52.00 K.G PER SQM	SQM	736.75
0217	Encasing rolled steel sections in beams and columns in cement concrete 1:2:4 using graded stone aggregate 12.50 mm nominal size including centering, shuttering etc. complete but excluding cost of reinforcement & fabrication charges.	CUM	4078.50
CEMENT CONSUMPTION - 320.00 K.G PER CUM			
0218	Providing balustrade for an overall thickness of 100 mm with cement concrete 1:2:4 using 12 to 20 mm size hard broken granite stone jelly for 75 mm thick inner core applied on chickenmesh and neatly plastered with cement mortar 1:4 on both faces and hand rail plastered in CM 1:4 with an admixture of red oxide including finishing, polishing curing etc., complete. Rate includes cost of all materials and labour but excluding cost of reinforcement and fabrication charges.	SQM	994.70
CEMENT CONSUMPTION - 32.92 K.G PER SQM			
0219	Extra for providing and fixing expanded metal mesh of size 20 x 60 mm and strands 3.25 mm wide 1.6 mm thick weighing 3.64 kg. per sqm for encasing of rolled steel sections in beams, columns and grillage excluding cost of hangers.	SQM	355.85

Item No.	Description	Unit	Rate (Rs.P)
0220	Providing and fixing in position of copper plate as per design for expansion joints.	K.G	306.05
0221	Providing and filling in position of blown bitumen in expansion joints.	CUM	50000.00
0222	Providing and filling in position of bitumen mix filler of proportion 80 Kg of hot bitumen, 1 Kg of cement and 0.25 cubicmetre of coarse sand for expansion joints.	SQM	15500.00
0223	Providing and fixing in position of 12 mm thick bitumen impregnated fibre board conforming to IS:1838 including cost of primer, sealing compound in expansion joints.	SQM	410.00
0224	Extra for providing and mixing water proofing material 'Impermo' or equivalent in cement concrete work at 1 Kg per 50 Kg of cement.	K.G	42.00
0225	Labour charges for attending to spalling of concrete in ceiling of buildings. Scope of step by step activities are given:- i) Removing the loose concrete / plaster by knocking with a 2 lbs hammer, scrapping with steel wire brush and exposing the sound concrete. ii) Removing the rust in reinforcement by scraping with steel brush. iii) Washing the concrete surface and reinforcement. (By jetting water) iv) Applying passivator coat (2 K.G cement & 1 Lit. Roff bond repair) on rusted reinforcement and bond coat using CM 1:3 & Roff bond repair (5 K.G cement & 1 Lit. Roff bond repair) in layers of 6 mm thick to match with the existing surface. Roff bond repair mix shall be prepared in the proportion as directed by Engineer-in-charge. OR Applying rust primer on the steel and maricrete mix to the surface to be attended to by adding water in proportion as directed by Engineer-in-charge in layers of 6 mm thick to match with the existing surface. v) Finishing the surface with clean trowel. Note:- I) Cement & the said chemicals will be supplied by BHEL at Stores at free of cost. ii) Rate includes scaffolding, tools, labour, incidentals etc. complete.	SQM	115.50
0226	Providing and placing in position PVC water stops serrated with central bulb, 225 mm wide & 8-11 mm thick for construction / expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete.	RM	462.05

Item No.	Description	Unit	Rate (Rs.P)
III - MASONRY WORKS			
0301	Random rubble masonry in foundation and basement in the mix given below including simultaneous flush pointing, all as per standard specifications.		
A	Cement mortar 1:5 CEMENT CONSUMPTION 102.30 K.G/CUM	CUM	1775.55
B	In cement mortar 1:6 CEMENT CONSUMPTION 82.50 K.G/CUM	CUM	1773.45
0302	Coursed rubble masonry (second sort) with hard stone in foundation and plinth with Cement mortar 1:6. CEMENT CONSUMPTION 75.00 K.G/CUM	CUM	2070.35
0303	Extra for random rubble masonry with hard stone curved on plan for a mean radius not exceeding 6 metre.	CUM	301.80
0304	Extra for random rubble and coursed rubble masonry with hard stone in superstructure above plinth level and upto floor five level.	CUM	645.50
0305	Extra for laying stone work in or under foul position.	CUM	125.20
0306	Labour charges for providing random rubble masonry in foundation & basement in the mixes specified including simultaneous flush pointing, all as per standard specifications. Rough stones & bond stones will be supplied by BHEL at free of cost, at site of work.	CUM	544.80
0307	Providing rough stone dry packing for aprons and revetments including filling interstices with spalls, wedging, consolidating and preparing the surface, all as per standard specifications.	CUM	1287.00
0308	Labour charges for providing rough stone dry packing for aprons and revetments including filling interstices with spalls, wedging, consolidating and preparing the surface, all as per standard specifications. Rough stones will be supplied by BHEL at site at free of cost.	CUM	884.40
0309	Providing hollow block masonry in cement mortar 1:5 using hollow block of sizes 400 x 200 x 200 mm / 400 x 150 x 200 mm / 400 x 100 x 200 mm or thereabouts of approved good quality including simultaneous flush pointing, all as per standard specification. Rate includes cost of hollow blocks, conveying, leading, loading, unloading, labour, incidentals etc., complete. Upto 4.50 m height from plinth level. CEMENT CONSUMPTION 23.77 K.G/CUM	CUM	3111.15
0310	Brick work with F.P.S bricks (second class ground moulded chamber bricks) of class designation 50/75 in foundation and plinth in:		
A	Cement mortar 1:3 CEMENT CONSUMPTION 127.50 K.G/CUM	CUM	3725.30
B	Cement mortar 1:4 CEMENT CONSUMPTION 95.00 K.G/CUM	CUM	3721.90
C	Cement mortar 1:5	CUM	3720.10

Item No.	Description	Unit	Rate (Rs.P)
	CEMENT CONSUMPTION 77.50 K.G/CUM		
D	Cement mortar 1:6	CUM	3718.50
	CEMENT CONSUMPTION 62.50 K.G/CUM		
0311	Brick work with modular bricks (second class table moulded chamber bricks) of class designation 50/75 in foundation and plinth in:		
A	Cement mortar 1:3	CUM	3899.00
	CEMENT CONSUMPTION 112.20 K.G/CUM		
B	Cement mortar 1:4	CUM	3896.05
	CEMENT CONSUMPTION 83.60 K.G/CUM		
C	Cement mortar 1:5	CUM	3894.45
	CEMENT CONSUMPTION 68.20 K.G/CUM		
D	Cement mortar 1:6	CUM	3893.05
	CEMENT CONSUMPTION 55.00 K.G/CUM		
0312	Extra for Brick work in superstructure above plinth upto floor three level in all shapes and sizes.	CUM	271.25
0313	Extra for brick work with bricks curved on plan upto a mean radius not exceeding 6 metre.	CUM	473.90
0314	Extra charges for providing half brick masonry, brick on edge walls, fins, balustrade etc. over and above the brick work rates of 0310 & 0311.	CUM	297.60
0315	Honey-comb brick work 10 / 11.40 cm thick with FPS bricks of class designation 50 in cement mortar 1:4.	SQM	314.15
	CEMENT CONSUMPTION 6.56 K.G/CUM		
0316	Extra for laying brick work in or under foul position.	CUM	125.20
0317	Providing and filling with 20 mm brick jelly including filling the voids (max.of 10%) with river sand and compacted well with wooden hammer etc. complete.	CUM	687.50
0318	Rectifying the wall cracks by chipping off the existing plastered surfaces to the required width, depth and applying cement slurry in the cracks to the required depth, making good all damages and finishing to match with the existing one by plastering with C.M 1:5, 12/15mm thick and a coat of white wash / snowcem / distemper etc. as the case may be.	SQM	93.30
0319	Rectifying the wall cracks by chipping off the existing plastered surfaces to the required width, depth and applying cement slurry in the cracks to the required depth, making good all damages, providing chickenmesh and finishing to match with the existing one by plastering with C.M 1:5, 12/15mm thick and a coat of white wash / snowcem / distemper etc. as the case may be.	SQM	133.70

Item No.	Description	Unit	Rate (Rs.P)
0320	Brick work with mechanized autoclaved fly ash lime bricks made up of fly ash, lime, gypsum and coarse sand / stone dust to size 230 mm x 110 mm x 70 mm or thereabouts confirming to IS 12894 of class designation 50 (min) in foundation, plinth and superstructure above plinth up to floor V level as per standard specifications and instructions of Engineer in charge In cement mortar 1:5 CEMENT CONSUMPTION 77.50 K.G/CUM	CUM	4320.70
0321	Brick work with non modular fly ash lime bricks (FALG Bricks) conforming to IS:12894, class designation 10 average compressive strength in foundation, plinth and superstructure above plinth up to floor V level as per standard specifications and instructions of Engineer in charge In cement mortar 1:5 CEMENT CONSUMPTION 95.00 K.G/CUM	CUM	4160.00

Item No.	Description	Unit	Rate (Rs.P)
IV - WOOD WORKS			
0401	Providing best wooden frames for doors, windows, ventilators and other frames, wrought framed and fixed in position. All as per standard specifications and drawings. Rate includes cost of wood, holdfasts, other materials, labour etc. complete.		
A	In Teak wood	CUM	109029.20
B	In Country wood	CUM	46085.35
0402	Providing best wooden frames for false ceiling, partitions etc. sawn and put up in position. All as per standard specifications and drawings. Rate includes cost of wood, M.S suspenders, screws, nails, other materials involved, labour, etc. complete.		
A	In Teak wood	CUM	113394.25
B	In Country wood	CUM	38851.80
0403	Labour charges for wrought and put up in position for all kinds of frames including fixing of holdfasts etc. complete. Rate excludes cost of wood and holdfasts.	CUM	9765.45
0404	Manufacture, supply and fixing best wooden door with frames and shutters comprising of fully panelled shutter of 35 mm thick and frame of size 95 x 70 mm including cost of holdfasts but excluding cost of furniture fittings & fitting charges.		
A	In Teak wood	SQM	4807.75
B	In Country wood	SQM	2257.90
0405	Manufacture, supply and fixing in position of 35 mm thick fully panelled best wooden door shutters. All as per standard specifications & drawings. (Excluding door frame) Rate excludes furniture fittings.		
A	In Teak wood (single leaved shutter)	SQM	3375.90
B	In Teak wood (double leaved shutter)	SQM	3280.95
C	In Country wood (single leaved shutter)	SQM	1583.15
D	In Country wood (double leaved shutter)	SQM	1552.20
0406	Supply and fixing in position of 38/40mm thick best quality flush shutters solid core type of approved quality with formaldehyde bonded teak ply (both faces) and with teak wood internal lippings etc., complete all as per drawings and standard specifications but excluding cost of frame and furniture fittings. (Area of shutter only to be measured)		
A	Single leaved shutter	SQM	3084.80
B	Double leaved shutter	SQM	3244.10

Item No.	Description	Unit	Rate (Rs.P)
0407	Manufacture, supply and fixing in position of G.I sheet single leaved door with best country wood frame alround using 75 x 35 mm scantlings, including horizontal member of 75 x 35 mm at 600 mm c/c with 1.20 to 1.25 mm thick GI plain sheet on one side including sizing, fixing, cost of oxidised iron hinges, aluminium tower bolts, aluminium handles etc., all as per standard specifications & drawings.	SQM	1294.80
0408	Manufacture, supply and fixing double leaved wooden window with best wood and type of shutters given below with wooden frames of size 95 x 70 mm including sizing and fixing of 12/16 mm dia M.S rods and holdfasts but excluding cost of M.S rods, furniture fittings etc. complete.		
A	In Teak wood. 35 mm thick shutter with 4 mm plain glass panes.	SQM	6139.95
B	In Teak wood. 35 mm thick shutter with 4 mm pin headed glass panes.	SQM	6102.45
C	In Teak wood. 35 mm thick shutter with 3 mm pin headed glass panes.	SQM	6113.55
D	In Teak wood. 35 mm thick shutter with 16 mm teak panels.	SQM	6670.65
E	In Teak wood. 35 mm thick shutter with partly panelled and partly glazed. (16 mm panels and 4 mm plain glass panes)	SQM	6437.80
F	In Country wood. 35 mm thick shutter with 4 mm plain glass panes.	SQM	3034.10
G	In Country wood. 35 mm thick shutter with 4 mm pin headed glass panes.	SQM	2996.60
H	In Country wood. 35 mm thick shutter with 3 mm pin headed glass panes.	SQM	3007.70
I	In Country wood. 35 mm thick shutter with 16 mm country wood panels.	SQM	3166.70
J	In Country wood. 35 mm thick shutter with partly panelled and partly glazed. (16 mm country wood panels and 4 mm plain glass panes)	SQM	3104.45
0409	Manufacture, supply and fixing in position of double leaved best wooden window shutters using 70 x 35 mm styles and rails, all as given below. All as per standard specifications & drawings. (<u>Excluding window frame</u>) Rate excludes window frame and furniture fittings.		
A	In Teak wood. 35 mm thick shutter with 4 mm plain glass panes.	SQM	3063.75
B	In Teak wood. 35 mm thick shutter with 4 mm pin headed glass panes.	SQM	3012.70
C	In Teak wood. 35 mm thick shutter with 3 mm pin headed glass panes.	SQM	3027.80
D	In Teak wood. 35 mm thick shutter with 16 mm teak panels.	SQM	3786.50
E	In Teak wood. 35 mm thick shutter with partly panelled and partly glazed. (16 mm teak wood panels and 4 mm plain glass panes)	SQM	3469.40
F	In Country wood. 35 mm thick shutter with 4 mm plain glass panes.	SQM	1824.45
G	In Country wood. 35 mm thick shutter with 4 mm pin headed glass panes.	SQM	1773.40

Item No.	Description	Unit	Rate (Rs.P)
H	In Country wood. 35 mm thick shutter with 3 mm pin headed glass panes.	SQM	1788.50
I	In Country wood. 35 mm thick shutter with 16 mm country wood panels.	SQM	2005.00
J	In Country wood. 35 mm thick shutter with partly panelled and partly glazed. (16 mm country wood panels and 4 mm plain glass panes)	SQM	1920.25
0410	Manufacture, supply and fixing fully glazed swing type ventilator using best wooden frame of size 95 x 70 mm, wooden shutter of thickness 35 mm with glass panes including sizing and fixing 16mm dia. M.S. rods but excluding cost of M.S. rods, holdfasts and furniture fittings. <u>(Excluding bottom frame for fixing over doors and windows.)</u>		
A	In Teak wood with 4 mm plain glass panes for shutter.	SQM	4900.65
B	In Teak wood with 3 mm pin headed glass panes for shutter.	SQM	4868.25
C	In Country wood with 4 mm plain glass panes for shutter.	SQM	2419.10
D	In Country wood with 3 mm pin headed glass panes for shutter.	SQM	2386.70
0411	Manufacture, supply and fixing fully glazed swing type ventilator using best wooden frame of size 95 x 70 mm, wooden shutter of thickness 35 mm with glass panes including sizing and fixing 16mm dia. M.S. rods but excluding cost of M.S. rods, holdfasts and furniture fittings.		
A	In Teak wood with 4 mm plain glass panes for shutter.	SQM	5584.50
B	In Teak wood with 3 mm pin headed glass panes for shutter.	SQM	5556.00
C	In Country wood with 4 mm plain glass panes for shutter.	SQM	2647.55
D	In Country wood with 3 mm pin headed glass panes for shutter.	SQM	2619.05
0412	Manufacture, supply and fixing in position of fully glazed fixed type louvered ventilator using best wooden frame of size 75 x 50 mm and using 4 mm thick plain glass panes for louvers, all as per drawings and standard specifications. Rate includes supply and fixing of MS holdfasts.		
A	In Teak wood	SQM	4280.55
B	In Country wood	SQM	2064.20
0413	Manufacture, supply and fixing in position of fully glazed shutter in best wooden frame of 35 mm thick for ventilator. Rate excludes ventilator frame and furniture fittings.		
A	In Teak wood with 4 mm plain glass panes for shutter.	SQM	2290.15
B	In Teak wood with 3 mm pin headed glass panes for shutter.	SQM	2246.05
C	In Country wood with 4 mm plain glass panes for shutter.	SQM	1442.40
D	In Country wood with 3 mm pin headed glass panes for shutter.	SQM	1398.35

Item No.	Description	Unit	Rate (Rs.P)
0414	Labour charges for manufacturing the following wood work items either in teak or country wood and fixing in proper position at site of work. All as per standard specifications and drawings. Rate excludes cost of wood, furniture fittings and its fitting charges.		
A	Fully panelled door shutter / window shutter (excluding door / window frame)	SQM	580.00
B	Partly glazed and partly panelled door shutter / window shutter/ fully glazed window shutter (excluding door / window frame)	SQM	535.70
C	Fully glazed shutter/shutter with frame for ventilator	SQM	493.35
0415	Labour charges for fixing doors, windows and ventilators including frames and shutters in position etc. complete.(wood or steel)	SQM	118.90
0416	Labour charges for fixing the following in proper position.		
A	Shutter only for doors, windows, ventilators etc.	SQM	23.80
B	Frame only for doors, windows, ventilators etc.	EACH	171.25
0417	Cutting to size and fixing M.S rods/bars in window and ventilator frames and other petty works. (labour only)	K.G	12.30
0418	Supply and fixing M.S grills for windows, ventilators and also wherever necessary including a priming coat. All according to our design and specification.	K.G	58.20
0419	Supply of MS round or square bars at site of work for windows, ventilators, other petty works etc.	K.G	49.50
0420	Manufacture, supply and fixing in position of cupboard shutters with best teakwood frame of size 100 x 35 mm and 25 mm thick best quality prelaminated particle board (exterior grade) as flush shutters etc., complete, all as per standard specifications and drawings. Rate includes holdfasts but excludes furniture fittings.	SQM	2214.00
0421	Manufacture, supply and fixing in position of fly proof shutters with best teakwood frame of size 75 x 25 mm and 20 mm thick shutters using 50 x 20 mm teakwood styles and rails including supply and fixing of best quality galvanised wire mesh of average width of aperture 1.4 mm and nominal dia of wire 0.63 mm including cost of holdfasts, oxidised iron butt hinges and other fittings of anodised aluminium including providing locking arrangements etc., complete, all as per standard specifications.	SQM	2248.65
0422	Providing and fixing best teak wood of 12 mm thick and 150 mm wide for pelmet of doors and windows with necessary provision for fixing curtain rod. Rate excludes curtain rod. (Only horizontal length between supports will be measured and paid)	RM	446.10

Item No.	Description	Unit	Rate (Rs.P)
0423	Providing and fixing prelaminated particle board (exterior grade) of approved brand and quality 12 mm thick and 150 mm wide for pelmet of doors and windows with necessary provision for fixing curtain rod. Rate excludes curtain rod.(Only horizontal distance between supports will be measured and paid)	RM	302.35
0424	Providing and fixing curtain rods of the following. Rate includes cost of rods, cutting to required lengths, fixing in position etc. complete.		
A	MS pipe nickel plated 20 mm dia (HD) with nickel plated brackets.	RM	99.20
B	Anodised aluminium tube of 20 mm dia with suitable brackets.	RM	63.25
0425	Providing and fixing best teakwood beading of size 50 x 25 mm on walls including supply and fixing of hooks at required intervals etc., complete.	RM	84.75
0426	Supply and fixing mild steel balustrade of overall height 90 cm fabricated with 40 x 5 mm M.S. flats and 15 mm M.S. square bars painted with one coat of red oxide primer, including supply and fixing of best teak wood hand rail of size 75 x 75 mm at top finished smooth. All as per standard specifications & drawings.	RM	1577.15
0427	Supply & fixing the following furniture fittings of approved brand & quality (ISI marked) in the appropriate position of doors, windows, ventilators, cupboards etc. with appropriate screws, nails etc., all as per standard specifications & instructions of Engineer in charge.		
A	Hydraulic door closer - universal type (Medium duty)	EACH	1425.45
B	Hydraulic door closer - universal type (Heavy duty)	EACH	1507.00
C	Brass Mortice lock 100 mm, 6 levers and a pair of brass lever handles	EACH	492.40
D	D type Anodised Aluminium handle - 75 mm	EACH	20.90
E	D type Anodised Aluminium handle - 100 mm	EACH	31.90
F	D type Anodised Aluminium handle - 125 mm	EACH	35.75
G	250 x 12 mm Anodised Aluminium aldop	EACH	140.85
H	250 x 16 mm Anodised Aluminium aldop	EACH	170.50
I	300 x 16 mm Anodised Aluminium aldop	EACH	206.80
J	50 x 11/12 mm Anodized Aluminium tower bolt	EACH	32.90
K	75 x 11/12 mm Anodized Aluminium tower bolt	EACH	38.50
L	100 x 11/12 mm Anodized Aluminium tower bolt	EACH	47.30
M	150 x 11/12 mm Anodized Aluminium tower bolt	EACH	64.90

Item No.	Description	Unit	Rate (Rs.P)
N	200 x 11/12 mm Anodized Aluminium tower bolt	EACH	99.00
O	250 x 11/12 mm Anodized Aluminium tower bolt	EACH	143.00
P	300 x 11/12 mm Anodized Aluminium tower bolt	EACH	176.00
Q	50 mm oxidised iron butt hinges (Heavy duty)	EACH	10.45
R	125 mm oxidised iron butt hinges (Heavy duty)	EACH	22.55
S	150 mm oxidised iron butt hinges (Heavy duty)	EACH	43.45
T	125 mm oxidised iron parliamentary hinges (Heavy duty)	EACH	42.35
U	150 x100 mm oxidised iron parliamentary hinges (Heavy duty)	EACH	45.10
V	50 mm oxidised iron tower bolt (Heavy duty)	EACH	20.90
W	100 mm oxidised iron tower bolt (Heavy duty)	EACH	30.80
X	150 mm oxidised iron tower bolt (Heavy duty)	EACH	42.90
Y	250 mm oxidised iron tower bolt (Heavy duty)	EACH	60.50
Z	300 mm oxidised iron tower bolt (Heavy duty)	EACH	77.00
A1	250 x 16 mm oxidised iron Aldrop (Heavy duty)	EACH	126.50
B1	300 x 16 mm oxidised iron Aldrop (Heavy duty)	EACH	129.80
C1	200 mm brass iron hook and eye	EACH	72.60
D1	250 mm brass iron hook and eye	EACH	78.65
E1	Anodised aluminium Hanging type door stopper	EACH	31.90
F1	PTMT handle 125x34x24 mm	EACH	38.50
G1	PTMT handle 150x34x24 mm	EACH	42.90
H1	PTMT butt hinges 75x60x10 mm	EACH	57.20
I1	PTMT butt hinges 100x75x10 mm	EACH	72.60
J1	PTMT Tower bolt 152x42x18 mm	EACH	82.50
K1	PTMT Tower bolt 202x42x18 mm	EACH	99.00

Item No.	Description	Unit	Rate (Rs.P)
0428	Providing and fixing cupboard shutter 25 mm thick, melamine faced prelaminated with flat pressed three layer particle board conforming to IS:12823 exterior grade (Grade I Type II) having one side decorative lamination of approved shade and other side balancing lamination including II class teak wood lipping of 25 mm wide & 12 mm thick with necessary screws, nickel plated bright finished M.S piano hinges etc. complete.	SQM	1471.35
0429	Providing and fixing cupboard shutter 25 mm thick particle board with teak veneering on one side & commercial veneering on the other side conforming to IS:3087 exterior grade (Grade I) of approved make including II class teak wood lipping of 25 mm wide & 12 mm thick with necessary screws, nickel plated bright finished M.S piano hinges, etc. complete.	SQM	1350.35
0430	Providing and fixing factory made flush door shutter 30 mm thick made of prelaminated flat pressed three layer particle board conforming to IS:12823 exterior grade (Grade I Type II) having one side decorative lamination of approved shade and other side balancing lamination including II class teak wood lipping of 30 mm wide & 12mm thick with necessary screws, black enamelled M.S butt hinges, etc. complete.	SQM	1477.20
0431	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ± 1 mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineerin- charge		
	a Extruded section profile size 48x40 mm	RM	188.10
	b Extruded section profile size 42x50 mm.	RM	177.10
0432	Providing and fixing to existing door frames, 24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multichambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door shutter).	SQM	2500.60

Item No.	Description	Unit	Rate (Rs.P)
0433	Providing and fixing to existing door frames, 30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of uPVC hollow section of size 60x30 mm and wall thickness 2 mm (± 0.2 mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm (± 0.2 mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer -in-charge.	SQM	2610.55
0434	Providing and fixing to existing door frames, 25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762mm X 25 mm or less as per requirement with an average wall thickness of 1 mm (± 0.3 mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. An M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm (± 0.1 mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places.	SQM	2500.55
0435	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in-Charge.	RM	409.25

Item No.	Description	Unit	Rate (Rs.P)
0436	Providing and fixing factory made 30 mm thick door shutter made of solid PVC foam profile. The styles & rails shall be of size 75 mm x 30 mm having wall thickness 5 mm. The styles, top & bottom rails shall have one side wall thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power. The styles and rails shall be reinforced with M.S. tubes of size 33 mm x 17 mm x 1 mm, painted with primer, all four corners of reinforcement to be welded or sealed. Solid PVC extruded bidding (push fit type) will be set inside the styles and the rails with a cavity, to receive single piece extruded 5 mm PVC sheet as panel. The styles and rails will be mitred cut and joint with the help of PVC solvent cement & self driven self tapping screws. Single piece extruded solid PVC lock rail of size 100 mm x 30 mm with wall thickness 5 mm & 15 mm integrally extruded in the middle of the lock rail & fixed with styles with the help of PVC solvent cement & self driven self tapping screws of size 100 mm x 8 mm complete as per manufacturer's specifications and direction of Engineer-in-charge.		
	a Non decorative finish.	SQM	2482.30
	b Decorative finish (both side wood grained finish).	SQM	3078.50
0437	Removing the damaged door shutter from door frame in buildings, conveying the same to site of work, dismantling the damaged bottom rail and other required portions, supply and replacing with suitable bottom rail of best country wood of maximum size 200x35 mm & length 775 mm and <u>covered with supply & fixing of 28 gauge G.I sheet at the bottom on both sides of shutter</u> to a width & height of 775 mm & 900 mm respectively including cutting, sizing, finishing, conveying and refixing the finished door shutter in proper position in buildings, all as per instructions of Engineer in charge. Rate also includes cost of all accessories such as nails, screws, fevicol etc.	EACH	714.95
0438	Removing the existing partition with door carefully from its position without damaging any portion of the partition, handing over the reusable items to the departmental stores / stacking at site. All as per the instructions of Engineer-in-charge.		
	A Teakwood partition partly panelled and partly glazed	SQM	123.20
	B Teakwood / Aluminium partition panelled or glazed	SQM	148.10
0439	Conveying partition along with doors from departmental stores / stacks and fixing the same in position without damaging the frame work and glass. Rate includes cost of additional rubber gaskets, aluminium frame work and beading if required for fixing the glasses for panels rigidly in position, cost of all materials, labour, scaffolding, tools and plants and other incidentals etc. complete. All as per the instructions of Engineer-in-charge.		
	A Teakwood partly panelled and partly glazed.	SQM	651.45
	B Teakwood / Aluminium partition Panelled / Glazed	SQM	292.35

Item No.	Description	Unit	Rate (Rs.P)
V - STEEL WORKS			
0501	Collection from BHEL stores and transporting the raw structural steel sections to the contractor's site fabrication shop, fabrication of steel work including all materials going into the process of fabrication and forming an integral part of the steel work together with all shop welding including using low hydrogen electrode wherever necessary, all as per drawings and standard specifications. Rate includes delivery of fabricated steel work at erection site ready for erection, including preparation and supply of drawing office despatch list for BHEL's approval, all charges for packing (wherever called for) handling, conveying, stacking and all other incidental charges both for raw materials and fabricated steel works. Rate excludes raw structural steel sections which will be supplied by BHEL at stores at free of cost.	M.T	12371.75
0502	Collection from BHEL stores and transporting the raw structural steel sections to the contractor's site fabrication shop, fabrication of steel work including all materials going into the process of fabrication and forming an integral part of the steel work together with all shop welding including using low hydrogen electrode wherever necessary, all as per drawings and standard specifications. Rate includes delivery of fabricated steel work at erection site ready for erection, including preparation and supply of drawing office despatch list for BHEL's approval, all charges for packing (wherever called for) handling, conveying, stacking and all other incidental charges both for raw materials and fabricated steel works. Rate excludes raw structural steel sections and all consumables which will be supplied by BHEL at stores at free of cost.	M.T	9505.75
0503	Collection from BHEL stores and transporting ERW/seamless steel tubes with necessary plates to the contractor's site fabrication shop, fabrication of ERW/seamless steel tubes with necessary plates etc. instead of structural steel sections for columns, trusses, purlins, tie runners etc. (all tubular) including all materials going into the process of fabrication and forming an integral part of the steel work together with all shop welding including using low hydrogen electrode wherever necessary, all as per drawings and standard specifications. Rate includes delivery of fabricated steel work at erection site ready for erection, including preparation and supply of drawing office despatch list for BHEL's approval, all charges for packing (wherever called for) handling, conveying, stacking and all other incidental charges both for raw materials and fabricated steel works. Rate excludes ERW/seamless steel tubes, plates etc. which will be supplied by BHEL at stores at free of cost.	M.T	13608.90

Item No.	Description	Unit	Rate (Rs.P)
0504	Collection from BHEL stores and transporting ERW/seamless steel tubes with necessary plates to the contractor's site fabrication shop, fabrication of ERW/seamless steel tubes with necessary plates etc. instead of structural steel sections for columns, trusses, purlins, tie runners etc. (all tubular) including all materials going into the process of fabrication and forming an integral part of the steel work together with all shop welding including using low hydrogen electrode wherever necessary, all as per drawings and standard specifications. Rate includes delivery of fabricated steel work at erection site ready for erection, including preparation and supply of drawing office despatch list for BHEL's approval, all charges for packing (wherever called for) handling, conveying, stacking and all other incidental charges both for raw materials and fabricated steel works. Rate excludes ERW/seamless steel tubes, plates etc. and all consumables which will be supplied by BHEL at stores at free of cost.	M.T	10456.30
0505	Carrying from stacks at erection site to erection positions and erection of fabricated steel work including all handling, conveying, assembling, hoisting, erecting in position and site welding and or bolting, alignment of structures, all as per drawings and standard specifications. Rate includes bolts & nuts, hire for welding tools and plants, labour etc., but excluding cost of fabricated components. If required, power will be given free of cost by BHEL. Weight of fasteners will not be accounted for payment.	M.T	6667.90
0506	Carrying from stacks at erection site to erection positions and erection of fabricated steel work including all handling, conveying, assembling, hoisting, erecting in position and site welding and or bolting, alignment of structures, all as per drawings and standard specifications. Rate includes hire for welding tools and plants, labour etc., but excluding all consumables such as electrodes, bolts, nuts, washers etc. which will be supplied by BHEL at Stores at free of cost and cost of fabricated components. If required, power will be given free of cost by BHEL. Weight of fasteners will not be accounted for payment.	M.T	6364.10
0507	Fabrication and fixing in position of M.S frames for cable trench cover slabs in required sizes using M.S angles, plates, flats etc., which will be supplied by BHEL at Stores at free of cost, all as per drawings and instructions of Engineer-in-charge. Rate includes conveyance of raw materials from BHEL stores to contractors fabrication shop, fabrication charges including cutting, welding, preparing and supplying DODL's for BHEL's approval, supply of fabricated frames at site of work, fixing in proper position etc., complete.	M.T	7550.25

Item No.	Description	Unit	Rate (Rs.P)
0508	Fabrication and fixing in position of M.S frames for cable trench cover slabs in required sizes using M.S angles, plates, flats etc., which will be supplied by BHEL at Stores at free of cost, all as per drawings and instructions of Engineer-in-charge. Rate includes conveyance of raw materials from BHEL stores to contractors fabrication shop, fabrication charges including cutting, welding, preparing and supplying DODL's for BHEL's approval, supply of fabricated frames at site of work, fixing in proper position etc., complete but excludes all consumables such as electrodes which will be supplied by BHEL at Stores at free of cost.	M.T	6910.30
0509	Conveying from BHEL stores to site of work cutting to size and fixing in position of 75 x 75 x 6 mm or other size M.S angles in required lengths for forming the rebates in cable trench (for fixing the cable trench cover slabs) including welding in position of dowel bars to the angles and embedding the angle iron frame in the flooring concrete in proper line and level, all as per drawings and instructions of Engineer-in-charge. Rate includes loading, unloading, handling, welding and other incidental charges, preparing and supplying of DODL's for approval etc. complete, but excluding cost of M.S angles and dowel bars which will be supplied by BHEL at Stores at free of cost.	M.T	8041.55
0510	Same as 0509 but excluding all consumables which will be supplied by BHEL at Stores at free of cost. (Also excludes energy charges)	M.T	7397.25
0511	Fabrication and fixing in position of M.S inserts out of M.S plates, flats, rounds, angles etc., including necessary lugs made of rounds or flats, sizing and cutting to required lengths, threading, bolting and welding as required and placing the same in position in both plain and reinforced cement concrete members, including adjusting the shuttering if necessary, tying and holding to correct level and line. Rate includes cost of all materials, labour etc., complete but excluding raw steel sections which will be supplied by BHEL at Stores at free of cost.	K.G	28.2
0512	Fabrication and fixing in position of M.S inserts out of M.S plates, flats, rounds, angles etc., including necessary lugs made of rounds or flats, sizing and cutting to required lengths, threading, bolting and welding as required and placing the same in position in both plain and reinforced cement concrete members, including adjusting the shuttering if necessary, tying and holding to correct level and line. Rate includes cost of all materials, labour etc., complete but excluding raw steel sections and all consumables which will be supplied by BHEL at Stores at free of cost.	K.G	26.8

Item No.	Description	Unit	Rate (Rs.P)
0513	Fabrication of various sizes steel partitions (not exceeding 4.00 x 2.40 m) using M.S angles for outer frame work and flats for vertical and horizontal stiffeners etc. Bottom panels are to be welded with M.S sheets for a height of one metre (approx.) and top panels with BRC fabric (75 x 25 mm) All as per drawings and as directed by the Engineer-in-charge. Rate includes providing necessary holes for inter connections and also base plates for fixing on the floor, all labour, electrodes, conveyance of raw materials from stores to fabrication site, etc. complete, but excluding cost of steel sections and BRC fabrics which will be supplied by BHEL at Stores at free of cost.	SQM	247.95
0514	Fabrication of various sizes steel partitions (not exceeding 4.00 x 2.40 m) using M.S angles for outer frame work and flats for vertical and horizontal stiffeners etc. Bottom panels are to be welded with M.S sheets for a height of one metre (approx.) and top panels with BRC fabric (75 x 25 mm) All as per drawings and as directed by the Engineer-in-charge. Rate includes providing necessary holes for inter connections and also base plates for fixing on the floor, all labour, electrodes, conveyance of raw materials from stores to fabrication site, etc. complete, but excluding cost of steel sections, BRC fabrics and all consumables which will be supplied by BHEL at Stores at free of cost.	SQM	216.65
0515	Erection of fabricated steel partitions including handling, leading, assembling, erecting in position, site bolting, revetting, site welding etc., wherever required including cost of drilling holes in concrete floor and grouting bolts for fixing the base plates of steel partitions wherever necessary, all as per instructions of Engineer in charge. Rate includes all labour, incidentals etc., complete.	SQM	131.6
0516	Erection of fabricated steel partitions including handling, leading, assembling, erecting in position, site bolting, revetting, site welding etc., wherever required including cost of drilling holes in concrete floor and grouting bolts for fixing the base plates of steel partitions wherever necessary, all as per instructions of Engineer in charge. Rate includes all labour, incidentals etc., complete but excluding all consumables which will be supplied by BHEL at Stores at free of cost.	SQM	124.55
0517	Fabrication of S.S tubes / ERW tubes to the design specified for railing. Rate includes conveyance of raw materials and fabricated railings, fabrication charges, preparation of DODLs, incidentals etc., complete. Tubes and other steel materials required for the work will be supplied by BHEL at Stores at free of cost.	M.T	12371.75
0518	Carrying from stacks to site of work and fixing in position in line, level and alignment of fabricated railings at places as directed by the Engineer-in-charge. Excavation for pits and concrete bed will be paid separately under relevant items.	M.T	4857.50

Item No.	Description	Unit	Rate (Rs.P)
0519	Providing holding down bolts of required sizes with nuts, washers etc. and fixing in proper level, line, alignment etc., all as per drawings and instructions of Engineer-in-charge. Rate includes cost of steel materials, bolts, nuts, washers, fabrication and machining charges, fixing, all labour etc. complete.		
A	In M.S rounds including washer plates.	KG	65.80
B	Bolts including nuts & washers etc.complete in all sizes & lengths.	KG	85.15
0520	Conveying all types & sizes of holding down bolts, nuts, washers etc. from BHEL Stores to site of work and fixing in proper level, line, alignment etc., all as per drawings and instructions of Engineer-in-charge. Rate excludes cost of bolts, nuts, washers etc.	KG	23.55
0521	Providing and fixing in position of M.S rivets of required sizes at site of work.	KG	116.55
0522	Welding by gas plant or electric plant including transportation of plant to site of work, cost of consumables, labour charges etc. complete.	CM LENGTH	2.65
0523	Tightening of loosened bolts & nuts of all connections of steel structures such as columns, truss girders, trusses, crane girders, bracings, purlins etc. of buildings at all heights. Rate includes drilling holes wherever required, providing/replacement of bolts and nuts, (excluding cost of bolts and nuts), labour etc. Payment will be made based on the corresponding floor area of the buildings.	SQM	12.60
0524	Labour charges for making and fixing M.S fan hook of standard shape using M.S bar bent to shape with hooked ends in RCC slabs during laying including painting the exposed portion etc. complete. M.S bar will be supplied by BHEL at Stores at free of cost.	EACH	26.60
0525	Labour charges for making and fixing M.S fan hook of standard shape using M.S bar bent to shape with hooked ends in existing RCC slabs including cutting chase and making good to match with the existing one and painting the exposed portion of the hook etc. complete. M.S bar will be supplied by BHEL at Stores at free of cost.	EACH	172.70
0526	Removing cobwebs from the structures of buildings at all heights including cleaning of roof walls, undersurface of A.C sheets etc, complete. Rate includes providing working platforms, ladder, safety nets, labour etc, complete. Payment will be made based on the floor area of the buildings.	SQM	5.20

Item No.	Description	Unit	Rate (Rs.P)
0527	Supply and fixing rolling shutters of approved make, made of 80 x1.25 mm M.S laths with 1.25 mm thick top cover interlocked together through their entire length and joined together at end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation etc.complete including cost of providing and fixing necessary 27.5 cm long wire springs grade No.2 and M.S top cover of required thickness for rolling shutter.	SQM	1912.65
0528	Providing and fixing ball bearing for rolling shutters.	EACH	413.30
0529	Extra for providing mechanical device chain and crank operation for operating rolling shutters.		
A	Exceeding 10.00 SQM and upto 16.80 SQM in area.	SQM	630.25
B	Exceeding 16.80 SQM in area.	SQM	663.25
0530	Conveying from BHEL stores to site of work and fixing rolling shutters in proper position, all as directed by the Engineer-in-charge. Rate includes loading, leading, unloading and fixing of roller shutter including side brackets, gear box, lubricating the bearings etc., complete and making it fit for operation. Labour charges only.	SQM	276.60
0531	Providing and fixing in position of collapsible steel shutters with vertical channels 20 x 10 x 2 mm and braced with flat iron diagonals 20 x 5 mm size with top and bottom rail of T-iron 40 x 40 x 6 mm with 40 mm dia steel pulleys complete with bolts, nuts, locking arrangements, stoppers, handles, including applying a priming coat of approved steel primer.	SQM	4344.00
0532	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side / top / centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer , but excluding the cost of other fittings, complete all as per approved design. Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size).	SQM	1154.70
0533	Fixing standard steel glazed doors, windows and ventilators in walls with 15 x 3 mm lugs 10 cm long embedded in cement concrete blocks 15 x10 x10 cm of 1:3:6 or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including fixing of glass panes with glazing clips and special metal-sash putty or metal beading with screws. (Only steel doors, windows and ventilators with lugs, glass panes cut to size and glazing clips or metal beading with screws shall be supplied by BHEL at Stores at free of cost)	SQM	271.25

Item No.	Description	Unit	Rate (Rs.P)
0534	Supply and fixing of glass panes with putty, glazing clips etc. for steel doors, windows, ventilators etc. Rate includes removal of broken glasses and old putty.		
A	3 mm pin headed glass panes.	SQM	600.75
B	4 mm plain glass panes.	SQM	665.80
0535	Providing putty for glass panes. Rate includes removal of old putty, supply & applying new putty in a proper manner & required quantity at site of work, all as per instructions of Engineer in charge.	RM	19.30
0536	Providing and fixing in proper position of fan hook using 10 mm FSICHER SLM-N heavy duty ANCHOR fastener with clamp & bolts in the existing RCC roof slab. Rate includes cost of fan hook (fastener), drilling with power drilling machine to the required dia & depth in the RCC roof slab, inserting and fixing the fan hook in proper position, all labour and all other incidentals etc. complete.	EACH	390.50
0537	Providing and fixing oxidised M.S handle with necessary screws etc.complete.		
A	100 mm size	EACH	22.45
B	125 mm size	EACH	25.95
0538	Providing polyester sun control film of approved brand (GARWARE or equivalent) and shade to glazed panels in doors / windows / ventilators / partitions etc.with proper adhesive, all after removing the existing damaged film if available etc. complete. All as per instructions of Engineer in charge. Rate includes cost of all materials, scaffolding charges, labour, all other incidentals etc., complete.		
A	Non reflective Type - Regular grade	SQM	420.15
B	Non reflective Type - Premium Grade with Scratch Resisting Coating	SQM	1011.95
0539	Supply of Mild Steel sections such as channels, angles, T sections, flats, sheets, square bars, rods, tubes etc.at site of work and fabrication of steel work for gates, Y angles, purlins, trusses, any other small structures etc., all as per required design & drawing and erecting/fixing the same in proper alignment/position, level including site welding and or bolting/rivetting with necessary accessories such as keelmulai, keelpattai, hinges, tower bolts, aldrops etc.complete. Rate also includes providing two coats of synthetic enamel paint over one coat of red oxide primer. Payment will be made for the entire finished item of work.	MT	72332.55

Item No.	Description	Unit	Rate (Rs.P)
0540	Providing and fixing factory made ISI marked steel Paneled doors, windows and ventilators, side / top / centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer , but excluding the cost of other fittings, complete all as per approved design.,and providing and fixing 18 gauge MS sheets for panes, handles, peg stays, friction throw hinges etc., complete including a priming coat of approved steel primer. Rate includes dismantling the masonry and making good all damages etc., complete.	SQM	2139.95
0541	Conveying the Gantrail MKVII 122 mm wide steel reinforced vulcanized rubber pad from BHEL stores to site of work and lifting the same to EOT crane girder level, laying, aligning and fixing in proper position along the top of crane girder at 8.00 m from floor level including sizing and correct to alignment by using chisel and filing the edges to match with the adjoining pad. Rate includes all labour, tools & plants and all other incidentals etc., complete.	R.M	91.50
0542	Conveying the Gantrail weldable base type 9116/10/32 adjustable crane rail clip including captive bolts, nuts, washers and integral vulcanized rubber nose from BHEL stores to site of work, lifting to EOT crane girder level and fixing them by welding using special electrodes to hold the EOT crane rail in correct level and alignment. Rate includes all labour, scaffolding, tools & plants, tightening the clamps after rail erection etc., complete and all other incidentals. Special electrodes and power will be supplied by BHEL at free of cost.	SET	137.25
0543	Supply, drilling and driving 10/12 mm dia anchor fasteners of length not exceeding 125 mm at 500 mm both sides of crane rail having tensile & shear capacity of minimum 1.50 MT into the RCC crane girder as indicated in the drawing to secure cover plate rigidly with the crane girder. Rate includes cost of fasteners, labour for drilling holes, etc., complete, all as per the instructions of Engineer-in-charge. Rate also includes provision for wastage of fasteners or repeat work in driving of fasteners due to infringement of reinforcement if any and also filling up the unwanted holes drilled on concrete girder due to repeat work with suitable high strength non-shrink cement.	SET	186.90
0544	Removing the old rigidly welded rail clamp and bolt by gauging the welded joint without damaging the bolt. Rate includes labour, consumables, tools & plants and making good all damages by welding and grinding the top surfaces of girder.	SET	52.15
0545	Lifting the gantry rails up to 200 mm and packing the rails/sleepers with ballast metal /shim. Plates true to span, alignment and level including oiling and tightening the fish bolts and sleepers, fasteners and fixing new fasteners for the missing and sectioning the formation to the required profile, all as per the instructions of Engineer-in-charge. (Ballast metal, shim, oil, new fasteners etc. will be supplied by BHEL at stores at free of cost) Payment will be made per metre length of single rail.	RM	40.05

Item No.	Description	Unit	Rate (Rs.P)
0546	Providing fibre glass reinforcement with UV resistant polyurethane compound lining, to a minimum thickness of 3 mm on newly fabricated M.S gutters at floor level and jointing and filling the gap finishing etc., after erection at a height ranging from 12-24m from FFL, and making the gutters leak proof as per instructions of Engineer-in-charge. The work consists of thoroughly cleaning the surface of the gutters and applying an undercoat of resin over which the alternate layers(min. three layers) of fibre strand & resin to the required thickness before applying polyurethane compound coating at top with one coat of Gel coat with surface mat and polish to provide even surface, preparation of surface with fibre reinforced plastic with 50 microns thick polyurethane lining, testing, etc., complete all as per instruction of Engineer-in-charge. Rate quoted shall also include cost of labour, material with all taxes, scaffolding charges, if any and all other incidental charges etc., complete.	SQM	956.40
0547	Providing fibre glass reinforcement with UV resistant polyurethane compound lining, to a minimum thickness of 3 mm on M.S gutters of factory buildings at a height ranging from 12-24m from FFL, and making the gutters leak proof as per instructions of Engineer-in-charge. The work consists of removing the adjoining North light Glazing, Roofing Sheets and existing paint in the gutter completely and thoroughly cleaning the surface including the damaged portion of the gutters and applying an undercoat of resin over which the alternate layers(min. three layers) of fibre strand & resin to the required thickness before applying polyurethane compound coating at top with one coat of Gel coat with surface mat and polish to provide even surface, preparation of surface with fibre reinforced plastic with 50 microns thick polyurethane lining, testing, refixing the removed north light glazing and Roofing sheets and also filling with fibre reinforcement prior to lining in areas badly worn out both in the bottom as well as sides of gutters etc., complete all as per instructions of Engineer- in –charge. Rate quoted shall also include cost of labour, material with all taxes, scaffolding charges, if any and all other incidental charges etc., complete (The Contractor is required to take all safety precautions during working and obtain work permit from the concerned departments. Working hour is restricted as it depends on shutdown by production department that may not be more than 4 hours at a stretch and only intermittent).	SQM	1259.20
0548	Supplying and laying rubberized and coloured (for 5mm thick layer) inter locking paver block of 50mm thickness M25 grade in flooring / pavement to take care of vehicular movements with proper line, level, alignment etc., all as per standard specification and instructions of Engineer-in-charge. The rate included cost of material, transportation, loading, unloading at site, labour for spreading and laying of paver block etc., complete over the sand bed of required thickness which will be paid under separate item.	SQM	894.40

Item No.	Description	Unit	Rate (Rs.P)
0549	Welding of 90 Lbs/CR 80 rail joints erected already in alignment in crane girders/gantry girder upto +14.00 meter including edge preparation, preheating welding using special type electrode (Elec grade 11018). The rate includes all labour charges, electrodes and incidental charges for dismantling the rail from its original position, edge preparation, preheating, welding, post heating as per the instructions of BHEL Engineer in charge. Also include cost of consumables for pre heating and post heating and labour charges for re fixing the 90 Lbs/CR 80 rail to alignment, level after welding etc., complete.	JOINT	2170.30
0550	Renewing the bottom rail and/or top rubber of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer. Rate includes removing the collapsible gate from its position including the frames, replacing the wornout portions wherever necessary with suitable new M.S Tee sections etc. and refixing the collapsible gate and making good the damages in floor, wall etc.with cement concrete etc.complete. Payment will be made only on weight basis for the replaced new M.S sections.	K.G	116.50
0551	Renewing wrought iron or M.S wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc.complete.		
	A Wheel 50 mm dia and below	EACH	113.65
	B Wheel above 50 mm dia	EACH	171.60
0552	Supply and fixing cup type rail clamp with fittings over the insert plate which is embedded in the concrete. Rate includes welding including cost of consumables, all labour and other incidentals etc. complete, all as per instructions of Engineer-in-charge.	EACH	252.45
0553	Collection from BHEL stores and transporting of rails CR 80/R 45 etc to the contractor's site fabrication shop, straightening the rails using Gim screw or any other equipments, preparation of edge for welding the rail joints as per drawing and erecting in position at all elevations (i.e, in floor or over the girders) using cup type rail clamps with fittings. The scope includes rail alignment after erection, fixing in position, welding the joints by using approved electrode (E 11018 for CR 80 & E7018 for R 45 rails), pre heating & post heating the joints, grinding the joints neatly etc as per drawings and instruction of Engineer in charge.Rate shall include cost of providing one coat of red oxide primer as per IS specification and supply of DODL's for BHEL approval in compact disc with two copies of print outs. Quoted rate shall also include cost of consumables, hire charges for tools and plants, labour and incidentals etc complete but exclude cost of rails which will be supplied by BHEL at free of cost.	MT	11500.00

Item No.	Description	Unit	Rate (Rs.P)
VI - FLOORING			
0601	Finishing the top of all floors with 20 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to 10 mm gauge hard broken granite stone chips and finishing the top surface smooth, rounding of corners, curing etc., complete, all as per standard specifications. (Ellis pattern I sort) Cement Consumption- 11.70 K.G /SQM	SQM	190.70
0602	Finishing the top of all floors with 20 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to 10 mm gauge hard broken granite stone chips including mixed well with red oxide powder of approved quality of weight equal to one tenth of the weight of cement used. and finishing the top surface smooth, rounding of corners, curing etc., complete, all as per standard specifications. (Ellis pattern I sort). Cement Consumption -11.70 K.G/SQM	SQM	383.75
0603	Finishing the top of all floors with 25 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to 10 mm gauge hard broken granite stone chips, finishing the surfaces smooth, rounding of corners, curing, providing borders etc., complete, all as per standard specifications. (Ellis pattern flooring) Consumption of cement -14.60 K.G/SQM	SQM	235.10
0604	Finishing the top of all floors with 25 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to 10 mm gauge hard broken granite stone chips including mixed well with red oxide powder of approved quality of weight equal to one tenth of the weight of cement used. , finishing the surfaces smooth, rounding of corners, curing, providing borders etc., complete, all as per standard specifications. (Ellis pattern flooring). Consumption of cement -14.60 K.G/SQM	SQM	476.00
0605	Providing red oxide skirting for walls, etc. with cement mortar 1:3, 12 mm thick, well mixed with red oxide powder of approved quality of 3.50 K.G per 50 K.G of cement used, finishing, polishing the surfaces smooth, curing etc., complete, all as per standard specifications. Consumption of cement - 7.35 K.G/SQM	SQM	161.45
0606	Flooring with reinforced cement concrete of mix 1:2:4 using 40 mm and down graded hard broken granite stone jelly for thickness varying from 100 to 500 mm laid in panels not exceeding 6 x 30 m between expansion joints, including necessary vibration using needle / board / screed vibrators, all as required including necessary shuttering, painting the sides with bitumen, but excluding fabrication charges for reinforcement, all as per standard specifications. Cement consumption - 320.00 K.G/CUM	CUM	1942.05

Item No.	Description	Unit	Rate (Rs.P)
0607	Floor finish with 40 mm thick granolithick flooring over the concrete base while it is wet for proper bonding, the bottom 25 mm thick consisting of one part of cement and one part of 6 mm gauge hard broken granite stone chips (the proportion being by volume) and the top 15 mm finished with hardening compound of proportion one part of hardonate (ironite or equivalent) four parts of cement and eight parts of 6 mm gauge blue granite stone chips (the proportion being by weight) including finishing and painting the sides with bitumen etc., complete, all as per standard specifications.	SQM	425.15
	Cement consumption - 40 K.G/SQM		
0608	Floor finish with 40 mm thick over concrete base while it is wet for proper bonding. 40 mm thick finish consists of one part of cement and one part of 6 mm gauge hard broken granite stone chips (the proportion being by volume) and finished smooth including painting the sides with bitumen etc., complete, all as per standard specifications.	SQM	333.70
	Cement consumption - 57.60 K.G/SQM		
0609	Providing, laying and finishing the top of floor / side walls with 20 mm thick mosaic tiles of approved make and quality over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm thick and tiles being joined, polished and finished smooth with necessary borders etc., complete including thorough cleaning of the surface before and after laying the tiles. All as per standard specifications. (Cost of tile shall include cost of cement for casting.)		
A	For gray colour Cement consumption - 12.90 K.G/SQM	SQM	472.70
B	For colours other than gray Cement consumption - 12.90 K.G/SQM	SQM	527.75
0610	Finishing the top of floors / sides of walls with insitu mosaic comprising of a bedding layer of cement mortar 1:4, 12 mm thick followed by 20 mm thick mosaic wearing layer comprising of cement and mosaic chips of 6 mm and down graded in proportion of 1:2, laid, polished and finished with necessary borders etc., complete including thorough cleaning the surfaces before and after laying the finish, all as per standard specifications.		
A	Gray colour Cement consumption - 5.11 K.G/SQM	SQM	465.55
B	For colours other than gray Cement consumption - 5.11 K.G/SQM	SQM	520.55
0611	Grinding and wax polishing of old mosaic floors, dado, skirting etc. in gray and all colours and finishing the surfaces smooth including filling the joints and voids by matching pigments, chips etc., complete, all as per standard specifications. Rate includes cost of materials, hire and running charges of machines, labour etc., complete.	SQM	77.25

Item No.	Description	Unit	Rate (Rs.P)
0612	Providing and laying Ceramic tiles of required size and minimum thickness of 6 mm in flooring, treads of steps and landings laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 10 mm thick cement mortar 1:3, finished with flush pointing in white cement etc.complete, all as per standard specifications.		
A	For Plain Ceramic tile of Size 305mm X 305mm X 6mm of all Colours Cement consumption - 9.42 K.G/SQM	SQM	1035.20
B	For Plain Ceramic tile of Size 200mm X 200mm X 6mm of all Colours Cement consumption - 9.42 K.G/SQM	SQM	1053.70
C	For First Quality Design Ceramic tile of Size 305mm X 305mm X 6mm of all Colours Cement consumption - 9.42 K.G/SQM	SQM	1215.40
D	For First Quality Design Ceramic tile of Size 200mm X 200mm X 6mm of all Colours Cement consumption - 9.42 K.G/SQM	SQM	1299.90
0613	Providing and laying minimum 5 mm thick ceramic glazed floor tiles of first quality approved make confirming to IS:15622 and in all colours of required sizes in flooring, treads of steps, landings etc., laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 12 mm thick cement mortar 1:3, finished with flush pointing in white cement using appropriate colour pigment etc. complete, all as per standard specifications. Cement consumption - 12.42 K.G/SQM	SQM	672.55
0614	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades as approved by Engineer-in- Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete Cement consumption - 12.42 K.G/SQM	SQM	672.55
0615	Providing and laying ceramic glazed floor tiles (of required thickness) of first quality approved make confirming to IS:15622 and in all colours of required sizes in flooring, treads of steps, landings etc., laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 20 mm thick cement mortar 1:4, finished with flush pointing in white cement using appropriate colour pigment etc. complete, all as per standard specifications. Cement consumption - 12.42 K.G/SQM	SQM	678.65

Item No.	Description	Unit	Rate (Rs.P)
0616	Providing and laying ceramic glazed wall tiles (of required thickness) of first quality of approved make confirming to IS:15622 and in all colours of required sizes in skirting, walls, risers of steps and dado laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 12 mm thick cement mortar 1:3 plaster and joined with white cement using appropriate colour pigment etc.complete, all as per standard specifications. Cement consumption - 12.42 K.G/SQM	SQM	745.80
0617	Fixing glazed/ceramic/vitrified floor tiles with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness.	SQM	367.60
0618	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications.		
A	Kota stone slabs 20 to 25 mm thick polished Cement consumption - 14.91 K.G/SQM	SQM	1151.40
B	Cuddappah slabs 20 to 25 mm thick single side polished Cement consumption - 14.91 K.G/SQM	SQM	879.20
C	Shahabad slabs 20 to 25 mm thick single side polished - Tandur Gray Cement consumption - 14.91 K.G/SQM	SQM	851.95
D	Shahabad slabs 20 to 25 mm thick single side polished - Tandur Green Cement consumption - 14.91 K.G/SQM	SQM	838.35
E	Marble slabs 16 to 18 mm thick, polished - Rajnagar plain white Cement consumption - 13.51 K.G/SQM	SQM	1219.90
F	Marble slabs 16 to 18 mm thick, polished - Green (Udaipur) colour Cement consumption - 13.51 K.G/SQM	SQM	1333.75
G	Marble slabs 16 to 18 mm thick, polished - Pink colour Cement consumption - 13.51 K.G/SQM	SQM	1276.85
H	Marble slabs 16 to 18 mm thick, polished - Black (Zebra/Galaxy) colour Cement consumption - 13.51 K.G/SQM	SQM	1093.40
I	Granite slabs 16 to 18 mm thick, polished - S.White Cement consumption - 13.51 K.G/SQM	SQM	1440.95
J	Granite slabs 16 to 18 mm thick, polished - Black (Andhra) Colour Cement consumption - 13.51 K.G/SQM	SQM	2298.45
K	Granite slabs 16 to 18 mm thick, polished - Gray Colour Cement consumption - 13.51 K.G/SQM	SQM	2026.20

Item No.	Description	Unit	Rate (Rs.P)
L	Granite slabs 16 to 18 mm thick, polished - Green Colour Cement consumption - 13.51 K.G/SQM	SQM	1958.15
M	Granite slabs 16 to 18 mm thick, polished - Sweet Green Colour Cement consumption - 13.51 K.G/SQM	SQM	2434.55
N	Granite slabs 16 to 18 mm thick, polished - Red (Gem) Colour Cement consumption - 13.51 K.G/SQM	SQM	1958.15
O	Granite slabs 16 to 18 mm thick, polished - Blue (Lavender) Colour Cement consumption - 13.51 K.G/SQM	SQM	2230.40
P	Granite slabs 16 to 18 mm thick, polished - Laga red Colour Cement consumption - 13.51 K.G/SQM	SQM	3659.60
Q	Granite slabs 16 to 18 mm thick, polished - Steel grey Colour Cement consumption - 13.51 K.G/SQM	SQM	1754.00
R	Vitrified Tiles of required thickness and 60 x 60 cm size (cement slurry is 3.30 Kg/SQM instead of 4.40 Kg/SQM) Cement consumption - 12.42 K.G/SQM	SQM	1228.35
S	Precast cement Concrete Tiles of approved make of minimum thickness 22mm and required size and pattern (cement slurry is 3.30 Kg/SQM instead of 4.40 Kg/SQM) Cement consumption - 12.42 K.G/SQM	SQM	495.50
0619	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications.		
A	Marble tiles (polished), 8 mm thick (approx.) - Rajnagar plain white/Green (Udaipur)/Black (Zebra) Cement consumption - 12.42 K.G/SQM	SQM	800.95
B	Granite tiles (polished), 8 to 10 mm thick (approx.) - P White Cement consumption - 12.42 K.G/SQM	SQM	873.75
C	Granite tiles (polished), 8 to 10 mm thick (approx.) - Gray (Steel) Colour Cement consumption - 12.42 K.G/SQM	SQM	837.35
D	Granite tiles (polished), 8 to 10 mm thick (approx.) - Red (Gem) Colour Cement consumption - 12.42 K.G/SQM	SQM	934.40
E	Granite tiles (polished), 8 to 10 mm thick (approx.) - Green Colour Cement consumption - 12.42 K.G/SQM	SQM	970.80

Item No.	Description	Unit	Rate (Rs.P)
F	Granite tiles (polished), 8 to 10 mm thick (approx.) - Sweet Green Colour Cement consumption - 12.42 K.G/SQM	SQM	1261.95
G	Granite tiles (polished), 8 to 10 mm thick (approx.) - Black (Galaxy) Colour Cement consumption - 12.42 K.G/SQM	SQM	970.80
H	Granite tiles (polished), 8 to 10 mm thick (approx.) - Laga Red Colour Cement consumption - 12.42 K.G/SQM	SQM	1541.00
I	Granite tiles (polished), 8 to 10 mm thick (approx.) - Raw Silk Colour Cement consumption - 12.42 K.G/SQM	SQM	873.75
J	Granite tiles (polished), 8 to 10 mm thick (approx.) - Steel Grey Colour Cement consumption - 12.42 K.G/SQM	SQM	837.35
0620	Stone tile work of 8 mm thick (mirror polished and machine cut edge). for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade.		
A	Granite tiles (Polished) - Jet Black Cement consumption - 10.44 K.G/SQM	SQM	1691.95
B	Granite tiles (polished), 8 to 10 mm thick (approx.) - Red (Gem) Colour Cement consumption - 10.44 K.G/SQM	SQM	1342.20
C	Granite tiles (polished), 8 to 10 mm thick (approx.) - Green Colour Cement consumption - 10.44 K.G/SQM	SQM	1378.60
D	Granite tiles (polished), 8 to 10 mm thick (approx.) - Black (Galaxy) Colour Cement consumption - 10.44 K.G/SQM	SQM	1378.60
E	Granite tiles (polished), 8 to 10 mm thick (approx.) - Steel Grey Colour Cement consumption - 10.44 K.G/SQM	SQM	1245.15
F	Marble tiles (polished), 8 mm thick (approx.) - Rajnagar plain white/Green (Udaipur)/Black (Zebra) Cement consumption - 10.44 K.G/SQM	SQM	1208.75
0621	Stone tile (polished) work of 8mm thick for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete with the following		
A	Granite tiles (Polished), 8 to 10 mm thick (approx.) - Jet Black Cement consumption - 10.44 K.G/SQM	SQM	1855.75
B	Granite tiles (polished), 8 to 10 mm thick (approx.) - Red (Gem) Colour Cement consumption - 10.44 K.G/SQM	SQM	1506.00

Item No.	Description	Unit	Rate (Rs.P)
C	Granite tiles (polished), 8 to 10 mm thick (approx.) - Green Colour Cement consumption - 10.44 K.G/SQM	SQM	1542.40
D	Granite tiles (polished), 8 to 10 mm thick (approx.) - Black (Galaxy) Colour Cement consumption - 10.44 K.G/SQM	SQM	1542.40
E	Granite tiles (polished), 8 to 10 mm thick (approx.) - Steel Grey Colour Cement consumption - 10.44 K.G/SQM	SQM	1408.95
F	Marble tiles (polished), 8 mm thick (approx.) - Rajnagar plain white/Green (Udaipur)/Black (Zebra) Cement consumption - 10.44 K.G/SQM	SQM	1372.55
0622	Mirror polishing on marble work/granite work/stone work wherever required to give high gloss finish etc.complete.	SQM	162.20
0623	Extra for prefinished nosing to treads of steps of marble stones.	RM	219.00
0624	Extra for prefinished nosing in treads of steps of kota stones.	RM	70.90
0625	Supply and fixing homogeneous PVC sheets / tiles of approved brand, pattern, colour, shade & manufacture in flooring / skirting on a smooth and damp proof base using rubber based adhesives of approved quality including rolling with light wooden roller weighing about 5 K.G. etc.complete, all as per standard specifications.		
A	1.5 / 1.6 mm thick	SQM	422.05
B	2 mm thick	SQM	618.40
0626	Supply and laying roughly dressed cut stone slabs of required sizes and thickness over sand bed or mortar bed, excluding pointing, all as per standard specifications. Rate excludes cost of sand bed/mortar bed.	CUM	4330.90
0627	Labour charges for edge preparation (NOZING) and polishing of the laid granite slab on the working platform, table etc. , The rate includes charges for required grinding machine, labour etc., complete. All as per the instructions of Engineer-in-charge	R.M	181.95
0628	Flooring with reinforced cement concrete of mix 1:2:4 using 20 mm and down graded hard broken granite stone jelly for thickness varying from 100 to 500 mm laid in panels not exceeding 6 x 30 m between expansion joints, including necessary vibration using needle / board / screed vibrators, all as required including necessary shuttering, painting the sides with bitumen, but excluding fabrication charges for reinforcement, all as per standard specifications.	CUM	2119.70
	Cement consumption - 320.00 K.G/CUM		

Item No.	Description	Unit	Rate (Rs.P)
VII - ROOFING			
701	Carrying , hoisting and fixing in position of 0.47 to 0.50mm thick colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, North light curves, end curves, etc., for roofing at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every ribs etc., complete. All as per drawings, manufacturers specifications and instructions of Engineer-in-charge .Rate includes cost of self tapping/ self drilling screws with EPDM washers etc., and labour charges for fixing, hire charges for tools and plants like drilling machines, cost of providing life line and other provisions for safety, scaffolding and all other incidental charges etc., complete but excluding cost of Aluminium zinc alloy coated high tensile steel sheets and its accessories such as ridge pieces, barge boards, curves, etc., which will be supplied by BHEL at Stores at free of cost. The payment will be made for the actual laid area only.	SQM	88.60
702	Carrying , hoisting and fixing in position of 0.47 to 0.50mm thick colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, curves, etc., for side sheeting at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every valleys, etc., complete .All as per drawings, manufacturers specifications and instructions of Engineer-in-charge ..Rate includes cost of self tapping/ self drilling screws with EPDM washers etc., and labour charges for fixing, hire charges for tools and plants like drilling machines, cost of providing life line and other provisions for safety, scaffolding and all other incidental charges etc., complete but excluding cost of Aluminium zinc alloy coated high tensile steel sheets and its accessories such as ridge pieces, barge boards, curves, etc., which will be supplied by BHEL at Stores at free of cost. The payment will be made for the actual laid area only.	SQM	114.35
703	Supplying at site of work , hoisting and fixing in position of 0.47 to 0.50mm thick colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, North light curves, end curves, etc., as per technical specifications given in note below for roofing at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every ribs etc., complete. All as per drawings, manufacturers specifications and instructions of Engineer-in-charge .Rate includes cost of all materials like colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, curves, etc., wherever required self tapping / self drilling screws with EPDM washers at every ribs etc., and labour charges for fixing, hire charges for tools and plants like drilling machines, providing lifeline and other provisions for safety, and all other incidental charges etc., complete. The payment will be made for the actual laid area only. Note: (1)The Aluminium zinc alloy coated high tensile steel sheets and specials shall be 0.47 to 0.50mm thick (TCT) (Aluminium around 55%, Zinc around 43%) alloy coated high tensile steel (Yield strength 550 MPA) colour coated rib profile sheets as per ASTM A792M, coating standard as per AS 1397-1933 Conforming to AZM 150 (Min Coating mass of 150 gsm) having cover width of 1000 plus or minus 10mm and over all width of 1060mm of any length to suit site conditions	SQM	559.80

Item No.	Description	Unit	Rate (Rs.P)
	<p>(2) About 90% area of the Aluminium zinc alloy coated high tensile steel sheets shall be colour coated with Light Blue RAL 5012 and 10% of the covered area is of with off white. All ridge pieces and barge boards are of white.</p> <p>(3) The Aluminium zinc alloy coated high tensile steel sheets shall be Pre-Primed with a Primer of 5µm and finished with a final paint coat of 17-20 µm on top surface. A single backing coat of 7-10µm should be applied on reverse side</p>		
704	<p>Supplying at site of work , hoisting and fixing in position of 0.47 to 0.50mm thick colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, curves, etc., as per technical specifications given in note below for side sheeting at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every valleys, etc., complete .All as per drawings, manufacturers specifications and instructions of Engineer-in-charge .Rate includes cost of all materials like colour coated Aluminium zinc alloy coated high tensile steel rib profile sheets with accessories such as ridge pieces, barge boards, curves, self tapping / self drilling screws with EPDM washers at every valleys, etc., and labour charges for fixing, hire charges for tools and plants like drilling machines, providing lifeline and other provisions for safety, and all other incidental charges etc., complete. The payment will be made for the actual laid area only.</p> <p>Note: (1)The Aluminium zinc alloy coated high tensile steel sheets and specials shall be 0.47 to 0.50mm thick (TCT) (Aluminium around 55%, Zinc around 43%) alloy coated high tensile steel (Yield strength 550 MPA) colour coated rib profile sheets as per ASTM A792M, coating standard as per AS 1397-1933 Conforming to AZM 150 (Min Coating mass of 150 gsm) having cover width of 1000 plus or minus 10mm and over all width of 1060mm of any length to suit site conditions</p> <p>(2) About 90% area of the Aluminium zinc alloy coated high tensile steel sheets shall be colour coated with Light Blue RAL 5012 and 10% of the covered area is of with off white. All ridge pieces and barge boards are of white.</p> <p>(3) The Aluminium zinc alloy coated high tensile steel sheets shall be Pre-Primed with a Primer of 5µm and finished with a final paint coat of 17-20 µm on top surface. A single backing coat of 7-10µm should be applied on reverse side</p>	SQM	585.60
705	<p>Supplying at site of work, hoisting and fixing in position of 2mm thick embossed clear poly carbonate roof light sheets in specified locations and at all heights with necessary xylon coated self tapping / self drilling screws with EPDM washers at every ribs, etc., complete to match the profile of Aluminium zinc alloy coated high tensile steel roof sheets, as per instructions of Engineer-in- charge. The rate includes cost of poly carbonate sheets ,self tapping / self drilling screws with EPDM washer, at every ribs, and labour charges, all scaffolding charges, tools and plants and all other incidental charges etc., complete</p>	SQM	1540.90

Item No.	Description	Unit	Rate (Rs.P)
706	Supplying roof extractors (Turbo Air Ventilators) of dia 600mm or thereabouts, fixing in position on AC / Aluminium zinc alloy coated high tensile steel sheet roofs at all heights with necessary screws,, bolts etc., and finishing to match with existing roof. Rate to include cost of all labour charges for fixing the roof extractors with necessary cutting of sheets to the required size ,drilling to suit the screws/ bolts, and finishing to match the existing profile including cost of roof extractors / ventilators. All as per manufacturers specifications and as directed by the Engineer in charge	EACH	8800.00
0707	Supply and fixing corrugated fibre glass reinforced polyester translucent roof light sheets of all colours including white of following thickness to match with the existing A.C. sheet roofing including cost of G.I. bolts, nuts, washers and bitumen washers etc., complete. Payment will be based on the laid area.		
A	FRP Sheet 1 mm thick	SQM	474.60
B	FRP Sheet 2 mm thick	SQM	791.80
0708	Supply and fixing in position of galvanised iron plain sheets of 1.60 mm thick for flashing using G.I bolts, nuts, limpet washers etc. complete bent to shape and fixed in walls with cement mortar 1:3, all as per drawings and specifications.	SQM	824.75
0709	Conveying G.I sheets from BHEL stores to site of work, bent to shape and fixing in proper position for flashing fixed with G.I bolts, nuts, limpet washers etc., complete and fixed in walls with cement mortar 1 : 3, all as per drawings and specifications. G.I sheet alone will be supplied by BHEL at Stores at free of cost.	SQM	445.05
0710	Supply and fixing in position of 6 mm thick wired glass in roof north light glazing including straightening the aluminium astrangle as required. Rate includes cost of glass, labour etc. complete.	SQM	988.70
0711	Conveying from BHEL stores to site of work 6 mm thick wired glass and fixing in position for roof north light glazing including straightening the aluminium astrangle as required. Rate includes labour, conveyance and other incidentals, removing the broken glasses from its position etc.complete.	SQM	102.25
0712	Providing weathering course on top of roof slab with 20 mm size brick jelly and pure lime (no sand) in the proportion of 32 : 12.5 to the required thickness, well beaten with wooden battens, so as to secure adequate slope, all as per standard specifications and instructions of Engineer-in-charge.	CUM	3061.05

Item No.	Description	Unit	Rate (Rs.P)
0713	Providing weathering course on top of roof slab with one course of split tiles or pressed flat tiles of 17 to 20 mm thick and of approved brand & size, set in cement mortar 1:3 with an admixture of crude oil at 10% by weight of cement, 12 mm thick bedding layer including pointing the tiles with the same oiled mortar etc., complete, all as per standard specifications.	SQM	373.30
	Cement consumption - 9.13 K.G/SQM		
0714	Labour charges for repairing the weathering course tiles. Scope includes cleaning the surfaces by removal of vegetation growth, dry leaves etc., racking out the tile joints, replacing the damaged tiles wherever necessary with new ones supplied by department, pointing the tiles with cement mortar 1:3 and applying mendo non-tar plast cement over the pointed surfaces. (Tiles and mendo non tar plast cement will be supplied by BHEL at stores at free of cost.)	SQM	118.60
0715	Labour charges for repairing the weathering course tiles. Scope includes cleaning the surfaces by removal of vegetation growth, dry leaves etc., racking out the tile joints, replacing the damaged tiles wherever necessary with new ones supplied by department, pointing the tiles with cement mortar 1:3 and applying mendo non-tar plast cement over the pointed surfaces. (Only Tiles will be supplied by BHEL at stores at free of cost).	SQM	110.90
0716	Attending to leak at roof slab and wall joint, all as per instructions of Engineer-in-charge. Rate includes dismantling the weathering course tiles, brick jelly lime concrete etc. for a width of minimum 100 mm at wall and slab joint for required depth so as to reach the top surface of roof slab, finishing with cement concrete in the proportion of one part of cement & three parts of 6 mm stone chips in the dismantled portion with bitumen compound filler at joint and top, finished with tiles at 1 : 1 slope along with walls including hacking walls, replacing the damaged tiles, pointing with CM 1:3 etc. complete. Cement, tiles and bitumen compound will be supplied by BHEL at stores at free of cost.	RM	176.40
0717	Attending to leak at roof slab and wall joint, all as per instructions of Engineer-in-charge. Rate includes dismantling the weathering course tiles, brick jelly lime concrete etc. for a width of minimum 100 mm at wall and slab joint for required depth so as to reach the top surface of roof slab, finishing with cement concrete in the proportion of one part of cement and three parts of 6 mm stone chips in the dismantled portion with bitumen compound filler at joint and top, finished with tiles at 1 : 1 slope along with walls including hacking walls, replacing the damaged tiles, pointing with CM 1:3 etc. complete. The rate shall also include cost of tiles.Cement and bitumen compound will be supplied by BHEL at stores at free of cost.	RM	205.20

Item No.	Description	Unit	Rate (Rs.P)
0718	Providing weathering course on top of roof slab with one course of split tiles or pressed flat tiles of 17 to 20 mm thick of approved brand and size set in CM 1:3 with Roff plaster master plus solution (100 ml of plaster master liquid to be mixed with required quantity of water for one bag of cement), 12 mm thick bedding layer including pointing the tiles with same mortar etc. complete, all as per std. specifications. Roff plaster master and required tiles will be supplied by BHEL at Stores at free of cost.	SQM	354.05
0719	Same as per item No. 0718 but required tiles will also be supplied by BHEL at Stores at free of cost.	SQM	85.25
0720	Labour charges for removing the damaged weathering course tiles and laying with new tiles set in CM 1:3 with Roff plaster master water solution (100 ml of plaster master liquid to be mixed with required quantity of water for one bag of cement), 12 mm thick bedding layer including pointing the tiles with same mortar etc. complete, all as per standard specifications. Tiles and Roff plaster master will be supplied by BHEL at Stores at free of cost.		
A	1 to 5 tiles at one spot.	EACH	37.40
B	Beyond 5 but upto 10 tiles at one spot.	EACH	63.85
0721	Rectifying to the weathering course tile joints by scraping the old mortar joints to a minimum depth of 12 mm with wire brush and cleaning the surface of all dirt, loose mortar etc., pointing the grooved joints with CM 1:3 thoroughly mixed with Roff plaster master solution (100 ml. of plaster master liquid to be mixed with not more than 40 litre of water for one bag of cement), finishing the pointed joints smoothly, proper curing etc. complete. Roff plaster master liquid will be supplied by BHEL at Stores at free of cost.	SQM	101.30
0722	Rectifying to the corners between wall and roof slab by removing the brick work and concrete at least to a depth of 25 mm along the corners horizontally, clearing the opened corners off all dirt and filling with roofing bituminous compound pressed gently to form smooth concaved corners and finishing the surface with CM 1:3, 12 mm thick for a maximum width of 25 cm, thoroughly mixed with Roff plaster master solution (100 ml Roff plaster master liquid to be mixed with not more than 40 litre of water for one bag of cement) to a neat finish. Bituminous compound & Roff plaster master liquid will be supplied by BHEL at Stores at free of cost.	RM	50.80

Item No.	Description	Unit	Rate (Rs.P)
0723	Conveying from BHEL stores to site of work, hoisting and fixing in position of 4 mm / 6 mm thick multi walled clear (UV coated) polycarbonate sheet for north light glazing runner (inclined & vertical) as per drawing including provision of suitable aluminium frames as required. The scope of work includes supply of aluminium frames (top & bottom) in required profiles fitted with EPDM rubber gaskets and fixing in the glazing runner using SDST screws of approved make and polycarbonate sheets are suitably placed between the aluminium frames before driving the top frame screws all as per Drg.no and as per the instructions of Engineer in Charge. The top and bottom portion of polycarbonate sheets shall be closed with aluminium U channels to prevent dust and insects. Rate shall include cost of aluminium frames, U channels, EPDM rubber gaskets, SDST screws required labour, tools & plants, etc., except polycarbonate sheets which will be supplied by BHEL at free of cost	SQM	1179.50
0724	To collect and cleaning of all the damaged north light glazing materials (polycarbonate sheets) at roof top for all heights and removing/repairing the north light glazing bars (aluminium beading) wherever required in line, level and alignment as per the instructions of Engineer in charge. The aluminium beadings and polycarbonate sheets shall be re fixed using 2 nos of 50mm X 6mm MS Hexagonal bolts, nuts & washersat top horizontal 8 nos of 35mm X 12mm Self drilling fasteners with EPDM washers at both the vertical sides and 2 nos of 50mm X 12mm self drilling screws with EPDM washers at bottom horizontal in each panel. The rate shall include cost of all labour charges, incidental charges for removing repairing and cost of all required fasteners for re fixing work but excludes cost of polycarbonate sheets and aluminium beading which will be supplied at free of cost. Payment will be made only for the actual area of repair work executed.	SQM	116.00
0725	Supplying at site of work, hoisting and fixing in position of 4 / 6mm thick multiwalled clear (UV coated) Polycarbonate sheet for north light glazing / glazing in monitor type roof to suit the rows of glazing runner (inclined and vertical) as per drawing including provision of suitable aluminium frames as required. The scope of work includes supply of polycarbonate sheets,aluminium frames (top & bottom) in required profile fitted with EPDM rubber gaskets and fixing in the glazing runner using SDST screws of approved make and the polycarbonate sheets are suitably placed between the aluminium frames before driving the top frame screws all as per standard specification , instructions of Engineer-in-charge. The top and bottom portion of polycarbonate sheets shall be closed with aluminium U channels to prevent dust and insects. Rate shall include cost of polycarbonate sheets, aluminium frames, U channels, EPDM rubber gaskets, SDST screws, required labour, tools and plants etc.,complete.	SQM	1800.00

Item No.	Description	Unit	Rate (Rs.P)
VIII - FINISHING			
0801	Plastering with cement mortar as per standard specifications.		
A	In cement mortar 1:3, 12mm thick Cement Consumption - 7.35 K.G/SQM	SQM	93.25
B	In cement mortar 1:4, 12mm thick Cement Consumption - 5.47 K.G/SQM	SQM	93.05
C	In Cement mortar 1:5, 12mm thick Cement Consumption - 4.46 K.G/SQM	SQM	92.95
D	In cement mortar 1:6, 12mm thick Cement Consumption - 3.60 K.G/SQM	SQM	92.85
E	In cement mortar 1:3, 15mm thick Cement Consumption - 8.77 K.G/SQM	SQM	107.30
F	In Cement mortar 1:4, 15mm thick Cement Consumption - 6.54 K.G/SQM	SQM	107.05
G	In Cement mortar 1:5, 15mm thick Cement Consumption - 5.33 K.G/SQM	SQM	106.90
H	In Cement mortar 1:6, 15mm thick Cement Consumption - 4.30 K.G/SQM	SQM	106.80
I	In Cement mortar 1:3, 20mm thick Cement Consumption - 11.42 K.G/SQM	SQM	125.20
J	In Cement Mortar 1:4, 20mm thick Cement Consumption - 8.51 K.G/SQM	SQM	124.90
K	In Cement mortar 1:5, 20mm thick Cement Consumption - 6.94 K.G/SQM	SQM	124.70
L	In Cement mortar 1:6, 20mm thick Cement Consumption - 5.60 K.G/SQM	SQM	124.60
0802	Damp proof course with cement mortar 1:3, 12 mm thick mixed with an admixture of crude oil at 5 % by weight of cement, all labour etc. complete as per standard specifications. Cement Consumption - 7.35 K.G/SQM	SQM	108.85
0803	Damp proof course with cement mortar 1:3, 20 mm thick mixed with an admixture of crude oil at 5 % by weight of cement, all labour etc. complete as per standard specifications. Cement Consumption - 11.42 K.G/SQM	SQM	149.35
0804	Damp proof course with cement mortar 1:3, 12 mm thick mixed with water proofing compound (Accoproof or Impermo or equivalent) at 1 Kg per 50 Kg of cement for water facing surfaces etc. complete., all as per standard specifications. Cement Consumption - 7.35 K.G/SQM	SQM	99.05

Item No.	Description	Unit	Rate (Rs.P)
0805	Damp proof course with cement mortar 1:3, 20 mm thick mixed with water proofing compound (Accoproof or Impermo or equivalent) at 1 Kg per 50 Kg of cement for water facing surfaces etc. complete., all as per standard specifications. Cement Consumption - 11.42 K.G/SQM	SQM	134.15
0806	Ceiling plastering with cement mortar 1:3, 6mm thick as per standard specifications. Cement Consumption - 3.67 K.G/SQM	SQM	82.10
0807	Plain cement mortar bands of 12 mm thick in cement mortar 1:4 to the specified width as per standard specifications. Cement Consumption - 5.32 K.G/SQM	SQM	228.85
0808	Stucco plastering 12 mm thick with cement mortar 1:3 (1 cement & 3 coarse aggregate of 6 to 12 mm size) over a backing plastering, all as per standard specifications. (Backing plaster will be paid for separately) Cement Consumption - 7.30 K.G/SQM	SQM	96.55
0809	Exposed aggregate plastering with crushed stone graded from 6 to 12 mm nominal size dashed over and including fresh plaster in cement mortar 1:3, 12mm thick over a backing coat of cement plaster (which will be paid separately), all as per standard specifications. Cement Consumption - 7.30 K.G/SQM	SQM	128.15
0810	Finishing the plastered surfaces with a floating coat of cement (punning), all as per standard specifications. Cement Consumption - 2.20 K.G/SQM	SQM	21.70
0811	Flush/Ruled pointing on stone work with cement mortar 1:3 as per standard specifications. Cement Consumption 1.17 K.G/SQM	SQM	114.05
0812	Pointing to rough stone dry packing in aprons and revetments including grouting to a depth of 40 mm with cement mortar 1:3, all as per standard specifications. Cement Consumption 1.84 K.G/SQM	SQM	62.90
0813	Flush pointing with cement mortar 1:3 for stone slab pavement or precast slab pavement or tiling works etc., all as per standard specifications. Cement Consumption 2.35 K.G/SQM	SQM	95.80
0814	Providing black board in walls in cement mortar 1:2 mixed with black oxide over rough plastered surface in cement mortar 1:4, 12 mm thick and providing 25 mm border around in cement mortar 1:3 neatly rounded including providing and fixing with teak wood beading 50 x 25 mm on top of board and hooks and chalk stand on the bottom of board etc., all as per standard specifications. Cement Consumption 13.20 K.G/SQM	SQM	836.30

Item No.	Description	Unit	Rate (Rs.P)
0815	White washing on surfaces using best shell lime to give an even shade including cleaning, brushing of walls and preparing surfaces in accordance with standard specifications. Rate includes cost of all materials, labour etc., complete.		
A	Three or more coats	SQM	10.55
B	Two coats	SQM	5.95
C	One coat	SQM	4.25
0816	White washing on surfaces using Janathacem or equivalent material to give an even shade including cleaning, brushing of walls and preparing surfaces in accordance with standard specifications. Rate includes cost of all materials, labour, curing etc., complete.		
A	Three coats	SQM	11.55
B	Two coats	SQM	7.00
C	One coat	SQM	4.25
0817	Colour washing such as green, blue or buff on surfaces to give an even shade including cleaning, brushing walls and preparing surfaces in accordance with standard specifications. Rate includes cost of all materials, labour, etc., complete.		
A	Two or more coats with a base coat of white washing with lime	SQM	13.70
B	Two coats	SQM	7.80
C	One coat	SQM	4.55
0818	Removing white or colour wash by scraping, sand papering and preparing the surfaces smooth including necessary repairs to scratches etc. complete.	SQM	5.50
0819	Applying one coat of cement primer of approved brand and manufacturer on wall surfaces.	SQM	29.25
0820	Painting walls with water proofing cement paint of approved brand and shade on surfaces to give an even shade including cleaning, preparing the surfaces, curing etc., complete.		
A	Three coats (A priming coat of cement primer & two coats of water proofing cement paint)	SQM	76.75
B	Two coats	SQM	47.50
C	One coat	SQM	30.00
0821	Painting with sandtex matt of approved brand and shade on surfaces to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters, sand papering and stopping, all as per standard specifications.		

Item No.	Description	Unit	Rate (Rs.P)
A	Three coats (A priming coat of approved cement primer and two coats of sandtex matt)	SQM	109.50
B	Two coats	SQM	79.10
C	One coat	SQM	46.45
0822	Applying one coat of distemper primer of approved brand and manufacture on wall surfaces.	SQM	30.35
0823	Distempering using oil bound washable distemper of approved brand and shade on surfaces including cleaning, brushing, preparing the surfaces even and sand papered smooth in accordance with standard specifications.		
A	Three coats (A priming coat with approved primer and two coats of distempering).	SQM	70.55
B	Two coats	SQM	40.20
C	One coat	SQM	27.35
0824	Painting with ready mixed plastic emulsion paint of approved brand and shade on surfaces to give an even shade including thorough scraping, removal of dirt, applying necessary plaster of paris, putty etc.complete, all as per standard specifications.		
A	Three coats (A priming coat with approved primer and two coats of plastic emulsion paint).	SQM	85.90
B	Two coats	SQM	55.55
C	One coat	SQM	37.55
0825	Painting with synthetic enamel paint of approved brand and shade on surfaces to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters, sand papering and stopping, all as per standard specifications.		
A	Three coats (A priming coat with approved primer and two coats of synthetic enamel paint).	SQM	97.90
B	Two coats	SQM	67.55
C	One coat	SQM	43.55
0826	Removing dry or oil bound distemper / water proofing cement paint / paint by scraping, sand papering and preparing the surfaces smooth including necessary repairs to scratches etc., complete.	SQM	7.25
0827	Varnishing with varnish of approved brand and manufacture to give an even shade, all as per standard specifications.		
A	Three coats (An under coat with flattening varnish and two coats of copal varnish)	SQM	93.35

Item No.	Description	Unit	Rate (Rs.P)
B	Two coats	SQM	62.60
C	One coat	SQM	40.95
0828	Polishing with french polish including a coat of wood filler to give an even surface, including cleaning the surfaces of all dirt, dust and sand papered smooth, all as per standard specifications.		
A	Two coats	SQM	180.30
B	One coat	SQM	94.25
0829	Painting with aluminium paint of approved brand and manufacture on surfaces to give an even shade, all as per standard specifications.	SQM	61.45
A	Two coats.		
B	One coat	SQM	39.15
0830	Painting with black anti corrosive bitumastic paint of approved brand and manufacture on surfaces to give an even shade, all as per standard specifications.		
A	Two coats.	SQM	45.55
B	One coat	SQM	30.60
0831	Painting with black board paint of approved brand and manufacture on surfaces to give an even shade, all as per standard specifications.		
A	Two coats.	SQM	59.85
B	One coat	SQM	38.75
0832	Lettering with paint of approved brand, shade and manufacture of 1 cm Height.		
A	In synthetic enamel paint	EACH	1.90
B	In black japan paint	EACH	1.85
0833	Painting one priming coat with approved primer on surfaces including preparing the surfaces by thoroughly cleaning oil, grease, dirt and other foreign matters and scoured with wire brushes, fine steel wool scrapers and sand paper, all as per standard specifications.		
A	Zinc Chromate primer	SQM	28.35
B	Red oxide primer	SQM	20.40
0834	Painting one priming coat with approved primer over structural steel works in roof structures, columns etc., including preparing the surfaces by thoroughly cleaning oil, grease, dirt and other foreign matters and scoured with wire brushes, fine steel wool scrapers and sand paper, all as per standard specifications.		
A	Zinc Chromate primer	MT	955.35

Item No.	Description	Unit	Rate (Rs.P)
B	Red oxide primer	MT	562.35
0835	Painting (excluding priming coat) on structural steel works in roof structures, columns etc.with synthetic enamel paint of approved brand and shade, brushing to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters, scaffolding charges etc.complete. All as per standard specifications.		
A	Two coats	MT	1580.50
B	One coat	MT	937.20
0836	Painting (excluding priming coat) on structural steel works in roof structures, columns etc.with aluminium paint of approved brand, brushing to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters, scaffolding charges etc.complete. All as per standard specifications.		
A	Two coats	M.T	1461.85
B	One coat	M.T	859.35
0837	Providing black board in walls in cement mortar 1:2 mixed with black oxide over rough plastered surfaces in cement mortar 1:4, 12 mm thick and providing 25 mm border around in cement mortar 1:3, neatly rounded etc. complete.	SQM	206.35
	Cement Consumption 13.20 K.G/SQM		
0838	Repairs to plaster of thickness 12 to 20 mm in patches of area 2.5 Sqm and under with cement mortar 1:4 including cutting the patches in proper shape, preparing and plastering the surface of the walls completely including disposal of rubbish within a lead of 50 metre.	SQM	145.35
	Cement Consumption 6.95 K.G/SQM		
0839	Removal of all nails, screws, wooden plugs etc. from the walls, chipping the plastering of small holes caused by removal, cleaning and finishing good the same with cement mortar etc. complete in Quarters.	EACH	107.30
0840	Painting with exterior emulsion paint (ACE or any other equivalent and approved brand) of approved shade on surfaces to give an even shade including preparing the surfaces, removal of dirt, thorough cleaning by watering etc., all as per standard specifications. Rate includes cost of necessary plaster of paris and putty wherever required, labour and all incidentals etc.complete.		
A	Three coats (One coat of Primer of approved brand with two coats of Paint)	SQM	74.80
B	Two coats	SQM	62.05
C	One coat	SQM	39.85

Item No.	Description	Unit	Rate (Rs.P)
0841	Painting with exterior emulsion paint (ACE or any other equivalent and approved brand) of approved shade on STUCCO/EXPOSED AGGREGATE surfaces to give an even shade including preparing the surfaces, removal of dirt, thorough cleaning by watering etc., all as per standard specifications. Rate includes cost of necessary plaster of paris and putty wherever required, labour and all incidentals etc.complete. This is applicable only for STUCCO/EXPOSED AGGREGATE surfaces.		
A	Three coats (One coat of Primer of approved brand with two coats of Paint)	SQM	94.50
B	Two coats	SQM	75.35
C	One coat	SQM	48.70
0842	Painting with Epoxy paint (two or more coats) at all locations, prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surfaces etc.complete.		
A	On steel work	SQM	95.15
B	On concrete work	SQM	97.50
0843	Extra charges for plastering to exterior walls of height more than 13.50 metre from plinth level for every additional height of 3 metre or part thereof.	SQM	30.90
0844	Extra charges for plastering to spherical ceiling.	SQM	56.70
0845	Labour charges for painting with primer/plastic emulsion paint/synthetic enamel paint/aluminium paint/anti corrosive bitumastic paint/black board paint/chlorinated rubber paint or any other paint on required surfaces to give an even shade including scraping, cleaning the surfaces of all dirt, dust and other foreign matters, sand papering and stopping, all as per standard specifications. Rate excludes cost of primer and paint. Required primer and paint will be issued by BHEL at stores at free of cost.		
A	For one priming coat with primer	SQM	22.30
B	For three coats (A priming coat & two coats of painting or directly three coats of painting)	SQM	59.45
C	For Two coats of painting	SQM	37.10
D	For one coat of painting	SQM	26.20
0846	Applying two coats of Alltek Superfine (interior plaster) putty to a thickness of 2mm over plastered surface including sand papering and preparing the surface smooth and there after applying one priming coat of Alltek primer and two coats of plastic emulsion paint of approved brand and shade, all as per instructions of Engineer-in-charge.	SQM	289.20

Item No.	Description	Unit	Rate (Rs.P)
IX - ROAD WORKS			
0901	Supply and stacking the following to standard gauge at site of work, all as per instructions of Engineer-in-Charge.		
A	Soling stones 15 cm average thickness (measured in stacks will be reduced by 15 % for payment)	CUM	298.00
B	53 mm IRC size metal (measured in stacks will be reduced by 7.5 % for payment)	CUM	782.55
C	37.50 mm IRC size metal / 37.5 or 40 mm Stone metal ISS (measured in stacks will be reduced by 7.5 % for payment)	CUM	1029.90
D	22.40 mm IRC size metal (No voids)	CUM	1269.45
E	11.20 mm IRC size metal (No voids)	CUM	837.15
F	6 mm IRC size metal (No voids)	CUM	647.95
G	River sand (No voids)	CUM	450.55
H	Gravel / Red earth (No voids)	CUM	240.85
I	Earth (measured in stacks will be reduced by 20 % for payment)	CUM	207.30
J	Cattle manure (measured in stacks will be reduced by 8 % for payment)	CUM	371.75
K	IRC graded stone aggregate of size range from 90 to 45 mm (measured in stacks will be reduced by 7.5 % for payment)	CUM	539.00
L	IRC graded stone aggregate of size range from 63 to 45 mm (measured in stacks will be reduced by 7.5 % for payment)	CUM	680.00
M	IRC graded stone aggregate of size range from 53 to 22.4 mm (measured in stacks will be reduced by 7.5 % for payment)	CUM	930.00
0902	Supply RCC pipes (NP2 Class) of following sizes with collars at site of work, lowering to trench, laying to proper grade and alignment, joining the collars with stiff mixture of cement mortar 1 : 2, testing of joints etc., but excludes cost of cement which will be supplied by BHEL at stores at free of cost.		
A	150 mm dia Cement Consumption - 0.60 KG/ R.M	R.M	333.95
B	250 mm dia Cement Consumption - 0.90 KG/ R.M	R.M	443.20
C	300 mm dia Cement Consumption - 1.10 KG/ R.M	R.M	486.20

Item No.	Description	Unit	Rate (Rs.P)
D	450 mm dia Cement Consumption - 2.40 KG/ R.M	R.M	676.05
E	600 mm dia Cement Consumption - 2.95 KG/ R.M	R.M	1318.05
F	750 mm dia Cement Consumption - 3.90 KG/ R.M	R.M	1602.95
G	900 mm dia Cement Consumption - 4.50 KG/ R.M	R.M	1890.85
H	1200 mm dia Cement Consumption - 6.30 KG/ R.M	R.M	2935.60
0903	Providing of granular sub- base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401 of MOHRT-Rev5.		
A	For Grading-V Material (Drainage/ Top Layer)	CUM	1161.65
B	For Grading-III Material (Bottom Layer if thickness more than 300 mm)	CUM	1212.90
0904	Providing and laying 50mm consolidated thick Dense bituminous macadam using 0.24 cum of 26.50-13.20 mm, 0.25 cum of 13.20-2.36 mm and 0.23 cum of 2.36mm & below and with 53.20 kgs of VG 30/VG 40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to work site, spreading the mix to uniform thickness of 50mm with paver to the specified grades and cross sections and compacted by Vibratory / Pneumatic Roller to the required density etc., including labour for attending tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic rollers and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 505 MORTH Rev-5.	CUM	10202.20

Item No.	Description	Unit	Rate (Rs.P)
0905	Providing and laying 75mm consolidated thick Dense Bituminous macadam using 0.40 cum of 37.50-13.20mm, 0.35 cum of 13.20-2.36mm and 0.36 cum of 2.36mm & below size IRC metal with 71.30 kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 75mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 505 of MORTH rev-5.	CUM	9448.15
0906	Providing and laying 50mm consolidated thick bituminous macadam using 0.20 cum of 26.50-13.20mm, 0.43 cum of 13.20-2.36mm and 0.08 cum of 2.36mm & below size IRC metal with 37 Kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 50mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 504 of MORTH Rev-5	CUM	8297.90
0907	Providing and laying 80mm consolidated thick bituminous macadam using 0.64 cum of 37.5 - 13.20mm, 0.44 cum of 13.2 - 2.36mm and 0.13 cum of 2.36mm and below size IRC metal with 62 Kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 80mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 504 of MORTH Rev-5.	CUM	8391.65

Item No.	Description	Unit	Rate (Rs.P)
0908	Providing and laying Premix Carpet with Seal Coat Type - A to 20 mm thick using 0.18 cum of 13.20mm, 0.09 cum of 11.20mm and 0.09 cum of 6.70mm with 24.40 kgs of VG30 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 50mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per MORTH Rev-5	SQM	241.65
0909	Providing and laying, spreading and compacting graded stone aggregates to Wet Mix Macadam of 250mm thick specification including premixing the materials with water at OMC in mechanical mix plant carriage of mixed material by tipper to site laying in uniform layers with pavers in Sub Base/ Base course on well prepared surface and compacting with vibratory roller to achieve the desired density including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per clause 406 of MORTH Rev-5	CUM	1487.60
0910	Providing and laying Bituminous Concrete to 40 mm thick using 0.13 cum of 19.00-9.50 mm, 0.17 cum of 9.50-2.36mm and 0.26 cum of 2.36 and below with 50.30 kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 40mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9 m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 507 of MORTH Rev-5	CUM	11230.65
0911	Providing laying and rolling of close graded premix carpet of compacted 20mm thickness using 0.0162 cum of 13.20-11.20mm, 0.1404 cum of 11.2-5.6mm, 0.0729 cum of 5.60-2.80 mm, 0.0405 cum of 2.80mm and below (Type B) graded HBG metal using 19kg of VG30 bitumen for 10sqm including premixing at CMP, conveyance by tipper lorry, laying by paver finisher and rolling by Vibratory Roller including cost and conveyance of all materials, hire charges of all T&P all labour charges, fuel and and all other incidental charges etc., Complete as per specification using CMP as per clause 508 of MORTH Rev-5	SQM	200.35

Item No.	Description	Unit	Rate (Rs.P)
0912	Providing and laying, spreading and compacting graded stone aggregates to Crusher Run Macadam specification including premixing the materials with water at OMC in mechanical mix plant carriage of mixed material by tipper to site laying in uniform layers with pavers in Sub Base/ Base course on well prepared surface and compacting with vibratory roller to achieve the desired density including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per Clause 407 of MORTH Rev-5	CUM	1410.45
0913	Providing and laying Prime Coat over WBM/WMM surface using 7 Kg of Emulsion Bitumen (SS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per Clause 502 of MORTH Rev-5	SQM	82.55
0914	Providing and laying Prime Coat over CRM/ Gravel base using 9 Kg of Emulsion Bitumen (SS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per Clause 502 of MORTH Rev-5	SQM	100.30
0915	Providing and laying Tack Coat over Dry Lean Cement Concrete surface using 3.00 Kg of Bitumen Emulsion (RS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per Clause 503 of MORTH Rev-5	SQM	20.15
0916	Providing and laying Tack Coat over Existing BT surface using 2 Kg of Bitumen Emulsion (RS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per Clause 503 of MORTH Rev-5	SQM	19.15
0917	Providing and laying Tack Coat over WBM/ WMM surface (treated with primer) using 2.50 Kg of Bitumen Emulsion (RS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per Clause 503 of MORTH Rev-5	SQM	17.35
0918	Providing, laying and compacting Well Gravel including cost and conveyance of the same to work site with an average lead of 5 Km including stacking the same to departmental gauge for premeasurement including all labour charges for laying, spreading etc., complete and directed by the departmental engineers for making up of low berms	CUM	234.10
0919	Providing, laying and compacting Gravel including cost and conveyance of the same to work site with an average lead of 5 Km including stacking the same to departmental gauge for premeasurement including all labour charges for laying, spreading etc., complete and as directed by the departmental engineers for making up of low berms	CUM	333.10

Item No.	Description	Unit	Rate (Rs.P)
0920	Providing and laying Bituminous Concrete to 50 mm thick using 0.22 cum of 26.5- 13.20mm, 0.24 cum of 13.20-2.36mm and 0.26cum of 2.36 & below IRC HBG metal with 62.40 kgs of VG30/ VG40 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 50mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory / Pneumatic Roller to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher / 9m paver finisher, Vibratory / Pneumatic roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP clause 507 of MORTH.	CUM	10768.20
0921	Formation of embankment with earth from quarrying place and compaction by power roller (100 % compaction)	CUM	539.90
0922	Labour charges for spreading the patchmat material for road patch work. Rate includes preparation of surface, brushing, cleaning, laying patchmat, compacting etc. complete. Patchmat will be supplied by BHEL at stores at free of cost.	SQM	42.00

Item No.	Description	Unit	Rate (Rs.P)
X - DISMANTLING AND DEMOLITION			
1001	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge.		
A1	Brick work in cement mortar	CUM	530.25
A2	Stone rubble masonry in cement mortar	CUM	632.70
A3	Old plastering / skirting raking out joints / chipping the concrete and roughening the surface.	SQM	14.15
A4	Plain Cement Concrete.	CUM	387.15
A5	RCC works including stacking of steel bars by manual/mechanical means.	CUM	916.95
A6	RCC or PCC (Using jack hammer only for pockets)	CUM	1599.85
A7	Precast concrete or stone slabs in walls, partition walls etc.		
i	Thickness upto 40 mm	SQM	78.00
ii	Thickness above 40 mm upto 75 mm	SQM	116.80
A8	RCC louvers / RCC jally	SQM	152.85
A9	Ellis pattern finish / Insitu mosaic.	SQM	27.95
A10	Tile work in floors and roofs laid in cement mortar.	SQM	27.70
A11	Brick jelly lime concrete	CUM	219.15
A12	Doors / Windows / Ventilators (steel or wood) including frame and shutters, holdfasts, hinges, fastenings etc. of area 3 sqm & below.	EACH	110.15
A13	Only shutters of Doors / Windows / Ventilators (steel or wood) including hinges, fastenings etc.	SQM	20.00
A14	IWC with 'P' trap & foot rests	SET	240.20
A15	EWC (excluding flushing cistern) / Urinal (earthenware) of any size including foot rests / Wash basin with connected fittings / RCC precast sink or other ready made sinks with connected fittings/ Nahani trap.	EACH	144.10
A16	Flushing cistern of any size	EACH	272.45
A17	G.I / PVC pipe lines of various dia including all specials.	R.M	10.80
A18	A.C / C.I rain water pipes upto 150 mm dia with fittings and clamps.	R.M	20.15
A19	S.W pipe lines upto 225 mm dia.	R.M	30.25

Item No.	Description	Unit	Rate (Rs.P)
A20	C.I pipes including earthwork excavation, breaking lead caulked joints, melting of lead and making into blocks, refilling trenches after taking out the pipes etc.		
I	Upto 150 mm dia	R.M	127.60
ii	Above 150 and upto 300 mm dia	R.M	169.60
iii	Above 300 mm dia	R.M	220.10
A21	C.I sluice valve		
I	Upto 150 mm dia	EACH	100.45
ii	Above 150 mm dia	EACH	349.15
A22	A.C sheets from roofs and side cladding including ridges, valleys, gutters etc.	SQM	22.90
A23	G.I / Aluminium sheets / Aluminium Zinc alloy coated sheets from roofs and side cladding including ridges, valleys, gutters etc.	SQM	49.30
A24	Steel structures / steel works in built up sections including bolts, nuts, cutting rivets, welding, dismembering, preparation of DODL etc.	M.T	1549.00
A25	Steel partitions including bolts, nuts, cutting rivets, welding etc. and dismembering	SQM	68.00
A26	North light glasses at various levels ranging from 9 to 24 metre	SQM	77.55
A27	False ceiling / partitions / fixed glazing, all in A.C sheet or hard board or aluminium or gypsum or other materials including connected frame works .	SQM	17.50
A28	Rough stone dry packing for apron, revetments etc.	CUM	219.60
A29	R.C.C fencing post including all earthwork, dismantling base concrete etc.	EACH	87.80
A30	Barbed wire / flexible wire rope in fencing.	K.G	9.45
A31	R.C.C pipes upto 450 mm dia	R.M	183.55
A32	Kerb stone	R.M	17.85
A33	Bituminous road.	CUM	376.20
A34	W.B.M /W.M.M road.	CUM	233.20

Item No.	Description	Unit	Rate (Rs.P)
XI - WATER SUPPLY AND SANITARY ITEMS			
1101	Providing and fixing G.I pipes and specials (B - Class) of approved brand with G.I fittings and clamps on walls & floors, including cutting and making good the walls & floors etc. complete. (Internal work - exposed on walls)		
A	15 mm dia nominal bore.	R.M	147.10
B	20 mm dia nominal bore.	R.M	180.00
C	25 mm dia nominal bore.	R.M	239.65
D	32 mm dia nominal bore.	R.M	290.10
E	40 mm dia nominal bore.	R.M	345.10
F	50 mm dia nominal bore.	R.M	431.55
G	65 mm dia nominal bore.	R.M	531.25
H	80 mm dia nominal bore.	R.M	677.65
I	100 mm dia nominal bore.	R.M	835.65
J	125 mm dia nominal bore.	R.M	1409.55
K	150 mm dia nominal bore.	R.M	1627.45
1102	Making chases upto 7.50 x 7.50 cm in walls for concealed pipe line works etc. including making good to match with existing one after housing pipes etc. complete. Rate excludes cost of pipes.	R.M	57.40
1103	Providing and laying G.I pipes and specials (B - Class) of approved brand with G.I fittings in trenches. (External work) Earth work excavation for trenches and refilling will be paid separately.		
A	15 mm dia nominal bore.	R.M	87.00
B	20 mm dia nominal bore.	R.M	110.60
C	25 mm dia nominal bore.	R.M	162.10
D	32 mm dia nominal bore.	R.M	199.20
E	40 mm dia nominal bore.	R.M	232.70
F	50 mm dia nominal bore.	R.M	290.10
G	65 mm dia nominal bore.	R.M	381.70
H	80 mm dia nominal bore.	R.M	504.25
I	100 mm dia nominal bore.	R.M	650.95

Item No.	Description	Unit	Rate (Rs.P)
J	125 mm dia nominal bore.	R.M	1150.25
K	150 mm dia nominal bore.	R.M	1360.80
1104	Providing and fixing PVC water pipes and specials conforming to ISS on walls and floors with clamps at one metre spacings, joining with proper adhesive as suggested by manufacturers, cutting and making good the wall etc. complete. (internal work - exposed on walls)		
A	PVC Pipe 18/20 mm OD (10 kg/Sq.cm)	R.M	62.90
B	PVC Pipe 25 mm OD (10 kg/Sq.cm)	R.M	80.05
C	PVC Pipe 32 mm OD (10 kg/Sq.cm)	R.M	96.10
D	PVC Pipe 40 mm OD (6 kg/Sq.cm)	R.M	119.65
E	PVC Pipe 50 mm OD (6 kg/Sq.cm)	R.M	156.80
1105	Providing and laying PVC water pipes and specials conforming to ISS in trenches, joining with proper adhesive as suggested by manufacturers etc. complete. (External work) Earth work excavation for trenches and refilling will be paid separately.		
A	PVC Pipe 18/20 mm OD (10 kg/Sq.cm)	R.M	23.35
B	PVC Pipe 25 mm OD (10 kg/Sq.cm)	R.M	32.35
C	PVC Pipe 32 mm OD (10 kg/Sq.cm)	R.M	46.25
D	PVC Pipe 40 mm OD (6 kg/Sq.cm)	R.M	51.10
E	PVC Pipe 50 mm OD (6 kg/Sq.cm)	R.M	72.35
F	PVC Pipe 63 mm OD (6 kg/Sq.cm)	R.M	108.50
G	PVC Pipe 75 mm OD (6 kg/Sq.cm)	R.M	150.70
H	PVC Pipe 90 mm OD (6 kg/Sq.cm)	R.M	211.45
I	PVC Pipe 110 mm OD (6 kg/Sq.cm)	R.M	294.65
J	PVC Pipe 140 mm OD (6 kg/Sq.cm)	R.M	464.30
K	PVC Pipe 160 mm OD (6 kg/Sq.cm)	R.M	594.70
L	PVC Pipe 180 mm OD (6 kg/Sq.cm)	R.M	774.35
M	PVC Pipe 200 mm OD (6 kg/Sq.cm)	R.M	941.90

Item No.	Description	Unit	Rate (Rs.P)
1106	Providing and fixing PVC pipes of 4 K.G / Sqcm conforming to ISS including joining with proper adhesive as suggested by manufacturers and suitable clamps for rain water pipes, drainage etc. Rate excludes all specials like shoe, bend, tee, tee with door etc.		
A	PVC Pipe 75 mm OD	R.M	128.05
B	PVC Pipe 110 mm OD	R.M	225.50
C	PVC Pipe 160 mm OD	R.M	364.85
1107	Providing and fixing PVC moulded fittings / accessories on walls for rain water pipes conforming to IS 13592 Type A including joining with seal rings conforming to IS 5382 and proper adhesive as suggested by manufacturers etc.complete.		
A	75 x75 x 75 mm single tee with door.	EACH	134.50
B	110 x 110 x 110 mm single tee with door.	EACH	197.90
C	160 x 160 x 160 mm single tee with door.	EACH	335.15
D	75 x75 x 75 mm single tee without door.	EACH	119.10
E	110 x110 x 110 mm single tee without door.	EACH	174.80
F	160 x160 x 160 mm single tee without door.	EACH	288.85
G	75 mm shoe	EACH	68.60
H	110 mm shoe	EACH	101.70
I	160 mm shoe	EACH	174.90
J	75 mm bend	EACH	81.90
K	110 mm bend	EACH	150.25
L	160 mm bend	EACH	191.50
1108	Providing and fixing in position of brass wheel valve / gate valve (G.M) of approved brand with C.I wheel etc. complete. (ISI marked)		
A	15 to 25 mm nominal bore	EACH	421.70
B	32 mm nominal bore	EACH	545.35
C	40 mm nominal bore	EACH	712.80
D	50 mm nominal bore	EACH	962.70
E	80 mm nominal bore	EACH	2730.25

Item No.	Description	Unit	Rate (Rs.P)
F	100 mm nominal bore	EACH	4972.00
1109	Providing and fixing in position C.P brass bib cock / stop cock (Medium Duty) of approved brand (ISI marked)		
A	15 mm nominal bore.	EACH	207.55
B	20 mm nominal bore.	EACH	265.25
C	25 mm nominal bore.	EACH	342.10
1110	Providing and fixing in position of following of approved brand (ISI marked)		
A	15 mm nominal bore C.P brass long nose bibcock	EACH	748.70
B	15mm nominal C.P brass stop cock (concealed)	EACH	585.95
C	15 mm nominal C.P brass long body bibcock	EACH	577.10
1111	Providing and fixing in position 15 mm nominal bore C.P brass angle valve for basin mixer and geyser points of approved brand (ISI marked)	EACH	479.85
1112	Providing and fixing in position 100 mm dia C.P brass shower rose (tilting type) of approved brand with 15 or 20 mm dia inlet.	EACH	67.65
1113	Providing and fixing in position of white glazed earthenware wash basin of size 550 x 400 x 225 mm of approved brand with M.S or C.I brackets painted with two coats of synthetic enamel paint, single 15 mm C.P brass pillar tap and C.P brass chain with rubber plug, 32 mm C.P brass waste coupling of standard pattern, 32 mm dia PVC flexible waste pipe etc. complete, including cutting and making good the walls wherever required.	EACH	1605.80
1114	Providing built-in-wash basin of inner dimension 0.30 x 0.25 m with 50 mm thick bottom slab in cement concrete 1:2:4, using 12 to 20 mm size hard broken granite stone jelly and 30 mm thick side walls in cement concrete 1:2:4 using 6 mm granite stone chips applied over chickenmesh and finished with insitu gray mosaic of 10 mm thick wearing layer on both faces. Rate includes cost of all materials, labour, centering, curing and all other incidentals but excluding cost of binding wire and fabrication charges for grills.	R.M	1154.50
1115	Providing and fixing in position of towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality & colour. (600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 grams)		
A	PTMT towel rail 600 mm	EACH	382.05
B	Brass chromium plated towel rail 600 mm and 20 mm dia	EACH	399.65

Item No.	Description	Unit	Rate (Rs.P)
C	Anodised aluminium Towel rail 60cm long and 20mm dia with brackets	EACH	266.55
1116	Providing and fixing 600 x 450 x 5 mm bevelled edge mirror of superior glass (approved brand) mounted on 5/6 mm thick hard board / ply wood / plastic folder sheet, fixed to wooden cleats with C.P brass screws and washers, etc. complete.		
A	600 x 450 x 5 mm bevelled edge mirror	EACH	374.00
B	Circular shape 450 mm dia Mirror with Plastic moulded frame	EACH	528.00
C	Rectangular shape 453x357 mm Mirror with Plastic moulded frame	EACH	363.00
D	Oval shape 450x350 mm (outer dimensions) Mirror with Plastic	EACH	418.00
E	Rectangular shape 1500x450 mm Mirror with Plastic moulded frame	EACH	803.00
1117	Providing and fixing in position of 600 x 120 x 5 mm glass shelf (approved brand) with edges rounded off, supported on anodised aluminium angle frame with C.P brackets fixed with screws , rawl plugs etc. complete.	EACH	308.00
1118	Providing and fixing RCC precast sink of size 60 x 45 x 25 cm in cement concrete of mix 1:2:4 for 25 mm thick bottom slab and 20 mm thick side walls using 6 mm granite stone jelly, applied on chickenmesh and plastered both sides with cement mortar 1:4, 12 mm thick and finished smooth, supply and fixing PVC waste pipe 32 mm dia. with necessary coupling. etc., complete. Rate includes cost of all materials, labour, curing, carrying and fixing in position etc. but excluding cost of binding wire and fabrication charges for grills, all as per standard specifications.	EACH	1244.40
1119	Providing and fixing in position of ready made sink including PVC flexible waste pipe of 32 mm dia with necessary C.P waste coupling etc. complete.		
A	Cudappa sink of size 600X450X200 or thereabouts (outer dimensions) - 12 mm thick.	EACH	766.10
B	Cudappa sink of size 600X600X200 or thereabouts (outer dimensions) - 12 mm thick.	EACH	932.15
C	Marble (white) sink of size 23" x 17" x 9"/10" or thereabouts (outer dimensions) - 12 mm thick.	EACH	1174.80
D	Marble (white) sink of size 23" x 23" x 9"/10" or thereabouts (outer dimensions) - 12 mm thick.	EACH	1460.80
E	Granite (black) sink of size 23" x 17" x 9"/10" or thereabouts (outer dimensions) - 12 mm thick.	EACH	1614.80

Item No.	Description	Unit	Rate (Rs.P)
F	Granite (black) sink of size 23" x 23" x 9"/10" or thereabouts (outer dimensions) - 12 mm thick.	EACH	1900.80
1120	Conveying RCC/ ready made sink from BHEL stores to site of work and fixing in proper position with cement mortar including supply and fixing 32 mm dia PVC waste pipe with necessary coupling etc. complete. Rate excludes cost of sink which will be supplied by BHEL at stores at free of cost.	EACH	181.50
1121	Providing and fixing in position of 100 x 75 mm Nahani trap with PVC grating, all as per standard specifications.	EACH	182.70
1122	Providing and fixing in position of 150 mm SW gully trap with HCl grating, all as per standard specifications.	EACH	288.75
1123	Providing and fixing in position of brass ball valve of approved brand with plastic float fitted with brass rod etc. complete.		
A	20mm nominal bore	EACH	385.80
B	25mm nominal bore	EACH	432.30
1124	Providing and fixing in position of Indian type white glazed earthenware water closet pan of approved brand with suitable P or S trap including a pair of white glazed foot rest etc. complete.		
A	580 mm size	EACH	1112.35
B	500 mm size	EACH	1579.85
1125	Providing and fixing in position of orissa pattern water closet of approved brand with integral type foot rests,suitable P or S trap etc. complete.		
A	580 mm size (White) (Parryware/Neycer/Cera)	EACH	1815.25
B	580 mm size (colour)	EACH	2146.35
1126	Providing and fixing in position of 25 mm nominal bore C.P half turn flush valve of approved brand (ISI marked) in pipe lines.	EACH	1017.50
1127	Providing and fixing in position of pedestal type water closet (European type W.C pan) 400 mm high of approved brand with seat and lid, C.P brass hinges and rubber buffers, 10 litre PVC low level flushing cistern with fittings and painted C.I / M.S brackets with 15 mm PVC connection, 32/40 mm PVC flush bend with fittings and clamps, over flow arrangement with specials and mosquito proof coupling including painting of fittings & brackets, cutting and making good the walls and floors wherever required etc. complete.		
A	White glazed (white seat and lid)	EACH	4530.05
B	Colour glazed with colour seat and lid	EACH	4931.55

Item No.	Description	Unit	Rate (Rs.P)
1128	Providing and fixing in position of 10 litre low level PVC flushing cistern of approved make with fittings and flush pipe etc. complete.	EACH	679.95
1129	Providing and fixing in position 32 mm dia G.I flush pipe with brass union for high level flushing cistern including cutting and making good the walls and floors etc. complete.	EACH	543.95
1130	Providing and fixing in position of white glazed earthenware urinal of approved brand with teakwood plugs and screws/clamps, including standard PVC flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, cutting of floor and walls and making good all damages and finishing to match with the existing work etc., complete.		
A	Flat back angular lipped urinal of 430 x 260 x 350 mm or 340 x 410 x 265 mm	EACH	1383.50
B	Flat back half stall urinal of size 580x380x350 mm	EACH	2606.70
1131	Providing, laying in proper grade and alignment and joining glazed stoneware pipes of approved brand with stiff mixture of cement mortar 1:1 and spun yarn including testing of joints etc.complete.		
A	100 mm dia S.W Pipes Cement consumption 0.64 Kg / R.M	R.M	176.75
B	150 mm dia S.W Pipes Cement consumption 1.20 Kg / R.M	R.M	270.45
C	200 mm dia S.W Pipes Cement consumption 1.77 Kg / R.M	R.M	402.65
D	225 mm dia S.W Pipes Cement consumption 2.17 Kg / R.M	R.M	491.75
1132	Providing rectangular/circular manhole as per Drawing for the following depths. Rate includes earth work excavation in all soils (except hard rock requiring blasting) including soft disintegrated rock, watering and ramming of foundation bed, providing cement concrete 1:4:8 in foundation, including necessary slope and forming channels smoothly finished in C.M 1:2, brick work in C.M 1:5 for arch ring, etc., using standard approved bricks, plastering in cement mortar 1:4 for side walls (outside and inside), cement concrete 1:2:4 using 12 to 20 mm HBGS jelly for manhole cover fixing, providing and fixing C.I steps for ladder rungs, etc., complete. Rate includes an initial lead of 10 m and all lifts for excavation and other charges etc., complete, but excludes cost of manhole cover and frame.		
A	Upto 0.90 m depth (Rectangular) Cement consumption 128.00 Kg / Each	EACH	4131.75
B	Above 0.90 and upto 1.20 m depth (Rectangular) Cement consumption 278.01 Kg / Each	EACH	6589.65

Item No.	Description	Unit	Rate (Rs.P)
C	Above 1.20 and upto 1.50 m depth (Rectangular) Cement consumption 320.31 Kg / Each	EACH	8361.35
D	Above 1.50 and upto 1.80 m depth (Rectangular) Cement consumption 332.10 Kg / Each	EACH	9284.90
E	Above 1.80 and upto 2.10 m depth (Rectangular) Cement consumption 367.94 Kg / Each	EACH	10773.80
F	Above 2.10 and upto 2.40 m depth (Rectangular) Cement consumption 403.63 Kg / Each	EACH	12463.50
G	Above 2.40 and upto 2.70 m depth (Rectangular) Cement consumption 594.62 Kg / Each	EACH	15600.85
H	Above 2.70 and upto 3.00 m depth (Rectangular) Cement consumption 618.57 Kg / Each	EACH	16756.65
I	Above 3.00 and upto 3.30 m depth (Rectangular) Cement consumption 654.69 Kg / Each	EACH	18619.60
J	Above 3.30 and upto 3.60 m depth (Rectangular) Cement consumption 690.82 Kg / Each	EACH	20482.55
1133	Supply and fixing C.I cover with/without frame for manholes/gully traps.		
A	500 mm dia C.I cover only (Without frame) (Medium duty) Weight of the cover to be not less than 58 K.G.	EACH	2587.35
B	500 mm dia C.I cover with frame (Medium duty) Total weight of cover and frame to be not less than 116 K.G (Weight of cover 58 K.G and weight of frame 58 K.G)	EACH	5309.70
C	560 mm dia C.I cover only. (Without frame) (Heavy duty) Weight of cover to be not less than 108 K.G.	EACH	5562.35
D	560 mm dia C.I cover with frame. (Heavy duty) Total weight of cover and frame to be not less than 208 K.G (Weight of cover 108 K.G and weight of frame 100 K.G)	EACH	10045.20
E	300 x 300 mm C.I cover without frame for gully trap (standard pattern) The weight of cover to be not less than 4.50 K.G.	EACH	260.60
1134	Labour charges for laying centrifugally C.I pipes (S&S or flanged pipes) in trenches to proper grade and alignment. Rate excludes cost of pipes.	M.T	1020.45
1135	Labour charges for laying C.I specials such as tees, bends, collars, tapers, caps etc. in trenches to proper alignment. Rate excludes cost of specials.	M.T	1960.45

Item No.	Description	Unit	Rate (Rs.P)
1136	Labour charges for cutting C.I pipes true to axis and filing smoothly and finishing the ends complete.		
A	80 mm dia C.I pipe.	EACH	44.65
B	100 mm dia C.I pipe.	EACH	60.10
C	125 mm dia C.I pipe.	EACH	83.90
D	150 mm dia C.I pipe.	EACH	113.10
E	200 mm dia C.I pipe.	EACH	150.85
F	250 mm dia C.I pipe.	EACH	186.95
G	300 mm dia C.I pipe.	EACH	224.70
H	350 mm dia C.I pipe.	EACH	260.80
I	400 mm dia C.I pipe.	EACH	298.30
J	450 mm dia C.I pipe.	EACH	334.65
1137	Providing lead caulked joints to C.I pipes and specials including testing of joints but excluding cost of pig lead.		
A	80 / 100 mm dia pipe.	EACH	163.50
B	125 / 150 mm dia pipe.	EACH	241.50
C	200 / 250 mm dia pipe.	EACH	365.95
D	300 / 350 mm dia pipe.	EACH	498.25
E	400 / 450 mm dia pipe.	EACH	698.95
1138	Providing flanged joints to double flanged C.I pipes and specials including testing of joints, 3 mm thick rubber insertions, suitable bolts and nuts etc. complete.		
A	100 / 125 mm dia pipe.	EACH	173.25
B	150 / 200 mm dia pipe.	EACH	208.55
C	250 / 300 mm dia pipe.	EACH	323.45
D	350 / 400 mm dia pipe.	EACH	453.75
E	450 / 500 mm dia pipe.	EACH	836.75

Item No.	Description	Unit	Rate (Rs.P)
1139	Desludging and cleaning the underground equalising reservoirs by dewatering, scraping the silt deposited on floor, brushing, swabbing, cleaning, scraping side walls and floors with bleaching powder, removing dirt, moss, cleaning the reservoirs with fresh water etc. complete. Rate includes labour, scaffolding, brushes, brooms etc. complete. Bleaching powder, electrical/diesel operated pumps with power/diesel and fresh water will be supplied by BHEL at free of charges.	SQM	6.00
1140	Cleaning the main over head water tanks by dewatering, scouring the silt deposited on the floor of tanks, removing cobweb, brushing, scraping the side walls and floors of inner and outer compartments using cleaning powder, removal of sediment, applying cleaning powder on all interior surfaces and kept under disinfection for a minimum of 12 hour, then washing thoroughly with clean water without any residual cleaning powder or any foreign matter etc. complete. Rate includes all labour, brushes, brooms etc. Cleaning powder will be supplied by BHEL at stores at free of cost. Payment will be made for the floors and inside walls of the water tanks. (Staging height may vary from 15 to 23 M from ground level)	SQM	6.50
1141	Cleaning of over head water tank of 500 cum capacity with a staging height of 23 to 40 M from ground level by de-watering, removing algae, fungus, scouring the silt deposited on the floors of the tank, removing cobweb, brushing, scraping the side walls of inner and outer shells, floors, columns and beams using necessary cleaning powder on all interior surfaces and kept under disinfection for a minimum of 12 hour, then washing thoroughly with clean water without any residual cleaning powder or any other foreign matter etc., complete. Necessary cleaning powder, brushes, brooms and ladder will be supplied by BHEL at stores at free of cost. Contractor has to take all safety precautions.	EACH	4880.75
1142	Replacement to the damaged water closet by providing new Orissa water closet pan of approved brand with suitable trap. Rate includes dismantling the damaged water closet with foot rests, trap, ellis/mosaic floor finish with base concrete, sand and refilling with fresh river sand, providing new Orissa pan with trap & fixing in position, providing 20 mm thick ellis pattern finish over 75 mm thick floor concrete in PCC 1:5:10 using 40 mm size stone jelly for that area, finishing the side walls to match with the existing one etc. complete.		
A	580 mm size (White)	EACH	1617.90
B	580 mm size (White), but with 20 mm thick insitu mosaic floor finish as per usual practice instead of ellis pattern finish.	EACH	1788.40
1143	Replacement to the damaged European water closet by providing new white glazed European water closet (white) 400 mm high of approved brand with seat & lid. Rate includes dismantling the damaged water closet, providing new EWC, fixing, all labour etc. complete.	EACH	1495.60

Item No.	Description	Unit	Rate (Rs.P)
1144	Labour charges for dismantling the trap alone without damaging the water closet & refixing with new trap supplied by BHEL at stores at free of cost & making good all damages and finishing to match with the existing one etc.complete.	EACH	211.75
1145	Replacement to the damaged nahani trap by providing and fixing in position of new PVC nahani trap 100 x 75 mm with grating as per standard specifications. Rate includes labour for dismantling the existing trap, refixing with new one, making good all damages and finishing to match with the existing one etc., complete.	EACH	352.00
1146	Providing 32 mm dia PVC waste pipe to sink with necessary coupling etc complete.	EACH	49.50
1147	Cleaning & complete removal of all the obstructions/blockage accumulated such as silt, sand, debris, all other wastes etc. from manhole & disposing the same in the near by low level areas. Scope includes opening the manhole cover, removing all the blockage such as silt, sand, debris, all other wastes etc., lifting, disposing the same in the near by low level areas, all labour, tools, repositioning the manhole cover after finishing the job etc.complete.		
A	Manhole upto 1.50 metre depth	EACH	168.50
B	Manhole beyond 1.50 but upto 3.30 metre depth	EACH	378.40
1148	Cleaning the sewer line in all depths between manhole to manhole & complete removal of all the obstructions/blockage accumulated such as silt, sand, debris, all other wastes etc. by means of blockage removal machine attached with sewer cleaning rod etc. & disposing the same in the near by low level areas. Scope includes opening the manhole cover, removing all the blockage such as silt, sand, debris, all other wastes etc., lifting, disposing the same in the near by low level areas, all labour, tools, repositioning the manhole cover after finishing the job etc.complete. Blockage removal machine attached with sewer cleaning rod for the job will be issued by BHEL at stores at free of cost.	R.M	16.80
1149	Labour charges for conveying, laying and fixing G.I pipes and specials with G.I fittings and clamps on walls & floors, including cutting and making good the walls & floors etc. complete. Rate includes cost of white lead, hemp, oil, sand etc. but excludes cost of G.I pipes, specials and clamps which will be supplied by BHEL at stores at free of cost.		
A	15 mm dia nominal bore.	R.M	58.55
B	20 mm dia nominal bore.	R.M	64.85
C	25 mm dia nominal bore.	R.M	71.40
D	32 mm dia nominal bore.	R.M	80.05
E	40 mm dia nominal bore.	R.M	102.15
F	50 mm dia nominal bore.	R.M	124.10

Item No.	Description	Unit	Rate (Rs.P)
G	65 mm dia nominal bore.	R.M	135.20
H	80 mm dia nominal bore.	R.M	143.70
I	100 mm dia nominal bore.	R.M	229.75
J	125 mm dia nominal bore.	R.M	163.35
K	150 mm dia nominal bore.	R.M	172.40
1150	Painting G.I pipes and fittings with synthetic enamel paint of two coats over a ready mixed priming coat, both of approved quality for new work.		
A	15 mm diameter pipe	R.M	8.45
B	20 mm diameter pipe	R.M	9.95
C	25 mm diameter pipe	R.M	13.10
D	32 mm diameter pipe	R.M	15.50
E	40 mm diameter pipe	R.M	18.40
F	50 mm diameter pipe	R.M	21.70
1151	Conveying polyethylene cylindrical moulded water storage tank of following capacity from BHEL stores to site of work and placing it in proper position in buildings at required levels/floors. All as per instructions of Engineer in charge. Rate includes conveyance, placing it in position at required level, fixing the specials like barrel nipples etc. complete. PVC tank and all specials will be issued by BHEL at stores at free of cost.		
A	Up to 500 litre	EACH	99.00
B	Above 500 but up to 1000 litre	EACH	123.20
C	Above 1000 but up to 2000 litre	EACH	198.00
1152	Labour charges for conveying, laying and fixing G.I pipes and specials (B - Class) of approved brand with G.I fittings in trenches. Rate includes cost of white lead, hemp, oil, sand etc. but excludes cost of G.I pipes, specials and clamps which will be supplied by BHEL at stores at free of cost.		
A	15 mm dia nominal bore.	R.M	8.45
B	20 mm dia nominal bore.	R.M	8.45
C	25 mm dia nominal bore.	R.M	12.90
D	32 mm dia nominal bore.	R.M	12.95
E	40 mm dia nominal bore.	R.M	17.25
F	50 mm dia nominal bore.	R.M	17.45

Item No.	Description	Unit	Rate (Rs.P)
G	65 mm dia nominal bore.	R.M	30.55
H	80 mm dia nominal bore.	R.M	30.75
I	100 mm dia nominal bore.	R.M	45.10
J	125 mm dia nominal bore.	R.M	45.10
K	150 mm dia nominal bore.	R.M	70.50
1153	Providing and fixing gun metal non- return valve of approved quality(screwed end)		
A	25 mm nominal bore (Horizontal)	EACH	388.30
B	25 mm nominal bore (Vertical)	EACH	421.30
C	32 mm nominal bore (Horizontal)	EACH	522.70
D	32 mm nominal bore (Vertical)	EACH	599.70
E	40 mm nominal bore (Horizontal)	EACH	646.15
F	40 mm nominal bore (Vertical)	EACH	855.15
G	50 mm nominal bore (Horizontal)	EACH	934.80
H	50 mm nominal bore (Vertical)	EACH	1143.80
I	65 mm nominal bore (Horizontal)	EACH	1674.25
J	65 mm nominal bore (Vertical)	EACH	1916.25
K	80 mm nominal bore (Horizontal)	EACH	2369.90
L	80 mm nominal bore (Vertical)	EACH	3216.90
1154	Supply at site of work and fixing in position of 32mm dia. CP bottle trap for water line connection in wash basin / urinals of approved brand and quality. All as per standard specifications and instructions of Engineer-in-charge.	EACH	625.75
1155	Supplying and placing in proper position of Polyethylene cylindrical moulded vertical storage tank of 500 litres capacity of approved quality in buildings at required levels / floors as per the instruction of Engineer in charge. Rate shall include cost of the tank, taxes, duties, loading unloading transportation charges delivery to BHEL conveying to site of work and placing in position at required level, fixing the barrel nipple to the tank etc., and all other incidental charges etc., complete. Rate will exclude the cost of all special like barrel nipple etc., which will be issued by BHEL at free of cost	EACH	3759.30

Item No.	Description	Unit	Rate (Rs.P)
1156	Providing and fixing in position of fire clay laboratory sink (white) of size 610 mm x 460 mm x 205 mm or thereabouts of approved make and quality Neycer or equivalent with 32 mm waste coupling, waste hose and 250 mm clamps with necessary fixing arrangements. Rate includes cost of sink, waste coupling, waste hose, clamps, labour for fixing and all other incidental charges etc., complete. All as per standard specifications and instructions of Engineer in charge.	EACH	9211.70
1157	Providing and fixing in position of white glazed earthen ware wash hand basin of oval shape size 540 mm x 460 mm or thereabouts of approved make and quality (Parry ware or equivalent) with 32 mm CP Waste coupling and necessary fixing arrangements. Rate includes cost of wash basin, waste coupling, labour for fixing and all other incidental charges, etc., complete. All as per standard specifications and instructions of Engineer in charge	EACH	2066.00
1158	Providing and fixing in position of Float valve- PTMT (Poly Tetra- Methylene Terephthalate) Ball Cock-20 mm nominal bore of PRAYAG (India) make with Epoxy coated Aluminium rod and HD Ball etc. complete(Full Set)	EACH	302.00
1159	Labour charges for removing the blockage in the gully trap and cleaning it completely, all as per the instructions of Engineer-in-charge.	No	32.25

Item No.	Description	Unit	Rate (Rs.P)
XII - ALUMINIUM WORKS, FALSE CEILING ETC.			
1201	Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections / appropriate Z sections of approved make conforming to IS:733 & 1285, fixed with rawl plugs & screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC / neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and joined mechanically wherever required including cleat angle, aluminium snap beading for glazing / panelling, C.P brass / stainless steel screws, all complete as per architectural drawings and instructions of Engineer-in-charge. (Glazing and panelling to be paid for separately)		
A	For fixed portion - Anodised aluminium (anodised transparent or dyed to required shade according to IS 1868, minimum anodic coating of grade AC 15)	K.G	302.20
B	For shutters of doors, windows and ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including cost of PVC/ neoprene gasket required. (Fittings shall be paid for separately). Anodised aluminium (anodised transparent or dyed to required shade according to IS 1868, minimum anodic coating of grade AC 15)	K.G	324.40
1202	Extra for powder coated aluminium (minimum thickness of powder coating 50 micron) sections instead of anodised aluminium sections.	K.G	26.40
1203	Extra for polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron) sections instead of anodised aluminium sections.	K.G	33.00
1204	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per drawing and instructions of Engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item.)		
A	With float glass panes of 4 mm thick	SQM	797.60
B	With float glass panes of 5.50 mm thick	SQM	948.40
1205	Providing and fixing double action hydraulic floor spring with stainless steel cover plate of approved brand and manufacture conforming to IS : 6315 for doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S sheet outer box with side plate etc. complete as per instructions of Engineer-in-charge.	EACH	1904.05

Item No.	Description	Unit	Rate (Rs.P)
1206	Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee / angle sections of approved make conforming to IS:733 in frames of false ceiling including aluminium angle cleats with necessary C.P brass / stainless steel sunk screws, aluminium perimeter angles fixed to wall with rawl plugs at 450 mm c/c and fixing the frame work to level adjusting hangers (6mm dia MS rods) with necessary cadmium plated machine screws, all complete as per drawing and directions of Engineer-in-charge.(Level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately)	K.G	451.90
1207	Providing and fixing 6 mm dia G.I level adjusting hangers (upto 1200 mm length) fixed to roof slabs by means of ceiling cleats made of G.I flat 40 x 3 mm size, 60 mm long and expansion hold fasteners 12.5 mm dia, 40 mm long etc.complete.	EACH	99.90
1208	Providing and fixing machine moulded anodised aluminium (anodised transparent or dyed to required shade according to IS 1868, minimum anodic coating of grade AC 15) sheet covering of approved pattern and design made out machine cut aluminium sheet and machine holed for receiving screws, over expansion joints on vertical surfaces / ceilings with full threaded cadmium plated steel screws 4 mm dia, stem 30 mm long and aluminium washers 2 mm thick, 15 mm dia at a staggered pitch of 200 mm c/c including drilling holes in the receiving surface and providing expandable plastic sleeves in holes etc. complete.	K.G	400.20
1209	Providing false ceiling at all height with 12.5 mm thick tapered edge gypsum board conforming to IS : 2095 including providing and fixing of frame work made of special sections of power pressed from M.S sheet and galvanised in accordance of zinc coating of grade 350 as per IS:277 and consisting of angle cleats of size 25 wide & 1.6 mm thick with flanges of 22 mm and 37 mm at 1200 mm c/c one flange fixed to the ceiling with dash fastener 12.5 mm dia, 40 mm long with 6 mm dia bolts to the angle hangers of 25 x 25 x 0.55 mm of required length and other end of angle hanger being fixed with nut and bolts to G.I channels 45 x 15 x 0.9 mm running at the rate of 1200 mm c/c to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having clips of 10.5 mm at 450 mm c/c shall be fixed in a direction perpendicular to G.I channel with connecting clips made of 2.64 mm dia, 230 mm long G.I wire at every junction including fixing the gypsum board with ceiling section and 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 c/c with 25 mm long drive-all screws @ 230 mm interval including joining and fixing to a flush finish of tapered and square edges of gypsum board with recommended filler, paper tapes, finisher and two coats of primer suitable for gypsum board as per manufacturers' 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 drawing, specification and direction of Engineer-in-charge, but excluding the cost of painting.	SQM	740.65

Item No.	Description	Unit	Rate (Rs.P)
1210	Providing false ceiling at all heights using the following ceiling tiles. The scope of work includes providing and fixing frame of grid size 600 mm x 600 mm or thereabouts using GI sections of main tees of size 24mm x 38mm x, cross tees of size 24mm x 38mm, wall angles of size 19mm x 19mm, suspended by hangers of ceiling/ stay angles / G I wires of 2mm x 2 ply of 8' length screwed with suitable bullets of size 45 to 50mmx 8mm size to RCC roof ceiling / steel trusses etc. complete. hangers and height adjustment clips if any shall also to be provided wherever light fixtures / AC grills / diffusers are flush to the ceiling frame work and the ceiling boards have to made alright accordingly. Rate to include cost of all materials involved including suitable fasteners, screws, etc., , labour charges and all other incidentals etc., Complete. All as per standard / manufacturers specifications and instructions of Engineer-in- charge.		
a	Arm Gyp- FB Ceiling tiles of Armstrong make of size 595mm x 595mm x 9mm thick	SQM	1246.05
b	Aruba- FB Ceiling tiles of Armstrong make of size 595mm x 595mm x7.5mm thick	SQM	1137.60
1211	Providing 10 mm thick plaster of paris (Gypsum anhydrous) ceiling upto a height of 5 metre above floor level over first clas kail wood strips 25 x 6 mm with 10 mm gap in between and reinforced with rabbit wire mesh fixed to wooden. (Frame work will be paid separately)		
A	Flat surfaces	SQM	715.50
B	Curved surfaces	SQM	826.10
1212	Extra for any sunk or raised mouldings in the plaster of paris (Gypsum anhydrous) ceiling.	SQM	207.60
1213	Extra for providing plaster of paris (Gypsum anhydrous) ceiling for every 1 m height above 5 metre height from floor level. (Height beyond 5 metre to be measured for extra payment)	SQM	84.05
1214	Providing and fixing 100 mm brass lock (mortise latch & lock with six levers) for aluminium doors including necessary cutting and making good etc.complete.	EACH	371.40
1215	Providing and fixing anodised (AC 15) aluminium round shape handle of outer dia 100 mm with SS screws etc.complete, all as per instructions of Engineer in charge.	EACH	58.60
1216	Providing and fixing powder coated (50 micron) aluminium round shape handle of outer dia 100 mm with SS screws etc.complete, all as per instructions of Engineer in charge.	EACH	64.10
1217	Providing and fixing polyester powder coated (50 micron) aluminium round shape handle of outer dia 100 mm with SS screws etc.complete, all as per instructions of Engineer in charge.	EACH	69.60

Item No.	Description	Unit	Rate (Rs.P)
1218	Servicing / overhauling, oiling, cleaning of aluminium door / window shutter of any size for smooth operation as per instructions of Engineer-in-charge. Rate includes cost of tool and labour (Excluding cost of spares which will be paid separately) and other incidental charges etc. complete	SQM	179.50
1219	Providing Powder coated aluminium alloy grills of following and fixing in proper position in windows/ventilators/balconies/partitions/fences/racks etc. with necessary appropriate type, material, brand & quality screws as per manufacturers recommendation etc.complete, all as per the instructions of Engineer-in-charge.		
A	Aluminium Grill 12x4-4" open -7.5 mm thk (245-255g/sqft)	SQM	1922.40
B	Aluminium Grill 12x4-4" open -6.3 mm thk 175-185g/sqft	SQM	1637.75
C	Aluminium Grill 12x4-4" open -5.5 mm thk 125-135g/sqft	SQM	1495.40
D	Aluminium Grill 12x4-3" open -7.5 mm thk 315-325g/sqft	SQM	2207.15
E	Aluminium Grill 12x4-3" open -6.3 mm thk 230-240g/sqft	SQM	1993.60
F	Aluminium Grill 12x4-3" open -5.5 mm thk 160-170g/sqft	SQM	1708.90
G	Aluminium Grill 12x4-2" open -7.5 mm thk 410-420 g/sqft	SQM	2420.70
H	Aluminium Grill 12x4-2" open -5.5 mm thk 200-210g/sqft	SQM	2207.15
1220	Manufacturing, supplying and fixing in position of partitions for an approximate height of 3.20 m as detailed below: The bottom 90 cm and top 110 cm of the partition shall be of wooden, using 9 mm thick interior grade ISI marked (IS : 12823) three layered melamine faced prelaminate (both side) particle board of approved shade with Powder coated aluminium frame work. The middle 120 cm height of partition shall be of glazed using 5 mm thick plain glass and powder coated aluminium frame work of approved quality. The partitions shall be rigidly fixed on floors and walls using 8 mm anchor fasteners including cutting and making good the walls and floors etc., complete. FRAME WORK: The frame work shall be with Powder coated aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 ¾" x 1 ¾" and 1.70 mm thick (weight 1.312 kg/m). The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (weight 0.754 kg/m). The verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Generally all the vertical sections shall be taken up to ceiling height and fixing the same with RC beams/slabs for better rigidity. Rate includes cost of all materials, labour and other incidentals etc., complete.	SQM	2365.85

Item No.	Description	Unit	Rate (Rs.P)
1221	<p>Manufacturing, supplying and fixing in position of partitions for an approximate height of 3.20 m as detailed below: The bottom ,middle and top of the partition (full portion) shall be of wooden, using 9 mm thick interior grade ISI marked (IS : 12823) three layered melamine faced prelaminate (both side) particle board of approved shade with Powder coated aluminium frame work. FRAME WORK: The frame work shall be with Powder coated aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 3/4" x 1 3/4" and 1.70 mm thick (weight 1.312 kg/m). The middle, top and vertical members shall be of size 2 1/2" x 1 1/2" and 1.28 mm thick (weight 0.754 kg/m). The verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Generally all the vertical sections shall be taken up to ceiling height and fixing the same with RC beams/slabs for better rigidity. Rate includes cost of all materials, labour and other incidentals etc., complete.</p>	SQM	2385.00
1222	<p>Manufacturing, supplying and fixing in position of Aluminium partitions for an approximate height of 1.50m as detailed below: The bottom 90 cm of the partition shall be of wooden, using 9 mm thick interior grade ISI marked (IS:12823) three layered melamine faced prelaminate (both side) particle board of approved shade with Powder coated aluminium frame work. The top 0.60 m height of partition shall be of glazed using 5 mm thick frosted glass and anodized aluminium frame work of approved quality. The partitions shall be rigidly fixed on floors and walls using metal fasteners including cutting and making good the walls and floors etc. complete. The frame work shall be with Powder aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 3/4" x 1 3/4" and 1.70 mm thick (1.312 kg/m) approximate. The middle, top and vertical members shall be of size 2 1/2" x 1 1/2" and 1.28 mm thick (0.754 kg/m) approximate and the verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Rate includes cost of all materials, labour and other incidentals etc., complete</p>	SQM	3313.55

Item No.	Description	Unit	Rate (Rs.P)
1223	<p>Manufacturing, supplying and fixing in position of Powder coated aluminium single leaved/double leaved glazed door of overall size 1.00 x 2.10m with suitable frame work as per the following specification and instructions of Engineer- in- charge.</p> <p>The alround vertical and horizontal outer frame shall be with 4" x 1¾" x 1.60 mm (unit wt. 1.312 kg/m)sections and for door shutter the bottom member shall be with 3¾" x 1¾" x 1.70 mm thick (unit wt. 1.312 kg/m) shutter top and verticals shall be of size 1¾" x 1¾" x 1.52 mm thick (unit wt. 0.885 kg/m) and shutter divider shall be 2 nos of of 1¾" x 1¾" x 1.70 mm thick (unit wt. 0.885 kg/m) with necessary beadings and rubber gaskets as per standard specifications. The upper panel of 120 cm shall be with 5 mm thick plain glass and lower panel of 90cm shall be with 9 mm thick interior grade ISI marked (IS:12823) three layered melamine faced prelaminate (both side) particle board . Door shall be provided with 2 Nos. of 300 mm long anodized aluminium handle, One No. of ISI marked heavy duty door closer of approved brand, One No. 200 mm long anodized aluminium tower bolt, suitable lock (4 lever), required top and bottom pivots, all as per specification of Engineer in charge. Rate includes cost of all materials, labour and other incidentals etc., complete</p>	SQM	3507.75
1224	<p>Supplying and fixing in position of aluminium ventilator using Powder coated aluminium section of size 2½" x 1½" and 1.28 mm thick (0.754 kg/m) for frames confirming to IS: 1948 of latest edition. The fixed and louvered glass panels shall be 5mm thick frosted glass panes. The ventilator should have required No. of louvers fitted properly in aluminium frame work having arrangement to close / open. The rate quoted shall include cost of all materials, labour, fixing charges, locking arrangements etc. all as per standard specifications, drawing and code of practice and instruction of Engineer-in-charge.</p>	SQM	4017.65
1225	<p>Providing and fixing powder coated aluminium two track sliding windows of approved colours aluminium sections of size 60 x 28 x1.20 mm (wt 0.656 kg /m) for outer frame , 38 x 17 x 1.20 mm (0.41 kg / m) for shutter box and 38 x 17 x 1.20 mm (0.44 kg/m) for inter lock 4 mm thick plain glass for panes, PVC wheels, U rubber, screws, locking arrangements etc. complete, all as per instructions of Engineer-in-charge.</p>	SQM	2968.60
1226	<p>Manufacturing, supplying and fixing in position of partitions for an approximate height of 3.20 m as detailed below:</p> <p>The bottom 90 cm and top 110 cm of the partition shall be of wooden, using 9 mm thick interior grade ISI marked (IS : 12823) three layered melamine faced prelaminate (both side) particle board of approved shade with anodised (25 micron) aluminium frame work.</p> <p>The middle 120 cm height of partition shall be of glazed using 5 mm thick plain glass and anodized aluminium frame work of approved quality. The partitions shall be rigidly fixed on floors and walls using 8 mm anchor fasteners including cutting and making good the walls and floors etc., complete.</p>	SQM	2214.40

Item No.	Description	Unit	Rate (Rs.P)
<p>FRAME WORK: The frame work shall be with anodised (25 micron) aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 ¾" x 1 ¾" and 1.70 mm thick (weight 1.312 kg/m). The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (weight 0.754 kg/m). The verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Generally all the vertical sections shall be taken up to ceiling height and fixing the same with RC beams/slabs for better rigidity. Rate includes cost of all materials, labour and other incidentals etc., complete.</p>	<p>1227 Manufacturing, supplying and fixing in position of partitions for an approximate height of 3.20 m as detailed below: The bottom ,middle and top of the partition (full portion) shall be of wooden, using 9 mm thick interior grade ISI marked (IS : 12823) three layered melamine faced prelaminate (both side) particle board of approved shade with anodised (25 micron) aluminium frame work.</p>	SQM	2232.60
<p>FRAME WORK: The frame work shall be with anodised (25 micron) aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 ¾" x 1 ¾" and 1.70 mm thick (weight 1.312 kg/m). The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (weight 0.754 kg/m). The verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Generally all the vertical sections shall be taken up to ceiling height and fixing the same with RCC beams/slabs for better rigidity. Rate includes cost of all materials, labour and other incidentals etc., complete.</p>	<p>1228 Manufacturing, supplying and fixing in position of Aluminium partitions for an approximate height of 1.50m as detailed below: The bottom 90 cm of the partition shall be of wooden, using 9 mm thick interior grade ISI marked (IS:12823) three layered melamine faced prelaminate (both side) particle board of approved shade with anodised (25 micron) aluminium frame work. The top 0.60 m height of partition shall be of glazed using 5 mm thick frosted glass and anodized aluminium frame work of approved quality. The partitions shall be rigidly fixed on floors and walls using metal fasteners including cutting and making good the walls and floors etc. complete.</p>	SQM	2965.35
<p>The frame work shall be with anodised aluminium sections with suitable aluminium beadings and rubber gaskets. The bottom member shall be of size 3 ¾" x 1 ¾" and 1.70 mm thick (1.312 kg/m) approximate. The middle, top and vertical members shall be of size 2 ½" x 1 ½" and 1.28 mm thick (0.754 kg/m) approximate and the verticals shall be generally spaced at 0.90 m centers and can be suitably varied at corners, wall junctions etc, without affecting the general elevation. Rate includes cost of all materials, labour and other incidentals etc., complete</p>			

Item No.	Description	Unit	Rate (Rs.P)
1229	<p>Manufacturing, supplying and fixing in position of anodised (25 micron) aluminium single leaved/double leaved glazed door of overall size 1.00 x 2.10m with suitable frame work as per the following specification and instructions of Engineer- in- charge.</p> <p>The alround vertical and horizontal outer frame shall be with 4" x 1$\frac{3}{4}$" x 1.60 mm (unit wt. 1.312 kg/m)sections and for door shutter the bottom member shall be with 3$\frac{3}{4}$" x 1$\frac{3}{4}$" x 1.70 mm thick (unit wt. 1.312 kg/m) shutter top and verticals shall be of size 1$\frac{3}{4}$" x 1$\frac{3}{4}$" x 1.52 mm thick (unit wt. 0.885 kg/m) and shutter divider shall be 2 nos of of 1$\frac{3}{4}$" x 1$\frac{3}{4}$" x 1.70 mm (unit wt. 0.885 kg/m) with necessary beadings and rubber gaskets as per standard specifications. The upper panel of 120 cm shall be with 5 mm thick plain glass and lower panel of 90cm shall be with 9 mm thick interior grade ISI marked (IS:12823) three layered melamine faced prelaminate (both side) particle board . Door shall be provided with 2 Nos. of 300 mm long anodized aluminium handle, One No. of ISI marked heavy duty door closer of approved brand, One No. 200 mm long anodized aluminium tower bolt, suitable lock (4 lever), required top and bottom pivots, all as per specification of Engineer in charge. Rate includes cost of all materials, labour and other incidentals etc., complete</p>	SQM	3165.55
1230	<p>Supplying and fixing in position of aluminium ventilator using anodised (25 micron) aluminium section of size 2$\frac{1}{2}$" x 1$\frac{1}{2}$" and 1.28 mm thick (0.754 kg/m) for frames confirming to IS: 1948 of latest edition. The fixed and louvered glass panels shall be 5mm thick frosted glass panes. The ventilator should have required No. of louvers fitted properly in aluminium frame work having arrangement to close / open. The rate quoted shall include cost of all materials, labour, fixing charges, locking arrangements etc. all as per standard specifications, drawing and code of practice and instruction of Engineer-in-charge.</p>	SQM	3854.20
1231	<p>Providing and fixing anodised (25 micron) aluminium two track sliding windows of approved colours aluminium sections of size 60 x 28 x1.20 mm (wt 0.656 kg / m) for outer frame , 38 x 17 x 1.20 mm (0.41 kg / m) for shutter box and 38 x 17 x 1.20 mm (0.44 kg/m) for inter lock 4 mm thick plain glass for panes, PVC wheels, U rubber, screws, locking arrangements etc. complete, all as per instructions of Engineer-in-charge.</p>	SQM	2669.75
1232	<p>Providing false ceiling at all heights using the following ceiling tiles. The scope of work includes providing and fixing frame of grid size 600 mm x 600 mm or thereabouts using GI sections of main tees of size 24mm x 38mm x, cross tees of size 24mm x 38mm, wall angles of size 19mm x 19mm , suspended by hangers of ceiling/ stay angles / G I wires of 2mm x 2 ply of 8' length screwed with suitable bullets of size 45 to 50mmx 8mm size to RCC roof ceiling / steel trusses etc. complete. hangers and height adjustment clips if any shall also to be provided wherever light fixtures / AC grills / diffusers are flush to the ceiling frame work and the ceiling boards have to made alright accordingly. Rate to include cost of all materials involved including suitable fasteners, screws, etc., , labour charges and all other incidentals etc., Complete. All as per standard / manufacturers specifications and instructions of Engineer-in- charge.</p>		

Item No.	Description	Unit	Rate (Rs.P)
A	7.5MM NANO TILES 600mm X 600mm	SQM	949.00
B	4MM EVEREST TILES OSANIC 600mm X 600mm	SQM	1037.75
1233	Providing and fixing in position of boards/sheets/tiles of approved quality for false ceiling. Rate includes cost of all materials, conveyance, cutting to required sizes to suit the false ceiling frame work grids, wastages, supply & fixing with necessary nails/screws, all labour etc. complete. (Frame work will be paid separately)		
A	12 mm flat pressed 3 layer medium density particle boards - Grade - I	SQM	621.20
	12 mm thick plain/semi perforated or with design ceiling tiles of BWP type phenol formaldehyde synthetic resin bonded pressed conforming to IS 3087.	SQM	632.25
B			
C	3 mm thick translucent white acrylic plastic sheets.	SQM	878.30
D	20 mm thick thermocole boards. (22 K.G/CUM)	SQM	268.35
1234	Supply and fixing the following boards/sheets of approved brand & quality in panelling fixed in aluminium doors/window shutters/partition frames etc. with C.P brass/stainless steel screws etc. complete, all as per drawings, specifications and instructions of Engineer in charge. Rate includes cutting to required sizes, wastages etc.complete. Rate excludes cost of respective frame works.		
A1	MDF Boards or equivalent of 6 mm thick (Regular grade)	SQM	303.65
A2	MDF Boards or equivalent of 18 mm thick (Regular grade)	SQM	680.85
A3	Commercial plywood 6 mm thick - M.R Grade - (Anchor/Swati or equivalent)	SQM	595.60
A4	Commercial plywood 12 mm thick - M.R Grade- (Anchor/Swati or equivalent)	SQM	824.65
A5	Commercial plywood 6 mm thick-Synthetic resin bonded - (Anchor/Swati or equivalent)	SQM	595.60
A6	Commercial plywood 12 mm thick-Synthetic resin bonded- (Anchor/Swati or equivalent)	SQM	1222.35
A7	Cement bonded particle boards - 6 mm thick (Bison panel)	SQM	339.95
A8	Cement bonded particle boards - 10 mm thick (Bison panel)	SQM	489.10
A9	Cement bonded particle boards - 12 mm thick (Bison panel)	SQM	588.50
A10	Cement bonded particle boards - 16 mm thick (Bison panel)	SQM	685.00
A11	Both sides pre laminated Cement bonded particle boards - 6 mm thick (Bison panel)	SQM	675.50

Item No.	Description	Unit	Rate (Rs.P)
A12	Both sides pre laminated Cement bonded particle boards - 8 mm thick (Bison panel)	SQM	725.20
A13	Both sides pre laminated Cement bonded particle boards - 10 mm thick (Bison panel)	SQM	774.95
A14	Both sides pre laminated Cement bonded particle boards - 12 mm thick (Bison panel)	SQM	843.30
A15	Both sides pre laminated Cement bonded particle boards - 16 mm thick (Bison panel)	SQM	935.60
A16	Plain particle boards- 9 mm thick-Regular Grade-(Novapan-Prime or equivalent)	SQM	366.05
A17	Plain particle boards- 12mm thick-Regular Grade-(Novapan-Prime or equivalent)	SQM	438.15
A18	Plain particle boards- 18mm thick-Regular Grade-(Novapan-Prime or equivalent)	SQM	567.75
A19	Plain particle boards- 25mm thick-Regular Grade-(Novapan-Prime or equivalent)	SQM	760.60
A20	Plain particle boards- 35mm thick-Regular Grade-(Novapan-Prime or equivalent)	SQM	1136.25
A21	Plain particle boards- 9 mm thick-Exterior Grade-(Novapan-Prime or equivalent)	SQM	419.50
A22	Plain particle boards- 12mm thick-Exterior Grade-(Novapan-Prime or equivalent)	SQM	509.60
A23	Plain particle boards- 18mm thick-Exterior Grade-(Novapan-Prime or equivalent)	SQM	665.90
A24	Plain particle boards- 25mm thick-Exterior Grade-(Novapan-Prime or equivalent)	SQM	897.30
A25	Plain particle boards- 35mm thick-Exterior Grade-(Novapan-Prime or equivalent)	SQM	1353.75
A26	Pre laminated (one side) particle boards - 9 mm thick - (Emotive or equivalent)	SQM	532.60
A27	Pre laminated (both sides) particle boards - 9 mm thick - (Emotive or equivalent)	SQM	538.85
A28	Pre laminated (one side) particle boards - 12 mm thick - (Emotive or equivalent)	SQM	614.60
A29	Pre laminated (both sides) particle boards - 12 mm thick - (Emotive or equivalent)	SQM	621.50
A30	Pre laminated (one side) particle boards - 18 mm thick - (Emotive or equivalent)	SQM	718.15
A31	Pre laminated (both sides) particle boards - 18 mm thick - (Emotive or equivalent)	SQM	724.70

Item No.	Description	Unit	Rate (Rs.P)
A32	Pre laminated (one side) particle boards - 25 mm thick - (Emotive or equivalent)	SQM	902.30
A33	Pre laminated (both sides) particle boards - 25 mm thick - (Emotive or equivalent)	SQM	909.05
1235	Supplying and fixing of vertical Venetian blinds 100mm wide with dual colour of approved make (Hunter Douglas make or equivalent) and shade and / as decided by BHEL - for windows / ventilators. Rate inclusive of cost of all materials, labour for fixing and incidentals etc., complete	SQM	1191.95

Item No.	Description	Unit	Rate (Rs.P)
XIII - PILE WORKS			
1301	Boring, providing and installing bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring, with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap).		
A	300 mm dia piles	R.M	1155.05
B	400 mm dia piles.	R.M	1297.00
C	450 mm dia piles.	R.M	1688.50
1302	Boring, providing and installing cast in situ single under reamed vertical piles of specified diameter & required length below grade beam/pile cap in M 35 cement concrete piles using 20 mm & down grade hard broken granite stone jelly with necessary reinforcement including bailing out water, mobilisation of necessary plants, equipments, materials etc. complete. Rate also includes cost of boring with bentonite solution, chisseling, cutting the pile to the required cut off level, leaving necessary dowel to grade beam/pile cap etc. all as per standard specifications and as directed by the Engineer-in -charge. (Length of pile for payment shall be measured upto the bottom of grade beam/pile cap. Rate excludes cost of cement, reinforcement steel & fabrication charges for reinforcement)		
A	300 mm dia piles	R.M	1736.45
B	400 mm dia piles	R.M	1934.10
C	450 mm dia piles	R.M	2049.55

Item No.	Description	Unit	Rate (Rs.P)
XIV - HORTICULTURE			
1401	Labour charges for carrying out the following. Scope includes all labour, relevant tools & plants required for the work, disposing off all the wastes, cut leaves etc. in the nearby areas within a lead of 100 metre etc. complete. All as per instructions of Engineer-in-charge.		
A	Mowing of lawns neatly to uniform levels. (By means of blade/ mower)	SQM	2.30
B	Cutting all types of hedges to the required & uniform height and width.	R.M	3.85
C	Cutting & trimming topiary work for various shrubs, domes etc. to the required sizes, shapes etc. complete.	EACH	15.05
1402	Conveying tree saplings / plants from BHEL and planting the same in the pits excavated (in the premises of BHEL), initial watering, forming bed etc., all as per instructions of Engineer-in-charge. Tree saplings / plants will be supplied at BHEL Nursery at free of cost. Rate includes conveyance, loading, unloading, lifting and planting, initial watering etc., complete.	EACH	3.65
1403	Maintaining the shrub plants available at various locations in BHEL. Maintenance covers watering once in two days, weeding, mulching the top soil to a depth of 15 cm once in three months, making basin to proper size, manuring, cutting & trimming whenever necessary, cleaning the areas etc. complete. Replanting is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc. complete. All as per instructions of Engineer-in-charge. Required manure & plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works.	EACH	2.70
1404	Maintaining the domes available at various locations in BHEL. Maintenance covers watering once in two days, weeding, mulching the top soil to a depth of 15 cm once in three months, making the basin to proper size, manuring, pruning/trimming topiary work once in a month, cleaning the areas, disposing off all wastes, cut branches, leaves etc. in the nearby areas within a lead of 50 metre etc. complete. Replanting is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc. complete. All as per instructions of Engineer-in-charge. Required manure & plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month).	EACH	27.00

Item No.	Description	Unit	Rate (Rs.P)
1405	Maintaining the hedges (upto a height of 1.50 m) available at various locations in BHEL. Maintenance covers watering once in two days, weeding, mulching the top soil to a depth of 15 cm once in three months, making basin along the hedges, manuring & cutting, pruning, trimming the hedges once in a month, cleaning the areas, disposing off all wastes, cut branches, leaves etc. in the nearby areas within a lead of 100 metre etc. complete. Replanting is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure, hedge plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month).	R.M	1.65
1406	Maintaining rose beds at various locations in BHEL. Maintenance covers watering once in two days, weeding, mulching the top soil to a depth of 15 cm once in 15 days, making basin for rose plants, manuring, cutting & trimming whenever necessary, clearing the jungle, leveling the areas once in 15 days etc.complete. Replanting is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure & plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month).	SQM	2.25
1407	Maintaining and safeguarding the lawns including flower beds available at various locations in BHEL. Maintenance covers watering once in two days, periodical weeding, mowing, scraping, raking, replacing flower beds, mulching the top soil and forming basins etc.all once in 45 days, manuring, cleaning the areas, disposing off all wastes, dried leaves etc. in the nearby areas within a lead of 100 metre etc.complete. Re-lawn is also to be done as and when necessary. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure, plants & grass will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month).	SQM	1.65
1408	Maintenance and protection of avenue tree plants/coconut tree seedlings etc. available at various locations in BHEL. Maintenance covers watering once in two days, protecting the plants from cattle menace & theft by providing thorny fencing, periodical weeding, maintaining the area free from other vegetation growth, mulching the top soil and forming basin, manuring, cleaning the area etc.complete. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure & plants will be issued by BHEL at Stores or Nursery at free of cost. Contractor has to transport the same to site of works. (Payment will be made for every month).	EACH	6.75

Item No.	Description	Unit	Rate (Rs.P)
1409	Maintaining the potted plants available at Nursery & other locations by watering once in two days, mulching and weeding the soil once in a fortnight, application of manure/fertilizer/pesticides as and when required (normally three times in an year) pruning and shaping as and when required, repotting the plant once in a year, replacement of broken pots (pots & plants will be supplied by BHEL), propogation of different species of pots as directed etc.complete. Rate includes all labour, tools, hose pipes, water carts, all incidentals etc.complete. All as per instructions of Engineer-in-charge. Required manure / fertilizer / pesticides, pots & plants will be issued by BHEL at Stores or Nursery at free of cost. (Payment will be made for every month).	EACH	2.70

Item No.	Description	Unit	Rate (Rs.P)
XV - MISCELLANEOUS			
1501	Grouting the H.D bolts, underneath the base plates etc., after alignment with wet cement grout (1:1), all as per standard specifications. Rate includes cleaning the sleeves/pockets, tools and plants required for the work etc., complete except cement which will be supplied by BHEL at stores at free of cost.	CUM	16000.65
	Cement consumption - 1020.00 K.G/CUM		
1502	Grouting the H.D bolts, underneath the base plates etc., after alignment with non-shrink high strength cementitious grout of such as Tec. Grout 40 or Pidigrout 10M or Flogrout 60 or Conbextra GP2 or any other equivalent grout, all as per instructions of Engineer in charge and as per standard specifications. Rate includes cost of non-shrink grout, cleaning the sleeves/pockets, tools, labour etc., complete.	CUM	53487.40
1503	Precasting and fixing in position of reinforced cement concrete (1:2:4) fencing post (using 12 to 20 mm size hard broken granite stone jelly) of size 100 x 100 mm at top and 150 x 150 mm at bottom and 1.70 m high of which 45 cm will be embedded in cement concrete base below ground level. Rate includes shuttering, casting, finishing, curing, conveying and fixing in position but excluding cost of excavation, concrete base and fabrication charges for reinforcement which will be paid separately under respective items.	EACH	179.05
	Cement consumption - 8.64 K.G/ Each		
1504	Precasting and fixing in position of reinforced cement concrete (1:2:4) fencing post (using 12 to 20 mm size hard broken granite stone jelly) of size 100 x 100 mm at top and 150 x 150 mm at bottom and 2.10 m high of which 45 cm will be embedded in cement concrete base below ground level. Rate includes shuttering, casting, finishing, curing, conveying and fixing in position but excluding cost of excavation, concrete base and fabrication charges for reinforcement which will be paid separately under respective items.	EACH	212.05
	Cement consumption - 10.56 K.G/ Each		
1505	Precasting and fixing in position of reinforced cement concrete (1:2:4) fencing post (using 12 to 20 mm size hard broken granite stone jelly) of size 200 x 200 x 3650 mm of which 600 mm (approx.) will be embedded in cement concrete base below ground level. Rate includes making necessary groove arrangements on two sides of post for inserting 50 mm thick precast slabs, shuttering, casting, embedding 'Y' angle with necessary lugs, finishing, curing, conveying the posts including all lead, erection in position by embedding in foundation concrete up to a depth of 600 mm (approx.) below ground level true to plumb, line, level etc.complete, all as per drawings and as per instructions of Engineer in charge. Rate excludes cost of excavation, concrete base, precast slabs and it's inserting/fixing charges, fabrication charges for reinforcement and 'Y' angle which will all be paid separately under respective items.	EACH	880.25
	Cement consumption - 40.32 K.G/ Each		

Item No.	Description	Unit	Rate (Rs.P)
1506	Conveying RCC fencing post of overall height 1.70 to 2.10 m from stores/stack yard to site of work and fixing in position, line, level etc. Earth work excavation and concrete base will be paid separately.	EACH	31.35
1507	Providing and fixing G.I barbed wire of 12 G, 2 ply and 4 barbs with spacing of barbs at 80 mm c/c for fencing including unwinding the coil and fixing in position with proper tension and alignment by means of providing G.I staples on wooden plugs or G.I binding wire tied to 6 mm bar ribs provided in the posts etc. complete.	R.M	13.75
1508	Conveying G.I barbed wire, G.I staples/binding wires etc. from BHEL stores and fixing in position for fencing including unwinding the coil, fixing it in posts with proper tension and alignment by means of G.I staples on wooden plugs or G.I binding wire tied to 6 mm bar ribs provided in the posts etc. complete. Rate excludes G.I barbed wire and G.I staples / binding wire which will be supplied by BHEL at stores at free of cost.	R.M	1.45
1509	Conveyance of earth, sand, gravel, rough stone, broken stone, brick bats (debris) etc. by contractor's own lorry including loading, leading, unloading, stacking or spreading, all as per instructions of Engineer-in-charge. Payment for conveyance of earth will be made based on pit measurement and for other items based on stack measurements.		
A	0 - 1 Km	CUM	114.00
B	Beyond 1 Km but upto 2 Km	CUM	121.65
C	Beyond 2 Km but upto 3 Km	CUM	130.25
D	Beyond 3 Km but upto 4 Km	CUM	138.80
E	Beyond 4 Km but upto 5 Km	CUM	147.40
1510	Transporting the garbage, horticulture waste etc., collected from houses, dustbins and other places by lorry having a capacity of minimum 300 cft covering with suitable net to avoid spilling during transport and unloading at the earmarked place on the eastern side of MHD. (Nearly 5 KM from the centre point of Kailasapuram) Rate also includes topping the dust bins, segregation of bio-degradable & non-bio-degradable waste at respective dust bins itself, collection, loading, all lead, unloading, hire & running charges of lorry, tools required, all labour and all other incidentals etc.complete and as directed by the department. Trip sheet is to be maintained for each load that will be certified by the concerned official & by the security at the gate which will form the basis for making payment. Each load would exit only through the main entrance of Township or as directed by the Engineer in charge. Rate to be quoted for one trip of lorry load of 300 cft garbage.	EACH	1014.05

Item No.	Description	Unit	Rate (Rs.P)
1511	Conveyance of debris generated by dismantling and other modification works by various departments, factory wastes discarded cotton waste, slag, cut tree branches, dried leaves, abandoned broken glass, water closets, urinals, flush tanks, broken furniture, broken refractory bricks, AC materials, hedge cuttings and all other debris and waste materials from various places of factory premises where they are stacked / accumulated and transporting the same by contractor's lorry and disposing off at the specified places, all as per the instructions of Engineer-in-charge. Rate includes labour for collection of the said debris from various places, loading, leading, unloading, spreading, leveling etc. complete. Rate also includes for safe burning of dried leaves, cut pieces of tree branches, wood, waste paper etc., all by following safety precautions. Payment will be made on trip basis with a lorry load of minimum 300 cft./Trip.		
A	0-1 K.M	EACH	774.75
B	1-2 K.M	EACH	826.40
C	2-3 K.M	EACH	878.10
1512	Sweeping roads, drains, platforms, open spaces, surrounding areas of buildings, shops, parks, gardens, sides & back spaces in between bolcks, roof terrace of buildings at a maximum elevated level of 6 metre and other areas as identified & instructed by Engineer in charge. Rate includes labour, tools, brooms, malard, baskets etc., sweeping, hand picking of debris, collecting & dumping the debris in the near by dust bins/earmarked areas etc.complete. Sweeping has to be done only as and when necessary. Payment will be made only for the areas where sweeping was done.	100 SQM	13.00
1513	Cleaning & removing all unwanted things from the roof terrace of various buildings at an elevated level of 12 to 20 metre from FFL. Rate includes labour, tools, wire brush, brooms, baskets etc., sweeping and clearing off all dirt, silt, dust, leaves and other foreign matters etc. without damaging the terrace treatment and thereby collecting all the wastes in bags/baskets, lowering to ground floor without affecting the working environment & dumping the same in the near by dust bins/earmarked areas/low lying areas etc.complete. Sweeping has to be done only as and when necessary. Payment will be made only for the areas where actually the job was carried out.	100 SQM	15.60
1514	Labour charges for providing tarpaulin pandal to an area upto 25 Sq.m in ground floor / first floor and removing the same after the function is over. All materials such as tarpaulin, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes to and fro transportation of materials. (Payment will be made for each operation)	EACH	646.40
1515	Labour charges for conveying 200 litre capacity drum and pouring with full of water for function and handing over the empty drum to Stores after function is over. Drum will be supplied by BHEL at Stores at free of charges. Water has to be collected either from Township water tanks or Equalising Reservoir. Rate includes to and fro transportation.		

Item No.	Description	Unit	Rate (Rs.P)
A	At Quarters of Kailasapuram / Kamarajapuram Township.	EACH	264.05
B	At Quarters of Nehru Nagar/ burial ground	EACH	314.05
1516	Labour charges for providing Shamiana of following sizes and removing the same after the function is over. Necessary shamiana, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes to and fro transportation. (Payment will be made for each operation)		
A	40' X 40'	EACH	1597.50
B	40' X 20'	EACH	1043.90
C	20' X 12'	EACH	501.30
1517	Hire charges for providing 4 ' 40 watts tube light fitting with tube, necessary wire, plug etc. in the tarpaulin pandal / shamiana at G.F / F.F and removing the same after the function is over.	EACH	36.30
1518	Labour charges for providing stage for functions and removing the same and handing over to Stores after the programme. Necessary stage materials will be supplied by BHEL at Stores at free of charges. Rate includes to and fro transportation.	SQM	40.10
1519	Labour charges for erection of flag post and tying the flag. Rate includes digging hole, erection of post and removing the same after the function is over including refilling the hole and handing over the flag post, flag etc. to Stores after the programme. Necessary flag post and flag will be supplied by BHEL at Stores at free of charges. Rate includes to and fro transportation.	EACH	21.30
1520	Labour charges for spreading coir mat and removing the same after the function is over. Rate includes to and fro transportation, labour etc. complete. Coir mat will be issued by BHEL at Stores at free of charges.	SQM	5.90
1521	Labour charges for erection in position of column trusses and other accessories and spreading of shamiana, back drops etc. and removing and returning the same after the function is over. Column trusses, shamiana etc. will be issued by BHEL at Stores at free of charges. Rate includes to and fro transportation of materials. (Payment will be made for each operation)		
A	For stage of size 32' x 20'	EACH	1358.80
B	For stage of size 20' x 20' or 20' x 18'	EACH	1052.10
C	For stage of size 20' x 12'	EACH	750.90
1522	Carrying the following from BHEL Stores to site of work and returning the same after the function is over. Rate includes labour, to and fro transportation etc.		
A	PVC moulded chair	EACH	4.80

Item No.	Description	Unit	Rate (Rs.P)
B	Wooden chair with cushion	EACH	12.00
1523A	Labour charges for providing Shamiana of size 40' X 40' and removing the same after the function is over. Necessary shamiana, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes loading and unloading charges but transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc.	EACH	1421.45
1523B	Labour charges for providing Shamiana of size 40' X 20' and removing the same after the function is over. Necessary shamiana, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes loading and unloading charges but transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc.	EACH	911.90
1523C	Labour charges for providing Shamiana of size 20' X 12' and removing the same after the function is over. Necessary shamiana, posts etc. will be supplied by BHEL at Stores at free of charges. Rate includes loading and unloading charges but transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc.	EACH	402.30
1523D	Labour charges for providing stage for functions and removing the same and handing over to Stores after the programme. Necessary stage materials will be supplied by BHEL at Stores at free of charges transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc. but including loading and unloading charges, instead of transporting by the contractor.	SQM	32.20
1523E	Labour charges for loading, unloading and erection of flag post and tying the flag. Rate includes digging hole, erection of post and removing the same after the function is over including refilling the hole and handing over the flag post, flag etc. to Stores after the programme. Necessary flag post and flag will be supplied by BHEL at Stores at free of charges and transportation (to and fro) will be arranged by BHEL for all the required materials such as shamiana, bamboo posts, coir mat, stage materials, flag posts, chairs etc.	EACH	16.90
1523F	Labour charges for loading, unloading and spreading coir mat and removing the same after the function is over Coir mat will be issued by BHEL at Stores at free of charges.	SQM	1.10
1523G	Labour charges for erection in position of column trusses and other accessories and spreading of shamiana, back drops etc. and removing and returning the same after the function is over. Column trusses, shamiana etc. will be issued by BHEL at Stores at free of charges. Rate excludes to and fro transportation of materials but includes loading and unloading charges . For stage of size 32' x 20'	EACH	1072.80

Item No.	Description	Unit	Rate (Rs.P)
1523H	Labour charges for erection in position of column trusses and other accessories and spreading of shamiana, back drops etc. and removing and returning the same after the function is over. Column trusses, shamiana etc. will be issued by BHEL at Stores at free of charges. Rate excludes to and fro transportation of materials but includes loading and unloading charges . For stage of size 20' x 20' or 20' x 18'	EACH	804.60
1523I	Labour charges for erection in position of column trusses and other accessories and spreading of shamiana, back drops etc. and removing and returning the same after the function is over. Column trusses, shamiana etc. will be issued by BHEL at Stores at free of charges. Rate excludes to and fro transportation of materials but includes loading and unloading charges . For stage of size 20' x 12'	EACH	536.40
1523J	Carrying the PVC moulded chair from BHEL Stores to site of work and returning the same after the function is over. Rate includes labour, loading and unloading charges but excludes to and fro transportation etc.	EACH	0.85
1523K	Carrying the Wooden chair with cushion from BHEL Stores to site of work and returning the same after the function is over. Rate includes labour, loading and unloading charges but excludes to and fro transportation etc	EACH	2.10
1524	Maintenance of BG tracks of BHEL siding, ensuring perfect level, cant, alignment, straightness etc. Scope includes tightening of fish plates, oiling & greasing of fish plates, driving the spikes, beating the steel keys and cotters, checking the tie bars to keep the rails in position and gauge, packing the ballast (murrum/stone), maintaining the width of earthen embankment, cutting of unwanted trees/tree branches on either sides of tracks, clearing off the jungle & bushes to a maximum width of 4.00 m along the track and handing over the cut woods to stores etc. complete, all as per standard railway practices and also taking periodic gauge/super elevation/curve readings and submission of records. Payment will be made for the length of track for which maintenance works attended to. Tools, oil, spares etc. required for the work will be supplied by BHEL at stores at free of charges. Rate will be Paid Per RM / One Operation	R.M	49.60
1525	Maintenance of point & crossing 1 in 8 ½ in BG by thorough packing and consolidation of ballast. Scope of work includes to bring the track to correct longitudinal and cross levels, super elevation on curve, boxing and tidying up the track to prescribed parameters with tolerance as allowed as per IRPWM, cleaning of fish plates, switches, point level, box assembling, oiling and greasing of joint / fish plates, moveable / sliding portion, cutting of unwanted trees/tree branches, clearing off jungle, bushes in & along the point & crossing area and handing over the cut woods to stores and taking periodic reading for maintaining the point & crossing register and submission of record, all as per standards of Indian Railways. Tools, oil, spares etc. required for the work will be supplied by BHEL at stores at free of charges. Rate will be Paid Per Point and Crossing per One time Operation	EACH	3693.55

Item No.	Description	Unit	Rate (Rs.P)
1526	Cutting 90/105 lbs rail with hacksaw blade to the correct square in laid condition/free condition. Rate includes labour, tools, consumables, lead, lift etc. complete, all as directed by the Engineer-in-charge. Payment will be made for each Cutting.	EACH	131.60
1527	Drilling 32 mm dia hole in 90/105 lbs rails to match with the fish plate holes in laid condition / free condition. Rate includes labour, tools, consumables, lead, lift etc. complete, all as directed by the Engineer-in-charge. Payment will be made per Hole.	EACH	40.60
1528	Removing the ballasts (metal/murram), earth etc.around the sleepers and replacing to the existing unserviceable sleepers of various lengths from the BG track and relaying with new sleepers in the same place by duly fixing the sleepers with the rail and its fittings and packing the sleepers completely with ballasts (metal/murram) to correct level, cant, alignment etc.complete. For replacement, sleepers (Wooden/PSC/CST-9/Pot sleepers) and other connected accessories, ballasts etc. will be supplied by BHEL at stores at free of cost. Payment will be made per Sleeper	EACH	320.45
1529	Carrying from stacks, leading and spreading of 40/50 mm size metal/ gravel/murram at any section of the BG track, all as per instructions of Engineer-in-charge. Rate includes all labour, incidentals etc. complete.	CUM	103.90
1530	Removing and replacing with 90/105 lbs rails for the track, all as per standard specifications. Removed rails and other materials shall be stacked properly at the locations 'or' conveyed and handed over at stores, all as directed by the Engineer-in-charge. 90/105 lbs rails & connected required materials will be supplied at free of cost at RPS/Civil Stores/Stack yard. Rate includes conveyance, handling, straightening, drilling holes in rails to suit fish plates, hacksaw cutting the rail if required, all labour for removing the existing and replacing with new one in correct position, alignment, all other incidentals etc.complete.	M.T	3793.35
1531	Cleaning & removing all the unwanted things from the rain water gutters available at an elevation of 12 to 20 m from FFL and making the gutter free from all accumulations, all as per instructions of Engineer-in-charge. Scope includes thorough cleaning off all dirt, dust, silt, leaves, other foreign matters etc. complete from the gutters using wire brush without damaging to the existing treatment given in the gutters, collecting the wastes in bags, lowering and conveying the same to the floor & dumping in the low lying areas. Rate includes all labour, tools, other incidentals etc. complete. Since the work is to be carried out at elevated levels/DSL EOT crane areas, the contractor is required to take all safety precautions during working and obtain work permit from the concerned departments. Working hour is restricted as it depends on shut down by the Production department that may not be more than 4 hour at a stretch and only intermittent.	SQM	11.30

Item No.	Description	Unit	Rate (Rs.P)
1532	Removing beehive of any size carefully in all levels at stage beams, columns, slabs, ladders etc., in the overhead tank or other buildings/structures etc. While removing beehive, the contractor should follow all safety rules & regulations, all as per instructions of Engineer-in-charge.	EACH	330.00
1533	Carrying from BHEL stores to site of work and fixing GI chainlink mesh for fencing including unwinding the roll and fixing in proper position, tension and alignment by means of MS flat as stiffeners, drilled with necessary holes or as the case may be and fixed with RCC / MS fencing posts by bolts, nuts, washers etc., complete. Payment will be made based on the laid area of chainlink mesh only. Rate includes cost of labour, tools & plants and all other incidentals etc., complete but excludes cost of chain link mesh, MS flats, bolts, nuts and washers which will be supplied by BHEL at stores at free of cost. Fabrication charges for MS flats including drilling holes etc. will be paid under separate item.	SQM	16.50
1534	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.		
	a) Made of G.I. wire of dia 4 mm.	SQM	475.15
	Made of G.I. wire of dia 4 mm, PVC coated to achieve outer dia. not less than	SQM	506.35
	b) 5 mm in required colour and shade.		
1535	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-Charge.	SQM	569.90
1536	Drilling holes for the following diameter in Industrial Reinforced cement concrete floor or in machine foundation using power drilling machine in proper manner to a maximum depth of 200 mm as per standard specification and fixing the anchor bolts through the holes provided in the machine with the drilled holes in the shop floor as per the instructions of Engineer in charge. The power and compressed air required for drilling holes will be supplied by BHEL at free of cost. The quoted rate shall include all labour charges for drilling holes only and also include hire and running charges for machineries, tools and plants , loading, leading , conveyance and cleaning the debris etc complete.		
A	10- 14 mm diameter	EACH	65.00
B	15 – 18 mm diameter	EACH	76.85
C	19 – 23 mm diameter	EACH	88.70
D	24 – 28 mm diameter	EACH	100.50

Item No.	Description	Unit	Rate (Rs.P)
1537	Cleaning of Septic tanks including removal of all sludge/waste material with septic tank cleaning vehicle of tank capacity of 7000 litres and conveying the waste to all leads and disposal off. Rate includes hire and running charges for the septic tank cleaning vehicle with driver and labour for cleaning the septic tank, cost of tools and plants, all incidental charges, leading disposing off the sewage and wastages etc as per the instructions of Engineer in Charge. Payment will be made for one trip up to a maximum of 7000 litres quantity of sewage	TRIP	2687.50
1538	Attending to leak at roof slab and wall joint. The scope of work includes clearing the tiled terrace surfaces to be free of dust, loose particles, algae growth and atmospheric deposits, filling small blow holes if any with CERAFIL 45/ TEC TILE 12/ Sika Grout/NACC Tile Grout/Dr. Fixit Crack-X and providing primer and top coat of CERAFLEX/TEC WAVE 3000/Sika Raingard/NACC High Flex single component/Dr. Fixit New Coat highly flexible membrane coating including curing adequately .All as per manufacture's recommendation/ standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materiasl, labour charges, conveyance,tools and all other incidental charges etc.complete -for In accessible areas One Primer and one top coat	SQM	335.50
1539	Attending to leak at roof slab and wall joint. The scope of work includes clearing the tiled terrace surfaces to be free of dust, loose particles, algae growth and atmospheric deposits, filling small blow holes if any with CERAFIL 45/ TEC TILE 12/ Sika Grout/NACC Tile Grout/Dr. Fixit Crack-X and providing primer and top coat of CERAFLEX/TEC WAVE 3000/Sika Raingard/NACC High Flex single component/Dr. Fixit New Coat highly flexible membrane coating including curing adequately .All as per manufacture's recommendation/ standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materiasl, labour charges, conveyance,tools and all other incidental charges etc.complete. -for In accessible areas. One primer and two top coats	SQM	518.30

Item No.	Description	Unit	Rate (Rs.P)
1540	Providing two coats of CERALASTIC/TEC WAVE 2000/Sika raingard/NACC roof coating /Dr. FIXIT PIDIFIN 2K water proofing membrane coating followed by one bond coat of CERA BOND SBR/TEC BOND SBR/Sika latex/NACC Latex / Dr. FIXIT PIDICRETE URP SBR LATEX over the membrane coating and providing cement plastering 6mm thick in CM 1:4 admixed with general purpose water proofing compound of respective products and curing adequately.All as per manufacturer's recommendation / standard specifications and instructions of Engineer-in-charge.The scope of work includes dismantling the existing damaged weathering course and tiles to expose to the RCC slab and finsihing to match with the existing weathering course.. Rate quoted includes cost of all materials except cement which will be issued free of cost at BHEL stores, labour charges, conveyance, tools and all other incidental charges etc., complete. Replacing the damaged tiles and re-pointing where ever required which will be paid under separate item.- for-accessible areas.(CEMENT CONSUMPTION=2.74KG/SQM)	SQM	338.25
1541	Attending crack filling at parapet level with pressure grouting: The scope of work includes routing out the cracks with a mechanically operated groove cutter and sealing the groove with flexible sealant - CERA CRACK FILLER/TEC KRACK FILLER/Sika CRACK SEAL/NACC CRACK FILLER/Dr. FIXIT CRACK-X PASTE and allowing the sealant to set overnight, driving grouting nozzles at intervals of 1M and grouting neat cement slurry admixed with expansive grouting additive CERA EXPAN 250/TEC SWELL/Sika INTRA PLAST/NACC EXPAN/Dr. FIXIT PIDICRETE AM 250 and providing two coats of CERAFLEX/TEC WAVE 3000/Sika RAINGARD/NACC HIGH FLEX /Dr. FIXIT NEW COAT roof coating single component flexible membrane for a width of 15cms aligned to the centre of the crack. All as per manufacturers recommendations / standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materiasl, labour charges, conveyance, tools and all other incidental charges etc., complete,but excluding cost of cement which will be issued free of cost at BHEL stores (CEMENT CONSUMPTION=0.35 Kg/SQM)	SQM	151.25
1542	Attending Crack filling at parapet level without pressure gouting. The scope of work includes routing out the cracks with a mechanically operated groove cutter and sealing the groove with flexible sealant - CERA CRACK FILLER/TEC KRACK FILLER/Sika CRACK SEAL/NACC CRACK FILLER/Dr. FIXIT CRACK-X PASTE and providing two coats of CERAFLEX/TEC WAVE 3000/Sika RAIN GARD/NACC ROOF COATING/Dr. FIXIT NEW COAT highly flexible membrane for a width of 10cms aligned to the centre of the crack. All as per / manufacturers recommendations/ standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materials, labour charges,conveyance, tools and all other incidental charges ,etc. complete.	RM	112.75

Item No.	Description	Unit	Rate (Rs.P)
1543	Drilling pockets and fixing PVC Nipples in position along weak concrete junctions and leakage points in walls/floor and pressure grouting CERA EXPAN 250 / TEC SWELL/Sika INTRA PLAST/NACC EXPAN / Dr. FIXIT PIDICRETE AM 250 expansive grouting additive admixed with cement slurry using hand operated grouting pump. The scope also includes plugging the grout hole with CERA PLUG/TEC STOP / Sika HYDRO PLUG / NACC PLUG / Dr. FIXIT INSTANT LEAK PLUG .All as per manufacturer's recommendations/ standard specifications and instructions of Engineer- in-charge. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges except cement which will be issued free of cost at BHEL stores. (CEMENT CONSUMPTION=0.35 Kg/POINT) .	POINT	145.75
1544	Providing one coat of Antifungal coating - tec touch /Cera re-played/Sika Multi guard or Sika gard 67/NACC acrylic/Dr. FIXIT DAMPGAURD - protective and decorative coating system as per manufacturer's recommendations/ standard specifications and instructions of Engineer-in-charge.The scope of work includes surface preparation including cleaning the wall surfaces to be free of previous coatings, dust, loose particles, algae growth and atmospheric deposits, filling small blow holes if any with putty. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges etc., complete.	SQM	203.20
1545	Arresting leakage through RCC Construction joints The scope of work includes routing out the horizontal cracks along /contruction joints to expose the RCC joint and applying CERA SEAL / TEC POLYSEAL G / Sika Crack Seal / NACC poly seal gun grade polysulphide sealant / Dr.FIXIT PU SEALANT. The scope also includes application of CERAFLEX / TEC WAVE 3000/Sika Rain Gard/NACC Roof Coating / Dr. FIXIT NEW COAT single component flexible membrane with intermediate layer of cloth over the exposed area after allowing the PS(polysulphide sealant) to cure for 72 hours. All as per manufacturers recommendations / standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges etc., complete.	SQM	499.10

Item No.	Description	Unit	Rate (Rs.P)
1546	<p>Arresting leakage through Masonry construction joints. The scope of work includes routing out the vertical cracks along construction joints and providing a bond coat of CERA BOND SBR / TEC BOND SBR /Sika Latex Power/NACC latex/ Dr. FIXIT PIDICRETE URP SBR LATEX followed by filling the cracks with repair mortar admixed with CERA EXPAN 250 / TEC SWELL/Sika Intra Plast/NACC Expan/Dr. FIXIT PIDICRETE AM 250. The scope also includes placing of grouting nipples on the neatly finished surface at adequate spacing and grouting cement slurry admixed with CERA EXPAN 250 / TEC SWELL/Sika Intra Plast/NACC Expand/Dr. FIXIT PIDICRETE AM 250 using hand operated grouting pump. The treated surface shall then be finished with two coats of CERAFLEX / TEC WAVE 3000 / Sika Rain gard/NACC Roof Coating/ Dr. FIXIT NEW COAT . All as per manufacturers recommendations / standard specifications and instructions of Engineer-in-charge.Rate quoted includes cost of all materials , labour charges, conveyance, tools and other incidental charges etc.complete but excluding cost of cement which will be issued free of cost at BHEL stores. (CEMENT CONSUMPTION=0.4 Kg/RM) .</p>	RM	262.20
1547	<p>Providing aluminum Sheet Flashing. The scope of work includes cutting a neat groove along the brick wall and fixing Aluminum sheet flashing of 1' to 1'6" as required including re-filling the grooves and sealing the joints with CERA SEAL / TEC POLYSEAL G /Sika Polysulphide/NACC poly seal gun grade polysulphide sealant/Dr. FIXIT PU SEALANT.All as per Manufacturer's recommendations / standard specifications and instructions of Engineer-in-Charge. Rate quoted includes cost of all materials , labour charges , conveyance, tools and other incidental charges etc.complete.</p>	RM	479.80

Addendum to BHEL Schedule of Rates 2013-14- Batch I

Ref: LETTER NO. BHE: DGM: CP: SR 2013 – 14: 862 Date: 09.02.2016

Item No.	Description of item	Recommended Rate / Unit
0629	Providing and laying 7 mm thick (approximate) ceramic glazed floor/wall tiles of first quality approved make and in all colours of required sizes in flooring, treads of steps, landings, skirting, walls, risers of steps and dado etc., laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment by placing 2 mm spacers, tile mat for joints filling etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc.	Rs. 790.80 / Sqm (Rupees Seven Hundred and Ninety and Eighty paise only)
0630	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc.	
A	Marble slabs 16 to 18 mm thick, polished – Rajnagar plain white.	Rs. 1285.60 / Sqm (Rupees One thousand two hundred and eighty five and sixty paise only)
B	Marble slabs 16 to 18 mm thick, polished – Green (Udaipur) colour	Rs. 1399.45 / Sqm (Rupees One Thousand three hundred and ninety nine and forty five paise only).
C	Marble slabs 16 to 18 mm thick, polished – Pink colour	Rs. 1342.55 / Sqm (Rupees One thousand three hundred and forty two and fifty five paise only).
D	Marble slabs 16 to 18 mm thick, polished – Black (Zebra / Galaxy) colour	Rs. 1159.10 / Sqm (Rupees One thousand one hundred and fifty nine and ten paise only).
E	Granite slabs 16 to 18 mm thick, polished – S.White	Rs. 1323.20 / Sqm (Rupees One thousand three hundred and twenty three and twenty paise only).
F	Granite slabs 16 to 18 mm thick, polished – Black (Andhra) colour	Rs. 2106.15 / Sqm (Rupees Two thousand one hundred and six and fifteen paise only).

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Item No.	Description of item	Recommended Rate / Unit
G	Granite slabs 16 to 18 mm thick, polished – Grey colour	Rs. 1857.60 / Sqm (Rupees One Thousand Eight Hundred Fifty Seven and sixty paise only).
H	Granite slabs 16 to 18 mm thick, polished – Green colour	Rs.1795.45 / Sqm (Rupees One Thousand Seven Hundred and ninety five and forty five paise only).
I	Granite slabs 16 to 18 mm thick, polished – Sweet Green colour	Rs. 2230.40 / Sqm (Rupees Two Thousand Two Hundred and thirty and forty paise only).
J	Granite slabs 16 to 18 mm thick, polished – Red (Gem) colour	Rs. 1795.45 / Sqm (Rupees One Thousand Seven Hundred and ninety five and forty five paise only).
K	Granite slabs 16 to 18 mm thick, polished – Blue (Lavender) colour	Rs. 2044.00 / Sqm (Rupees Two Thousand and forty four only).
L	Granite slabs 16 to 18 mm thick, polished – Lakha Red Colour	Rs. 3348.90 / Sqm (Rupees Three Thousand Three Hundred and forty eight and ninety paise only).
M	Granite slabs 16 to 18 mm thick, polished – Steel Grey Colour	Rs. 1609.05 / Sqm (Rupees One Thousand Six Hundred and nine and five paise only).
N	Vitrified tiles or equivalent, 8.50 mm thick (approx.) & 60 x 60 cm size	Rs. 1371.45 / Sqm (Rupees One Thousand Three Hundred and Seventy One and forty five paise only).