



cement + mix design = concrete?

price escalations of materials

part 1 — from the *PLAN* bulletin of the NCC, Seattle

Material shortages are beginning to become more of a problem in the construction industry. Most critical now in the petro-chemical and steel areas shortages are anticipated to get worse before they begin to ease up. One of the more awkward effects of the shortages has been the inability of subcontractors and generals to get firm quotes and delivery date for those short supply items. This in turn has made bidding more precarious than ever.

Much talk has revolved around one possible solution to this sticky problem, that of escalation clauses in construction contracts. Although a possible solution, most of the industry is still opposing this approach. As of yet no fool proof solution has come forth. There are several actions that can help to ease the current shortage related contract problems.

1. Encourage awarding of the contracts at the earliest possible time. The longer the delay in awarding the contract, the greater chance of price escalation.
2. Whenever possible, arrange to have the materials where problems could easily develop to be purchased immediately and stored on the job or in a bonded warehouse. The contractor should be reimbursed at the time of delivery into storage.

These two actions will not totally solve the escalation problem, but they will if used make it much easier to live with.

part 2 — by Dick Ehmann FCSI

A short discussion and suggested form of a cost escalation clause has been locally circulated. Altho distributed in the interest of roofing sub-contractors, it has a bearing on nearly everything that goes into a building.

continued next page

march meeting of portland chapter csi

5:30 P.M. Social Hour
6:30 P.M. Dinner (\$5.50)
7:30 P.M. Program
The place is the River Queen at 1300 N.W. Front Portland

Speaker will be **Mr. Robert E. Phelps, P.E.**, Associate Professor, School of Engineering, Oregon State University

If you have ever wondered about the mysteries of concrete mix design, compressive strength, and the many other related questions but were afraid to ask — come to the March 12th meeting. Mr. Robert E. Phelps will unravel some of the mysteries and open up on some new ideas on these current subjects.

What is the actual value of a mix design for a specific project that is made in the testing lab in June and placed in December?

What effect on strength — cement, admixtures, sand, temperature?

Assuming that aggregate sources are constant, would past testing data on a concrete producing plant be of value? How could this be made available to architects and specifiers?

What happens when one cylinder fails — two, three?? How to evaluate cylinder strengths, how the cylinder physically broke in the lab. (Discussion of ACI 214 — Evaluation of Compressive Strength Test Results)

What about cracking of floor slabs caused by improper jointing, not providing for isolation of columns, restraint of the sub-base material?

Mr. Phelps is also proud of the fact that his department has, in the past six years, graduated over 150 young men from a "Construction Technology" course within the Engineering School. These graduates are taking their places throughout Oregon in Contractor's offices — and you can ask him about the program for the future.

cs magazine at library

To support the idea that the various professional and construction industry organizations should sponsor the education of future construction industry members, the Earl R. MacDonald Memorial Subscription to the CSI Construction Specifier has been established at the Multnomah County Library. It is planned that there will be yearly bound copies for 1973 and 1974 when the remaining funds have been collected.

The recent history of subcontractors have indicated that many have gone bankrupt and caused problems to General Contractors, Architects, Engineers and Owners because of insufficient technical knowledge to sustain themselves in the commercial contracting field. Anyone interested in contributing books or funds for this purpose may contact R.D. MacDonald at Stevens, Thompson and Runyan.

willamette valley chapter to discuss wood component construction

At Bev's Steak House, unless otherwise informed.
The date for this most informative evening is March 28.



**Eighteenth
Annual Convention
and Exhibit**

Portland, Oregon

June 24-26, 1974

more convention news

Members of CSI from other parts of the country will be pleased to know that other cities in Oregon are joining in the spirit of happy times and scheduling a number of entertaining events in conjunction with our 18th annual convention and exhibit set for June 24th to 28th

The week of June 9th is Rose Festival Week in Portland culminating in the grandest display of all — The Rose Festival Grand Floral Parade on Saturday June 15th. On the 16th, auto racing is scheduled at Delta Park in north Portland, and ski races are set at Timberline Lodge on Mt. Hood

On the weekend of July 4th, Albany, south of Portland, will hold its annual Timber Carnival where professional lumberjacks saw, chop, climb, and do other amazing things to giant Oregon trees, faster than you ever thought possible

In all honesty, these other happenings are Oregon Institutions, but visitors from the "flat lands" can easily set their travel plans either early or late to take advantage of these other opportunities for family fun

planning ahead?

Future conventions are scheduled in

- 1975 — New Orleans
- 1976 — Philadelphia
- 1977 — Seattle
- 1978 — San Antonio
- 1979 — Cincinnati
- 1980 — San Francisco
- 1981 — Memphis
- 1982 — Atlanta
- 1983 — Phoenix
- 1984 — St. Louis

price escalations of materials

continued from page 1

We are well past the point in time when instructions to Bidders can say that bids will be held for 30 days before a decision is made or even that there is a fixed contract price. Major manufacturers of a number of materials have announced that materials will be billed at the price in effect at the time of shipment, that there is no price protection and no advance notice of price increases will be given. It now becomes very nearly impossible for even the most knowledgeable sub-contractor to come up with any kind of a price now to install his materials some months in the future. If he guesses incorrectly he can be out of business, and "guess" is all he can do.

The Owner who must pay for whatever happens, must be made aware of the unpredictable conditions that seem to be becoming more prevalent. Visualize what a shambles the bid form will become with all of the items that we presently know are having supply problems being listed as unit prices. Yet this may be our only alternative. Materials in current short supply include asphalt for roofing or for paving, insulation of all kinds, certain kinds of glass, some wood products, electrical service equipment, steel piping, reinforcing steel, cement, etc.

Just the usual inter-office delay and human error in getting material ordered immediately that a job starts will be sufficient to cost thousands of dollars in material costs alone, not to speak of time delay with attendant high interest costs and delay in income producing rent.

The following facts of life become apparent:

1. With an increasing number of materials, no assurance can be made as to its availability or date of delivery.
2. With the unpredictability of both supply and delivery, sub-contractors time for performance will be impossible to even estimate, let alone guarantee. This will reflect on the general contractors total time of performance and will eliminate any hope of adhering to a rigid time schedule. As a side issue, liquidated damage clauses will be impossible to enforce.
3. Any "contract" price given on a bid will only reflect current costs and not

what the building will actually have cost when finished. (Hopefully, it will somehow *get* finished.)

One possible solution would be to negotiate all work possible so that available materials can be determined early and ordered immediately while the construction documents are being completed. The current situation will increase the use of "fast track" type of project administration where the various steps in the design and construction process are overlapped and telescoped to as great an extent as possible.

There are a number of gray areas that need further exploration. What does a school district do when two or more bids are required by law, a bond issue with fixed limits has been raised to finance the project, and school must open in September? What does a shopping center developer do when he has major tenant leases that stipulate if they cannot occupy both their space and a completed parking lot by 15 October, they will pay no rent until 1 March next year? ~~And his finance company won't pay off until tenants' rent has started?~~

Allowing each sub-contractor group to take individual action in attempting to protect themselves will solve nothing, only increase the confusion.

It seems past time for CSI, AIA, NSPE, etc. to form a liaison committee charged with the task of exploring this increasingly serious fact of construction and arriving at an industry-wide method of dealing with it.

the predicator

Published monthly September through June, hopefully in time to announce the monthly meeting of the Portland Chapter CSI. We will (almost) always meet on the second Tuesday of the month, whether announced or not.

The editor is Lee Kilbourn with substantial assistance from his wife Parky, reporters include everybody else.

Please feel free to quote profusely or otherwise use the contents (permission is granted). It would be nice to identify the source and the author and to send us each copies.

Ideas, comments, or words of encouragement are earnestly solicited.

continued next column

section 1/3/74 january csi meeting

PART 1 - GENERAL

1.01 DESCRIPTION

- A January Chapter Meeting
- B Discussion by
 - 1 Keith Schaber CSI, Flintkote Co
 - 2 Tom Blaylock, Mathis Bros. Roofing
- C Report by Laurence E. Arnold, AIA, CSI

1.02 GUARANTEE

- A Getting what you pay for
 - 1 Independent full time inspector on the job site
 - 2 Bonded Application. Causes manufacturer's representative to be on the job at critical times.
- B Cost. Full time inspector is about \$150 a day, bond costs about the same.

1.03 SLOPE

Every roof must drain

PART 2 - PRODUCTS

2.01 ASPHALT

We are now receiving in this area asphalt from Arabian sources rather than Venezuelan asphalt, the latter has a lower melting point

2.02 COAL TAR

- A Becomes brittle at 40 degrees F, so application is not too prevalent in this area
- B. Fumes cause severe skin irritation, consequently, it is difficult to find a roofing contractor who will apply coal tar

2.03 REFLECTIVE TOP COAT

White gravel or light color mineral cap sheet helps keep membrane temperature stable

PART 3 - EXECUTION

3.01 FELTS

- A Apply perpendicular to long dimension of insulation so long joints of both insulation and felts are not continuous
- B Voids in mopping will cause bubbles.

3.02 CANTS

- A Really should have a steeper asphalt than the deck
 - 1 Difficult to achieve in reality
 - 2 Wood cants shrink, pulling away from the membrane, fiber better

3.03 FLASHING

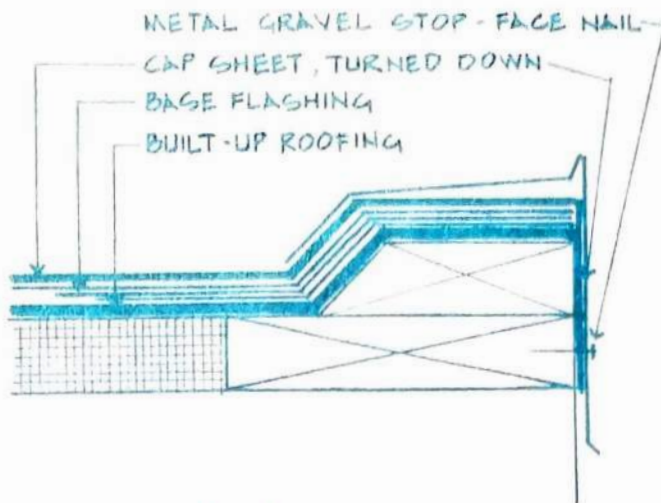
- A Install as soon as possible after membrane is completed
- B Top edge above any potential water level

3.04 GRAVEL STOP See Drawing

- A Flashing goes on top of membrane, do not attach flashing directly to deck and then roof over it unless you want a leaker
- B Face Nailing
 - 1 Keith says It's a good deal.
 - 2 Gordon Todd says The Architect will expect nails to be perfectly aligned and evenly spaced and who can find a roofer who will do that.

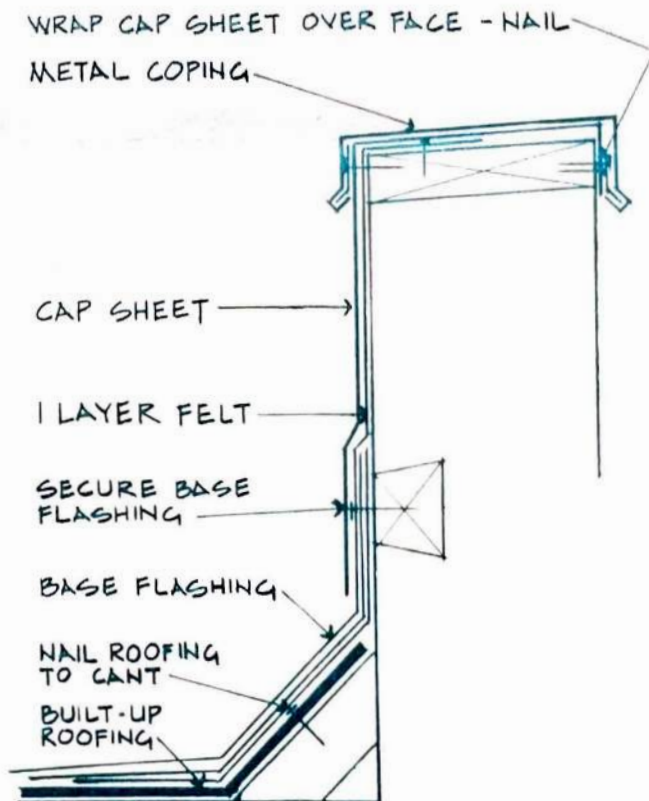
3.05 PARAPET See Drawing

- A Base Flashing
 - 1 Nail at the top
 - 2 Use flashing cement, standard plastic cement runs off
- B Back Surface
 - 1 Use roofing felts and steep asphalt when parapet is over 18" high



gravel stop

NOT TO SCALE



parapet

NOT TO SCALE

2. When parapet is over 18" high use emulsion mopping and fiberglass mesh.
3. Emulsion does not liquify on a hot day and pull out felts

board of directors meet

february 21, 1974 at 12 noon at the aia/csi/pc office.

The Meeting was called to order by President Verne Brice (looking good as new) officiating, backed up by ex-temporary Chairman Ken Searl. Ten Chapter members were present, including board members Brice, Searl, Luey, Largent and Todd. Treasurer Ron Mohr, being absent, there was no report. Programs scheduled for February 25 and March 12th are reported elsewhere in this issue.

The nominations for Directors were announced by Jim Luey as follows:

Professional members (3 to be elected)

Larry Arnold
Peter Daniels
Robert Devereil
James Grady
Alton Hooten
Donald Kramer

Industry members (1 to be elected)

Madeline Biggs
Dexter Walter

Retiring Directors are Al Beard, Don Kramer (filled out Don Edmundsen term) Jim Luey and Ron Mohr.

Present status and activities concerning the 1974 National Convention were reviewed by Dick Ehmann. Convention

Committee will need the cooperation and help of the entire chapter so volunteers please come forward. Several nationally prominent prospects for speaker have been contacted for the banquet but no firm commitment as yet.

Membership chairman Larry Johnson presented membership applications from Roy Hollabaugh, Jr., Don Walton and Jeff Potts. All were accepted.

Paul Wilson opened a discussion regarding Chapter meeting attendance, stating that he felt dinner meetings would help because members could go to the social hour right from work, without the time and gas consuming trip home and back. As the next few meetings are scheduled as dinner meetings, time will tell. Meeting adjourned at 1:00 P.M.

Gordon Todd, Secretary

the changing status of "commercial standards"

by

lawrence m. dunn

assistant vice president and technical director
architectural aluminum manufacturers association
from aama news, january 1974

The Department of Commerce, through the National Bureau of Standards, has published various material and product standards for many years. These are commonly known as "Commercial Standards" (CS) and "Product Standards" (PS).

AAMA-sponsored ANSI Standards reference 4 of these,

CS 138-55 — Insect Wire Screening
CS 230.60 — Vinyl Plastic Weather Strip
CS 248-64 — Vinyl-Coated Glass Fiber Insect Screening and Louver Cloth
PS 26-70 — Rigid Poly (Vinyl Chloride) (PVC) Profile Extrusions

words of wisdom

by Verne Brice, Portland Chapter
President

The time for the 1974 C.S.I. National Convention will soon be upon us and from all indications this is going to be the largest and the best convention ever. We can use all of the help from each of you, that we can get so don't wait, pick up the phone and tell Dick Ehmann you are ready to be assigned a task at the 1974 C.S.I. National Convention for the Portland Chapter.

Our past president Jimmy Luey is preparing a list of restaurants as a guide for our guests of the '74 Convention and has asked for information that you might have as to what is good, bad or what. Give him your knowledge or experience with name of restaurant, address and phone number, time open, etc.

The nominations committee will present their recommendations at the March regular meeting and the nominations will be open from the floor, be there

Department of Commerce in Transition

The Department of Commerce has decided to phase out of standards-making activities, however, preferring that other bodies carry out this work.

To that end, they are turning over various standards to other suitable groups where possible.

CS 138-55 and 248-64, for example, have already been taken over by ASTM. (Presumably, they will eventually be replaced by ASTM standards.)

CS 230-60 has not been taken over by any other body so far. Therefore, it was "withdrawn" as of August 20, 1973. The Society of the Plastics Industry has advised, however, that — while it is now "inactive" — CS 230-60 is still a valid reference.

The status of PS 26-70 remains unchanged (as of August 22, 1973).

AAMA and "Commercial Standards"

For the time being, then, the AAMA-sponsored ANSI Standards will continue to reference the Department of Commerce standards.

This position will, of course, remain subject to reconsideration as the status of CS and PS standards changes further.

hooray — i get letters somebody is reading *the predicator*

It was unfortunate that I did not more carefully edit Perky's effort — she has two negatives in one sentence — which if taken literally would make the sentence come out different from the way she intended. In spite of this error I received a "Letter to the Editor" with regard to her effort. Apparently the significant sentence was the one before the erroneous sentence.

... maybe there is a better way of telling the contractor how to build the structure.

Does this whole discussion have something to do with "Performance Specifications"? Anyway the Letter I got reads:

asterisks omitted

the editor tried to get a unique indication for those members receiving their mailings at their home — but Times Litho Print carefully typeset the explanation and then left off all the asterisks! So, please place your favorite design of asterisk beside the following members' addresses.

- Laurence E. Arnold
- Donald J. Ashton
- Robert M. Crichton
- Peter F. Daniels
- Douglas H. Drynan
- Don Eggleston
- Harold C. "Hal" Elder
- Carl Freeze
- Al Hansen
- Alton R. Hooten
- Mary Alice Hutchins
- Margie Largent
- Rod Meaney
- Andrew B. Olson
- Robert S. Randall
- C. Keith Schaber
- Gene L. Silvey
- Deane L. "Bud" Smith
- Lynn L. Smith
- David J. Stewart
- Paul R. Wilson

If we really need a contest the first prize, for the best asterisk design will probably be a guided tour of their facility in Forest Grove (asterisks as calendar art?)

Aside from that minor goof, Times Litho and their crews are doing a fine job for me — and I suspect they would do even better with most of you out there, less erratic than I.

To the Editor

In "Perky's Pondering Points", February 1974, the conclusion that written specifications may not be essential in presenting what (not how) the contractor is to build is interesting and not without some humor. It is reassuring, indeed, to observe that notwithstanding soaring prices, spiraling inflation, diminishing energy, and limited material supply, there does exist a bright glimmer of hope in the realization that perhaps in this day and age a picture is *still* worth a thousand words... F.O.B. job site.

Sincerely,
Patrick E. Loukes AIA
William Simpson Construction

XEROX

Keith Lilly

Architecture, Construction & Engineering
Market Specialist

Harrison Square, Suite 250
1800 South West First Avenue
Portland, Oregon 97201
503 221-1850

226-6416

DIMITRE ELECTRIC CO.

LIGHTING FIXTURES • ELECTRICAL CONTRACTING

ROBERT DIMITRE 133 S. W. 2nd AVENUE
PORTLAND, ORE. 97204

Viking Sauna

JAMES H. CROWELL

1135 SE SALMON — PORTLAND — 503-233-4911

show him what'll happen —
now that he's joined CSI!



STANDARD DRY WALL PRODUCTS, INC.
for concrete and masonry waterproofing,
finishing and maintenance

RICHARD W. OLSON

2956 S.E. Spruce Street,
Hillsboro, Oregon 97123
Tel 503/648-4213

Your money matters.
Use yours for all it's worth.



United States National Bank of Oregon
Member F.D.I.C.

PETER C. STEWARD

FACILITY PLANNING & EQUIPMENT CO.

41 Raft Island Gig Harbor, Washington 98335
(206) 265-3417
(206) 475-5800 Tacoma (503) 234-0281 Portland
Manufacturers' Representative for:
Cabinets by Monitor Products
Wall Systems by Advanced Equipment
Self Instructional Systems
General Educational & Medical Equipment

Georgia-Pacific



Gypsum Division
900 S.W. 5th Avenue
Portland, Oregon 97204
(503) 272-5561

T. R. Godfrey



Roofing
Sheet Metal
Zonolite Concrete

James F. King
President

Irad &
SNYDER ROOFING & SHEET METAL

6639 S. W. Macadam - Portland, Ore. 97201 - Ph. 244-7593

TODD BUILDING COMPANY

SINCE 1940

GENERAL CONTRACTORS

GORDON T. TODD, MGR.
PORTLAND DIVISION
P.O. BOX 19265
PORTLAND, OREGON 97219
503/246-8295

member roster up date #1

change address of

Richard Ackerman to
Swan Wooster Engineering, Inc.
310 Riviera Plaza
1618 S.W. 1st Ave.
Portland, Oregon 97201
Business phone 228-8672

William L. Richey (I) to
c/o Cronin Co
1205 N.W. Marshall St
P.O. Box 2924
Portland, Oregon 97208
Business phone 226-3508

Howard F. Moran should be
Edward F. "Ed" Moran (P)
Edward F. Moran, Architect
1507 N.W. 24th Ave.
Portland, Oregon 97201
Business phone 222-9034

Milton M. "Mike Miller to
Pumilite Concrete Products Co.
1050 California Way.
Longview, Washington 98632
Business Phone 206-423-8940

new members:

Roy Hollabaugh, Jr. (I)
Roy Hollabaugh Co.
0612 S.W. Idaho
Portland, Oregon 97201
Business phone 246-7781

Robert R. "Bob" Klas (P)
Williams & Ehmann, AIA
85 S.W. Williams Drive
Beaverton, Oregon 97005
Business phone 232-1195

Jeff Potts (I)
Miller Paint Co.
317 S.E. Grand
Portland, Oregon 97214
Business phone 233-4491

to keep the post office
happy we have some zip
codes for you:

Dewey Hoffmeister
Portland, Oregon 97211

Mary Alice Hutchins
Portland, Oregon 97201

Clarence Landis
Portland, Oregon 97211

Robert Mac Donald
Portland, Oregon 97202

Frank Paintner
Portland, Oregon 97220



C. KEITH SCHABER
FIELD SERVICE REPRESENTATIVE
503-228-6411

THE FLINTKOTE CO. / PIONEER DIVISION
5700 N.W. Front Ave., Portland, Ore. 97210



DISTRIBUTORS
BUILDING PRODUCTS

Madden Construction Supply Co., Inc.
2850 N. W. 31st AVENUE
PORTLAND, OREGON 97210

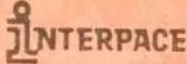
TOM SHEA
Office 224-1790
Res. 760-6433





RUGS AND CARPETS
C.H. Masland & Sons

FRED E. BEGGS, JR.
TERRITORY MANAGER
PHONE 206 694-0973
P. O. BOX 2267
VANCOUVER, WASHINGTON 98661

WILLIAM A. CHARLTON
Ceramic Building Products
District Sales Manager



9050 N. E. HALSEY ST. / PORTLAND, ORE. 97220
503-252-5585



SECRETARY-MANAGER
OREGON-COLUMBIA CHAPTER
NATIONAL ELECTRICAL CONTRACTORS
ASSOCIATION

ROBERT P. BURNS

233 5787
801 N. E. EVERETT
PORTLAND, OREGON 97232

EDITOR:
LEE KILBOURN
1500 S.W. First #300
Portland, Oregon 97201
224-3860



COMMERCIAL FLOORING
2603 S.E. Grand Avenue
Portland, Oregon 97202
Phone 232-7169

DAVE WILEY - CSI -
Special Purpose Floors
WALLY HERDER -
Flooring Contracts
LARRY KING -
Installation Superintendent
BOB GILMORE -
Ceramics
GEORGE GRIFFITH - CSI -
Specifications
GUS SIEGLE
Natural Stone Masonry

MADLINE
Sales Representative



Wholesale Distributors of Building Materials & Floor Coverings
9111 N. Denver Ave., Portland, Oregon 97217, Phone 285-8611



EXECUTIVE DIRECTOR



RAY F. WIMER
OREGON MASONRY GUILD, INC.
3809 S. W. CORBETT ST.
PORTLAND, OREGON 97201
(803) 224-1940

Robert Klas (P)
Williams & Ehmann
85 S. W. Williams Drive
Beaverton, Oregon 97005

first class mail

THINK SNOW
SKI OREGON
U.S. POSTAL SERVICE
MAY 8 1974
PREVENT FOREST FIRES



mark your calendar bridging the gap

Seattle, Washington **joint meeting** **ASTM** northwest District, Washington Chapter **ACI** and Puget Sound Chapter **CSI**, Tuesday April 9, 1974, "Concrete failures — Structural or human" by George H. Nelson Past President, ASTM, Member, ACI, ASCE and CSI, at the Norselander Restaurant in Seattle. For further information contact Frank Winblade at (206) 525-0140.

Eugene, Oregon Willamette Valley Chapter **CSI** meeting to discuss painting April 25, 1974 at Bev's Steak House. For further information contact Paul Edlund (503) 686-2014.

The May 14th meeting of Portland Chamber **CSI** will be held at the River Queen. The panel will review the **AFCC** specs on floor coverings done last Fall.

Portland, Oregon Portland Chapter **CSI** Meeting to hear **NECA's** Bob Burns present a timely program "Designing for the Energy Crisis" June 11, 1974. For further information, and if you have a good idea for a dinner meeting location contact Ken Searl 223-1181.

Portland, Oregon Annual Meeting of Construction Specification Institute, this is the one you shouldn't miss June 24-26, 1974.

joint meeting with vancouver chapter AIA april 9th — dinner at the jantzen beach thunderbird

Washington State University Department of Architecture will present a program intended to bring our local segment of the Construction Industry up to date on:

- 1 our curriculum and degree changes.
- 2 the shadow program, (the shadow knows?)
- 3 how we are introducing our students to the field of construction communications which not only includes the Project Manual, but also such areas as codes, standards, manufacturer's information, OSHA, etc.
- 4 how the students are using the "Uniform Construction Index".
- 5 how the "Student Packet" by CSI is being used.
- 6 how the computer is being utilized to improve student comprehension.

Also during the presentation, we will discuss:

- 1 how your chapter members can help our students when they are away from the University.
- 2 how your chapter members can help "bridge the gap" between the construction industry & our department by participating in the development of "real" type problem situations which can be given to our students.

Examples of student work, relative to our presentation will be on display. Representing WSU we'll have Dave Scott AIA, Head of the Department of Architecture, Don Poe CSI AIA, Professor of Architecture, and Larry Fisher FCSI AIA Educator (but the editor thinks he probably won't mind if you call him professor) (He might be one for all I know.) Representing recent WSU graduates we'll have Herb Griffin (now with SOM) and Doug Blair (now with BS&O).

No-host cocktail hour at 5:30 P.M. followed by No-host dinner at 6:30 P.M., which dinner will be Top Sirloin and cost \$7.00. Spouses and Guests are encouraged to come and are most welcome, if only for the program at 7:30 P.M.

president's column

by Verne Brice CSI
President, Portland Chapter CSI

Hearty congratulations are in order to our stalwart Portland Chapter Member Larry Brown, who is now Northwest Section Director-elect!

HIP HIP HURRAY!!

The 1974 Institute Convention will soon be here (really here) and the Portland Chapter is the host. Please don't forget to fill in your Volunteer sheet, it was in your March Issue of *the predicator*, and mail it to Dick Ehmann, or otherwise let him know you are ready to be assigned a task at the 1974 convention June 24, 25, and 26. We haven't had enough response and we NEED you.

Also, those of you who are going to attend the Convention, don't forget your white hat, call J. Min "Jimmy" Luey for information. We will have a pre-convention briefing by Host Chapter Convention Committee Co-Chairman Dick Ehmann at the April 9th Portland Chapter CSI Meeting.

cement + mix design = concrete (period!)

Report on March Meeting by William N. Keefer, CSI, AIA with help from his friends.

The guest speaker was Robert E. Phelps P.E., Associate Professor, School of Engineering, Oregon State University. Concrete is a unique Construction Material in that its performance is indeterminate until after placement. The four areas covered in the talk were: Mix design, surface deterioration, cracking and strength.

1 Mix Design

One extra gallon of water in the mix = a 1" increase in slump, a decrease in strength of 200-350 Psi, wastes 1/4 bag of cement, and increases shrinkage 10%.

continued next column

A mix design tested in spring is different from the same mix design delivered in the fall for some of the following reasons:

- 1 Gradation of aggregate in the stock pile
Sediment in stock pile
Change in moisture content of aggregate
- 2 Surface Deterioration
Crazing is caused by improper handling, poor curing practices and poor finishing practices, especially overworking. A good preventative measure is to provide 15 to 20% sand that passes thru a 50 mesh sieve in the mix. This provides good workability. Avoid a high water content to achieve workability.

architects streaked by new laws

By R D MacDonald CSI

Design professionals are faced with new professional liability *exposure* due to the rash of new consumer and safety laws and legal interpretations adopted throughout the country in recent years.

In third party actions naming the Owner, the Contractor and the A/E professional, the A/E is the natural fall guy because, as everybody knows, HE wrote the specifications

Kenneth Roberts, Esq of Souther, Spaulding, Kinsey, Williamson & Schwabe, explained the various new hypotheses such as *Strict Liability* "Restatement of Torts (2d) S 402(a) and 402(b)" formulated and published by the American Law Institute of Washington, D C. and various court cases to a large group of Architects, Engineers, Manufacturers Representatives and Specification Writers at the February PC-CSI dinner meeting (hosted by Producers Council) at the Ramada Inn

In *Wirth v Clark Equipment Co.*, 457 F2d 1262, the Manufacturer was sued for negligence and strict liability when the van carrier (which was owned by Matson) struck and injured a workman. It was charged that the van carrier did not have wheel guards, mirrors, or TV cameras so was operating with only limited visibility and therefore dangerous. The operating employee had not been cautioned that extraordinary safety procedures were necessary. A judgment for the Manufacturer was reversed on appeal, the court holding that the case should have been submitted on "strict liability" on the basis of Oregon Law

In *Paxton v Alameda County*, a workman injured while carrying two 50 lb. buckets of hot tar (he fell through the roof up to his arm pits) filed suit against the Owner, the Architect, and the Contractor. The 1 x 6 inch sheathing was found to be of an inferior grade with knots that had weakened the boards. The Architect in this case won because the sheathing was actually of a lower quality than he had specified and he had not been properly charged with negligence. The Architect had made an inspection and the observation that the sheathing was not up to specification. It was pointed out that the court could have held the Architect liable because he did not inspect again to verify that the materials were or were not in fact applied to the roof. However, as he was not so charged in the complaint, he was not penalized

Criteria for the design professional's review of his own exposure posture was outlined by Mr. Roberts. In any situation which might occur the courts will look at the professional's exercise of *reasonable professional prudence*, as compared to other reputable members of his own profession and his use of *reasonable diligence and care* in similar situations. Because of the new laws and recent court opinions, the apportionment of liability may be shared by all of the parties to a contract, including the Manufacturer, as well as the Owner, the Architect, and the Contractor (*Dole v. Dow Chemical Co.*, 30 N.Y. 2d 143) by comparing their amount of fault. *Was the product used as the manufacturer intended? Was the product installed properly* (and specified to be) according to the manufacturer's recommendations? *Was the product itself designed to be safe and did it perform satisfactorily as the manufacturer promised it would? Was there a previous record of product failure* by the product that the Architect should have known about? And if so, did he question the Manufacturer on what provisions had been taken to correct the product and assure that it would not occur again? Does the product *exceed minimum standards?* These and other questions will be used by the courts to access the probable negligence of each party.

Finally, a Product Check List is offered to help you document and protect yourself:

1. Obtain a *List of Comparable Projects* with Owners, Designers, Contractors, Manufacturers. Verify that use conditions were similar.
2. Get *comments and verifications* upon intended use of product from Owner and Manufacturer.
3. Dog Manufacturers for past mistakes, explanations and remedies (nobody's perfect).
— request technical data, test reports.
— request PRODUCT LIMITATIONS.
— request *installation instructions and recommendations*
4. Investigate Manufacturer's qualifications, performance, productive capacity and financial condition.
5. *Document your communications* with all parties to the Contract. If you start something, follow-through to the successful conclusion.

References: John S. Martel "Specifying New Products" (Victor O. Schinnerer)
Bernard Tomson and Nor-

man Coplan in "It's the Law" P/A 9 73
George M. White "Contractual General Conditions," AIA Journal, May 1968

It's common knowledge that doctors and lawyers make mistakes, but *Architects* (Engineers) (Spec Writers) (Contractors) (Manufacturers) **THAT'S INTOLERABLE!**

(insert appropriate phrase)

(Capitalization and decapitalization intentional)

letter to editor:

Dear Lee

I am compelled to respond to the article on page 3 of the March 1974 issue of *The Predicator* reporting the presentation on built-up roofing by Keith Schaber of the Flintkote Co. on January 3, 1974.

Coal Tar Roofing . . . "A. Becomes brittle at 40 degrees F, so application is not too prevalent in this area." Someone should advise the owners, architects, and roofers responsible for hundreds of thousands of squares of successful Coal Tar roofing applications over the past 55 years in Montana, Nebraska, Alaska, Michigan, Wisconsin, and any other frigid climate you care not to think of, that they are in trouble.

"B. Fumes cause severe skin irritation, consequently, it is difficult to find a roofing contractor who will apply coal tar." At least 21 different roofing applicators installed Coal Tar Pitch roofing in the Northwest in 1973, approximately 9 other contractors were reported to have bid on Coal Tar applications.

Your assistance in correcting this misinformation would be appreciated

Yours truly,
John Y. First

Editor Note: He missed the January meeting

Viking Sauna

JAMES H. CROWELL

1135 SE SALMON PORTLAND 503-233-4911

show him what'll happen —
now that he's joined CSI!

brown elected his letter to friends in CSI:

Robert J. Schmidt, FCSI, as Secretary of The Construction Specifications Institute, has just formally advised me of my election as Director, Northwest Section of CSI.

First, I interpret my election as your expressed desire that I represent you.

continued next column

concrete continued from page 1

3 Cracking

Plastic shrinkage cracks are caused by rapid surface loss of moisture. Prevent by insuring that ready-mix plant sprinkles the aggregate and that artificial humidity is added to area being covered (fine mist spray best method).

Hardened concrete cracks are caused because concrete shrinks when it is cured and if it is restrained it will crack. There are three types of restraint. # 1 fixed objects in slabs such as columns or fire hydrants. #2 Subgrade restraint which is the friction between slab and aggregate. #3. End or side restraint caused by an irregular plan. The solutions to the above cracking problems are

- 1) provide separation from fixed objects
- 2) Provide 3/4" of sand under slab
- 3) Provide expansion joints to create a regular pattern on the slab.

4 Concrete Strength

The way a test cylinder breaks indicates how it was cast and handled. If the cylinder does not break in a conical pattern it generally means the cylinder was improperly handled or taken. Make sure the testing agency records the type of fracture, especially when low strength is indicated. Any kind of poor test cylinder taking or handling procedures will adversely effect the test results. Always test two cylinders at the same time, preferably 2 at 7 days and 2 at 28 days. Note that the cylinders give the strength of the concrete delivered to the job site as placed in the cylinders, not necessarily the strength of the concrete as it was placed in the building. In order to get quality concrete there must be quality workmanship and planning along with quality concrete.

Editor Note I was pleased to observe 25 Professional Members, and 25 Industry Members of CSI in attendance, and 27 Guests!

your interests, and your frustrations on the Institute Board of Directors. Since I cannot represent you without knowing you and your concerns, I ask that you communicate with me — let me know what you're thinking and how you're feeling.

Second, I see my election as your expressed desire that I continue to work for the objectives that we share in this unique organization. Technical and communication excellence in construction documents are the most important goals, in my judgment. But the objectives of broadening understanding and raising morale are also too important to slight. In these areas too, I need to have the benefit of your judgment — what are the priorities as you see them?

The third thing that I see is my obligation to be a catalyst in effecting greater common insight into "The Institute" on the part of our members. We have enough areas of honest disagreement — we don't need misunderstandings and prejudging too.

The final thing that I'll mention here is the most obvious of all — by electing me you have given to me the honor of your trust. You have said to me "We're trusting you to do your best in serving us and CSI." To be found trustworthy in your judgment will be at the top of my criteria for action.

Thank you,
A. Larry Brown,
Northwest Section Director Elect, CSI

editorial


by lee

enclosed with this issue of *the predicator* for CSI members is a ballot for use in electing fellow members to the Chapter Board of Directors (call me at 224-3860 or 244-1778 if there is an error in delivery). USE IT! It is important — they will be spending your money (and maybe recommending a reduction in Chapter Dues if they're convinced that would be appropriate!) You don't know 'em, you say. So look them up in the roster you received in February, pick out someone you think would help further the goals of Portland Chapter CSI (the By-Laws say the objectives are:

- a. To improve the form and content of specifications as applied to construction
- b. To collect and disseminate to its members concise information about matters pertaining to construction specifications.
- c. To promote sympathetic awareness of problems of all groups contributing to and using construction specifications and to improve methods of communication among these groups and call them (or otherwise communicate) Please don't everybody start at the top of the list!

THEN BRING THEM TO THE APRIL MEETING

for better and economical construction, specify



EMPIRE
Empire Building Material Co.



Seattle — (206) 284-7160

NORTHWEST LATH & PLASTER BUREAU, Inc.
An Industry-Wide Coordinating and Development Agency for the West
12226 S.E. Guilford Dr., Milwaukie, Ore. 97222

RODERICK F. MEANEY
Architectural Consultant

Builder's Ex., Portland, Ore.
Business: (503) 234-0281
Home: (503) 654-3987


fred a. SNYDER ROOFING & SHEET METAL

James F. King
President


Roofing
Sheet Metal
Zonolite Concrete

6639 S. W. Macadam - Portland, Ore. 97201 - Ph. 244-7593

MUTUAL MATERIALS



DEXTER WALTER
Office 655-7168
Res. 233-8247



STANDARD DRY WALL PRODUCTS, INC.
for concrete and masonry waterproofing, finishing and maintenance

RICHARD W. OLSON

2956 S.E. Spruce Street,
Hillsboro, Oregon 97123
Tel. 503/648-4213

TODD BUILDING COMPANY
SINCE 1940
GENERAL CONTRACTORS

GORDON T. TODD, MGR.
PORTLAND DIVISION
P.O. BOX 19265
PORTLAND, OREGON 97219
503/246-8295

board of directors meeting on march 21, 1974.

Treasurer's report by Ron Mohr was distributed to all present Verne distributed a report on upcoming Chapter Meeting Programs which had been prepared by Ken Searl Larry Johnson, who was absent, later reported to the editor Bob Klas' application had been approved and forwarded to the Institute J. Min Luey reported that the work of the Nominating Committee had been successfully completed and that members should receive their ballots with the April issue of The Predicator

The balance of the one hour meeting was a discussion led by Dick Ehmann concerning arrangements and planning for the Institute Convention in Portland, June 24 to 26 Volunteers are still needed, call Dick and see where you can help, at 232-1195 Meeting adjourned at 1:00 P.M

by Gordon Todd,

Member roster up date 2.

Show **Don C. Johnson's** business phone number as 646-1997

Correct **William N. Keefer's** telephone number to 206-694-4941

Ken R. Smiley is no longer with Robert E Meyer Engineers — a forwarding address would be appreciated

Gregory L. Smith has a new territory in another area — his replacement has not yet joined CSI

Charles Wilson is no longer with the Port of Portland — we don't have a forwarding address for him either.

add your ad — call ye old editor



C. KEITH SCHABER
FIELD SERVICE REPRESENTATIVE
503-228-6411

THE FLINTKOTE CO. / PIONEER DIVISION
5700 N.W. Front Ave., Portland, Ore. 97210



DISTRIBUTORS
BUILDING PRODUCTS

Madden Construction Supply Co., Inc.
2850 N. W. 31st AVENUE
PORTLAND, OREGON 97210

TOM SHEA
Office 224-1790
Res. 760-6433



XEROX

Keith Lilly
Architecture, Construction & Engineering
Market Specialist

Harrison Square, Suite 250
1800 South West First Avenue
Portland, Oregon 97201
503 221-1850



RUGS AND CARPETS
C.H. Masland & Sons

FRED E. BEGGS, JR.
TERRITORY MANAGER
PHONE 206 694-0973
P. O. BOX 2267
VANCOUVER, WASHINGTON 98661

WILLIAM A. CHARLTON
Ceramic Building Products
District Sales Manager

INTERPACE

9050 N. E. HALSEY ST. / PORTLAND, ORE. 97220
503-252-5585



For Sales & Service call (503) 226-6021

JOHN R. CARLSEN, JR.
SALES REPRESENTATIVE

KEITH G. NEELEY
PORTLAND MANAGER



SECRETARY-MANAGER
OREGON-COLUMBIA CHAPTER
NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION

233-5787
801 N. E. EVERETT
PORTLAND, OREGON 97232

ROBERT P. BURNS

EDITOR:
LEE KILBOURN
1500 S.W. First #300
Portland, Oregon 97201
224-3860



COMMERCIAL FLOORING

2603 S.E. Grand Avenue
Portland, Oregon 97202

Phone
232-7169

- DAVE WILEY — CSI —**
Special Purpose Floors
- WALLY HERDER —**
Flooring Contracts
- LARRY KING —**
Installation Superintendent
- BOB GILMORE —**
Ceramics
- GEORGE GRIFFITH — CSI —**
Specifications
- GUS SIEGLE**
Natural Stone Masonry



MADELINE
Sales Representative

Wholesale Distributors of Building Materials & Floor Coverings
9111 N. Denver Ave., Portland, Oregon 97217, Phone 285-6611



RAY F. WIMER
OREGON MASONRY GUILD, INC.

3609 S. W. CORBETT ST.
PORTLAND, OREGON 97201
(503) 224-1940

Robert Klas (P)
Williams & Ehmann
85 S. W. Williams Drive
Beaverton, Oregon 97005

first class mail

POSTED 1974
 JUNE 29-26
 1974 CSI CONVENTION



the predicator

portland chapter



vol. 13, no. 9 construction specifications institute may, 1974

new officers elected

by J. Min Luey

*Retiring Board Member and Chairman
of the 1974 Portland Chapter CSI
Nominating Committee*

The Portland Chapter, CSI Board of Directors elected by acclamation three new officers and re-elected Gordon Todd as Secretary for 1974-1975 at the April 23, 1974 meeting.

Kenneth L. Searl will be our new "Fearless Leader", otherwise known as President. I've heard Ken at many of our past Chapter and Board Meetings. Now with a gavel at his hand, I can assure you our future meetings won't be quiet or dull.

Ken is the specification and inspection arm of WEGroup, Architects. When you consider that he and Wilma live in Salem while the WEGroup offices are located in Portland and Eugene with projects all over the State, indeed, Ken moves in a fast and efficient manner.

Fortunately for our Chapter, Ken extends the same rabid enthusiasm for CSI. I had the pleasure of accompanying Ken at the 1972 and 1973 National Conventions in Minneapolis and Washington, D.C. respectively. He was then and will be a great spokesman for our Chapter. (He was especially charming among the ladies while promoting the Portland '74 Convention).

Ken also attended many of the Region 12 Conferences and served on the Elevator Study Committee. He is, of course, our current Vice-President and Program Committee Chairman.

Margie Largent was elected Vice-President for 1974-1975. Margie is an Architect with her own practice in Lake Oswego. She has been very active in AIA and the community. She was President of the Clackamas County Associated Chambers of Commerce in 1970.

underfoot understanding — know your flooring contractors

The Associated Floor Covering Contractors (AFCC) are to explain the resilient specs we write and provide attitude adjustment too.

The AFCC, representing 65 potential subcontractors, will present the program and host the cocktail hour at the May 14 Portland Chapter CSI Meeting at The River Queen. The attitude adjustment will begin at 5:45 P.M., dinner will be served promptly at 6:30 P.M., and the "formal" meeting will get underway at 7:30 P.M. and be all wound up by 9:30 P.M.

The panel will be moderated by George S. Griffith, CSI, Industry Member from the J.A. Wiley Company, and the panel members will be Jerry Van Scoy, CSI, Executive Director of AFCC, John Wallace, Wallace Floor Covering, and Wally Herder of the J.A. Wiley Company. The panel will review, modify, chew up and spit out the specifications "caution flags" that George Griffith developed with the AFCC membership last fall and then reviewed with 44 specifiers last fall. George now expects that there will be comments both from the floor and the panel members (after thoughts?). Mr. Griffith also has a letter from the CSI Administrator of Technical Programs, Tom Hollenbach.

Several "for instance" actual specifications will be briefly commented upon,

so bring your copy of Guide Specification 09650 Resilient Flooring that was in your April 1971 Construction Specifier and tear into it. The only persons excused from not bringing their Guide Spec Section will be new CSI members that have joined since April 1971 and prospective CSI members and guests.

Samples of Part III requirements

3.07 A. Cove Base

Do not install any base where drywall or plaster opening at floor is over 1/4"

Inside corners to be mitered and outside corners (to be wrapped with the joint no less than 6" from the corner) to be preformed and installed with contact bond adhesive.

So any of you, and I think most of us have contact with flooring materials during the day, are welcome. Again this month there will be a discussion of Convention activities. At the time of the meeting May 14, it will be 6 weeks hence, and from the Editor's Desk, it looks like a lot of fun.

june meeting — to conserve energy with neca

Robert P. Burns, CSI, Secretary-Manager of the Oregon-Columbia Chapter, National Electrical Contractor's Association, will present and discuss the results of a national study on energy conserva-

tion to the June Meeting of the Portland Chapter CSI.

The meeting will be held June 12 at the River Queen at 1300 N.W. Front Avenue.

willamette valley chapter csi to discuss legal hazards in construction

At Bev's Steak House, unless otherwise informed
The date for this most informative evening will be May 30

continued on p. 2

The Construction Specification Institute Eighteenth Annual Convention and Exhibition Portland June 24-26, 1974.

it's "white hat" time

by J. Min Luey,
special correspondent

The Portland '74 "Good Guys and Gals" white hat bunch were everywhere in Washington, D. C. last year. It is now May, 1974 and the Convention will be upon us sooner than you think. The dates are June 23-26, 1974.

The White hats, buttons, ribbons and roses were a big hit last year. Our delegation worked very hard in promoting the beautiful Pacific Northwest. We expect many of this year's convention goers will be looking for us. Let's show them our cordial Western Hospitality by being good hosts and hostesses.

One of the required attributes of being good hosts or hostesses is to make ourselves available. Our conspicuous identification will again be the white hats, ribbons and roses. If you have registered, are planning to register or otherwise volunteer to help at the Convention, the Chapter wants you to wear a white hat. All you need to do is call Jimmie Luey (228-9468) and give him your hat size, preferably prior to June 1, 1974.

Jimmie and his wife, are also preparing a recommended restaurant guide. He will have some draft copies available at the May 14th Chapter meeting for your suggestion.

Following are the opening remarks from the convention program.

Construction: Conservation, Sciences and Information

1974 began as a turbulent year—fuel and product shortages, energy crises, truckers strikes—all have touched and adversely affected our personal lives—restricting our mobility, our habits and our comfort. So too has our business—our industry—been affected—by shortages of the basic materials of construction—brought on by the depletion of our natural resources and other concomitant causes,

Where once we were occasionally inconvenienced by the unavailability of certain materials—due to strikes or unexpectedly high market demands, we are now faced—daily—with the problem of shortages—and with staying abreast of developments, costs, trends, and new information—of new regulations affecting design technology, of new construction techniques, of new and substitute products, of testing and performance—truly, of every facet of design and construction!

This year's Convention is addressed to the above problems: The theme, Construction: Conservation, Sciences and Information, is timely, and stresses the important role our industry—and especially CSI—is to play in meeting our Nation's needs. It is not by accident that the initial letters of the theme words spell CSI! For it is only within CSI that all segments of the construction industry have a "home": for discussing and resolving construction problems; for analyzing and disseminating an expanding volume of information; and for investigating new opportunities for the creation of a vibrant construction industry—an industry that can successfully cope with the dynamics of change.

CSI has a vital role to fill. We are confident the 1974 convention can provide our members—and potential members—the construction industry—with the tools, the information and the leadership to enable survival and growth.

We plan to see those people who are concerned in the advancement of the art in the construction industry at this upcoming program.

new officers (continued)

Margie has been a member of CSI since September, 1970 and participated in many activities. She was also a delegate at the 1973 National Convention. Wearing her "Good Gal" white hat, she was simply marvelous everywhere in Washington.

Dexter L. Walter is our new Treasurer. Although Dex has been a member of CSI since March, 1967 he didn't become a Portlander until January, 1970 following the opening of Mutual Materials' first Oregon branch yard. Mutual Materials' products are masonry and I am sure Dex will handle our Chapter's financial affairs as solidly as the products he represents.

Dex is our new Industry Member on the Board for 1974-1977. He has been our very able Membership Committee Chairman. Our Chapter membership increased over thirty per cent during his tenure.

Our Secretary for the second straight year will be Gordon Todd. He is one of our very few General Contractors in the Chapter. We wish we had more like him. Gordon has been a very active member since he joined CSI in April, 1970. He has served as Chairman of the Region's Award Committee as well as the Chapter Award Committee.

Gordon was the General Chairman of the 1973 Institute Specifications Competition. Also in 1973 he was awarded the Regional 12 Certificate of Appreciation, the highest award the Region can bestow on an individual in any one year for rendering distinguished service to the Region in the advancement of its objectives and its administration.



Innovative Solutions to the Changing

Needs of the Building Industry . . .

Accordion Partitions

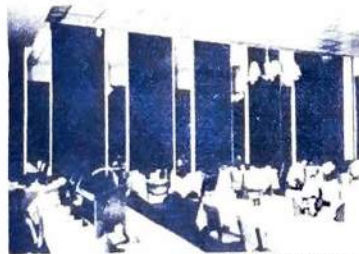


HUFCOR foresaw the need for space flexibility in the 1950s and developed the first laminated folding partition to divide space at will and at once, and the first accordion door with effective acoustical separation. Architects and designers immediately recognized new applications — partitions for multiple use of space with "freedom from distraction."

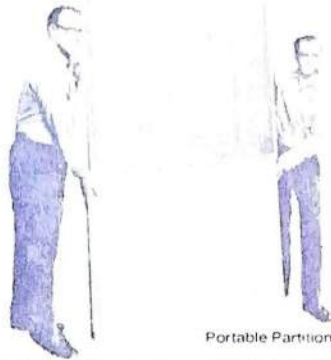
Multi-Directional Partitions



In 1974 Hufcor introduces a new product for Multi-Directional-Partitioning. Large acoustical panels can be moved from storage to partition runs, around corners and through intersections providing a variety of arrangements for organizing space. A unique, virtually friction-free track and carrier is the key to this innovative system.

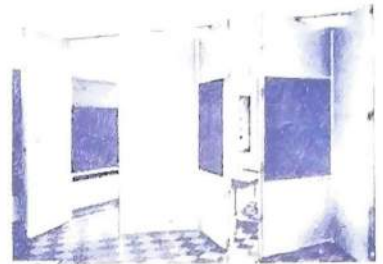


Operable Flat Panel



Portable Partitions

Unispans Supported Operables and Accordions

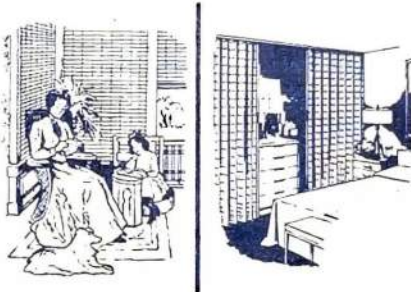


Changes in educational techniques led to the need for facilities which could be quickly and efficiently rearranged. The pioneering California system construction program known as SCSD provided the concept — using HUFCOR UNISPAN, a self-supporting system for Accordion and Operable flat wall partitions, in long span, lightweight structures. UNISPANS offers partition relocation without structural modification.

SINCE 1901

Innovation has always been the tradition of Hough Manufacturing Corporation. The company was founded in 1901 manufacturing "ventilating" woven basswood porch shades.

Our country's industries have been built on the ideas of creative men. Every material advantage we enjoy today was first inspired by need, then conceived by man's creative thought, and brought to life through belief and action. Azel Hough, founder of Hough Manufacturing Corp. was such a man. Inventive, innovative, perceptive, with a deep belief in himself and his abilities, he founded his company on an idea for porch shades — an idea which gradually grew into a nationwide corporation supplying multitudes of homes, schools, and commercial buildings with the beautiful Hufcor doors and partitions of today.



TURNED ON ITS SIDE, A PRODUCT SERVES NEW NEEDS

A need arose for a ventilating type door for closets and room dividers — the solution is a good example of Hough's innovative thinking. By turning the woven porch shade on its side, adding carriers and track, a major breakthrough in the building products field resulted — the development of the Ra-Tox wood slat, woven basswood folding door.



Relocatable Interior Systems & Accessories

Partition relocation on a do-it-yourself basis resulted from the introduction of HUFCOR PORTABLE PANELS, with interchangeable clip-on boards, shelves, desks and accessories. Hufcor portable partitions are individual, self-contained, factory fabricated panel units which lock in place between floor and ceiling. Portable Panels can be positioned and relocated by unskilled personnel without ladders or special equipment.



VAN DELIVERY

Especially equipped Hufcor vans provide faster, less expensive, safer delivery.



CHOWN HARDWARE & MACHINERY CO.
333 N.W. 16TH AVE.
PORTLAND, OREGON 97209

503 - 226-3601 OR TOLL FREE IN OREGON 1-800 - 452-7634

the little man

by Marvin Martin.

CSI, a member of the Knoxville Chapter

Is membership in CSI only for the specifier in the larger architectural firms? Recently, there has been some arguments that the member of the small architectural office has no place in CSI . . . that the programs are not geared to his needs . . . that membership in CSI offers him no benefits. Are these facts true? If the criticisms are generally correct, the Institute should initiate changes immediately, if they are not true, many valuable members are being driven away from our organization

Without a doubt, CSI is valuable to the larger firms. Those offices having a specification writer working full-time would naturally have more need for the information disseminated by CSI. The specifier working daily on problems such as those the Institute is trying to resolve has more interest in those programs. Some of the Institute's programs may not be readily adaptable to the small office . . . but there are more than is popularly thought of interest and of value to the "little man."

Information is the primary tool of the specifier. Without accurate and current information, the specifier cannot do his job. One specification consultant, I know, visits all the exhibitors booths at the CSI conventions just to assure himself that he will receive all catalogues and information from those manufacturers. The manufacturer's representatives probably do not neglect him as much as they would the little man but, still, he recognizes the absolute need for complete information. Particularly in a city the size of ours, the representatives sometimes rush into town, visits the five or so largest architectural firms, and rushes on in an attempt to cover his whole territory. Who can blame him? The representative naturally wants to place his literature in the hands of all those who need it but time sometimes dictates him to ignore the small offices. The little man may not see all those representatives but, as a Professional member of CSI, he receives Spec-Data, the best catalogue information form available. He also benefits from the technical articles and monographs in The Specifier and, primarily because of his membership in CSI, he is not without the technical information he needs.

Good specifications are important to all architectural offices regardless of size. The one-man part-time specifier received more benefits from the Institute's Technical Documents programs than anyone else. With a wealth of previous

projects and a staff to research specifications, the larger firms can obtain good specifications more easily than the smaller ones. The smaller firms must rely more upon the published guide specifications.

When the larger firms decide to initiate a computer-aided specification production system, they can afford to have a computer program written for their use and, more than likely, to afford the hardware, too. Not so for the little man. But the little man can use the Com-Spec program and complete with the largest of firms.

On and on it goes. Membership in CSI offers more benefits than some are willing to admit.

Little man, you're very big in CSI

— CRIBBED, with thanks. From *The Punch List*, Spokane Charter CSI Newsletter

letters

Dear Editor "Perky"

I understood what you meant in your column in February "Perky's Pondering Points" — no apologies were necessary from Lee. Errors are quite often found in Specifications! That's one way to know if specifications are being read — some (not Simon) says that is the reason for putting them in.

Re "Asterisks omitted" (March issue) my mailing address is not my home even if it seems that I spend more time here.

Enclosed please find a copy of *Visitors Guide of Lake Oswego*. Note that the annual "Festival of the Arts" begins June 27, 1974, the day following the close of the Institute Convention in Portland — it gets better every year.

Margie Largent CSI

did you know there was a gap?

Why do young Architecture Students, with the ink barely dry on their sheepskins, think they know so much? Because of people like Don Poe CSI, AIA, Professor of Architecture, Dave Scott AIA, Head of the Department of Architecture, and Larry Fisher FCSI, AIA, Educator. They are giving the students at the Washington State University a high-powered course in Architecture and its related disciplines. It is arranged so the Degree can be tailored to what the students wants to do with it. The first two years are Pre-Architecture, the second two years are Pre-Professional and the fifth year is Professional. If you don't want to draw "pretty pictures" you can stop at 4 years with a B.S. in Architecture studies or a combined degree in Business and Construction Theory which makes you an excellent candidate for a Construction Manager.

Don, Dave and Larry told members of Vancouver Chapter AIA and Portland Chapter CSI about the way they are teaching the students. They use a computer as a tool to simplify the tedium of calculations but the students must have first done similar calculations by hand. The computer is also used to determine CPM and networks and detect bottlenecks in proposed construction schemes. The students develop construction documents and build a model, designing the building one year and building it the next. Students are using the Uniform Construction Index, Codes, Standards, Manufacturer's information, OSHA, etc. They also have the students

prepare bids on projects with all the typical situations connected with preparing a bid. Larry indicated that the 3M Adult Games for Business are excellent teaching tools when adapted to the Construction industry. Do you take the "Big" job if you want to stay a one man office? The Professional can help the University "bridge the gap" by giving the University extra copies of Construction Documents and case histories of "real" type problem situations. In this way the students will gain practical as well as theoretical knowledge.

Doug Blair was a student, currently working in Portland, who then testified to the effectiveness of Washington State's Program. All in all a most educational evening, with the wives who were present learning more about our husbands careers.

Ed. Note: the above is a joint report by perky and i (typed by perky) (so she probably had the "last word") but this is mine so i'm almost even, and we almost agreed on the content for the above.

Ye editor further was pleased to note the attendance by 11 members of the Vancouver AIA Chapter, 13 CSI Spouses, 7 guests, 14 Portland Chapter CSI Industry Members, 4 Professional Members from other CSI chapters, and 17 Portland Chapter CSI Professional Members that signed their names to the sheet passed around.

roster revisions #3

members previous years, dues paid 1973-74, not listed on 2/15/74 roster due to poor coordination by your editor:

Ames H. Cohan (I)

Frank D Cohan Incorporated
P O Box 304
Wilsonville, Oregon 97070
Business Phone 638-8676
Ed Note Ames and Polly have volunteered to help at the convention — you'll see them there!

Donald W. Edmundson (P)

Daniel Mann Johnson Mendenhall
816 Pittock Block
Portland, Oregon 97205
Business Phone 222-3621

Gordon I. Torstenbo (P)

Familian Northwest, Inc.
2121 N. Columbia Blvd.
Portland, Oregon 97217
Business Phone 283-3333

additional address corrections:

Ken R. Smiley (P)

2314 Olympia
Richland, WA 99352

Gregory L. Smith

4241 Vista
Long Beach, CA 90803

Steve Centoni (I)

Empire Pacific Industries
Builders Hardware and Supply Division
16600 S.W. 72nd Avenue
P O Box 14250
Portland, Oregon 97214
Business Phone 620-1920

W. J. "Bill" Coleman (I)

W. E. Coleman Company
P.O. Box 1581
Lake Grove, Oregon 97034
Business Phone 636-0881

Bob Holmquist (I)

Pella Sales Division of Mohr, Inc
6322 N.E. Halsey Street
P O Box 13436
Portland, Oregon 97213
Business Phone 288-7546

Ronald E. Mohr (I)

Mohr, Incorporated
6322 N. E. Halsey Street
P. O. Box 13436
Portland, Oregon 97213
Business Phone 281-1151

Edward F. "Ed" Moran (P)

Moran, Wallace, Architects
P O Box 1337
Lake Oswego, Oregon 97034
Business Phone 635-4771

Nick Merriman (I)

Masons Supply Co
2637 S.E. 12th Ave
Portland, Oregon 97202
Business Phone 234-4321

NEW MEMBERS welcome!

Clair Miller (I)

Windlatch Co
8324 S.E. Foster Road
Portland, Oregon 97266
Business Phone: 774-6073

Gerald "Jerry" Morgan (I)

G E Morgan, Inc
9463 S.W. 62nd Drive
Portland, Oregon 97219
Business Phone 244-8156

Dennis Obert (P)

Jensen, Krause & Schoenleber
1962 N W Kearney
Portland, Oregon 97209
Business Phone: 227-5616

Curtis J. "Curt" Warner

Johns-Manville Sales Corp.
1217 S. W. 19th Avenue
Portland, Oregon 97205
Business Phone 222-2644

XEROX

Keith Lilly

Architecture, Construction & Engineering
Market Specialist

Harrison Square, Suite 250
1800 South West First Avenue
Portland, Oregon 97201
503 221-1850

226-6416

DIMITRE ELECTRIC CO.

LIGHTING FIXTURES * ELECTRICAL CONTRACTING

ROBERT DIMITRE 133 S. W. 2nd AVENUE
PORTLAND, ORE. 97204

Viking Sauna

JAMES H. CROWELL

1135 SE SALMON PORTLAND 503-233-4911



STANDARD DRY WALL PRODUCTS, INC.
for concrete and masonry waterproofing,
finishing and maintenance

RICHARD W. OLSON

2956 S.E. Spruce Street,
Hillsboro, Oregon 97123
Tel. 503/648-4213

Your money matters.
Use yours for all it's worth.



United States National Bank of Oregon
Member F.D.I.C.

PETER C. STEWARD

FACILITY PLANNING & EQUIPMENT CO.

41 Ralt Island Gig Harbor, Washington 98335
(206) 265-3417
(206) 475-5800 Tacoma (503) 234-0281 Portland

Manufacturers' Representative for:
Cabinets by Monitor Products
Wall Systems by Advanced Equipment
Self Instructional Systems
General Educational & Medical Equipment

Georgia-Pacific



Gypsum Division
900 S.W. 5th Avenue
Portland, Oregon 97204
(503) 222-5561

T. R. Godfrey



Roofing
Sheet Metal
Zonalite Concrete

James F. King
President

fred s. SNYDER ROOFING & SHEET METAL

6639 S. W. Macadam - Portland, Ore. 97201 - Ph. 244-7593

TODD BUILDING COMPANY

SINCE 1940

GENERAL CONTRACTORS

GORDON T. TODD, MGR.
PORTLAND DIVISION
P.O. BOX 19265
PORTLAND, OREGON 97219
503/246-8295

AWPI Publishes Synopsis of Pressure Treated Wood Allowed by the 1973 Uniform Building Code

In an effort to simplify the 1973 UBC Provisions regarding where and when pressure treated wood is required or allowed, and also outline a few advantages in the use of pressure treated wood, William M. "Bill" Graham, CSI, District Engineer, Western Division, American Wood Preservers Institute, has printed a synopsis

It is designed to fit into the loose leaf version of the 1973 UBC and contains indexed information on stresses, standards, wood foundations, definitions, and fire retardants. It also simplifies locating information that could be in any one of a number of places, such as Type of Occupancy, Type of Construction, Property Location and Engineering Regulations.

Copies are available by writing Mr. Graham at the Western Division AWPI Office, 1021 Yeon Building, Portland,

Oregon, 97204. Or by telephoning 503-227-7877.

A limited number of copies will be available at the May CSI Meeting at the River Queen and also at the CSI Convention in June at the AWPI Booth.

Spec Writer Needed in Salem

Your Editor has a request from an Architecture & Planning Partnership in beautiful downtown Salem for someone in CSI that would be interested in Specification Writing. For further information please contact the Editor.

state building code:

Looseleaf Amendments to the State Building Code are available by writing, Department of Commerce — Building Codes Division — Administrative Section — 674 Church Street N.E. Salem, Oregon — 97310. The Amendments are designed to fit into the looseleaf copy of the 1973 U.B.C. Cost of the amendments is \$3.00.



C. KEITH SCHABER
FIELD SERVICE REPRESENTATIVE
503-228-6411

THE FLINTKOTE CO. / PIONEER DIVISION
5700 N.W. Front Ave., Portland, Ore. 97210



ZONOLITE
CONSTRUCTION PRODUCTS DIVISION

ROBERT RANDALL
2303 N. Harding Ave. Portland, OR 97227
Res.: 292-1412 Bus.: 503/288-5195



RUGS AND CARPETS
C.H. Masland & Sons


FRED E. BEGGS, JR.
TERRITORY MANAGER
PHONE 206 694-0973
P. O. BOX 2267
VANCOUVER, WASHINGTON 98661



Associated Floor Covering Contractors

3020 S.E. Hawthorne Blvd.
Portland, Oregon 97214
503/234-0821

JERRY VAN SCOY
EXECUTIVE DIRECTOR



ROBERT P. BURNS

SECRETARY-MANAGER
OREGON-COLUMBIA CHAPTER
NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION

232-5787
801 N. EVERETT
PORTLAND, OREGON 97232

EDITOR:
LEE KILBOURN
1500 S.W. First #300
Portland, Oregon 97201
224-3860



COMMERCIAL FLOORING

2603 S.E. Grand Avenue
Portland, Oregon 97202

Phone
232-7169

DAVE WILEY — CSI —
Special Purpose Floors

WALLY HERDER —
Flooring Contracts

LARRY KING —
Installation Superintendent

BOB GILMORE —
Ceramics

GEORGE GRIFFITH — CSI —
Specifications

GUS SIEGLE
Natural Stone Masonry



MADELINE
Sales Representative

Wholesale Distributors of Building Materials & Floor Coverings
9111 N. Denver Ave., Portland, Oregon 97217. Phone 285-8611



EXECUTIVE DIRECTOR



RAY F. WIMER
OREGON MASONRY GUILD, INC.

3609 S. W. CORBETT ST.
PORTLAND, OREGON 97201

(803) 224-1940

Robert Klas (P)
Williams & Ehmann
85 S. W. Williams Drive
Beaverton, Oregon 97005

first class mail

FORUM JUNE 1974
JUNE 24-26
1974 CSI CONVENTION

PORTLAND
MAY 14 1974
REG. 1011211

the predicator

portland chapter



vol. 13, no. 10 construction specifications institute june, 1974

officers/directors 74/75

Kenneth L. Searl	President	223-1181
Margie Largent	Vice President	636-6977
Gordon Todd	Secretary	246-8295
Dexter Walter	Treasurer	655-7166
Laurence Arnold		696-1651
James Grady	Technical	228-5151
Rod Heestand	Awards	235-8383
Donald Kramer		693-1621
Verne Brice	Advisor Past President	227-3461

standing committees

Technical	James Grady	228-5151
Programs	Margie Largent	636-6977
Publications	Don Walton	234-0655
Membership	Keith Schaber	228-6411
Fiscal	Dick Risley	235-0177

the predicator

Editor 73/74	Lee Kilbourn
74/75	Don Walton

Albert M. "Al" Hansen
1890 — 1974

Member Emeritus

Construction Specifications
Institute

Charter Member
Portland Chapter CSI

In an era of architecture where creation of shapes and forms from lines and pictures was a common practice by craftsmen, Al rose to his greatest height by becoming an ornamental plasterer known for his ability to accept the challenge of performing the impossible jobs with confidence and enthusiasm that led many other men to perform likewise, a leader of men at all levels, Al gained the respect and admiration of all those he associated with.



1974 convention report:

it's been discussed enough — now be there!

June 24, 25, 26, 1974

Memorial Coliseum

Portland, Oregon

June 11 meeting Conserve Energy with NECA

Robert P. Burns, CSI, Secretary-Manager of the Oregon-Columbia Chapter National Electrical Contractors Association, will present and discuss *Changing Electrical Energy Priorities*, an overview of the energy status of the United States, particularly as it relates to the electric power and construction industries, prepared by NECA headquarters.

This timely meeting of the Portland Chapter CSI will be held June 11 at the River Queen Restaurant, with no-host cocktails at 5:30 p.m., dinner at 6:30 p.m., and Mr. Burns' presentation at 7:30 p.m.

This is part of what the report has to say about Specifications.

REGISTRATION RATES FOR CONSTRUCTION INDUSTRY PARTICIPANTS

	Entire Convention	Daily Registration Only
Construction industry participant	\$90.00	
*Spouse	\$60.00	Men \$15.00 Ladies \$10.00 Student \$ 5.00 Teenagers \$ 5.00 Sub-teens free

Individuals purchasing daily registration will only be permitted to attend technical sessions and receive exhibit entrance.

final committee meeting scheduled!

The final meeting of the 1974 Host Chapter Convention Committee is scheduled for Lee and Perky Kilbourn's home, 3178 S.W. Fairmount Boulevard, Portland, for Sunday evening the 16th of June at 7:30.

The Convention committee has included specific individuals earlier in its existence, but for this final meeting, according to co-chairmen Dick Ehmann and Russ Graham, the committee includes everyone (including wife, husband, spouse, companion, etc.) who even might be around the convention the 22nd, 23rd, 24th, 25th and 26th of June, 1974 (that's soon).

The Ladies Program (that's what they call it, Perky) will be described, as well as the teen and sub-teen programs, and the activities of the Host Chapter Booth.

So come — for directions, or a map, call Lee at his office 224-3860. When you think you need help finding the place, call Lee at home, 244-1778.

Project Specifications: *The CSI Uniform Construction Index now is used widely by design professionals throughout the United States, and several states (including New York and Colorado) and certain federal agencies have made its use mandatory. It is felt that the Index will be an excellent vehicle for specifying the many changes expected as a result of energy conservation efforts. In the area of electric energy for HVAC, lighting, security, fire protection, safety, communication, and other building systems, the Index will reflect much more detail placing more responsibility on the electrical contractor while increasing his scope of work.*

NOTE: there are no chapter meetings in **July** or **August** — unless otherwise specified.

RESILIENT FLOOR COVERING and the AFCC (oooooooo)

report on the May 14, 1974 chapter meeting

by Bob MacDonald CSI

Lively panel and audience discussion and criticism of the Architect acting as policeman between General Contractor and Subcontractor and the court's rejection of the prevailing "subcontractor shall approve the substrata" clauses in Resilient Flooring Specifications occurred at the May 14th Chapter meeting sponsored by the Associated Floor Covering Contractors at the River Queen

The panel, moderated by George S. Griffith, admitted to additions and comments from the floor in its discussion of changes and modifications to the CSI Guide Specification 09650 Resilient Flooring. The modifications were developed by AFCC members, representing 70 subcontractors and 15 manufacturers and distributors in the Pacific Northwest, working in conjunction with FHA and HUD over the past 3 years. AFCC functions as a standards organization, a management group for negotiating labor contracts, a legislative lobby, an advertising organization for its member firms. "Maxi-Satisfaction" is criteria for acceptable inspection standards set by this organization.

CSI Section Director-elect Larry Brown put in a plea for a concerted effort by the Construction Team for the reestablishment of integrity on the General Contracting level. The assignment of responsibility to areas where no previous responsibility was understood, the passing on of coordinating the work and of supervision all harass the subcontractor on his already limited margin of profit and escalate costs. "We are all in this industry together." When plaster droppings, water in the cement, dust and debris offer problems to the subcontractor, he has no alternative but to enter a letter of protest and proceed to install ready or not. Postponing and refusing to proceed all threaten future work and contractual relationships.

The panelists pointed to outside corners and low density particle board subflooring as problem areas. Outside corners must be molded instead of extruded so that exact matching of color shades and lines is difficult. The toe shape itself may not align. The suggested solution offered by V. P. Ken Searl was to wrap out-

side corners and apply with contact bond cement. Inside corners may be coped. Some present preferred preformed end stops (available by at least one manufacturer).

Low density particle board offers the most trouble. With the multiplicity of manufacturers, available job performance is largely unpredictable unless a high standard of manufacturers' quality control is assured. The AFCC recommends that you specify a board guaranteed by its manufacturer as a suitable subfloor for resilient flooring. At least one manufacturer present offers such a guarantee. At least one manufacturer offers a moisture resistant high density board. Standards for particle board have been promulgated by the National Bureau of Standards of the U. S. Department of Commerce. Under this standard, particle board is classified as low, medium, and high density, standard of moisture resistant. One (attractive) manufacturer offers rubber cove base in rolls rather than in 4-foot lengths. Stair skirting, tread and rise covering were discussed. "Broken broom clean" ought to give way to "vacuum clean" "as easy as not" "sandbagged base" ("by J.C., the Dean of Portland Spec Writers"). These, and many more were the comments that were made.

Finally, Jerry Van Scoy, AFCC Executive Director, pointed out that with 350 carpet mills busily producing carpet to the floor covering market, the manufacturers have tried to divest themselves of responsibilities normally theirs. Subcontractors have been named for manufacturing defects. Be wary, Mr. Spec Writer, be wary.

ed note #1 the tally showed 19 professional members of CSI in attendance, 29 Industry members, 3 junior members, and 19 guests. The guests included 6 spouses, Northwest Section Director Harlan Dean from Seattle, and Jane Sampier, the executive Secretary of the Builders Exchange Co-operative. Welcome.

ed note #2 I was disturbed to hear some industry members comment that the meeting seemed to be directed to the professional member — when in fact specs are used by all.

pondering point perky's final

I would like to conclude my tenure as "Editorial Assistant" by explaining why I have been an "Editorial Assistant" and why I think spouses should be "Editorial Assistants". When Lee and I started on our matrimonial journey, I was a graduate student and he was beginning College again. I was almost through and even though Fem-Lib was not "The thing" I encouraged him to take an interest in what I was doing and I would take an interest in what he was doing. We have kept these interests and I think both our professions have benefited. Lee has enjoyed his trips to Miami and Chicago with me and I certainly enjoy my trips to Washington D.C., Rotterdam and other places with him. We feel that John Salisbury's statement from his April 4th "Notes and Comment" need not be true:

For as long as there have been ambitious young men in trade and commerce anywhere, there have also been neglected wives. Some wives bring it upon themselves by refusing to become interested in their husbands' careers and progress — or, if not refusing, just never evidence any particular interest. But there are probably more wives than we might suspect who do care about how the bread her husband is winning is being won. The lack of communication in this area is not altogether the wife's fault. There are many men who tend to keep their home life and their work life separated — preferring not to involve their wives in the patterns of their business life. In these cases, it is not usually an even one, home takes second place.

In conclusion then if you are a spouse and would like to learn more about what yours is doing — ask to be brought to the CSI Convention in Portland, Oregon June 23-26. You will both enjoy it and maybe learn more about communication in the process.

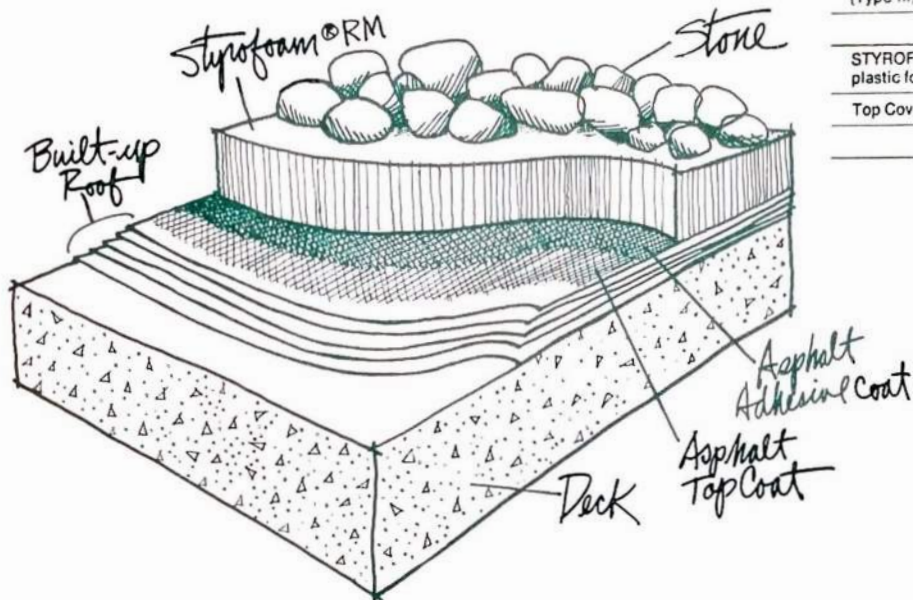
See you there!

Viking Sauna

JAMES H. CROWELL

1135 SE SALMON PORTLAND 503-233-4911

IRMA*



BILL OF MATERIALS
(Materials listed in order of application)

Material	Quantity	Weight Per Square
Primer	1 gallon	n/l
15 lbs. felt	3 squares	45 lbs.
Steep Asphalt (Type III)	5 applications	145 lbs.
Sub Total		190 lbs.
STYROFOAM RM brand plastic foam	as specified	20 lbs. per in.
Top Covering-Stone	as specified	1,000 lbs.*
TOTAL		1,210 lbs.

AMSPEC INC.
Columbus, Ohio

Northwest Agents:

Wiley-Bayley Inc.

215 S.E. Morrison
Portland, Oregon 97214
(503) 235-0177

RICHARD D. RISLEY, C.S.I.

*** INSULATED ROOF MEMBRANE ASSEMBLY**

Note: IRMA is suitable for new construction, reroofing, and as additional insulation

renew your dues

letters:

Just finished reading the May "Predicator" and note your article regarding W S C Architectural program and young architects

We here at Benson want you to know that besides championship basketball teams, we, too, have a going architectural program

This year we have 67 hopefuls and next year we expect 90.

With the help of people like Benny DiBenedetto, Saul Zaik FAIA, Lou Gilman, and others (many who are Benson graduates), we try to keep our curriculum current

Frankly, we don't expect all of our students to continue in the profession but we try to show what an architectural education covers and how it can be used

With that bit of horn tootin' out of the way, I would appreciate any catalogs, old specs that members of C S I could provide. This would assist these students to be aware of the many products all architects must consider in the design of facilities

Very truly yours,
John R. Murtaugh, A I A
Architectural Drafting

for better and economical construction, specify

EMPIRE

Empire Building Material Co.

Lit-Rock BLOCK

Prestressed CONCRETE

Lit-Rock AGGREGATE

Seattle — (206) 284-7160

NORTHWEST LATH & PLASTER BUREAU, Inc.
An Industry-Wide Coordinating and Development Agency for the West
12226 S.E. Guilford Dr., Milwaukie, Ore. 97222

RODERICK F. MEANEY
Architectural Consultant

Builder's Ex., Portland, Ore.
Business: (503) 234-0281
Home: (503) 654-3987

SMR

Roofing
Sheet Metal
Zonolite Concrete

James F. King
President

fred & SNYDER ROOFING & SHEET METAL

6639 S. W. Macadam - Portland, Ore 97201 - Ph. 244-7593

MUTUAL MATERIALS

DEXTER WALTER
Office 656-7198
Res. 233-8247

Standard DRY WALL PRODUCTS INC.
for concrete and masonry waterproofing, finishing and maintenance

RICHARD W. OLSON

2956 S.E. Spruce Street,
Hillsboro, Oregon 97123
Tel. 503/648-4213

TODD BUILDING COMPANY
SINCE 1940
GENERAL CONTRACTORS

GORDON T. TODD, MGR.
PORTLAND DIVISION
P. O. BOX 19265
PORTLAND, OREGON 97219
503/246-8295

searl speaks:

With the assistance of our new editor, Don Walton, the President's Column will be a bit different in the future. Watch for it in forthcoming issues.

Your new officers and myself have met and have some plans for the forthcoming year which we will let you know about in the *Predicator*. We are open to suggestions as to how our Chapter can be improved in any manner just give one of us a call or drop us a line. One thing I want to mention at this time is the help and offers of help from various CSI members I have received. This is most gratifying and very comforting to an incoming president.

Ken Searl

roster update #4

please correct Herman Ford's phone number to 233-4788 and his zip code to 97214

another new member:

Vern Wilde (I)
The Harver Company
2828 S E 14th Avenue
Portland, Oregon 97202
Business Phone: 235-8593

renew your dues

ye olde notice:

the retiring editor will assume that all advertising contracts will be renewed unless the new editor and his staff decide otherwise



C. KEITH SCHABER
FIELD SERVICE REPRESENTATIVE
503 228-6411

THE FLINTKOTE CO. / PIONEER DIVISION
5700 N.W. Front Ave., Portland, Ore. 97210

W. R. GRACE & CO.



ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

ROBERT RANDALL
2303 N. Harding Ave. Portland, OR 97227
Res.: 292-1412 Bus.: 503/288-5195

XEROX

Keith Lilly
Architecture, Construction & Engineering
Market Specialist

Harrison Square, Suite 250
1800 South West First Avenue
Portland, Oregon 97201
503 221-1850

226-6416

DIMITRE ELECTRIC CO.

LIGHTING FIXTURES * ELECTRICAL CONTRACTING

ROBERT DIMITRE 133 S. W. 2nd AVENUE
PORTLAND, ORE. 97204



Associated Floor Covering Contractors

3020 S.E. Hawthorne Blvd.
Portland, Oregon 97214
503/234-0821

JERRY VAN SCOY
EXECUTIVE DIRECTOR



For Sales & Service call:
(503) 226-6021
TIMOTHY P. BALFOUR



ROBERT P BURNS

SECRETARY-MANAGER
OREGON-COLUMBIA CHAPTER
NATIONAL ELECTRICAL CONTRACTORS
ASSOCIATION

233-5787
RD. N. E. EVERETT
PORTLAND, OREGON 97210

EDITOR:
LEE KILBOURN
1500 S.W. First #300
Portland, Oregon 97201
224-3860



COMMERCIAL FLOORING

2603 S.E. Grand Avenue
Portland, Oregon 97202

Phone
232-7169

- DAVE WILEY - CSI - Special Purpose Floors
- WALLY HERDER - Flooring Contracts
- LARRY KING - Installation Superintendent
- BOB GILMORE - Ceramics
- GEORGE GRIFFITH - CSI - Specifications
- GUS SIEGLE
Natural Stone Masonry



MADELINE
Sales Representative

Wholesale Distributors of Building Materials & Floor Coverings
9111 N. Denver Ave., Portland, Oregon 97217, Phone 285-6611



RAY F WIMER
OREGON MASONRY GUILD, INC.

3609 S. W. CORBETT ST
PORTLAND, OREGON 97201
(503) 224-1940

Robert Kias (P)
Williams & Ehmman
85 S. W. Williams Drive
Beaverton, Oregon 97005

PORTLAND 1974
JUNE 29-26
1974 CSI CONVENTION



first class mail