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Superintending Engineer (BODHI)
O/o the Engineer-in-Chief,
Water Resources Deptt. Raipur (C.G)



GOVERNMENT OF MADHYA PRADESH
IRRIGATION DEPARTMENT

SUBJECTWISE INDEX
OF
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I
SURVEY AND INVESTIGATION

S. No.	Reference	Date	Subject.
1	No. 179-P/F	28-6-54	Survey of tank sites-Major tanks.
2	No. 179-P/F (1) 54	31-7-54	Procedure for Correct Levelling and establishment of Bench marks.
3	No. 179/k-2-f (1) 54	20-9-54	Trial Pits.
4	No. 79 of 1955	--	Instructions for the survey & Investigations of small irrigation schemes.
5	No. 10 Y/W II of 56	12-1-56	Survey of Tanks (Repairs only).
6	No. 139	9-9-59	Preparation of Irrigation Projects.
7	No. 9-C/W (S) 60	19-4-60	Instructions for the survey and investigation of small irrigation schemes. (Yellow booklet).
8	No. 204/W (S) 60	20-7-60	Preparation of stage I estimate for irrigation Projects-minimum investigation necessary.
9	No. 37/ W	23-1-63	Reconnaissance survey of Irrigation Projects.
10	No. 55/W (M)	27-7-64	Reconnaissance report for multipurpose major and medium projects.

II

HYDROLOGY

S. No.	Reference	Date	Subject
1	No. 179-P/F (I) 54	21-8-54	Discharge observations on river-station curves.
2	No. 214-M-2/W(I) 55	28-9-55	Instructions for measuring canal discharges
3	No. 190-V/W(M) 61	12-3-62	Instructions for installation and maintenance of a raingauge-Book let
4	No. 46/W(Misc) 62	10-4-62	Definitions and meanings of some irrigation terminology in connection with planning.
5	No. 58/W(M) 65	2-3-65	Data of river gauges, Discharge sites & silt observation stations.

III

MINOR IRRIGATION

S. No.	Reference	Date	Subject
1	No. 346-Ka-54	9-3-54	Construction of and repairs to small village tanks.
2	No. 304-1/2/WI	1955	Specifications for construction of new minor tanks and repairs to old tanks.
3	No. 741/W-3 B	25-4-58	Construction of Minor Irrigation tank and village project tank.
4	No. 328/W(M)	7-1-59	Construction and repairs to small village tanks (Specifications)
5	No. 81/MIC	12-2-60	Key note of repairs and variation of ex-malguzari tanks.
6	No. 210/W(S)	20-7-60	Important short-comings in project reports.
7	No. 32/W (M)	17-10-62	Construction and repairs to small tanks.
8	No. 38/W	23-3-63	Construction and repairs to tanks upto 40' height.
9	No. 40-4 (W)	12-11-63	Construction and repairs to small village tanks to a maximum height of 40 feet.
10	No. 45 (W)	25-3-64	Minor Irrigation Projects
11	No. 39-B./MIC	28-4-64	Proforma to accompany all Minor Irrigation Projects.
12	No. 93-1/MIC	7-7-66	Minor Irrigation Works
13	No. 635/CR-95/XIX-W/67	8-1-68	Minor Irrigation Schemes-willingness of cultivators to pay water rates-certificate from district Collector.
14	No. 70/W (M)	17-4-68	Submission of stage I estimates of minor irrigation schemes.
15	No. 340-9/W(M) 68	27-5-68	Construction and repairs of irrigation tanks (Amendment to T. C. 38, 40 Etc.)

IV

PUBLICIFY INFORMATION ETC,

S. No.	Reference	Date	Subject
1	No. 113-M-W(I) 55	7-2-55	Short note on Project and Salient features in local language
2	No. 113-X-1/w(I) 55	14-6-55	Model room at the site.
3	—	—	Salient Data proforma.

V

HEAD WORKS

[EARTH DAMS]

S. No.	Reference	Date	Subject
1. Grouting - Foundation Treatment			
1	No. 113 W(I) 55	13-1-55	Disposal of excavation from Puddle trench.
2	No. 113-G-S-W(I) 55	22-4-55	Method of foundation treatment- abstract from Indian Journal of Power and River Valley development.
3	No. 113-W(F) of 55	24-8-55	Leakage underneath the puddle trench of an earthen dam.
4	No. 157-C/W II of 56	21-4-56	Preparation of foundations (Rock foundation)
5	No. 318-W (1) of 58	13-6-58	Treatment of dam foundation by pressure grouting by Shri G. S. Madan.
2. Puddle and Cut-Off			
1	No. 179/Ch/Ka	13-3-54	Puddle.
2	No. 79/Bha/Ka of 54	14-4-54	Depth of Puddle trench in rock.
3	No. 179/T/Ka	21-4-54	Puddle.
4	No. 113-B-8/W(I) of 55	5-12-55	Bottom width of Puddle trench.
5	No. 64-ADI of 55	4-8-56	Set of instructions on Puddle trench filling.
6	No. 27/W (S)	8-2-62	Replacing Puddle Trench by cut-off trench.
7	No. 27-G/W(S)	3-5-64	Cut-off trench for earthen dam over 40' height.
8	No. 27-H/W(S)	17-7-64	do
9	—	—	Note on puddle trench.
3. Type Design, Slopes of Earthen Dams, Top Width Etc.,			
1	No 113-K-4 W(I) of 55	29-9-55	Top width of bund (Superseded on 12-2-56)
2	No. 6-F/DI 55	22-10-55	Concrete cut-off walls in earthen dams.
3	No. 113-D-6/W(I)	14-10-55	Precautions during construction of earthen dams.
4	No. 6-Q/D 1-55	9-7-56	Typical section of main dam and the dykes at Hirakund Drg. No. 100-H-63 & 64.
5	No. 304-C/W(I) of 56	28-7-56	Type section of Irrigation canals.
6	No 304-L/W(I) of 56	12-9-56	Top width of bund (Superseded on 10-12-56)
7	No. 304-V/W(I) of 56	10-12-56	Top width of bund Superseded on 19-2-59)
8	No. 304-M-I/W(I) 56	20-2-57	Submission of designs & drawings.
9	No. 304/4Z-1 of 56	24-5-57	Type design of fall.

S. No.	Reference	Date	Subject
10	No. 94/W(I) 59	19-2-59	Top width of bund (Final)
11	No. V/W(6)	27-3-61	Shrinkage allowance in earthen dam construction.
12	No. 13(W) M of 61	2-8-61	Earth dam Section.
13	No. 29/W(M) of 62	26-6-62	Type design of earth dams.
14	No. 29/B(W) M	9-7-62	Type design of earth dam.
15	No. 34/W(M) of 62	23-10-62	Drainage of top of earth dam.
16	No. 29-F/W(M) of 63	18-1-63	Type designs of earth dams.
17	No. 40/W	18-5-63	Type profile of earth dam.
18	No. 50/W(M) of 63	22-11-63	Cover for Homogeneous Sections.
19	No. 36/W	14-2-64	Stability analysis of earth dam
20	No. 40/J	12-5-64	Type profile of earth dam.
21	No. 60/W(M) 65	3-1-66	Remedial measures in earth dams near the toe.
22	No. 21/SE(D) 69	25-3-69	Data required for design of earth dam sections.
23	No. 95-E/SE(D) 68	17-5-69	Standardisation of Drawings.
4. Earth Work			
1	No. 175/F 54	21-1-54	Proper consolidation of earth work.
2	No. 179-Ka.(S) 54	30-1-54	Watering earth work of bunds
3	No. 179/C/F (I) 54	16-7-54	Water Supply (for earth work.)
4	No. 179-F-VI-2F(54)	10-11-54	Slope of Hearting.
5	No. 113-D/V(1) 55	2-2-55	Precautions to be taken at the time of rolling at the junction of casing and hearting.
6	No. 105-O-2-W/55	28-3-55	Specifications for -- Execution of earth embankment on rock foundations.
7	No. 113-G/2, W(1) of 55	4-7-55	Instructions for tank construction during monsoon.
8	No. 113-I-4/W(I) of 55	9-9-55	Ramming earth work.
9	No. 689-AE (I) of 55	7-10-55	Seepage drains, boulder toe and Specifications for earth work on an earthen dam. (Beika Earth dam—Kosi project)
10	No. 7/Q/D 1	28-12-55	Rough method of determining suitability of materials for construction of dams.
11	No. 113-K-g/W(1) of 55	11-4-56	Sheep foot hand rammers.

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S. No.	Reference	Date	Subject
12	No. 1	8-9-60	Problems connected with quick sand and mud boils and piping.
13	No. 2/W	16-9-60	Nalla closure.
14	No. 19-W/61	6-10-61	Instructions for proper placement and consolidation.
15	No. 24/W of 62	24-1-62	Earth-work of bund-Compaction
16	No. 46/W of 63	19-7-63	Quality control on earth dams.
17	No. 32/N/W(M)64	2-9-64	Filling up new tanks-Instructions for.
18	No. 32-T	18-11-64	Filling up new tanks-Instructions for.
19	No. 32-V/W(M)64	7-11-66	Instructions for filling up the new tanks.

5. Leakage Drains; Drainage

1	No. 179/Kha/Ka 54	5-5-54	Function of Leakage drains.
3	No. 113-S-4/W(I) 55	15-9-55	Extracts from Engg. for dams C. J. Hinds Flotation gradient and vertical and horizontal piping.
3	No. 304 T/W(I) of 56	17-11-56	Leakage drains.
4	No. 6-T/D-55	29-1-57	Drainage of D/S slope of earth dams.
5	No. 34 W (M)	23-10-62	Drainage of top of earth dam.
6	No. 62/W(M) 65	3-1-66	Remedial measures in earth dams near the toe.

6. Rock Toe

1	No. 13/W(I) of 58	6-12-58	Boulder toe of earthen dams.
2	No. 16/W of 61	30-11-61	Boulder toe, Filter and Leakage drains in earthen embankment.

7. Pitching

1	No. 179-Gh-2/ Ka (I) 54	9-10-54	Pitching.
2	No. 370/W(I) 58	2-8-58	Section of an earth-dam toe wall below the pitching.

8. Sluice and Sluice Gates

1	No. 197-AF(2)54	5-3-54	Slab over sluice barrel.
2	No. 7561	14-10-54	Extra slab over Sluice tunnel.

S. No.	Reference	Date	Subject
3	—	May, 56	Expansion joints in sluice slab.
4	No. 304 B/W(I) 56	28-7-56	Instructions for fixing sluice gate.
5	No. 304-B-2 W(I) 56	13-4-57	Fixing sluice gate.
6	No. 598/W II 57	8-7-57	Instructions for operation of face and roller gates of sluice for more than 40' head.
7	No. 49-L/W(I)	3-7-58	Madian Tank Project, Durg. "Head sluice drawing."
8	No. 9-D(I) 59	17-3-59	Karri grooves in front of sluice gates (Depth of water upto 40' head)
9	No. 6/W	15-4-61	Height of Karri grooves in sluice tanks
10	No. 30/W	20-7-62	Filling round sluices.
11	No. 378/W(M) 63	22-10-63	Repairs to sluices.

9. Waste Weir and Spill Channel

1	No. 112-A/W(I) 55	15-1-55	Spill Channel
2	No. 304-1/2/W I of 55	1955	Practice of designing spillway (waste weir) capacity of tanks and estimating flood discharge in M; P.
3	Capt A. F. Garret's Tables	1955	[Garret's formula for waste weir designs] Formula for calculating waste weir discharges over anicuts Revised and supplemented by tables & diagrams.
4	No. 34 ^s -W(I) 55	12-3-55	Simple practical profile for tank weirs.
5	No. 265/W(I)	24-8-59	Alternative design of waste weir for minor irrigation tanks.
6	No. 22/W of 61	2-12-61	Design of waste weir & spill channel.
7	No. 35/W (M) 62	28-2-62	Reservoir storage at the end of irrigation season.
8	No. 42/W of 64	19-2-64	Falls in spill Channel.
9	No. 44/W of 63	27-4-64	Check list for design of waste weir spill channel/spill channel structures.
10	No. 42-D/W	24-7-64	Inspection steps in structures like spill channel falls etc.
11	No. 57/W(M)	21-12-64	Construction of pick-up weirs & regulators etc.
12	No. 69	21-11-67	Cavitation in hydraulic structures.

VI CANALS.

S. No.	Reference	Date	Subjects.
1. Alignment			
1	No. 179-Da/Ka (1)45	15-5-54	Alignment of Canals on side long grounds.
2	No. 179-Ra/Ka (2) 54	9-8-54	Design of canals.
2. Earth Work, Section of Canals, Velocities and Discharges.			
1	No. 179/F/Fa (1) 54	9-8-54	Design of canals.
2	No. 214-M-2/W(1)55	28-9-55	Instruction for measuring canal discharge.
3	No. 43-B-1/W (1) 55	10-10-55	Independent canals (Superelevation on curves of canals)
4	No. 76 W (1)56	4-4-56	Velocities to be allowed in earthen Spill Channels.
5	No. 304-C/W (1) 56	28-7-56	Type Section for Irrigation Canals.
6	No. 104	Sept, 56	Instructions for adoption of Cusecmile rate for channels.
7	No. 7/W	5-5-61	Design Velocities in tank bed channels.
8	No. 14 /W	23-8-61	Free board in Canals.
9	No. 53	25-8-65	Planning of remodelling work on existing channels including their extensions and improvements.
3. Cross-Drainage Works			
1	No. 889-Ka-(1) 54	19-7-54	Design of masonry works in irrigation channels.
2	No. 113-M-2/W(1) 55	6-8-56	Design of drainage crossing across canals.
3	No. 738/D/W(I) of 56	9-11-57	Drainage culverts.
4	No. 20/W of 61	3-11-61	Standards for design of aqueducts.
5	No. 35/W	15-12-62	Provision of weep holes in the walls of Canal structures.
6	No. 41/W/63	31-5-63	Check List for design of Canal structures Part (1) and aqueducts.
4. Bridges and Escapes			
1	No. 889 / Ka (1) 54	19-7-54	Design of Village foot Bridge.
2	No. 304-I-2 /W(1) 56	24-4-57	Design load for road bridges on canals.
3	No. 3 /W/ 60	5-10-60	Provision of escape and escape channel and irrigation works.
4	No. 18 /W/ 61	20-9-61	Service roads in canals.

S. No.	Reference	Date	Subject
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5. Design of Falls on Canals

1	No. 2-A / D1 -56	3-1-56	Extracts from Research Pamphlets (Pond-profiles)
2	No. 304-A/W (I)56	28-7-56	Type design of fall.
3	No. 304 /4-2/W(I) 56	24-5-57	do

6. Out-Lets/Water-Courses

1	No. 48 F/W of 52	7-8-52	Revised instructions for the provision of out-lets and the control of supplies from irrigation works.
2	No. 95- W-66-55	8-11-55	— do —
3	No. 90-W II 56	16-1-56	Water Courses.
4	—	—	Note on a type of adjustable pipe out-let. By GAD Cochrane.

7. Canal Linings

1	No 261-A/W-II of 56	4-8-56	Canal Linings.
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VII

SOIL MECHANICS

S. No.	Reference	Date	Subject.
1	No. 113-W/W(2) 55	1-3-55	"Soil Research" (Note on impervious and semi-pervious soils)
2	No. 113-R-7/W(I) 55	18-11-55	Optimum limit of moisture in the soils.
3	No. 7-Q/D1	28-12-55	Rough method of determining suitability of materials for construction of dams.
4	No. 1	8-9-56	Problems connected with quick sand, mud boils and piping at D/S toe and beyond of an earthen dam.
5	24-G/F/58	9-9-58	Setting up of new sediment sites and laboratories.
6	No. 17/WD	4-10-61	Note on problems connected with quick sand, mud boils and piping at the D/S toe & beyond of an earthen dam.
7	No. 33/W	6-10-62	Borrow area survey and testing of soil samples and designing dam section.
8	No. 5-ML/2901/62	27-11-62	Submission of representative and undisturbed soil samples for testing at Raipur.
9	No. 39/W	20-4-63	Note on Field permeability tests.
10	No. 48/W(M)	5-9-63	Identification of soils for use on and design criterion of earthen dam.
11	No. 48-A/4/W	8-10-63	do
12	No. 52/W(M)	26-3-64	Collection of undisturbed soil samples.
13	No. 53/W(M)	30-3-64	Maintenance and preservation of cores obtained from drilling operations.
14	No. 48/G/W(M)	15-5-64	Identification of soils for use on and design criterion of earthen dam.
15	No. 39-1/W	19-9-64	Note on field permeability tests.

VIII

MAINTENANCE

S. No.	Reference	Date	Subject
1	No. 1- M/W of 52	24-6-52	Irrigation works, form of maintenance register and annual abstracts of cost of maintenance.
2	No. 8F/W of 52	6- 52	Instruction for the provision of out-lets and control of supplies.
3	No. 113-F/W (I) 55	7-2-55	Road at d/s end of tanks
4	No. 113-H-2/W(I) 55	6-7-55	Special precautions when completed tank fills for the first time.
5	No. 729/W(I) 55	29-8-55	Precautions in monsoon.
6	No. 7248-84/F-76	27-8-55	Use of soil cement blocks in place of stones for urgent protection of work in rivers.
7	No. 113-E A/W (I) 55	8-9-55	Up-keep of works.
8	No. 113-D-A/W(I)	17-9-55	Instructions regarding irrigation and maintenance of State channels.
9	No. 113-Q-9/W(M) 56	11-5-56	Precautions to be taken when a completed tank fills for the first time.
10	No. 977/B (I)	30-5-56	Removal of silt from State irrigation tanks.
11	No. 304 C-3/W (I)	12-9-57	Precautions to be taken when a completed tanks fills for the first time.
12	No. 816/W(I) 55	5-12-57	Works maintenance in section of canals and head works.
13	No. 329/W(I) 58	13-6-58	Remodelling of old tank bunds By J. S. Narsimhan.
14	No. 21-J-I/W(I) 59	15-7-59	Control of weeds in irrigation channels
15	No. 28/W	26-4-62	Estimate of special repairs.
16	No. 49/W	4-11-63	Maintenance of channels.
17	—	—	Tanks Gauge Return forms No. 1, 2, 3, 4, 5, 6.
18	No. 340-G/W/(M) 66	27-5-68	Construction and repairs of Irrigation tanks.

Specifications

1	No. 105-0-2/W(I) 55	28-3-55	Specifications for execution of earthen embankments on rock foundations
2	No. 113-G-6/W(I)	17-10-55	Specifications for works to be done in connection of major irrigation works.

IX

MISCELLANEOUS

S. No.	Reference	Date	Subject
1	No. 734-Gha/Kha	4-11-53	Necessity of sanctioning the estimate before starting the works.
2	No. 179-Gha	22-5-54	Completion plans.
3	No. 179-C-2/Ka(1) 54	10-11-54	Chips.
4	No. 113-M-W(1) 55	7-2-55	Salient features of the project in local language.
5	No. 428-E/B I 55	5-3-55	Starting of work in anticipation of sanction to the detailed estimate.
6	No. 422/W-J 55	31-3-55	Profile book.
7	No. 145 C/W(I) 55	2-5-55	Progress reports on works under construction.
8	No. 94	27-5-55	Construction of Irrigation works.
9	No. 113-K-L/W/ 55	9-9-55	Completion reports.
10	No. 834/G I 55	27-9-55	Precautions for preventing accidents.
11	No. 113-M 4/W(I) 55	3-10-55	Preparation of Stage-I estimate for projects.
12	No. 304/W I 56	26-7-56	Approach road to tanks.
13	No. 693 W (1) 56	4-9-57	Irrigation and power schemes in the 2nd plan-submission of technical details and project reports.
14	No. 304-03/W (1) 56	12-12-57	(i) Precautions for designs of pipe line. (ii) Precautions for laying water tight cover.
15	No. 227/W(1)54	23-3-58	Allowable working stress in "Steel".
16	No. 292/W(1) 58	15-5-58	Approach road to tanks.
17	No. 318/W(I) 58	3-6-58	Preparation of estimates.
18	No. 361/W(S)	2-2-60	Measures to accelerate and maximise use of irrigation water by improved techniques.
19	No. 210/W(S)60	20-7-60	Important short-coming in project reports
20	No. IV-W(6)	23-10-60	Water proof mud plaster.
21	No. 95/B/W	28-3-61	Study of structural behaviour and embedment of instruments in dam and other massive structures.
22	No. 8	3-5-61	Measurement of materials-Deduction of voids
23	No. 438-F/B-60	20-2-61	Percentage of expenditure on estt. in irrigation branch.

S. No.	Reference	Date	Subject
24	—	June'61	Check statement for general feasibility of projects.
25	No. 9	7-6-61	Starting of work in the absence of Administrative approval & proper sanction to estimate and design.
26	No. 11	20-7-61	Extracts from Indian Concrete Journal. Removal of shuttering.
27	No. 12	1-7-61	Programme register.
28	No. 10	12-7-61	Annual inspection of head-works and channels.
29	No. 15	28-8-61	Compilation of Leading details and working statistics.
30	No- 21	23-11-61	D. O. letter of Shri M. L. Sood. Follow up T. C. Notes— No. 15 Dt. 28.8.61 No. 12 „ 22.7.61 No. 9 „ 7.6.61 No. 10 „ 12.7.61
31	No. 23	15-12-61	Extracts from I. C. J.
32	No. 25	8-2-62	Preliminary check statement for general feasibility of projects.
33	No. 26	31-1-62	Extracts from I. C. J. of April 1961.
34	No- 29-H-/W(M)	28-3-61	Type design of 12" disc. volve.
35	No. 47/W	20-7-63	Duties and functions of E. E. (Soils) and E.E. (Field) regarding soil investigation and quality control.
36	No. 40-C-W (M)	30-7-63	Technical Circular—supply of.
37	No. 51/W(M)	17-1-64	Inspection Nots.
38	No. 31/W	1-2-64	Sanction of Stage II estimate for canal system.
39	No32/N/W(M)64	2-9-64	Filling up of new tanks=Instructions.
40	No. 32/T/W(M)	18-11-64	Filling up of new tanks-Instructions.

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S. No.	Reference	Date	Subject.
41	No. 43/W	23-3-64	Notes on design of clay blankets.
42	No. 54/W(M)	21-4-64	Change of design.
43	No. 56/W(M)	18-12-64	List of items to be covered in the inspection notes by E. E. s. and S. E. s.
44	No. 1405/D/G/65	23-7-65	Arrangement to be made for irrigation of lands on the side of canals etc.
45	No. 58/W (M)	2-3-65	Data of river gauge discharge sites and silt observation stations.
46	No. 463/W/ (M) 65	17-12-65	Conversion of existing dry crop pattern to new crop.
47	No. 61/W/M/66	2-4-66	Lift irrigation schemes.
48	No. 63/A/W(M) 66	2-6-66	Meeting of the Secretariate level Committee of Agriculture production held on 7-2-66.
49	No. 59/C	4-10-66	Incumbency statement to accompany revised estimates.
50	No. 292-R-1/W(M) 64	12-5-64	Notes on direct benefits of selected new projects.
51	No. 44-K-2/W(S)65	20-12-65	Extension of the tail of distributories and construction of water courses.
52	No. 182/W(M)66	25-2-66	Monthly statement of discharge observation for all river gauge and discharge stations in the State.
53	No. 74-T-2/B-64	9-3-66	Closing of stock registers and their review.
54	No. 21-I/Estt./66	21-4-66	Report of the committee to suggest ways and means of improving financial returns from irrigation projects.
55	No. 240/W (M)	7-6-66	Check up of Nalla closure works carried out during current working season.
56	No. 13/F/Estt./66	25-6-66	Improving benefit cost ratio of medium projects.
57	No. 9/2/3(A) 66, H & S	21-11-66	Criteria for design flood for dams and other hydraulic structures.
58	No. 326-W (S) 67	27-5-67	Land plans for transfer acquisition of Govt.-Private Land.

S. No.	Reference	Date	Subject
59	No. 62-J/Estt./66	24-4-60	Irrigation and Power Projects-Submission and Examination of.
60	No. 450-A/W(M) 69	27-1-69	Criteria for design flood for dams and other hydraulic structures.
61	No. 162-S/W(S) 69	1-9-69	Irrigation Projects— Submission and Examination of.
62	No. 73 W(M) 69 16-D/SE(D) 69	9-10-69	Sign-boards of Irrigation department.
63	No.68/SE(D) 69	7-11-69	Standard proforma for the L-Section of Bund, Grid Plan of bund, and canal L-Section.