MEMORANDUM

TO: L. Tall

FROM: L. S. Beedle

SUBJECT: Card Index System

It seems to me that it might be appropriate to make a study of the information retrieval plans of the ASCE as outlined on page 42 of the August issue of CIVIL ENGINEERING. The purpose of this would be to consider modifying our present Fritz Laboratory Library system.

Since the EJC is involved, I would guess that the system is on an engineering-wide basis. If this is so, we should seriously consider shifting our library to that plan.

It might be appropriate to discuss this with Mr. Mack at the library. (Not our doing it, but what he thinks of the system)

Lynn S. Beedle

LSB:gmt

cc: J. W. Fisher
EJC Indexing System (Information Retrieval)

References:

2. Civil Engineering Jan. 1963 p. 28

Ref 1

Basic Plan for Uniform Info Retrieval System

1. Prep of a Thesaurus of Eng'g Terms - Scheduled for 1963

2. Abstract Card to contain:
   a. List of key words
   b. Abstract
   c. Bibliographic Info
   d. Accession number

3. Group of key word cards

The Abstract Card

<table>
<thead>
<tr>
<th>5&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keywords:</td>
</tr>
<tr>
<td>Abstract:</td>
</tr>
<tr>
<td>Bibliographic:</td>
</tr>
<tr>
<td>3&quot;</td>
</tr>
</tbody>
</table>
F.L. LIBRARY

ASCE TRANS

ASTM PROC

ASTM STDS

ACI PROC

AREA PROC

U.S. BULL.

JNL. OF APPLIED MECH.

MAGAZINES

A, B, C

354-

NACA, NASA

FL REPORTS

CATALOGUE

JEFFERSON SHELF

BOOKS

REPRINTS
Library System (Pref-IR) - Dewey Decimal System

EJC System of Information Retrieval

- Purpose: To gain access to info within the realm of 30,000 articles/wk or 1.5 M/yr in 60 languages
- Mechanics
- Available Material
- Advantage

Fritz Lab Library
- A, B, C Files
- Books, Reports, Mags, Proc. Util., etc., Jefferson
- Filing System (How a report is filed): Shelf
- Relation to EJC System: Keyword System (SI)
- Other uses: Reprints

RM 502 (LSB Personal Library)
- Hydraulics (J BH Lib.)

Personal Library
- Personal Info Center
- Abstract Cards
- Key-Word Cards
- Author Cards
- Books - File by subject, not numbered probably

How to Obtain Literature (Hints)
- FL Reports
- Reprints
- ASCE Papers
- Mags - Duplicating (Xerox)
- Team-Up!
ELEMENTS OF INFORMATION RETRIEVAL

- Definition of I.R. - The process of gaining access to a literature for purposes of obtaining some particular desired information. It does not matter whether the literature is at hand.

- Elements
  
  - A working thesaurus - i.e. a standard vocabulary list giving possible word synonyms with indication of the degree of generic meaning.
  
  - Abstract card
    
    - Accession no.
    - Key words
    - Abstract
    - Bibl. data

  - A group of key-word cards - which leads to a particular matl. which will contain the necessary info.

  + Optional - Author card (most often necessary in a library system)
0 PREPARATION
  0 EACH AUTHOR PROVIDES THE INFO
    0 5" x 3" CARDS

0 STORAGE AND RETRIEVAL

0 TWO TYPES OF FILE NO.
  - ACCESSION NO. (CROSS-REFERENCE BETWEEN ABSTRACT CARDS & KEY-WORDS CARDS)
  - (LIBRARY FILE NO.) (ACTUAL RETRIEVAL NUMBER)

0 HOW TO STORE INFO

0 HOW TO RETRIEVE INFO

0 AVAILABLE MATT - ASCE JNL, MAGS; ACI JNL, OTHERS ARE OR WILL BE

0 ADVANTAGE

A LIBRARY USING THE SYSTEM ACTUALLY BECOMES AN INFORMATION CENTER FOR THE SUBJECT MATTER IT HANDLES, I.E. ABSTRACT CARDS OF ALL REPORTS ON THE FIELD CAN BE KEPT AND THESE LEADS TO THE INFO ON HOW TO OBTAIN THE LITERATURE
THE KEY WORD CARDS

(FILLING OR STORAGE)

1. REPORTS ARE FILED ACCORDING TO NUMBER INDICATED AT BIBLIOGRAPHIC DATA

2. ABSTRACT CARDS ARE FILED NUMERICALLY

3. AUTHOR CARDS ARE FILED ALPHABETICALLY

4. KEY WORD CARDS ARE FILED ALPHABETICALLY

(RETRIEVAL)

1. SEARCHER MAY HAVE AUTHOR'S NAME IN WHICH CASE HE REFERS DIRECTLY TO AUTHOR CARDS

2. IF HE DOESN'T HAVE ANY PARTICULAR PAPER TO LOOK FOR...... HE WILL REFER TO THE KEY WORDS HE HAS IN MIND .... MATCH CORRESPONDING
Accession numbers... refer to abstract cards and decide whether he wants to retrieve the article. Final retrieval can be through the file number or if the report is in a periodical, thru the bibliographic information.

It seems that this system is tailored so that abstract of info. mats. can be filed w/o the paper itself on hand... i.e. it will give an info on where to get the article, and it can either be on your file or it will be available from libraries.

In other words... our library itself can become an information center as well.
PRESENT FL LIBRARY SYSTEM

STORAGE

- Mat. Books - Filed by Dewey Decimal System
- PAPERS
  - A Nos.
  - B Nos
  - C Nos.

COURSE REPORTS 354 No.

F.L. REPORTS F.L. REPORT No.

NAAC NASA TN or TM No.

PERIODICALS
- Bound & Filed on Bookshelf
- Transactions, etc. (Current Issues are on Mag. Stand)

INDEX CARDS: AUTHOR CARDS (Filed Alphabetically)

SUBJECT INDEX CARDS (Filed Alphabetically and acc. to S.I. No.)

S.I. No. No.

"Title & Bibliographic Information"

(In effect, this is a one- or two-keyword system - but w/o the abstract of the paper.)
ASCE Moves Toward More Efficient Information Retrieval

With the January 1963 issues, ASCE will initiate the publication of abstracts of articles published in both Civil Engineering and the Division Journals. The abstracts will be arranged in such a manner that they can be incorporated into any one of several index systems, depending on the reader's preference.

Reasons for this advance will be obvious to most readers. But some background information may be in order.

It has been estimated that some 30,000 technical articles are published every week throughout the world. This amounts to approximately a million and a half articles a year in some 60 different languages. Of course, no one will find all of these articles to be of interest, but nearly every engineer regularly reads at least one technical journal. Continuing surveys conducted by Civil Engineering show that most ASCE members read at least one other technical journal in addition to Civil Engineering. Much of the information read will be used some time in the future by the reader or by an associate—if it can be found. How will the reader find the information when he needs it?

Each engineer has had to answer this question himself. Depending on the facilities and time at hand, his search may range from the Engineering Index to the flipping of pages of publications selected at random. With the introduction of carefully prepared abstracts and a more complete indexing system, ASCE will assist readers with information retrieval.

ASCE is cooperating in a plan sponsored by Engineers Joint Council (EJC). This plan is a major step toward better information retrieval of engineering literature.

Other societies are adopting the EJC plan. The American Institute of Chemical Engineers and the American Society for Metals have been printing abstracts for a number of months. It is expected that this program will lead to the development of: (1) A Thesaurus of Engineering Terms, and (2) uniformly prepared abstracts. Both of these are to be incorporated into a uniform concept-coordinated plan of information retrieval.

The current (and basic) plan for a uniform information-retrieval system includes: (1) A thesaurus; (2) an abstract card for each article, to contain a list of key words, an abstract, bibliographic information, and an accession number; and (3) a group of key-word cards—one for every key word used.

There is a great variety and a lack of uniformity in the use of language among engineers. Organization of vocabulary is needed for communication among the creator, indexer, and searcher. A technical thesaurus is an efficient physical form of vocabulary control. A thesaurus is a vocabulary that lists possible synonyms for each term, indicates the higher and lower generic classes, and suggests additional terms to describe a concept for use in either storage or retrieval. Vocabulary control of this type is a necessity in an effective information system.

The EJC Thesaurus will be compiled from a list of words submitted by the several engineering societies. It will be continuously updated by the inclusion of new terms for an expanding terminology. The first edition of the EJC Thesaurus is scheduled for publication during 1963.

The abstract cards

Each abstract card should have four parts (see Fig. 1). Along the top will be a list of terms (key words) indicative of the content of the article. The number of key words will be dependent on the number of materials, things, ideas, or operations discussed in the article. Ideally all key words selected by the author will already have been included in the EJC Thesaurus; initially, however, words will be used that are in general use by the civil engineer.

Next comes the abstract, which is designed to indicate the content of the article in a few simple statements rather than by unconnected words, as in the case of the key words. The searcher proceeds to this abstract if the key words suggest that the article is what he is looking for. Then, if he decides that the article is pertinent, the searcher needs the bibliographic information, so that he can get the actual article from his file or from a library. Accordingly, this reference is placed at the bottom of the card.

A box in the upper right corner of the card permits the user to assign a document-accession number to every article he wishes to index. This number is a serial number for use in his own particular system—a reference number that enables him to refer back to the abstract cards, as described below.

The card file containing these abstract cards will combine material from various sources. Each user will, of course, add cards from other sources as he may desire.

Key-word card file

Many individuals, and certainly all libraries, will find it highly desirable to take the next step in indexing. There

FIG. 1. The abstract card contains key words, the abstract, bibliographic information and an accession number assigned in an ascending numerical order by the user. Thus this is the 64th abstract card in the user's file. See article on page 40.
will usually be one key-word card for each key word in the user's system, and he is, of course, at liberty to use only those terms he wishes (see Fig. 2). However, the more terms he uses, the better chance he has of retrieving the filed information when he wants it.

There are many convenient ways of preparing this file, but for systems too small for computing machines, the following method seems the best compromise: The user, after giving each abstract card its accession number, adds to each key-word card the accession number on the abstract file card. He places the accession number in the column corresponding to the units digit (for example the number 64 would be placed in the column numbered 4, as shown in Fig. 3). This enables him to match numbers among several key-word cards more easily when he is making a search. This operation of matching accession numbers during a search is called "concept coordination."

Retrieving information is the reverse procedure of storage. The individual user will go to his system with appropriate key words in mind. He will select the key-word cards and compare for matching article numbers. Using the accession number, the searcher can find abstract cards to determine whether the original articles should be retrieved.

For example, the article in this issue of CIVIL ENGINEERING (page 40) about epoxy for floor toppings would have among its key words the following: floors, epoxy, chemical resistant, concrete, and tests. Ideally, in the user's file each of these terms would have a key-word card and the article would have an abstract card. Assuming the individual's accession number for this article was 64, the number 64 would be placed in the column numbered 4 on each of the five key-word cards.

In searching for articles on epoxy toppings for concrete floors, the searcher would probably look at the key-word cards for epoxy, concrete, and floors. He would look for those accession numbers that appear on all three cards. The number 64 would be one such number. The searcher would then go to the abstract card for article number 64. If the other key words on the abstract card indicated that the article might be of interest, the searcher would read the abstract. Possibly the abstract would provide the searcher with all the information needed. If so, the search would be completed. If not, he would use the bibliographic information to find the article.

The role of the author

Every author will play a primary role in this information retrieval system by supplying a list of key words and an abstract of his article along with his manuscript. Key words are similar to the subject headings used in ordinary subject and author indexes. They indicate to the searcher what principal topics are covered—such as floors, epoxy, concrete, etc.

There are two types of abstracts. Informative abstracts are comprehensive and convey factual results, whereas an indicative abstract gives only a general idea of what the searcher will find by reading the article. For the most part, ASCE will strive for informative abstracts. The scope of the paper is the governing factor in determining how informative the abstract should be.

Procedures for preparing a good abstract

In preparing an abstract of his article, an author should follow definite steps to obtain the desired coverage as follows:

- Review the summary and conclusion of the paper.
- Review the text for additional information and examine captions of tables and figures.
- Write the topical or opening sentence.
- Complete the abstract by introducing the what, how, and why of the article.

The topical sentence should include the principal findings of the document. It should not be a restatement of the title of the article. Brevity, clarity, and accuracy are the criteria rather than originality. Avoid starting with "this paper presents."

Abstracts must be exact, concise, and non-ambiguous. The paper must be condensed but not altered. The abstracts must be kept to a maximum of 175 words, exclusive of bibliographic citation.

The following general rules for style in writing abstracts should be followed:

1. Use direct statements (active voice) rather than indirect ones (passive voice) whenever possible, within the limits of putting all the most important facts first.
2. Use the present tense of verbs in describing conclusions and generalizations, and in indicating the content of the document. Use the past tense only when describing the work done and the observations made before the writing of the documents being abstracted. The verb should follow the subject of the sentence as closely as possible.
3. Use complete sentences in all cases.
4. Employ short sentences, but with variety in length and structure. (Beginning some sentences with short phrases or clauses is permissible or even desirable.)
5. Avoid jargon and colloquialisms whenever possible, although industry-accepted terminology and commonly understood abbreviations can be used. Phraseology that will confuse a foreign user should be avoided.
6. Follow other rules of modern grammar, semantics and syntax. For example, use short, simple, familiar words, not long abstract ones.
7. Use single, positive words and avoid unnecessary words.

It is realized that the system described is by no means perfect at this point. It is a start and it will be improved as experience is gained.

---

1. EJC—develop Thesaurus and coordinate activities of engineering societies.
2. ASCE—publish abstract-card material with key words, abstract, and bibliographic information.
3. Author and/or Reviewer—submit list of key words and abstract (maximum 175 words) with article.
4. User—cut out abstract-card material and arrange on 3-in. by 5-in. file cards. File abstract cards by the individual's own accession numbers. Prepare key-word card for each key word that he desires to include and list appropriate accession numbers on each key-word card.
DUTIES OF THE LIBRARIAN IN THE REFERENCE LIBRARY

The duties of the reference librarian is to see that all material is properly placed in the library. The first step in the care of the library is indexing and filing of reports, catalogues, magazines, books, and other library materials. The second step is the circulation list of indexed literature pertinent to the work of the staff. Thirdly is the annual inventory and the recall of checked-out materials. A thirty-day loan basis has been established on all reference materials. Also each person using the library maintains their own individual sign out sheet. Maintenance of the Jefferson Shelf is also very important. A monthly inventory should be conducted and the shelves are to be locked at all times. Next comes the handling of Fritz Laboratory reports and reprints. And the final duty is the maintenance of the files, reservations box, cabinets and all other equipment in the library.
CLASSIFICATION OF REFERENCE MATERIAL IN THE LIBRARY

INDEXED ITEMS

1. "A" Reports - 9" x 12" Heavy A 000
2. "B" Reports - 5" x 9" Medium B 000
3. "C" Reports - 9" x 12" Thin C 000
4. "FL" Reports - Fritz Lab. Reports FL 000.00
5. Thesis, dissertations, class and/or course reports, and notes with no project number. 354.00
6. NACA Reports - with TR, WR, TM, and TN, no.
7. NASA Reports
8. ASTIA Reports
9. Reference Books
10. Jefferson Shelf Books
11. Fritz Laboratory Publications

UNINDEXED REPORTS

1. ASTM Standards
2. Periodicals
3. Catalogues
4. Sweet's Catalogues
INDEXING AND FILING

GENERAL INSTRUCTIONS

All materials to be filed in the library must be stamped with a Fritz Laboratory identification.

Materials to be indexed. All materials related to Civil Engineering that are of interest to the staff members are to be indexed. Literature in related fields such as mechanics, metallurgy, mathematics, and physics may also be indexed if they are of immediate concern to research projects and courses in the department.

Materials not to be indexed. Bound volumes or periodicals which normally have separate indices need not be indexed. However, the library research assistant should see to it that the indices are always available and filed with the volumes.

Articles in periodicals may be indexed if they have immediate special interest to the staff. Periodicals of no interest to Fritz Laboratory Staff may be discarded or sent to the main library.

Report. Technical Reports to be indexed according to the procedures outlined in this section include A, B, C, FL, and 354 reports. The routine for indexing technical reports is as follows:

cont...
1. Reports are given subject index numbers on the TITLE PAGE. The subject number is given by the research assistant assigned to the library (See Appendix) He also indicates whether the report is for listing or not.

2. A Fritz Laboratory identification is stamped on.

3. The reports are given file numbers according to its classification in Section 2. The numbers according to its are printed on the upper left-hand corner of the cover page. As the numbers are used on the list of file numbers they are to be crossed out. *Note that special numbers are assigned to reports coming from certain universities and agencies.

4. White index cards are prepared for each subject number assigned and for each author; If there are more than two authors, only on principal author card should be made up, showing all the co-authors. Instructions for typing index cards are given ________________.

5. Stamped INDEXED at the upper reight-hand corner of the Title Page.

6. If required, record on the list for circulation

7. File the cards. *Note if the reprods are duplicates, dispose cards and report and use the file number for other reports.

Under the classification of reference books include books related to civil engineering, which are obtained through Fritz Laboratory funds, donated to the library, and books from the main library kept in the laboratory. Reference books are indexed and file on the shelves according to the Dewey Decimal Classification use in the Main Library.
DEWEY DECIMAL CLASSIFICATION

The Dewey Number is assigned according to the principal subject. (A copy of a book on the Dewey No. may be borrowed from the main library and kept in the Laboratory).

The second part of the classification is obtained from the Cutter's Table, which groups the books alphabetically, according to the principal authors last name and the first significant word of the title. Fritz laboratory Library has a copy of this table.

EXAMPLE: SURVEYING, by Charles B. Breed. This classification number of this book is : FL 526.9 B 832 s

where FL indicates that the book belongs to Fritz Laboratory. (LU books will already have Dewey Numbers)

526.9 is the Dewey Number

B is the first letter of the author's last name

832 is the Cutter Number for the author's last name

s is the first letter of the title, disregarding articles such as "the" and "a".

If a check reveals that the Dewey Number is duplicated and additional number is added after the last letter, i.e., FL 526.9 F832s1. A newer edition of a book is identified by adding the last two numbers of the year, i.e. B832 s64.
ROUTINE PROCEDURE

First a subject number, a Dewey Number, and a "list" or "no list" classification is given to the book by the library research assistant. These are all indicated on the Title Page.

Next a Fritz Laboratory identification is stamped on the back spine of the book.

The assigned Dewey Number is checked for duplication by looking up the index catalogue. If the number is not duplicated, it is printed on the back spine of the book.

Index cards are typed for each subject index number assigned, and for the author. Buff-colored cards are used for FL books and Blue cards are used for Main Library.

Stamp "INDEXED" at the upper right hand cover of the Title Page.

If required, record on the list for circulation.

File the cards

File the book on the shelf.
JEFFERSON SHELF BOOKS

Books on the Jefferson Shelf are part of a collection of the latest technical books in the fields of civil engineering. The funds from this collection come from donations from Mr. P. O. MacQueen. The same indexing procedure as for the reference books will be used for Jefferson Shelf books except that the Dewey Decimal number is preceded by the letter JS instead of FL, and Orange-colored index cards are to be used. A separate list of JS books should be kept for quarterly inventories.

Jefferson Shelf Books are to be loaned out on an overnight basis only. These books are to be in the library at all time between 10:00 a.m. and 4:30 p.m., from Monday through Friday. (See FL Memo on Jefferson Shelf Procedures, Appendix #)

Reservation will be taken on the first come first serve basis. The shelves are to be kept locked at all times. And only the librarian has the authority to open them.

A monthly inventory list should be kept up to date starting with the first of each month.
### SUBJECT CARD

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject no.</td>
<td>report no.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>title</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>by</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>author</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>pub date</td>
</tr>
</tbody>
</table>

### AUTHOR CARD

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>author</td>
<td>report no.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>title</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject no.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>pub date</td>
</tr>
</tbody>
</table>
INSTRUCTIONS FOR TYPING AND FILING INDEX CARDS

The Subject Card has the subject numbers typed in the upper left-hand corner. If there are two numbers, type one card for each number, reversing the numbers each time. 623 for the first card; 567 for the second card. Then center the title and type all in caps. Center the word BY and directly under that type the author's name. And in the lower left-hand corner type the date of the publication.

The Author Card has the author's last name first typed in the upper left-hand corner, then his first name, and middle initial. Type one card for each author in rotation as the subject cards. The title is done as the subject card all in caps. In the lower left-hand corner the subject numbers are typed. And in the lower right the publication date.
FOREIGN PAPERS
AND
SOCIETY INDEX

The index cards should always contain the English translation of the foreign title. The foreign title should appear first and the English title followed in parentheses.

Write a Society card in place of an author card if there is no author listed. The card may be made up for either the name of the organization that prepared the report, or the name of the magazine or periodical which issued the article.
FILING INDEX CARDS AND REPORTS

Subject index cards are filed numerically according to the subject index number and according to the alphabetical order of the first significant word in the title.

Author cards are filed alphabetically, in the order of the author's name and then in the order of the title if an author has more than one paper.

Shelves are assigned to each of the different classification of reports given in page _____. These reports are filed in numerical order in their respective shelves.
A listing of newly indexed reports which are of interest to the staff is distributed from time to time. It is desirable to send out this list periodically. A sample of a circulation list is given in page_____.

Distributed
CIRCULATION LIST
CHECK-OUT AND RECALL PROCEDURES

All books filed in the library are available on a 30-day loan basis, except for Jefferson Shelf Books which are available overnight only.

All reports and books taken out from the library must be checked out. The librarian keeps a check-out file which must be filled completely.

The librarian should see to it that borrowers of overdue library material are notified and requested to return the material
UNINDEXED REFERENCES

All available editions of the ASTM Standards are kept on the bookshelf without indexing. The ASTM publications are received through the membership of a Fritz Laboratory staff member, usually the library director.

The handling of periodicals is outlined in a PERIODICAL CONTROL FILE kept in the library.

Periodicals are classified into BOUND PERIODICALS and UNBOUND PERIODICALS. Bound periodicals include bulletins, proceedings, transactions, journals, magazines and other technical literature. Periodicals which are of minor interest to the staff are clipped or discarded.

Catalogues are listed by the company's name according to their product classification. A separate CATALOGUE FILE is kept for this purpose. The catalogues are then filed in a designated cabinet drawer in alphabetical order of the name of the company.

Each year the McGraw-Hill Book Company sends a complimentary copy of the Sweet's Catalogue. The latest edition is filed on the bookshelf. Earlier can be discarded or given to the main library.
CORRESPONDENCE

Fritz Laboratory Library correspondence is concerned with loan and return of library materials, sale of reprints and Fritz Laboratory reports, and establishment of exchange of literature with other agencies and universities. Correspondence on exchange agreements are kept in the files permanently. All other correspondence are kept only for two years.

The Fritz Laboratory Library maintains several exchange agreements with agencies and universities around the world. These agreements are made primarily to be able to maintain up-to-date information in the reference library. A list of agencies and universities with which the laboratory has an exchange agreement is given in page________.
EXCHANGE AGREEMENTS

The Fritz Laboratory Library maintains several exchange agreements with agencies and universities around the world. These agreements are made primarily to be able to maintain up-to-date information in the reference library. A list of agencies and universities with which the laboratory has an exchange agreement is given in Appendix 8.
<table>
<thead>
<tr>
<th>Institution</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown University</td>
<td>A 1.000</td>
</tr>
<tr>
<td>David Taylor Model Basin</td>
<td>A 500.000</td>
</tr>
<tr>
<td>Illinois Institute of Technology</td>
<td>A 100.000</td>
</tr>
<tr>
<td>Polytechnic Institute of Brooklyn</td>
<td>A 5000.000</td>
</tr>
<tr>
<td>University of Illinois</td>
<td>A 2000.00</td>
</tr>
<tr>
<td>National Bureau of Standards</td>
<td>A 2500.000</td>
</tr>
<tr>
<td>Waterways Experiment Station</td>
<td>A 3000.000</td>
</tr>
</tbody>
</table>
PUBLICACION ROUTINE

1. Assign reprint numbers to author(s) upon request.
2. Give the author a "Publication Information Sheet" to fill out and return.
3. Fill out two copies of "Reprint Routine" check list.
4. Route one copy of "Reprint Routine" sheet from (3) to author(s) and projector director as a reminder of their duties. When this sheet is returned to library, you may assume "due notification".

ARRIVAL OF REPRINTS

6. Affix reprint number and distributed by....stamp when appropriate.
7. Deliver reprints to the following:

A. If there is a sufficient number for distribution:
   a) Five copies to room 601 to be placed on record file.
   b) Ten copies to each author (often taken by authors before reprints reach library)
   c) Ten copies to L. S. B. plus one copy for filing
   d) Memo procedure:
      - one copy to Dean (ENGR.) with memo from L. S. B
      - c. c. to G. R. J. plus one copy
      - c. c. to S. I. C. plus one copy
      - File copy in 502

   BL - LIBRARY RESEARCH ASSISTANT
   THE LIBRARIAN'S COPY - PINK
   ANY AUTHOR'S COPIES - AUTHOR
Cont'd

8. One copy to L. S. B. secretary for filing.

9. File remaining copies in Room 703 for storage.

8. When sufficient reprint numbers have been assigned since the last publication announcement (say 10 reprints), notify the Research Assistant to prepare a new publication announcement for printing. Rough draft sent to Ltr. Research Ass't. when returned prepare final draft and give to Ltr. Research Ass't. for printer.


10. Complete "Reprint Routine" checklist for each reprint.
REPRINT MEMORANDUM

If there is a sufficient number of reprints for distribution, a memorandum is to be typed up. It is to be set up in the following way:

LEHIGH UNIVERSITY
Bethlehem, Pennsylvania

Department of Civil Engineering
Fritz Engineering Laboratory

FILE NO.

MEMORANDUM

TO:       Dean A. S. Foust
VIA:      
FROM:     L. S. Beedle
SUBJECT: Reprint No. 254 - Driscoll, Lay, and Galambos

Start body

LSB:hjm      L. S. Beedle
cc:            