

PUNJAB  
P. W. D.  
SPECIFICATIONS  
1963

(Reprint)



Second Edition—1980

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CHANDIGARH :

Printed by the Controller, Printing & Stationery Deptt., U.T. Chandigarh.

Price: Rupees— 72-50

## P R E F A C E

Hitherto all the branches of P.W.D. have been referring to separate books of Specifications which were either incomplete or out of date in many respects. The object of bringing out this hand book of P.W.D. Specifications is to provide complete, up-to-date and uniform specifications which will be applicable to all the branches of the Public Works Department in the State. This book is a supplement to the Common Schedule of Rates and describes in precise terms the intention behind each item of work as given in the Common Schedule of Rates. It supersedes all the books of Specifications previously in force in the various branches.

For the sake of clarity and easy reference, the serial numbers of the chapters have been made to correspond to the chapters in the Common Schedule of Rates.

The Specifications given in this book will serve as standard specifications which will supply to normal construction and maintenance works. For big projects and specialised works, the Chief Engineer concerned may issue separate specifications and separate Schedule of Rates for any or all items of work.

In case where new methods of construction have to be employed, the authority competent to give technical sanction shall lay down specifications for such items which shall be attached to the detailed estimate at the time of according technical sanction.

Where deviation and alterations from the Standard Specifications, as laid down in this book, are desired, specially drafted specification should be attached to the estimate and the suspension of the standard specifications made clear, the rates of such items of work as given in the Common Schedule of Rates being suitably amended. The authority to make any deviations or alterations, as suggested above, shall be the same as is competent to accord technical sanction to the detailed estimate.

Wherever a reference has been made to any Indian Standard issued by the Indian Standard Institution, it shall be taken as a reference to the latest version of the Standard. Wherever reference has been made to any standard other than the Indian

Standards, the same shall be superseded by the relevant Indian Standard when the latter comes into force.

Wherever, any dimensions or weights are given, their equivalents in metric units have also been given within brackets. These equivalents have been based on exact conversions but have been suitably rounded off in accordance with the procedure laid down by the Indian Standards Institution.

The metric units will be followed only when the State P.W.D. switches over to metric units of weights and measures. In the transition stage when both the systems may be existing side by side the Executive Engineer will determine which of the two units will be followed in case of any particular item of work.

Issued by the authority of  
COMMITTEE OF DIRECTION  
OF  
CHIEF ENGINEERS,  
PUBLIC WORKS DEPARTMENT, PUNJAB.

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3. Shri H. K. Khosla      Executive Engineer, Punjab, Irrigation Branch.

## ACKNOWLEDGEMENTS

The publications, specifications and standards mentioned below were consulted during compilation of this Hand-book and the help received from them is gratefully acknowledged:—

1. "American Civil Engineers' Hand-book" by Merriman and Wiggin
2. 'Building Construction' by Mitchell.
3. "Highway Engineers' Hand-book" by Harger and Bonney.
4. 'Specifications 1962' of Architectural Press, London.
5. 'Irrigation Engineers' by K. R. Sharma.
6. 'Irrigation Outlets' by Gulhati.
7. 'Concrete Plain and Reinforced' by Taylor, Thompson and Smulski.
8. 'Joints and Cracks in Concrete' by Critchell.
9. 'Wood construction' by National Committee on Wood Utilization, United States Department of Commerce.
10. 'Road Aggregates' by Knight.
11. 'Building Construction' by Mackay.
12. Chief Engineer's Technical Memoranda of the Punjab P.W.D. (B. & R.) Branch.
13. Military Engineering Service Standards Schedule of Rates.
14. 'Form Work of Concrete Structures' by Wynn.
15. 'R.C.C. Design' by Reynolds.
16. P.W.D. Manual of Irrigation Practice.
17. Roorkee Treatises on Civil Engineering.
18. Report of Ecafe Seminar on Low Cost Roads and Soil Stabilization.
19. Central P.W.D. Specifications.
20. Punjab Manual of Irrigation Practice.
21. Rajasthan P.W.D. Specifications.
22. Punjab P.W.D. Public Health Specifications.
23. U.P. Irrigation Department Specifications.
24. Madras Detailed Standards Specifications.

25. Maharashtra P.W.D. Hand-book.
26. Military Engineer Services Hand-book.
27. Madras Highway Manual.
28. Standards Specifications Northern Railways.
29. *Publications of* Indian Roads Congress.
30. " Indian Standards Institute.
31. " British Standards Institute.
32. " American Society of Testing Materials.
33. " United States Bureau of Reclamation.
34. " American Concrete Institute.
35. " Central Board of Irrigation.
36. " Concrete Association of India.
37. " Ministry of War Transport, London.
38. " National Building Organization.
39. " Forest Research Institute, Dehra Dun.
40. " British Road Tar Association, London.
41. " Burmah Shell.
42. " Shalimar Tar Products.
43. " Standard Vacuum Oil Company.
44. " Caltex.
45. " Sahu Cement Works.

## CONTENTS

Specifi- cation Number		PAGE
<b>CHAPTER 1</b>		
<b>Employment of Labour</b>		
1.1	Rules for Employment of Departmental Labour on daily wages	1
1.2	Rules for Departmental Labour employed on monthly wages	3
<b>CHAPTER 2</b>		
<b>Mortars</b>		
2.1	Mortars (General)	5
2.2	Cement-Sand Mortar	6
2.3	Lime-Cement-Sand Mortar	7
2.4	Lime-Surkhi Mortar	8
2.5	Lime-Sand Mortar	9
2.6	Mud Mortar	10
<b>CHAPTER 3</b>		
<b>Materials</b>		
3.1	Water	11
3.2	Earth	13
3.3	Clay	14
3.4	Brick Manufacture	15
3.5	Bricks	19
3.6	Flat Brick-tiles	22
3.7	Brick-ballast	23
3.8	Lime	24
3.9	Surkhi	27
3.10	Cinders	28
3.11	Sand (Fine)	29
3.12	Portland Cement	32
3.13	White Cement	36
3.14	Coloured Cement	37
3.15	Timber	38
3.16	Plywood	40
3.17	Cast Iron	41
3.18	Wrought Iron	42
3.19	Structural Steel	44
3.20	Mild Steel and Medium Tensile Steel Bars for Concrete Reinforcement	46
3.21	High Tensile Structural Steel	48

Specifi- cation Number	PAGE
3-22 Deformed Bars for Concrete Reinforcement ..	51
3-23 Rivet Bars for Structural Purposes ..	54
3-24 High Tensile Rivet Bars for Structural purposes ..	56
3-25 Wire Gauze ..	57
3-26 Galvanised Iron Wire ..	58
3-27 Plain and Corrugated Galvanised Iron Sheetting ..	59
3-28 Expanded Metal (Steel) ..	60
3-29 Coarse Aggregate for Concrete (Stone) ..	62
3-30 Fine Aggregate from Natural Sources for Concrete ..	66
3-31 Boulders ..	71
3-32 Building Stone ..	72
3-33 Soling Stone ..	74
3-34 Stone Metal ..	75
3-35 Grit ..	78
3-36 Kankar ..	80
3-37 Paints and Allied Materials ..	82
3-38 Exterior Decorative Cement Based Paint ..	84
3-39 Dry Distemper ..	85
3-40 Oil Bound Distemper ..	86
3-41 Tar and Bitumen ..	87
3-42 Door and Window Fittings ..	89
3-43 Glass Panes ..	90
3-44 Pigments ..	91
3-45 Plain Linoleum ..	92
3-46 Insulation Board ..	93
3-47 White Glazed Tiles ..	94
3-48 Hessian Cloth ..	95
3-49 Marble Chippings ..	96
3-50 Asbestos Cement Corrugated Sheets and Fitting ..	97
3-51 Air-entraining Admixtures in Concrete ..	99
3-52 Pozzolana ..	102
3-53 Portland Pozzolana Cement ..	103
3-54 Cast Iron Rain Water Pipes and Fittings ..	104
3-55 Brick Bats (Stacking) ..	106
<b>CHAPTER 4</b>	
Loading and Unloading	
4-1 Loading ..	107
4-2 Unloading ..	108
<b>CHAPTER 5</b>	
Carriage	
5-1 Carriage ..	109



Specifi- cation Number		PAGE
<b>CHAPTER 6</b>		
<b>Earthwork</b>		
6-1	Silt Clearance ..	111
6-2	Earthwork Excavation,—Embankments and Cuttings ..	112
6-3	Dressing of Earthwork ..	121
6-4	Puddling ..	122
6-5	Earthwork Excavation of Foundations ..	123
6-6	Earth Filling ..	125
6-7	Earthwork over Roofs ..	126
6-8	Repairs to Earthwork ..	127
6-9	Turfing of Slopes (Rough Grassing) ..	129
6-10	Making of Lawns ..	130
6-11	Planting Hedges ..	131
6-12	Compaction of Earthwork ..	132
<b>CHAPTER 7</b>		
<b>Rock Cutting</b>		
7-1	Rock Cutting ..	139
7-2	Blasting Operations ..	142
<b>CHAPTER 8</b>		
<b>Demolition</b>		
8-1	Demolition ..	149
<b>CHAPTER 9</b>		
<b>Centring and Shuttering</b>		
9-1	Centring and Shuttering (Technical Specifications) ..	151
9-2	Centring and Shuttering (Contract Specifications) ..	154
<b>CHAPTER 10</b>		
<b>Concrete</b>		
10-1	Mud Concrete ..	161
10-2	Lime Concrete, Ordinary ..	162
10-3	Lime Concrete, Fine ..	164
10-4	Cement Concrete for Ordinary Structures ..	165

Specifi- cation Number	PAGE
10-5 Plum Concrete ..	176
10-6 Cement Concrete for Dams and other Massive Structures ..	177
10-7 Reinforced Concrete (Technical Specifications) ..	213
10-8 Reinforced Concrete (Contract Specifications) ..	224
10-9 Reinforced Concrete with Brick Plumbing ..	232
10-10 Precast Cement Concrete ..	234
10-11 Damp Proof Course ..	235

## CHAPTER 11

### Brick Work

11-1 Brickwork—First Class ..	239
11-2 Brickwork—Second Class ..	246
11-3 Brickwork—Third Class ..	247
11-4 Jibbi Work ..	248
11-5 Sundried Brickwork ..	249
11-6 Gilafi Work ..	250
11-7 Brickwork in Arches ..	251
11-8 Half Brick Thick Masonry ..	255
11-9 Reinforced Brickwork ..	257
11-10 Brick Tile Masonry and Tile Facing ..	261
11-11 Honey-comb Brickwork ..	262
11-12 Brick and Tile Jali Work ..	263
11-13 Corbelling, Copings, Cornices, String Courses, etc. ..	269
11-14 Cavity Walls ..	272
11-15 Thickness of Brickwalls ..	274
11-16 Kacha Walls ..	286
11-17 Stabilised Cement Soil Walls for Building Construc- tion ..	287

## CHAPTER 12

### Stone Masonry

12-1 Stone Masonry—General ..	295
12-2 Dressing and Cutting Stones ..	299
12-3 Ashlar Masonry ..	301
12-4 Ashlar Facing ..	304
12-5 Cut Stone Work ..	305

Specifi- cation Number	PAGE
12-6 Block-in-Course Masonry ..	306
12-7 Block-in-Course Facing ..	307
12-8 Squared Rubble Masonry Coursed ..	308
12-9 Squared Rubble Masonry Built to Courses ..	311
12-10 Squared Rubble Uncoursed or Snecked Rubble ..	312
12-11 Random Rubble Masonry ..	313
12-12 Random Rubble Brought to Course ..	314
12-13 Polygonal Random Rubble Masonry (Kentish Rag.)	316
12-14 Boulder Masonry ..	317
12-15 Dry Rubble Masonry ..	318
12-16 Arch Work in Stone Masonry ..	320
12-17 Ashlar Arch Work ..	321
12-18 Block-in-Course Arch Work ..	322
12-19 Rubble Arch Work ..	323
12-20 Copings, Cornices, Columns etc. ..	324
12-21 Dhajji Walls ..	325
12-22 Precast Block Masonry ..	328

## CHAPTER 13

### Hoisting and Roofing

13-1 Hoisting ..	331
13-2 Second Class Mud Roofing ..	332
13-3 Third Class Mud Roofing ..	335
13-4 Precast Cement Concrete Tile Roofing ..	336
13-5 Thatch Roofing ..	338
13-6 Corrugated Iron Roofing ..	341
13-7 Asbestos Cement Sheet Roofing ..	343
13-8 Slate Roofing ..	346
13-9 Paving Roofing with Tiles ..	349
13-10 Painting Roofs with Bitumen ..	350
13-11 Bitumen Felt Water-proofing Treatment ..	351
13-12 Gutters and Flashings ..	354
13-13 Fixing Rainwater Pipes ..	355
13-14 'Khurras' <i>Parnalas</i> and Spouts ..	358
13-15 Wooden Plank Ceiling ..	360
13-16 Cloth Ceiling ..	361
13-17 Plywood Ceiling ..	362
13-18 Asbestos Sheet Ceiling ..	363
13-19 Insulation Board Ceiling ..	364
13-20 Plaster of Paris Ceiling ..	365

Specifi- cation Number	PAGE
------------------------------	------

## CHAPTER 14

### Flooring and Dado

14-1 Flooring (General) ..	367
14-2 Conglomerate Flooring ..	370
14-3 Grey Polished Flooring ..	373
14-4 Brick or Tile Flooring ..	374
14-5 Dry Brick Paving ..	376
14-6 Terrazzo Flooring ..	377
14-7 Precast Terrazzo Tile Flooring ..	380
14-8 White Glazed Tile Flooring ..	383
14-9 Marble Flooring ..	384
14-10 Marble Lining (Veneering) on Walls, Pillars, Skirting Dado, Risers of Steps ..	387
14-11 Rough Red Stone Flooring ..	388
14-12 Kotah Stone Flooring ..	390
14-13 Rough Kotah Stone Flooring ..	391
14-14 Kotah Stone Lining (Veneering) on Walls, Pillars, Skirting, Dado, Risers of Steps ..	392
14-15 Wooden Board and Strip Flooring ..	394
14-16 Parquet Flooring ..	397
14-17 Linoleum Flooring ..	400

## CHAPTER 15

### Plastering, Pointing, White-Washing and Distempering

15-1 Cement Plaster—One Coat Work ..	403
15-2 Cement Plaster—Two Coat Work ..	408
15-3 Cement Lime Plaster ..	409
15-4 Lime Plaster ..	410
15-5 Cement Rendering ..	411
15-6 Mud Plaster ..	412
15-7 Gobri Leeping ..	413
15-8 Pointing ..	414
15-9 Striking Joints ..	417
15-10 Whitewashing ..	418
15-11 Colour Washing ..	420
15-12 Distempering ..	421
15-13 Finishing with Cement Paint ..	423

Specifi- cation Number	PAGE
<b>CHAPTER 16</b>	
<b>Painting and Varnishing</b>	
16-1 Painting—General ..	425
16-2 Painting Wood Work ..	430
16-3 Painting Iron and Steel Work ..	431
16-4 Painting Plastered and Concrete Surfaces ..	433
16-5 Varnishing ..	435
16-6 Oiling Wood Work ..	437
16-7 Bees Waxing ..	438
16-8 Spirit Polishing ..	440
16-9 Painting with Creosote ..	441
16-10 Coaltarring ..	442
16-11 Lettering ..	444
16-12 Painting Mile Stones, Furlong Stones, other Road Side Structures and Distance Marks ..	445
16-13 Removal of Paint ..	446
<b>CHAPTER 17</b>	
<b>Wood Work</b>	
17-1 Woodwork General ..	447
17-2 Doors and Windows General ..	452
17-3 Panelled and Glazed Doors and Windows ..	461
17-4 Battened and Braced Doors and Windows ..	462
17-5 Battened and Framed Doors and Windows ..	463
17-6 Wire Gauze Shutters ..	464
17-7 Cup-board Shutters ..	465
17-8 Wire Gauze or Expanded Metal ..	466
17-9 Glazing ..	467
17-10 Flush Doors ..	469
<b>CHAPTER 18</b>	
<b>Steel and Iron Work</b>	
18-1 General Specifications ..	471
18-2 Steel Work (Ordinary) ..	474
18-3 Structural Steel Work ..	475
18-4 Gratings ..	478
18-5 G.I. Sheet Garage Doors ..	479
18-6 G.I. Sheet Sliding Shutters ..	480
18-7 Chick Hooks ..	481

Specifi- cation Number		PAGE
18-8	Fan Hooks ..	482
18-9	Window Grills ..	483
18-10	Steel Doors and Windows ..	484
18-11	Welding (General) ..	490
18-12	Metal Arc Welding ..	491
18-13	Oxy-Acetylene Welding ..	495
<b>CHAPTER 19</b>		
<b>Canal Lining</b>		
19-1	Canal Lining (General Specifications) ..	499
19-2	Double Layer Tile Lining for Irrigation Channels	502
19-3	Single Layer Tile Lining in Bed for Irrigation Channels ..	508
19-4	Cement Concrete Lining for Irrigation Channels	510
<b>CHAPTER 20</b>		
<b>Outlets</b>		
20-1	Earthwork for Outlets ..	515
20-2	Dismantling of Outlets ..	516
20-3	Adjustment of Outlets ..	517
20-4	Constructing, Watching and Removing Bund in Running Water for Outlets ..	518
20-5	Laying and Jointing of Reinforced Cement Concrete Pipes for Culverts and Outlets ..	519
<b>CHAPTER 21</b>		
<b>Pile Driving</b>		
21-1	Pile Driving—General ..	521
21-2	Steel Sheet Piles ..	523
21-3	Precast Reinforced Concrete Piles ..	525
<b>CHAPTER 22</b>		
<b>Wells and Caissons</b>		
22-1	Open Wells ..	531
22-2	Special Well Foundations ..	540
22-3	Open Caissons ..	542
22-4	Pneumatic Caissons ..	544

Specifi-  
cation  
Number

PAGE

### CHAPTER 23

#### River and Canal Protection Works

23-1	Pilchi, Farash or Sarkanda Pitching ..	547
23-2	Pilchi, Sarkanda and Bamboo Mattresses ..	548
23-3	"Gachi" Pitching ..	549
23-4	Fixing "Floating Spurs" in Irrigation Channels..	550
23-5	Stacking and Bushing ..	551
23-6	Slope Protection with Sand Bags ..	552
23-7	Dry Brick Pitching ..	553
23-8	Wire Crates ..	554
23-9	Dry Stone or Boulder Pitching ..	555
23-10	Grouted Stone Pitching ..	557

### CHAPTER 24

#### Road Work

24-1	Preparation of Sub-grade ..	559
24-2	Soiling Coat—Laying and Consolidation ..	561
24-3	Water Bound Macadam Wearing Course ..	563
24-4	Scarifying ..	570
24-5	Prime Coat ..	571
24-6	Surface Dressing with Tar or Bitumen ..	572
24-7	Premix Carpet (Open—Graded Type) ..	576
24-8	Built up Spray Grout ..	580
24-9	Stabilised Soil Road Construction ..	582
24-10	Cement Concrete Pavement ..	585
24-11	Kilometre Stones and Boundary Pillars ..	608
24-12	Road Rollers ..	609

### CHAPTER 25

#### Maintenance of Furniture

25-1	Maintenance of Furniture ..	611
------	-----------------------------	-----

### CHAPTER 26

#### Miscellaneous

26-1	Cutting down of Trees ..	613
26-2	Sweeping Flues of Chimneys ..	614
26-3	Supplying and Fixing Cotton Cord for Cleres- tory Windows ..	615
26-4	Jungle Clearance ..	616

Specifi- cation Number		PAGE
<b>CHAPTER 27</b>		
<b>Quantities of Materials</b>		
27-1	Quantities of Materials ..	617
<b>CHAPTER 28</b>		
<b>Water Supply</b>		
28-1	General ..	619
28-2	Excavation for Pipelines ..	620
28-3	Cast Iron Pipelines ..	626
28-4	Galvanised Iron or Mild Steel Pipelines with screw joints ..	634
<b>CHAPTER 29</b>		
<b>Sewerage and Drainage</b>		
29-1	General ..	641
29-2	Excavation etc. for Sewers ..	650
29-3	Earthwork—Excavation for Open Sullage Drains and Outfall Drains, etc. ..	665
29-4	Earthwork—Excavation for Storage Tanks, Pump Houses, Sumps, etc. ..	666
29-5	Clay Puddle ..	667
29-6	Reimbursement of Drains and Flooring in Strips ..	668
29-7	Flooring and Paving ..	659
29-8	Clay and Dry Concrete ..	670
29-9	Manhole, Ventilating Shafts and other Accessories ..	671
29-10	Painting of Ventilating Shafts ..	673
29-11	Brick Sewers ..	674
29-12	Laying and Jointing Glazed Stoneware Pipe sewers ..	678
29-13	Laying and Jointing, Plain and Reinforced Concrete Pipe Sewers ..	684
29-14	Cast Iron Sewers and Rising Main ..	690
29-15	Construction of Reinforced Concrete Sewers, Junctions, Storm Overflows and other Works constructed <i>in situ</i> ..	691
29-16	Construction of Manholes, Screening Chamber, Section Sumps, Collecting Tanks, etc. ..	694
29-17	Constructing of Flushing Tanks ..	697
29-18	Construction of Punjab Standard Type Drains and House Outlet Connections ..	698



Specifi-  
cation  
Number

PAGE

CHAPTER 30

Sanitary Installations

30-1	Sanitary Installation, Drainage and Internal Water Supply ..	701
30-2	Indian Type Water Closet Suites ..	702
30-3	European Type Water Closet Suites ..	705
30-4	Anglo-Indian Type Water Closet Suite ..	708
30-5	Lavatory Suites ..	709
30-6	Sinks ..	712
30-7	Urinals ..	715
30-8	Bath Tubs ..	719
30-9	Toilet Requisites ..	720
30-10	General ..	725
30-11	Heavy Cast Iron Pipes and Specials ..	726
30-12	Lead Pipes and Fittings ..	735
30-13	Internal Drainage Works ..	737
30-14	Internal Water Supply ..	740

CHAPTER 31

Electrical Installations in Buildings

31-1	Electrical Work (General) ..	747
31-2	Wood Casting Wiring ..	757
31-3	Conduit System ..	759
31-4	Cleated Wiring System (for Temporary Installations only) ..	761
31-5	Metal Sheathed Wiring System ..	763
31-6	Tough Rubber Covered Wiring System ..	764
31-7	Overhead Lines ..	765
31-8	Earthing ..	767
31-9	Lighting Conductor ..	769

APPENDICES

Appendix

I	Table Showing Recommended Mortar mixes for different Items of Works ..	771
II	Standard Soil Classification System ..	772
III	Field identification tests for soils ..	775
IV	Testing of Bricks ..	776
V	Table of Physical Requirement of Building Lime ..	781
VI	Storing of Timber ..	783
VII	Physical Requirements and Tests of Stone Metal and Grit for Road Works ..	785

## APPENDIX—concl.

	PAGE
VIII Table of Makes and grades of tars and bitumens for road construction, for surface dressing and semi-grouting	786
IX Compaction and Penetration Resistance Test	788
X Field density test	797
XI Needle moisture and needle density test	800
XII Explosive magazines	803
XIII Destruction of Explosives	806
XIV Preliminary test for Compression Strength of Concrete	807
XV Work test for Compression Strength of Concrete	811
XVI Determination of Consistency of Concrete by Slump Test	815
XVII Determination of consistency of concrete by Vee-Bee Consistometer Method	817
XVIII Untested steel for Reinforced Concrete Work	820
XIX Methods for superlevating the road surface at Curves	822
XX Sampling aggregate for laboratory testing	825
XXI Abstract of regulations for the electrical equipment of buildings of the Institution of Electrical Engineers, London, referred to in the Specification No. 31-1 (Clause 2)	827
XXII Table of Conventional Symbols	833
NOTES	
1 Method of design of Cement Concrete Mixes	835
2 Instruction for making reinforced concrete battens	843
3 Precautions to be taken to prevent cracks in buildings	852
4 Leak-proofing of Roofs	855
5 Durable dairy and ghee factory floors	864
6 Depth of Scour and section of stone aprons	866
7 Use of kiln—Seasoned Timber	870
8 Termite Shields	876
9 Suggested specifications for construction or reconstruction of roads in waterlogged areas	877
10 Wind pressure to be considered for design of structures	878
TABLES	
1 Basic units and conversion factors	881
2 Unit weights of building materials and building parts, etc.	884

TABLES—concl.		PAGE
3	Indian Standard sieves with their other equivalent standard sieves ..	891
4	Equivalents of various standard Gauges (non-metric units) ..	894
5	Thickness of sheet and diameter of wire in millimeters ..	895
6 (a)		
6 (b)	Mild steel joists ..	905
7	Live loads on Floors of various types of buildings ..	914
8 (a)	Area and perimeter of round bars for different spacings per foot width of slab (Non-metric Units) ..	916
8 (b)	Weight, Perimeter and Area of Metric Steel Bars (Metric Units) ..	918
8 (c)	Area of Steel Bars for various Spacings (Metric Units) ..	920
9	R.C.C. battens first roofs (Batten spaced 12 inches C/C) ..	920
10 (a)	Section of battens suitable for flat mud roofs (Non-metric units) ..	925
10 (b)	Section of Battens suitable for flat mud roofs (Metric units) ..	927
11 (a)	Safe loads on Deodar and Kail Planking (Non-metric units) ..	928
11 (b)	Safe Loads on Kail Planking (Metric units) ..	929