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MEMBER • NATIONAL CONCRETE MASONRY ASSOCIATION • NATIONAL PRECAST CONCRETE ASSOCIATION

Software Design Package for. . .

Heavy Paver Installations, Video Promoting Pavers for Homeowners, Among Programs Offered by NPCA's Interlocking Concrete Paver Section



An article by William L. Casteel, Associate Managing Director of NPCA, high-lighting the involvement of the National Precast Concrete Association in development of the expanding Interlocking Concrete Paver Industry.

James L. Thoms, Decor Precast of Stoney Creek, Ontario, chairman of the Interlocking Concrete Paver Section for the National Precast Concrete Association, is justifiably proud of the activities undertaken by the Section in the past several years.

Included in the highlights described by Thoms in a recent interview are the production of a video presentation designed for the homeowner market, and securing the North American licensing rights for LOCKPAVE, a computer software program for designing costeffective bases for commercial and industrial interlocking concrete paver applications.

Concrete Pavers for Homeowners is a 10-minute, color video which promotes the many advantages of interlocking pavers for homeowners and residential developers. Paver manufacturers, distributors and wholesalers have found the video useful as a point of sales tool in show rooms, and as an information piece for home shows, trade exhibits, state fairs, and other such events. Sales representatives have used it extensively in calling on architects, engineers, developers, and other specifiers of pavements.

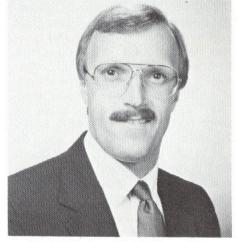
(Continued on page 2)

Paver Shapes and Patterns

Shapes of Pavers

Interlocking concrete pavers are available in a variety of sizes, colors and shapes. Some shapes are proprietary and others are peculiar to certain paver manufacturers who identify them by a variety of names. It is common knowledge, however, that paver shape influences performance. We refer to all pavers as "interlocking." This is true because:

- The accuracy in paver size and dimension allows them to be laid with very close tolerances between the paver units. When the joints are filled with sand or other hard granular material the pavers will "lockup." This creates a segmented layer within which the individual pavers are interdependent, and capable of transmitting friction laterally to resist loads.
- Some pavers are available 8cm thick, which provides more surface



... An article by Larry Nicolal, General Manager of Ideal Concrete Block Co./Paver Division, Waltham, MA, discussing popular shapes of pavers commonly available throughout the USA and Canada, and how laying patterns of various shapes play an important part in pavement performance.

area on the vertical faces which increases resistance to loads.

 Most pavers may be installed in a herringbone laying pattern, which provides better interlock and resis-(Continued on page 3)

SHAPE	NAME	SHAPE TYPE	LAYING PATTERN	
	Uni-Stone	A	Herringbone Basketweave Running Bond	
	Uni-Coloc	A*	Herringbone (modified)	
	Z-Paver	В	Running Bond	
	Uni-Decor	В	Herringbone Basketweave Running Bond	
A sur	Finetta	В	Running Bond	
	Hex	В	Running Bond	
	Boston Colonial	C	Herringbone Basketweave Running Bond	
	Plaza Paver	C	Running Bond	
	Classico	С	Totally Unrestricted by its Shape	

Visit PAVE TECH'S Booth at Major Industry Shows!



February 5th-8th, 1989 Cincinnati, OH

PAVE TECH will be exhibiting in Booth #827 at the 39th NCMA Concrete Industries Exposition (CIE) held in conjunction with NCMA's 69th Annual Convention at the Cincinnati Convention Center. PAVE EDGE® Paver Edge Restraint System will be featured; however, new products, ie: edging spikes. air-driven spike nailers, LEXEL adhesive for pavers, etc., will also be shown. In addition to its own display area, PAVE TECH will be responsible for paver installation in PAVER PARK (NCMA's Theme Area) this year. Be sure to stop by the PAVE TECH Booth #827 during Exposition hours. We're looking forward to greeting old friends and meeting new ones!



March 18th-21st, 1989 Indianapolis Convention Center, Indianapolis, IN

Look for PAVE TECH in Booths #138 and #140 at the 4th Precast Concrete Industries Heavy Equipment Expo at the Indiana Convention Center and Hoosier Dome. Billed as "The Greatest Spectacle in Precasting," this year's show will be the most comprehensive NPCA has offered in years. PAVE EDGE_® will be displayed as an edge restraint for pavers used in the exhibit. If you're planning to attend, stop by Booths #138-140 and see why this unique edging for pavers is "taking the industry by storm!" Whether you have a question or just want to say hello, please stop by.

During the NCMA Convention

Don't Miss . . .
CONCURRENT SESSION II

* Better Installations of Concrete Pavers

Presented by Stephen Jones, Pres., PAVE TECH

10:15 am-12:00 Noon Monday, Feb. 6th

On the CIE Exposition Floor*

★ Special Paver Installation Demonstration

Including: • Base Preparation

- Edge Restraint Techniques
- Placing/Finishing Pavers

Presented by

PAVE TECH Installation Crew

*Next to "Fastest Trowel" Competition

8:30 pm-4:30 pm Tuesday, February 7th

SOFTWARE DESIGN (Continued from page 1)

The video uses the interview technique to advantage: among those interviewed are: an architect/developer; an interlocking paver contractor; and several homeowners, including countrywestern star Mickey Gilley.

Pavers' various advantages are foremost throughout the video: ease of installation, beauty, low maintenance, value added to specific development, and sales appeal for potential home buyers, head the list. Paver use is shown in middle income and some higher income homes, with scenes demonstrating their use in patios, driveways, pool decking, garage floors, and other varied uses.

While not an installation video, Concrete Pavers for Homeowners, deals with the ease of installation and demonstrates both the "do-it-yourself" and "contractor-installed" aspects.

Thoms is extremely pleased with the support of 27 NPCA members who were the original investors in LOCK-PAVE, the computer software program which helps architects, engineers and other specifiers to design cost effective bases for paver installations.

Developed by Brian Shackel, PhD, senior lecturer in the School of Civil

Engineering, New South Wales, Australia, LOCKPAVE is available to paver manufacturers in the U.S. and Canada. Designed to be used on IBM and IBM-compatible personal computers, it is an easy to use package and runs successfully on many laptop units.

LOCKPAVE includes models of road traffic and industrial pavement loadings. Costs can be included in the analysis as both initial costs and discounted costs so that the most cost-effective design can be used.

Another tool available through the efforts of NPCA's Paver Section, according to Thoms, is The Perfect Way to Pave, a manual covering many aspects of pavers including installation procedures, ASTM standards, patterns, durability, functional characteristics, and PCA construction specifications. The 44-page guide was developed from data submitted by several paver producers, and includes a directory of NPCA members who manufacture and/or distribute interlocking concrete pavers. Thoms stated that many members have purchased multiple copies for distribution to current and potential customers. Over 500 copies were recently purchased by readers of Work Bench magazine as a result of an article in its August, 1988 issue.

Thoms listed several future activities which will help in developing the paver market: 1. the production of an additional video promoting the commercial and heavy industrial applications of pavers; 2. a potential revision of the very successful *Perfect Way to Pave* manual; 3. promotion of pavers in national exhibits including The American Society of Landscape Architects, NAHB's Builders Show, The Construction Specification Institute, and The American Society of Civil Engineers.

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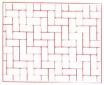
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P.O. Box 31126 Bloomington, MN 55431

> Tom Eggen Editor

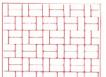
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45° Herringbone

90° Herringbone

Running Bond

A few of the many basketweave patterns that are possible.

PAVER SHAPES

(Continued from page 1)

tance to wheel loads than basketweave or running pattern.

Furthermore, some pavers have shapes which interlock, providing enhanced performance under heavy traffic conditions via "geometric interlock." Most shapes can be classified as one of three types:

- Shape Type A: Dentated units which key into each other on all four faces, are capable of being laid in a herringbone pattern; and, by their plan geometry when keyed together, resist the spread of the joints parallel to both the longitudinal and transverse axis of the unit.
- Shape Type B: Dentated units which key into each other on two faces only, are not capable of being laid in a herringbone pattern. Their plan geometry when keyed together, resist the spread of the joints parallel to both the longitudinal and transverse axis of the units.
- Shape Type C: Rectangular and simple profile units which do not key together may be laid in a herringbone pattern, and rely on their dimensional accuracy and the accuracy of laying to interlock.

The general rule of thumb is that pavers that provide "geometric interlock" on all four sides (Shape Type A) perform better under traffic than shapes which interlock on two sides (Shape Type B).

Of course there are some that might argue otherwise, and on good grounds. For instance, in England where segmented pavements are used extensively, most of the pavers installed are rectangular. And the heavyduty vehicular traffic in the Netherlands port of Rotterdam, the largest terminal container port in the world, operates on a segmented surface of rectangular concrete pavers.

In general, our recommendations concerning paver shapes are:

- Type A heavy duty use (ports and streets heavily trafficked by trucks).
- Type B moderate use (streets with light truck and auto usage).

 Type C — light duty use (residential driveways and pedestrian traffic).

You can modify the above recommendations by adjusting other variables that affect paver performance such as paver thickness or sub-base design.

Recommended Laying Patterns

Paver interlock is achieved by a combination of paver shape, thickness, uniformity of joint width and laying pattern. As with any type of paver set in sand, the laying pattern is an all-important factor in pavement performance.

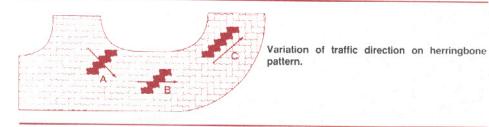
The principal laying patterns for pavers are: herringbone, basketweave (or parquet) and running bond (or stretcher bond). Variations can be made within some of these basic patterns for aesthetics or performancerelated reasons. For instance, pavers set in a herringbone pattern may be laid at either a 90° or a 45° angle to the main flow of traffic. The basketweave pattern allows most pavers to be set in a variety of ways. The running bond pattern, which is straightforward in appearance, can be laid with the joints offset. Of course, not all pavers can be set in all patterns; the laying pattern may be determined by the shape of the paver.

Because the joints between pavers are constantly "interrupted" in the herringbone pattern, the forces imposed by heavy traffic do not travel along a "path of least resistance" created by continuous linear joints. This prevents the development of stress which could otherwise disrupt the pavement. Instead, the load is efficienty absorbed by the surrounding pavers.

A basketweave pattern provides more parallel lines along the paver joints and allows load stresses to develop over a greater distance before being absorbed. The long continuous joint of the running bond pattern offers the least resistance to traffic forces. (Under no circumstances should a stack bond pattern be used for pavers set in sand.)

The herringbone pattern also offers distinct advantages in applications which call for changes in pavement direction. Pavers can be laid around curves or across intersections without altering the laying pattern or installing construction joints. The direction of traffic across a herringbone pattern has little effect on the pavement, irrespective of the axial alignment of the individual pavers.

For these reasons, basketweave and running bond are not the preferred patterns for pavements subject to



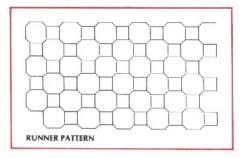
Extensive research has been conducted to determine which of the laying patterns perform best under traffic conditions. Studies conducted by Dr. Brian Shackel, a world-renowned authority on interlocking pavers, have shown that pavements laid in a herring-bone pattern perform significantly better than pavements laid in a basketweave or running bond. This has been confirmed by field performance.

medium or heavy vehicular traffic. However, they may be used successfully for residential driveways, or other light-duty traffic applications. In these applications the long dimension of the pavers should be set perpendicular to the centerline of the roadway. If the pavement must follow a curve, construction joints will be necessary to facilitate changes in the pattern direction.

Comments on Concrete Paving Blocks As a Flexible Paving Medium . . .

By A. "Dubby" Granott, M.S.C.E., P.E. Concrete Paver Systems, Inc., Los Angeles, CA

Observing the building industry it can be generally stated that owners/ builders/developers, our potential clients, will readily spend good money on most recommended or desired improvements to the quality or the looks of their buildings. That is what they want and understand, and that is what in their eyes directly affects the sales. rent or lease potential of the facility. However, they are much less concerned with the "secondary" topics such as site work, proper grading, soil and slope stability, drainage, pavement design and construction, and the likes. These are normally taken for granted and are considered a necessary evil and are not allocated a high priority on the list of distribution of the overall project budget.



Consequently, those of us involved in the planning, design, construction, marketing and sales of paving products are faced daily with a constant uphill struggle under the pressures to minimize costs by lowering standards and compromising quality.

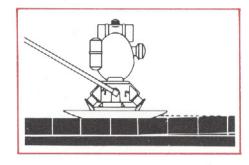
In the Concrete Paving Block (CPB) Industry, these pressures are further compounded by the fact that it is a relatively new product in the USA and lacks the exposure it achieved in other parts of the world. A lot of fortitude and willingness to educate and inform are required in order to break the many barriers of resistance due to its lack of local track record. Because of the conservative nature of a majority of regulatory agencies and the general resistance to change and new ideas, it is imperative that everyone involved with CPB, at any level, be thoroughly

acquainted with the product, its technical merits and construction requirements, its advantages as well as, if not more importantly, with its limitations. There will be pressures to overdesign, to install a concrete base and to use mortar to hold "these funny things" together from the agencies and from some design professionals, while the private sector clients will push to eliminate the gravel base (never mind that many concrete installations fail because of this very fallacy that base is not necessary for concrete pavings) and, at the same time, to lower the price and provide a 5 to 10 year warranty!

The success of concrete block pavements depends on the individual success of every paver project undertaken! This success, in turn, depends largely on the level of commitment and dedication to the concrete paver industry, possibly on an exclusive basis, exerted by anyone involved both in the manufacturing and in the installation of pavers.

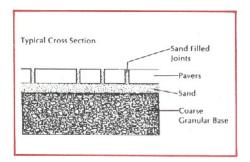
Some general points of importance and rules to follow can be summarized as follows:

 Do not oversell the product, and promise no miracles. Addressing the limitations and identifying the specifics of every cse will go a long way towards making the sale and, more importantly, avoiding problems and misunderstandings in the future.



 Educate the client and those directly involved in the project about CPB to raise their level of comfort. Be cautious though not to get into too many technical details as this may backfire. Make sure your representatives are adequately trained and knowledgeable about the product and its technology, as well as in the business practices related to their corresponding area of responsibility.

- 3. Prior to starting any project, make sure that it is thoroughly planned, from the preparation of the site, through pavement design and coordination of all construction operations, including all other trades and all material deliveries. If proper consulting and testing are not provided for, learn as much as you can about the project and arrive at your own design and recommendations. Be firm in making your professional judgments and clearly communicate them to your client. Should you be asked to compromise any of your recommendations, remember that Murphy's Law does work!
- 4. Proper installation is probably the single most important factor in the overall pavement success . . .
 - Establish your standards and practices for installation and be consistent in following them. Do not compromise quality and use good judgment in making adjustments for specific job requirements.
 - b. Use proper equipment for every job a vibratory plate good for 60mm stones may not be sufficient for a thickness of 80mm; guillotine cuts may be too rough for certain aesthetic applications and a saw may be needed; the lack of basic surveying equipment may make the difference on a very flat surface.
 - c. Inspect the stones for any defects, breakage, irregularities in color or texture, stains, thickness, etc. Know the general industry specifications as well as those specific for your project.
 - d. Use sufficient number of qualified and experienced personnel in order to assure the quality, timeliness and profits of your installation. Remember however, that in most cases, success is not what you expect, but what you inspect!



e. If the placement of base is a part of your contract make sure to select proper material, use adequate moisture content and, most importantly, do not attempt to use a light vibratory plate to compact 4 inches or more of road base — a larger compaction machine, such as a vibratory roller, is needed. Special soil conditions need to be considered such as expansive clays, organic or other unsuitable soils, freezethaw action, high-water table. etc. These normally require specialized attention and are generally handled by selection of materials, surface and subsurface drainage design, added

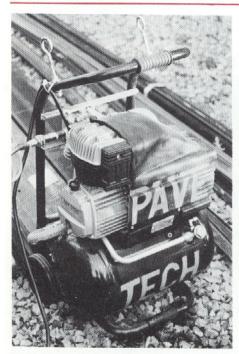
thickness of base, introduction of select material subbase, removal and replacement of a top layer of the subgrade with granular soil, dewatering methods and the introduction of geotextiles.

- f. Proper lateral confinement must be assured by proper edge restraints. If curbing or other adequate devices are not otherwise provided in the project, appropriate edge restraints must be employed, such as concrete curbs/bands, the PAVE EDGE® System, redwood headers in nontraffic areas, or other means which will meet the needs and constraints of the project.
- g. Make sure to use the proper sand for the joints; apply it dry after compacting the stones, and finish by additional compaction as needed.
- Keep up with the Industry! Join the professional organizations, attend shows and conventions, read trade literature and do not hesitate to look for answers to your questions from your local manufacturer, National

Concrete Masonry Association (NCMA), National Precast Concrete Association (NPCA), Pave Tech or any source which you will get to know through your active involvement in the Paver Industry.



Dubby Granott



PAVE TECH'S "Big Pioneer" with a few minor modifications for ease of handling and storage.

High Performance Air Compressor Ideal for Operating Spike Nailers

PAVE TECH'S new air-driven spike nailers for PAVE EDGE_® edging have caught the eye of several distributors who are marketing to their contractor customers.

Orders for the nailers themselves are encouraging; questions by distributors though, seem to center on finding a suitable air compressor matched to the requirements of the spike nailers. PAVE TECH recommends a minimum of 80 pounds of air pressure at 3.5 CFM — a maximum of 125 pounds pressure.

PAVE TECH uses a "Big Pioneer" Model 255, manufactured by FINI,

Bologna, Italy. The Model 255 is a monocylindrical electric air compressor, directly connected to a single phase motor. Features include the following: forced air cooling, splash lubrication, air tank on wheels for quick mobility, control instruments (electric automatic pressure switch with stop and start button, safety valve, pressure gauge and pressure reducer) all collected together on one support.

If you would like a brochure on the FINI line of air compressors and additional information on pricing, etc. contact:

Compress Air & Equipment Co. 12925 - 16th Ave. No. Plymouth, MN 55441 Phone: (612) 557-0104 Ask for: Jeff Heinz

PAVE TECH Paver Installation Seminar Draws Houston Crowd!

Houston Concrete Products, Inc./ Eagle Lake Concrete Products, Inc., Houston, TX, recently pulled off a Texas "first." They sponsored a *PAVE TECH* installation seminar/demonstration for a large crowd of architects, landscapers, engineers, contractors and their installers on December 1-3. Houston/Eagle Lake's marketing is now done under the name Paverlock of Texas, due to their recent association with Paverlock producers elsewhere in the country.

Seminar activities started with a short introductory session and video presentation at Houston's office, after which attendees were taken to the installation site (nearby residence of Pat Lawrence, Paverlock's Vice President of Sales).

Instruction and demonstration were the keywords for everything from preparation of the subgrade and insuring proper soil conditions and drainage, to final compaction of base and filling of joints with sand. Stephen Jones and the *PAVE TECH* team provided the instruction and most of the demonstration. "Doing is learning" so several attendees were put to work running the machines, placing and pounding spikes in *PAVE EDGE* edging and carrying and placing pavers.

After some generous Texas style hospitality provided by the hosts, complete with fried chicken, BBQ ribs, and the "whole works," the seminar ended with a completed 2,000 square foot driveway of red/charcoal Hollandstone pavers, surrounded by a pewter colored Hollandstone soldier course border.

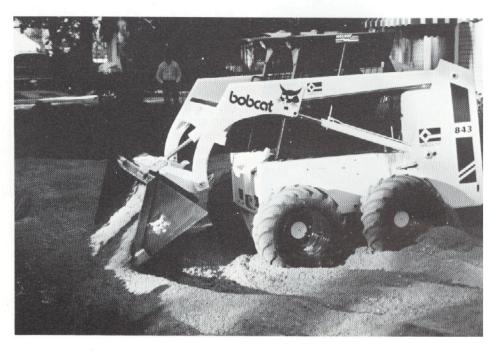
Everyone in attendance agreed that it was worth the effort, a very helpful learning experience (we were told later that Linament sold well for several days!).

MIDDLE AND BOTTOM PHOTOS: Special thanks go to Ron Weston of Gaedcke Equipment Co. of Houston, (713) 674-4040, and to George Berry, Case Power and Equipment Co., 926 E. North Belt, Houston, (713) 987-1990 for use of demo material handling and compaction equipment. A Model 843 Melroe Bobcat from Gaedcke Equipment was used for removal of existing driveway, placement of base and bedding materials, and for "fine tuning" base elevations and slope. A Model 252 Case vibratory roller did a superior job of compacting crushed limestone base material.



Attendees listened closely to suggestions on how to use PAVE EDGE® edging on either straight or radius applications. Mike Turner, President of Paverlock of Texas (far right) was a gracious seminar host and provider of all the good food.





SOFTWARE DESIGN (Continued from page 2)

Thoms is enthused also about NPCA's other marketing activities which indirectly will benefit the paver manufacturer. One of the current programs is a national marketing study undertaken by NPCA's Marketing Committee. The study is being handled by one of the country's leading industrial marketing research firms, and will result in a major five-year marketing program for precast concrete products in general, but the results will help the various product lines (pavers among them) to identify specific market areas which need attention.

The Association is sponsoring both Brian Shackel and John Hodgkinson during separate visits to North America in 1989. Shackel will begin his visit with an appearance before the American Association of Port Authorities in Tampa, Florida, on February 5, and will end with a program at the University of British Columbia in a workshop for the Design of Heavy Duty Pavement Structures. The U.B.C. workshop will explore design procedures for several possible types of pavement structure including asphaltic concrete, portland cement concrete, roller-compacted concrete, and interlocking paving block. Several NPCA members have



scheduled their own local seminars in between these dates, using Shackel as a primary resource.

In March, John Hodgkinson will be meeting with the Ontario Paving Stone Association, beginning on March 7; go to Indianapolis for the NPCA Annual Convention where he will be a primary resource person for the Paving Section Meeting, and will end his tour with a three-day seminar in Quebec, for the Quebec Paving Stone Association. Hodgkinson also has one or two additional seminars scheduled between these activities.

Manufacturers who would like to use either Hodgkinson or Shackel during these times, and/or would like additional information on other NPCA promotional activities, should contact the NPCA office, 800/428-5732. Canada, Alaska, Hawaii, Indiana, call collect: (317) 253-0486.

Aperfect Pway to Pave.

Colored, interlocking concrete pavers make driveways to walkways to patios perfect.

Successful Selling of



By Countertop Exposure

One good tip deserves a repeat! The last issue of the *EDGE* newsletter carried a brief mention of in-store merchandising using a LEXEL small countertop display rack.

The results were great; several distributors are now using the easily assembled, attractive countertop rack to display LEXEL and sales have picked up dramatically as a result of its visibility on the sales counter or order desk.

Successful selling at point of purchase — it's as old as the hills and it still works.



The small 1-foot module countertop unit, Model LXL-1 holds thirty 10.5 oz. tubes of LEXEL (furnished with the display rack) and is available to *PAVE TECH* distributors at a cost of \$133.13 including the tubes of LEXEL (net, 10-day terms) or only \$119.82 with a 10% prepay (check with order) discount applied.

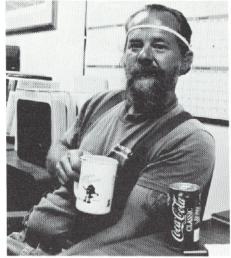
If interested in ordering a LEXEL display rack, call *PAVE TECH* for further details.

Distributor/Contractor/ Installer ALERT!

A Technical Tip from Bob Lindstrom, PAVE TECH'S Manager of Paver Installation

DO NOT install $PAVE\ EDGE_{\Re}$ on top of bedding sand! The proper placement of the $PAVE\ EDGE_{\Re}$ edge restraint system is directly on the compacted, finished-graded sub base.

After PAVE EDGE_® (rigid or flexible) is placed, the edging itself becomes an excellent guide for screeding sand to the proper depth to receive pavers. ►



Bob Lindstrom

Let's Complete the Triangle!

Successful paving stone installations require a *triangle* of knowledgeable and dedicated people . . . *suppliers* (paver manufacturers), *designers* (architects) and *installers* (contractors).

At present, the *EDGE* newsletter is reaching only one-third of that triangle. One of the special features of the publication that we hope to make consistent, is timely articles about subjects which we feel are of interest to the *entire* triangle, ie: proper design and construction techniques, technical data on soil compaction and base

preparation, types, sizes and shapes of pavers and their application in pavement patterns, etc. . . . the list is long.

Our mailing list is short, however, by 2/3rds of the total potential audience out there. We want to reach as many architects who design pavements and paving stone contractors as possible, and *you* are the key! If you send us your list, we will add it to our newsletter mailing list. If you prefer to send them out yourself, order an extra quantity of the publication by completing and returning the form below . . . and thanks for your help.

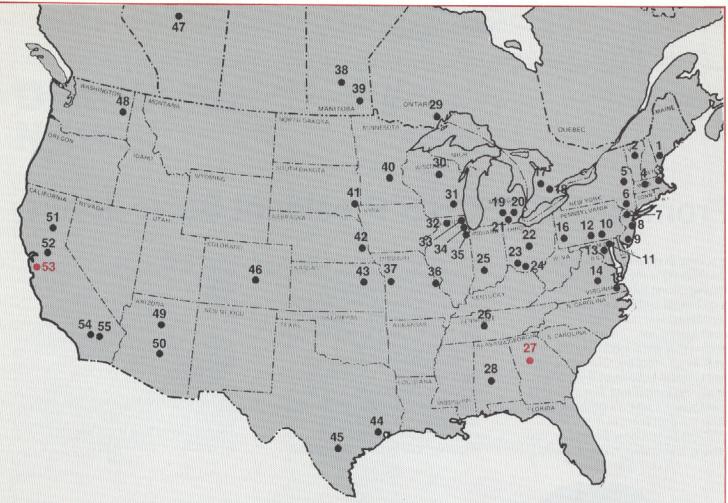
Re: Newsletter mailing lis	
	tects who design paving stone installations and/or ractors. Please add them to the EDGE newslette
Please send us or hand out these copies	extra copies of the <i>EDGE</i> newsletter. We will ma ourselves.
Name	
Company	
Company	
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Address City/State/Zip	

WELCOME to new PAVE TECH distributors in Georgia and California

From Lithonia, GA (Atlanta area)... PAVERLOCK OF GEORGIA, 6937 Rodgers Lake Road, phone: (404) 482-6466. We're happy to welcome Ismail Saleh as a new PAVE EDGE_® distributor. Paving stone contractors in the Atlanta area can now order the edging from Paverlock's stock.

From Cupertino, CA (San Francisco area)...PACIFIC INTERLOCK-ING PAVING STONES, 10128 Mann Drive, phone: (408) 257-3645. The latest in a recent flurry of new distributors in the Golden State is Pacific Interlocking Paving Stones, headed by John Tonder. John is not only stocking PAVE EDGE, but also ordered a Master Pack of LEXEL adhesive.

REMEMBER, IN ORDER TO BECOME A PAVE TECH DISTRIBUTOR, YOU MUST BE A CURRENT PAVER MANUFACTURER.



North American Distributors of PAVE EDGE

- Genest Concrete Works, Inc., Sanford, ME
- 2. S.T. Griswold Co., Williston, VT
- Ideal Concrete Block Co., Waltham, MA
- 4. Landscape Products, Inc., Wilbraham, MA
- 5. Dagostino Bldg. Blocks, Inc., Schenectady, NY
- 3-D Block Company, Inc., Monticello, NY
- Grinnell Conc. Paving Stones, Sparta, NJ
- Anchor Concrete Products, Bricktown, NJ
- 9. E.P. Henry Co., Woodbury, NJ
- Hanover Architectural Products, Hanover, PA
- Capitol Conc. Co., (Glen Gery), Laurel, MD
- 12. Nitterhouse Conc. Prod., Chambersburg, PA
- 13. Balcon, Inc., Baltimore, MD
- Tarmac-Lonestar, Inc., Prince George, VA
- Interlock Paving Systems, Hampton, VA
- 16. R.I. Lampus Co., Springdale, PA
- 17. Pavestone Plus, Kitchener, Ontario
- D. Barnett & Co. Ltd., Waterloo, Ontario

- Decra-Loc USA, Inc., Eaton Rapids, MI
- Grand Blanc Cement Prod., Grand Blanc, MI
- Fendt Bldrs. Supply, Farmington Hills, MI
- Oberfields Conc. Prod., Delaware, OH
- 23. Interpave Corp., Cincinnati, OH
- 24. Paverlock, Cincinnati, OH
- 25. Hessit Works, Freedom, IN
- 26. Nashville Block Co., Nashville, TN
- 27. Paverlock of Georgia, Lithonia, GA
- 28. SRM/Selma Inc./Con Pave, Selma, AL
- 29. Miller Precast Ltd., Thunder Bay, Ontario
- 30. Wausau Tile, Wausau, WI
- 31. Bend Industries, West Bend, WI
- 32. Rockford Cement Prod., Rockford, IL
- 33. Unilock Chicago, Inc., Aurora, IL
- Bend Industries Inc./Ampress, Des Plaines, IL
- 35. Utility Conc. Prod., Plainfield, IL
- 36. Kirchner Industries, Inc., Bridgeton, MO
- 37. Barbour Conc. Prod., Independence, MO

- Midland Concrete Prod., Winnipeg, Manitoba
- Barkman Concrete, Ltd. Steinbach, Manitoba
- 40. Borgert Concrete Products, St. Joseph, MN
- 41. Gage Bros. Concrete Products, Sioux Falls, SD
- 42. Watkins Concrete Block, Omaha, NE
- Capitol Concrete Prod. Inc., Topeka, KS
- 44. Paverlock of Texas, Houston, TX
- 45. Alamo Concrete Pavers, San Antonio, TX
- 46. McKinney Conc. Prod. Co., Pueblo, CO
- 47. St. Albert Precast, St. Albert, Alberta
- 48. Layrite Products Co., Spokane, WA
- 49. Block-Lite, Flagstaff, AZ
- 50. Muller Supply Co., Tempe, AZ
- 51. Kratzer Precast Supply, Penn Valley, CA
- 52. Muller Supply Co., Lodi, CA
- Pacific Interlocking Paving Stones, Cupertino, CA
- 54. Perma-Concrete, Moreno Valley, CA
- 55. Muller Supply Co., Banning, CA

From PAVE TECH'S President Steve Jones

It seems that just a short while ago that everyone involved in the Paving Stone industry had to fight a continual battle of ignorance and disinterest with architects, contractors, etc. . . Today it finally seems that we are coming into our own as an industry. Our potential being in the billions of dollars is finally no longer just some glassy-eyed paver convert's utterences. With the problems of the UNIDECOR patent now behind us and having leadership in our industry

of the caliber we do, I think that innovation, marketing, improved communication, increasing numbers of experienced installers (bad habits and all), will show us that 1989 is going to be a frenzy of expansion for all of us.

There have been some questions as to *PAVE TECH'S* role as a vendor to the industry. Our goals are simple, the routes we use are sometimes not. It has always been my contention that the better informed that people were about

the entire process of Paving Stones from gravel pit to mold box to laying pavers, the better we as a company could respond to and service industry needs. I think it is important to note that we do not in any way feel that we are replacing Industry Association functions.

As always, PAVE TECH is available to help in any possible way to advance the Paver Industry. Quality and service are commitments that must become synonymous with Pavers.



Distributor NEWS!

Among the letters we receive regularly from *PAVE EDGE*® distributors, there's always one or two that makes you want to read them twice! This one, from PAVESTONE PLUS of Kitchener, Ontario, made us feel pretty good.

Like all manufacturers we've talked to recently, PAVESTONE PLUS is looking for a *great* paver year in 1989. Although Canada leads the USA by over five times in the number of square meters of pavers placed per person each year, the potential market in the USA is enormous! The estimated total placement of all types of pavement in the USA annually, according to NCMA statistics, is approximately 750 square kilometers. The concrete paver market in the USA is currently taking *less* than 1% of this total!



Interested in increasing paver sales? . . . In increasing your customers base? . . . In adding a proven profit maker to your product line?

Call Toll Free 1-800 PAVE TEC for information on how you can start offering your paving stone contractors the advantages that PAVE EDGE gives in simplifying and reducing costs of installation. We'll send a free VHS video on PAVE EDGE, installation instruction, samples of the edging, both rigid and flexible, catalogs for distribution to your customers and an installation guide for use by them. Technical assistance is as close as your phone. Questions on price, terms, shipping and delivery, etc. will be promptly answered. Minimum order (without special handling charges) is just 1,080 lineal feet . . . large enough to allow a few of your active contractors to see for themselves how simple and fast it is to place an edge restraint that will last a lifetime!



PAVE TECH Needs Help!

Distributors, please help us to help you avoid the delays in shipment of PAVE $EDGE_{\textcircled{@}}$ that you may have experienced last Spring! Now is the best time to check your inventory, anticipate your edging needs to satisfy Spring demands from customers, and to let us know the approximate time and quantities so we can assure timely deliveries of $PAVE\ EDGE_{\textcircled{@}}$.

Although PAVE TECH is much better equipped to handle the Spring rush this year, we may have underestimated too just how great a year 1989 is going to be! HELP US HELP YOU — CALL US AND LET US KNOW!!

Many Thanks

Paver Manufacturers

If you've got any requests for sales and technical literature, additional *PAVE EDGE* videos, quantity orders of newsletters, etc., or . . . any technical questions regarding *PAVE EDGE*, its application, use, etc. Please call the **PAVE TECH HOT LINE!** 1-800-PAVE-TEC . . . or FAX it: (612) 881-2169!

Calendar of Events

January 20-23, 1989

Annual Convention/Exposition, National Association of Home Builders (NAHB), Atlanta, GA

February 5-9, 1989

National Concrete Masonry Association (NCMA) 39th Annual Convention/ Exposition, Cincinnati, OH

February 19-23, 1989

World of Concrete Annual Convention, Atlanta, GA

March 18-20, 1989

National Precast Concrete Association (NPCA) 24th Annual Convention and 4th Exposition, Indianapolis, IN

May 6, 1989

Illinois Landscape Contractors Association sponsored Unilock Training Seminar on Paver Installation, Aurora, IL



PAVE EDGE. Continuous Loop Videos Available!

Whether on your own customer sales floor, or on the convention/exposition floor, it's a bothersome job rewinding and replaying a video tape every 10-13 minutes. Now you can play the *PAVE EDGE* video continuously during open hours for the benefit of visitors and customers, and forget about it until closing.

Available on quality Kodak professional tape, and in its own hard case, the new *PAVE TECH* VHS video (14½ minutes) costs just \$30 each. Call or write if you'd like us to send one or more copies; be sure to specify *continuous loop*.

It's Easy to Reach PAVE TECH!

Call: 1-800 PAVE TEC

1-800 728-3832

1-612 881-5773

1-612 881-2169 (FAX)

OR, Write to us at:

PAVE TECH, INC. P.O. Box 31126 Bloomington, MN 55431

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