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The Consulting Engineer to the Govt. of India (Road Development) is an ex-officio Member of all Committees.

INDIAN ROADS CONGRESS

NOTICES AND ANNOUNCEMENTS

I. CONTRIBUTION OF PAPERS FOR THE TWENTY-FIFTH SESSION OF THE INDIAN ROADS CONGRESS

The next General Session of the Indian Roads Congress will be held at Bhopal from the 3rd to the 10th January, 1961. (Programme printed on inside front cover). Members are requested to contribute Papers on any subject connected with Highway Engineering for discussion at the Session.

2. **Procedure:** Members who intend to contribute Papers on any subject connected with Highway Engineering are requested to intimate the fact to the Secretary, Indian Roads Congress, and to send a short synopsis of their proposed Papers as early as possible.

On receipt of acceptance of the subject matter of the Paper, the Member concerned should send his contribution to the Secretary, Indian Roads Congress, complete in all respects and with original drawings, photographs, etc., as and when ready. At least **three** copies of the types

5. **Medals :** The following Medals are available for award :

(i) **The Mitchell Medal :**

For exceptionally good Papers contributed to the Indian Roads Congress in any year. This has been instituted to perpetuate Sir Kenneth Mitchell's connection with the Congress.

(ii) **The Indian Roads Congress Medal :**

For Papers considered by the Council of the Indian Roads Congress to be of a decidedly more than average merit.

6. The Council have reserved the right to award more than one Medal in any year or to withhold the award of a Medal in any year without assigning any reason. All Members are eligible for the award of the Medals.

7. Rules and Regulations for the contribution of Technical Papers and the award of the Medals are published on pages 11 to 16.

II. RULES AND REGULATIONS FOR THE CONTRIBUTION OF TECHNICAL PAPERS AND THE AWARD OF MEDALS

1. The following Medals are available for award :

(i) **The Mitchell Medal :**

This is a bronze medal to be awarded annually for exceptionally good Papers contributed to the Indian Roads Congress in any year. This has been instituted to perpetuate Sir Kenneth Mitchell's connection with the Indian Roads Congress.

(ii) **The Indian Roads Congress Medal :**

This is also a bronze medal to be awarded annually for Papers considered by the Council of the Indian Roads Congress to be of a decidedly more than average merit.

2. PROCEDURE FOR CONTRIBUTION OF TECHNICAL PAPERS

2.1. Our procedure in the past had been to invite Members to contribute Papers a few months before the holding of the General Sessions of the Indian Roads Congress. On receipt, the accepted Papers were circulated in advance to Members for prior study a month or so before the date fixed for discussion. This procedure resulted in the receipt of a large number of Papers all at one time and editing and printing had often to be done very hurriedly. Also Members often found that one month did not give them sufficient time to study all the Papers before the discussion at the Congress Session.

2.2. It has, therefore, been decided by the Council that Members should be invited, to contribute Technical Papers throughout the year, as and when they are ready, and that the accepted Papers should be published in the Journals of the Society which, it is hoped, will be issued quarterly in future.

2.3. The Council consider that this will give Members more time to study the Papers and will also facilitate editing and printing. A record of the discussion and the comments received by correspondence will be published with the Authors

thus "Scale 10 ft=1 inch" should be avoided as this would be incorrect when size of the plate was reduced photographically.

5.6. Coloured inks should not be used. When it is desired to distinguish lines, dotted or chain dotted lines should be used instead of colours.

5.7.1. In drawing diagrams or graphs, the following points deserve the consideration of Authors.

5.7.2. From the standpoint of pleasing appearance, a rectangular graph or drawing with proportions between 3 by 5 and 3 by 4 is to be preferred to a square one.

5.7.3. The appearance and effectiveness of a graph depend in a large measure on the relative thickness of lines used in its component parts. The thickest line should be used for the principal curve. If several curves are presented on the same graph, the line width used for curves should be less than that used when a single curve is presented. Co-ordinate rulings should be the narrowest in thickness. Principal reference lines such as the axes should be wider than other rulings but narrower than curves. For the size of reduction that is usually adopted, for the I.R.C. Journals it is considered that the thickest line *when finally reduced* should not be more than $2\frac{1}{2}$ points, i.e., 0.035 inch in width.

5.8. Finished illustrations should not be folded for purposes of despatch. When mailed flat, they should be stiffened by using card-boards or rolled with the drawing outside to prevent cracking of the Indian ink lines and securely packed.

5.9. "Half-tones" are ordinary photographs and it is necessary to see that prints are clear, slightly over printed and preferably glazed. Photographs which are dim or out of focus do not come out distinctly in reproduction and make a bad "half-tone". Negatives should accompany the photographs whenever possible, and will, if desired, be returned when done with. Captions should be written on the back of prints in soft pencil.

6. BRIDGE DETAILS

6.1. Members contributing Papers on any bridge work actually carried out are requested to give *inter alia* the following details:

- (a) A site plan showing the road and river for two miles on either side of the bridge site;

- (b) A dimensioned cross-section of the roadway;
- (c) The loading on which the design is based;
- (d) The cost per square foot of the elevation area comprised by the formation level and the bottom of the foundations; and
- (e) The ratio of the total cost of the substructure to the cost of those parts of the superstructure as are subject to variation with variation of span.

collect these slips at frequent intervals. The slips will be sorted out by the Secretary and at the end of the talk by the Speaker or Speakers, the Chairman will read out the queries and the Speaker or the Author will give a reply.

7. Members who are unable to attend the Session and who desire to comment on any Paper should send one copy of a note of their comments to the Author of the Paper and two typescript copies to the Secretary. A gist of the comments together with the Author's reply thereto will appear in the Proceedings.

8. After all members wishing to do so have spoken on a Paper, or when the Chairman considers that because of lack of time the discussion must be brought to a close, the Author will be called upon to reply.

9. If the Author of a Paper is unable to be present, he should depute another member to introduce his Paper and to reply to the discussion and should inform the Secretary accordingly.

IV. LIBRARY

1. Information and books on loan from the libraries of the Consulting Engineer (Road Development) and the Indian Roads Congress are available to **Members** of the Indian Roads Congress and can, on application, be had of the Secretary, Indian Roads Congress, New Delhi, under the following arrangements:

(a) **For Members of the Indian Roads Congress who are in the service of the Central or State Governments.**

Specifically named books or literature in response to enquiries on technical subjects will be sent to officers of the rank of Executive Engineer and above. Others should apply through their Executive Engineers or officers of equivalent rank.

(b) **For Members of the Indian Roads Congress who are not in the service of the Central or State Governments.**

Applications for specifically named books as well as enquiries for literature on technical subjects should clearly state the member's roll number, his correct postal address, and the title and author of the book.

2. The library is intended primarily for reference. It is the source of information from which the Secretary, Indian Roads Congress, is enabled to answer enquires addressed to him.

3. **Books are loaned for reference only and not for continuous use.** The library cannot be expected to relieve officers of the necessity of purchasing books required constantly or for long periods of time.

4. Ordinarily not more than two books will be issued at a time, but in special cases a larger number may be issued at the discretion of the Secretary.

5. The following rules will be strictly enforced:

- (a) Books are issued for one month in the first instance. If a book is required for a longer period, an intimation should be sent to the Secretary, Indian Roads Congress for renewal before the due date of return. The book may then be re-issued for another month at a time at the discretion of the Secretary but in no case

will any book be issued for a total period exceeding three months.

- (b) If a member does not return library books when the period of loan has expired or in any case within three months of the date of issue and thus deprives other members of their use, he will be liable for a fine at the rate of one anna a day for every day of retention upto three months and two annas a day thereafter upto six months. The Secretary will also have no power to issue any more books to the member until all the books already issued are returned. If all books are not returned within six months, twice the cost of the books will be debited to the borrower in addition to the fine referred to above.
- (c) Current issues of Journals cannot be issued to members outside the Consulting Engineer (Road Development's) Office, but back issues of certain Journals may be sent on loan for a limited period.
- (d) Books are issued strictly subject to the condition, in all cases, that they will be returned promptly if actually required and called for by the Secretary, Indian Roads Congress. Retention of a book after it had been recalled will render the member liable to the same penalties as if he had retained a book beyond the period of original loan.
- (e) Borrowers are requested to take every care of books while in their possession, and particularly not to mark, underline, or note on the pages.
- (f) If, during the period of issue to a borrower, any book is lost or so damaged as to be unserviceable for future use, the Secretary shall recover from the borrower a sum equal to the cost of obtaining another copy of the book.

6. Instructions :

- (a) No acknowledgment is required other than the postal acknowledgment card.
- (b) While returning books, care should be taken to get them adequately packed to prevent damage in transit. They should be sent "**registered and acknowledgment due.**"

7. General :

- (a) Rare or specially valuable books and certain books of reference will not be sent out of the library.
- (b) Any book may, however, be consulted in the library during office hours.
- (c) Members who retain books for longer than a month after they have been called back or for longer than six months from the date of original issue and thus selfishly deprive other members of the use of the books, will be fined and/or charged subject to the penalties stated in these rules and deprived of all the privileges of membership until the dues are paid.

NOTE: All Members of the Indian Roads Congress, not in arrear subscription for more than 90 days, are entitled to borrow books.

V. NEW ADMISSIONS

LIST OF MEMBERS OF THE INDIAN ROADS CONGRESS
ENROLLED FROM 1-7-60 TO 30-9-60

Serial No.	Roll No.	Name	Address
1	2799	D. N. Chopra	Assistant Engineer (Consultant), Ministry of Transport & Communications, Dept. of Transport, Roads Wing, Jammagar House, Shahjahan Road, New Delhi .
2	2800	S. K. Sinha	District Engineer, C/o Shalimar Tar Products (1935) Ltd., 6, Lyons Range, Calcutta-1 .
3	2801	S. K. Sarkar	District Engineer, C/o Shalimar Tar Products (1935) Ltd., 6, Lyons Range, Calcutta-1 .
4	2802	C. B. Sharma	Assistant Engineer, P.W.D., Uttarakashi (U.P.).
5	2803	T. B. Krishna Swamy	Assistant Professor in Civil Engineering, College of Engineering, Anantapur (Andhra Pradesh).
6	2804	D. K. Lahoti	Assistant Engineer, P.W.D., Uttarakashi (U.P.).
7	2805	Raj Kumar Aggarwal	House No. 5J-23, Sector 16 C, Chandigarh (Punjab).
8	2806	John W. Key	Bitumen Manager, Burmah-Shell, General Manager's Office, P.O. Box 688, Bombay-1 .
9	2807	G. K. Bhatt	Assistant Engineer, Temporary Division, P.W.D., Basti (U.P.).
10	2808	M. G. Datar	C/o S. B. Joshi & Co. Private Ltd., Narmada Bridge Works, P.O. Hoshangabad (M.P.).
11	2809	Harbinder Singh	Assistant Engineer, P.W.D., B. & R., City Sub-Division II, Jaipur (Rajasthan).
12	2810	A. B. Patel	Assistant Engineer, Ahmedabad Municipal Corporation, 9, Chandra Colony, Panch Vati, Ahmedabad-6 (Gujarat State).
13	2811	S. D. Sharma	Sub-Divisional Officer, Survey P.W.D., B. & R., Jagdalpur (M.P.).

Serial No.	Roll No.	Name	Address
14	2812	R. C. Gupta	26/59, Birhana Road, Kanpur (U.P.).
15	2813	Prakash Chandra	

VI. DEATH

The Council have received with regret intimation of the following death :

<i>Serial No.</i>	<i>Roll No.</i>	<i>Name</i>	<i>Address</i>
1	1707	B. N. Gupta	Executive Engineer, P.W.D., B. & R., Jhunjhunu Division, Jhunjhunu (Rajasthan).

Paper No. 223

“AN INVESTIGATION FOR EVALUATING AN AIRFIELD PAVEMENT”

By

DR. H. L. UPPAL AND H. S. BHATIA*

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* Central Road Research Institute, New Delhi-20.

TABLE 1

Showing the general characteristics of the subgrade soil,
both under the pavement and berms of the airfield

Section No.	Location	Liquid limit	Plasticity Index	Fraction retained on No. 200 sieve per cent	Natural moisture content per cent	Natural density gms/c.c.
2	Berms	19.2	6.5	37.5	13.5	1.63
4	"	20.8	6.0	34.2	15.0	1.65
6	"	22.3	8.4	30.2	15.2	1.60
8	"	19.6	6.2	28.0	13.3	1.58
9	"	21.1	6.0	31.6	11.8	1.61
11	"	19.3	5.4	33.4	10.5	1.60
13	"	18.2	4.9	33.7	8.3	1.57
15	"	18.4	5.0	35.1	9.2	1.64
17	"	19.6	6.8	31.3	11.4	1.59
19	"	20.0	6.7	29.7	15.5	1.63
21	"	20.1	7.0	28.6	19.5	1.64
23	"	21.8	7.5	32.4	19.0	1.62
25	"	23.3	8.7	31.7	18.0	1.65
27	"	23.6	8.2	29.8	17.8	1.66
3	Under pavement	20.7	7.2	32.5	14.8	1.70
7	"	20.5	6.2	30.7	12.8	1.68
22	"	24.3	6.8	29.4	19.8	1.70
11	"					

