

GOVERNMENT OF PUNJAB

PUBLIC WORKS DEPARTMENT

Buildings and Roads, Irrigation, Public Health
Branches and Capital Project

INTERIM
COMMON SCHEDULE OF RATES
IN METRIC UNITS

VOLUME III (FOR PUBLIC HEALTH WORKS)
CHAPTERS 28, 29 AND 30
1966



FIRST EDITION

Issued by

THE CHIEF ENGINEER P.W.D., BUILDINGS AND ROADS BRANCH

PATIALA :

Printed by the Controller of Printing and Stationery, Punjab

1966

CONTENTS

Chapter No.	Name of the Chapter	Page No.
—	Preface	.. i—ii
28	Water-Supply	.. 1—23
29	Drainage and Sewerage	.. 24—55
30	Sanitary Installations	.. 56—69
Annexure I	Weights of Reinforced Concrete Pipes (Hume Pipes)	.. 70

PREFACE

FIRST EDITION

1. In view of the proposed introduction of first stage of metric changeover in Punjab, P.W.D., the Common Schedule of Rates has been redrawn on the basis of the metric units and this Interim Common Schedule of Rates in Metric Units has been evolved. The conversion has been done keeping in view the coverage of first stage of metric changeover. Rates have been worked on the basis of the metric units which have been adopted mainly according to Indian Standard No. 965. As all the construction materials to the metric standards are not yet available in the market, in the nomenclature of items, the dimensions have been stated in F.P.S. Units; but the equivalent dimensions in metric units have also been given side by side in brackets for guidance. For all legal and financial interpretation of nomenclature of any item of this interim schedule, the valid interpretation shall be the dimension mentioned therein in F.P.S. units. This Schedule will be applicable only to the Contract agreements and work orders which are issued after this schedule is brought into effect and tender calls for which are based on this schedule. All the agreements and work orders as would be existing on the date of introduction of this schedule shall not be affected but will continue to be operated according to the schedule of rates on the basis of which the agreements and work orders were issued. This schedule is only an interim one and may need to be wholly or partially recast when all the construction materials become available according to the metric standard sizes.

This Interim Common Schedule of Rates is applicable to the normal construction and maintenance work to be executed by the various Branches of the State P.W.D. The rates given in this Schedule are for normal construction and maintenance works. For concentrated works, big projects, specialized and emergent works, separate rates may be determined by the Chief Engineer of the Department concerned.

2. The Interim Common Schedule of Rates is being published in four Volumes as follows :—

Volume I— Rates for Irrigation, Roads and Buildings Works for Plains.

Volume II— Rates for Irrigation, Roads and Buildings Works for Hilly Areas.

Volume III— Rates for Water-supply, Drainage, Sewerage and Sanitary Installations both for Plains and Hills.

Volume IV— Rates for Electric Installations both for Plains and Hills.

3. The area under 'Plains' has been subdivided into the following three zones depending upon the availability of materials :—

Zone 'A'— Districts of Ambala, Gurdaspur (except Dalhousie Tehsil), Hoshiarpur, Gurgaon and Delhi.

Zone 'B'— Districts of Amritsar, Patiala, Jullundur, Kapurthala, Karnal, Sangrur, Ludhiana, Rohtak and Mohindergarh.

Zone 'C'— Districts of Hissar, Bhatinda and Ferozepur.

4. The area under 'Hills' has been subdivided into the following two regions depending upon the availability of the materials and labour :—

Region 'A'— Kangra and Dalhousie.

Region 'B'— Simla, Kulu and Mandi.

The boundaries of these areas shall be as per revenue boundaries, given below :—
Kangra — Kangra District.

Dalhousie— Dalhousie Tehsil of Gurdaspur District.

Simla — Simla District.

Kulu — Kulu District.

Mandi — Mandi District of Himachal Pradesh.

This Interim Common Schedule of Rates does not cover the area of Lahaul and Spiti Districts.

5. The rates given in this Interim Common Schedule are based on the specifications of Buildings and Roads and Public Health Branches in force from time to time.

6. The rates given in this Volume are through rates and include all rehandling of materials at the site of work and no payment is due to contractors on this account.

7. The through rates given in this Schedule include the carriage of materials as follows:—

- (a) For such materials like timber, bajri, stone, sand, etc., which have to be arranged by the Contractor, the entire carriage is included in the rate irrespective of lead ; and
- (b) For such materials like cement, steel, etc., which are issued from Government Stores and for bricks, the through rates include :—
 - (i) for works within municipal limits or within one mile (1.6 km) periphery of municipal limits, all carriage irrespective of the distance of site of work from kilns or from Government Stores ;
 - (ii) for works away from towns and outside one mile (1.6 km) periphery of municipal limits, and for works in villages, the carriage within a radius of 3 miles (4.8 km) of the site of work, and in case of extra lead beyond this limit, carriage is payable at the rates provided in the Schedule for corresponding subsequent miles (units of 1.6 kilometres).

The rates include all octroi charges, toll-tax, sales-tax and other local taxes, etc., paid by the contractor in bringing the materials to the site of work.

8. The rates include the wastage or breakage of various materials during construction.

9. In case of following special areas, premia at the rates given below will be allowed over and above the basic labour and through rates :—

- (a) Hamirpur Tehsil -- 5 per cent above Kangra rates.
- (b) Manali-Naggur-Banjar area on left bank of river Beas 5 per cent above Kulu rates
- (c) Ani and Outer Seraj area -- 15 per cent above Kulu rates
- (d) Manali to Koti .. 15 per cent above Kulu rates

10. For the execution of works in villages and other isolated works not on main roads and involving the use of skilled labour and costing up to Rs 1,00,000/-, premium of 10 per cent may be allowed for estimating purposes, over and above the premium or abatement fixed for the zone concerned. The contractor is to be paid only on the basis of the rate of premium or abatement tendered by him on the basic schedule rates, i.e., not taking into consideration the 10 per cent applicable weightage in ceiling premium, for isolated works and works in villages and tenders for such works should be clearly invited on this basis. As regards classification of a work under this category, each case should be examined on merit.

11. Where the description of any item is too long, the essential portion has been printed in Antique (thick) letters. Only such essential portion need be written in estimates, tenders, contracts and measurement books, although it will deem to cover the entire item as described fully in the Schedule of Rates. Where the description is only in one type of letters, it should be repeated as a whole.

CHAPTER NO. 28

WATER-SUPPLY

Notes.—(i) Unless otherwise stated, the carriage rates include loading, unloading and stacking for purposes of measurement.

- (ii) For carriage of materials on river or choc-beds, 23 per cent extra over the basic rates of the mile/miles (units of 1.6 kilometre/ units of 1.6 kilometres) concerned should be paid for actual river or choc-bed length involved.
- (iii) For carriage of materials on unmetalled roads, 20 per cent extra on the basic rates of the mile/miles (units of 1.6 kilometre/ units of 1.6 kilometres) concerned (excepting those for item Nos. 5.2 to 5.4) should be paid.
- (iv) For leads beyond 30 miles, (48 kilometres) materials should be carried by road transport through carriage contractors only in the following cases :—
 - (a) When materials like machinery or fittings are to be carried which are likely to be damaged if handled roughly during transit by rail.
 - (b) When special materials classified by the Superintending Engineer as being of fragile nature are to be carried.
 - (c) In case of ordinary materials when it is cheaper to do so than carriage by rail.
 - (d) In case of ordinary materials where carriage by road is costlier than carriage by rail, but prior approval of Superintending Engineer has been obtained to pay the higher carriage rates.

In all the four cases mentioned above, work will be let out after calling competitive tenders.

- (v) Carriage of materials should be done by Government transport except in cases where such transport cannot be employed on account of the terrain of the locality, in which carriage is to be done or where on account of the weight of the materials to be carried, it would be uneconomical to use Government transport or where such transport is not available.

- (vi) In hilly areas there will be three zones, for carriage work :—

Zone I.—Where the maximum permissible laden weight of the truck is 17,920 lbs., (8 tonne) such as Kalka-Simla Section.

Zone II.—Where the maximum permissible laden weight of truck is 14,500 lbs. (6.5 tonne) such as Pathankot-Dalhousie, Pathankot-Mandi, Una-Hoshiarpur Sections.

Zone III.—Where the maximum permissible laden weight of truck is 10,000 lbs. (4.5 tonne) such as Mandi-Kulu-Manali Section.

Serial No.	Description	Unit	RATE										
			Up to ½ mile (0.8 km)	1 mile (1.6 km)	1½ miles (2.4 km)	2 miles (3.2 km)	2½ miles (4 km)	3 miles (4.8 km)	4 miles (6.4 km)	5 miles (8 km)	Subsequent miles (units of 1.6 km)	Per mile (1.6 km)	
1	2	3	4	5	6	7	8	9	10	11	12		
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
28.1	Carriage including loading, unloading and stacking in plains:—												
	(a) Cast Iron Pipes:												
	(i) 3 inch (80 mm) i/d	Tonne	3.70	3.85	4.00	4.15	4.30	4.45	4.65	4.90	0.25		
	(ii) 4 inch (100 mm) i/d to 6 inch (150 mm) i/d	Do	4.65	4.80	5.00	5.20	5.30	5.50	5.90	6.20	0.31		
	(iii) 7 inch (175 mm) i/d to 15 inch (375 mm) i/d	Do	6.60	6.80	7.10	7.40	7.60	7.80	8.25	8.65	0.43		
	(iv) 16 inch (400 mm) i/d to 24 inch (600 mm) i/d	Do	8.35	8.75	9.05	9.35	9.65	9.85	10.35	11.30	0.55		
	(b) Cement Asbestos pipes :												
	(i) 3 inch (80 mm) i/d to 6 inch (150 mm) i/d	Do	3.60	3.85	4.15	4.40	4.65	4.90	5.40	5.80	0.44		
	(c) S. W. Pipes:												
	(i) 4 inch (100 mm) to 7 inch (175 mm)	Do	5.50	6.00	6.40	6.80	7.20	7.60	8.35	9.05	0.65		
	(ii) 9 inch (225 mm) to 18 inch (450 mm)	Do	6.40	7.00	7.40	7.85	8.35	8.85	9.75	10.35	0.80		
	(d) R. C. C. Pipes:												
	(i) 4 inch (100 mm) i/d to 6 inch (150 mm) i/d	Do	2.50	2.65	2.80	2.95	3.10	3.25	3.50	3.75	0.24		
	(ii) 9 inch (225 mm) i/d to 12 inch (300 mm) i/d	Do	3.60	3.85	4.05	4.25	4.45	4.65	5.00	5.40	0.34		
	(iii) 15 inch (375 mm) i/d to 18 inch (450 mm) i/d	Do	5.00	5.30	5.60	5.90	6.20	6.50	7.00	7.50	0.48		

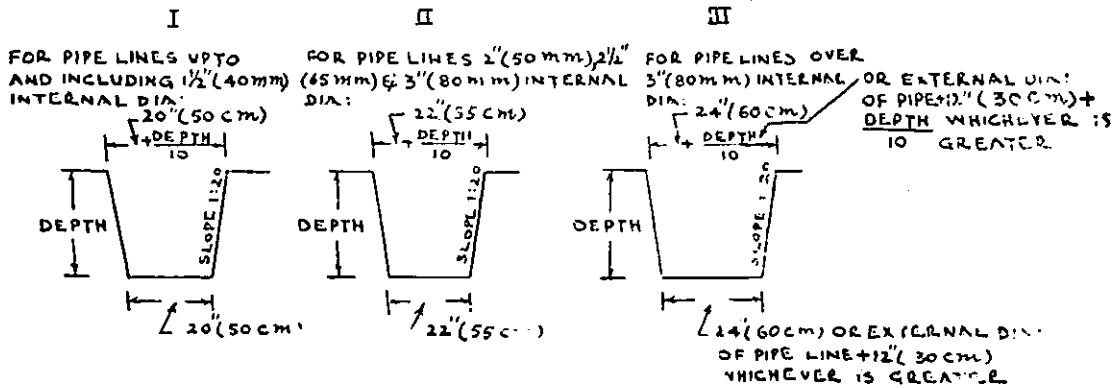
Serial No.	Description	Unit	RATE								
			Up to ½ mile (0.8 km)	1 mile (1.6 km)	1½ miles (2.4 km)	2 mile (3.2 km)	2½ miles (4 km)	3 miles (4.8 km)	4 miles (6.4 km)	5 miles (8 km)	Subsequent miles (units of 1.6 km) per mile (1.6 km)
1	2	3	4	5	6	7	8	9	10	11	12
28.2	Carriage including loading, unloading and stacking in hilly area :—		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	(a) Cast Iron Pipes:										
	(i) 3 inch (80 mm) i/d—										
	Zone I, .. Tonne		4.65	4.80	5.00	5.20	5.30	5.50	5.80	6.20	0.30
	Zone II .. Do		5.55	5.80	6.00	6.20	6.40	6.70	7.00	7.40	0.40
	Zone III .. Do		7.40	7.70	7.95	8.25	8.55	8.85	9.35	9.85	0.50
	(ii) 4 inch (100 mm) i/d to 6 inch (150 mm) i/d—										
	Zone I .. Do		5.80	6.00	6.30	6.50	6.70	6.90	7.40	7.80	0.39
	Zone II .. Do		7.00	7.30	7.60	7.85	7.95	8.25	8.85	9.35	0.47
	Zone III .. Do		9.25	9.65	9.85	10.35	10.85	10.85	11.80	12.30	0.60
	(iii) 7 inch (175 mm) i/d to 15 inch (375 mm) i/d—										
	Zone I .. Do		8.25	8.45	8.85	9.25	9.45	9.75	10.35	10.85	0.55
	Zone II .. Do		9.85	10.35	10.85	11.30	11.30	11.80	12.30	12.80	0.65
	Zone III .. Do		13.30	13.80	14.25	14.75	15.25	15.75	16.75	17.20	0.90
	(iv) 16 inch (400 mm) i/d to 24 inch (600 mm) i/d—										
	Zone I .. Do		10.35	10.85	11.30	11.80	12.30	12.30	12.80	14.25	0.70
	Zone II .. Do		12.80	13.30	13.80	14.25	14.25	14.75	15.75	17.20	0.85
	Zone III .. Do		16.75	17.70	18.20	18.70	19.20	19.70	20.65	22.65	1.10
	(b) Asbestos Cement Pipes :										
	(i) 3 inch (80 mm) i/d to 6 inch (150 mm) i/d—										
	Zone I .. Do		4.50	4.80	5.20	5.50	5.80	6.20	6.80	7.30	0.55
	Zone II .. Do		5.40	5.80	6.20	6.60	7.00	7.40	8.15	8.75	0.65
	Zone III .. Do		7.20	7.70	8.25	8.75	9.35	9.85	10.85	11.80	0.90
	(c) S. W. Pipes :										
	(i) 4 inch (100 mm) i/d to 7 inch (175 mm) i/d—										
	Zone I .. Do		6.90	7.50	7.95	8.45	8.95	9.45	10.35	11.30	0.80
	Zone II .. Do		8.25	9.05	9.65	10.35	10.85	11.30	12.80	13.80	1.00
	Zone III .. Do		10.85	11.80	12.80	13.80	14.25	15.25	16.75	18.20	1.30
	(ii) 9 inch (225 mm) i/d to 18 inch (450 mm) i/d—										
	Zone I .. Do		7.95	8.75	9.35	9.85	10.35	10.85	12.30	12.80	1.00
	Zone II .. Do		9.65	10.35	11.30	11.80	12.80	13.30	14.75	15.75	1.20
	Zone III .. Do		12.80	13.80	14.75	15.75	16.75	17.70	19.70	20.65	1.60
	(d) R. C. C. Pipes :										
	(i) 4 inch (100 mm) i/d to 6 inch (150 mm) i/d—										
	Zone I .. Do		3.15	3.35	3.50	3.70	3.90	4.10	4.40	4.65	0.30
	Zone II .. Do		3.80	4.00	4.25	4.45	4.65	4.85	5.20	5.60	0.36
	Zone III .. Do		5.00	5.30	5.60	5.90	6.20	6.50	7.00	7.50	0.48
	(ii) 9 inch (225 mm) i/d to 12 inch (300 mm) i/d—										
	Zone I .. Do		4.50	4.80	5.00	5.30	5.50	5.80	6.30	6.80	0.43
	Zone II .. Do		5.40	5.70	6.00	6.40	6.60	6.90	7.60	8.15	0.50
	Zone III .. Do		7.20	7.70	8.05	8.45	8.85	9.25	9.85	10.85	0.70
	(iii) 15 inch (375 mm) i/d to 18 inch (450 mm) i/d—										
	Zone I .. Do		6.30	6.70	7.00	7.40	7.80	8.15	8.75	9.35	0.60
	Zone II .. Do		7.60	7.95	8.45	8.85	9.35	9.75	10.35	11.30	0.70
	Zone III .. Do		10.05	10.85	11.30	11.80	12.30	12.80	13.80	14.75	0.95

S. No.	Description	Unit	PLAINS		HILLY REGION	
			Rate for loading into B-G Wagons	Rate for unloading from B-G Wagons	Rate for loading into B-G Wagon	Rate for unloading from B-G Wagon
			Rs.	Rs.	Rs.	Rs.
<i>Notes :</i>						
(i) Where the lead for loading or unloading is more than the lead specified in the following rates, this should be paid at carriage rates (Chapter 5) for second and third chains of 100 ft. (30 metres) each as the case may be.						
(ii) The following rates do not provide for any special arrangements such as provision of mechanical equipment for loading purposes. The unloading of heavy machinery or consignments requiring crane work or special arrangements will be done departmentally or paid for on the merit of each case.						
28.3 Loading and unloading of materials:—						
(a)	Cast iron pipes up to 12 inch (300 mm) i/d	Tonne	1.30	1.00	1.30	1.00
(b)	Cast iron pipes exceeding 12 inch (300 mm) to 18 inch (450 mm) i/d	Do	2.55	1.95	2.55	1.95
(c)	Cast iron pipes exceeding 18 inch (450 mm) to 24 inch (600 mm) i/d	Do	3.85	2.95	3.85	2.95
(d)	Asbestos Cement Pipes	Do	1.30	1.00	1.30	1.00
(e)	Stoneware Pipes	Do	1.30	1.00	1.30	1.00
(f)	R. C. C. Pipes up to 12 inch (300 mm) i/d	Do	1.30	1.00	1.30	1.00
(g)	R.C.C. Pipes above 12 inch (300 mm) i/d	Do	2.55	1.95	2.55	1.95

Serial No.	Description	Unit	RATE	
			Plains	Hilly Region
			Rs.	Rs.
28.4 Excavation for pipe-lines in Trenches and pits, including trimming and dressing sides levelling of beds of trenches to correct grade, cutting joint holes, refilling, consolidation and watering of refill in 6 inch (15cm) Layers and Restoration of Unmettled or unpaved surface to its original condition including the cost of necessary shoring, timbering, dewatering of rain-water, diversion for traffic, night signals, fixing caution boards, crossing over trenches for access to the houses, watching, fencing, etc., and removal of surplus spoil outside/inside the town involving lead up to one mile (1.6 km):—				
(a) Up to 5 feet (1.5 m) depth for:—				
(i)	All classes of soil except rocky	100 cu m	134.00	..
(ii)	For ordinary gravel soil in hills involving pick work	Do	..	205.00
(iii)	For semi-conglomerate or soil of the nature of pick jumper work	Do	..	240.00
(b) From 5 ft. (1.5 m) depth down to 7½ ft. (2.25 m) depth for:				
(i)	All classes of soil except rocky	Do	137.50	..
(ii)	Ordinary gravel soil in hills involving pick work	Do	..	215.50
(iii)	Semi-conglomerate or soil of the nature of pick jumper work	Do	..	268.50
(c) From 7½ ft. (2.25 m) depth down to 10 ft. (3 m) for:				
(i)	All classes of soil except rocky	Do	146.50	..
(ii)	Ordinary gravel soil in hills involving pick work	Do	..	226.00
(iii)	Semi-conglomerate or soil of the nature of pick jumper work	Do	..	286.00

Serial No.	Description	Unit	RATE	
			Plains	Hilly Region
			Rs.	Rs.
28. 5	Excavation for Pipelines in trenches and Pits up to 5 ft. (1.5m) depth including trimming and dressing sides, levelling of beds of trenches to correct grade, cutting joint holes, refilling, consolidation and watering of refill in 6 inch (15 cm) layers and Restoration of Unmetalled or unpaved surface to its original condition, excluding cost of shoring timbering but including the cost of dewatering of rain water diversion for traffic, night signals, fixing caution boards, crossing over trenches for access to the houses, watching, fencing, etc., and removal of surplus spoil outside inside the town involving lead up to one mile (1.6 km) —			
	(a) In all classes of soil except rocky	100 cu m	118.50	..
	(b) In ordinary gravel soil in hills involving pick work ..	Do	..	187.00
	(c) In semi-conglomerate or soil of the nature of pick jumper work ..	Do	..	222.50
28. 6	Excavation for Pipe-lines in trenches and pits, in open areas where disposal of surplus earth is done along the alignment, including trimming and dressing sides, levelling of beds of trenches to correct grade, cutting joint holes, refilling, consolidation and dewatering of refill in 6 inch (15 cm) layers and restoration of unmetalled or unpaved surface to its original condition. The rate includes the cost of necessary timbering, dewatering of rain-water, diversion for traffic, night signals, fixing caution boards, watching-fencing, etc. —			
	(a) Up to 5 ft. (1.5m) depth in :			
	(i) All classes of soil except rocky ...	Do	111.00	..
	(i i) In ordinary gravel soil in hills involving pick work ..	Do	..	169.50
	(iii) In semi-conglomerate or soil of the nature of pick jumper work	Do	..	205.00
	(b) From 5 ft. (1.5 m) depth to 7½ ft. (2.25 m) depth ..			
	(i) In all classes of soil except rocky ...	Do	115.00	..
	(i i) In ordinary gravel soil in hills involving pick work ..	Do	..	180.00
	(iii) In semi-conglomerate or soil of the nature of pick jumper work ..	Do	..	233.00
	(c) From 7½ ft. (2.25 m) depth down to 10 ft. (3m) depth ..			
	(i) In all classes of soil except rocky ..	Do	123.50	..
	(i i) In ordinary gravel soil in hills involving pick work ..	Do	..	190.50
	(iii) In semi conglomerate or soil of the nature of pick jumper work ..	Do	..	250.50
28. 7	Excavation for Pipelines in trenches and pits up to 5 ft. (1.5m) depth, in open areas where disposal of surplus earth is done along with alignment, including trimming and dressing sides, levelling of beds of trenches to correct grade, cutting joint holes, refilling consolidation and watering of refill in 6 inch (15 cm) layers and restoration of unmetalled or unpaved surface to its original condition excluding cost of shoring and timbering but including the cost of dewatering of rain water, diversion for traffic, night signals, fixing caution boards, watching, fencing, etc. —			
	(a) In all classes of soil except rocky ..	Do	95.50	..
	(b) In ordinary gravel soil in hills involving pick work ..	Do	..	153.50
	(c) In semi-conglomerate or soil of the nature of pick jumper work	Do	..	187.00
	Notes :—			
	(i) The contractor must fix sign-boards to indicate the execution of works and diversion of traffic, etc. The sign-boards will be supplied by the Govt. Department from their Stores but the fixing and maintenance at site will be done by the contractor and the rates include the cost of the same.			

Serial No.	Description	Unit	RATE	
			Plains	Hilly Region
	<i>Notes—concl.</i>		Rs.	Rs.
	(ii) The maximum width of trenches for measurement purposes shall be taken as shown on the diagrams given below. If the actual width of the trenches is less than shown on the diagrams below, the actual volume of excavation only shall be measured and paid for. If the actual width of trenches is greater than shown on the diagrams below, the width to be measured for calculation of volume of excavation to be paid for shall be in accordance with the diagrams given below :—			



	(iii) If the trenches are carried down below spring level, special rates shall be fixed for heavy timbering, dewatering and pumping, appropriate to the special conditions of each job.			
	(iv) For rocky soil special rates shall be fixed.			
28.8	Extra for disposal of surplus spoil on item Nos 28.4 and 28.5 beyond one mile (1.6 km) —			
	(i) Up to 1 1/2 mile (2.4 km).	100 cu m	30.00	46.00
	(ii) Up to 2 miles (3.2 km).	Do	58.50	88.50
	(iii) Up to 2 1/2 miles (4.0 km).	Do	86.50	130.50
	(iv) Up to 3 miles (4.8 km).	Do	115.00	173.00
	(v) Up to 4 miles (6.4 km).	Do	169.50	254.50
	(vi) Up to 5 miles (8 km).	Do	212.00	318.00
	(vii) Subsequent miles (units of 1.6 km) per miles (1.6 km).	Do	32.00	47.50
	<i>Note</i> :—The extra quantity and lead for disposal of surplus earth beyond one miles (1.6 km) will only be payable on written orders certificate of the officer not below the rank of Sub-Divisional Officer.			

Serial S No.	Description	Unit	RATE		
			Plains	Hills	
			Kangra and Dalhousie	Kulu, Simla, Mandi	
28.9	Extra for cutting through cement concrete Roads and their foundations including sorting and stacking the soling at the site of work as ordered by the Engineer-in-charge	10 sq m	10.10	8.70	8.70
28.10	Extra for cutting through metalled roads and their foundation including sorting, screening and stacking the soling stone and road metal at the site of work as ordered by the Engineer-in-charge	Do	3.30	2.20	2.20
28.11	(a) Consolidation of road cuts with hummers, hand-rollers and laying of Flat brick soling/pavement (at formation level) complete, so as to allow unobstructed traffic	Do	16.70	21.00	45.20
	(b) Recondition road cuts to its original condition including cost of material necessary to make good the losses. Consolidation of 4 1/2 inch (11.50 cm) road metal of 1 1/2 inch (40 mm) gauge and surface treatment of 3/4 inch (20 mm) thick premix and relaying of soling as covered in item 28.11 (a) above is necessary	Do	59.20	47.35	52.75

Serial No.	Description	Unit	RATES		
			Plains	Hills	
				Kangra and Dalhousie	Kulu Simla Mandi
		Rs.	Rs.	Rs.	
	<i>Note :—</i>				
	(i) The rates given for items 28.9, 28.10 and 28.11 include the cost of all watching fencing and lighting of the works.				
	(ii) The width of the works described in items 28.9, 28.10 and 28.11 shall be measured by the same rules as those laid down in note (ii) following item No. 28.7 (The extra width shall not be paid for, unless the same was specifically ordered by the Engineer-in-charge of the works in writing).				
	(iii) All other demolition work in connection with pipelines shall be paid for at the rates laid down for demolition of various classes of work under relative chapters.				
28.12	Stringing out C. I. Pipes and specials castings along trenches and laying the same in trenches to correct alignment and gradients including cartage from Divisional Store or nearest Railway Station to side of works and return of pieces of pipes to stores—				
	(a) 2 inch (50 mm) internal diameter pipeline laid complete	10 m.	1.60	2.15	2.65
	(b) 2½ inch (65 mm) internal diameter pipeline laid complete	Do	1.80	2.40	2.95
	(c) 3 inch (80 mm) internal diameter pipeline laid complete	Do	1.95	2.65	3.25
	(d) 4 inch (100 mm) internal diameter pipeline laid complete	Do	2.60	3.60	4.25
	(e) 5 inch (125 mm) internal diameter pipeline laid complete	Do	3.30	4.45	5.60
	(f) 6 inch (150 mm) internal diameter pipeline laid complete	Do	4.25	5.75	7.05
	(g) 7 inch (175 mm) internal diameter pipeline laid complete	Do	5.10	6.75	8.35
	(h) 8 inch (200 mm) internal diameter pipeline laid complete	Do	6.05	8.20	10.00
	(i) 9 inch (225 mm) internal diameter pipeline laid complete	Do	7.05	9.35	11.50
	(j) 10 inch (250 mm) internal diameter pipeline laid complete	Do	8.20	11.00	13.60
	(k) 12 inch (300 mm) internal diameter pipeline laid complete	Do	10.50	14.10	17.40
	(l) 14 inches (350 mm) internal diameter pipeline laid complete	Do	13.45	18.35	22.30
	(m) 15 inch (375 mm) internal diameter pipeline laid complete	Do	14.75	20.00	24.30
	(n) 16 inch (400 mm) internal diameter pipeline laid complete	Do	16.40	22.00	26.90
	(o) 18 inch (450 mm) internal diameter pipeline laid complete	Do	19.35	26.25	31.50
	(p) 20 inch (500 mm) internal diameter pipeline laid complete	Do	22.65	30.85	37.75
	(q) 21 inch (525 mm) internal diameter pipeline laid complete	Do	24.30	32.80	40.05
	(r) 22 inch (550 mm) internal diameter pipeline laid complete	Do	24.95	33.80	41.35
	(s) 24 inch (600 mm) internal diameter pipeline laid complete	Do	29.85	40.35	49.55
28.13	Extra for fixing cast iron Socketted or flanged pipes, valves and special castings in vertical position for overhead reservoirs and stand pipes including cost of all special Scaffolding, derricks, jim poles, tools and plants, ropes, guys, etc., complete—				
	(a) 2 inch (50 mm) internal diameter of pipelines and specials	m. of pipeline laid complete	0.60	0.70	0.75
	(b) 2½ inch (65 mm) internal diameter of pipelines and specials	Ditto	0.75	0.90	0.90
	(c) 3 inch (80 mm) internal diameter of pipelines and specials	Ditto	0.90	1.10	1.10
	(d) 4 inch (100 mm) internal diameter pipelines and specials,	Ditto	1.20	1.45	1.50

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, Mandi
28.13— concl.			Rs	Rs	Rs
(e)	5 inch (125 mm) internal diameter of pipelines and specials	m of pipe-line laid complete	1.55	1.95	1.95
(f)	6 inch (150 mm) internal diameter of pipelines and specials	Ditto	1.95	2.45	2.45
(g)	7 inch (175 mm) internal diameter of pipelines and specials	Ditto	2.30	2.95	2.95
(h)	8 inch (200 mm) internal diameter of pipelines and specials	Ditto	2.80	3.45	3.60
(i)	9 inch (225 mm) internal diameter of pipelines and specials	Ditto	3.30	4.10	4.10
(j)	10 inch (250 mm) internal diameter of pipelines and specials	Ditto	3.95	4.75	4.90
(k)	12 inch (300 mm) internal diameter of pipelines and specials	Ditto	4.90	6.05	6.25
(l)	14 inch (350 mm) internal diameter of pipelines and specials	Ditto	6.25	7.70	7.85
(m)	15 inch (375 mm) internal diameter of pipelines and specials	Ditto	6.90	8.55	8.70
(n)	16 inch (400 mm) internal diameter of pipelines and specials	Ditto	7.55	9.20	9.40
(o)	18 inch (450 mm) internal diameter of pipelines and specials	Ditto	9.00	11.15	11.30
(p)	20 inch (500 mm) internal diameter of pipelines and specials	Ditto	10.65	12.95	13.45
(q)	21 inch (525 mm) internal diameter of pipelines and specials	Ditto	11.50	14.25	14.60
(r)	22 inch (550 mm) internal diameter of pipelines and specials	Ditto	12.45	15.25	15.60
(s)	24 inch (600 mm) internal diameter of pipelines and specials	Ditto	14.10	17.05	17.70
Notes—					
(i)	For pipes larger than 24 inch (600 mm) internal diameter, special rates shall be fixed.				
(ii)	The extra rate in item No. 28.13 is not applicable to cases where pipes and specials are fixed above ground level in horizontal, inclined or vertical position instead of trenches. The rate given in item No. 28.12 only shall be payable in such cases.				
(iii)	The contractor shall be liable to make good all damage caused by breakages from the moments pipes and fittings are handed over to his charge.				
(iv)	All measurements shall be taken along the centre line or axis of the pipe line throughout its length and shall include the overall laying length of sluice valves, etc., fixed therein				
28.14	Cutting cast iron pipes and specials and chipping or filing the surface to a uniform finish—				
(a)	2 inch (50 mm) internal diameter pipeline	Per cut	0.44	0.48	0.49
(b)	2½ inch (65 mm) internal diameter pipeline	Ditto	0.60	0.65	0.70
(c)	3 inch (80 mm) internal diameter pipeline	Ditto	0.65	0.70	0.75
(d)	4 inch (100 mm) internal diameter pipeline	Ditto	0.85	0.95	1.00
(e)	5 inch (125 mm) internal diameter pipeline	Ditto	1.10	1.25	1.30
(f)	6 inch (150 mm) internal diameter pipeline	Ditto	1.25	1.40	1.45

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, Mandi
		Rs	Rs	Rs	
28.14— <i>concid.</i>					
	(g) 7 inch (175 mm) internal diameter pipeline	Per cut	1.50	1.70	1.75
	(h) 8 inch (200 mm) internal diameter pipeline	Ditto	1.75	2.00	2.05
	(i) 9 inch (225 mm) internal diameter of pipeline	Ditto	1.95	2.20	2.25
	(j) 10 inch (250 mm) internal diameter of pipeline	Ditto	2.10	2.35	2.45
	(k) 12 inch (300 mm) internal diameter of pipeline	Ditto	2.55	2.95	3.00
	(l) 14 inch (350 mm) internal diameter pipeline	Ditto	3.00	3.40	3.55
	(m) 15 inch (375 mm) internal diameter pipeline	Ditto	3.25	3.65	3.80
	(n) 16 inch (400 mm) internal diameter pipeline	Ditto	3.50	3.95	4.10
	(o) 18 inch (450 mm) internal diameter pipeline	Ditto	3.90	4.40	4.60
	(p) 20 inch (500 mm) internal diameter pipeline	Ditto	4.50	5.10	5.30
	(q) 21 inch (525 mm) internal diameter pipeline	Ditto	4.65	5.20	5.40
	(r) 22 inch (550 mm) internal diameter pipeline	Ditto	4.90	5.50	5.80
	(s) 24 inch (600 mm) internal diameter pipeline	Ditto	5.40	6.10	6.30
28.15	Jointing cast iron socketted pipes, valves and specials with run lead caulked joints excluding cost of lead and yarn but including cost of labour, fuel and tools, etc., tested complete—				
	<i>Internal diameter of pipeline</i>	<i>Quantity of lead per joint in kg.</i>	<i>Quantity of yarn per joint in kg.</i>		
	(a) 2 inch (50 mm)	.. 1.4	0.09	Per joint	1.15 1.25 1.30
	(b) 2½ inch (65 mm)	.. 1.6	0.10	Ditto	1.20 1.35 1.40
	(c) 3 inch (80 mm)	.. 1.9	0.11	Ditto	1.40 1.60 1.70
	(d) 4 inch (100 mm)	.. 2.4	0.17	Ditto	1.70 1.95 2.00
	(e) 5 inch (125 mm)	.. 2.9	0.20	Ditto	2.00 2.25 2.35
	(f) 6 inch (150 mm)	.. 3.6	0.23	Ditto	2.10 2.35 2.45
	(g) 7 inch (175 mm)	.. 4.1	0.25	Ditto	2.55 2.85 2.95
	(h) 8 inch (200 mm)	.. 4.9	0.29	Ditto	2.75 3.10 3.20
	(i) 9 inch (225 mm)	.. 5.4	0.31	Ditto	3.05 3.40 3.55
	(j) 10 inch (250 mm)	.. 6.8	0.34	Ditto	3.45 3.85 4.00
	(k) 12 inch (300 mm)	.. 7.9	0.48	Ditto	3.70 4.15 4.30
	(l) 14 inch (350 mm)	.. 9.1	0.63	Ditto	4.25 4.75 4.95
	(m) 15 inch (375 mm)	.. 9.8	0.68	Ditto	4.45 5.00 5.20
	(n) 16 inch (400 mm)	.. 10.3	0.74	Ditto	5.00 5.60 5.90
	(o) 18 inch (450 mm)	.. 14.4	0.94	Ditto	5.60 6.30 6.50
	(p) 20 inch (500 mm)	.. 16.8	1.02	Ditto	6.30 7.00 7.30
	(q) 21 inch (525 mm)	.. 17.5	1.08	Ditto	6.80 7.60 7.90
	(r) 22 inch (550 mm)	.. 19.1	1.13	Ditto	7.30 8.20 8.60
	(s) 24 inch (600 mm)	.. 20.9	1.21	Ditto	8.40 9.30 9.80
28.16—	Making Flanged Joints for Cast-iron pipes, valves or and specials—				
	(a) 2 inch (50 mm) internal diameter of pipe, valves or specials			Each	0.85 0.95 1.05
	(b) 2½ inch (65 mm) internal diameter of pipe, valves or specials			Do	0.95 1.05 1.15
	(c) 3 inch (80 mm) internal diameter of pipe, valves and specials			Do	1.15 1.30 1.40

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla Mandi
			Rs	Rs	Rs
28. 16-- <i>concl.</i>	(d) 4 inch (100 mm) internal diameter of pipe, valves or specials	Each	1.30	1.45	1.55
	(e) 5 inch (125 mm) internal diameter of pipe, valves or specials	Do	1.50	1.65	1.80
	(f) 6 inch (150 mm) internal diameter of pipe, valves or specials	Do	1.90	2.10	2.20
	(g) 7 inch (175 mm) internal diameter of pipe, valves or specials	Do	2.10	2.35	2.50
	(h) 8 inch (200 mm) internal diameter of pipe, valves or specials	Do	2.70	3.10	3.25
	(i) 9 inch (225 mm) internal diameter of pipe, valves or specials	Do	3.35	3.75	4.00
	(j) 10 inch (250 mm) internal diameter of pipe, valves or specials	Do	4.30	4.80	5.10
	(k) 12 inch (300 mm) internal diameter of pipe, valves or specials	Do	5.50	6.10	6.50
	(l) 14 inch (350 mm) internal diameter of pipe, valves or specials	Do	6.50	7.30	7.70
	(m) 15 inch (375 mm) internal diameter of pipe, valves or specials	Do	7.30	8.30	8.70
	(n) 16 inch (400 mm) internal diameter of pipe, valves or specials	Do	8.10	9.40	9.60
	(o) 18 inch (450 mm) internal diameter of pipe, valves or specials	Do	8.80	9.90	10.50
	(p) 20 inch (500 mm) internal diameter of pipe, valves or specials	Do	9.60	10.50	11.50
	(q) 21 inch (525 mm) internal diameter of pipe, valves or specials	Do	10.00	11.50	12.00
	(r) 22 inch (550 mm) internal diameter of pipe, valves or specials	Do	11.00	12.50	13.00
	(s) 24 inch (600 mm) internal diameter of pipe, valves or specials	Do	12.00	13.50	14.50
	Notes—				
	(i) The rubber insertion, 1/8 inch (3mm) thick, required for making the joints will be issued in rectangular sheet or rolls at stock issue rates in force ex-divisional stores or F. O. R. nearest Railway Station.				
	(ii) All bolts, nuts and washers for flanged joints will be supplied, without charge to the contractor, ex-divisional stores or delivered F. O. R. nearest Railway Station. The contractor at his own expense and charge will take delivery of jointing materials and bolts, nuts and washers, transport the same to site of work.				
28. 17	Extra for fixing sluice valves, socketted or flanged, including cartage from stores or nearest Railway Station to site of works—				
	(a) 2 inch (50 mm) internal diameter of valve	.. Each	1.60	1.90	2.00
	(b) 2½ inch (65 mm) internal diameter of valve	.. Do	1.70	2.00	2.10
	(c) 3 inch (80 mm) internal diameter of valve	.. Do	2.05	2.40	2.55
	(d) 4 inch (100 mm) internal diameter of valve	.. Do	2.35	2.75	2.95
	(e) 5 inch (125 mm) internal diameter of valve	.. Do	2.70	3.15	3.40
	(f) 6 inch (150 mm) internal diameter of valve	.. Do	3.15	3.70	3.95
	(g) 7 inch (175 mm) internal diameter of valve	.. Do	3.45	4.10	4.40
	(h) 8 inch (200 mm) internal diameter of valve	.. Do	3.80	4.50	4.90
	(i) 9 inch (225 mm) internal diameter of valve	.. Do	4.10	4.90	5.40
	(j) 10 inch (250 mm) internal diameter of valve	.. Do	4.95	5.90	6.40
	(k) 12 inch (300 mm) internal diameter of valve	.. Do	5.40	6.60	7.20
	(l) 14 inch (350 mm) internal diameter of valve	.. Do	5.90	7.10	8.00
	(m) 15 inch (375 mm) internal diameter of valve	.. Do	6.30	7.60	8.50

Serial No.	Description	Unit	RATE		
			Hills		
			Plains	Kangra and Dalhousie	Kulu, Simla Mandi
			Rs.	Rs.	Rs.
28. 17—	(n) 16 inch (400 mm) internal diameter of valve	.. Each	6.60	8.20	9.30
<i>concl'd.</i>	(o) 18 inch (450 mm) internal diameter of valve	.. Do	7.50	9.30	10.50
	(p) 20 inch (500 mm) internal diameter of valve	.. Do	8.60	10.50	12.50
	(q) 21 inch (525 mm) internal diameter of valve	.. Do	9.00	11.50	13.00
	(r) 22 inch (550 mm) internal diameter of valve	.. Do	9.60	12.00	14.00
	(s) 24 inch (600 mm) internal diameter of valve	.. Do	10.50	13.50	15.50
	<i>Note.</i> —Joints for sluice valves shall be paid for separately as per items 28. 15 and 28. 16.				
28. 18	Extra for fixing fire hydrants, all sizes, including cartage from Divisional Stores or nearest Railway Station to site of works.	.. Each	2.40	2.80	3.00
	<i>Note.</i> —Joint for hydrants shall be paid separately as per item No. 28. 16.				
28. 19	Extra for fixing single air valves all sizes including cartage from Divisional Stores or nearest Railway Station to site of works, drilling tapping and screwing in valve connection.	.. Each	6.60	8.10	8.60
28. 20	Extra for fixing double air valves all sizes including cartage from Divisional Stores or nearest Railway Station to site of works.	.. Do	2.55	3.00	3.25
	<i>Note.</i> —The joints for double and single air valves shall be paid separately as per item No. 28. 16.				
28. 21	Extra for fixing flap valves in pipe lines including cartage from Divisional Stores or nearest Railway Station to site of works:—				
	(a) 2 inch (50 mm) internal diameter of flap valve	.. Each	1.60	1.90	2.00
	(b) 2½ inch (65 mm) internal diameter of flap valve	.. Do	1.70	2.00	2.10
	(c) 3 inch (80 mm) internal diameter of flap valve	.. Do	2.05	2.40	2.55
	(d) 4 inch (100 mm) internal diameter of flap valve	.. Do	2.35	2.75	2.95
	(e) 5 inch (125 mm) internal diameter of flap valve	.. Do	2.70	3.15	3.40
	(f) 6 inch (150 mm) internal diameter of flap valve	.. Do	3.15	3.70	3.95
	(g) 7 inch (175 mm) internal diameter of flap valve	.. Do	3.45	4.10	4.40
	(h) 8 inch (200 mm) internal diameter of flap valve	.. Do	3.80	4.50	4.90
	(i) 9 inch (225 mm) internal diameter of flap valve	.. Do	4.10	4.90	5.40
	(j) 10 inch (250 mm) internal diameter of flap valve	.. Do	4.95	5.90	6.40
	(k) 12 inch (300 mm) internal diameter of flap valve	.. Do	5.40	6.60	7.20
	(l) 14 inch (350 mm) internal diameter of flap valve	.. Do	5.90	7.10	8.00
	(m) 15 inch (375 mm) internal diameter of flap valve	.. Do	6.30	7.60	8.50
	(n) 16 inch (400 mm) internal diameter of flap valve	.. Do	6.60	8.20	9.30
	(o) 18 inch (450 mm) internal diameter of flap valve	.. Do	7.50	9.30	10.50
	(p) 20 inch (500 mm) internal diameter of flap valve	.. Do	8.60	10.50	12.50
	(q) 21 inch (525 mm) internal diameter of flap valve	.. Do	9.00	11.50	13.00
	(r) 22 inch (550 mm) internal diameter of flap valve	.. Do	9.60	12.00	14.00
	(s) 24 inch (600 mm) internal diameter of flap valve	.. Do	15.50	13.50	15.50

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla Mandi
Rs	Rs	Rs			
Notes—					
(i) Joint for flap valves shall be paid as per item Nos. 28.15 and 28.16.					
(ii) Masonry, brick work and concrete construction for washouts and flap valves chambers shall be paid for separately at the rates given for the corresponding items of interim Common Schedule of Rates in Metric Units Volumes I and II.					
28.22.	Fixing cast iron sluice valves, surface boxes including cartage from Divisional Stores or nearest Railway Station and embedding to correct levels in cement mortar 1 : 3	Each	1.40	1.65	1.75
28.23.	Fixing cast iron fire hydrants surface boxes including cartage from Divisional Stores or nearest Railway Station and embedding to correct levels in cement mortar 1.3	Do	1.45	1.75	1.95
28.24	Fixing cast iron single air valves surface boxes including cartage from Divisional Stores or nearest Railway Station and embedding to correct levels in cement mortar 1 : 3	Do	1.55	1.90	2.15
28.25	Fixing cast iron double air valves surface boxes including cartage from Divisional Stores or nearest Railway Station and embedding to correct levels in cement Mortar 1 : 3	Do	1.60	1.95	2.25
Notes :—					
(i) All surface boxes will be supplied without charge, ex-Divisional Stores or F.O.R. nearest Railway Station.					
(ii) Payment for lime concrete, brick work, pitching etc. required in connection with the construction of brick work pits or chambers for sluice valves, flap-valves, air valves, hydrants, break pressure tanks, ball valves, chambers and other works for water supply pipe lines where no composite rate exists will be made on the basis of actual measurements for each class of work at the rates laid down for the appropriate classes of work in interim Common Schedule of Rates in Metric Units Volume I and II and no extra will be payable due to the limited quantities of the work or difficulties of construction or other causes.					
28.26	Drilling and tapping cast iron pipe lines of all diameters and screwing in ferrule and connections :—				
<i>Size of ferrule</i>					
	(a) 3/8 inch (10 mm) internal diameter	Each	2.20	3.00	3.05
	(b) 1/2 inch (15 mm) internal diameter ..	Do	2.35	3.15	3.20
	(c) 3/4 inch (20 mm) internal diameter ..	Do	3.75	4.70	4.85
	(d) 1 inch (25 mm) internal diameter ..	Do	4.70	5.80	6.00
	(e) 1 1/8 inch (32 mm) internal diameter ..	Do	5.50	6.70	7.00
	(f) 1 1/2 inch (40 mm) internal diameter ..	Do	6.00	7.30	7.60
<i>Note.—</i> Ferrule will be supplied without charge to the contractor, ex-Divisional Stores or F.O.R. nearest Railway Station. The fixing rate includes cartage to site of work and also the cost of excavation up to the main and filling in and making good the surface after finishing the job. The rate is for complete job.					
28.27	Labour for laying, jointing, fixing and testing G.I. pipe lines and specials, tee, bends, sockets, elbows etc., inside building and testing etc., complete including cutting, threading—				
(a) excluding cost of specials—					
	(i) 1/2 inch (15 mm) internal diameter of pipe line ..	m	0.75	0.85	0.90
	(ii) 3/4 inch (20 mm) internal diameter of pipe line ..	Do	0.85	0.95	1.00

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs	Rs	Rs
28.27— <i>concl'd</i>	(iii) 1 inch (25 mm) internal diameter of pipe line ..	m.	1.00	1.15	1.20
	(iv) 1½ inch (32 mm) internal diameter of pipe line ..	Do	1.15	1.30	1.40
	(v) 1½ inch (40 mm) internal diameter of pipe line ..	Do	1.20	1.40	1.45
	(vi) 2 inch (50 mm) internal diameter of pipe line ..	Do	1.45	1.65	1.80
	(b) including cost of specials :—				
	(i) ½ inch (15 mm) internal diameter of pipe line ..	Do	1.65	1.80	1.95
	(ii) ¾ inch (20 mm) internal diameter of pipe line ..	Do	1.80	1.95	2.15
	(iii) 1 inch (25 mm) internal diameter of pipe line ..	Do	2.15	2.45	2.60
	(iv) 1½ inch (32 mm) internal diameter of pipe line ..	Do	2.45	2.80	2.95
	(v) 1½ inch (40 mm) internal diameter of pipe line ..	Do	2.60	2.95	2.95
	(vi) 2 inch (50 mm) internal diameter of pipe line ..	Do	3.10	3.45	3.60
28.28	Labour for laying, jointing, fixing and testing G.I. Pipe Lines and specials tees, bends, sockets elbow, etc., in trenches in the ground, cutting threading and testing, etc., complete—				
	(a) ½ inch (15 mm) internal diameter ..	Do	0.23	0.26	0.26
	(b) ¾ inch (20 mm) internal diameter ..	Do	0.30	0.33	0.36
	(c) 1 inch (25 mm) internal diameter ..	Do	0.39	0.46	0.49
	(d) 1½ inch (32 mm) internal diameter ..	Do	0.50	0.60	0.65
	(e) 1½ inch (40 mm) internal diameter ..	Do	0.55	0.65	0.70
	(f) 2 inch (50 mm) internal diameter ..	Do	0.60	0.70	0.70
	(g) 2½ inch (65 mm) internal diameter ..	Do	0.60	0.70	0.70
	(h) 3 inch (80 mm) internal diameter ..	Do	0.65	0.75	0.80
	(i) 4 inch (100 mm) internal diameter ..	Do	0.80	0.95	1.00
28.29	Labour for laying, jointing, fixing and testing W. I. (Red) Steam Pipe Lines inside buildings including specials, tees, bends, sockets, elbow, etc., cutting threading and testing, etc., complete—				
	(a) excluding cost of specials—				
	(i) ½ inch (15 mm) internal diameter of pipe line ..	Do	0.75	0.80	0.90
	(ii) ¾ inch (20 mm) internal diameter of pipe line ..	Do	0.85	0.95	1.00
	(iii) 1 inch (25 mm) internal diameter of pipe line ..	Do	1.00	1.15	1.20
	(iv) 1½ inch (32 mm) internal diameter of pipe line ..	Do	1.15	1.30	1.40
	(v) 1½ inch (40 mm) internal diameter of pipe line ..	Do	1.20	1.40	1.45
	(vi) 2 inch (50 mm) internal diameter of pipe line ..	Do	1.45	1.65	1.80
	(b) including cost of specials—				
	(i) ½ inch (15 mm) internal diameter of pipe line ..	Do	1.65	1.80	1.95
	(ii) ¾ inch (20 mm) internal diameter of pipe line ..	Do	1.80	1.95	2.15
	(iii) 1 inch (25 mm) internal diameter of pipe line ..	Do	2.15	2.45	2.60
	(iv) 1½ inch (32 mm) internal diameter of pipe line ..	Do	2.45	2.80	2.95
	(v) 1½ inch (40 mm) internal diameter of pipe line ..	Do	2.60	2.95	2.95
	(vi) 2 inch (50 mm) internal diameter of pipe line ..	Do	3.10	3.45	3.60

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla and Mandi
Rs.	Rs.	Rs.			
28.30	Labour for laying, jointing, fixing and testing W. I (Red) Steam Pipeline, specials, tees, bends, sockets, elbows, etc., in trenches in the ground including cutting, threading and testing, etc., Complete but excluding cost of specials—				
	(a) ½ inch (15 mm) internal diameter of pipe	m	0.23	0.26	0.26
	(b) ¾ inch (20 mm) internal diameter of pipe	Do	0.30	0.33	0.36
	(c) 1 inch (25 mm) internal diameter of pipe	Do	0.39	0.46	0.49
	(d) 1¼ inch (32 mm) internal diameter of pipe	Do	0.50	0.60	0.65
	(e) 1½ inch (40 mm) internal diameter of pipe	Do	0.55	0.65	0.70
	(f) 2 inch (50 mm) internal diameter of pipe	Do	0.60	0.70	0.70
	(g) 2½ inch (65 mm) internal diameter of pipe	Do	0.60	0.70	0.70
	(h) 3 inch (80 mm) internal diameter of pipe	Do	0.65	0.75	0.80
	(i) 4 inch (100 mm) internal diameter of pipe	Do	0.80	0.95	1.00
	<i>Notes :—</i>				
	(i) Holder bats, flanged joints, unions and making chases in walls will be paid for separately.				
	(ii) All G.I. and W. I. pipes and specials shall be obtained by indent upon the Executive Engineer, Public Health concerned and direct purchases by the contractor shall not be permitted except in such special cases as shall be allowed in writing by the Executive Engineer.				
	(iii) All G. I. and W. I. pipes and specials, bends tees, etc., will be supplied ex-divisional stores or F. O. R. nearest Railway Station at the Divisional Stock issue rates in force when the specials are indented for and the rate includes the cost of cartage to the site of works including fixing, jointing and testing etc., complete.				
	(iv) Square elbow must not be used for any work, but round elbows used instead.				
	(v) Short lengths of G. I. pipe-lines, up to 30 ft. (9 m) in connection with construction of stand post and other such works will be paid at rates meant for inside building work				
28.31	Extra for fixing flanged joints on G. I. and W.I. pipe-lines including cost of jointing material—				
	(a) ½ inch (15 mm) internal diameter	Each	0.37	0.40	0.43
	(b) ¾ inch (20 mm) internal diameter	Do	0.40	0.45	0.47
	(c) 1 inch (25 mm) internal diameter	Do	0.50	0.60	0.60
	(d) 1¼ inch (32 mm) internal diameter	Do	0.55	0.60	0.65
	(e) 1½ inch (40 mm) internal diameter	Do	0.65	0.70	0.75
	(f) 2 inch (50 mm) internal diameter	Do	0.85	0.95	1.05
	(g) 2½ inch (65 mm) internal diameter	Do	0.95	1.05	1.15
	(h) 3 inch (80 mm) internal diameter	Do	1.15	1.30	1.40
	(i) 4 inch (100 mm) internal diameter	Do	1.30	1.45	1.55
	<i>Notes—</i>				
	(i) The jointing material for the above will be supplied Ex-Divisional Stores or F. O. R. nearest Railway Station at the stock issue rates in force when the material is indented for.				
	(ii) All bolts, nuts and washers will be supplied without charge to the contractor, ex-divisional stores or F. O. R. nearest Railway Station and the rate includes the cost of cartage to site of works.				

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, Mandi
Rs.	Rs.	Rs.			
28.32	Extra for fixing and jointing union couplings in G. I. and W. I. Pipe Lines—				
	(a) $\frac{1}{2}$ inch (15 mm) internal diameter	Each	0.24	0.28	0.31
	(b) $\frac{3}{4}$ inch (20 mm) internal diameter	Do	0.31	0.37	0.41
	(c) 1 inch (25 mm) internal diameter	Do	0.38	0.46	0.50
	(d) $1\frac{1}{4}$ inch (32 mm) internal diameter	Do	0.44	0.55	0.60
	(e) $1\frac{1}{2}$ inch (40 mm) internal diameter	Do	0.48	0.60	0.65
	(f) 2 inch (50 mm) internal diameter	Do	0.55	0.65	0.70
	(g) $2\frac{1}{2}$ inch (65 mm) internal diameter	Do	0.65	0.75	0.80
	(h) 3 inch (80 mm) internal diameter	Do	0.65	0.80	0.85
	(i) 4 inch (100 mm) internal diameter	Do	0.75	0.85	0.95

Notes—

- (i) These unions shall be fixed on branches at or near to the junctions with the main G. I. pipe-line and also at intervals of about 100 feet (30m) on all pipe-lines laid in the ground, and at intervals of 60 to 80 feet (18 m to 24 m) on pipe-lines laid on roofs and inside buildings.
- (ii) The rates apply to couplings on straight lines, branches and also on bends.
- (iii) The coupling will be supplied without charge to the contractor ex-Divisional Stores or F. O. R. nearest Railway Station and the rate includes cost of cartage, fixing and testing, etc., complete.

Serial No.	Description	Unit	RATE					
			Plains		Hills			
					Kangra and Dalhousie		Kulu Simla, Mandi	
			Superior	Ordinary	Superior	Ordinary	Superior	Ordinary
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			
28.33	Painting G. I. Pipes and specials with superior and ordinary quality synthetic enamels paint in all shades on existing or new work, two coats paints including cleaning rubbing, surface, etc.—							
	(a) $\frac{1}{2}$ inch (15 mm) internal diameter of pipes and specials.	10 m	1.05	0.70	1.10	0.75	1.15	0.75
	(b) $\frac{3}{4}$ inch (20 mm) internal diameter of pipes and specials	Do	1.05	0.70	1.10	0.75	1.15	0.75
	(c) 1 inch (25 mm) internal diameter of pipes and specials	Do	1.40	0.90	1.50	1.00	1.50	1.00
	(d) $1\frac{1}{4}$ inch (32 mm) internal diameter of pipes and specials	Do	1.40	0.90	1.50	1.00	1.50	1.00
	(e) $1\frac{1}{2}$ inch (40 mm) internal diameter of pipes and specials	Do	2.15	1.40	2.25	1.50	2.30	1.55
	(f) 2 inch (50 mm) internal diameter of pipes and specials	Do	2.15	1.40	2.25	1.50	2.30	1.55

Serial No.	Description	Unit	RATE					
			Plains		Hills			
					Kangra and Dalhousie		Kulu, Simla, Mandi	
			Superior	Ordinary	Superior	Ordinary	Superior	Ordinary
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
28.34	Repainting G. I. Pipes and fitting with superior and ordinary quality synthetic enamel paint in all shades on old work including rubbing down old surface—							
	(a) $\frac{1}{2}$ inch (15 mm) internal diameter of pipes and specials	10 m	0.55	0.36	0.55	0.39	0.55	0.41
	(b) $\frac{3}{4}$ inch (20 mm) internal diameter of pipes and specials	Do	0.55	0.36	0.55	0.39	0.55	0.41
	(c) 1 inch (25 mm) internal diameter of pipes and specials	Do	0.70	0.48	0.75	0.50	0.75	0.55
	(d) $1\frac{1}{4}$ inch (32 mm) internal diameter of pipes and specials	Do	0.70	0.48	0.75	0.50	0.75	0.55
	(e) $1\frac{1}{2}$ inch (40 mm) internal diameter of pipes and specials	Do	1.05	0.70	1.15	0.80	1.15	0.85
	(f) 2 inch (50 mm) internal diameter of pipes and specials	Do	1.05	0.70	1.15	0.80	1.15	0.85
28.35	Painting G. I. pipes and specials with aluminium paints on new or existing work two coats paint including cleaning, rubbing surface, etc.							
	(a) $\frac{1}{2}$ inch (15 mm) internal diameter $\frac{3}{4}$ inch (20 mm) internal diameter pipe	10 m	0.80	0.65	0.85	0.70	0.85	0.70
	(b) 1 inch (25 mm) internal diameter, $1\frac{1}{4}$ inch (32 mm) internal diameter pipe	Do	1.10	0.85	1.15	0.90	1.15	0.95
	(c) $1\frac{1}{2}$ inch (40 mm) internal diameter, 2 inch (50 mm) internal diameter pipe	Do	1.65	1.30	1.75	1.40	1.75	1.45
28.36	Repainting G. I. pipes and fittings with aluminium paint on existing work including cleaning, rubbing etc.—							
	(a) $\frac{1}{2}$ inch (15 mm) internal diameter, $\frac{3}{4}$ inch (20 mm) internal diameter pipe.	Do	0.43	0.36	0.46	0.38	0.48	0.39
	(b) 1 inch (25 mm) internal diameter, $1\frac{1}{4}$ inch (32 mm) internal diameter pipe	Do	0.55	0.46	0.60	0.50	0.65	0.50
	(c) $1\frac{1}{2}$ inch (40 mm) internal diameter, 2 inch (50 mm) internal diameter pipe	Do	0.85	0.70	0.95	0.75	0.95	0.80

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs.	Rs.	Rs.
28.37	Cutting holes up to 9 inch (23 cm) square through B. B. in mud walls for pipes, and making good including repointing, replastering and finishing according to existing finish where required.				
	(a) $4\frac{1}{2}$ inch (11.43 cm) thickness of walls	Each	0.90	1.05	1.40
	(b) 9 inch (22.86 cm) thickness of walls	Do	1.40	1.65	2.25
	(c) 1 ft. $1\frac{1}{2}$ inch (34.29 cm) thickness of walls	Do	1.80	2.10	3.00

Serial No.	Description	Unit	RATE		
			Hills		
			Plains	Kangra, and Dalhousie	Kulu, Simla, Mandi
			Rs.	Rs.	Rs.
28.37 <i>concl'd</i>	(d) 1 ft. 6 inch (45.72 cm) thickness of walls	Each	2.25	2.60	3.65
	(e) 1 ft. 10½ inch (57.15 cm) thickness of walls	Do	2.80	3.30	4.60
	(f) 2 ft. 3 inch (68.58 cm) thickness of walls	Do	3.20	3.75	5.40
28.38	Cutting holes up to 9 inch (23 cm) through stone masonry or B. B. in cement walls for pipes and making good including repointing, replastering and finishing according to existing finish where required—				
	(a) 4½ inch (11.43 cm) thickness of wall	.. Do	1.70	1.95	2.35
	(b) 9 inch (22.86 cm) thickness of wall	.. Do	2.35	2.75	3.45
	(c) 1 ft. 1½ inch (34.29 cm) thickness of wall	.. Do	3.10	3.60	4.50
	(d) 1 ft. 6 inch (45.72 cm) thickness of wall	.. Do	3.75	4.35	5.60
	(e) 1 ft. 10½ inch (57.15 cm) thickness of wall	.. Do	4.25	5.00	6.50
	(f) 2 ft. 3 inch (68.58 cm) thickness of wall	.. Do	4.95	5.80	7.60
28.39	Cutting holes upto 9 inch (23 cm) square for pipes in flooring and roofs of bricks, tiles with lime concrete and making good including repointing, replastering and colour or white-washing where required—				
	(a) 3 inch (75 mm) thickness of floor	.. Do	1.00	1.15	1.25
	(b) 4½ inch (115 mm) thickness of floor	.. Do	1.40	1.60	1.70
	(c) 6 inch (150 mm) thickness of floor	.. Do	1.70	1.95	2.10
	(d) 7½ inch (190 mm) thickness of floor	.. Do	1.85	2.10	2.25
	(e) 9 inch (225 mm) thickness of floor	.. Do	2.00	2.25	2.45
28.40	Cutting holes upto 9 inch (23 cm) square for pipes in floor and roofs of cement concrete, reinforced concrete or reinforced brick work and making good including repointing, replastering, replacing bitumen and colour or white-washing where required—				
	(a) 3 inch (75 mm) thickness of floor or roof	.. Do	1.30	1.40	1.55
	(b) 4½ inch (115 mm) thickness of floor or roof	.. Do	1.60	1.65	1.85
	(c) 6 inch (150 mm) thickness of floor or roof	.. Do	2.00	2.10	2.35
	(d) 7½ inch (190 mm) thickness of floor or roof	.. Do	2.25	2.35	2.60
	(e) 9 inch (225 mm) thickness of floor or roof	.. Do	2.60	2.65	2.95
28.41	Labour for fixing G. I. or W. I. pipe sleeve pieces in holes in walls, floors and roofs round pipes including all cutting and wastage—				
	(a) ½ inch (15mm) internal diameter of sleeve pipe	m	0.55	0.60	0.65
	(b) ¾ inch (20 mm) internal diameter of sleeve pipe	Do	0.60	0.65	0.70
	(c) 1 inch (25 mm) internal diameter of sleeve pipe	Do	0.70	0.80	0.85
	(d) 1¼ inch (32 mm) internal diameter of sleeve pipe	Do	0.70	0.80	0.90
	(e) 1½ inch (40 mm) internal diameter of sleeve pipe	Do	0.90	1.05	1.10
	(f) 2 inch (50 mm) internal diameter of sleeve pipe	Do	1.00	1.20	1.25
	(g) 2½ inch (65 mm) internal diameter of sleeve pipe	Do	1.00	1.20	1.25
	(h) 3 inch (80 mm) internal diameter of sleeve pipe	Do	1.05	1.20	1.30
	(i) 4 inch (100 mm) internal diameter of sleeve pipe	Do	1.25	1.40	1.50

Serial No.	Description	Unit	RATE		
			Hills		
			Plains	Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs.	Rs.	Rs.
28.42	Fixing galvanised malleable iron holder bats hold-fasts to pipe lines fixed on walls and ceilings including all cuttings to walls and making good to original condition—				
	(a) ½ inch (15 mm) internal diameter of pipe line	Each	0.43	0.49	0.50
	(b) ¾ inch (20 mm) internal diameter of pipe line	Do	0.43	0.49	0.50
	(c) 1 inch (25 mm) internal diameter of pipe line	Do	0.55	0.60	0.65
	(d) 1¼ inch (32 mm) internal diameter of pipe line	Do	0.55	0.60	0.65
	(e) 1½ inch (40 mm) internal diameter of pipe line	Do	0.65	0.75	0.80
	(f) 2 inch (50 mm) internal diameter of pipe line	Do	0.65	0.75	0.80
	(g) 2½ inch (65 mm) internal diameter of pipe line	Do	0.75	0.85	0.90
	(h) 3 inch (80 mm) internal diameter of pipe line	Do	0.75	0.85	0.90
	(i) 4 inch (100 mm) internal diameter of pipe line	Do	0.90	1.00	1.10
	<i>Notes:—</i>				
	(i) Holder bats are generally required to be fixed at intervals of about 8 feet (2.4m) on straight line.				
	(ii) The holder bats will be supplied free of cost to the contractor ex-divisional stores, or nearest Railway Station. The rates include the cost of carriage and labour, etc., to site of works.				
28.43	Fixing and jointing gun-metal peet valves (heavy pattern) with hand wheels, on G. I. pipe lines laid in the ground or inside buildings including cartage from Divisional Stores or nearest Railway Station to site of works—				
	(a) ½ inch (15 mm) internal diameter	.. Do	0.50	0.60	0.65
	(b) ¾ inch (20 mm) internal diameter	.. Do	0.65	0.75	0.80
	(c) 1 inch (25 mm) internal diameter	.. Do	0.70	0.85	0.90
	(d) 1¼ inch (32 mm) internal diameter	.. Do	0.80	0.95	1.05
	(e) 1½ inch (40 mm) internal diameter	.. Do	0.95	1.15	1.25
	(f) 2 inch (50 mm) internal diameter	.. Do	1.30	1.50	1.65
	(g) 2½ inch (65 mm) internal diameter	.. Do	1.65	1.95	2.10
	(h) 3 inch (80 mm) internal diameter	.. Do	1.75	2.10	2.25
	(i) 4 inch (100 mm) internal diameter	.. Do	1.85	2.15	2.35
	<i>Note:—</i> Peet valves will be supplied free of cost to the contractor Ex-Divisional stores or nearest Railway Station.				
28.44	Fixing screw down stop cocks of gun-metal or hard brass on G. I. pipe lines laid in the ground or inside buildings including cartage from Divisional Stores or nearest Railway Station to site of works—				
	(a) ½ inch (15 mm) internal diameter	.. Do	0.43	0.50	0.55
	(b) ¾ inch (20 mm) internal diameter	.. Do	0.50	0.60	0.65
	(c) 1 inch (25 mm) internal diameter	.. Do	0.55	0.65	0.70
	(d) 1¼ inch (32 mm) internal diameter	.. Do	0.65	0.75	0.80
	(e) 1½ inch (40 mm) internal diameter	.. Do	0.70	0.80	0.85
	(f) 2 inch (50 mm) internal diameter	.. Do	1.05	1.25	1.30
	<i>Note:—</i> The stop cocks will be supplied free of cost to the contractor Ex-Divisional Stores or nearest Railway Station.				

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, Mandi
Rs.	Rs.	Rs.			
28.45	Fixing bib taps of gun-metal or hard brass on G.I. pipe lines including cartage from Divisional Stores or nearest Railway Station to site of works—				
	(a) ½ inch (15 mm) internal diameter ..	Each	0.30	0.35	0.37
	(b) ¾ inch (20 mm) internal diameter ..	Do	0.32	0.37	0.39
	(c) 1 inch (25 mm) internal diameter ..	Do	0.34	0.39	0.42
	(d) 1½ inch (32 mm) internal diameter ..	Do	0.37	0.43	0.45
	(e) 1½ inch (40 mm) internal diameter ..	Do	0.41	0.48	0.50
	(f) 2 inch (50 mm) internal diameter ..	Do	0.60	0.70	0.75
28.46	Fixing ball valves including cartage from Divisional Stores or nearest Railway Station to site of works—				
	(a) ½ inch (15 mm) internal diameter ..	Do	0.85	0.95	1.00
	(b) ¾ inch (20 mm) internal diameter ..	Do	0.85	0.95	1.00
	(c) 1 inch (25 mm) internal diameter ..	Do	1.10	1.25	1.35
	(d) 1 inch (32 mm) internal diameter ..	Do	1.10	1.25	1.35
	(e) 1½ inch (40 mm) internal diameter ..	Do	1.40	1.65	1.80
	(f) 2 inch (50 mm) internal diameter ..	Do	1.65	1.90	2.00
28.47	Fixing chromium plated brass shower rose including cartage from Divisional Store or nearest Railway Station to site of works—				
	(a) 6 inch (150 mm) internal diameter with ½ inch (15 mm) or ¾ inch (20 mm) inlet ..	Do	0.32	0.41	0.48
	(b) 4 inch (100 mm) internal diameter with ½ inch (15 mm) or ¾ inch (20 mm) inlet ..	Do	0.32	0.41	0.48
28.48	Making connection with the existing G. I. branch main up to 1½ inch (40 mm) size including cutting and threading pipe etc. complete excluding cost of tee and long screw, but including cartage of material to site ..	Do	4.95	5.70	6.30
28.49	Fixing water meter and stop cock in G. I. pipe-line up to 1 inch (25 mm) size including cutting and threading pipe and making long screw etc., complete including cost of G. I. jam nut but excluding cost of water meter and stop cock ..	Do	3.30	3.90	4.15
28.50	Fixing peet valve and stop cock surface boxes (cast iron) including cartage from Divisional Stores or nearest Railway Station to site of works ..	Do	1.05	1.30	1.40
	<i>Note:</i> —The surface boxes will be supplied free of cost to the contractor Ex-Divisional Stores or nearest Railway Station.				
28.51	Dismantling lead caulked joints of cast iron socketted pipes, valves and specials by heating the joints including the cost of labour, fuel and tools, etc., collecting the lead taken out from the joints and delivering the same to the Divisional Stores—				
	(a) 2 inch (50 mm) internal diameter of pipe, valves or special ..	Per Joint	0.43	0.47	0.50
	(b) 2½ inch (65 mm) internal diameter of pipe, valves or special ..	Ditto	0.44	0.50	0.55
	(c) 3 inch (80 mm) internal diameter of pipe, valves or special ..	Ditto	0.60	0.70	0.75
	(d) 4 inch (100 mm) internal diameter of pipe, valves or special ..	Ditto	0.70	0.80	0.85
	(e) 5 inch (125 mm) internal diameter of pipe, valves or special ..	Ditto	0.85	0.95	1.05
	(f) 6 inch (150 mm) internal diameter of pipe, valves or special ..	Ditto	1.00	1.15	1.25
	(g) 7 inch (175 mm) internal diameter of pipe, valves or special ..	Ditto	1.25	1.40	1.50

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, Mandi
28.51 <i>concl'd</i>			Rs	Rs	Rs
	(h) 8 inch (200 mm.) internal diameter of pipe, valves or special	Per joint	1.45	1.70	1.80
	(i) 9 inch (225 mm.) internal diameter of pipe, valves or special	Ditto	1.60	1.85	1.95
	(j) 10 inch (250 mm.) internal diameter of pipe, valves or special	Ditto	1.9	2.20	2.30
	(k) 12 inch (300 mm.) internal diameter of pipe, valves or special	Ditto	2.40	2.70	2.80
	(l) 14 inch (350 mm.) internal diameter of pipe, valves or special	Ditto	2.75	3.10	3.25
	(m) 15 inch (375 mm.) internal diameter of pipe, valves or special	Ditto	3.00	3.35	3.55
	(n) 16 inch (400 mm.) internal diameter of pipe, valves or special	Ditto	3.10	3.50	3.70
	(o) 18 inch (450 mm.) internal diameter of pipe, valves or special	Ditto	4.30	4.80	5.10
28.52	Dismantling Flanged Joints for Cast-Iron Pipes, Valves and Specials including carriage of bolts, nuts and washers to the Divisional Stores—				
	(a) 2 inch (50 mm) 2½ inch (65 mm) 3 inch (80 mm) and 4 inch (100 mm) internal diameter of pipe, valve or specials	Per joint	0.25	0.31	0.37
	(b) 5 inch (125 mm), 6 inch (150 mm), 7 inch (175 mm), 8 inch (200 mm), 9 inch (225 mm) and 10 inch (250 mm) internal diameter of pipe valve or specials	Ditto	0.50	0.65	0.80
	(c) 12 inch (300 mm), 14 inch (350 mm) and 15 inch (375 mm) internal diameter of pipe, valve or specials	Ditto	1.25	1.70	1.80
	(d) 16 inch (400mm) and 18 inch (450 mm) internal diameter of pipe, valve or specials	Ditto	1.35	1.70	1.95
	(e) 20 inch (500 mm) and 21 inch (525 mm) internal diameter of pipe, valve or specials	Ditto	1.55	1.90	2.15
	(f) 22 inch (550 mm) and 24 inch (600 mm) internal diameter of pipe valve or specials	Ditto	1.85	2.35	2.65
28.53	Taking out dismantled Cast Iron Socketted or Flanged Pipes, Valves and Specials etc. out side from the trenches and Stacking at a nearest convenient place as required by the Engineer-in-charge from where they can be loaded into carts or trucks: —				
	(a) 2 inch (50 mm) internal diameter of pipe	10 m of pipeline dismantled	0.75	0.95	1.05
	(b) 2½ inch (65 mm) internal diameter of pipe	Ditto	0.90	1.10	1.25
	(c) 3 inch (80 mm) internal diameter of pipe	Ditto	1.05	1.30	1.45
	(d) 4 inch (100 mm) internal diameter of pipe	Ditto	1.25	1.50	1.70
	(e) 5 inch (125 mm) internal diameter of pipe	Ditto	1.35	1.65	1.95
	(f) 6 inch (150 mm) internal diameter of pipe	Ditto	1.55	1.95	2.20
	(g) 7 inch (175 mm) internal diameter of pipe	Ditto	1.75	2.15	2.45
	(h) 8 inch (200 mm) internal diameter of pipe	Ditto	2.10	2.60	3.00
	(i) 9 inch (225 mm) internal diameter of pipe	Ditto	2.45	3.05	3.45
	(l) 10 inch (250 mm) internal diameter of pipe	Ditto	2.90	3.60	4.10
	(k) 12 inch (300 mm) internal diameter of pipe	Ditto	3.45	4.25	4.90
	(l) 14 inch (350 mm) internal diameter of pipe	Ditto	4.10	5.10	5.75
	(m) 15 inch (375 mm) internal diameter of pipe	Ditto	4.75	5.75	6.55

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla Mandi
28.53			Rs	Rs	Rs
concl'd	(n) 15 inch (400 mm) internal diameter of pipe	10 m of pipe line dismantled	5.40	6.75	7.55
	(o) 18 inch (450 mm) internal diameter of pipe	Ditto	6.05	7.70	8.85
	Notes: —				
	(i) The contractor shall be liable to make good all damage caused by breakage while taking out the pipes from trenches.				
	(ii) All measurements shall be taken along the centre line or axis of the pipeline throughout its length and shall include the overall laying length of sluice valves and specials fixed therein.				
28.54	Dismantling sluice valves socketted or flanged including cartage from the side of work to the Divisional Stores:—				
	(a) 2 inch (50 mm) internal diameter of valve	Each	0.85	1.00	1.05
	(b) 2 1/2 inch (65 mm) internal diameter of valve	Do	0.90	1.10	1.15
	(c) 3 inch (80 mm) internal diameter of valve	Do	1.00	1.20	1.30
	(d) 4 inch (100 mm) internal diameter of valve	Do	1.10	1.30	1.40
	(e) 5 inch (125 mm) internal diameter of valve	Do	1.30	1.55	1.70
	(f) 6 inch (150 mm) internal diameter of valve	Do	1.40	1.70	1.85
	(g) 7 inch (175 mm) internal diameter of valve	Do	1.55	1.90	2.10
	(h) 8 inch (200 mm) internal diameter of valve	Do	1.65	2.00	2.25
	(i) 9 inch (225 mm) internal diameter of valve	Do	1.75	2.20	2.50
	(j) 10 inch (250 mm) internal diameter of valve	Do	1.95	2.45	2.80
	(k) 12 inch (300 mm) internal diameter of valve	Do	2.20	2.80	3.30
	(l) 14 inch (350 mm) internal diameter of valve	Do	2.45	3.20	3.85
	(m) 15 inch (375 mm) internal diameter of valve	Do	2.60	3.40	4.10
	(n) 16 inch (400 mm) internal diameter of valve	Do	2.80	3.75	4.55
	(o) 18 inch (450 mm) internal diameter of valve	Do	3.10	4.20	5.20
	(p) 20 inch (500 mm) internal diameter of valve	Do	3.60	4.90	6.10
	(q) 21 inch (525 mm) internal diameter of valve	Do	3.80	5.40	6.70
	(r) 22 inch (550 mm) internal diameter of valve	Do	3.95	5.50	6.90
	(s) 24 inch (600 mm) internal diameter of valve	Do	4.10	5.70	7.20
28.55	Dismantling fire hydrants all sizes, including dismantling the joints, cartage from the site of work to the Divisional Stores	Each	1.00	1.20	1.30
28.56	Dismantling single or double air valves, all sizes, including dismantling the joints and cartage from the site of works to the Divisional Stores	Do	0.95	1.10	1.20
28.57	Dismantling cast iron surface boxes for sluice valves and fire hydrants including cartage from site of works to the Divisional Stores	Do	0.55	0.65	0.70
28.58	Dismantling cast iron single air valve surface boxes including cartage from the site of works to the Divisional Stores	Do	0.60	0.70	0.75
28.59	Dismantling cast iron double air valve surface boxes including cartage from the site of works to the Divisional Stores	Do	1.65	2.00	2.25

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, and Mandi
			Rs	Rs	Rs
28.60	Fixing bell mouths with or without puddle collars puddle collar pieces and plain, socketted or flanged pipes in brick works, cement concrete or reinforced cement concrete used for inlets, outlets, scour and overflow pipes of the overhead service reservoirs of the length of pipe or special embedded to correct alignment and levels including the cost of cutting hole if required, cement concrete filling around the pipes or specials and making good the joint water-tight including repointing, replastering and colour or white-washing as required by the Engineer-in-charge:		Rs	Rs	Rs
	(a) Upto 12 inch (300 mm) internal diameter	Each	6.90	7.30	9.70
	(b) Exceeding 12 inch (300 mm) internal diameter but not exceeding 18 inch (450 mm) internal diameter	Do	11.50	12.50	16.00
	(c) Exceeding 18 inch (450 mm) internal diameter but not exceeding 24 inch (600 mm) internal diameter	Do	16.50	18.50	24.00
28.61	Bailing out water from the trenches for making new connections in fully charged pipe-lines including cleaning, trimming and dressing the trenches to correct alignment and grade as required by the Engineer-in-charge.				
	Size of the main with which connection is to be made:	Each connection			
	(a) Upto 8 inch (200 mm) internal diameter	Ditto	9.70	11.00	11.50
	(b) Exceeding 8 inch (200 mm) internal diameter but not exceeding 12 inch (350 mm) internal diameter	Ditto	12.00	14.00	14.50
	(c) Exceeding 12 inch (300 mm) internal diameter but not exceeding 18 inch (450 mm) internal diameter	Ditto	14.50	17.00	17.50
	(d) Exceeding 18 inch (450 mm) internal diameter but not exceeding 24 inch (600 mm) internal diameter	Ditto	18.00	21.00	22.00
28.62	Dismantling, disjointing, removal and carriage to Stores G. I. pipe-lines, specials, valves and fittings :				
	(a) $\frac{1}{2}$ inch (15 mm) internal diameter pipe-line	m.	0.16	0.20	0.20
	(b) $\frac{3}{4}$ inch (20 mm) internal diameter pipe-line	Do	0.20	0.23	0.23
	(c) 1 inch (25 mm) internal diameter pipe-line	Do	0.26	0.30	0.33
	(d) $1\frac{1}{4}$ inch (32 mm) internal diameter pipe-line	Do	0.33	0.39	0.39
	(e) $1\frac{1}{2}$ inch (40 mm) internal diameter pipe-line	Do	0.39	0.46	0.49
	(f) 2 inch (50 mm) internal diameter pipe-line	Do	0.39	0.45	0.49
	(g) $2\frac{1}{2}$ inch (65 mm) internal diameter pipe-line	Do	0.46	0.60	0.55
	(h) 3 inch (80 mm) internal diameter pipe-line	Do	0.49	0.55	0.60
	(i) 4 inch (100 mm) internal diameter pipe-line	Do	0.55	0.65	0.70
28.63	Labour for laying, jointing, fixing and testing Alkathene pipe-lines and specials, tees, bends, sockets, elbows, etc., in trenches and testing etc. complete:				
	(a) $\frac{1}{2}$ inch (15 mm) internal diameter Alkathene pipe (Normal Gauge)	Do	0.13	0.16	0.16
	(b) $\frac{3}{4}$ inch (20 mm) internal diameter Alkathene pipe (Normal Gauge)	Do	0.16	0.20	0.
	(c) 1 inch (25 mm) internal diameter Alkathene pipe (Normal Gauge)	Do	0.26	0.30	0.33
	(d) $1\frac{1}{4}$ inch (32 mm) internal diameter Alkathene pipe (Normal Gauge)	Do	0.26	0.33	0.36
	(e) $1\frac{1}{2}$ inch (40 mm) internal diameter Alkathene pipe (Normal Gauge)	Do	0.30	0.36	0.39
	(f) 2 inch (50 mm) internal diameter Alkathene pipe (Normal Gauge)	Do	0.43	0.50	

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, and Mandi
28.64	Labour rates including materials in erecting, fixing and jointing fixtures to filter beds, clear water tanks and sedimentation tanks, etc. :		Rs	Rs	Rs
	(a) 6 inch (150 mm) C. I. pipe, bends, specials, and heads complete for ventilating column built into the walls	Each	14.00	16.50	18.00
	(b) Cast iron 'V' Notch with base including embedding in 1 : 2 cement sand mortar setting both in 1 : 1 cement sand grouting levelling up and finishing complete	Do	15.00	18.00	20.00
	(c) Fixing water-level recorders or rate of flow indicators complete including grouting H. D. bolts and brackets guides for wire, etc., in 1 : 1 cement sand mortar	Do	30.00	35.50	39.50
	(d) Fitting in position equilibrium ball valve at inlet chambers in cement sand mortar	Do	10.00	12.00	13.00
	(e) Fixing steel shutters with frame complete on inlet side of sedimentation tank including painting 3 coats of bitumastic paint	Do	10.00	12.00	13.00
	(f) Fixing floating arm in position complete with sluice valve, long spindle, hand wheel, brackets and guides complete in all respects.	Do	30.00	35.50	39.00
	(g) Fixing enamelled gauze in storage and sedimentation tank	Do	10.00	11.50	12.50

FILTERING-MEDIA & MISCELLANEOUS

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone A	Zone B	Zone C	Kangra and Dalhousie	Kulu, Simla and Mandi
28.65	Providing and placing in horizontal layers filtering media screened, washed and cleaned as described below —		Rs	Rs	Rs	Rs	Rs
	(a) <i>Top Layer</i> : Fine sand screened, cleaned and washed and graded (effective size 0.2 to 0.4 mm. with uniformity coefficient 2.0 to 3.0) from Pathankot or other approved source	Cu m	15.20	26.15	37.45	18.00	44.50
	(b) <i>Second Layer</i> : Coursed sand screened, cleaned and washed and graded from 1/4 inch to 1/2 inch (3 mm to 6 mm) (from Pathankot or approved equivalent quarry)	Ditto	21.90	32.85	43.80	22.25	24.70

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone A	Zone B	Zone C	Kangra and Dalhousie	Kullu Siml and Mand
28.65 concl.	(c) <i>Third Layer</i> : Bajri screened, washed and graded from $\frac{1}{2}$ inch to $\frac{3}{4}$ inch (6 mm to 20 mm) (from Pathankot to approved equivalent quarry)	Cu m	Rs. 16.75	Rs 26.15	Rs 35.30	Rs 18.00	Rs 19.80
(d) <i>Fourth layer</i> : Bajri (coursed) screened and washed graded from $\frac{3}{4}$ inch to 1 inch (20 mm to 25 mm) (from Pathankot or approved equivalent quarry)	Ditto	15.90	25.05	34.25	15.00	16.25	
(d) <i>Bottom layer</i> : Broken stone, screened, washed and graded from 2 inch to 3 inch (50 mm to 75 mm) (from Pathankot or approved equivalent quarry)	Ditto	13.65	23.30	32.50	15.00	16.25	

CHAPTER No. 29
SEWERAGE AND DRAINAGE

Serial No.	Description	Unit	RATE	
			Plains	Entire Hills Region
			Rs.	Rs.
29.1	Excavation in open cutting or in Streets and Lanes for Intramural Sullage Drains, Extramural Intercepting Drains and Out fall Drains above top of Drain Cunnettes. Storm Water Channels and other works contingent or incident thereto, to full dimensions and depths as shown on the drawings or as shall be required by the Engineer-in-charge, including dressing to correct sections and dimensions according to templates and levels dewatering of rain water, diversion for traffic, fixing and maintenance of caution boards, night-signals, crossing over trenches for access to the houses, watching, etc., and removal of surplus spoil from the site of work including all lift and lead for depths to 6 feet (2 m) below natural ground level upto 2 chain of 100 ft. (30 metres) each of length of lead in Disposing Surplus Spoil:			
	(a) For all classes of soil except rocky	100 cum	88.50	
	(b) For ordinary gravel soil in hills involving pick-work	Ditto		132.50
	(c) For semi-conglomerate or soil of the nature of pick jumper work	Ditto		183.50
29.2	Earth-work in Excavation in foundations, Trenches etc., for storage and sedimentation tanks, high level tanks, filter beds, clear water reservoirs, pump houses, sumps, screening chambers and other similar works to full dimensions and depths as shown on the drawings or as shall be required by the Engineer-in-charge, including dressing of bottom and sides of trenches, stacking the excavated soil clear from the edge of excavation and subsequent filling around plinth/structures in 6 inch (15 cm) layers with compaction including disposal of surplus spoil as directed within a lead of one chain of 100 ft. (30 metres)			
	(a) Not exceeding 5 feet (1.5 m) depth:			
	(i) For all classes of soil except rocky	100 Cu m	83.00	
	(ii) For ordinary gravel soil in hills involving pick-work	Ditto		134.00
	(iii) For semi-conglomerate or soil of the nature of pick jumper work	Ditto		168.00
	(b) Extra for every additional depth of 5 feet (1.5 m) or part thereof			
	(i) For all soils except rocky	Ditto	7.00	
	(ii) For ordinary gravel soil in hills involving pick-work	Ditto		9.50
	(iii) For semi-conglomerate or soil of the nature of pick jumper work	Ditto		13.50
	<i>Note</i> :—Item 29.1 and 29.2 above do not include the provision of timbering, however, if it is necessary to provide timbering, the payment may be made at Rs. 24.70 per 100 Cu. m of earthwork for poling board frame type of timbering. This extra payment is only allowed on the written order/certificate of the Engineer-in-charge			
29.3	(a) Extra for every 25 ft. (7.5 metres) additional lead beyond 50 ft. (15 metres) upto 1000 feet (300 metres)	100 Cu m	2.00	3.00
	(b) Extra for every 25 ft. (7.5 metres) additional lead beyond 1000 ft. (300 metres) upto 1650 ft. (495 metres)	Ditto	1.75	2.00
	<i>Note</i> :—For leads beyond 1650 feet (495 metres) earth work shall be payable at carriage rates for sand, ballast and ballast etc., given in charter 5 on Carriage, Vol. I & II of this Interim Common Schedule of rates in Metric Units.			
29.4	Excavations of trenches in streets, Lanes, or in open areas for storm sewers and manholes to full depths as shown in Drawings Including Shoring, Timbering of Poling Board Frame system type, dressing to correct sections and dimensions according to templates and levels dewatering, provision for diversion for traffic, night signals, profiles, pegs, sight rails, honing rods, crossing over trenches for access to the houses, watching, fencing etc., fixing and maintenance of caution boards refilling trenches, watering of refill in 6 inch (15 cm) layer ramming and restoration of surface to original conditions and removal of surplus spoil from site of works, for all works other than connections to ventilating Shafts upto a lead of one mile (1.6 km)			
	(a) For depth not exceeding 10 ft. (3 metres) below ground level.			
	(i) For all classes of soil except rocky	100 Cu m	176.50	—

Serial No.	Description	Unit	Rate	
			Plains	Entire Hills Region
29-4			Rs	Rs
<i>concl'd</i>	(ii) For ordinary gravel soil in hills involving pick work ..	100 cu m	..	254.50
	(iii) For semi-conglomerate or soil of the nature of pick jumper work	Ditto	..	296.50
	(b) For depths exceeding 10 ft.(3 metres) but not exceeding 15 ft. (4.5 metres) below natural ground level:			
	(i) For all classes of soil except rocky	Ditto	194.00	..
	(ii) For ordinary gravel soil in hills involving pickwork	Ditto	..	275.00
	(iii) For semi-conglomerate or soil of the nature of pick jumper work	Ditto	..	335.50
	(c) For depths exceeding 15 ft.(4.5 metres) but not exceeding 20 ft. (6 metres)			
	(i) For all classes of soil except rocky	Ditto	226.00	..
	(ii) For ordinary gravel soil in hills involving pickwork	Ditto	..	321.50
	(iii) For semi-conglomerate or soil of the nature of pick jumper work	Ditto	..	402.50
	(d) For depths exceeding 20 ft.(6 metres) but not exceeding 25 ft.(7.5 metres)—			
	(i) For all classes of soil except rocky	Ditto	240.00	..
	(ii) For ordinary gravel soil in hills involving pickwork	Ditto	..	335.50
	(iii) For semi-conglomerate or soil of the nature of pick jumper work	Ditto	..	427.50
	(e) For depths exceeding 25 ft.(7.5 metres) but not exceeding 30 ft. (9 metres)—			
	(i) For all classes of soil except rocky	Ditto	265.00	..
	(ii) For ordinary gravel soil in hills involving pickwork	Ditto	..	360.00
	(iii) For semi-conglomerate or soil of the nature of pick jumper work	Ditto	..	469.50
29.5	Excavation of Trenches as described in item No. 29.4 above but for connections to ventilating shafts:			
	(a) For all classes of soil except rocky	Ditto	134.00	..
	(b) For ordinary gravel soil in hills involving pick work	Ditto	..	201.50
	(c) For semi-conglomerate or soil of the nature of pick jumper work	Ditto	..	236.50
29.6	Extra over and above the rates of item No. 29.4 (a to e) for all works in trenches in water extending from the sub-soil water level decided by the Engineer-in-charge and wet earth work encountered 9" to 12" (225 mm to 300 mm) above spring level be paid as per item No. 29.4 down to 4 ft. (1.20 metres) below the bottom of foundations of the sewers and manholes, as shown on contract drawing including cost of steel sheet shuttering, shoring carrying out work in safe manner, dewatering to lower the water level to requisite depth preparation and dressing beds of trenches etc:			
	(a) For all classes of soil except rocky	Ditto	247.00	..
	(b) For ordinary gravel soil in hills involving pick work	Ditto	..	275.00
	(c) For semi conglomerate or soil of the nature of pick jumper work	Ditto	..	307.00
	Notes—			
	(i) In case of deep excavation for item 29.2 above the excavation may be done giving appropriate side slope, which may be fixed by the Engineer-in-charge.			
	(ii) The lift may be converted into lead, as per rule laid down in Chapter 6 of Volumes I and II of this Interim Common Schedule of Rates in Metric Units.			
	(iii) The contractor must fix sign-boards to indicate the excavation of works and diversion of traffic, etc. The sign-boards will be supplied by the Department from their store but the fixing and maintenance at site will be done by the contractor and the rates include the cost of the same.			

Serial No.	Description	Unit	Rate	
			Plains	Entire Hills Region
			Rs	Rs
(iv)	The rates for item Nos. 29.1 to 29.5 inclusive, cover the cost of removing trees and roots and removal of kankar and other hard material met in the excavation.			
(v)	The maximum and minimum widths of trenches and excavation for which payment shall be admissible to the contractor shall be those laid down in the contract specifications.			
(vi)	The depth of the spring level below ground level, from where the wet sinking of excavation below spring level is to be done will be decided by the Engineer-in-charge and the decision will be final and binding on the contractor.			
(vii)	No extra shall be payable in respect of item 29.1 to 29.5 inclusive, for any seepage of water during excavation above spring level.			
(viii)	If the excavation for any sewer shall be carried out by 'cut and cover', i. e., sinking shafts and tunnelling in between, the contractor shall be paid for such work as if the trench had been opened the full length, but no extra shall be allowed other than the full measurement of the trench excavation at the rate of item No. 29.4 above for excavation purposes. It will entirely be at the discretion of the Engineer-in-charge to permit excavation by cut and cover method. Back filling of shafts and tunnels must at all times be carried out thoroughly and to the satisfaction of the Engineer-in-charge.			
(ix)	If any excavation of trenches in which timbering has not been done has to be abandoned due to the change of alignment of the sewer necessitated by any obstruction such as pipelines, electric, telephone or telegraph cables, wired poles coming in the way of the sewer or for any other cause whatsoever, the contractor will be paid at the rate of Rs 88.50 per 100 cu. m., for such excavation, notwithstanding that he may have made arrangements for the timbering of such trenches or actually brought it to the site. Payment for abandoned trenches at the above rate will include for the backfilling of the trenches in 6 inch (15 c.m.) layers, well watered and consolidated and for the restoration of the site to its original condition.			
(x)	Where the Engineer-in-charge so directs earth-filling in trenches will be carried out by Mechanical Rammers. No extra payment for this will be allowed to the contractor.			
(xi)	If any timbering or shoring is left permanently in any trench or excavation under orders of the Engineer-in-charge of the work, the contractor shall be entitled to a payment of Rs.70.65 per cu. m. of the timber left permanently in the work. Intimation of such payments should be given to the Superintending Engineer concerned in due course.			
(xii)	The rates for item 29.3 to 29.5 inclusive include the removal of all surplus earth or spoil up to a distance of one mile (1.6 km.) and its disposal, either outside the limits of the town or into depression or otherwise to the approval of the Engineer-in-charge of the works. The contractor shall pay at his own cost and charges all fees or charges which may be levied by owner of the land on which the spoil shall be disposed for the right of way thereto and for compensation for damage caused by the transport or disposal of the spoil. All spoil shall be dressed and trimmed to the approval of the Engineer-in-charge of the works.			
(xiii)	No Extra shall be payable in respect of item 29.1 to 29.5 inclusive, due to other unforeseen difficulties, hardness of the soil or of the surface and other factors. The rates do not include cutting through metalled roads and sorting and stacking of the road materials for replacing after the trenches are filled in, which will be paid for separately.			
(xiv)	The rate for road cutting and restoration of surface to its original condition will be the same as payable in case of Chapter 28 on "Water Supply".			
(xv)	In case of construction of sewers is carried out by sinking chambers method then the payment for various items involved in the construction of chambers i.e. Brick-work Cement Concrete, R.C.C.Sinking etc., will be paid for at the respective rates provided for in the Interim Common Schedule of Rates in Metric Units without any extra due to supposed special or difficult nature of work.			

Serial No.	Description	Unit	Rate	
			Plains	Entire Hills Region
			Rs	Rs
29.7	Extra for disposal of surplus spoil beyond 1 mile (1.6 km)—			
	(a) Up to 1½ mile (2.4 km)	100 cu m	30.00	46.00
	(b) Up to 2 miles (3.2 km)	Ditto	58.50	88.50
	(c) Up to 2½ miles (4.00 km)	Ditto	86.50	130.50
	(d) Up to 3 miles (4.8 km)	Ditto	115.00	173.00
	(e) Up to 4 miles (6.4 km)	Ditto	169.50	254.50
	(f) Up to 5 miles (8.0 km)	Ditto	212.00	318.00
	(g) Subsequent miles (Units of 1.6 km) per mile (1.6 km)	Ditto	32.00	47.50
	<i>Note</i> —The extra quantity of lead for disposal of surplus earth work beyond one mile (1.6 km) will only be payable on written orders/certificate of the officer not below the rank of S. D. O.			
29.8	Extra over and above the rate of excavation contained in item 29.4 and 29.5 for providing close board timbering in place of poling board frame system of timbering per metre of sewer trench for every 10 ft. (3 metres) deep shuttering or part thereof where such timbering is done.	m	0.85	0.80
	<i>Example</i> .—Trench depth is 30 ft. (9 metres) Three stage timbering, each stage 10 ft. (3 metres) has been done. The strata met with from 20 to 30 ft. (6 to 9 metres) necessitate the provision of close timbering (without driving) and is done. Thus rate of Re. 0.85 per m of effected sewer trench will be paid. In case the close timbering has been done from 10 ft. to 30 ft. (3 to 9 metres) below G.L., i.e., 2 stages of 10 ft. (3 metres) then payment of two stages of Re. 0.85 per m, i.e., Rs. 1.70 per m of effected sewer trench will be payable.			
29.9	Extra over and above item 29.8 for driven/piled type of timbering required in running sandy strata for every 10 ft. (3 m) depth or part thereof.	Ditto	0.39	0.36
	<i>Note</i> —Extra rates provided— <i>vide</i> item 29.8 and 29.9 above for close board/driven or piled type of timbering will only be payable on the written orders/certificate of the Executive Engineer.			

Serial N.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla & Mandi
			Rs	Rs	Rs
29.10	Clay Puddle, weathered and tempered laid and consolidated on the flat or on the slope to correct template and levels or thickness as shall be required by the Engineer-in-charge.	Cu m	3.55	3.70	3.50.
	<i>Note</i> —Only weathered and tempered clay of quality to be approved by the Engineer-in-charge shall be allowed to be used. The rate includes the cost of all forms and shuttering required for the placing and supporting of the puddle and for filling in all cracks and scoured out-holes or channels, etc., formed in puddle and finishing to an accurate smooth surface to the plate.				
	<i>Dismantling and Demolition</i>				
29.11	Dismantling existing drains of different sizes cunettes, section only including recovery of all useable materials, stacking the same near site of dismantled works and Disposal of All Rubbish off site of works—				
	(a) House Connection drains	10 m.	1.05	1.20	1.25.
	(b) Type I drain	Do	1.65	1.85	1.95
	(c) Type II drain	Do	3.75	4.25	4.45
	(d) Type III drain	Do	4.75	5.25	5.40.
	(e) Type IV drain	Do	5.60	6.05	6.40.
	<i>Notes</i> —				
	(i) The disposal of all rubbish off site of work means the removal thereof to the place of disposal outside the town into Ponds, and depressions or other suitable places, levelling off the same and clearing of the site of structures dismantled, to the satisfaction of the Engineer-in-charge.				
	(ii) The dismantling of brick pitches drain shall be paid for at the rates given under Chapter 8 (Demolition) on the class of work.				

Serial No.	Description	Unit	Rate		
			Hills		
			Plains	Dangra and Dathousie	Kulu, Simla and Mandi
			Rs. P.	Rs. P.	Rs. P.
<i>Brick Flooring and Pitching</i>					
(A) Reimbursements to drains and Flooring in Strips					
29. 12	Tega 3 inch (7.5 cm.) thick formed of first class bricks on end laid in cement sand mortar 1 : 5 and projecting to a maximum height of not more than 5 inch (12.5 cm.) above top of drain along house sides of drains where required for protection of house walls	10m	6.90	8.55	14.25
29. 13	Tega 4½ inch (11.5 cm.) thick formed of first class bricks on end laid in cement sand mortar 1 : 5 as above	Do	10.35	12.65	21.35
<i>Note.</i> —The rates for items 29.12 and 29.13 include for all excavation and for all bends, curves, cutting and wastage of bricks required. The external surfaces of the exposed joints must be struck flush as the work proceeds and left perfectly smooth.					
29. 14	First class flat brick 3 inch (7.5 cm.) thick laid in reimbursements in and on lime mortar on sides of drains and in other work where required over lime concrete or other foundations. All joints to be left completely filled and struck flush.	10 Sq m	30.15	..	..
29. 15	First class flat brick 3 inch (7.50 cm.) thick laid in reimbursements in and on 1 : 6 cement sand mortar as above	.. Ditto	28.50	35.00	60.30
29. 16	First class flat brick 3 inch (7.50 cm.) thick laid in reimbursements in and on 1 : 5 cement sand mortar as above	.. Ditto	29.60	36.05	61.35
29. 17	First class flat brick on edge of 3 inch (7.50 cm.) thick in laid in reimbursements in and on 1 : 4 cement sand mortar as above	.. Ditto	31.20	37.65	63.50
29. 18	First class brick on edge 4½ inch (11.50 cm) thick laid reimbursements in and on lime mortar on sides of drains and in other work where required over lime concrete or other foundation all joints to be left complete filled and struck flush	.. Ditto	45.20	..	..
29. 19	First class brick on edge 4½ inch (11.50 cm.) thick laid in reimbursements in and on 1 : 6 cement sand mortar as above	.. Ditto	43.05	52.75	90.40
29. 20	First class brick on edge 4½ inch (11.50 cm.) thick laid in reimbursements in and on 1 : 5 cement and mortar as above	.. Ditto	44.65	53.80	91.50
29. 21	First class brick on edge 4½ inch 11.50 cm) thick laid in reimbursements in and on 1 : 4 cement sand mortar as above	.. Ditto	46.80	57.05	94.70
<i>Notes.</i> —					
(i) The rates laid down for items 29.14 to 29.21 cover all reimbursements to drains, and any strips ribs and edgings of narrow width enclosing areas to be paved with dry brick on edge or on flat. The rates also include all extra work involved in laying narrow strips, 3 inch X 4½ inch (7.50 cm. X 11.50 cm.) or 9 inch (23 cm.) wide only along side the drains and for all curves, bends, slopes and changes of slopes and other work involving added labour or material also for all irregular areas and the cutting, fitting and wastage of bricks required for such work. No extras will be payable for any special difficult or complicated work required to be executed.					
(ii) In all case of brick on flat or brick on edge reimbursements of pitching in lime, or cement mortar, a layer of mortar not less than 1/4 inch (6 mm.) thick shall be placed underneath the bricks and the bricks shall be embedded therein. This is covered by the rate. All joints between the bricks and along outer and inner sides of reimbursements shall be completely filled with mortar					
(iii) In the event of cement pointing being ordered in writing to be carried out for any flooring or pitching specified in items 29.12 to 29.21 the appropriate rate laid down for such work in this Schedule shall be allowed as an extra, otherwise the external surface of the exposed joints shall be struck flush as the work proceeds and left perfectly smooth.					

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla and Mandi
Rs.	Rs.	R	s.		
(iv)	All joints for item 29.12 to 29.21 inclusive shall be specially thin Joints not exceeding 3/16 inch (5 mm) width				
(v)	The rates laid down above for item 29.12 to 29.21 do not include the cost of the lime concrete brick ballast or other foundations under the flooring and pitching				
	(b) <i>Flooring and Paving</i>				
29.22	First class dry flat brick Flooring or Paving in ordinary bonded courses or in herring bone or other special courses or bond laid to template over rammed and dressed foundations and to correct longitudinal and cross slopes as shall be required by the Engineer-in-charge. All joints shall be thoroughly filled with dry sand grouting, which shall be applied to a thickness of not less than 3/4 inch (20 mm) over the surface of the flooring and brushed into the joints. All joints shall be fully filled with sand	10 Sq m	19.90	29.05	59.20
29.23	First Class dry brick on edge flooring or paving in ordinary bonded courses or in herring bone or other special courses or bond, laid as described in item No. 29.22	Ditto	30.70	44.65	92.55
29.24	First Class flat brick paving or flooring laid over and in lime mortar in ordinary bonded courses or in herring bone or other special courses, to templates, over dressed foundation and to correct longitudinal and cross slopes as shall be required by the Engineer-in-charge. All joints shall be filled with mortar and struck flushed as the work proceeds	Ditto	29.60	..	..
29.25	First Class flat brick paving or flooring laid over and in Cement sand mortar 1 : 6 laid as described in item No. 29.24	Ditto	28.50	34.45	58.15
29.26	First class flat brick paving or flooring laid over and in cement sand mortar 1 : 5 laid as described in item No. 29.24	Ditto	29.60	35.50	60.30
29.27	First Class brick on edge paving or flooring laid over and in lime mortar laid as described in item No. 29.24	Ditto	44.65	..	..
29.28	First class brick on edge paving or flooring laid over and in cement sand mortar 1 : 6 laid as described in item No. 29.24	Ditto	42.50	51.65	88.25
29.29	First Class brick on edge paving and flooring laid over and in cement sand mortar 1 : 5 laid as described in in item No. 29.24	Ditto	44.15	53.30	90.40
29.30	First Class brick on edge paving or flooring laid over and in cement sand mortar 1 : 4 laid as described in item No. 29.24	Ditto	46.30	55.95	92.55
29.31	Extra over and above the rates for items No. 29.22 to 29.30 inclusive for pitching on the slope to sillage drains above cunnettes and to storm water channells, etc., where required	Ditto	1.20	1.35	1.40
	<i>Notes—</i>				
(i)	The rates laid down for item No. 29.22 to 29.31 include the cost of herring bone and other special bonding and curved work corners, curves, longitudinal and cross slopes, cambers, cutting, shaping and wastage of bricks to fit irregular areas and other special works, all bricks shall be laid with best side exposed				
(ii)	In cases of item No. 29.22 to 29.23 the rates include for a thin layer of clay or mud plaster from 1/4 inch to 3/8 inch (6 mm to 10 mm) thick laid to correct templates and levels underneath the bricks which should be carefully set into the mud plaster.				

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla and Mandi
Rs.	Rs.	Rs.			
	(iii) In cases of items 29.24 to 29.31, the rates include the provision of homogenous layer of mortar not less than 1/4 inch (6 mm.) thick under the whole of the flooring or paving into which the bricks shall be carefully set and embedded when laid.				
	(iv) The joints of the flooring and paving specified in items 29.24 to 29.31 shall be fine and the maximum width shall not exceed 3/16 inch (5 mm). All bricks shall be laid with the best side exposed and the rates over the cost of cutting and trimming the bricks where necessary in order to ensure good bond and specified fine thickness of joints.				
	(v) In the event of the Engineer-in charge giving orders in writing for cement pointing to be applied to the exposed surface of any flooring or paving the appropriate rate for such work will be allowed as laid down in the schedule otherwise the external surfaces of the joints shall be struck flush as the work proceeds and left perfectly and smooth.				
	(vi) The rates laid down for items 29.24 to 29.31 do not include the cost of the lime concrete brick ballast or other foundation under the flooring and pitching.				
	(vii) The rate for item 29.31 includes for any special profiles or strips laid to these specifications, even though the width of such strips or profiles may be only 4 1/2 inch (11.5 cm) or 9 inch (23 cm) and no extra over and above the rates laid down will be paid for such work.				
29.32	Brick ballast, well or over burnt, broken and screened through a 1 1/2 inch x 1 1/2 inch (32 mm x 32 mm) square mesh screen laid consolidated and rammed to a finished thickness of two inches (50 mm) to template and levels to correct longitudinal slopes cross slopes, cambers, etc., under paving or flooring	10 sq m	7.85	10.55	11.85
29.33	Brick ballast well or over burnt, broken and screened through a 1 1/2 inch x 1 1/2 inch (32 mm x 32 mm) square mesh screen laid consolidated and rammed to a finished thickness of three inches (75 mm) as above	Ditto	11.30	15.05	16.70
29.34	Clay concrete, consisting of 100 parts by volume of well burnt or over burnt brick ballast screened through 1 1/2 inch x 1 1/2 inch (32mm x 32mm) square mesh screen mixed with, 33 parts by volume of fine puddle clay, thoroughly mixed laid, consolidated and rammed to a finished thickness of 2 inch (50 mm) to template and levels and to a correct longitudinal slopes, cross slopes, cambers, etc., under paving or flooring as shall be required by the Engineer-in-charge.	Ditto	8.85	11.85	12.90
29.35	Clay concrete, as above but laid consolidated and rammed to a finished thickness of 3 inch (75 mm) as above.	Ditto	12.40	16.70	18.30
	<i>Fixing including carriage</i>				
29.36	Fixing 22 inch (560 mm) 20 inch (500 mm) and 18 inch (450 mm) internal dia. Cast iron manhole frame and cover, including carriage from stores of the Engineer-in-charge to site of work, loading and unloading and setting the same to correct lines and levels in 1 : 2 cement sand mortar over manholes etc.				
	(i) Heavy weight of 5 cwt. (2.5 quintal)	Each	5.00	6.40	8.40
	(ii) Light pattern of 3 cwt. (1.5 quintal)	Each	4.00	5.00	6.40
	(iii) Light pattern of 1 cwt. (0.5 quintal)	Each	1.90	2.30	2.95
29.37	Fixing C. I. or malleable iron step including carriage from stores of the Engineer-in-charge to the site of works and setting the same to correct lines and levels in the work embedded in 1 : 2 cement and sand mortar.	Each	0.20	0.26	0.37

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla and Mandi
Rs.	Rs.	Rs.			
29.38	Fixing of heavy cast iron automatic syphon with fittings including carriage from stores of the Engineer-in-charge, to site of works, loading and unloading, fixing and setting the same to correct lines and levels in 1 : 2 cement and mortar in automatic flushing tanks if required:				
	(a) Three inch (80 mm) dia	Each	5.50	6.50	7.40
	(b) Four inch (100 mm) dia	Do	6.00	7.30	8.20
29.39	Erection of cast iron ventilating columns 6 inch (150 mm), 9 inch (225 mm) and 12 inch (300 mm) internal diameter, including bases, columns, caps, cowls or wire domes, etc., complete including carriage, from the stores of the Engineer-in-charge of works, to sites of works, loading and unloading fixing and jointing, and setting the same in position in 1 : 2 cement sand mortar over the foundation blocks in the works including the fixing and grouting of holding down bolts, nuts and washers, the filling of the completed flanged joints with molten lead and finishing off to the requirements of the Engineer-in-charge.				
	(a) Six inch (150 mm) internal diameter column—				
	(i) 18 feet (5.5 metres) high weighing 16 cwt (8.1 quintal)	Per column complete including base, pipe and cap etc.	54.00	63.00	68.00
	(ii) 30 feet (9.0 metres) high and weighing 20 cwt (10.2 quintal)	Ditto	78.00	91.00	98.00
	(iii) 33 feet (10.0 metres) high and weighing 21 cwt (10.5 quintal)	Ditto	83.00	97.00	104.00
	(iv) 36 feet (11.0 metres) high and weighing 22.3 Cwts (11.3 quintal)	Ditto	89.00	104.00	112.00
	(v) 39 feet (12.0 metres) high and weighing 23.5 cwt (11.9 quintal)	Ditto	95.00	111.00	119.00
	(b) Nine inch (225 mm) internal diameter columns—				
	(i) 27 feet (8.0 metres) high and weighing 31 Cwt (15.8 quintal)	Ditto	123.00	144.00	155.00
	(ii) 30 feet (8.0 metres) high and weighing 32.5 Cwts (16.5 quintal)	Ditto	129.00	151.00	162.00
	(iii) 33 feet (10.0 metres) high and weighing 34 Cwts (17.3 quintal)	Ditto	135.00	158.00	170.00
	(iv) 36 feet (11.0 metres) high and weighing 36 Cwts (18.3 quintal)	Ditto	143.00	168.00	180.00
	(v) 39 feet (12.0 metres) high and weighing 39 Cwts (19.8 quintal)	Ditto	155.00	182.00	195.00
	(c) 12 inch (300 mm) internal diameter columns—				
	(i) 27 feet (8.0 metres) high and weighing 39 Cwts (19.8 quintal)	Ditto	155.00	182.00	195.00
	(ii) 33 feet (10.0 metres) high and weighing 43 Cwts (21.8 quintal)	Ditto	171.00	200.00	215.00

Notes—

- (i) The rates given above are based on the free supply by the department of columns and fittings including bases, column pipes, caps, cowls or wire domes, holding down bolts, nuts and washers, jointing material comprising lead, and bolts, nuts and washers and rubber insertion at the stores of the Engineer-in-charge but all steel strips or packing pieces required for jointing and erecting the columns true and vertical shall be provided by the contractor at his own expense and cost thereof is included in the above rates.
- (ii) The rates also cover the cost of all special scaffolding, derricks, jimpoles, tools and plant, ropes, guys etc., and nothing extra will be admissible to the contractor for the difficulties involved in erecting the columns absolutely true and vertical.

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla and Mandi
Rs.	Rs.	Rs.			
	(iii) The joints between the stone-ware or cement concrete pipe connecting the manholes with the column will be paid for at the rates as a joint of stone-ware or cement concrete pipe at the relevant rates given in this Schedule and all extra cement concrete required to make this joint perfect and to the requirements of the Engineer-in-charge shall be provided by the contractor and the cost thereof shall be allowed to the contractor as per cement concrete at the rates laid down for such items.				
	(iv) The two pieces of the column shall be assembled and jointed at ground level and then hoisted and erected unless specific approval of the Engineer-in-charge in writing permitting the contractor to do shall have been given.				
	(v) The columns which have not been erected absolutely true, concentric and vertical shall be accepted and the contractor shall rectify all defects arising from defective workmanship in joining, fixing and erection at his own costs and charges and nothing extra will be admissible to him for the removal of such defects.				
	(vi) The contractor shall be entirely responsible for the safety and the custody of the material handed over to him for erection and joining and shall not damage any column or its component parts while the same is under his charge or during assembly, erection, etc., should however, any column or its component part or the joining material get damaged or stolen while the same are under his charge and until the columns after erection have been duly approved, passed and accepted by the Engineer-in-charge, the actual cost of such damage or loss shall be recovered from the contractor. The actual cost of various component parts of the columns and of the joining material to be issued to the contractor free of cost can be ascertained by the contractor from the Engineer-in-charge before tendering.				
	(vii) The height of column as mentioned in item 29.39 above is exclusive of the height of base, cap and cowl or dome. The weight as mentioned in this item is approximate total weight of the column.				

Serial No.	Description	Unit	RATE					
			PLAINS		HILLY REGION			
			With special quality paint	With ordinary quality paint	Kangra and Dalhousie		Kulu, Simla and Mandi	
					With special quality paint	With ordinary quality paint	With special quality paint	With ordinary quality paint
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			
29.40	<i>Painting vent shafts</i> Painting 2 coat excluding priming coat with ready mixed paint for metallic surface in all shades on new work—							
	(i) 6 inch (150 m m) internal diameter vent shaft.	m	1.05	0.80	1.10	0.80	1.15	0.85
	(ii) 9 inch (225 m m) internal diameter vent shaft.	Do	1.45	1.05	1.50	1.10	1.55	1.20
	(iii) 12 inch (300 m m) internal diameter vent shaft.	Do	1.80	1.35	1.95	1.45	1.95	1.50

Serial No.	Description	Unit	RATE					
			PLAINS		HILLY REGION			
			With special quality paint	With ordinary quality paint	Kangra and Dalhousie		Kulu, Simla and Mandi	
					Rs	Rs	Rs	Rs
29.41	Painting one coat ready mixed paint for metallic surfaces in all shades on old work—							
	(i) 6 inch (150 mm) internal diameter vent shaft	m	0.50	0.43	0.60	0.46	0.60	0.46
	(ii) 9 inch (225 mm) internal diameter vent shaft	Do	0.75	0.60	0.80	0.60	0.80	0.60
	(iii) 12 inch (300 mm) internal diameter vent shaft	Do	0.95	0.70	1.00	0.80	1.05	0.80
29.42	Painting two coats with anti corrosive Bitumastic paint on new work to give an even shade—							
	(i) 6 inch (150 mm) internal diameter vent shaft	Do	0.55	0.49	0.60	0.55	0.65	0.60
	(ii) 9 inch (225 mm) internal diameter vent shaft	Do	0.70	0.65	0.80	0.75	0.85	0.80
	(iii) 12 inch (300 mm) internal diameter vent shaft	Do	0.95	0.85	1.05	0.95	1.10	1.00
29.43	Painting one coat with anti-corrosive bitumastic paint on old work to give an even shade—							
	(i) 6 inch (150 mm) internal diameter vent shaft	Do	0.33	0.30	0.36	0.33	0.39	0.36
	(ii) 9 inch (225 mm) internal diameter vent shaft	Do	0.43	0.39	0.46	0.46	0.49	0.46
	(iii) 12 inch (300 mm) internal diameter vent shaft	Do	0.55	0.49	0.60	0.55	0.65	0.60

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone 'A'	Zone 'B'	Zone 'C'	Kanga and Dalhousie	Kulu, Simla, Mandi
29.44	<i>Brick Sewers (Egg-shaped)</i> Construction of standard new egg-shaped type sewers to contract drawings up to 13 ft (4 metres) below G. L. including dressing of beds and sides of trenches to exact profiles, grades and alignments; lime concrete in beds and sides (as per specified in item 10.3) with 1:3 cement sand collar joint not less than 1/2 inch (12.50 mm) thick on sides, fine lime concrete in haunches (as per specified in item No. 10.4) 1: 1½: 3 moulded cement concrete invert accurately finished with neat cement rendering face; specially hand moulded first class radiated brick work laid in 1: 3 cement sand mortar in the side and under archrings of the sewers and specially hand moulded first class radiated brick work laid in 1: 4 cement sand mortar in the outer arch rings of the sewer laid over 1: 3 cement sand collar joint not less		Rs	Rs	Rs	Rs	R.

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla, Mandi	
			Rs	Rs	Rs	Rs	Rs	
29.44	then 1/2 inch (12.50 mm) in thickness formed round the inner layer of brick work and with the entire inner surface of sewer rendered with a layer of neat cement not less than 1/2 inch (12.50 mm) thick of 1:2 cement sand plaster and finished with a floating coat of neat cement left absolutely smooth polished and correct, to template finished with two coats of sodium silicate wherever required.							
	The rate include the cost of accurately planed and fitted centring and supports for all works as well as for all curves, bends, falls and other special works and the cleaning out the sewers throughout their lengths. Sodium silicate shall be supplied free of cost at the Stores of the Engineer-in-charge.							
	The finished inside dimensions of egg-shaped sewer being—							
	(a) 24 inch × 36 inch (610mm × 915 mm)	Per m complete sewer	55.75	57.40	57.40			
	(b) 26 inch × 39 inch (660mm × 990 mm)	Ditto	60.70	60.70	60.70			
	(c) 28 inch × 42 inch (710 mm × 1065 mm)	Ditto	64.00	64.00	65.60			
	(d) 30 inch × 45 inch (760 mm × 1140 mm)	Ditto	67.25	68.90	68.90			
	(e) 32 inch × 48 inch (810 mm × 1215mm)	Ditto	72.20	72.20	72.20			
	(f) 34 inch × 51 inch (860 mm × 1290 mm)	Ditto	75.45	75.45	75.45			
	(g) 36 inch × 54 inch (910mm × 1365 mm)	Ditto	78.75	78.75	80.40			
	(h) 38 inch × 57 inch (970mm × 1455 mm)	Ditto	82.00	83.65	83.65			
	(i) 40 inch × 60 inch (1020mm × 1530 mm)	Ditto	86.95	86.95	86.95			
	(j) 42 inch × 63 inch (1070 mm × 1605mm)	Ditto	90.20	90.20	91.85			
	(k) 44 inch × 66 inch (1120mm × 1680mm)	Ditto	93.50	95.15	95.15			
	(l) 46 inch × 69 inch (1170mm × 1755mm)	Ditto	98.45	100.05	100.05			
29.45	Construction of standard new egg-shaped type sewers to contract drawings as described in item No. 29.44 above but with cement concrete 1:8:16 with stone ballast of 1 1/4 inch (32 mm) gauge in beds and sides and 3/4 inch (20mm) gauge in haunches in place of lime concrete in beds and sides and fine lime concrete in haunches in hilly areas—							
	The finished inside dimensions of egg shaped sewer being—							
	(a) 24 inch × 36 inch (610 mm × 915 mm)	Per m complete sewer	..	..	..	65.60	86.95

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs	Rs	Rs	Rs	Rs
29.45	(b) 26 inch × 39 inch (660 mm × 990 mm)	Per m complete sewer	..	..	..	70.55	91.85
	(c) 28 inch × 42 inch (710 mm × 1065 mm)	Ditto	..	..	..	73.80	98.45
	(d) 30 inch × 45 inch (760 mm × 1140 mm)	Ditto	..	..	..	78.75	103.35
	(e) 32 inch × 48 inch (810 mm × 1215 mm)	Ditto	..	..	..	83.65	109.90
	(f) 34 inch × 51 inch (860 mm × 1290 mm)	Ditto	..	..	..	86.95	114.85
	(g) 36 inch × 54 inch (910 mm × 1365 mm)	Ditto	..	..	..	91.85	121.40
	(h) 38 inch × 57 inch (970 mm × 1455 mm)	Ditto	..	..	..	95.15	126.30
	(i) 40 inch × 60 inch (1020 mm × 1530 mm)	Ditto	..	..	..	100.05	132.85
	(j) 42 inch × 63 inch (1070 mm × 1605 mm)	Ditto	..	..	..	105.00	137.80
	(k) 44 inch × 66 inch (1120 mm × 1680 mm)	Ditto	..	..	..	109.50	144.35
	(l) 46 inch × 69 inch (1170 mm × 1755 mm)	Ditto	..	..	..	114.85	150.90
29.46	Extra over and above the rates for item Nos. 29.44 and 29.45 above for every additional 6½ ft (2 metres) depth or part thereof for depths beyond 13 ft (4 metres) below ground level— Finished inside dimensions of egg-shaped sewer being						
	(a) 24 inch × 36 inch (610 mm × 915 mm)	Per m complete sewer	0.49	0.49	0.49	0.60	0.60
	(b) 26 inch × 39 inch (660 mm × 990 mm)	Ditto	0.50	0.50	0.50	0.60	0.65
	(c) 28 inch × 42 inch (710 mm × 1065 mm)	Ditto	0.55	0.55	0.55	0.65	0.70
	(d) 30 inch × 45 inch (760 mm × 1140 mm)	Ditto	0.60	0.60	0.60	0.70	0.70
	(e) 32 inch × 48 inch (810 mm × 1215 mm)	Ditto	0.60	0.60	0.60	0.75	0.75
	(f) 34 inch × 51 inch (860 mm × 1290 mm)	Ditto	0.65	0.65	0.65	0.80	0.80
	(g) 36 inch × 54 inch (910 mm × 1365 mm)	Ditto	0.70	0.70	0.70	0.80	0.85
	(h) 38 inch × 57 inch (970 mm × 1455 mm)	Ditto	0.70	0.70	0.70	0.85	0.90
	(i) 40 inch × 60 inch (1020 mm × 1530 mm)	Ditto	0.75	0.75	0.75	0.90	0.90
	(j) 42 inch × 63 inch (1070 mm × 1605 mm)	Ditto	0.80	0.80	0.80	0.90	0.95
	(k) 44 inch × 66 inch (1120 mm × 1680 mm)	Ditto	0.80	0.80	0.80	1.00	1.00
	(l) 46 inch × 69 inch (1170 mm × 1755 mm)	Ditto	0.85	0.85	0.85	1.00	1.05
29.47	Construction of standard new egg-shaped type sewers to contract drawings built up to 2/3rd height only (as constructed in manhole lengths) up to 13 ft. (4 metres) below G. I., including dressing of beds and sides of trenches to exact profiles, grades and alignments; lime concrete (as specified in item 10.3) in beds and sides with 1:3 cement sand collar joint not less than 1/2 inch (12.50 mm) thick on side, 1: 1½: 3 moulded cement						

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla Mandi	
			Rs	Rs	Rs	Rs	Rs	
29.47	concrete invert accurately finished with neat cement rendering face ; specially hand moulded first class radiated brick work laid in 1 : 3 cement sand mortar in the sides of the sewer, with the entire inner surface of the sewer rendered with neat cement not less than 1/2 inch (12.50 mm) thick of 1 : 2 cement sand plaster and finished with a floating coat of neat cement left absolutely smooth polished and correct to template, finished with two coats of sodium silicate wherever required. The rates include the cost of accurately planed and fitted centring, moulds and supports for all works, as well as for all curves, bends, falls and other special works and the cleaning out of the sewer throughout their length. Sodium silicate shall be supplied free of cost at the Stores of the Engineer-in-charge. The finished inside dimensions of egg shaped sewer being—							
(a)	24 inch × 36 inch (610 mm × 915 mm)	m. of completed sewer	34.45	34.45	34.45			
(b)	26 inch × 39 inch (660 mm × 990 mm)	Ditto	36.10	36.10	37.70			
(c)	28 inch × 42 inch (710 mm × 1065 mm)	Ditto	37.70	39.35	39.35			
(d)	30 inch × 45 inch (760 mm × 1140 mm)	Ditto	41.00	41.00	41.00			
(e)	32 inch × 48 inch (810 mm × 1215 mm)	Ditto	42.65	44.30	44.30			
(f)	34 inch × 51 inch (860 mm × 1290 mm)	Ditto	45.95	45.95	45.95			
(g)	36 inch × 54 inch (910 mm × 1365 mm)	Ditto	47.55	47.55	49.20			
(h)	38 inch × 57 inch (970 mm × 1455 mm)	Ditto	49.20	50.85	50.85			
(i)	40 inch × 60 inch (1020 mm × 1530 mm)	Ditto	52.50	52.50	52.50			
(j)	42 inch × 63 inch (1070 mm × 1605 mm)	Ditto	54.15	55.75	55.75			
(k)	44 inch × 66 inch (1120 mm × 1680 mm)	Ditto	57.40	57.40	57.40			
(l)	46 inch × 69 inch (1170 mm × 1755 mm)	Ditto	59.05	59.05	60.70			
29.48	Construction of standard new egg-shaped type sewers to contract drawings built up to 2/3rd height only (as constructed in manhole length) as per described in item No. 29-47 above, but this provide cement concrete 1:8:16 with stone Ballast of 1½ inch (32 mm) gauge in beds and sides in place of lime concrete in beds and sides in hilly areas— Finished inside dimensions of egg-shaped sewer being—							
(a)	24 inch × 36 inch (610 mm × 915 mm)	Per m of completed sewer	..	..	..	39.35	47.55
(b)	26 inch × 39 inch (660 mm × 990 mm)	Do	..	..	..	41.00	50.85

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone A	Zone B	Zone C	Kangra and Dalhousie	Kulu, Simla, and Mandi
			Rs	Rs	Rs	Rs	Rs
29.48	(c) 28 inch × 42 inch (710 mm × 1065 mm)	Per m of completed sewer	..	..	..	44.30	54.15
	(d) 30 inch × 45 inch (760 mm × 1140 mm)	Ditto	..	..	..	47.55	57.40
	(e) 32 inch × 48 inch (810 mm × 1215 mm)	Ditto	..	..	..	49.20	60.70
	(f) 34 inch × 51 inch (860 mm × 1290 mm)	Ditto	..	..	..	52.50	64.00
	(g) 36 inch × 54 inch (910 mm × 1365 mm)	Ditto	..	..	..	54.15	67.25
	(h) 38 inch × 57 inch (970 mm × 1455 mm)	Ditto	..	..	..	57.40	70.55
	(i) 40 inch × 60 inch (1020 mm × 1530 mm)	Ditto	..	..	..	59.05	73.80
	(j) 42 inch × 63 inch (1070 mm × 1605 mm)	Ditto	..	..	..	62.35	78.75
	(k) 44 inch × 66 inch (1120 mm × 1680 mm)	Ditto	..	..	..	65.60	82.00
	(l) 46 inch × 69 inch (1170 mm × 1755 mm)	Ditto	..	..	..	68.90	85.30
29.49	Extra over and above the rates for item Nos. 29.47 and 29.48 above for every additional 6½ ft. (2 metres) depth or part thereof for depths beyond 13 ft. (4 metres) depth below ground level						
	Finished inside dimensions of egg-shaped sewer being :						
	(a) 24 inch × 36 inch (610 mm × 915 mm)	Ditto	0.16	0.16	0.16	0.20	0.20
	(b) 26 inch × 39 inch (660 mm × 990 mm)	Ditto	0.20	0.20	0.20	0.23	0.23
	(c) 28 inch × 42 inch (710 mm × 1065 mm)	Ditto	0.20	0.20	0.20	0.23	0.23
	(d) 30 inch × 45 inch (760 mm × 1140 mm)	Ditto	0.20	0.20	0.20	0.26	0.26
	(e) 32 inch × 48 inch (810 mm × 1215 mm)	Ditto	0.23	0.23	0.23	0.26	0.26
	(f) 34 inch × 51 inch (860 mm × 1290 mm)	Ditto	0.23	0.23	0.23	0.30	0.30
	(g) 36 inch × 54 inch (910 mm × 1365 mm)	Ditto	0.26	0.26	0.26	0.30	0.30
	(h) 38 inch × 57 inch (970 mm × 1455 mm)	Ditto	0.26	0.26	0.26	0.30	0.33
	(i) 40 inch × 60 inch (1020 mm × 1530 mm)	Ditto	0.30	0.30	0.30	0.33	0.33
	(j) 42 inch × 63 inch (1070 mm × 1605 mm)	Ditto	0.30	0.30	0.30	0.33	0.36
	(k) 44 inch × 66 inch (1120 mm × 1680 mm)	Ditto	0.30	0.30	0.30	0.36	0.36
	(l) 46 inch × 69 inch (1170 mm × 1755 mm)	Ditto	0.33	0.33	0.33	0.36	0.39
	<i>Brick Sewer</i> (Circular Non-Pressure)						
29.50	Construction of brick e circular Non-Pressure type S wers to contract drawings up to 13 ft. (4 metres) below G. L. including dressing of beds and sides of trenches to exact profiles, grades and alignments ; lime concrete in beds and sides (as per specified in item No. 10.3) with 1 : 3 cement sand collar joint not less than ½ inch (12.50 mm) thick on sides, fine lime concrete in haunches (as per specified in item No. 10.4) 1 : 1½ : 3 moulded cement concrete invert accurately finished with neat cement rendering face ; specially hand moulded 1st class radiated brick work laid in 1 : 3 cement sand mortar						

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone A	Zone B	Zone C	Kangra and Dalhousie	Kulu Simla, and Mandi	
			Rs	Rs	Rs	Rs	Rs	
29.50 <i>concl'd</i>	in the inner arch rings of the sewers and specially hand moulded first class radiated brick work laid in 1 : 4 cement sand mortar in the outer arch rings of sewers laid over arch 1 : 3 cement sand collar joint not less than $\frac{1}{2}$ inch (12.50 mm) in thickness formed round the inner layer of brick work and with the entire inner surface of the sewer rendered with neat cement not less than $\frac{1}{4}$ inch (12.50) in thickness of 1 : 2 cement sand plaster and finished with a floating coat of neat cement left absolutely smooth polished and correct to template finished with two coats of sodium silicate, wherever required.							
	The rates include the cost of accurately planned and fitted centering moulds and supports for all works as well as for all curves, bends, falls and other special works and cleaning out of the sewer through out their length sodium silicate shall be supplied free of cost at the Stores of the Engineer-in-charge.							
	The finished inside diameter of sewer being—							
	(a) 30 inches (760 mm) .. Per m completed sewer		52.50	52.50	52.50	—	—	
	(b) 33 inches (840 mm) .. Ditto		57.40	57.40	57.40	—	—	
	(c) 36 inches (915 mm) .. Ditto		62.35	62.35	62.35	—	—	
	(d) 39 inches (990 mm) .. Ditto		67.25	67.25	68.90	—	—	
	(e) 42 inches (1065 mm) .. Ditto		72.20	72.20	72.20	—	—	
	(f) 45 inches (1145 mm) .. Ditto		78.75	80.40	80.40	—	—	
	(g) 48 inches (1220 mm) .. Ditto		85.30	85.30	85.30	—	—	
	(h) 51 inches (1295 mm) .. Ditto		88.60	88.60	90.20	—	—	
	(i) 54 inches (1370 mm) .. Ditto		103.35	105.00	105.00	—	—	
	(j) 57 inches (1450 mm) .. Ditto		108.25	108.25	109.90	—	—	
	(k) 60 inches (1525 mm) .. Ditto		113.20	114.85	114.85	—	—	
29.51	Construction of brick circular non-pressure type sewers to contract drawings as per described in item No. 29.50 above, but this provide cement concrete 1 : 8 : 16 with stone ballast of $1\frac{1}{4}$ inch (32 mm) gauge in beds and sides and $\frac{3}{4}$ inch (20 mm) gauge in haunches in place of lime concrete in beds and sides and fine lime concrete in haunches in hilly areas.							
	The finished inside diameter of sewer being :							
	(a) 30 inches (760 mm) .. Ditto		—	—	—	60.70	82.00	
	(b) 33 inches (840 mm) .. Ditto		—	—	—	65.60	88.60	

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla, and Mandi
			Rs.	Rs.	Rs.	Rs.	Rs.
29.51	(c) 36 inches (915 mm)	Per m completed Sewer	..	..	..	72.20	96.80
	(d) 39 inches (990 mm)	Ditto	..	..	..	78.75	105.00
	(e) 42 inches (1065 mm)	Ditto	..	..	..	83.65	111.55
	(f) 45 inches (1145 mm)	Ditto	..	..	..	91.85	123.05
	(g) 48 inches (1220 mm)	Ditto	..	..	..	98.45	131.25
	(h) 51 inches (1295 mm)	Ditto	..	..	..	103.35	137.80
	(i) 54 inches (1370 mm)	Ditto	..	..	..	119.75	157.50
	(j) 57 inches (1450 mm)	Ditto	..	..	..	126.30	164.05
	(k) 60 inches (1525 mm)	Ditto	..	..	..	131.25	172.25
29.52	Extra over and above the rates for item Nos. 29.50 and 29.51 above for every additional 6½ ft. (2 metres) depth or part thereof for depths beyond 13 ft. (4 metres) below G. L. The finished inside diameter of sewer being,						
	(a) 30 inches (760 mm)	Ditto	0.50	0.50	0.50	0.60	0.60
	(b) 33 inches (840 mm)	Ditto	0.55	0.55	0.55	0.65	0.70
	(c) 36 inches (915 mm)	Ditto	0.60	0.60	0.60	0.70	0.70
	(d) 39 inches (990 mm)	Ditto	0.65	0.65	0.65	0.75	0.80
	(e) 42 inches (1065 mm)	Ditto	0.70	0.70	0.70	0.80	0.85
	(f) 45 inches (1145 mm)	Ditto	0.75	0.75	0.75	0.85	0.90
	(g) 48 inches (1220 mm)	Ditto	0.80	0.80	0.80	0.90	0.95
	(h) 51 inches (1295 mm)	Ditto	0.80	0.80	0.80	1.00	1.00
	(i) 54 inches (1370 mm)	Ditto	0.90	0.90	0.90	1.00	1.05
	(j) 57 inches (1450 mm)	Ditto	0.90	0.90	0.90	1.10	1.10
	(k) 60 inches (1525 mm)	Ditto	0.95	0.95	0.95	1.10	1.15
29.53	Construction of brick circular non-pressure type sewers to contract drawings built up one-half height only (as constructed in manhole lengths) up to 13ft. (4 metres) below G.L. including dressing of beds and sides of trenches to exact profiles, grades and alignment, lime concrete in beds and sides (as per specified in item No. 10.3) with 1:3 cement sand collar joint not less than 1/2 inch (12.50 mm) thick on side 1:1½:3 moulded cement concrete invert accurately finished with neat cement rendering faces, specially hand moulded 1st class radiated brick work laid in 1:3 cement sand mortar in the inner arch rings of sewers up to one half with the entire inner surface of the sewer rendered with neat cement						

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla, and Mandi	
			Rs.	Rs.	Rs.	Rs.	Rs.	
29.53 <i>concd</i>	not less than $\frac{1}{4}$ inch (12.50mm) in thickness 1:2 cement sand plaster and finished with a floating coat of neat cement left absolutely smooth polished and correct to template, finished with two coats of sodium silicate wherever required.							
	The rates, include the cost of accurately planed and fitted centring moulds and supports for all works as well as for all curves, bends, falls and other special works and the cleaning out of the sewers through their lengths. Sodium silicate shall be supplied free of cost at the Stores of the Engineer-in-charge.							
	The finished inside diameter of sewer being—							
	(a) 30 inches (760 mm) .. m		27.90	27.90	29.50	..	..
	(b) 33 inches (840 mm) .. Ditto		31.15	31.15	31.15	..	..
	(c) 36 inches (915 mm) .. Ditto		34.45	34.45	34.45	..	..
	(d) 39 inches (990 mm) .. Ditto		37.70	37.70	37.70	..	..
	(e) 42 inches (1065 mm) .. Ditto		39.35	39.35	41.00	..	..
	(f) 45 inches (1145 mm) .. Ditto		44.30	45.95	45.95	..	..
	(g) 48 inches (1220 mm) .. Ditto		47.55	49.20	49.20	..	..
	(h) 51 inches (1295 mm) .. Ditto		50.85	50.85	50.85	..	..
	(i) 54 inches (1370 mm) .. Ditto		52.50	54.15	54.15	..	..
	57 inches (1450 mm) .. Ditto		55.75	55.75	55.75	..	..
	60 inches (1525 mm) .. Ditto		57.40	59.05	59.05	..	..
29.54	Construction of brick circular non-Pressure type sewers to contract drawings built up one-half height only (as constructed in manhole lengths) as per described in item No. 29.53 above, but this provide cement concrete 1: 8: 16 with stone ballast of $1\frac{1}{4}$ inch (32 mm) gauge in beds and sides in place of lime concrete in beds and sides in hilly areas							
	The finished inside diameter of sewer being : —							
	(a) 30 inches (760 mm) .. m		..	..	..	31.15	39.35
	(b) 33 inches (840 mm) .. Ditto		..	..	..	36.10	44.30
	(c) 36 inches (915 mm) .. Ditto		..	..	..	39.35	47.55
	(d) 39 inches (990 mm) .. Ditto		..	..	..	42.65	52.50
	(e) 42 inches (1065 mm) .. Ditto		..	..	..	45.95	55.75
	(f) 45 inches (1145 mm) .. Ditto		..	..	..	50.85	62.35
	(g) 48 inches (1220 mm) .. Ditto		..	..	..	55.75	65.60

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla and Mandi
			Rs.	Rs.	Rs.	Rs.	Rs.
29.54	(h) 51 inches (1295 mm) ..	m.	..	..	..	57.40	70.55
<i>con cld</i>	(i) 54 inches (1370 mm) ..	Ditto	..	..	..	60.70	75.45
	(j) 57 inches (1450 mm) ..	Ditto	..	..	..	64.00	78.5
	(k) 60 inches (1525 mm) ..	Ditto	..	..	..	67.25	82.00
29.55	Extra over and above the rates for item Nos. 29.53 and 29.54 above for every additional 6½ ft. (2 metres) depth or part thereof for depths beyond 13 ft. (4 metres) below G. L.						
	The finished inside diameter of sewer being :						
	(a) 30 inches (760 mm) ..	m.	0.13	0.13	0.13	0.16	0.16
	(b) 33 inches (840 mm) ..	Ditto	0.16	0.16	0.16	0.16	0.16
	(c) 36 inches (915 mm) ..	Ditto	0.16	0.16	0.16	0.20	0.20
	(d) 39 inches (990 mm) ..	Ditto	0.16	0.16	0.16	0.20	0.23
	(e) 42 inches (1065 mm) ..	Ditto	0.20	0.20	0.20	0.23	0.23
	(f) 45 inches (1145 mm) ..	Ditto	0.20	0.20	0.20	0.23	0.26
	(g) 48 inches (1220 mm) ..	Ditto	0.23	0.23	0.23	0.26	0.26
	(h) 51 inches (1295 mm) ..	Ditto	0.23	0.23	0.23	0.30	0.30
	(i) 54 inches (1370 mm) ..	Ditto	0.26	0.26	0.26	0.30	0.30
	(j) 57 inches (1450 mm) ..	Ditto	0.26	0.26	0.26	0.33	0.33
	(k) 60 inches (1525 mm) ..	Ditto	0.30	0.30	0.30	0.33	0.33

Notes.—

- (i) A reduction of Rs. 0.50 per metre shall be made in the rates of sewers, in case steel forms for lime concrete and arch work are provided by the department. The item includes other elements such as labour for fixing the form and cost of other templates, which are not to be supplied by the department.
- (ii) For egg shaped/circular brick sewers described in items 29.44, 29.45, 29.47, 29.48, 29.50, 29.51, 29.53, and 29.54, the through rates laid down in these items shall be payable in all cases and not the individual rates for lime concrete, brickwork, plastering and other separate component items of work as laid down in this Schedule.
- (iii) In the case of manholes, junctions and junction chambers, over flow chambers, flushing tanks and various works, however, payments will be made on the basis of detailed measurements of each

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla and Mandi	
			Rs.	Rs.	Rs.	Rs.	Rs.	
	separate item of work carried out under the heads lime concrete, plain and reinforced cement concrete, brickwork, pointing and plastering, etc., as laid down and described in this Schedule, provided no composite rate exists, and no extra allowance above such rates, shall be allowed to the contractor for any reason what so ever.							
(iv)	In the event of any extra or additional work being carried out under orders in writing of the Engineer-in-charge of the works, in connection with any brick egg-shaped/circular sewers, the same shall be measured and paid for at the respective rates laid down in this Schedule under the heads lime concrete, plains, and reinforced cement concrete, brickwork, pointing and plastering, etc., for the items of extra works actually carried out.							
(v)	In the event of the Engineer-in-charge requiring the provision of the whole or any part of the foundation or envelope of any brick egg-shaped/circular sewers to be constructed of cement concrete in place of lime concrete, a deduction shall be made according to the rates specified in items No. 10.3 and 10.4 for lime concrete in beds and sides and fine lime concrete in haunches and top arch ring, etc., on account of the actual volume of lime concrete, from the amount payable to the contractor and the contractor shall be entitled to payment for the cement concrete work actually carried out by him under the orders of the Engineer-in-charge at the relevant rates laid down in the Schedule of Rates depending on the Specifications and description of the said concrete work. No extra over and above the said rate laid down in this Schedule of Rates shall be allowed to the contractor due to difficulties of the works small dimensions, laying concrete in or under water, or on account of any troubles or difficulties whatsoever which may be encountered by him in the work and							

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla, Mandi

Rs Rs Rs Rs Rs.

the contractor before tendering for the work shall make himself thoroughly acquainted with all local conditions and difficulties in respect thereof in this tender

- (vi) Socketted joints made on branch pipes, junctions or blocks laid in connection with brick burn sewers, will be paid for at the rate laid down for jointing salt glazed stone ware pipes,—*vide* item No. 29.57.

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla and Mandi

Rs Rs Rs.

Salt glazed stone ware pipe sewers and drains

- 29.56 Lowering salt glazed stone ware pipes and specials into trenches for all depths and laying out the same to correct alignment, gradients, levels, etc., in trenches including all dressing and trimming of bed and sides of trenches, if required, trimming and cutting of concrete beds and joints holes, supporting the pipes and specials, in correct position in a suitable rigid manner while the same are being jointed and until the surrounding benching, haunching, and envelopes are completed. The sewer shall rest on the bed at every point throughout its length and to ensure this, it shall be grouted in without extra charge by the contractor with lime surkhi mortar, in the case of lime concrete beds and 1:3 cement sand mortar in the case of cement concrete beds including cartage from Divisional store or nearest Railway Station to site of work:

(a) 4 inch (100 mm) internal diameter of sewer ..	10 completed sewer		3.95	4.60
(b) 6 inch (150 mm) internal diameter of sewer ..	Ditto	5.10	6.40	7.40
(c) 7 inch (175 mm) internal diameter of sewer ..	Ditto	5.60	7.05	8.20
(d) 9 inch (225 mm) internal diameter of sewer ..	Ditto	7.55	9.85	11.80
(e) 12 inch (300 mm) internal diameter of sewer ..	Ditto	11.65	15.40	18.35
(f) 15 inch (375 mm) internal diameter of sewer ..	Ditto	17.70	22.95	27.55

Note.—The rates include all bricks and supports for the sewer and also all sight rails and appliances to ensure that the sewer is maintained to perfect alignment and gradients throughout.

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla and Mandi
			Rs	Rs	Rs
29.57	Jointing and fixing salt glazed stone ware pipes and specials in trenches using cement, sand mortar 1:1 and best white italian tarred hemp yarn, including finishing and trowelling of each joint at an angle of 45 degree with the longitudinal axis of the pipes, watering, keeping the joints covered and wetted till the same are cured, testing the sewer lines for leakages and making all leakages and defects good, complete as laid down in the contract specifications:				
	(a) 4 inch (100 mm) internal diameter of sewer or branch pipe	Per Joint Complete	0.50	0.55	0.60
	(b) 6 inch (150 mm) internal diameter of sewer or branch pipe	Ditto	0.75	0.85	0.95
	(c) 7 inch (175 mm) internal diameter of sewer or branch pipe	Ditto	0.85	0.95	1.05
	(d) 9 inch (225 mm) internal diameter of sewer or branch pipe	Ditto	1.15	1.25	1.40
	(e) 12 inch (300 mm) internal diameter of sewer or branch pipe	Ditto	1.70	1.90	2.10
	(f) 15 inch (375 mm) internal diameter of sewer or branch pipe	Ditto	2.00	2.25	2.50
	<i>Notes.—</i>				
	(i) The lime concrete in beds, benching, haunching and envelopes of all glazed stoneware pipe sewers will be paid for separately according to the measurements of the work carried but to the requirements of the Engineer-in-charge, or as shown in the contract drawing, at the rates given in the Schedule of Rates, depending upon the description and specifications of the concrete. All brick ballast must be absolutely clean and free from rubbish dirt, clay, etc.				
	(ii) If any cement concrete is ordered by the Engineer-in-charge to be placed in the beds, benching, haunchings of envelopes of any glazed stone ware pipe sewers, the same will be paid for at the rates given in the Schedule of Rates for the respective specifications and description of the concrete work carried out				
	(iii) No extra over and above the rates of this Schedule for lime concrete and cement concrete work in beds, benchings, haunches and envelopes will be allowed by reasons of any difficulties or wastage in work or for rough shuttering or moulding.				
	(iv) In cases where caps on sockets of branches have to be removed in order to make the joints with the next pipes no extra shall be payable for cutting and removing the caps.				
29.58	Cutting glazed stoneware pipes and specials, chipping and finishing the cut surface to a uniform finish and roughning the part of the pipes, if any entering the sockets of the adjacent pipes complete, to the satisfaction of the Engineer-in-charge of the works				
	(a) 4 inch (100 mm) internal diameter of pipes or specials	Per cut	0.25	0.27	0.28
	(b) 6 inch (150 mm) internal diameter of pipes or specials	Ditto	0.37	0.40	0.42
	(c) 7 inch (175 mm) internal diameter of pipes or specials	Ditto	0.43	0.47	0.49
	(d) 9 inch (225 mm) internal diameter of pipes or specials	Ditto	0.55	0.60	0.65
	(e) 12 inch (300 mm) internal diameter of pipes or specials	Ditto	0.75	0.80	0.85
	(f) 15 inch (375 mm) internal diameter of pipes or specials	Ditto	0.90	1.00	1.05

Serial No.	Description	Unit	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla and Mandi
		Rs	Rs	Rs	
29.59	Providing accurately turned hardwood plugs for ends of sewers and plugging the same as may be directed in writing by the Engineer-in-charge of the works on completion of the contract :				
	(a) 4 inch (100 mm) internal diameter of sewer..	Per Plug	0.80	0.70	0.65
	(b) 6 inch (150 mm) internal diameter of sewer..	Ditto	1.35	1.05	0.95
	(c) 7 inch (175 mm) internal diameter of sewer..	Ditto	1.70	1.25	1.15
	(d) 9 inch (225 mm) internal diameter of sewer..	Ditto	2.85	2.05	1.90
	(e) 12 inch (300 mm) internal diameter of sewer..	Ditto	5.50	3.80	3.40
	(f) 15 inch (375 mm) internal diameter of sewer..	Ditto	9.30	6.40	5.60
29.60	Extra for laying and fixing drain chutes in pipe sewers, including lowering, aligning, setting in brick work and concrete cutting away and making good complete :				
	(a) 4 inch (100 mm) internal diameter ..	Per chute	0.50	0.60	0.65
	(b) 6 inch (150 mm) internal diameter ..	Ditto	0.65	0.70	0.75
	(c) 7 inch (175 mm) internal diameter ..	Ditto	0.75	0.85	0.90
	(d) 9 inch (225 mm) internal diameter ..	Ditto	1.05	1.20	1.25
29.61	Extra for laying oblique junction branches in stone ware pipe sewers including lowering, aligning, setting in correct position with correct slopes of branches and cutting and making room for branches complete :				
	(a) 4 inch to 15 inch (100 mm to 375 mm) internal diameter of sewer and 4 inch (100 mm) internal diameter of branch	Per branch complete	0.34	0.37	0.39
	(b) 4 inch to 15 inch (100 mm to 375 mm) internal diameter of sewer and 6 inch (150 mm) internal diameter of branch	Ditto	0.50	0.50	0.55
	(c) 4 inch to 15 inch (100 mm to 375 mm) internal diameter of sewer and 7 inch (175 mm) internal diameter of branch	Ditto	0.60	0.60	0.65
29.62	Extra over the rate laid down in this Schedule for cement concrete work for making and finishing, benching and complicated floor work in manholes, including formation of channels and bullnozing and smooth finishing the surface accurately to template.	Per sq. m. benching and floor- ing surface measured horizontally	2.25	2.60	2.70
<i>Plain and Reinforced Concrete Pipes</i>					
29.63	Lowering plain and reinforced concrete pipes and specials into trenches for all depths and laying out the same to correct alignment, gradients, levels etc. including all dressing and trimming and cutting of concrete beds and joint holes, supporting the pipes and specials in correct position in a suitable rigid manner while the same are being jointed and until the surrounding benchings, haunches, and envelopes are completed. The pipes shall rest on the beds at all points throughout their lengths and to ensure this they shall be grouted in where necessary as described in item No. 29.56 including carriage from stores of the Engineer-in-charge and safe delivery thereof at site of works. this includes loading, unloading stacking at convenient points adjacent to the works ready for lowering as may be found most convenient in the interest of work :				
	(a) 4 inch (100 mm) internal diameter of sewer..	10 m of completed sewer	2.55	3.20	3.75
	(b) 6 inch (150 mm) internal diameter of sewer..	Ditto	3.45	4.45	5.25
	(c) 9 inch (225 mm) internal diameter of sewer..	Ditto	4.25	5.75	7.20

Serial No.	Descriptor	Unit	RATE		
			Hills		
			Plains	Kangra and Dalhousie	Kulu, Simla, Mandi
29.63 <i>concl'd</i>	(d) 12 inch (300 mm) internal diameter of sewer..	10 m of completed sewer	Rs 6.40	Rs 8.70	Rs 10.65
	(e) 15 inch (375 mm) internal diameter of sewer..	Ditto	8.55	11.30	14.10
	(f) 18 inch (450 mm) internal diameter of sewer..	Ditto	11.30	15.10	19.05
Notes.—					
(i) The octroi and terminal taxes on the pipes and specials will not be payable by the contractor, but he should be liable for all losses, breakages and other damages to the pipes and specials from the moment he takes delivery thereof and thereafter until the pipes and specials have been jointed and tested.					
(ii) The rate includes all brick supports, sight rails and appliances required to ensure that the alignment and gradient of the sewer is perfectly maintained throughout.					
29.64	Jointing plain and reinforced concrete pipes and specials in trenches using collar joints jointed with 1 : 1½ cement sand mortar nearly dry, heavily caulked into joints and with end dowels filled with 1 : 1 cement sand mortar including facing trowelling and finishing the joints at angle of 45 degrees with faces of collars keeping joints wet till cured, testing the drain lines for leakage and making good all leakage and defects as laid down in the contract specifications complete with 2 spigot ends jointed to collar and internal diameter of sewer pipe or special being :				
	(a) 4 inches (100 mm)	Per collar Joint	0.75	0.85	0.95
	(b) 6 inches (150 mm)	.. Ditto	1.05	1.20	1.30
	(c) 9 inches (225 mm)	.. Ditto	1.70	1.95	2.10
	(d) 12 inches (300 mm)	.. Ditto	2.25	2.50	2.75
	(e) 15 inches (375 mm)	.. Ditto	3.60	4.10	4.45
	(f) 18 inches (450 mm)	.. Ditto	4.55	5.10	5.60
Notes :					
(i) If any socketted, plain or reinforced cement concrete pipes or specials are jointed with 1 : 1 cement sand mortar and tarred yarn as described for salt glazed stoneware pipes and specials in item 29.57 of this schedule, the jointing rates laid down for the sizes of pipes or specials given in item 29.57 of this Schedule shall be payable for such joints.					
(ii) Notes (i), (ii), (iii) and (iv) following items 29.57 of this Schedule shall also apply to all lines of drains with plain or reinforced concrete pipes and specials.					
29.65	Cutting plain and reinforced concrete pipes and specials, chipping and finishing the cut surface to a uniform finish to the satisfaction of the Engineer-in-charge : —				
	(a) 4 inch (100 mm) internal diameter of pipe or specials	Per cut	0.42	0.44	0.45
	(b) 6 inch (150 mm) internal diameter of pipe or specials	Ditto	0.55	0.60	0.60
	(c) 9 inch (225 mm) internal diameter of pipe or specials	Ditto	0.75	0.80	0.85
	(d) 12 inch (300 mm) internal diameter of pipe or specials	Ditto	1.00	1.05	1.10
	(e) 15 inch (375 mm) internal diameter of pipe or specials	Ditto	1.20	1.30	1.35
	(f) 18 inch (450 mm) internal diameter of pipe or specials	Ditto	1.40	1.55	1.60
29.66	Extra for laying oblique junction branches in concrete pipe sewers, including setting in concrete position and with correct slopes of branches and cutting and making room for branches complete :				
	(a) 4 inch (100 mm) internal diameter of sewer and 4 inch (100 mm) internal diameter of branch.	Per branch complete	0.22	0.21	0.24

Serial No.	Description	Units	RATE		
			Plains	Hills	
				Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs	Rs	Rs
29.66 <i>concl'd</i>	(b) 6 inch (150 mm) internal diameter of sewer and 4 inch (100 mm) internal diameter of branch.	Per Branch complete		0.21	0.24
	(c) 7 inch (175 mm) internal diameter of sewer and 4 to 6 inch (100 mm to 150 mm) internal diameter of branch.	Ditto	.33	0.32	0.36
	(d) 8 inch (200 mm) internal diameter of sewer and 4 to 7 inch (100 mm to 175 mm) internal diameter of branch.	Ditto	0.44	0.41	0.47
	(e) 9 inch (225 mm) internal diameter of sewer and 4 to 8 inch (100 mm to 200 mm) internal diameter of branch.	Ditto	0.55	0.50	0.55
	(f) 10 inch (250 mm) internal diameter of sewer and 4 to 9 inch (100 mm to 225 mm) internal diameter of branch.	Ditto		0.60	0.70
	(g) 12 inch (300 mm) internal diameter of sewer and 4 to 10 inch (100 mm to 250 mm) internal diameter of branch.	Ditto	0.80	0.75	0.85
	(h) 15 inch (375 mm) internal diameter of sewer and 4 to 12 inch (100 mm to 300 mm) internal diameter of branch.	Ditto	1.05	0.95	1.10
	(i) 18 inch (450 mm) internal diameter of sewer and 4 to 15 inch (100 mm to 375 mm) internal diameter of branch.	Ditto	1.55	1.45	1.65
29.67	Providing turned hard wood plugs to ends of pipe sewers of all types and plugging the same as may be directed in writing by the Engineer-in-charge of the works on completion of the contract:				
	(a) 4 inch (100 mm) internal diameter of sewer ..	Per plug	0.8		
	(b) 6 inch (150 mm) internal diameter of sewer ..	Ditto	1.35	1.05	0.95
	(c) 9 inch (225 mm) internal diameter of sewer ..	Ditto	2.85	2.05	1.90
	(d) 12 inch (300 mm) internal diameter of sewer ..	Ditto	5.50	3.80	3.40
	(e) 15 inch (375 mm) internal diameter of sewer ..	Ditto	9.40	6.40	5.60
	(f) 18 inch (450 mm) internal diameter of sewer ..	Ditto	.50	7.60	6.70
	<i>Stone-ware intercepting traps, flap valves, road gullies etc.</i>				
29.68	Fixing cast iron or stone-ware intercepting traps to be supplied by the Engineer-in-charge and embedding the same in cement concrete to the requirements of the Engineer-in-charge in screening chambers, including carriage from the stores of the Engineer-in-charge:				
	(a) 4 inch (100 mm) internal diameter ..	Each	2.00	2.35	2.45
	(b) 6 inch (150 mm) internal diameter ..	Do	2.45	2.85	3.05
	(c) 8 inch (200 mm) internal diameter ..	Do	3.50	4.05	4.35
29.69	Fixing of cast iron road gully grating and frame complete including carriage from the stores of the Engineer-in-charge of the works, loading, fixing and erecting the same in position to correct lines and levels in 1: 2 cement sand mortar and painting of grating and frame with coal-tar	Do	3.00	3.40	3.85

Serial No.	Description	Units	RATE				
			Plains			Hills	
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu Simla, Mandi
			Rs	Rs	Rs	Rs	Rs
29.70	House outlet connections including cutting and forming parnalas and making Khurras at head of house connection size of each khurra to be not less than 12 inch x 12 inch (30cm x 30cm) The rate shall cover the cost of all works to the requirements of the Engineer-in-charge.	Per connection	2.80	2.80	2.85	3.25	3.95

Serial No.	Description	Units	RATE				
			Plains			Hills	
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu Simla, Mandi
			Rs	Rs	Rs	Rs	Rs
29.71	House outlet connections as described in item 29.70 above but with size of khurra not less than 12 inch x 6 inch (30 cm x 15 cm)	Per connection	2.05	2.05	2.05	2.35	2.95
29.72	House outlet connections as described in item 29.70 above but with size of khurra not less than 9 inch x 6 inch (23 cm x 15 cm).	Do	1.55	1.55	1.55	1.80	2.30
29.73	Constructing Punjab Standard Drain, type house connection complete, consisting of cement concrete drain moulded and laid over lime concrete foundation, rendered and finished smooth with ½ inch (6mm) thick rendering, concrete to be of 1 : 2½ : 5 parts by volume of cement : sand : stone bajri and rendering to be 1:1 cement sand mortar	m	1.80	1.95	2.15	2.15	2.45
29.74	Constructing Punjab Standard Drain Type I as above	Ditto	2.60	2.95	3.10	3.10	3.45
29.75	Constructing Punjab Standard Drain Type II as above	Ditto	6.05	6.75	6.50	7.05	7.85
29.76	Constructing Punjab Standard Drain Type III as above	Ditto	7.70	8.20	8.70	9.00	10.00
29.77	Constructing Punjab Standard Drain Type IV as above	Ditto	9.35	9.85	10.35	10.65	12.00

Notes:—

- (i) The rate given above for the type drains include in all cases for the cost of the excavation for the drain below level of top of cunette, the timbering, shoring, dewatering and dressing of the excavation to correct template and levels, the removal and disposal of all surplus spoil and refilling if any as described under the head Earth work, the cost of Lime concrete in foundation of the drains and of all setting out apparatus required for the work. The rates also include the cost of all curves, bends, falls junctions, inlets, outlets and all other special work in the drains and expansion joints. For drains where precast slabs are used, the rate include for fixing and setting to correct level and templates in 1:2 cement mortar, the joint being finished perfectly smooth with the faces of the slabs.
- (ii) All surface drains shall be finished perfectly smooth by rubbing with properly shaped steel finishing tools and the design of all tools and appliances, moulds and

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla Mandi
			Rs.	Rs.	Rs.	Rs.	Rs.

templates and used on the construction of the drains shall be to the approval of the Engineer-in-charge of the work.

(iii) All precast slabs shall be cured by immersion for 10 days under water before use and all cement concrete drains moulded in site shall be flooded with water up to the tops of the bullnose edging for 10 days after construction to ensure that all concrete is thoroughly seasoned.

(iv) The rates for items 29.70, 29.71 and 29.72 house outlet connections, include for all work from the plinth of the house up to the street drain where this is adjacent to the house wall. If the street drain is away from the wall the appropriate length of house connection drain will be paid for. The rate also include for cutting jharries in the house wall and reimbursement of the drains for forming parnalas where required and plastering the same.

(v) The lime concrete shall be to the specification described in item No. 10.3.

Manhole Chambers

29.78 Construction of rectangular standard brick masonry manhole chambers to standard drawings on new egg-shaped sewers, up to the required depth in 1:5 cement sand mortar, lime concrete, 40 per cent lime mortar with $\frac{3}{8}$ " (20 mm) gauge brick-ballast in haunches above the arch ring where the depth of cover in traffic streets is less than 4 ft. 6 inches (1.5 metres), $\frac{1}{4}$ inch (12.50 mm) thick water tight 1:2 cement sand plaster with a floating coat of neat cement and finished with 2 coats of sodium silicate on interior surface where required, reinforced cement concrete slab 7 inches (180 mm) thick fixing 22 inch (560 mm) internal diameter C. I. manhole frame and cover weight not less than 5 cwt (2.5 q) painted with 3 coats of black bitumen paint, fixing galvanised malleable iron steps embedded in 1:2 cement sand mortar, etc., complete.

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla, Mandi	
			Rs.	Rs.	Rs.	Rs.	Rs.	
29.78 <i>concl'd.</i>	The rate also covers the cost of M. S. steel for R. C. slab, labour for fixing and carriage of C. I. manhole frame and cover and malleable iron steps from the stores of the Engineer-in-charge of the works to site of work.							
	The rate further includes cost of accurately planed and fitted centring, supports for all works, as well as for all curves and special work, cleaning out their beds, etc. Sodium silicate shall be supplied free of cost at the stores of the Engineer-in-charge.							
	(i) On egg-shaped sewers of size 24 inch x 36 inch to 34 inch x 51 inch (610 mm x 915 mm to 860 mm x 1290 mm)							
	(a) For 8 ft. (2.40 m) depth below ground level ..	Each	188.00	190.00	193.00	..	..
	(b) For 9 ft. (2.70 m) depth below ground level ..	Do	203.00	205.00	208.00	..	..
	(c) For 10 ft. (3.00 m) depth below ground level ..	Do	217.00	220.00	222.00	..	..
	(d) For 11 ft. (3.40 m) depth below ground level ..	Do	231.00	234.00	237.00	..	..
	(e) For 12 ft. (3.70 m) depth below ground level ..	Do	240.00	242.00	245.00	..	..
	(f) For 13 ft. (4.00 m) depth below ground level ..	Do	274.00	276.00	279.00	..	..
	(g) For 14 ft. (4.30 m) depth below ground level ..	Do	288.00	291.00	293.00	..	..
	(h) For 15 ft. (4.60 m) depth below ground level ..	Do	302.00	305.00	308.00	..	..
	(i) For 16 ft. (4.90 m) depth below ground level ..	Do	317.00	319.00	322.00	..	..
	(j) For 17 ft. (5.20 m) depth below ground level ..	Do	335.00	337.00	340.00	..	..
	(k) For 18 ft. (5.50 m) depth below ground level ..	Do	347.00	349.00	352.00	..	..
	(l) For 19 ft. (5.80 m) depth below ground level ..	Do	358.00	360.00	362.00	..	..
	(m) For 20 ft. (6.10 m) depth below ground level ..	Do	377.00	380.00	382.00	..	..
	(ii) On egg-shaped sewers of size 36 inch x 54 inch to 38 inch x 57 inch (910 mm x 1365 mm to 970 mm x 1455 mm).							
	(a) For 12 ft. (3.70 m) depth below ground level ..	Do	450.00	462.00	475.00	..	..
	(b) For 13 ft. (4.00 m) depth below ground level ..	Do	468.00	480.00	493.00	..	..

Serial No.	Description	Unit	RATE				
			Plains			Hills	
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs	Rs	Rs	Rs	Rs
29.78 <i>concl'd</i>	(c) For 14 ft. (4.30 m) depth below ground level ..	Each	482.00	494.00	508.00	..	..
	(d) For 15 ft. (4.60 m) depth below ground level ..	Do	498.00	510.00	524.00	..	..
	(e) For 16 ft. (4.90 m) depth below ground level ..	Do	514.00	526.00	540.00	..	..
	(f) For 17 ft. (5.20 m) depth below ground level ..	Do	532.00	544.00	557.00	..	..
	(g) For 18 ft. (5.50 m) depth below ground level ..	Do	548.00	560.00	574.00	..	..
	(h) For 19 ft. (5.80 m) depth below ground level ..	Do	584.00	596.00	609.00	..	..
	(i) For 20 ft. (6.10 m) depth below ground level ..	Do	621.00	633.00	646.00	..	..
	(iii) On egg shaped sewers of sizes 40 inch x 60 inch (1020 mm x 1530 mm) to above						
	(a) For 12 ft. (3.70 m) depth below ground level ..	Do	468.00	481.00	495.00	..	..
	(b) For 13 ft. (4.00 m) depth below ground level ..	Do	484.00	497.00	511.00	..	..
	(c) For 14 ft. (4.30 m) depth below ground level ..	Do	500.00	513.00	527.00	..	..
	(d) For 15 ft. (4.60 m) depth below ground level ..	Do	516.00	529.00	543.00	..	..
	(e) For 16 ft. (4.90 m) depth below ground level ..	Do	532.00	545.00	559.00	..	..
	(f) For 17 ft. (5.20 m) depth below ground level ..	Do	550.00	562.00	577.00	..	..
	(g) For 18 ft. (5.50 m) depth below ground level ..	Do	567.00	579.00	594.00	..	..
	(h) For 19 ft. (5.80 m) depth below ground level ..	Do	597.00	610.00	624.00	..	..
	(i) For 20 ft. (6.10 m) depth below ground level ..	Do	642.00	655.00	669.00	..	..
29.79	Construction of rectangular Standard brick masonry manhole chambers to standard drawings on S.W. pipe sewers or other circular pipe sewers, up to the required depth in 1:5 cement sand mortar lime concrete in bed and sides of pipe sewer and cement concrete 1:2:4 in benching, $\frac{1}{4}$ inch (12.50 mm) thick watertight 1:2 cement sand plaster with a floating coat of neat cement and finished with 2 coats of sodium silicate on interior surface where required reinforced cement concrete slab 7 inches (180 mm) thick, fixing 22 inches (560 mm) internal diameter C.I. manhole frame and cover weight not less than 5 cwts. (2.5 q) painted with						

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla, Mandi	
			Rs	Rs	Rs	Rs	Rs	
29.79 <i>concl'd</i>	3 coats of black bitumen paint fixing galvanised malleable iron steps embedded in 1.2 cement sand mortar complete The rate covers the cost of M.S. steel for R. C. C. slab, labour for fixing and carriage of C.I. manhole frame and cover and malleable iron steps from the stores of the Engineer-in-charge of the works to site of work. The rate also includes the cost of accurately planed and fitted centring, supports for all works, as well as for all curves and special work, cleaning out their beds, etc. Sodium silicate shall be supplied free of cost at the stores of the Engineer-in-charge.							
(i)	On 4 inch (100 mm) internal diameter pipe sewer—							
(a)	For 4 ft. (1.20 m) depth below ground level ..	Each	162.00	165.00	170.00	..	..
(b)	For 5 ft. (1.50 m) depth below ground level ..	Do	187.00	191.00	195.00	..	..
(c)	For 6 ft. (1.80 m) depth below ground level ..	Do	212.00	217.00	221.00	..	..
(ii)	On 6 inch (150 mm) internal diameter pipe sewer—							
(a)	For 4 ft. (1.20 m) depth below ground level ..	Do	178.00	182.00	188.00	..	..
(b)	For 5 ft. (1.50 m) depth below ground level ..	Do	206.00	211.00	216.00	..	..
(c)	For 6 ft. (1.80 m) depth below ground level ..	Do	230.00	235.00	240.00	..	..
(d)	For 7 ft. (2.10 m) depth below ground level ..	Do	257.00	261.00	266.00	..	..
(e)	For 8 ft. (2.40 m) depth below ground level ..	Do	285.00	290.00	295.00	..	..
(iii)	On 7 inches (175 mm) internal diameter pipe sewer—							
(a)	For 6 ft. (1.80 m) depth below ground level ..	Do	236.00	241.00	247.00	..	..
(b)	For 7 ft. (2.10 m) depth below ground level ..	Do	264.00	269.00	275.00	..	..
(c)	For 8 ft. (2.40 m) depth below ground level ..	Do	292.00	297.00	302.00	..	..
(d)	For 9 ft. (2.70 m) depth below ground level ..	Do	317.00	323.00	330.00	..	..
(e)	For 10 ft. (3.00 m) depth below ground level ..	Do	328.00	334.00	341.00	..	..

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra & Dalhousie	Kulu, Simla, Mandi	
			Rs.	Rs.	Rs.	Rs.	Rs.	
29.79	(iv) On 9 inches (225 mm) internal diameter <i>concl'd</i> Pipe sewer—							
	(a) For 6 ft. (1.80 m) depth below ground level	.. Each	246.00	251.00	256.00	..	..
	(b) For 7 ft. (2.10 m) depth below ground level	.. Do	274.00	273.00	284.00	..	..
	(c) For 8 ft. (2.40 m) depth below ground level	.. Do	302.00	307.00	318.00	..	..
	(d) For 9 ft. (2.70 m) depth below ground level	.. Do	319.00	325.00	331.00	..	..
	(e) For 10 ft. (3.00 m) depth below ground level	.. Do	331.00	339.00	346.00	..	..
	(f) For 12 ft. (3.70 m) depth below ground level	.. Do	407.00	415.00	424.00	..	..
	(v) On 12 inches (300 mm) internal diameter pipe sewer—							
	(a) For 8 ft. (2.40 m) depth below ground level	.. Do	329.00	335.00	342.00	..	..
	(b) For 9 ft. (2.70 m) depth below ground level	.. Do	356.00	364.00	371.00	..	..
	(c) For 10 ft. (3.00 m) depth below ground level	.. Do	371.00	379.00	387.00	..	..
	(d) For 11 ft. (3.40 m) depth below ground level	.. Do	396.00	404.00	412.00	..	..
	(e) For 12 ft. (3.70 m) depth below ground level	.. Do	411.00	419.00	428.00	..	..
	(vi) On 15 inches (375 mm) internal diameter pipe sewer :—							
	(a) For 8 ft. (2.40 m) depth below ground level	.. Do	364.00	370.00	378.00	..	..
	(b) For 9 ft. (2.70 m) depth below ground level	.. Do	382.00	391.00	400.00	..	..
	(c) For 10 ft. (3.00 m) depth below ground level	.. Do	395.00	402.00	409.00	..	..
	(d) For 11 ft. (3.40 m) depth below ground level	.. Do	410.00	417.00	424.00	..	..
	(e) For 12 ft. (3.70 m) depth below ground level	.. Do	423.00	430.00	437.00	..	..

Notes:—

- (i) The through rates laid down in the above items shall be payable in all cases and not the individual rates for lime concrete, brick-work, plastering and other separate component items of work as laid down in this schedule. In cases where through rates are not available the payment will be made on the basis of detailed measurements of individual items as detailed,—*vide* note (iii) below item No. 29.55.

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra & Dalhousie	Kulu, Simla, Mandi	
			Rs.	Rs.	Rs.	Rs.	Rs.	
29.79	(ii) In the event of the Engineer-in-charge requiring the change of items provided in the through rate given above, the necessary changes shall be made according to note (iv) below item No. 29.55.							
29.80.	Construction of circular standard brick masonry manhole chambers to standard drawings on S.W. pipe sewers or other circular sewers up to the required depth in 1:5 cement Sand mortar, lime concrete in bed and sides of pipe sewer and cement concrete 1:2:4 in benching, $\frac{1}{4}$ inch (12.50 mm) thick water-tight 1:2 cement sand plaster with a floating coat of neat cement and finished with 2 coats of sodium silicate on interior surface where required Fixing 22 inches (560 mm) internal diameter C. I. manhole cover and frame weight not less than 5 cwt. (2.5 q) painted with 3 coats of black bitumen paint, fixing galvanised malleable iron steps embedded in 1:2 cement sand mortar complete.							
	The rate covers the cost carriage of C. I. manhole frame and cover and malleable iron steps from the stores of the Engineer-in-charge of the works to site of work.							
	The rate also includes the cost of accurately planned and fitted centring, supports for all works, as well as for all curves and special work, cleaning out their beds, etc. Sodium silicate shall be supplied free of cost at the store of the Engineer-in-charge.							
	For 6 ft. (1.80 m) depth below ground level—							
	(i) On 7 inch (175 mm) internal diameter pipe sewer. . .	Each	163.00	171.00	178.00	..	..
	(ii) On 9 inch (225 mm) internal diameter pipe sewer ..	Do	165.00	172.00	180.00	..	..
	(iii) On 12 inch (300 mm) internal diameter pipe sewer ..	Do	172.00	182.00	191.00	..	..
	(iv) On 15 inch (375 mm) internal diameter pipe sewer ..	Do	178.00	185.00	196.00	..	..

Serial No.	Description	Unit	RATE					
			Plains			Hills		
			Zone 'A'	Zone 'B'	Zone 'C'	Kangra and Dalhousie	Kulu, Simla, Mandi	
			Rs.	Rs.	Rs.	Rs.	Rs.	
29.81.	Extra over and above on item No. 29.80 for every metre depth of manholes up to 13 feet (4 metres) depth below ground level.	Each						
	On 7 inch (175 mm) internal diameter to 15 inch (375 mm) internal diameter pipe sewer	Per metre depth	88.60	88.60	88.60	..	..
29.82.	Extra over and above on item No. 29.80 for every additional, per metre depth up to 6½ feet (2metres) for depth beyond 13 feet (4 metres) below G. L.							
	On 7 inch (175 mm) internal diameter to 15 inch (375 mm) internal diameter pipe-sewers	Ditto	90.20	90.20	90.20	..	..

CHAPTER NO. 30
SANITARY INSTALLATIONS

Serial No.	Description	Unit	RATE		
			Hilly Region		
			Plains	Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs	Rs	Rs
SANITARY FITTINGS					
(A) WATER-CLOSET SUITES					
30.1	Providing and fixing in position best Indian make Bombay Potteries, Parry's or of other equally good Indian manufacture (to the approval of the Engineer-in-charge) Indian Type Water Closet Suite consisting of :				
	(i) Closet set in white glazed earthenware W.C. Pan with horizontal inlet, for sinking into floor with a pair of foot rests, 4 inch (100 mm) H.C.I., 'P' trap with or without vent as required and suitable joint for closet inlet;				
	(ii) 3-Gallons (15 litres) capacity mosquito proof cast iron flushing cistern 'Nomos' or E.L.C.O. or any other equally good and approved Indian make in cast iron painted with non-yellowing white or other approved shade Enamel paint on outside and black bitumastic superior paint of approved manufacture on inside complete with all accessories such as 3/4 inch (20 mm) G. I. overflow pipe with specials and clamps upto 6 inch (15 cm) above floor level of W. C. Room, and brass perforated mosquito proof cap, 1 1/2 inch (32 mm) outlet, 1/2 inch (15 mm) ball-cock G. I. Pull and chain, R. S. or C. I. painted brackets and mosquito proof couplings for outlet and over flow pipes, etc.				
	(iii) 1 1/2 inch (32 mm) diameter telescopic 18 gauge (1.25 mm) galvanised inside and outside Steel Flush Pipe with clips				
	Complete in all respects including cutting and making good the walls and floors and painting of fittings, etc:				
	(a) Size 23 inch (580 mm)	.. Each	159.00	164.00	167.00
	(b) Size 25 inch (630 mm)	.. Do	162.00	167.00	171.00
	(c) Size 27 inch (680 mm)	.. Do	170.00	175.00	179.00
30.2	Providing and fixing in position best Indian make Bombay Potteries, Parry's or of other equally good Indian manufacture (to the approval of the Engineer-in-charge) Indian Type 'Orisa' or 'Orya' Water Closet Suite for Sinking into floor, with raised foot treads complete with 4 inch (100 mm) H. C. I. 'P' Trap with or without vent as required and all other necessary fittings as fully described in item No. 30.1 above :				
	(a) Size 23 inch (580 mm)	.. Do	227.00	233.00	236.00
	(b) Size 27 inch (680 mm)	.. Do	262.00	267.00	271.00
30.3	Providing and fixing in position best Indian make Bombay Potteries, Parry's or of other equally good Indian Manufacture European type water closet suite consisting of :				
	(i) Wash down closet set in white glazed earthenware (to the approval of the Engineer-in-charge) with 'P' and 'S' Trap with or without vent as required and suitable joint for closet inlet				
	(ii) One piece seat and lid in polished teak wood 1 inch (25 mm) thick fitted with chromium plated brass hinges and rubber buffers (to the approval of the Engineer-in-charge).				

Serial No.	Description	Unit	RATE		
			Plains	Hilly Region	
				Kangra and Dalhousie	Kulu, Simla, Mandi
	(A) WATER-CLOSET SUITES— <i>concl'd</i>		Rs	Rs	Rs
30.3— <i>concl'd</i>	(iii) 3-Gallons (15 litres) capacity mesquito proof C.I. Flushing Cistern Nomos or E. L. C. O. (Indian make) and all other necessary fittings complete as fully described in item No. 30.1 above				
	(iv) 1½ inch (32 mm) diameter telescopic 18 gauge (1.25 mm) galvanized inside and outside steel flush pipe with clips				
	Complete in all respects including cutting and making good the walls and floors and painting of fittings, etc.	Each	215.00	220.00	223.00
30.4	Extra over and above item No. 30.3 for providing and fixing best Indian make solid drawn black plastic hygienic seat with lid and chromium plated adjustable brass hinges and rubber buffers complete :				
	(a) Solid	Do	31.00	31.50	32.00
	(b) Hollow	Do	24.50	24.50	25.00
30.5	Extra over and above item No. 30.3 for providing and fixing best Indian make solid drawn white plastic hygienic seat with lid and chromium plated adjustable brass hinges and rubber buffers complete :				
	(a) Solid	Do	48.00	48.00	48.00
	(b) Hollow	Do	24.50	24.50	25.00
30.6	Extra for providing and fixing best Indian make China pull handle with chromium plated brass chain instead of G. I. chain and pull	Do	7.30	7.30	7.30
30.7	Extra for providing and fixing 3-Gallons (15 litres) Isco or other equivalent low-down cistern flush bend and all other necessary fittings with white Enamel Spray Paint after making smooth the C. I. surface by rubbing scrapping, etc., instead of high level C. I. flushing cistern with flush pipe Complete.	Do	30.00	35.00	36.00
30.8	Extra for providing and fixing 3-Gallons (15 litres) I.S.C.O. or other equivalent low-down cistern, flush bend and all other necessary fittings instead of Nomos (Indian make) C. I. Flushing cistern with flush pipe in white stove enamel paint	Do	69.00	69.00	69.00
30.9	Extra for providing and fixing 1½ inch (32 mm) lead extension pipe weighing 9 lbs. per yard (4.46 kg. per metre) and 0.14 inch (3.6 mm) thick for Indian type water closet suite including cost of wired solder joint.	Do	9.20	9.50	9.60
	(B) LAVATORY SUITES				
30.10	Providing and fixing in position best Indian make Bombay Potteries, Parry's or of other equally good Indian Manufacture Lavatory Suites consisting of:				
	Lavatory in white glazed earthen ware size as given below (to the approval of the Engineer-in-charge) including China plug for tap hole where required				
	R. S. or C. I. Brackets for building into wall including painting ;				
	1½ inch (32 mm) C. P. brass waste with C. P. brass chain and rubber plug ;				
	1½ inch (32 mm) C. P. brass bottle trap with pipe to wall and wall flange ;				
	1/2 inch (15 mm) chromium plated screw down Pillar Taps with jam nuts or couplings ;				
	All fittings best Indian make and to the approval of the Engineer-in-charge ;				

Serial No.	Description	Unit	RATE		
			Plains	Hilly Region	
				Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs.	Rs.	Rs.
(B) Lavatory Suites—concl'd					
30.10	All brass work chromium plated and complete in <i>concl'd</i> all respects including cutting and making good the walls, floors and painting of fittings, etc				
	(a) with 1½ inch (32 mm) C. P. brass bottle trap with pipe to wall and wall flange :				
	(i) Size 22 inch × 16 inch (550 mm × 400 mm) with two Nos taps	Each	173.00	178.00	180.00
	(ii) Size 22 inch × 16 inch (550 mm × 400 mm) with one No. tap	Do	166.00	171.00	173.00
	(iii) Size 25 inch × 18 inch (630 mm × 450 mm) with two Nos. taps	Do	201.00	206.00	208.00
	(iv) Size 25 inch × 18 inch (630 mm × 450 mm) with one No. tap	Do	194.00	198.00	201.00
	(a) With 1½ inch (32 mm) chromium plated 'P' and 'S' trap instead of brass bottle traps :				
	(i) Size 22 inch × 16 inch (550 mm × 400 mm) with two Nos. taps	Do	169.00	174.00	176.00
	(ii) Size 22 inch × 16 inch (550 mm × 400 mm) with one No. tap	Do	162.00	167.00	169.00
	(iii) Size 25 inch × 18 inch (630 mm × 450 mm) with two Nos tap	Do	197.00	201.00	204.00
	(iv) Size 25 inch × 18 inch (630 mm × 450 mm) with one No. tap	Do	190.00	194.00	197.00
		Do	8.40	8.50	8.60
30.11	Providin and fixing 1½ inch (32 mm) I/D. G. I. waste pipe embedded in wall or lead waste pipe [weighing 7 lbs per yard (3.47 kg per metre) and 0.111 inch (2.8 mm) thick] up to floor level, as required by the Engineer-in-charge, including cost of union and wiped solder joint, etc.				
(C) SINKS					
30.12	Providing and fixing in position best Indian Manufacture sinks consisting of :				
	(i) R.C.C. sink in mosaic size as given below :—				
	(ii) R. S. or C.I. Erackets for building into wall for sink including painting				
	(iii) 1½ inch (40 mm) C.P. brass waste with C.P. brass chain and rubber plug;				
	All fittings best Indian make and to the approval of the Engineer-in-charge				
	All brass work chromium plated complete in all respects including cutting and making good the walls and floors and painting of fittings, etc., complete:				
	(a) Size 30 inch × 18 inch × 8 inch (750 mm × 450 mm × 200 mm)	Do	74.00	78.00	80.00
	(b) Size 24 inch × 18 inch × 8 inch (600 mm × 450 mm × 200 mm)	Do	66.00	70.00	72.00
30.13	Providing and Fixing in position Eest Quality Stainless Steel sinks consisting of :				
	(i) Stainless steel sirks size as given below				
	(ii) R. S. or C. I. Erackets for building into walls for sinks including painting				
	(iii) 1½ inch (40 mm) C. P. brass Waste with C. P. Brass Chain and Rubber Plug.				
	All fitting best Indian make and to the approval of Engineer-in-charge. All brass work chromium plated complete in all respects including cutting and making good the walls and floors and painting of fittings, etc., complete.				
	(a) 24 inch × 18 inch × 8 inch (600 mm × 450 mm × 200 mm)	Do	377.00	381.00	383.00
	(ii) 21 inch × 18 inch × 7 inch (530 mm × 450 mm × 175 mm)	Do	234.00	238.00	240.00

Serial No.	Unit	RATE			
		Plain	Hilly Region		
			Kangra and Dalhousie	Kulu, Simla, Mandi	
(C) SINKS— <i>concl'd</i>		Rs.	Rs.	Rs.	
30.14	Providing and fixing 1½ inch (40 mm) I/D.I.G. Waste pipe Embedded in walls or lead waste pipe weighing 9 lbs. per yd. (4.46 kg. per metre) and 0.12 inch (3.0 mm) thick up to Floor Level as required by the Engineer-in-charge including cost of union and Plumber Joint	Each	11.00	11.00	11.00
30.15	Providing and Fixing in Position well seasoned teakwood draining Boards with skirting and beadings, Iron Brackets for buildings in to wall including Painting and cutting and making good the walls, etc. :				
	(a) Size 30 inch×18 inch×1½ inch (750 mm×450 mm×40 mm) thick	Do	23.50	25.00	26.00
	(b) Size 24 inch×18 inch×1½ inch (600 mm×450 mm×40 mm) thick	Do	22.00	24.00	25.00
30.16	Providing and Fixing in position best quality stainless steel draining board with iron brackets for building into wall including painting cutting and making good the walls etc. 24 inch×18 inch (600 mm×450 mm)	Do	166.00	168.00	170.00
30.17	Providing and fixing in position best quality stainless steel sink of size 24 inch×18 inch×7 inch (530 mm×450 mm×175 mm) Built in draining Board of size 24 inch×18 inch (600 mm×450 mm) complete as described in item 30.13 and 30.16 above.	Do	475.00	481.00	484.00
30.18	Providing and fixing in position best Indian make Bombay Potteries, Parry's or of other Indian Reputed Manufacture laboratory sinks (to the approval of the Engineer-in-charge)				
	(i) Sink in white Glazed with or without ½ inch (15 mm) rim projection around; Outlet 2½ inch×2 inch (65 mm×50 mm) and with or without combined open weir over flow centre at end complete with.				
	(ii) 1½ inch (32 mm) Acid Proof Lead Waste and loose grating in outlet, etc.;				
	(iii) Pair of Clamps of 1 inch×½ inch (25 mm×3 mm) thick iron complete in all respect including cutting and making good the walls or tables etc.;				
	(a) Size 24 inch×18 inch×8 inch (600 mm×450 mm×200 mm)	Each	111.00	115.00	117.00
	(b) Size 18 inch×12 inch×8 inch (450 mm×300 mm×200 mm).	Do	98.00	102.00	104.00
	(c) Size 16 inch×11 inch×6 inch (400 mm×280 mm×150 mm).	Do	91.00	95.00	97.00
	(d) Size 13 inch×11 inch×6 inch (330 mm×280 mm×150 mm).	Do	85.00	89.00	91.00
30.19	Providing and Fixing 1½ inch (40 mm) I/D Chromium Plated Tap with Chromium Plated pipe to wall with wall flange complete as per requirement of the Engineer-in charge for use with sinks :				
	(a) With bottle trap (Indian make)	Do	17.50	18.00	18.50
	(b) With 'P' or 'S' trap (Indian make)	Do	9.70	10.00	10.00
30.20	Providing and Fixing in position best quality drinking fountain consisting of :				
	½ inch (15 mm) self-closing non-concussive inlet valve; with regulating Device waste coupling with flush grating. Bottle trap with 1½ inch (32 mm) seal inlet coupling nut secured and including cuttings and making good the walls and floors, etc. with 1½ inch (32 mm) lead waste pipe up to floor level :				
	(a) C. Plated fountain	Do	264.00	269.00	272.00
	(b) Italian Vetreous China fountain.	Do	338.00	343.00	346.00
	(c) English shanks C. I. porcelain enameled.	Do	453.00	458.00	461.00
(D) URINALS (LIP TYPE)					
30.21	(a) Providing and Fixing in position best Indian make Bombay Potteries, Parry's or of other equally Good Indian Manufacture Flat Back or Angular Lipped front urinal 18 inch (450 mm) High consisting of :				
	(i) Flat back lipped or angular urinals basin white Glazed Earthen ware (to the approval of the Engineer-in-Charge).				

Serial No.	Description	Unit	RATE		
			Hilly Region		
			Plains	Kangra and Dalhousie	Kulu, Simla, Mandi
	(D) URINALS (LIP TYPE)— <i>oncid</i>		Rs	Rs	Rs
30.21— <i>concid.</i>	(ii) 1-Gallon (5-litres) Capacity mosquito proof Indian make C.I. Automatic Flushing Cistern Painted with non-yellowing white enamel paint or other approved shade enamel paint on outside and superior black bitumastic paint on inside complete with inlet screwed 1/2 inch B. S. pipe make or 15 mm I.S.S. pipe make,				
	(iii) Pair of R.S. or C.I. Painted Brackets ; and Brass Couplings				
	(iv) Standard size galvanised Steel Flush Pipe with C.P. Brass wall clips and unions				
	Complete including cutting and making Good the walls and Floor and Painting of fittings, etc., as required by the Engineer-in-charge	Each	102.00	106.00	108.00
	(b) Extra over and above item No. 30.21 for Providing and fixing per set, Lead 'P' trap and 1 1/4 inch (32 mm) lead waste Pipe weighing 7 lbs./yard (3.47 kg. per metre) and 0.111 inch (2.8 mm) thick up to floor level and Plumber Joint	Per set	12.50	13.00	13.50
30.22	Extra for providing marble Backs and Partitions in the different range of urinals :				
	(a) For range of two urinals ..	Each	219.00	223.00	225.00
	(b) For range of three urinals ..	Do	315.00	321.00	325.00
	(c) For range of four urinals ..	Do	412.00	420.00	425.00
30.23	Providing and fixing in position best India Manufacture a range of two urinals (flat back) of white glazed earthen ware with one Gallon (5 litres) capacity best Indian make C.I. Automatic Flushing Cistern with fitting and flush pipe complete as fully described in item No. 30.21 above	Per set	160.00	166.00	169.00
30.24	Providing and fixing in position best Indian Manufacture a range of three urinals (flat back) of white Glazed Earthenware with one No. two Gallons (10 litres) capacity best Indian make C.I. Automatic Flushing Cistern with Fittings and flush pipe etc., complete as fully described in item No. 30.21 above	Per set	228.00	235.00	240.00
30.25	Providing and fixing in position Indian manufacture a range of four urinals (flat back) of white glazed earthenware with two No. one Gallon (5 litres) Capacity best Indian make C.I. Automatic Flushing Cistern with Fittings and flush pipe, etc. complete as fully described in item No. 30.21	Per set	313.00	324.00	329.00
30.26	Providing and fixing in position best Indian manufacture flat back or angular urinals in white glazed earthenware complete as fully described in item Nos. 30.21 to 30.25 above but with standard size of best Indian make C.P. Flush pipe with spreader instead of G.I. Flush pipe and spreaders :				
	(a) Single Urinal ..	Each set	111.00	115.00	117.00
	(b) Range of two urinals ..	Ditto	179.00	184.00	188.00
	(c) Range of three urinals ..	Ditto	256.00	263.00	266.00
	(d) Range of four urinals ..	Ditto	350.00	360.00	366.00
	(E) TOILET REQUISITES				
30.27	Providing and fixing in position C.P. Rose showers with 1/2 inch or 3/4 inch (15 mm or 20 mm) I/D Inlet :				
	(a) 6 inch (150 mm) diameter rose shower ..	Each	4.90	5.10	5.20
	(b) 5 inch (125 mm) diameter rose shower ..	Do	3.75	3.95	4.10
	(c) 4 inch (100 mm) diameter rose shower ..	Do	2.60	2.80	2.95
30.28	Providing and fixing in position best Indian make C.P. Toilet paper Holders fixed with C.P. brass screws and rawl plugs fixed into wall with C.P. brass screws complete in all respects, including cutting and making good the walls, etc. :				
	(a) Chromium plated ..	Each	4.75	5.00	5.20
	(b) Earthenware ..	Do	11.00	11.50	11.50

Serial No.	Description	Unit	RATE		
			Hilly Region		
			Plains	Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs	Rs	Rs
30.29	Providing and fixing in position best Indian make towel Rails of Chromium plated Brass Pipe with two C. P. Brass Brackets fixed in with Rawl plugs embedded in walls with C.P. brass screws, complete in all resp.cts including cutting and making good the walls, etc.—				
	(a) 1 inch (25 mm) i/d brass C.P. pipe				
	(i) 30 inch (750 mm) long 1 inch (25 mm) diameter	Each	14.00	14.50	14.50
	(ii) 24 inch (600 mm) long 1 inch (25 mm) diameter	Do	12.00	12.50	13.00
	(b) 3/4 inch (20 mm) i/d brass C. P. pipe.:				
	(i) 30 inch (750 mm) long 3/4 inch (20 mm) diameter	Do	13.00	13.00	13.50
	(ii) 24 inch (600 mm) long 3/4 inch (20 mm) diameter	Do	11.00	11.50	11.50
30.30	Providing and fixing in position Glass shelf with C.P. Brass Brackets and Guard Rails, etc. fixed in with rawl plugs with C.P. brass screws complete including cutting and making good the walls, etc.:				
	(a) Size 24 inch × 5 inch (600mm × 125 mm) ..	Do	16.00	16.50	17.00
	(b) Size 21 inch × 5 inch (530 mm × 125 mm) ..	Do	14.00	14.50	14.50
30.31	Providing and fixing in position best Indian make Soap dish in white ware fixed into wall with C.P. Brass screws and complete in all respects including cutting and making good the wall, etc.	Do	6.50	6.80	7.10
30.32	Providing and fixing in position Bevelled Edge mirror mounted on Asbestos sheet ground fixed in position by means of 4 Nos. Chromium Plated Brass screws and washers over Rubber washers and rawl plug embedded in the wall or chromium Plated brass clamps with C. P. Brass screws or as required by the Engineer-in-charge complete including cutting and making good the walls, etc. :—				
	(a) Belgium Make:				
	(i) 24 inch × 18 inch (600 mm × 450 mm) ..	Do	59.00	60.00	60.00
	(ii) 22 inch × 16 inch (550 mm × 400 mm) ..	Do	49.50	50.00	50.00
	(b) indian Make:				
	(i) 24 inch × 18 inch (600 mm × 450 mm) ..	Do	29.50	30.50	31.00
	(ii) 22 inch × 16 inch (550mm × 400 mm) ..	Do	25.50	26.50	26.50
30.33	Providing and fixing in position adjustable towel Rail of approved Indian make equivalent to shanks manufacture No. 631-A of C.P. Brass Pipe 5/8 inch (15 mm) diameter 16 inch (400 mm) long with two arms fixed in with rawl plugs with screws embedded in walls complete including cutting and making good the walls, etc.	Do	16.00	16.50	17.00
30.34	Providing and fixing in position oxidized gas taps to the approval of the Engineer-in-charge complete in all respects:				
	(a) One way ..	Do	5.80	5.90	6.10
	(b) Two way ..	Do	7.00	7.20	7.40
	(c) Three way ..	Do	8.80	9.10	9.40
	(d) Four way ..	Do	10.00	10.50	10.50
30.35	Providing and fixing in position best Indian make C. P. Coat and Hat Hooks (similar in shape to shanks No. 8034) fixed into wall with C. P. brass screws and rawl plugs, etc., complete including cutting and making good the walls, etc.	Do	2.90	3.00	3.10

Serial No.	Description	Unit	RATE		
			Hilly Region		
			Plains	Kangra and Dalhousie	Kulu, Simla, mandi
			Rs	Rs	Rs
HEAVY CAST IRON PIPES AND SPECIALS					
30.36	Providing and fixing in position H.C.I. Soil, waste, vent or anti-syphonage pipes to P. S. S. or I. S. I. specification of E.L.C. Manufacture or of any other reputed firm including cutting and wastage, etc., and cutting holes in walls, roofs or floor etc., and making good to it original condition but excluding cost of lead jointing				
	(a) 4 inch (100 mm) i/d	m	13.45	13.80	14.25
	(b) 3 inch (75 mm) i/d	.. Ditto	11.00	11.30	11.65
	(c) 2 inch (50 mm) i/d	.. Ditto	8.85	9.20	9.35
30.37	Providing and fixing in position H.C.I. Specials for Soil, Waste, vent or Anti-syphonage Pipes to B.S.S. or I.S.I. Specification of E.L.C. Manufacture or any other reputed firm including cutting and wastage, etc., and Cutting Holes in Walls, Roofs or Floors etc. and making good to its original conditions but excluding cost of Lead Jointing:				
	(a) For 4 inch (100 mm) i/d pipe:—				
	(i) Heal rest bend	.. Each	8.00	8.50	8.90
	(ii) Double junction with door 4 inch × 4 inch × 4 inch × 4 inch (100 × 100 × 100 × 100 mm)	Do	16.50	17.50	18.00
	(iii) Pass over pipe	.. Do	8.80	9.40	10.00
	(iv) Single junction with door 4" × 4" × 4" (100 × 100 × 100 mm)	Do	15.00	15.50	16.50
	(v) Double junction plain 4" × 4" × 4" × 4" (100 × 100 × 100 × 100 mm)	Do	12.50	13.00	14.00
	(vi) Single junction plain 4" × 4" × 4" (100 × 100 × 100 mm)	Do	10.50	11.00	11.50
	(vii) Single junction with door 4" × 4" × 2" (100 × 100 × 50 mm)	Do	11.00	11.50	12.50
	(viii) Double junction with door 4" × 4" × 2" × 2" (100 × 100 × 50 × 50 mm)	Do	15.00	15.50	16.50
	(ix) Single junction plain 4" × 4" × 2" (100 × 100 × 50 mm)	Do	10.50	11.00	11.50
	(x) Double junction plain 4" × 4" × 2" × 2" (100 × 100 × 50 × 50 mm)	Do	12.50	13.00	14.00
	(xi) Double invert junction 4" × 4" × 2" × 2" (100 × 100 × 50 × 50 mm)	Do	17.50	18.00	18.00
	(xii) Single invert junction 4" × 4" × 2" (100 × 100 × 50 mm)	Do	13.50	14.00	14.50
	(xiii) Bend with door	.. Do	10.50	11.50	11.50
	(xiv) Bend Plain	.. Do	6.40	6.90	7.40
	(xv) Terminal Guard	.. Do	6.30	6.40	6.50
	(xvi) Cowls	.. Do	7.80	8.10	8.30
	(xvii) Door piece	.. Do	7.20	7.30	7.40
	(xviii) Hand hole pipe	.. Do	12.50	12.50	12.50
	(xix) Diminishing pipe piece	.. Do	6.00	6.20	6.40
	(xx) P or S trap with vent	.. Do	13.00	13.50	14.00
	(xxi) P or S trap without vent	.. Do	11.50	12.00	12.50
	(xxii) Collars	.. Do	4.10	4.50	4.80
	(xxiii) Off-sets:				
	2½ inch (65 mm) projection	.. Do	6.00	6.60	7.20
	3 inch (75 mm) projection	.. Do	7.20	7.80	8.40
	4½ inch (115 mm) projection	.. Do	9.30	10.00	10.50
	6 inch (150 mm) projection	.. Do	9.30	10.00	10.50
	9 inch (225 mm) projection	.. Do	11.00	12.00	13.00
	12 inch (300 mm) projection	.. Do	12.50	13.50	14.00

Serial No.	Description	Unit	RATE		
			Hilly Region		
			Plains	Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs.	Rs.	Rs.
33-37—(b) For 3 inch (75 mm) i/d pipes—					
<i>Contd</i>					
	(i) Heel rest bend	Each	5.80	6.20	6.50
	(ii) Pass over pipe	Do	8.40	9.00	9.60
	(iii) Double junction with door 3" × 3" × 3" × 3" (75 × 75 × 75 × 75 mm)	Do	15.50	16.50	17.00
	(iv) Single junction with door 3" × 3" × 3" (75 × 75 × 75 mm)	Do	12.00	12.50	13.50
	(v) Double junction with door 3" × 3" × 3" × 3" (75 × 75 × 75 × 75 mm)	Do	12.00	12.50	13.00
	(vi) Single junction plain 3" × 3" × 3" (75 × 75 × 75 mm)	Do	7.80	8.30	8.80
	(vii) Single junction with door 3" × 3" × 2" (75 × 75 × 50 mm)	Do	8.20	8.80	9.30
	(viii) Double junction with door 3" × 3" × 2" × 2" (75 × 75 × 50 × 50 mm)	Do	12.00	12.50	13.50
	(ix) Single junction plain 3" × 3" × 2" (75 × 75 × 50 mm)	Do	7.80	8.30	8.80
	(x) Double junction plain 3" × 3" × 2" × 2" (75 × 75 × 50 × 50 mm)	Do	12.00	12.50	13.00
	(xi) Single invert junction 3" × 3" × 2" (75 × 75 × 50 mm)	Do	13.00	13.50	13.50
	(xii) Double invert junction 3" × 3" × 2" × 2" (75 × 75 × 50 × 50 mm)	Do	16.00	16.50	17.00
	(xiii) Bend with door	Do	8.90	9.40	9.90
	(xiv) Bend plain	Do	5.00	5.40	5.80
	(xv) Terminal guard	Do	4.00	4.10	4.15
	(xvi) Door piece	Do	6.00	6.10	6.20
	(xvii) Cows	Do	6.70	7.00	7.20
	(xviii) Collars	Do	3.35	3.65	3.95
	(xix) Hand hole pipe	Do	10.00	10.50	10.50
	(xx) Diminishing pipe piece	Do	4.45	4.65	4.80
	(xxi) P or S trap with vent	Do	10.50	11.00	11.00
	(xxii) P or S trap without vent	Do	9.00	9.40	9.70
	(xxiii) Offset 2½ inch (65 mm) projection	Do	4.50	4.85	5.10
	3 inch (75 mm) projection	Do	5.40	5.80	6.10
	4½ inch (115 mm) projection	Do	7.00	7.40	7.80
	6 inch (150 mm) projection	Do	7.10	7.70	8.30
	9 inch (225 mm) projection	Do	8.20	8.80	9.40
	12 inch (300 mm) projection	Do	9.70	10.50	11.00
(c) For 2 inch (50 mm) internal diameter pipes—					
	(i) Heel rest bend	Do	4.35	4.60	4.85
	(ii) Pass over pipe	Do	7.40	7.90	8.40
	(iii) Double junction with door 2 inch × 2 inch × 2 inch × 2 inch (50 × 50 × 50 × 50 mm)	Do	10.50	11.00	11.50
	(iv) Single junction with door 2 inch × 2 inch × 2 inch (50 × 50 × 50 mm)	Do	8.00	8.50	9.10
	(v) Double junction plain 2 inch × 2 inch × 2 inch × 2 inch (50 × 50 × 50 × 50 mm)	Do	7.50	8.00	8.50
	(vi) Single junction plain 2 inch × 2 inch × 2 inch (50 × 50 × 50 mm)	Do	5.00	5.50	5.80
	(vii) Single invert junction with door	Do	11.00	11.00	11.00
	(viii) Double invert junction with door	Do	13.50	14.00	14.00
	(ix) Bend with door	Do	6.90	7.30	7.60

Serial No.	Description	Unit	RATE		
			Plains	Hilly Region	
				Kangra and Dalhousie	Kulu, Simla, Mandi
30.37	(c) For 2 inch (50mm) internal diameter pipes— <i>Concl'd</i>		Rs.	Rs.	Rs.
<i>Concl'd.</i>	(x) Bend plain	Each	3.90	4.15	4.35
	(xi) Terminal guard	.. Do	3.20	3.30	3.35
	(xii) Collars	.. Do	2.50	2.70	2.85
	(xiii) Cowls	.. Do	3.95	4.10	4.20
	(xiv) Hand hole pipe	.. Do	7.80	8.00	8.00
	(xv) Do. r piece	.. Do	4.20	4.30	4.40
	(xvi) P or S trap without vent	.. Do	6.50	6.80	7.10
	(xvii) P or S trap with vent	.. Do	8.00	8.30	8.60
	(xviii) Off sett 2½ inch (65 mm) projection	.. Do	3.35	3.65	3.85
	3 inch (75 mm) projection	.. Do	3.90	4.15	4.40
	4 inch (115 mm) projection	.. Do	4.45	4.75	5.10
	6 inch (150 mm) projection	.. Do	4.65	4.95	5.20
	9 inch (225 mm) projection	.. Do	5.80	6.20	6.50
	12 inch (300 mm) projection	.. Do	6.80	7.20	7.50
30.38	Providing lead caulked joints to H. C. I. pipes and specials conforming to B. S. S. or I. S. I. specifications of E. L. C. manufacture or any other reputed firm, including cost of lead, yarn, fuel and tools, etc				
	(a) 4 inch (100 mm) internal diameter (3.00 lb or 1.36 kg)	Do	3.95	4.10	4.15
	(b) 3 inch (75 mm) internal diameter (2.50 lb or 1.13 kg)	Do	3.35	3.50	3.55
	(c) 2 inch (50 mm) internal diameter (2.00 lb or 0.91 kg)	Do	2.70	2.85	2.90
	<i>Note.</i> —The cost of lead and yarn in item No. 30.38 above will be supplied Ex-Divisional Stores or F.O.R. nearest Railway Station at the stock issue rate inforce.				
30.39	Providing and fixing in position M. S. or heavy flat iron clamps of the approved design for fixing C.I. soil,waste vent or anti-syphonage pipes to walls complete in all respects including cutting and making good the walls and floors etc., and painting.				
	(a) For 4 inch (100 mm) internal diameter pipes	Do	1.80	1.90	2.00
	(b) For 3 inch (75 mm) internal diameter pipes	Do	1.65	1.80	1.85
	(c) For 2 inch (50 mm) internal diameter pipes	Do	1.65	1.80	1.85
30.40	Providing and Fixing in position H. C. I. floor traps conforming to B. S. S. or I. S. I. specifications of E. L. C. Manufacture or any other reputed firm of the self cleansing design with C.P. brass hinged grating with frame with or without vent arm and including cement concrete 1:2:4 under and around the floor trap where required upto floor level complete in all respects including cutting and making good walls and floors etc. minimum depth of water should be 6 inches (150 mm) with a minimum seal of 2 inches (50mm)				
	With 2 inch (50 mm) internal diameter outlet	Do	23.00	24.00	24.50
30.41	Providing and fixing in position H. C. I. 2 inch (50 mm) internal diameter outlet plain nahani trap conforming to B. S. S. or I. S. I. specifications of E. L. C. manufacture or any other reputed firm of self cleansing design with C. P. brass hinged grating with frame weighing 15 lbs (6.80 kg) each fixed complete as fully described in item No.30.40 above	Do	17.00	18.50	19.50
30.42	Providing and fixing in position H. C. I. 3 inch (75 mm) internal diameter outlet plain nahani trap conforming to B. S. S. or I. S. I. specifications of E. L. C. manufacture or any other reputed firm of the self cleansing design with C. P. Brass hinged grating with frame weighing 18 lbs (8.17 kg) each, fixed complete as fully described in item No. 30.40 above	Do	21.50	23.00	24.00

Serial No.	Description	Unit	RATE		
			Plains	Hilly Region	
				Kangra and Dalhousie	Kulu Simla, Mandi
30.43	Providing and fixing in position 4 inch (100 mm) internal diameter H. C. I. water closet connectors (plain)		Rs.	Rs.	Rs.
	(a) 6 inch (150 mm) long	Each	2.45	2.70	2.90
	(b) 9 inch (225 mm) long	Do	3.15	3.40	3.60
	(c) 12 inch (300 mm) long	Do	3.60	3.90	4.20
	(d) 15 inch (375 mm) long or 16 inch (400 mm) long	Do	4.40	4.75	5.00
	(e) 17 inch (425 mm) long or 18 inch (450 mm) long	Do	5.00	5.30	5.60
	(f) 20 inch (500 mm) long or 21 inch (55 mm) long	Do	6.10	6.50	6.70
	(g) 24 inch (600 mm) long	Do	7.10	7.60	8.10
	(h) 30 inch (750 mm) long	Do	7.90	8.50	9.00
	<u>Lead pipe and fittings</u>				
	<u>Lead Pipes</u>				
30.44	Providing and fixing lead pipes complete in all respects—				
	(a) 4 inch (100 mm) internal diameter weighing 22.8 lbs per yard (11.31 kg per metre) thickness 0.1191 inch (3.0 mm)	m	39.35	39.35	41.00
	(b) 3 inch (75 mm) internal diameter weighing 17.1 lbs per yard (8.48 kg. per metre) thickness 0.118 inch (3.0 mm)	Do	29.20	29.85	30.20
	(c) 2 inch (50 mm) internal diameter weighing 12 lbs. per yard (5.95 kg per metre) thickness 0.122 inch (3.1 mm)	Do	20.35	21.00	21.35
	(d) 1½ inch (40 mm) internal diameter weighing 9 lbs. per yard (4.46 kg per metre) thickness 0.120 inch (3.0 mm)	Do	11.65	12.00	12.30
	(e) 1¼ inch (32 mm) internal diameter weighing 7 lbs. per yard (3.47 kg. per metre) thickness 0.111 inch (2.8 mm)	Do	9.20	9.35	9.70
	(f) 1½ inch (32 mm) internal diameter weighing 16 lbs. per yard (7.94 kg per metre) thickness 0.233 inch (5.9 mm)	Do	20.00	20.35	21.00
	(g) One inch (25 mm) internal diameter weighing 12.5 lbs per yard (6.20 kg per metre) thickness 0.221 inch (5.6 mm)	Do	15.60	16.10	16.40
	(h) ¾ inch (20 mm) internal diameter weighing 9 lbs per yard (4.46 kg per metre) thickness 0.204 inch (5.2 mm)	Do	11.50	11.80	12.30
	(i) ½ inch (15 mm) internal diameter weighing 7 lbs. per yard (3.47 kg per metre) thickness 0.212 inch (5.4 mm)	Do	8.85	9.00	9.20
30.45	Providing and fixing lead inlet connection with brass union for flushing and warning pipes complete in all respects—				
	(a) ¾ inch (15 mm) lead pipe 3 lbs per yard (1.49 kg per metre) thickness 0.107 inch (2.7 mm)	Each	2.50	2.65	2.75
	(b) ½ inch (20 mm) lead pipe 5 lbs, per yard (2.48 kg per metre) thickness 0.124 inch (3.2 mm)	Do	4.70	4.95	5.10
	<u>Wiped Solder Joints</u>				
30.46	Providing wiped solder joints lead pipes and brass fittings including cost of jointing materials—				
	(a) 4 inch (100 mm) internal diameter	Do	8.30	8.80	8.90
	(b) 3 inch (75 mm) internal diameter	Do	6.70	7.00	7.10
	(c) 2 inch (50 mm) internal diameter	Do	4.95	5.20	5.30
	(d) 1½ inch (40 mm) internal diameter	Do	3.55	3.75	3.85
	(e) 1¼ inch (32 mm) internal diameter	Do	2.85	3.00	3.05
	(f) One inch (25 mm) internal diameter	Do	2.50	2.65	2.70
	<u>Brass Sockets, Brass Thimbles or Ferrules</u>				
30.47	Providing and fixing 4 inch (100 mm) brass socket	Do	7.90	8.20	8.40

Serial No.	Description	Unit	RATE		
			Plains	Hilly Region.	
				Kangra and Dalhousie	Kulu, Simla, Mandi
Rs.	Rs.	Rs.			
30.48	Providing and fixing 4 inch (100 mm) brass thimble or ferrule	Each	14.00	14.50	14.50
30.49	Providing and fixing 3 inch (75 mm) brass socket ..	Do	6.70	6.90	7.20
30.50	Providing and fixing 3 inch (75 mm) brass thimble or ferrule	Do	9.60	9.80	9.90
30.51	Providing and fixing 2 inch (50 mm) brass socket ..	Do	5.50	5.70	5.80
30.52	Providing and fixing 2 inch (50 mm) brass thimble or ferrule	Do	9.50	9.60	9.70
Internal Water-Supply					
30.53	Providing and fixing in position automatic brass ball valves in tanks—				
	(a) ½ inch (15 mm) internal diameter ..	Each	4.60	5.20	5.70
	(b) ¾ inch (20 mm) internal diameter ..	Do	5.80	6.30	6.80
	(c) One inch (25 mm) internal diameter ..	Do	7.40	8.30	9.10
	(d) 1½ inch (32 mm) internal diameter ..	Do	16.00	17.00	17.50
	(e) 1¾ inch (40 mm) internal diameter ..	Do	30.50	31.00	32.00
	(f) 2 inch (50 mm) internal diameter ..	Do	43.00	44.00	44.50
30.54	Labour only for fixing in position mild steel storage tank (to be supplied by the Engineer-in-charge Ex P.H.Stores) including hoisting, etc., and carriage from store to site of work complete with providing and fixing ½ inch or ¾ inch (15 mm or 20 mm) internal diameter flanges for inlet and outlet, one inch (25 mm) for overflow and 1½ inches (40 mm) for scour pipe including one inch (25 mm) brass perforated mosquito proof cap for overflow and plug for scour pipe and labour for making pipe connections and small masonry supports on the top of the roof where these tanks are to be fixed complete in all respects including cutting and making good the walls and floors, etc.				
	(a) Tanks made out of 1/8 inch (3.15 mm) thick plates—				
	(i) 40 gallons (180 litres) capacity (2 ft. x 2 ft. x 2 ft.) (60 cm x 60 cm x 60 cm)	Each	23.50	26.50	31.00
	(ii) 60 gallons (275 litres) capacity (3 ft. x 2 ft. x 2 ft.) (90 cm x 60 cm x 60 cm)	Do	23.50	26.50	31.50
	(iii) 75 gallons (340 litres) capacity (4 ft. x 2 ft. x 2 ft.) (120 cm x 60 cm x 60 cm)	Do	24.50	28.00	32.50
	(iv) 110 gallons (500 litres) capacity (4 ft. x 3 ft. x 2 ft.) (120 cm x 90 cm x 60 cm)	Do	25.50	29.00	34.00
	(b) Tanks made out of 3/16 inch (5.0 mm) thick plates with 1½ inch x 1½ inch (40 mm x 40 mm) angle iron frame—				
	(i) 150 gallons (680 litres) capacity (4 ft. x 4 ft. x 2 ft.) (120 cm x 120 cm x 60 cm)	Do	26.50	30.00	35.00
	(ii) 200 gallons (910 litres) capacity (4 ft. x 4 ft. x 2½ ft.) (120 cm x 120 cm x 75 cm)	Do	27.00	31.50	36.00
	(iii) 250 gallons (1140 litres) capacity (4 ft. x 4 ft. x 3 ft.) (120 cm x 120 cm x 90 cm)	Do	27.50	32.00	37.50
30.55	Labour only for fixing in position pressed steel storage tanks capacity as given below (to be supplied by the Department ex P.H. store in unassembled conditions) including carriage from store to site of works, hoisting and placing the tanks in position assembling, making inlet outlet, scour, and overflow connections including providing and fixing in position brass perforated cap for overflow and plug for scour pipe and small masonry supports on the top of the roof where these tanks are to be fixed complete in all respects including cutting and making good the walls and floors, etc.—				
	(a) 400 gallons (1800 litres) capacity (4 ft. x 4 ft. x 4 ft.) (120 cm x 120 cm x 120 cm)	Each	36.00	44.00	55.00
	(b) 800 gallons (3600 litres) capacity (8 ft. x 4 ft. x 4 ft.) (240 cm x 120 cm x 120 cm)	Do	46.50	55.00	66.00

Serial No.	Description	Unit	RATE		
			Plains	Hilly Region	
				Kangra and Dalhousie	Kulu, Simla Mandi
			Rs.	Rs.	Rs.
30.55— concl'd	(c) 1200 gallons (5400 litres) capacity (12 ft. x 4 ft. x 4 ft.) (360 cm x 120 cm x 120 cm)	Each	60.00	72.00	85.00
	(d) 1600 gallons (7200 litres) capacity (16 ft. x 4 ft. x 4 ft.) (480 cm x 120 cm x 120 cm) or (8ft. x 8 ft. x 4 ft.) (240 cm x 240 cm x 120 cm)	Do	71.00	84.00	97.00
30.56	Cutting chase in brick walls in cement or in floor for embedding G. I. or H. C. I. pipe lines and making good the same to its original condition.				
	(a) Size 3 inch x 3 inch (75 mm x 75 mm)	.. m	1.20	1.30	1.30
	(b) Size 6 inch x 6 inch (150 mm x 150 mm)	.. Do	1.95	2.15	2.30
	(c) Size 3 inch x 2 inch (75 mm x 50 mm)	.. Do	0.90	1.00	1.00
	(d) Size 9 inch x 9 inch (225 mm x 225 mm)	.. Do	3.10	3.45	3.60
30.57	Dismantling H. C. I. soil pipes—				
	(a) 4 inch (100 mm) internal diameter	.. m	0.20	0.20	0.23
	(b) 3 inch (75 mm) internal diameter	.. Do	0.16	0.20	0.20
	(c) 2 inch (50 mm) internal diameter	.. Do	0.13	0.16	0.16
30.58	Labour for dismantling H. C. I. specials—				
	(a) 4 inch (100 mm) internal diameter	.. Each	0.09	0.11	0.11
	(b) 3 inch (75 mm) internal diameter	.. Do	0.08	0.09	0.09
	(c) 2 inch (50 mm) internal diameter	.. Do	0.06	0.07	0.07
30.59	Dismantling lead caulked joints of H. C. I. pipes including cost of fuel and tools—				
	(a) 4 inch (100 mm) internal diameter	.. Each	0.55	0.65	0.70
	(b) 3 inch (75 mm) internal diameter	.. Do	0.50	0.60	0.65
	(c) 2 inch (50 mm) internal diameter	.. Do	0.31	0.36	0.40
30.60	Dismantling heavy flat iron clamps—				
	(a) 4 inch (100 mm) internal diameter	.. Each	0.70	0.80	0.80
	(b) 3 inch (75 mm) internal diameter	.. Do	0.50	0.60	0.60
	(c) 2 inch (50 mm) internal diameter	.. Do	0.40	0.45	0.47
	Drainage				
30.61	Providing and fixing in position gully traps fixed in cement concrete 1:4:8 complete with H. C. I. Grating 6 inch x 6 inch (150 mm x 150 mm) cast iron cover weighing approximately 16 lbs (7.26 kg) and frame clear opening 12 inch x 12 inch (300 mm x 300 mm) and outside size 13 inch x 13 inch (330 mm x 330 mm) and chamber including cost of all brickwork in cement mortar 1:5 cement concrete 1:8:16 in foundations, and C. C. 1:2:4 in coping around C.I. cover and frame, etc. with 3 coats of black bitumastic superior paint of approved manufacture on all C.I. work as per standard design.				
	Minimum depth of water should be 6 inch (150 mm) with a minimum seal 2 inches (50 mm) :—				
	(a) 4 inch (100 mm) internal diameter S. W. Gully trap	Each	21.50	23.00	27.50
	(b) 4 inch (100 mm) internal diameter H. C. I. Gully trap	Do	24.50	26.00	30.50
	(c) 6 inch (150 mm) internal diameter S. W. Gully trap	Do	26.00	27.50	32.50
	(d) 6 inch (150 mm) internal diameter H. C. I. Gully trap	Do	29.50	31.50	36.50
30.62	Constructing brick masonry inspection chamber sizes as given below upto 2 feet (0.60 m) average depth in cement mortar 1:5 lime concrete with 40 percent lime mortar 2:3 in foundation C.C. 1:2:4 Benching ½ inch (12.50 mm) thick cement plaster 1:2 with a floating coat of 1/32 inch (1 mm) thick of neat cement R. C. C. 1:2:4 slab 4 inch (100 mm) thick with 18 inch x 18 inch (450 mm x 450 mm) inside light pattern C. I. Manhole cover and frame weight not less than 1 cwt. (50kg) painted with 3 coats of black bitumastic superior paint complete as per standard design—				

Serial No.	Description	Unit	RATE		
			Plains	Hilly Region	
				Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs.	Rs.	Rs.
30.62 <i>concl'd</i>	(a) Size 18 inch x 18 inch (450 mm x 450 mm) inside	Each	59.00	63.00	77.00
	(b) Size 18 inch x 24 inch (450 mm x 600 mm) inside	Do	66.0	69.00	85.00
	(c) Size 24 inch x 36 inch (600 mm x 900 mm) inside..	Do	88.00	92.00	114.00
30.63	Extra per metre depth of manhole or inspection chamber—				
	(a) 18 inch x 18 inch (450 mm x 450 mm) inside	Per metre depth	27.55	32.80	54.15
	(b) 18 inch x 24 inch (450 mm x 600 mm) inside	Ditto	30.85	37.75	60.70
	(c) 24 inch x 36 inch (600 mm x 900 mm) inside ..	Ditto	41.00	49.20	80.40
	Miscellaneous items				
30.64	Providing and fixing in position chromium plated brass waste, rubber plug and C.P. brass chain complete in all respects—				
	(a) 1½ inch (32 mm) internal diameter—				
	(i) English make	.. Each	13.50	13.50	14.00
	(ii) Ger-man Make	.. Do	10.50	11.00	11.00
	(iii) Indian Make	.. Do	4.00	4.30	4.50
	(b) 1½ inch (4) mm internal diameter				
	(i) English make	.. Do	15.50	16.00	16.50
	(iii) German Make	.. Do	12.00	12.00	12.50
	(iii) Indian Make	.. Do	6.00	6.30	6.50
30.65	Providing and fixing in position ½ inch x 3 inch (15 mm x 75 mm) C. P. screw down pillar tap complete as per requirement of the Engineer in-charge for use with lavatory suites—				
	(a) English Make	.. Each	29.00	29.50	29.50
	(b) German Make	.. Do	30.50	30.50	34.50
	(c) Indian Make	.. Do	5.70	5.90	6.10
30.66	Providing and fixing in position C. I. cover and weighing approximately 16 lbs. (7.26 kg) and frames for gully trap chambers clear opening size 12 inch x 12 inch (300 mm x 300 mm) and outside size 13 inch x 13 inch (330 mm x 330 mm) including painting the exposed surfaces with 3 coats of black bit mastic superior paint of approved manufacture, etc.	.. Each	5.50	5.50	5.60
30.67	Providing and fixing in position H.C.I. grating 6 inch x 6 inch (150 mm x 150 mm) for gully traps including painting with black bitumastic superior paint of approved manufacture 3 coats.	Each	0.85	0.90	0.95
30.68	Painting H. C. I. soil waste and vent pipes and fittings with black bitumastic superior paint of approved manufacture one coat on old work—				
	(a) 4 inch (100 mm) internal diameter	.. m	0.13	0.16	0.16
	(b) 3 inch (75 mm) internal diameter	.. Do	0.13	0.13	0.13
	(c) 2 inch (50 mm) internal diameter	.. Do	0.10	0.10	0.10
30.69	Painting H. C. I. soil waste and vent pipes and fittings with black bitumastic superior paint of approved manufacture two coats on new work—				
	(a) 4 inch (100 mm) internal diameter	.. m	0.26	0.26	0.30
	(b) 3 inch (75 mm) internal diameter	.. Do	0.20	0.23	0.23
	(c) 2 inch (50 mm) internal diameter	.. Do	0.16	0.16	0.16

Serial No.	Description	Unit	RATE		
			Plains	Hilly Region	
				Kangra and Dalhousie	Kulu, Simla, Mandi
			Rs.	Rs.	Rs.
30.70	Painting H.C.I. soil waste pipes and fittings with ordinary quality synthetic enamel paint in all shades on old work one coat paint including rubbing down old paint—				
	(a) 4 inch (100 mm) internal diameter	.. m	0.16	0.20	0.20
	(b) 3 inch (75 mm) internal diameter	.. Do	0.13	0.16	0.16
	(c) 2 inch (50 mm) internal diameter	.. Do	0.10	0.10	0.13
30.71.	Painting H. C. I. soil waste vent pipes and fittings with ordinary quality synthetic enamel paint in all shades on existing or new work two coats paints, including cleaning, rubbing, etc.				
	(a) 4 inch (100 mm) Internal diameter	.. Do	0.33	0.36	0.36
	(b) 3 inch (75 mm) internal diameter	.. Do	0.26	0.30	0.30
	(c) 2 inch (50 mm) internal diameter	.. Do	0.20	0.20	0.23
30.72.	Painting H. C. I. waste vent pipes and fittings with superior quality synthetic enamel paint in all shades on old work one coat paint including rubbing down the old paint—				
	(a) 4 inch (100 mm) internal diameter	.. Do	0.26	0.26	0.30
	(b) 3 inch (75 mm) internal diameter	.. Do	0.23	0.23	0.23
	(c) 2 inch (50 mm) internal diameter	.. Do	0.16	0.16	0.16
30.73	Painting H. C. I. soil waste vent pipes and fittings with superior quality synthetic enamel paint in all shades on existing or new work two coats paints, including cleaning, rubbing, etc.				
	(a) 4 inch (100 mm) internal dia meter	.. Do	0.50	0.50	0.55
	(b) 3 inch (75 mm) internal diameter	.. Do	0.43	0.46	0.46
	(c) 2 inch (50 mm) internal diameter	.. Do	0.30	0.33	0.33

ANNEXURE

Weights of Reinforced concrete pipes (Hume pipes)

Serial No.	Internal diameter	Thickness	Standard length	Weight per foot length pipe	Weight per metre length pipe
1.	3 inch (80 mm)	1 inch (25 mm)	6 ft. (1.83 m)	14 lbs.	20.8 kg.
2.	4 inch (100 mm)	1 inch (25 mm)	6 ft. (1.83 m)	18 lbs.	26.8 kg
3.	5 inch (125 mm)	1 inch (25 mm)	6 ft. (1.83 m)	24 lbs.	35.7 kg.
4.	6 inch (150 mm)	1 inch (25 mm)	6 ft. (1.83 m)	25 lbs.	37.2 kg.
5.	8 inch (200 mm)	1 inch (25 mm)	6 ft. (1.83 m)	32 lbs.	47.6 kg
6.	9 inch (225 mm)	1 inch (25 mm)	6 ft. (1.83 m)	36 lbs.	53.6 kg
7.	10 inch (250 mm)	1½ inch (30 mm)	6 ft. (1.83 m)	42 lbs.	62.5 kg
8.	12 inch (300 mm)	1.3/16 inch (30 mm)	6 ft. or 8 ft. (1.83 or 2.44 m)	54 lbs.	80.4 kg
9.	15 inch (375 mm)	1½ inch (30 mm)	8 ft. (2.44 m)	71 lbs.	105.7 kg
10.	18 inch (450 mm)	1¾ inch (35 mm)	8 ft. (2.44 m)	95 lbs.	141.4 kg
11.	21 inch (525 mm)	1¾ inch (35 mm)	8 ft. (2.44 m)	108 lbs.	160.7 kg
12.	24 inch (600 mm)	1½ inch (40 mm)	8 ft. (2.44 m)	121 lbs.	180.0 kg
13.	27 inch (675 mm)	1½ inch (40 mm)	8 ft. (2.44 m)	158 lbs.	235.1 kg
14.	30 inch (750 mm)	1¾ inch (45 mm)	8 ft. (2.44 m)	180 lbs.	267.9 kg
15.	33 inch (825 mm)	1¾ inch (45 mm)	8 ft. (2.44 m)	211 lbs.	314.0 kg
16.	36 inch (900 mm)	2 inch (50 mm)	8 ft. (2.44 m)	248 lbs.	369.1 kg
17.	42 inch (1050 mm)	2¼ inch (55 mm)	8 ft. (2.44 m)	344 lbs.	511.9 kg
18.	45 inch (1125 mm)	2¾ inch (60 mm)	8 ft. (2.44 m)	400 lbs.	595.3 kg
19.	48 inch (1200 mm)	2½ inch (65 mm)	8 ft. (2.44 m)	455 lbs.	677.1 kg

The weights of pipes are approximate weights and these varies upto 2½ per cent.