

# PRODUCT REPORTS





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<b>Introduction</b>	<b>27</b>	
<b>Division 1 General Data</b>	<b>28</b>	<i>Computer software/Design-office equipment/Information systems</i>
<b>Division 2 Sitework</b>	<b>37</b>	<i>Fences/Paving/Planters/Retaining walls/Site furnishings &amp; shelters</i>
<b>Division 3 Concrete</b>	<b>39</b>	<i>Concrete accessories &amp; materials/Precast concrete/Formwork/Concrete restoration</i>
<b>Division 4 Masonry</b>	<b>41</b>	<i>Stone/Unit masonry/Glass masonry/Accessories/Masonry restoration</i>
<b>Division 5 Metals</b>	<b>47</b>	<i>Architectural metalwork/Expansion control/Metal coatings/Railings</i>
<b>Division 6 Wood &amp; Plastics</b>	<b>49</b>	<i>Architectural woodwork/Lumber/Glass-fiber &amp; polymer fabrications/Laminates</i>
<b>Division 7 Thermal &amp; Moisture Protection</b>	<b>57</b>	<i>Siding/Composite panels/Insulation/Roofing/Sealants/Skylights</i>
<b>Division 8 Doors &amp; Windows</b>	<b>65</b>	<i>Entrances/Glazings/Hardware/Windows/Curtain walls/Doors</i>
<b>Division 9 Finishes</b>	<b>83</b>	<i>Carpeting/Paints/Resilient flooring/Tile/Wall coverings/Wood flooring</i>
<b>Division 10 Specialties</b>	<b>95</b>	<i>Compartments/Fireplaces/Signage/Shelving/Lockers/Louvers/Partitions</i>
<b>Division 11 Equipment</b>	<b>104</b>	<i>Conference/Detention/Laboratory/Library/Display/Residential/Kitchen</i>
<b>Division 12 Furnishings</b>	<b>106</b>	<i>Shades/Fabrics/Furniture/Rugs/Seating</i>
<b>Division 13 Special Construction</b>	<b>111</b>	<i>Tensile structures/Prefabricated buildings/EMI-shielding/Sound control</i>
<b>Division 14 Conveying Systems</b>	<b>113</b>	<i>Elevators/Lifts/Material-handling systems/Conveyors</i>
<b>Division 15 Mechanical</b>	<b>114</b>	<i>Air distribution/Fire protection/Hvac equipment/Plumbing fixtures/Fountains</i>
<b>Division 16 Electrical</b>	<b>117</b>	<i>Communications/Exterior luminaires/Lighting/Wiring devices</i>
<b>Technology</b>	<b>18</b>	<i>Ready or Not, Construction Recycling Is on the Way, by Lynn Nesmith</i>
<b>Letters/Calendar</b>	<b>2</b>	
<b>Manufacturers' Index</b>	<b>6</b>	
<b>Design News</b>	<b>11</b>	
<b>Technology News</b>	<b>16</b>	
<b>Software Reviews</b>	<b>24</b>	
<b>Literature Citations</b>	<b>15</b>	
<b>Classified Advertising</b>	<b>140</b>	
<b>Advertising Index</b>	<b>142</b>	
<b>Reader Service Cards</b>	<b>9-10, 143-144</b>	

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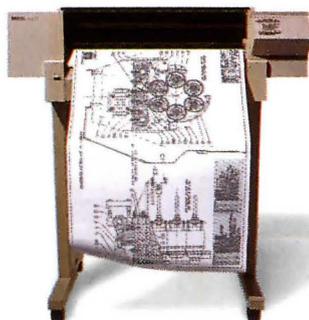
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## Manufacturers' Index for Product Reports

Companies whose products and literature appear in the editorial section of *Product Reports*, pages 28-125, are listed below. Following the company names are Reader Service Numbers. The index to advertising that appears in this issue is on page 142.

- A**  
A&J Washroom Accessories, 391  
A.D.A. Elevator Products, 510  
A-T-I, 189  
A.J. Stairs, Inc., 135  
A.L.P. Lighting & Ceiling Products, 608  
ADA Survey, 32  
ASI Sign Systems, Inc., 373  
Abet Laminati, Inc., 125  
Abraxas, 453  
Access Industries, Inc., 508  
Accuride, 221  
Acme Brick Co., 73, 81  
Acorn Window Systems, Inc., 244  
Action Floor Systems, Inc., 340  
Adams Rite Manufacturing Co., 234  
Add Interior Systems, 456  
Adden Furniture, Inc., 425  
Air Louvers, 285  
Air Vent, Inc., 165  
Allmetal, Inc., 222  
Allied-Signal Fibers, 70  
Allstate Flooring, 331  
Alta Illumination, 620  
Aluminum Anodizers Council, 118  
American Locker Security Systems, 388  
American Marazzi, 358  
American Olean Tile Co., 348  
American Plywood Association, 140  
American Seating Co., 433  
American Standard, Inc., 522, 531  
Ameristar, 53  
Andersen Windows, 250  
Anderson Industries, 103
- Apple Computer, 24  
Arc-Com Fabrics, Inc., 461  
Armstrong World Industries, Inc., 298, 318, 321, 330  
Arrow Lock Mfg. Co., Inc., 263  
Artemide, Inc., 576, 611  
Artup Corporation, 592  
Asphacolor Corp., 41  
Asphalt Roofing Mfrs. Assoc., 179  
Astrup Co., 377  
Atelier International, 438, 446  
Atlas/Soundolier, 578  
Autodesk, 12, 17, 22  
Avonite, 124  
Azrock Industries, Inc., 336
- B**  
BASF Corp., 476  
BEGA, 619, 583  
BPCO, Inc., 158  
Baldinger Architectural Lighting, 555  
Bally Engineered Structures, Inc., 411  
Bannerworks, Inc., 460  
Belden Brick Co., 85  
Belux AG, 587  
Benjamin Moore & Co., 341  
Benjamin Obdyke, Inc., 145  
Bernhardt Furniture Co., 462  
Best Mfg. Sign Systems, 376  
BioFit Engineered Seating, 442  
Birdair, Inc., 490  
Blanco America, 517  
Bobrick Washroom Equipment, 387  
Bomanite Corp., 42, 62
- BondCote Corp., 188  
Bose Corp., 556  
Boston Retail Products, a division of Boston Metal Products Corp., 361, 383  
Boyd Lighting Co., 559  
Brayton International, 424, 473  
Bretford Manufacturing, Inc., 372  
Briggs Industries, 524  
British-By-Nature, 37, 80, 486  
Bronzelite, 612  
Brunschwig & Fils, 435, 449  
Buchtal Ceramics, 317  
Burns & Russell Co., 50, 79, 93
- C**  
C/S Group, The, 295, 366, 429  
CPI International, Solar Structure Div., 502  
CalComp, Inc., 21  
Calculated Industries, 23  
California Products Corp., 289  
Canterra International, 575  
Capri Lighting, 590  
Carnegie Fabrics, 463  
Cedar Valley Shingle Systems, 199  
Celotex Corp., 346, 488  
CertainTeed Corp., 171, 198  
Chadsworth Inc., 362  
Charleston Industries, Inc., 386  
Charlotte Company, Inc., 434  
Cheer Skill (USA) Co., 91  
Chemfab, 481  
Chemgrate Corp., 110  
Chicago Faucet, 547  
Chicago Metallic, 306
- Clark Metals, Inc., 106  
Clarke Group, 154  
Cold Spring Granite Co., 49  
Colonial Bronze Company, 217  
Columbia Cascade Co., 47  
Complast, Inc., 281  
Concrete Paver Institute, 56  
Concrete Reinforcing Steel Institute, 67  
Congoleum Corp., 308  
Conspec Systems, Inc., 119  
Continental Creative Sales, Inc., 475  
Conwed, 328  
Cooper Lighting, 572  
Copper Sales, Inc., 167  
Corbin Russwin Architectural Hardware, 236, 287  
Coreguard, Inc., 299  
Cornell Iron Works, Inc., 253  
Country Floors, Inc., 305  
Courtaulds Flooring U.S., 324  
Cover Pools, Inc., 497  
Cross Industries, Inc., 392  
Curveline, Inc., 65  
Custom Rock International, 48
- D**  
Dal-Tile Corp., 294  
Danko, 467  
Dar/Ran Furniture Industries, 480  
Dataprint, 26  
Dawson Doors, 261  
Dazor Manufacturing, 589  
DecoForm, 121

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Delta Faucet Co., 529  
DesignTex, 426  
Dibiten USA, 187  
Diehl Graphisoft, 9  
Dlubak Corp., 237  
Dodge-Regupol, Inc., 344  
Dorma Group, 249  
Douglass Industries, Inc., 439  
Dover Elevator Systems, Inc., 512  
Dow Chemical, 172  
Dow USA, 350  
Dowcraft Corp., 389  
Dryvit Systems, Inc., 197  
DuPont Co., 141, 290, 542  
Dura Art Stone, 40  
Dwyer Products Corp., 408

**E**

Eastern Exterior Wall  
Systems, Inc., 156  
Edison Price Lighting, 585  
EFCO Corp., 246, 268  
Eggers Industries, 242  
Elkay Mfg. Co., 520, 537, 543  
Elliptipar, Inc., 579  
Ellison Bronze 273  
Endicott Clay Products Co., 86  
Endura Flooring, 352  
Energy King-Chippewa Welding, 417  
Engineering Animation, Inc., 30  
Equipo, 491  
Eternit, Inc., 157, 302  
Eurotex, Inc., 310

**F**

F.S. Contract, 431  
FDI Glass Corp., 228  
Factory Furniture, 44  
Farr Co., 526  
Fiberstars, Inc., 558  
Firestone Building Products, 161  
Flagraphics, Inc., 396  
Flexco, 292  
Flood Co., The, 144, 178  
Florian Greenhouse, Inc., 504  
Florida Tile Industries, 323  
Forbo Industries, Inc., 334, 346  
Foresight Resources, 28  
Formica Corp., 130, 133, 540  
Forms & Surfaces, Inc., 266  
Fortec, Inc., 412  
Freudenberg Building Systems, Inc., 303

**G**

G.E. Silicones, 150, 195  
GE Capital Modular Space, 499  
Giati Designs, Inc., 477  
GMX, Inc., 186  
GS Direct, 33  
GS Metals Corp., 102  
Garaventa (Canada) Ltd., 516  
General Electric Lighting, 601  
Georgia Pacific Corp., 170, 134, 152  
Gerber Plumbing Fixtures, 545  
Glen Raven, 385  
Glidden Co., 120  
Globe Amerada Glass Co., 264  
Gold Bond Building Products, 315

Grace Construction Products, 94  
Graphisoft, 19  
Greek Trade Commission, 86  
Gretchen Bellinger, Inc., 455  
Griffolyn, Div. of Reef Industries, 196  
Grill Works, 552  
Gyp-Crete Corp., 541

**H**

HBF, 428  
Hadrian, Inc., 378  
Halcon, 457  
Halsey Taylor, 534  
Harry S. Peterson Co., 112  
Haworth, 451  
Haws Drinking Faucet, 536  
Heatlink USA, Inc., 532  
Heatway Radiant Floors, 539  
Heritage, 410  
Herman Miller, Inc., 427, 470  
HEWI, Inc., 286  
Hewlett Packard, 4  
Hiawatha, Inc., 262  
Hickson Corp., 136  
Historical Arts & Casting, Inc., 97  
Hoechst Celanese, 128  
Holophane Co., 605  
Hope's Architectural Products, Inc., 277  
Hopeman Correctional Systems, 484  
Hoxan America, Inc., 375  
Hubbell Lighting, 609  
Hüls America, Inc., TROCAL Roofing, 66  
Hunter Douglas Window Fashions, 436  
Hunter Fan Co., 530

Hurd Millwork Co., Inc., 238

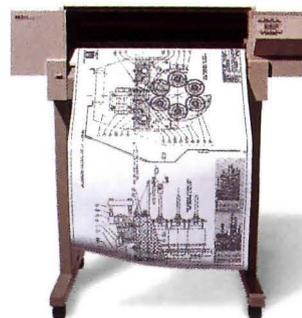
**I**

IBM, 29  
ICD Corp., 59  
IESNA, 594  
Inclinator Company of America, Inc., 507  
Industrial Acoustics Co., 498  
Innerface Architectural Signage, 382  
Innovations in Wallcoverings, Inc., 329  
Innovative Data Design, 35  
Intaglio Ltd., 354  
Intelligent Signage, Inc., 379  
Interbath, Inc., 525  
Interceramic, USA, 325  
Intergraph, 8, 34  
Intermatic, Inc., 616  
Invisible Structures, Inc., 57  
Ironsmith, 38  
Ironmonger Inc., The, 231  
Isolatek, 190  
Italian Tile Center, 342

**J**

J. Sussman, Inc., 115, 265  
J.L. Industries, 219, 407, 471  
JG Furniture Systems, Inc., 432  
JPS Elastomers, 162  
Jacuzzi, Inc., 548  
Jado Bathroom & Hardware Mfg. Corp.,  
527  
James Hardie Building Products, 173  
Jazz Furniture & Lighting, Inc., 458  
Jodi Kanter Custom Designs, 468

# To the people.



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## Manufacturers' Index for Product Reports

Johnsonite, 311  
Jolt Lighting, 577  
Jotul USA, Inc., 419  
Julius Blum, 107  
Juno Lighting, 606  
Jurs Architectural Glass, 243

### K

KETIV Technologies, 14  
KI, 459  
Kaiser Fototechnik, 31  
Kallista, Inc., 380  
Karp Associates, Inc., 278  
Kaswell & Co., Inc., 332  
Kawneer Co., Inc., 218, 270  
Kedco Wine Storage System, 494  
Kestrel Manufacturing, 280  
Keymark Corp., 99  
Kichler Lighting, 604  
Kim Lighting, 562, 617  
Kimball Europe, 452  
King Products Limited, 363  
Kirlin Co., The, 573  
Knoll Group, The, 421, 443, 454, 473  
Kohler Co., 523, 533  
Koroceal Wallcovering, 304  
Kroin, Inc., 51, 545  
Kroy, Inc., 15  
Kwik-File, Inc., 403

### L

LCII Closers, 254  
Laminart, Inc., 142  
Landscape Forms, Inc., 58  
Larsen Products Corp., 72, 109  
Latierete, Inc., 312  
Lawrence Metal Products, Inc., 395  
Leucos USA, 220, 593  
Leviton Manufacturing Co., 591  
Levolor Corp., 423  
LightTouch, Inc., 584  
Lighting Services, Inc., 607  
Lightolier, Inc. 582  
Linetec, 116  
Litecontrol Corp., 574  
Lithonia Lighting, 568  
Logitech, 10  
Lord Corp., 359  
Louisiana Pacific Corp., 139, 226  
Lucifer Lighting Co., 618  
Ludowici Celadon, 147  
Lutron Electronics Co., 581  
Luxo Corp., 566

### M

MBCI, 181  
MCG Electronics, 614  
MEC Elevator Co., 511  
MMFG, 131, 485, 493  
Magnetic Shield Corp., 18  
Maharam, 296  
Malcolm Cole Ltd., 108  
Mankato-Kasota Stone, Inc., 92  
Markuse Corp., The, 466  
Mannington Mills, 300, 301  
Manville Roofing Systems, 148, 201  
Mapei Corp., 339  
Marble Institute of America, 76  
Marble Technics, 87  
Marks Hardware, Inc., 229  
Marlite, 319  
Marvin Windows & Doors, 279, 233  
Mayline Co., Inc., 20  
McKinnon & Harris, Inc., 45  
MERO Structures, Inc., 105, 364, 402, 430, 495  
Mestek, Inc., 535  
Met-Tile, Inc., 174

Metal Sales Mfg. Corp., 203  
Metpar Corp., 369  
Metropolitan Ceramics, 343  
Miele Appliances, Inc., 398  
Milgard Mfg., Inc., 247  
Minolta Corp., 588  
Mitchell Rubber Products, 43  
Mitsubishi International Corp., 603  
Mohawk Commercial Carpet, 347  
Mohon International, Inc., 405  
Molded Fiber Glass (Union City), 122  
Monsanto Chemical Co., 267, 503  
Montgomery Elevator Co., 514  
Thos. Moser Cabinetmaker, Inc., 448  
Mueller; a Haworth Co., 447  
Mussou Rubber Co., 316  
Mutoh America, 2  
Myson, Inc., 394

### N

N.A.T. Industries, Inc., 166  
Nana Windows & Doors, Inc., 272  
National Appropriate Technology Assistance, 36  
Neo-Ray Lighting, 599  
Nessen Lamp, 554  
Nevamar, 126  
Nicolai Doors, 245  
Noral Lighting, Inc., 622  
Northern Cross Industries, 472  
Norton Industries, 314  
Nuclear Associates, 492  
Nystrom, 274

### O

O&K Escalators, 505  
O'Keefe's, Inc. SAFTI, 257  
Oce USA, Inc., 13s  
Oldcastle, Inc., 90  
Omnia Industries, Inc., 269  
Orac Decor USA, 137  
Osram Sylvania, Inc., 570  
Outwater Plastics Industries, Inc., 307

### P

PISA Retaining Wall Systems, 55  
Pacific Data Products, 5  
Palmer-Pohlmann Studio, Inc., 232  
Panel Concepts, Inc., 474  
Parex, Inc., 159  
Paris Ceramics, 297  
Partition Systems, Inc., 390  
Pawling Corp., 384  
Pella Corp., 243, 276  
Perma-Rail, Inc., 111  
PermaGrain Products, Inc., 338, 349  
Peter Pepper Products, Inc., 370  
Phenix Composites, 127  
Philips Lighting, 595  
Phoenix Products Co., 593  
Pineapple Grove Designs, 83  
Pittsburgh Corning Corp., 77, 96, 204  
Plymold Seating, 450  
POMA of America, Inc., 506  
Porcher, 544  
Portland Cement Association, 69, 501  
Poulsen Lighting, Inc., 553  
Precast/Prestressed Concrete Institute, 63  
Prescolite, 615  
ProSoCo, Inc. 39, 175  
Pyridiam Block & Tile, 78

### R

Rally Enterprises, Inc., 367  
Re-Con Building Products, 177  
Real Tool, Inc., 169  
REBCCO, Inc., 283  
Rehau, Inc., 258, 327, 523

Rejuvenation Lamp and Fixture Co., 600  
Research Engineers, 1  
Resolite, 202  
Restroom Facilities Corp., 331  
Revere Copper Products, 200  
Reynolds Metals Co., 182  
Rigidized Metals Corp., 101  
Robern, Inc., 365  
Robert Bosch Corp., 409  
Rutt Custom Cabinetry, 401

### S

SPI Lighting, Inc., 586  
STO Industries, 291  
Saino Manufacturing Co., 284  
Samuel Cabot, Inc., 345  
Santile International Corp., 538  
Sarnafl, 155  
Sauder Manufacturing Co., 444  
Schindler Elevator Corp., 515  
Schlage Lock Co., 239, 282  
Schott Corp., 230, 256  
L.M. Schofield Co., 61  
Scott System, The, 74  
Screen Tight, 368  
SelectAir, 550  
Sequentia, 227  
Shakertown Corp., 149  
Sherwin Williams Co., The, 320  
Sico, Inc., 397  
SieMatic Corp., 418, 420  
Silent Gliss USA, Inc., 469  
Simpson Door Co., 241  
Skytech Systems, 151, 225, 483  
Smith-Midland Corp., 160  
Snaidero International USA, 404  
Society of the Plastics Industry, Inc., 192  
Softdesk, Inc., 16  
SoftSource, Inc., 11  
Sol-R-Veil, Inc., 441  
Soleil Shutters, Inc., 255  
Solnhofen Natural Stone, Inc., 95  
Sonin, Inc., 6  
Southern Aluminum Finishing Co., 163  
Southern Forest Products Association, 143  
Southwall Technologies, Inc., 235  
Spartan Lighting Equipment Co., 530  
St. Roch/Euroglass Corp., 260  
Staff Lighting, 621  
Stanley Door Systems, 239  
Stanley Works, 259  
Stark Ceramics, Inc., 75  
Steelcase, Inc., 465  
Steeplejac, 399  
Steptoe & Wife, 100  
Sternberg Vintage Lighting, 597  
Stonco, div. of Genlyte, 561  
Stow Davis, 464  
Structures Unlimited, 482  
Sub-Zero Freezer Co., 416  
Sullivan Precast Products, 63  
Summitville Tile, Inc., 309  
Sunshine Rooms, 489  
Superior Aluminum Products, Inc., 113  
Supradur, 193  
Surface Design + Technology, 114  
Surface Protection Industries Co., 337  
J. Sussman, Inc., 115, 265  
Swan Corp., 551  
Sweet's Electronic Publishing, 3

### T

TAB Products Co., 422  
TEC, Inc., H.B. Fuller, 360  
TAMKO Asphalt Products, 191  
Tarkett, 322  
Tech Lighting, 624  
Technical Glass Products, 271

Tempest Security Systems, 487  
Terra Paving, Inc., 353  
Thermal Ceramics, 180  
Thermo-Vu Sunlite Industries, 194  
Thomas Industries, 596  
Tiger Drylac USA, 351  
Timberlake Cabinet Co., 414  
Times Square Lighting, 567  
Toto Kiki USA, Inc., 549  
TransLogic Corp., 509  
Traulsen & Co., Inc., 400  
Trenwyth Industries, Inc., 82  
Triarch Industries, 326  
TrimbleHouse, 602  
Trocal Roofing Systems, 185  
3M Fire Protection Products, 184  
Trus Joist MacMillan, 123  
Turnstone, 479

### U

U.S. Gypsum Corp., 153, 164, 293, 313, 335  
Uni-Group U.S.A., 54  
Unique Solutions, Div. of Holophane Co., 557  
Unistrut Corp., 500  
United States Ceramic Tile Co., 333

### V

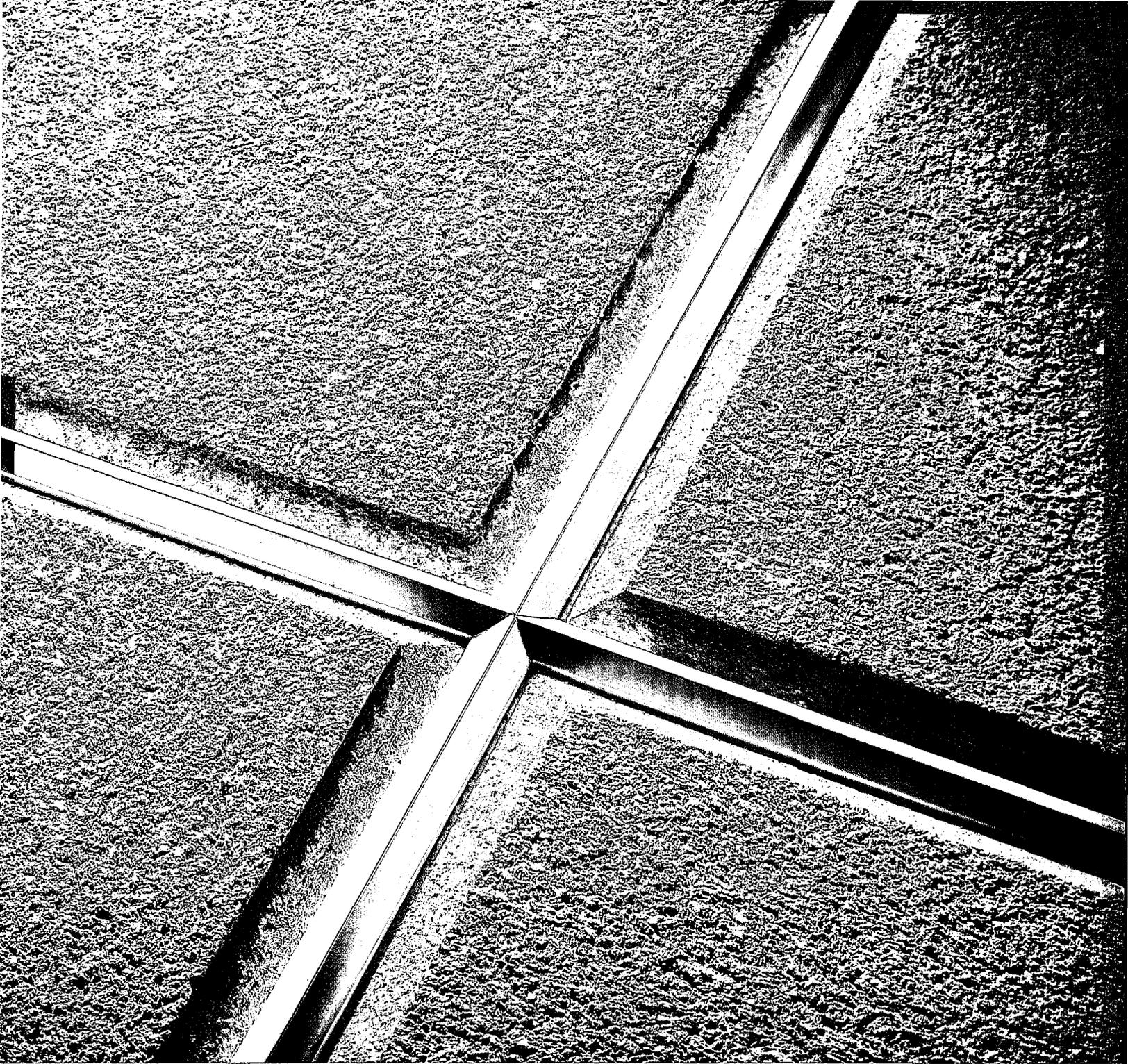
V.I.E.W., Inc., 25  
VPI, 355  
Van Klassens, Inc., 52  
Vancouver Door, Inc., 275  
Vecta, 445  
Velux America, 146, 176  
Vemco Corp., ARTificial Windows Div., 440  
Ventana Press, 27  
Verona Marble Co., 84  
Versa-Lok Retaining Walls, 39  
Victor Stanley, Inc., 60  
Visa Lighting, 610  
Vistawall Architectural Products, 251  
Vogel Peterson, 371  
Voight Lighting Industries, 571  
Von Hausen Studio, 64

### W

W&W Sales Ltd., 104, 374  
Walker, Div. of Butler Mfg., 623  
Watercolors, Inc., 519  
Watson Bowman Acme Corp., 71, 117  
Watt Stopper, The, 565  
Waupaca Elevator Co., Inc., 513  
Weather Shield, Inc., 224  
Weatherend Estate Furniture, 46  
Wenger Corp., 496  
Western Red Cedar Lumber Association, 183  
Western Wood Products Association, 138  
Westinghouse Micarta, 129  
Weyerhaeuser Co., 223  
Whirlpool Corp., 413  
Wieland Furniture, 437  
Wildfire, Inc., 560  
Wilsonart, 132  
Wiremold Co., 613  
Wolf Range Co., 406  
Wolf-Gordon, Inc., 357  
Wolverine Technologies, 168  
Wood-Mode, Inc., 415  
Woodform, 563  
Wylie Systems, 98, 393

### XYZ

Xerox Engineering, 7  
Yorklite Electronics, Inc., 569  
Zero International, 252, 238  
Zumtobel Lighting, 564



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**Downward Fees Spiral**

I read with great interest your article in the July 1993 issue [RECORD, page 28] regarding the downward spiral in architects' fees. Of course, those of us who are consultants in specialty fields are experiencing the same problems.

I especially liked Hal Craddock's comment comparing the fees collected versus liability and time investment on the part of the architect, real-estate agent, and lawyers. The truly sad part is that the real-estate agent can sell the building more than once, collecting commissions two or three times, while the architect can design it only once.

It seems a fee structure similar to other creative professions might be in order. Actors and musicians are paid royalties for the rights to use their work. Could architects be paid royalties for the use of their designs? Probably not, but it's a thought. Royalties could be paid from rentable square footage out of operating cash flows. These fees could then be used to pay continuing liability insurance premiums.

Technology and productivity gains are only part of the story in improving profits. Concrete still takes time to set. There are only so many billable hours in a 24-hour day. As our economy moves from manufacturing to services, the erosion of fee structures becomes a critical issue. Creativity is a product and should be valued as such.

*Dawn Hollingsworth  
Los Angeles*

**More Materials Needed**

Thank you for the story on Moscow's Savior's Hospital [RECORD, October 1993,

page 26]. We've been swamped with phone calls and donations of construction materials to complete the project—thanks to your help.

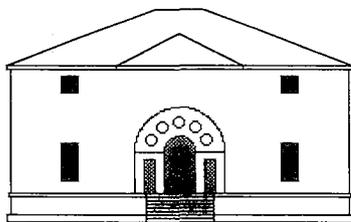
We still need: paint; vinyl floor tile; rubber base; stair treads; wallpaper borders; adhesives; 3 by 3 shower stalls; overhead lights and bulbs; toilet accessories; TV wall brackets; chalkboards; fabric tackboards; and light bulbs.

Would-be donors can call Scott Hazlett at Burt Hill 412/285-4761, or Tanya Koysts at Magee-Womens 412/641-1189.  
*Richard L. Heaton  
Burt Hill Kosar Rittelmann  
Pittsburgh*

**Palladian Portals**

In a recent review of Possible Palladian Villas [RECORD, March 1993, page 31], your reviewer prints a villa designed by the computer program described in the book. Unfortunately he did not fully read the instructions and ended up with a plan that omitted all doors and windows. After the user selects the basic plan and then chooses the facade type, he or she should return to the Plan Mode, where the plan will now be properly endowed with openings (below).

*George L. Hersey  
Co-Author and Professor  
Yale University  
New Haven, Connecticut*



*Re-ported and re-fenestrated.*

**December 3-February 27**

"Arata Isozaki: Works in Architecture" exhibition. The Brooklyn Museum. 718/638-5000, ext. 330/331.

**December 6-8**

Restoration '93, an international exhibition of products and services on building restoration. Hynes Convention Center, Boston. 617/933-6668.

**December 8-11**

Healthy Cities conference, San Francisco Hilton, \$375 registration. 510/540-2412.

**December 11**

Symposium on Architectural Practice, Harvard GSD. 617/495-4315. 617/933-9699, fax 617/933-8744.

**January 22, 1994**

Symposium on "Kahn: Material and Meaning"; papers will be presented followed by moderated panel discussions. Wexner Center, Ohio State. 614/292-0330; fax 614/292-3369.

**February 17-May 1**

Exhibition on "Daniel Libeskind and the Jewish Museum in Berlin," Art Institute of Chicago. 312/443-3600; fax 312/443-0849.

**February 18-May 8, 1995**

"Louis Sullivan and the Prairie School" exhibition, Art Institute of Chicago. 312/443-3600; fax 312/443-0849.

**Competitions**

- Gabriel Prize competition. Write for application forms by December 1: Western European Architectural Foundation, Boston Society of Architects, 52 Broad St., Boston 02109.
- The American Plywood Association offers \$10,000 in its annual Innovations in Housing design competition honoring outstanding residential design. Deadline: January 4, 1994. 206/565-6600.
- The Municipal Art Society is accepting submissions to commemorate New York's African Burial Ground. Deadline: January 14, 1994. 212/935-3960. ■



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## North America

### Year-End Exhibits Celebrate *Outré* Architecture

**Los Angeles:** "Expressionist Utopias: Paradise, Metropolis, Architectural Fantasy" at the Los Angeles County Museum of Art (1). Visionary German architecture and stage and film design in the years bracketing World War I trace the evolution of utopia within the Modernist movement, and the migration of "the sublime" from nature and landscape to industry and urbanism. Installed by Coop-Himmelblau. Shown: Carl Krayl's "Vision 1920." Through 1/2/94.

**Washington, D. C.:** "La Casa de Todos Nosotros (A House for Us All)" at the National Building Museum (2) where 12 scenarios by artist Antonio Martorell represent the comforts and conflicts of home. Shown: "Casa Singer" with a sewing machine as symbolic hearth in a structure of yardsticks and tissue-paper garment patterns. Through 1/2/94, when the show moves to San Juan.

**Minneapolis:** "Paper Futures" at the Minneapolis Institute of Art (3), where artist-inventor Stanley Shetka has built a house with bricks and detailing of recycled paper. (Two newspapers equal a brick said to be no more flammable than wood.) Through 1/2/94.

**New York City:** "Paul Rudolph: Explorations in Modern Architecture, 1976-1993" at the National Institute for Architectural Education (4) celebrates 15 projects Rudolph completed in an era when he and Modernism were supposed to be passé. Shown: Dharmala corporation entry, Jakarta. Through 2/12/94. (The Cooper-Hewitt features his Singapore Concourse Building through 2/13/94.)

**Montreal:** "Toys and the Modernist Tradition" at Centre Canadien d'Architecture (5) mirrors Modernist form, material, and structural technique, and its fascination with small houses, factories, and skyscrapers. Shown: Josef Hoffman's planning kit, made by Wiener Werkstatte ca. 1920. Through 5/1/94.

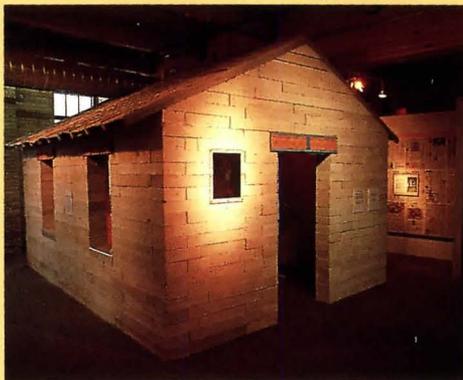
**San Francisco:** "The Color of Elements: The Architecture of Mark Mack" at the San Francisco Museum of Modern Art (6) traces Mack's integration of Viennese training and California tradition. Shown: Gerhardt residence. Through 1/23/94. ■



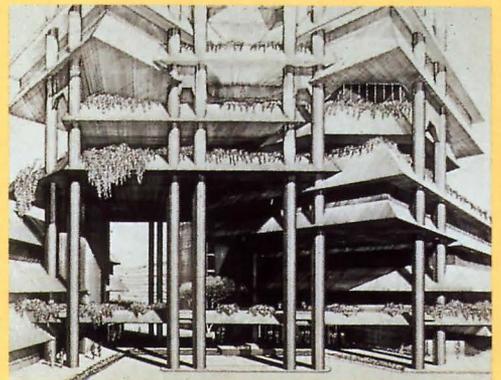
1 *Ungers Collection*



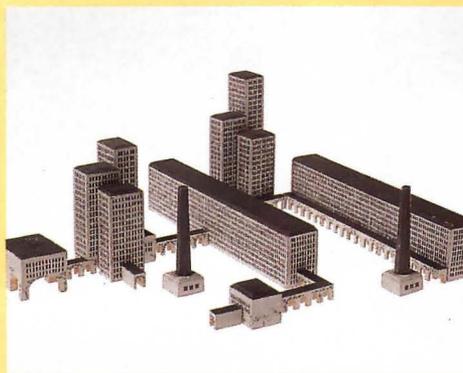
Hiram Marrisany



3



4



5 *Francois Bastien*



6

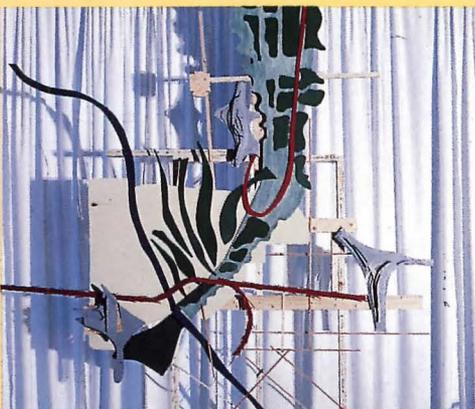
*Christopher Irion*

## Atlanta

# Going for Olympic Gold

The first of two design charrettes was held this fall as part of a 1996 Olympics design initiative by The Architecture Society of Atlanta and the Corporation for Olympic Development (CODA) in Atlanta. Six teams of architectural faculty, students, and community officials were led by architects Diana Agrest, Enric Miralles of Barcelona, Kemp Mooney, Mack Scogin, and Michael Sorkin, and landscape architect Martha Schwartz. Sorkin called International Boulevard, a designated Olympics corridor linking convention and tourist facilities, "a desperate tarmaced zone," and suggested turning it into a continuous green space (below) connecting three Atlanta campuses. An international design competition is also underway in the city, with winners invited to negotiate with CODA for design commissions. *Lorna Gentry*

Sonny Crowe



## San Francisco

# Main Library Links Styles in Bows to Civic Center, Commercial District



The San Francisco Main Library by Pei Cobb Freed & Partners and associated architects Simon Martin-Vegue Winkelstein Moris is scheduled to open in 1995.

At first glance, James Ingo Freed's 376,000-sq-ft, \$139.5-million facility comes across as Neoclassical, because a grid consisting of cornice, frieze, architrave, light granite panels, and traditional windows covers more than half its exterior. Freed's building is "quite clearly a Modern building," he says. The gridding is out of respect for the existing structures, including the surrounding Neoclassical buildings and Arthur Brown, Jr.'s City Hall, which the library faces across Civic Center Plaza. The library's height complies with current 80-ft Civic Center height restrictions. Plans to change the old library to a museum for Asian art are on hold.

Freed shifts smoothly from the Neoclassical Fulton and Larkin Street facades to Modernist facades on Grove and Hyde Streets, which lead into the area's commercial district. The Grove Street treatment (above) is particularly subtle: the entablature turns the corner from Larkin, is sliced by recessed atrium windows, and then fades out to a hint of itself in the middle expanse; the final portion is completely Modern, with large perforations balancing the building's mass.

The Hyde Street facade features terraces and linear windows recessed into the structure, and reveals the roof protrusions of the atrium, periodicals reading room, and the San Francisco history room. The 60-ft-diameter atrium adds not only daylight, but also, in Freed's words, "a point of reference." *Susannah Temko*

## Massachusetts

# New College Studio Building to Gather Arts Under One Roof

The Carlos Jimenez design for the Spencer Art Studio building at Williams College will gather architecture, drawing, painting, photography, printmaking, sculpture and video studios currently scattered throughout the campus into a single gateway structure with spectacular views of the Berkshire Mountains. A partially buried wing will contain the photo/video studios. Cambridge Seven Associates are associated on the project. ■



Paul Hester

## Stayed-Cable Fashion Factory Is Eight-Month Wonder



Marco Zanatta

A stayed-cable system at the latest Benetton factory at Castrette di Villorba in Treviso creates a central goods-handling tunnel feeding off two structure-free workshop wings 280 ft wide and 575 ft long. Seven pairs of 80-ft masts and five miles of steel spiral rope

anchor the trusses to the reinforced concrete interior walls that form the 128-ft-wide tunnel, and support roofing and exterior curtain panels. According to architects Afra and Tobia Scarpa (he is the son of Carlo Scarpa), up to now this type of construction has been

used only for bridges and a few sports centers. The factory was erected in eight months. Computerized controls balance electric and daylight to prevent misreadings of fabric colors. *Judith Davidsen*

## A Many-Meaning Dream House for Art, Architecture, and Design Students

Construction begins in March 1994 on an addition, designed by Eisenman Architects in association with Lorenz and Williams, Inc., that will reorganize and double the space at the University of Cincinnati's College of Design, Architecture, Art and Planning. The design, according to the architect, draws out and connects imaginary extensions of both the undulating knoll where the structure is located and various realignments of the chevron patterns that the existing box-like buildings create on the site. The fractured addition wraps the originals with new stu-

dios, laboratories, offices, an auditorium, a library, and a skylighted atrium (dark central triangle) for juries and exhibitions. Eisenman says the building has the capacity to express the "many different meanings" art itself absorbs from the current culture. The project was one of two designs representing the U. S. at the Fifth International Exhibition of Architecture at the 1991 Venice Biennale. New quarters notwithstanding, the first assignment for entering architecture students will continue to be designing and living in cardboard shelters. ■



Anne Glenn



Dick Frank Studio

## Looney Tunes Takes Over Chic Corner



Scott Frances

It's hard to miss the newest Warner Brothers Studio Store. Between the first and second floors on the prestigious corner of Fifth Avenue and 57th Street, legendary Looney Tunes characters cavort in a series of Art Deco bas-relief panels cast in crushed and poured limestone. Above the bas-reliefs, 20-ft-high windows afford a three-story view of video walls and whimsical displays, including Superman pushing an escalator upward. The store is the work of Michael L. Leclere Associates, James Mansour, Ltd., and John Greenberg & Associates. *Marcy Stanley*

## Texas

### Houston Zoning Shot Down Again

For the third time, Houston voters have defeated zoning—this time by a referendum on November 2. With a low turnout of barely 20 percent of registered voters, the zoning ordinance that had been in the works for three years was rejected by a narrow 52-to-48-percent margin. The referendum was the result of a heated debate begun earlier this summer as opposition to zoning finally gathered momentum. A petition drive forced the issue onto the November ballot despite the fact that the city council had accepted the ordinance in three separate votes and built a large bureaucracy to administer it. In the past, opposition to zoning was led by developers and property owners fearing controls on land speculation and development.

This time was quite different. Supporting and opposing groups consisted of a wide mix of interests and the real-estate community was likewise split. Surprisingly, it was the low-income districts, where land-use controls might have had the most effect in protecting residential neighborhoods from offensive land uses, that most solidly voted against zoning. A last-minute fear/smear campaign by the well-financed opposition may have been the deciding factor. Outgoing councilman Jim Greenwood, a victim of term limitations who sponsored the zoning ordinance, may keep the issue alive, but it could be three years before it can be brought back to the voters. *Gerald Moorhead, Houston*

#### Fruits of unbridled expansion



© Gerald Moorhead

## Practice

### Briefs

#### GSA projects still on hold

"We should be hearing decisions on the first projects under consideration soon," says GSA spokesman Hap Connors. On September 8, GSA administrator Roger W. Johnson announced a hold on 188 construction, renovation, and leasing projects worth \$7.4 billion while a study is conducted to see if all the new space is needed and whether costs are reasonable. "This won't be like the military-base closings," promised Connors, referring to the protracted process of announcing those facilities' fate. He promised all decisions would be made by next March. The outcome? "We anticipate savings," said GSA deputy administrator Julia Stasch last September, "but we don't know where they're coming from."

#### Filling out new 255/254 forms

Whether the GSA stays in the building business at present strength [see *GSA projects still on hold*, above], many architects are applying for federal commissions—so many, according to Nancy Watson, that her recently completed nationwide round of ACEC-sponsored seminars on filling out application forms 255/254 has been swamped by eager architects and engineers.

She plans a new round starting in February. Revisions to the forms, effective November 1992, have triggered part of the interest, but they are not major: A new column to fill out on page 1 lists the number of personnel in consultants' offices, and a requirement for clients' contacts and telephone numbers is added on pages 8 and 9, which list applicants' project experience. Of more interest in the seminar are tips on knowing the content federal clients are looking for in the forms: "Experience," says Watson, "and not just any experience, but experience directly related to the project at hand." She adds: "Get to know your local administrator, who may very well stretch such rules as limitations on the amount of information on relevant projects that can be provided in the

limited form blanks. It can make all the difference." Watson's organization, A/E Management Services, also offers software to generate the new forms for a special price of \$375 until December 31. For information, call 313/761-9400.

#### Pushing partnering

In a RECORD editorial last March, editor Stephen Kliment strongly endorsed partnering, a procedure in which all parties on a construction project meet periodically to iron out potential disputes and avoid delay claims, mediation, arbitration, and other more drastic recourses, such as litigation. Now insurer DPIC has come out with an offer to provide a "facilitator" at no cost for these meetings within the scope of its policies for specific projects. "Delays, cost overruns, and lawsuits can often be tracked back to ingrained adversarial relationships," says DPIC president Peter Hawes, who clearly believes his company may save money in the long run. "We have always promoted partnering," concurs vice president Ava Abramowitz of Victor O. Schinnerer & Co. "We have been available to meet with the team under our standard project insurance policies all along."

#### Knowing state licensing laws

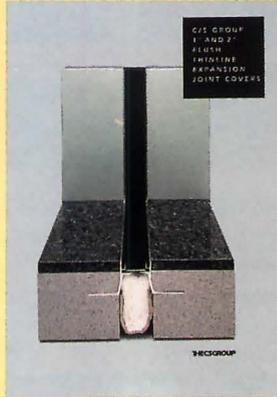
Information on states that let architects compete with engineers, that exempt potato cellars from the need for professional-design services, and that can levy civil fines for unlicensed practice, is contained in a new AIA publication, *Architectural Licensing Laws*. The document describes how each state conducts its professional requirements. For information, call the AIA at 800/365-ARCH. *C. K. H.*

# Literature Citations

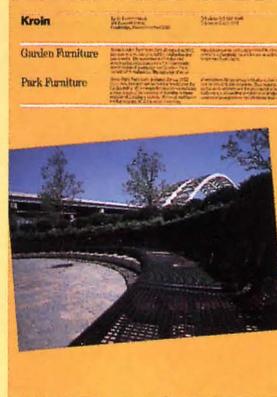
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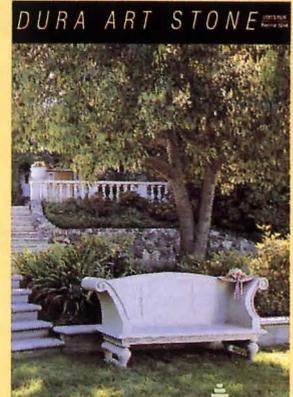
Catalogs, technical brochures, and mailers, submitted in the annual RECORD Literature Citation program, were reviewed by a jury consisting of Deborah Berke AIA, Raymond M. Hennig AIA, Sweet's Group, and Anna Egger-Schlesinger, RECORD's Senior Associate Design Director. The presence of multiple winners—The C/S Group and Leucos were cited in two different categories—shows how a strong, creative graphics program carries across product type. RECORD thanks all those who took the time to submit material for the jury program. *J. F. B.*



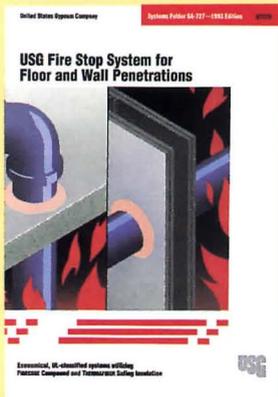
**Thinline Expansion Joint Covers**  
The C/S Group, Inc.  
Muncy, Pennsylvania  
Materials / 8 pages or less



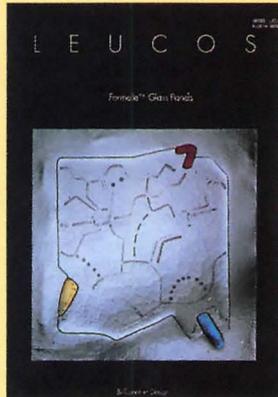
**Garden Furniture/Park Furniture**  
Kroin, Inc.  
Cambridge, Massachusetts  
Materials / 16 pages or less



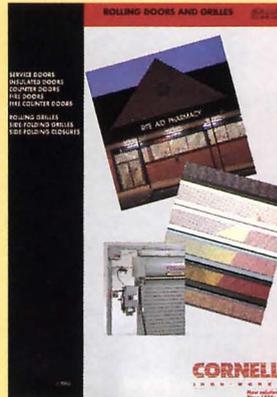
**Landscape Furnishings**  
Dura Art Stone  
Newark, California  
Materials / 64 pages or less



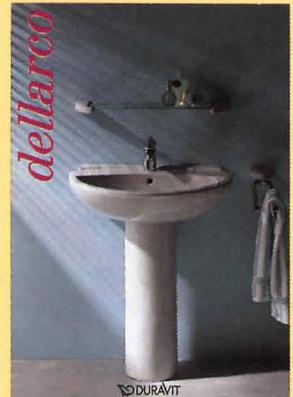
**USG Fire Stop System**  
United States Gypsum Co.  
Chicago  
Enclosure Systems / 8 pages or less



**Formelle Glass Panels**  
Leucos USA, Inc.  
Edison, New Jersey  
Enclosure Systems / 16 pages or less



**Rolling Doors and Grilles**  
Cornell Iron Works  
Mountaintop, Pennsylvania  
Enclosure Systems / 64 pages or less



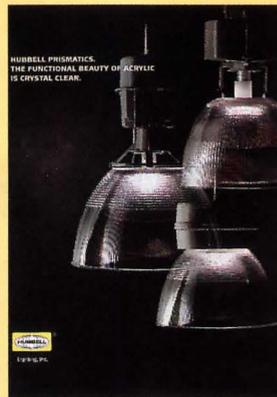
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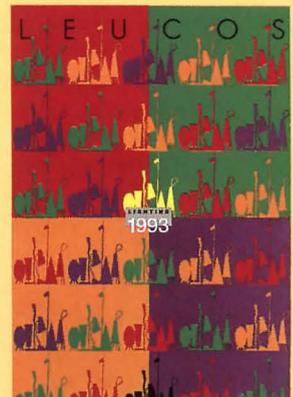
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Architectural Record December 1993 15

vantage of federal flood insurance, which picks up high-risk owners conventional insurance doesn't touch. Many were not informed of their eligibility by insurance agents, reports Bill Powers, a hazard mitigation officer with the Federal Emergency Management Agency (FEMA). The federal government underwrites such insurance if communities adopt building requirements covered under the National Flood Insurance

Valmeyer, an Illinois town of 900, may, instead, relocate itself. The St. Louis chapters of the AIA, American Planning Association, and American Society of Landscape Architects met with residents in mid-November in a charette to sketch a future for the town on 500 acres relocated on higher ground two miles east of its present site. Other communities may consider similar solutions. The

While waiting for flood waters to drain from historic sites (above), Jackson is working in damaged towns, where historic designation is seen as a tool to recovery and grants for restoration of buildings as a means to spur economic development. He says FEMA is sympathetic. "They don't want to be seen as an agency that caused a community to lose the things it values." *J. S. R.*

## ARCHITECTURAL RECORD Technology

### Ready or Not, Construction Recycling Is on the Way

By Lynn Nesmith

Today, many architects' most significant contribution to community recycling efforts ends with separation of bottles, cans, and newspapers at home for curbside pickup. Since landfills are nearing capacity in many parts of the country, and not-in-my-backyard sentiment is preventing the location of many new ones, construction waste is on its way to becoming a prominent focus of recycling efforts. After all, construction and demolition (C&D) waste comprises from 23 to 33 percent of municipal solid wastes.

The impetus for the design and construction industry to recycle is driven by a variety of forces. Out of a commitment to ecological principles, a growing number of architects are incorporating re-used and recycled materials, and searching for ways to reduce on-site construction waste. But as Minneapolis architect Peter Vesterholt points out, "Sustainable architecture will be embraced by the mainstream of the profession when recycling and resource efficiency are practical matters of supply and demand rather than ideological issues."

These are now coming into play. To slow the flow of waste to landfills, local governments demand more recycling and have steeply increased the tipping fees at dumps and transfer stations. The combination of higher fees and longer distances to open landfills is forcing builders to seek alternatives. (In other locations, water shortages are pushing another form of recycling, the re-use of non-hazardous "gray" water—from hand-washing sinks, for example—to irrigate landscaping, which in turn is increasingly designed using so-called xeriscape principles that reduce water demand.)

Until recently, the bulk and weight of C&D debris has been its primary disposal issue. Landfills resist accepting the debris because it takes up too much space and is hard to compact. Waste-to-energy facilities don't want it because the majority of C&D waste is not readily combustible. As pressure rises

*Lynn Nesmith, a former senior editor at Architecture magazine, writes on architecture and environmentally oriented design.*

on disposal authorities to reduce the hazardous content of waste, C&D debris has come under increasing scrutiny and found to be not as benign as once believed. There is the obvious case of asbestos, which requires special disposal methods. (Worse, it's sometimes incorporated in older roofing felts, vinyl composition flooring, and asbestos-cement panels, among other products.) Even "natural" lumber and plywood waste may have been treated with preservatives that pose disposal problems. Ozone-layer depleting chlorofluorocarbons (CFCs) in cooling equipment must be recycled [RECORD, June 1993, page 24].

#### A role for producers

Product manufacturers are facing many of the same disposal issues as consumers, and are responding by reducing waste, and increasing internal reprocessing and recycling. While some products have always contained significant recycled or reprocessed content, community recycling is creating new sources of low-cost raw materials that were once rare or expensive. More manufacturers are exploiting these resources: glass for "glassphalt," newspapers for cellulose insulation. Packaging represents a shockingly large percentage of landfill material, and some manufacturers are moving back to reusable packing and readily recyclable shipping materials. Once there was a stigma against products containing byproducts or recycled materials. Today manufacturers prominently advertise recycled or reprocessed content. Market research shows that as many as four out of five consumers prefer "green" products.

#### Other countries show the way

With full landfills, and higher population densities, Europe and Japan have developed recycling to a high art. Some hard-to-dispose-of materials, such as PVCs, have been banned in some locations (though PVC makers claim it is unfair and will be overturned). High-profile projects in Germany must now account for the energy embodied in the manufacture of components, their recycled content, and the potential for disassembly and re-use of components. (The widely publicized efforts by BMW and Volkswagen to design cars that can be disassembled for the salvage of parts and the

recycling of materials reflects an even more impressive effort on the manufacturing level.) In Germany and other countries, an environmental approach has become key to winning important competitions.

Research is increasing in the U. S., though. Virginia architect Jorge Pardo, former director of product research for the National Concrete Masonry Association, is developing construction techniques that are easy to modify and disassemble. A masonry subsystem for residential construction features mortarless concrete blocks supported on a steel track and held together with vertical structural ties.

#### Dividing to conquer C&D waste

While building products can reduce the waste stream by being readily recyclable, it's even better if a product's manufacturing process can make use of cast-off material. The Environmental Resource Guide (ERG)—AIA's comprehensive subscription service of technical data intended to assist architects in evaluating the environmental consequences of design decisions [RECORD, October 1991, pages 36-39]—describes different approaches to materials recycling:

- *Closed-loop recycling* is the process in which a product is recovered and returned to the same manufacturing process as before (used glass beverage bottles reprocessed into new beverage bottles).
- *Open-loop recycling* is traditional "postconsumer" recycling that recovers used products for the manufacture of different materials and products. Examples are steel cans that are recycled into concrete reinforcing bars or plastic bottles reprocessed as carpet backing.
- *Co-product allocation* is a process generally applied to industrial waste. For example, the leftover aluminum when a round lid is stamped from a rectangular sheet can be reprocessed into a different product rather than disposed of. Allocation, in ERG terms, refers to the percent of environmental and energy impacts of the raw material that should be attributed to both the primary product and the secondary product made from recycling scrap. The chart (opposite) gives an overview of recycling issues for widely used building components.

*Construction waste, a sizeable percentage of landfills, has become a target for recycling and reprocessing. Architects, builders, manufacturers, and solid-waste utilities are cooperating to make recycling easier.*

## Recycling in Common Building Components

DIVISION/ PRODUCT	RECYCLED CONTENT		DISASSEMBLY	RE-USE	DISPOSAL
	Reprocessed	Post-consumer			
<b>2 Sitework</b>					
Site Furnishings		Exterior rubber tiles (tires); geotextiles and some site furnishings (plastics)			
Asphalt Paving		Old paving recycled; glass from bottles used as aggregate			Huge % landfill by weight
<b>3 Concrete</b>					
Concrete Materials	May use fly ash, byproduct of power plants	Cost barriers limit recycling of concrete to new aggregate	Precast seen in Europe as acceptable demountable system	As ballast, fill	May represent up to 53% of landfill volume
Reinforcing		Most steel is made from at least some scrap	Reinforcing can be magnetically recovered	Recyclable	
<b>4 Masonry</b>					
Brick and CMU	CMU may use fly ash, a byproduct of power plants		Brick and some stone are salvaged.	Remortaring used brick is not recommended	Masonry is a significant component of landfills
Stone			Stone panels readily disassembled; unit masonry not	Re-usability of stone varies with type	
Simulated Stone	Reprocessed stone aggregate				
<b>5 Metals</b>					
Steel Framing	Typically	Most steel is made from at least some scrap	Readily salvaged	Readily reprocessed	Most likely material to be salvaged/recycled
Brass, Copper, Lead	Typically	Copper usually includes recycled content	Copper and lead pipe readily salvaged	Many brass items have salvage value	Items usually too valuable to landfill
Metal Decking	Aluminum and steel types	Higher content for steel than aluminum	Not readily separated when used as concrete form	Easier to recycle steel than aluminum	
<b>6 Wood &amp; Plastics</b>					
Lumber			Heavy timbers increasingly salvaged	Heavy timbers re-used in new structures	
Panel Products	Represents a significant percentage of product	Fiberboard underlayments (newspapers)		Plywood formwork; packaging, pallets	Biodegradable; can be incinerated
Engineered Wood	Substantial scrap content in laminated fabrications, hardboard siding, and OSB web of joists	Hardboard siding may have recycled content			Can be incinerated
Treated Wood				Wood-treatment materials may reduce potential for re-use	Treated wood may not be suitable for incineration
Plastic Fabrications		Some types have recycled content		Solid fabrications may be re-used	
<b>7 Thermal &amp; Moisture Protection</b>					
Insulation	Some mineral wool made from blast-furnace slag	Cellulose types made from recycled newspapers; recycled glass is used for some glass-fiber types	Some panel and batt products are readily removed and re-used	Polystyrene can be remolded; others can be, but rarely are recycled	CFC blowing agents used in some foam-plastic panels will escape whether in use or disposed of
Asphalt Roofing				Torn off shingles and BURs are being reprocessed as asphalt product additives	Shingles and roofing felts a significant percentage of landfill volume. Older materials may contain asbestos
Single-Ply Roofing	PVC types may have some reprocessed content	PVC types; testing underway for other types			PVC has been banned in some European jurisdictions
TileRoofs		Plastic tiles recycle computer housings		Ceramic types can become clean fill	
Metal Roofing	Significant in steel, aluminum and copper	Significant in steel and copper; growing for aluminum	Most types readily salvaged	All types can be recycled	
<b>8 Windows &amp; Doors</b>					
Window & Door Frames	Wood frames now largely made from small, finger-jointed pieces	Steel, aluminum, and vinyl frames can be made from recycled scrap	Potentially all types	Metal types can be recycled; re-use of vinyl-clad types most difficult	Windows readily salvaged
Glass	Glass cullet has a variety of uses	Little	Readily, but little demand	Readily recyclable	
<b>9 Finishes</b>					
Suspended Ceilings		Some panels recycle paper and mineral wool	Readily disassembled	Suspension system readily recyclable	
Gypsum Board		Recycle gypsum, paper		Recyclable	Some landfills don't accept gypsum board
Tile	Some from reprocessed glass				
Wood Flooring	Veneer types contain some scrap		Some high-value floors are salvaged		Can be incinerated; biodegradable
Resilient Flooring	Most types reprocess scrap			Vinyl floor recycling programs have started in Europe	Some PVC manufacturing waste is hazardous; linoleum is degradable; older vinyl-composition materials may contain asbestos
Carpeting	Some cushions now made with reprocessed fibers, foam, and other materials	Teraphthalate (PET) carpets made from recycled beverage bottles	Readily removed	Nylon, polypropylene, and polyester can be remolded, but separation from carpet substrate is difficult	Is significant volume of landfills
Paint	Some use of reprocessed material; solvents are increasingly captured in manufacture or factory application to reduce air emissions	Use of some recycled content is being tested	Lead-paint abatement must be done by experts	Pilot programs are blending and giving away disposed, unused paint	Some paint-manufacturing waste is hazardous; some communities recycle unused paint; disposal of lead-based paint in renovations is highly regulated
<b>15 Mechanical 16 Electrical</b>					
Piping		Copper and steel fittings may have recycled content	Piping readily dismantled		
Cooling Equipment		CFC coolants must be recycled	Reclaiming CFC coolants from equipment required	Recovered CFC-type coolants soon to be only source	Older piping and ductwork may be insulated with asbestos
Lighting	Lamp glass scrap a source for tiles		Some fixtures salvaged	Fixtures can be refitted with high-performance reflectors	Older fluorescent-light ballasts could contain highly regulated PCBs

Sources: ERG, industry groups

### Will clients buy recycling?

Clients rightly remain concerned about the cost of recycling versus landfilling, and about the performance of products that use recycled materials. Recycling decisions made by the Natural Resources Defense Council (NRDC) and the National Audubon Society in new headquarters projects were subjected to rigid cost accounting, according to Kirsten Childs, partner in the Croxton Collaborative, which designed both projects. (The biggest payback of all may have come from "recycling" distinguished older buildings.) Because they link environmental benefits with a demonstrable economic payback in construction costs and energy savings, the projects represent a common-sense approach that appeals to other once-less-enlightened clients.

### Reducing waste at the jobsite

Some components contribute more to disposal problems than others. The C&D material stream can be divided into three main categories: Concrete, asphalt, and rubble make up approximately 50 percent of C&D waste by weight; wood products, including manufactured and treated wood and stumps from land clearing, account for about 25 percent; other materials, including such metals as steel and aluminum, plus glass, roofing, gypsum wallboard, plastic, and so on, constitute the remaining quarter of C&D waste.

Such a division suggests that much can be done to divert jobsite demolition materials and scrap from landfills. To do it you need a plan: "Separation of materials, along with conscious efforts to reduce material quantities, are the two most critical elements of an effective [on-site] waste-management plan," explains Washington Harry Gordon, who heads the Waste Management Task Force of AIA's Committee on the Environment. Debbi Palermini, of Palermini & Associates, an environmental consulting firm specializing in resource-efficient building practices, maintains that the owner must be on board, asking the architect or other consultant to develop written requirements for waste management that "set goals for waste reduction and require the prime contractor and subcontractors to develop their own plans to meet these objectives." Minneapolis archi-

tect Peter Vesterholt developed sample bid instructions for the AIA/Minnesota Committee on the Environment. The guidelines inform prospective contractors that the project requires a recycling plan, and provides a format for estimating costs.

### Dump owner practices what it preaches

A surprisingly wide range of clients sees both economic and marketing benefits to recycling and other "green" strategies.

Metro, the public agency that directs solid-waste management for the three-county metropolitan area encompassing Portland, Oregon, recently moved into new headquarters where the agency could "practice what it preaches," as Jim Goddard, Metro's recycling program manager, explains.

Metro wanted the building design and construction process to be a model for what recycling could do. It targeted six goals for the project, designed by Thompson Vaivoda & Associates: emphasize salvage and reuse; maximize recycling and recovery; use recycled building materials; incorporate an efficient recycling system within offices; conserve energy; and reduce water use. (They've developed materials on planning for recycling. See page 23.) The agency's earliest and arguably most important decision was to recycle an abandoned Sears Department store. The program also called for the general contractor, Hoffman Construction, as well as all subcontractors to complete waste-management plans.

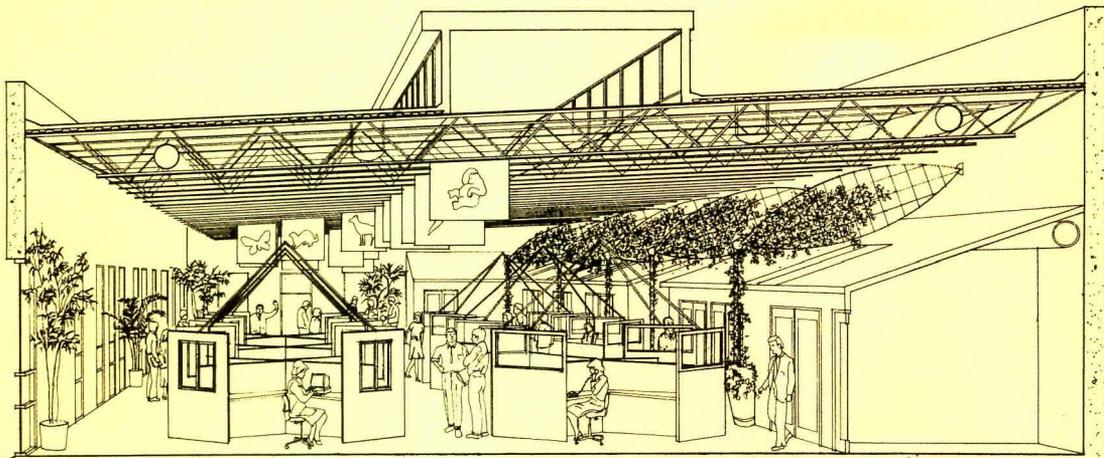
Before demolition work began, local non-profit foundations and salvage companies rescued 159 tons of materials, including 18,000 square feet of hardwood flooring (it was installed in the retail showroom of Rejuvenation, Inc., a local salvage company). The contractor diverted more than 77 percent of material from the landfill, recycling more than 725 tons of metal, wood, gypsum board, and corrugated cardboard. More than 7,000 tons of brick, concrete, sand, and dirt were processed into on-site and off-site fill. Some was used as a clean capping layer for a closed landfill. Only 265 tons of material were dumped, saving an estimated \$35,000 in disposal costs. In the renovation, Thompson Vaivoda & Associates used products made

from recycled materials whenever possible. Metro's new headquarters includes ceiling panels made partly from newspaper, paint from old latex paint collected at the agency's own household hazardous-waste facility, and wallboard incorporating recycled gypsum and paper. Restroom partitions and locker-room benches were fabricated of HDPE plastic (much of it from beverage containers), floor tiles from waste glass, foam insulation from remolded polystyrene, and resilient flooring from tires. To aid recycling by occupants in the completed building, the architects designed a three-chute paper-collection system within an abandoned mechanical shaft. They also placed collection areas on each floor for cans, glass, and cardboard.

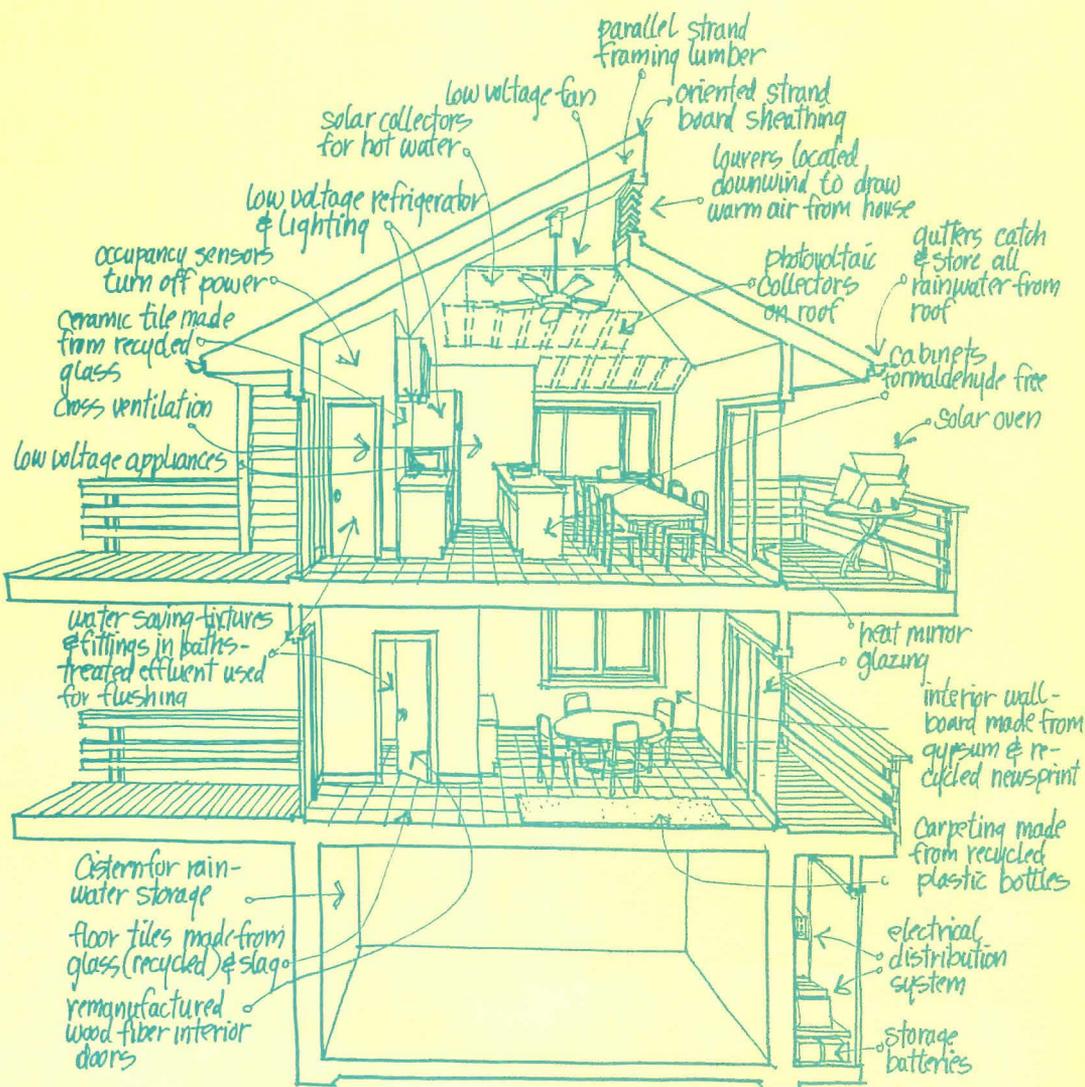
Others in Portland are following suit. The recycling and waste-management plan for the Oregon Arena Project, a 20,340-seat arena designed by Ellerbe Becket, is one of the most comprehensive to be applied to a large project, according to Jerry Powell, chair of the National Recycling Coalition. (It began construction last summer.) Palermini Associates, the firm that wrote Metro's plan, was retained to develop a construction-site recycling and waste-management program for the arena. In addition to identifying materials to be recycled, the plan included specification language bound into bid packages for subcontractors. General contractor Drake/Turner will also educate subcontractors on the project. William Crockett, an architect with Ellerbe Becket, credits the clients for encouraging sustainable design and predicts that "it's only a matter of time before many of these environmental innovations will be standard procedures."

### Recycling on a budget

For a new American headquarters for London-based The Body Shop, a successful retail chain of all-natural cosmetics, owners Anita and Gordon Roddick felt that recycling an existing building was much more appealing than building new. The Body Shop settled on a 114,000-square-foot structure on a rural 43-acre site, 15 miles north of Raleigh, North Carolina. "Our selection was based as much on the beautifully wooded grounds as the appropriateness of the existing building—a nasty, abandoned light-industrial ware-



**The Body Shop Headquarters**  
 Recycling at The Body Shop began with the building itself, a former warehouse. Much of it is still used for shipping and storage, but the architects opened the roof over office areas and added skylights. The existing joist system filters the light as do "mango leaf" armatures that encourage plant growth (drawing). Architect-designed light fixtures, display casework, and reception desks make use of recycled materials. Clearscapes is the architect.



**Harmony**

This project takes eco-tourism to the luxury-resort market. It also represents the National Park Service's commitment to sustainable development (the resort is within the boundaries of the Virgin Islands National Park). Individual units not only contain significant recycled content (diagram), wastewater is recycled and organic waste composted. The architect sited each structure to minimize impact on native vegetation, and has further developed natural ventilation and active solar-energy strategies. The Park Service sees it as a prototype; researchers from the Sandia National Laboratory will study the performance of the resort's systems for possible further development elsewhere in the national park system. Guests participate by helping to monitor their own unit.

## Technology

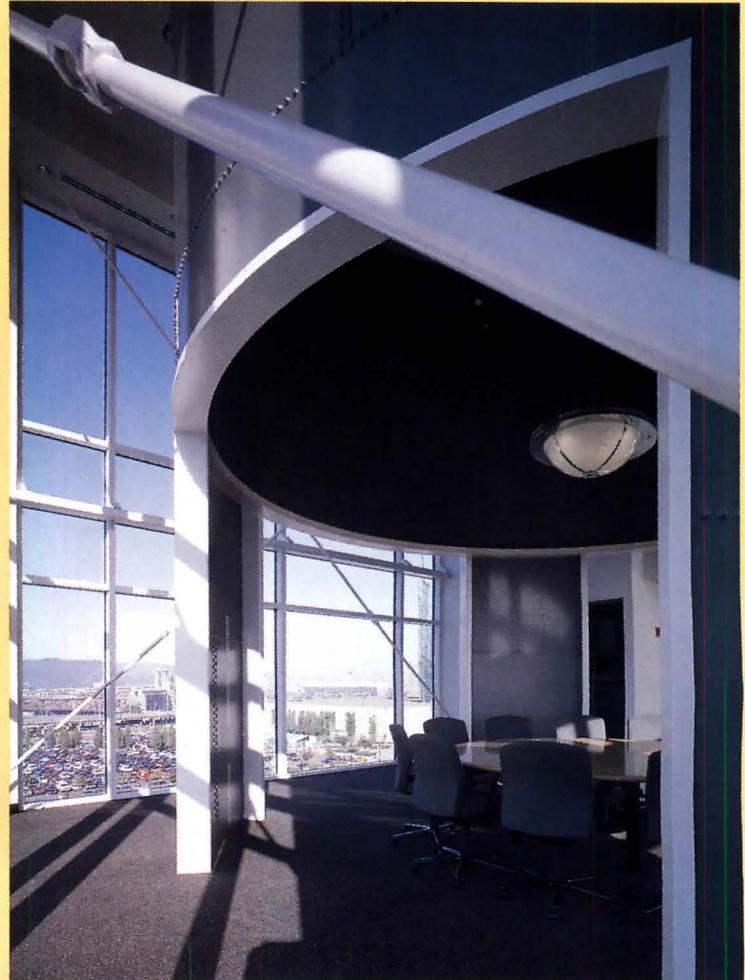
### Metro Headquarters

Architects Thompson Vaivoda & Associates stripped an abandoned Sears store to its

concrete frame for Portland, Oregon's solid-waste utility, adding considerable glass area in a stone, brick, and glass

recladding (below). They created onsite parking, offices (new atrium bottom left) and a daycare center. A raised plaza

(below right) signals the entrance. A conference room shares tower space with a tank fragment (bottom right).



house," says Paul Alvey, The Body Shop's vice president of operations. Architect Gail Ann Lindsey, founding principal of the Raleigh firm Design Harmony, served as environmental consultant. Clearscapes, a Raleigh-based architecture firm, converted this ugly duckling into an administrative and manufacturing complex (page 21). Prior to renovation, the local chapter of Habitat for Humanity, a nonprofit housing organization, salvaged doors, cabinets, demountable fans, plumbing fixtures, and light fixtures. Working with a modest budget, the architects raised the existing roof, installed light monitors throughout the office space, and modified an existing hvac system to be more energy-efficient. Carpeting is made from recycled plastic bottles, and floor tiles recycled from light bulbs.

A collaborative practice of architects and sculptors, Clearscapes designed and fabricated custom fixtures. The design team specified a plastic lumber that contains The Body Shop's own recycled plastic bottles to create the receptionist desk, display cases, and conference-room furniture. "The whole process was an exciting endeavor for our team," recalls project architect Carl Winstead. "A corporation that places high values on human issues within its management philosophy while campaigning for global and environmental concerns is still a unique client."

#### Recycling for travel

Growing awareness of environmental issues has given rise to eco-tourism, which in turn has challenged architects to create sustainable development on fragile landscapes. Seventeen years ago client Stanley Selengut, working with New York architect Jim Hadley, built a collection of "tent-cottages" along Maho Bay on St. John in the Caribbean. "When I first opened for business, the environmental movement was just beginning and the term eco-tourism did not exist," explains Selengut. "My original intent was simply to offer an inexpensive vacation that was close to nature but provided a degree of comfort." In October, Selengut's and Hadley's latest collaboration opened. It is an eight-unit luxury-resort prototype called Harmony set next to their earlier efforts (page 21). Harmony is made largely of recy-

clered materials, and all energy is generated by sun and wind using solar panels, a windmill, and storage cells.

#### Recycling on cable

Gensler and Associates didn't wait for an enlightened client before tackling environmental issues. In the spring of 1991, the firm created its own Design Ecology Committee in the Los Angeles office. Several months later, the group targeted the 53,000-sq-ft renovation for Home Box Office as the pilot project. "It was a perfect fit," recalls architect John Carter. "When we met to discuss the subject of sustainability, the client informed us of HBO's corporate policy: 'to create a healthy working environment for staff, to minimize the project's impact on the environment, and to recycle and use recycled materials as much as possible.'" During demolition and construction, recycling bins for metals, wood, gypsum board, and copper wiring were placed on each floor. The new walls were built using steel studs made from recycled steel and recycled-content gypsum board.

#### The food isn't recycled—right?

Other companies have found that recycling sells. Following a widely publicized conversion to food packaging with recycled content, McDonald's Corporation began using recycled materials in the construction of its restaurants. An outlet in Kent, Washington, features a copper roof made of recycled radiators and wires, a menu board from 15 percent recycled plastic, and seating and tabletops made from recycled steel, aluminum, and plastics. The company sponsors the McRecycle Registry Service, a listing of more than 500 producers and suppliers of recycled products. And Wal-Mart, another retail giant not known for its architectural sensitivity, opened its first "Eco-Mart" earlier this year in Lawrence, Kansas. The store features renewable construction materials, energy-efficient lighting, and a recycling center. Many of these clients have high public profiles and want to be seen as "being part of the solution." The combination of economics, regulation, and public acceptance may turn even skeptical clients into converts—if the architect is informed and prepared to make recycling work to the client's advantage. ■

#### Resources

- *AIA Environmental Resource Guide*, 1735 New York Avenue, N. W. Washington, D. C. 20006. 800/365-ARCH.
- *A Resource Guide to Recycled Construction Products and Energy Efficiency*, California Integrated Waste Management Board, 8800 Cal Center Drive, Sacramento, Calif. 95826 916/255-2385 or -2411; Recycling Hot Line: 800/553-2962.
- *Guide to Resource Efficient Building Elements*, Center for Resourceful Building Technology, P. O. Box 3866, Missoula, Mont. 59806. 406/549-7678.
- *Construction Site Recycling and Recycled Product Guide*, Metro Portland, 600 North-east Grand Avenue, Portland, Ore. 97232. 503/797-1700
- *Construction Materials Recycling Guidebook*, Minnesota Office of Waste Management. 800/657-3843.
- *Construction Site Recycling: A Handbook on Recycling Building Materials for Home Builders, Developers, and Contractors*, National Association of Home Builders, 1201 15th Street N. W., Washington, D. C. 20005. 800/368-5242
- *The Sourcebook for Sustainable Design*, Andrew St. John, editor, Boston Society of Architects, 52 Broad Street, Boston, Mass. 02109. 617/951-1433.
- *SEED Newsletter and The Green Pages*, New York Chapter, Institute of Business Designers' Council on the Environment, 27 East 59th Street, New York, N. Y. 10022.
- *Interior Concerns Resource Guide*, Publications for Environmentally Concerned Designers, Architects, and Builders, P. O. Box 2386, Mill Valley, Calif. 94942. 415/389-8049
- *Environmental Building News*, Route 1 Box 161, Brattleboro, Vt. 05301. 802/257-7300.
- *Guiding Principles of Sustainable Design*, National Park Service, U. S. Department of Interior, Washington, D. C.
- *National Solid Wastes Management Association*, 1730 Rhode Island Avenue, N. W., Washington, D. C. 20036. 202/659-4613.
- *Pacific Materials Exchange*, 1522 North Washington Street, Suite 202, Spokane, Wash. 99201. 509/325-0551.

Architectural Record December 1993 23

location on Earth. You can edit materials for application to surfaces—controlling color, reflectivity, transparency, and texture.

We found AutoVision to work generally faster than most of the rendering packages we've tested; your speed and its advantage in this regard—if any—will depend on your drawing style, number of light sources in play, number of surfaces, curves, and so

\$1,000.

**Manuals:** One well-written 200-page paperback with good tutorial and good reference material.

**Ease-of-use:** Once installed, it becomes part of AutoCAD.

**Error-trapping:** As good as AutoCAD itself. You don't get a good warning before creating an image that does not translate easily into 3-D Studio, Release 3. ■

**Manuals:** Huge tutorial manual. Huge reference guide. Summary guide for advanced users.

**Ease-of-use:** The biggest barrier is the need to understand animations; a film course would help more than one on CAD drafting.

**Error-trapping:** Good; you can generally abort a time-consuming process if you know you've made a mistake. ■

**ArchiCAD 4.1 for Windows**

By Steven S. Ross

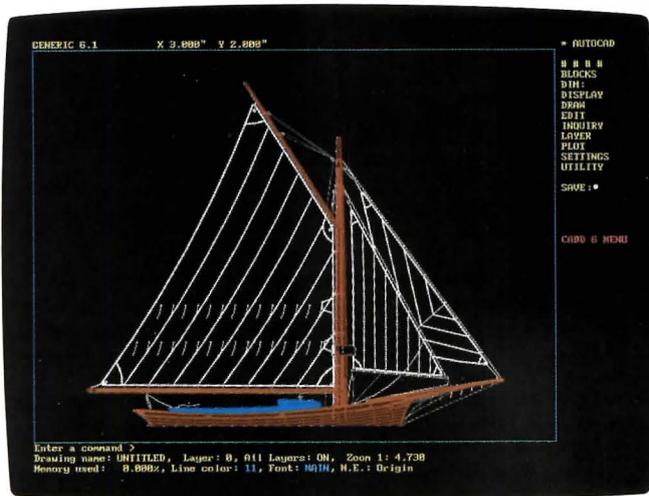
The new Windows version of this 3-D modeling and drafting package has many advantages over its predecessor.

can set up fly-throughs with little effort.

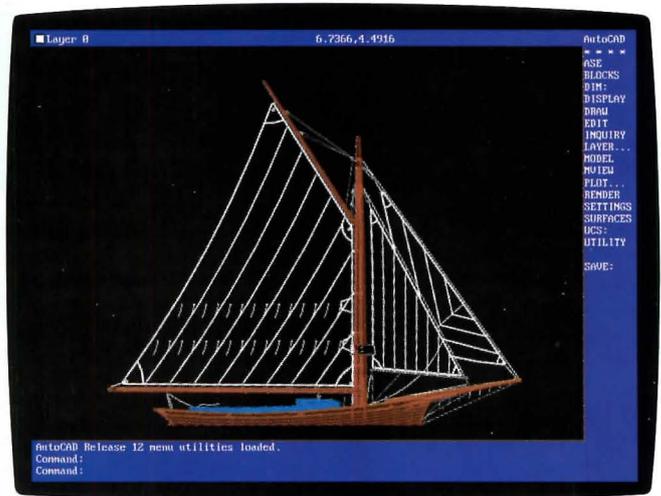
• Its internal database for calculating bills-of-materials is a significant improvement over the previous version.

**ArchiCAD 4.1 for Windows Summary**

**Why the makers of AutoCAD strongly recommend another brand of software.**



*New Generic CADD 6.1*

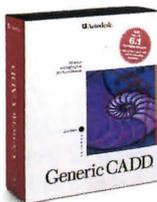


*AutoCAD Release 12*

**Introducing Generic CADD 6.1.**

The makers of AutoCAD® software recognize that not everyone needs AutoCAD's full-throttled power. That's why we recommend new Generic CADD® 6.1.

This latest version of Generic CADD software can now write AutoCAD.DWG files—the standard file format throughout the CAD world.



This upward compatibility from Generic CADD to AutoCAD lets you extend the power of CAD to anyone in your organization — even those not directly involved in the design process.

Of course, this latest version of Generic CADD delivers the extraordinary functionality and ease-of-use that have made it a three-time winner of the coveted *PC Magazine* Editors' Choice Award. And it's still only \$495.

Generic CADD 6.1 is part of the Autodesk® family of design automation products. You'll find it at leading retail software centers. Or call us at 1-800-228-3601 and request Infopack #A102.



**In This Issue**

Recycling waste into building products will become one of this decade's critical industries. For what's in store, see page 18 of this month's feature "Ready or Not, Construction Recycling Is on the Way." More and more, architects are dealing creatively with the problem. Near the Raleigh, North Carolina-based American headquarters of The Body Shop, the British natural-cosmetics giant, Clearscapes, the architects, did a lot right: they reused an old tilt-up warehouse, but raised part of the roof to admit clerestory daylight to the interior; they specified a handsome floor tile made out of old light bulbs; a good carpet was produced from recycled soft-drink bottles; display stands came from reconstituted wood; interior conference rooms were faced with glazed garage doors. The result was attractive, and cost under \$100 per square foot.

There's work to be done. Clients and architects still tend to use recycled materials for ideological reasons rather than, as Minneapolis architect Peter Vesterholt says, as routine responses to "practical matters of supply and demand."

Meanwhile, back at the plant, U. S. and overseas building-product manufacturers steadily continue to put on the market products that are increasingly energy-efficient, flexible, ADA-compliant, and free of toxic substances. Computer products are becoming networkable, portable, and cheaper. The following 50-plus pages in this year's RECORD Product Reports give you an overview of this rich array of choices, arranged as usual in the 16 CSI/Sweet's categories. More and more product information is available in electronic form: such items are marked with an asterisk.

RECORD is always on the lookout for new materials, products and their applications. We encourage you, the reader, to tell us about them. Associate editor Joan Blatterman, who assembled and edited the material, is eager to hear from you. *S. A. K.*

*Manufacturers' Index  
listed on pages 6-8*

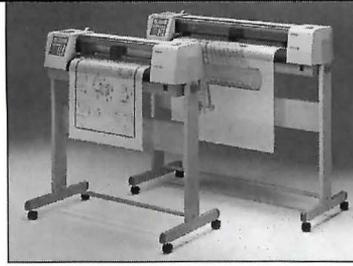
# 1 • GENERAL DATA Products

For more information, write item numbers on Reader Service Cards.



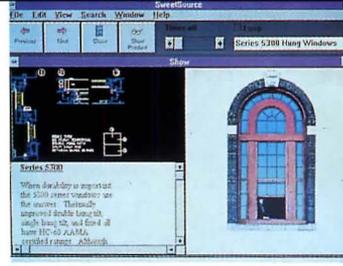
## 1. Discipline Integration

Known as CadPLUS-3D, package integrates manufacturer's architectural, structural, mechanical, electrical, and civil modules. Also featured are the assembly and management of details through a special detail library. Details may be customized, and new ones added. Research Engineers, Orange, Calif.\*



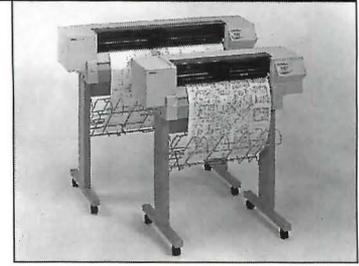
## 2. Vector plotters

Three new XP-500 Series vector plotters feature speeds up to 50 inches per second. New automatic pencil-lead feeder can hold a wide array of leads to produce visually attractive CAD output with minimal user intervention. Unit is able to mix ink and lead within the same drawing. Mutoh America, Inc., Mt. Prospect, Ill.



## 3. Product data on CD

SweetSource, an interactive CD-ROM-based product with fast access to building product information, has published its third edition. It now contains over 12,000 items produced by over 500 manufacturers. Form and content are monitored by a 600-person Advisory Council of user professionals. Sweet's Electronic Publishing, Grand Rapids, Mich.\*



## 4. Economical inkjet plotter

HP DesignJet 200 plotter comes in D- and E-sized models, and is said to plot up to five times faster than pen plotters. The unit is aimed at architectural and other professional designers who need a relatively low plot volume of up to eight sheets per day. D-size: \$3,695. Hewlett Packard, Palo Alto, Calif.



## 5. Two personal CAD plotters

ProTracer II and ProTracer II-GL produce both large drawings and standard text documents. Each yields letter-quality C-size drawings at 360 dpi resolution. ProTracer II is designed specifically for use with AutoCAD. Pacific Data Products, San Diego.



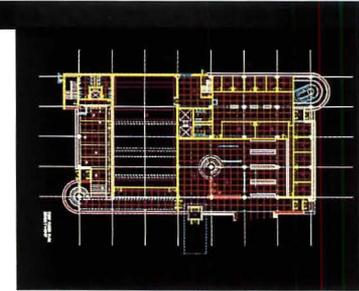
## 6. Measuring distance

Distance, area, and volume-measuring tools using a sonic device help design and construction professionals obtain rapid, accurate field measurements. Little training is required. Units also serve architects working on interiors by replacing tape rules for establishing distances between walls and between furniture items. Sonin, Inc., Scarsdale, N. Y.



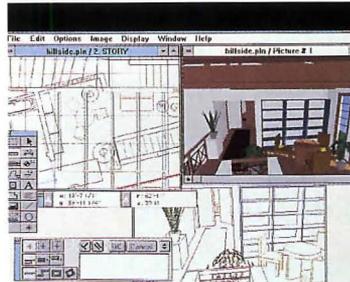
## 7. Copier for mid-range volume

Xerox 3050 plain-paper is designed for architects, engineers, and others with copy volume in the range of 2,500 copies a month. Unit makes multiple, size-for-size copies up to 36 in. wide. Xerox Engineering Systems, Rochester, N. Y.



## 8. CAD software for Windows NT

Manufacturer has released six of its AEC applications for porting to Microsoft's Windows NT operating system. They include DesignWorks for architectural and drawing production, SiteWorks for digital terrain modeling, and FrameWorks for structural design. Intergraph Corp., Huntsville, Ala.\*



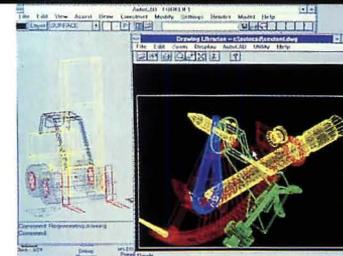
## 9. Software offers walkthroughs

MiniCad+ 4 is a 2-D/3-D program with a built-in database and spreadsheet. It offers walkthrough/flyover ability and a mode/message bar. A built-in DXF translator connects the user to AutoCAD's PC files. A new ClarisCAD translator simplifies file translation into MiniCad+. Diehl Graphsoft, Inc., Columbia, Md.\*



## 10. Precision pointing device

Peripheral product called Space Control Mouse is a six-degrees-of-freedom pointing device with high precision movements and an ergonomic shape. Item is compatible with Sun, HP, PC, and Silicon Graphics workstations, according to manufacturer. Logitech, Inc., Fremont, Calif.



## 11. AutoCAD linked to Windows

Software known as DL Windows (for Drawing Librarian) provides Microsoft Windows users with access to AutoCAD drawings by allowing viewing and printing of AutoCAD and DXF files. Also integrates DWG files with Access, FoxPRO and other Windows applications. SoftSource, Inc., Bellingham, Wash.\*



## 12. Generic CADD AutoCAD Link

Generic CADD Release 6.1 allows you to write files in AutoCAD's DWG format. Other features include upgraded compatibility with AutoCAD, a new AutoCAD-style menu option and on-line command cross-reference, thereby simplifying the process of exchanging 2-D files electronically. Autodesk, Inc., Bothell, Wash.

\* Product Data on CAD disk

For more information, write item numbers on Reader Service Cards.



**13. Plain-paper digital copier**  
9500 series copiers and plotters are said to manage the reprographic/CAD process from design to distribution, bridging the gap between analog and digital technology. The plain-paper E-size copier pictured features automatic data recognition and plot nesting. Oce-USA, Inc., Chicago.



**14. Rendering in AutoCAD**  
Developed with RenderStar Technology, the Advanced Rendering Extension works inside of AutoCAD R12, and integrates with most applications software. It can visualize any 3-D AutoCAD model and generate sun-shadow studies. All commands can be accessed from one standard AutoCAD pulldown menu. KETIV Software, Portland, Ore.



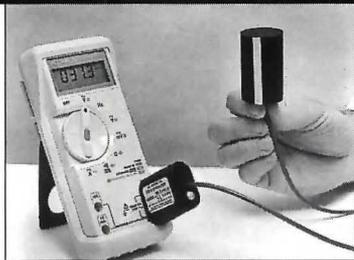
**15. Thermal labeler**  
A hand-held, 1-in. label printer stores text and files for later retrieval; additional intelligence comes with optional application cards. The thermal-transfer unit works with laminated, non-laminated, and die-cut paper. A two-line, 16-character display permits proofing before printing. Kroy, Inc., Scottsdale, Ariz.



**16. Building-design CAD**  
New architectural-application modules are said to take full advantage of AutoCAD Release 12 functionality, including cascading menus and dialog boxes. Enhancements to Auto-Architect permit complex roof- and wall-design tasks, improved ceiling-grid commands, and a new stair calculator. Softdesk, Inc., Henniker, N. H.\*



**17. Photorealistic rendering**  
AutoVision 1.0 provides photorealistic still rendering for users of AutoCAD Release 12 for DOS, turning a 3-D wireframe into a photo-quality image without leaving AutoCAD. Suggested retail at its 10/93 release: \$795; AutoCAD owners can upgrade to R12, with AutoVision: \$1,000. 800/879-4233. Autodesk, Inc., Sausalito, Calif.



**18. Magnetic-field evaluator**  
Described as low cost, the EP-102 probe measures alternating current magnetic fields from power lines, transformers, computers, and appliances, and evaluates attenuation effects of shielding installations. Can be used to gauge interference-field intensity prior to specifying architectural EMI shielding. Magnetic Shield Corp., Bensenville, Ill.



**19. CAD for Windows**  
The ArchiCAD 3.1 modeling and CAD package is now available in a Microsoft Windows version. It can read and write. DWG-format files, generate elevations, 3-D sections, renderings, animations, and includes a parametric object library. Graphisoft U. S., South San Francisco, Calif.\*



**20. Double-pedestal workstation**  
A front surface as large as 24- by 48-in. needs only a 25- by 35-in. footprint; independently supported front and back sections each offer tilt and height adjustment. The VariTask CAD desk comes freestanding rectangular, as shown, and larger; corner-configuration units. Mayline Co., Inc., Sheboygan, Wis.



**21. E-size multicolor pen plotter**  
The Classic plotter is said to supply sharp inking and precisely defined drawings; new MaxPlot pens permit overnight plotting without running out of ink. Unit can use liquid ink, liquid-ball, and fiber-tip pens on bond, poly film, translucent, or vellum sheet and roll media. CalComp, Anaheim, Calif.



**22. AutoCAD for Windows**  
Stand-alone version of AutoCAD R12 for Microsoft Windows 3.1 includes a built-in display-list driver that speeds up pans and zooms, and almost eliminates the overhead that is typically associated with Windows-based CAD applications. A bird's-eye-view option (shown) allows quick selection of the desired drawing area before zoom. Autodesk, Sausalito, Calif.



**23. Digital plan measure**  
The Scale Master Plus offers 49 built-in scales, including 12 architectural and 12 metric, and converts instantly between metric and others at the touch of a button. It can determine scales from faxed, enlarged, or reduced drawings; rolls on distances positively in either direction. List: \$99.95. 800/854-8075. Calculated Industries, Inc., Yorba Linda, Calif.



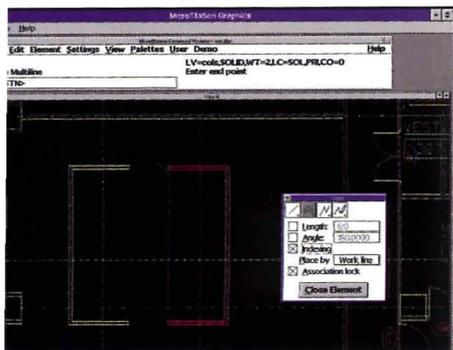
**24. Ergonomic input devices**  
Apple's adjustable keyboard is divided into two hinged sections that can be angled to help users keep their wrists in a comfortable, neutral position, and customize components to meet individual work habits. A new mouse has an elongated shape that supports the palm; any finger can click. Apple Computer, Inc., Cupertino, Calif.\*

\* Product Data on CAD disk

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**Usability.** What does computer-aided drafting have to do with the way you think? Everything. MicroStation software works for you. It understands the drafting process so well that it infers what you'll do next.

## Graphical User Interface.

MicroStation's easy-to-use interface includes pull-down menus, dialog boxes, tear-off tool palettes, and tool settings window. Choose your interface – Windows or Motif – on any platform. **Transparent Modeless Operation.**

The software supports the way you naturally work, maintaining command execution while you fine tune: change element attributes or command parameters, manipulate views, change the dimensioning system, and more.

**Powerful View Manipulation.** MicroStation supports up to eight active views that can be moved, sized, and overlapped to fit your design. Zoom and area at any scale. Move around your design fast with built-in dynamic panning.

**Workspace Editor.** Tailor pull-down menus, dialog boxes, and tool palettes – even disable commands – with a graphically oriented toolset for customizing your chosen interface.

**Text Capabilities.** A convenient text editor lets you easily edit single-line or paragraph text. Choose from TrueType, PostScript, AutoCAD SHX, and MicroStation fonts. ASCII text files can be imported and exported.

**Multiple Undo/Redo Commands.** Undo mistakes and perform “what-if” designs in a flash with unlimited undo and redo.

**Plotting.** Plot raster and vector information by view or defined areas, at any scale. Visually preview the plot before plotting, saving time and materials.

**Online HELP.** MicroStation's HELP remains active, tracking the command you're currently using, so there's no searching through manuals for assistance.

## Associative Patterning and Hatching.

Associate patterning with graphics. Change graphics and the patterning updates. Flood-fill hatching/patterning

intelligently fills an area, detecting boundaries and holes with a single pick. **Associative Dimensioning.** Dimensions are associated

with the geometry, not with a point in space, so that when you change the geometry, the dimensions automatically update. **Custom Line Styles.** Create

space-saving custom line styles and place railroad tracks, trees, isobars – anything – just as you would place a line.

**Multi-lines.** Define line string elements comprising up to 16 parallel lines of varying symbology and store them in a style library for

architects can use multi-lines for fast and easy placement and intersection cleanup of walls and partitions. **2D Boolean**

**Operations.** Quickly modify, measure, and hatch multiple 2D shapes with integrated Boolean operations. **Mass Properties.** Calculate area and

your model: surface area, volume, mass, centroid, moments and products of inertia, principal moments and directions, and radii of gyration.

Define relationships among graphic entities with intuitive drawing modes such as tangent, parallel, perpendicular, midpoint, intersection, and end-

**Dimension-driven Symbols.** Based on established relationships, you can assign variables to dimensioned graphics and save the graphics as cells



**Power.** Take your pick of popular environments: DOS, Mac, Windows, Windows NT, or UNIX. Have a look at MicroStation on Intergraph's Technical Desktop Series personal workstations.

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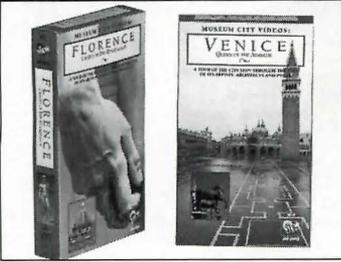
Call 800-345-4856 for a free brochure on MicroStation Version 5 and the name of an Intergraph representative in your area.



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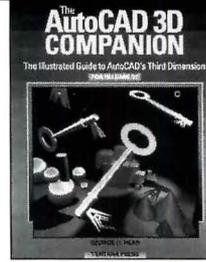
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**25. London stars in video**  
Latest in a series of city videos explores London's 2,000 years of cultural landmarks. The 48-minute narrated tape looks at cities (the series also includes Venice and Florence) as living museums, with each building, statue, and painting serving as a piece in the overall "collection." \$19.98. 800/843-9843 V.I.E.W., Inc., New York City.



**26. Drafting tools catalog**  
Drafting, plotter, CAD, and graphic supplies are listed in this 84-page catalog. Latest edition features an expanded section of plotter supplies, and includes furniture and calculators. Manufacturer's discounts of up to 70 percent are offered. Dataprint Corp., San Mateo, Calif.



**27. Two guides to AutoCAD**  
Two new guides show AutoCAD (Release 12) users how to become more productive. Outside AutoCAD is a non-programmer's guide to managing the software's database and covers new features found in Release 12. The AutoCAD 3-D Companion is an illustrated guide to the software's 3-D interface. Ventana Press, Chapel Hill, N. C.



**28. Tool for officeplanning**  
Planix for Windows software allows you to obtain a drawing of your space simply by typing in key dimensions. Image libraries provide symbols for people, partitions, and freestanding furniture. Runs on 386 chip or faster; Microsoft Windows 3.1 or later, and needs 2MB of RAM. Foresight Resources Corp., Kansas City, Mo.\*



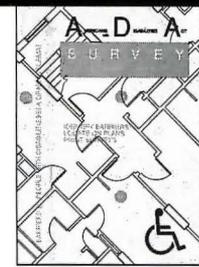
**29. Design, construction software**  
Architecture & Engineering Series is integrated software linking design and construction phases of a project, as well as post-occupancy maintenance and management. Allows for transfer of files from systems using DXF, IGES, TIFF, and Postscript. Image Processor for scanning drawings and photographs optional. IBM Corp., Milford, Conn.\*



**30. Realistic animation program**  
VisLab software is a 3-D animation program that offers users realistic motion at top rendering speeds, according to the manufacturer. Applications include architectural, mechanical engineering, and graphics design. Other modules, available separately, provide animation of rain, fire, and smoke. Engineering Animation, Inc., Santa Cruz, Calif.\*



**31. True-color slide viewers**  
Manufacturer's Kaiser "Prolite 5000" series of slide viewers is said to provide true color rendition. Viewers come in four sizes, and each size has specially designed fluorescent tubes that radiate all colors of the spectrum in the same proportions as average daylight. Kaiser Fototechnik, Pine Brook, N. J.



**32. Software does ADA surveys**  
Known as ADA Survey, software allows designer to perform graphic survey of a building project for compliance with architectural barrier requirements. Software records location of existing barriers on floor plans and elevations and produces a document locating problem spots. ADA Survey, Springfield, Mass.\*



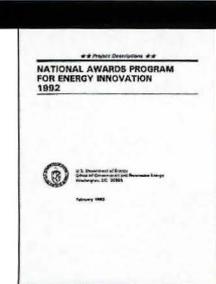
**33. Graphic supplies catalog**  
Divided into nine sections (cutting devices, drawing instruments, drawing media, erasers, technical pens, furniture, pencils and leads, plotters, and miscellaneous supplies such as cleaners and dusting brushes), the 48-page catalog provides photographs, descriptions, and prices for products from scores of suppliers. GS Direct, Inc., Bloomington, Minn.



**34. CAD-produced architecture**  
Four-color catalog from producer of UNIX-based Microstation offers architect and client profiles and case studies of commercial and institutional buildings. Examples explain how system was applied in various ways such as 3-D modeling, scanning photographs, and exploring form and color. Intergraph Corp., Huntsville, Ala.



**35. MacDraft 3.0 adds features**  
New features of version 3.0 of manufacturer's low-cost MacDraft software, designed to operate on the Apple Macintosh platform, include ability to draw lines at right angles to an edge, lines tangent from an arc to a point, and regular polygons and marker symbols. Innovative Data Design, Inc., Concord, Calif.\*



**36. Energy-design award winners**  
Free 124-page paperback contains 64 winners of 1992 National Awards Program for Energy Innovation sponsored by the U. S. Department of Energy. Organized in five energy-use categories: industrial, building and transportation technology, energy technology, and education. National Appropriate Technology Assistance Service, Butte, Mont.

\* Product Data on CAD disk



### 37. Metal furnishings

Designed by John Caldwell, the Town & Country Collection of furnishings from Garden Source Furnishings includes tables, chairs, and settees. Made from cast aluminum and wrought iron, these items are appropriate for use in restaurants and hotels, both indoors and outdoors. British-by-Nature, Beverly Hills, Calif.



### 38. Tree grate

The ADA tree grate was designed to comply with the federal Americans with Disabilities Act without costing more than standard grates. The ADA grate has narrower slots which are perpendicular to the direction of travel and is also available for heavy-duty vehicular traffic. Ironsmith, Palm Desert, Calif.



### 39. Retaining-wall unit

The Brute segmental retaining-wall unit is a modular concrete system that features large units and simple mechanical installation. The system allows 1- or 3-in. vertical setbacks in course walls. No mortar or concrete foundations are required and there are no cores to fill. Versa-Lok Retaining Wall Systems, division of Kiltie Corp., North St. Paul, Minn.\*



### 40. Cast-stone planters

Dura Art Stone's expanded line of commercial and residential planters now includes 23 basic designs and a reformulated Glascrete material that contains more natural aggregates. Glascrete combines polyester resin, fine aggregates, and glass fibers to create a material that weighs just 20 percent of regular cast stone. Dura Art Stone, Fontana, Calif.



### 41. Colored asphalt-seal coating

This seal coating brings color to asphalt. Added to conventional asphalt-seal coating or slurry-seal products, Asphacolor coating comes in three earthtone colors of red, green, and brown. The product is said to have the same durability as black sealants and can be used in both residential and commercial applications. Asphacolor Corp., Sparks, Nev.



### 42. Stenciled concrete

Textured to create paved surfaces that simulate natural materials such as brick, slate, and granite, Bomanite Stenciled Concrete is appropriate for both residential and commercial applications. One-piece slab construction and integral-grout joints enhance durability. Available in 25 colors and nine patterns. Bomanite Corp., Madera, Calif.



### 43. Playground surfacing

EZ Fall 7 is a new playground surface that is compression-molded into 4-ft-by-4-ft tiles from 100 percent top-grade rubber. The material meets Consumer Product Safety Commission guidelines at seven-foot drop heights and complies with ADA requirements for handicapped accessibility. Mitchell Rubber Products, City of Industry, Calif.



### 44. Wooden bench

The Serpentine Seat is an undulating bench with wooden slats made from either oak or elm and bases made from natural stone, reconstituted stone, or steel. Minimum surface area discourages graffiti, while the undulating shape discourages people from sleeping on it. The bench is 92 in. long and 18 in. high. Factory Furniture, Swindon, England.



### 45. Wrought-iron bench

This wrought-iron, three-seat Gothic bench is handcrafted of heavy-gauge A-36-grade steel to endure maximum usage. The bench is 60-in. long, 17-in. deep, and 37-in. high. It weighs 105 lbs and is powder-coated for rust protection. Available in white, black, and dark green. McKinnon and Harris, Inc., Richmond, Va.



### 46. Custom settee

This custom-designed and manufactured settee was specified by Hardy Holzman Pfeiffer Associates for the Los Angeles Public Library. Made from mahogany with full mortise-and-tenon joinery for maximum strength, the settee is 48-in. long, 21-in. deep, and 54-in. high. Weatherend Estate Furniture, Rockland, Maine.



### 47. Game table

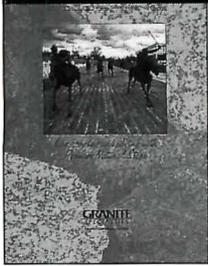
The TimberForm Profile game table is made of gridded, welded wire and is supported by four-in. schedule-40 steel pipe. The table with seat pods can be surface-mounted or embedded and comes in over 170 colors. Matching benches, litter containers, planters, and ash receptacles are also available. Columbia Cascade Co., Portland, Ore.



### 48. Artificial rock formations

Rock formations made from precast GFRC (glass-fiber reinforced concrete) simulate the look of several rock types, including basalt, limestone, desert rock, and granite. Professional services include design of rockwork and water features, as well as technical consulting on specific applications. Custom Rock International, St. Paul, Minn.

\* Product Data on CAD disk



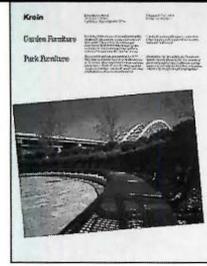
### 49. Granite pavers

Cold Spring supplies a broad range of granite products, from split pavers to flagstone, in a variety of colors and sizes. Products also include "unitized" pavers that are pre-assembled in rectangular or fan patterns, and "tumblestones" that replicate the look of cobblestone streets. Cold Spring Granite Co., Cold Spring, Minn.



### 50. Retaining-wall system

A four-page brochure introduces Porcupine Retaining Wall Systems, which use precast-concrete blocks that interlock with each other so no mortar is needed. The systems allow slopes to be changed as a wall goes up, and are flexible enough to allow wall to curve either in or out. Two colors are available. The Burns & Russell Co., Baltimore.



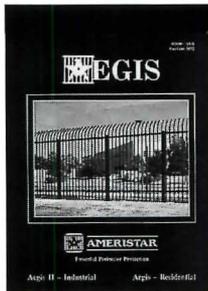
### 51. Outdoor furniture

Krain garden and park furniture—including wire-mesh chairs, tubular-frame tables, anatomically contoured park benches, and heavy-gauge garden umbrellas—are shown in a 16-page brochure. Park benches were designed for the 1972 Munich Olympics and can form a variety of curved and linear configurations. Krain, Inc., Cambridge, Mass.



### 52. Garden furniture

The Van Klansens catalog presents the company's line of wood garden furniture. Solid mahogany, epoxy joints, and low-maintenance Awlgrip paint are standard features of the company's swings, chairs, love seats, and settees. Furniture is shipped fully assembled, except for tables that have detached legs. Van Klansens, Inc., Knoxville, Tenn.



### 53. Iron fencing

Aegis ornamental-iron fences feature strong Forerunner rails, internal retaining rods, and specially designed panel brackets. The company's new four-color brochure shows both industrial and residential products and includes data on structure, design, and options. Panel design is a component system for easy shipping. Ameristar, Tulsa, Okla.



### 54. Paving system

The Uni Eco-Stone Paving System includes funnel-like openings in the pavement surface which encourage rainwater infiltration, thereby reducing or eliminating stormwater runoff. The system consists of interlocking concrete pavers with spaces in between for infiltration. Uni-Group U. S. A., Palm Beach Gardens, Fla.\*



### 55. Exterior lighting system

"Now You See It . . . And Now You Don't" is the title of the brochure explaining the PISA Lite Landscape and Walkway Illumination System. Designed to fit with the PISA Retaining Wall System, the acrylic-lens lights blend with the system's concrete blocks so they aren't noticed in daytime. PISA Retaining Wall Systems, Palm Beach Gardens, Fla.



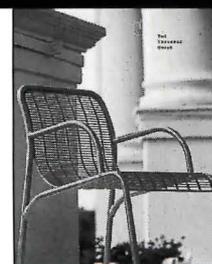
### 56. Concrete pavers

Special features and design considerations are presented in "Pavement Design With Concrete Pavers," a four-page brochure published by the Concrete Paver Institute. Use, application, assembly, load transfer, and installation of concrete pavers are also addressed by the brochure. CAD software is available. Concrete Paver Institute, Herndon, Va.\*



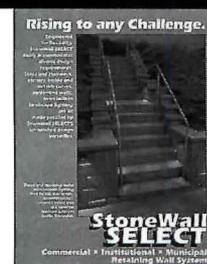
### 57. Porous paving

Grasspave2 is a porous paving system consisting of interlocking plastic rings with soil and grass set on top. Because it is porous, the system lets rainwater percolate into the ground, minimizing runoff and the need for drainage systems. The paving system can support up to 5720 psi when filled with sand. Invisible Structures, Inc., Aurora, Colo.



### 58. Metal chair

The Traverse Chair has a tubular-steel frame with either a grid or perforated-metal seat panel. All metal parts are finished with Pangard II powdercoat system, which is a hard but flexible coating that resists rusting, chipping, peeling, and fading. Landscape Forms, Inc., Kalamazoo, Mich.



### 59. Retaining-wall system

StoneWall SELECT is a concrete-block retaining-wall system that has electrical-cable slots cast into each block so lighting can be easily installed. The system, which has no components that can corrode or deteriorate, can accommodate steps, corners, inside and outside curves, and serpentine walls. ICD Corp., Milwaukee.



### 60. Outdoor furniture

A 40-page four-color catalog displays Victor Stanley's diverse lines of metal and wood outdoor furniture, including its Ironsites collection of steel-bar benches and trash receptacles, the Parsons Series of wood-and-metal public furniture, and the Classics line of cast-iron benches. Victor Stanley, Inc., Dunkirk, Md.

\* Product Data on CAD disk

For more information, write item numbers on Reader Service Cards.



### 61. Concrete hardener

Eight new colors have been added to the Lithochrome line of color hardeners. The new pastel colors—oyster white, ash white, antique rose, chalk blue, weathered sage, stone gray, blush beige, and smoke beige—complement the 16 colors already in the line of permanent, non-fading, dry-shake color hardeners. L. M. Scofield Co., Los Angeles.



### 62. Concrete finishing

Bomanite Color Flash is a multi-colored quartz-aggregate blend that is cast on the surface of new concrete surfaces such as paving. Available in four color blends of blue, green, red, and black with white aggregate, the new product offers added dimension and slip resistance to concrete flatwork. Bomanite Corp., Madera, Calif.



### 67. Reinforced-concrete design

The Concrete Reinforcing Steel Institute's 1993 publications catalog and price list describes manuals, software, and design aids for use in the design and construction of cast-in-place reinforced concrete. Product categories include detailing aids, bridges, testing, and pavement design. Concrete Reinforcing Steel Institute, Schaumburg, Ill.



### 68. Color and texture guide

The Precast/Prestressed Concrete Institute has published the "Architectural Precast Concrete—Color and Texture Selection Guide," a 260-page publication that illustrates 430 colors and textures for precast concrete panels. The guide includes 236 color plates and costs \$40. Precast/Prestressed Concrete Institute, Chicago.



### 63. Precast ramp system

This precast-concrete ramp system meets new ADA requirements and is adaptable to any height up to 58 in. Available in units ranging from 4 to 9 ft in length (in 6-in. increments) and from 8 in. to 4-ft-10-in. in height (in half-inch increments), the ramp can be easily assembled and disassembled. Sullivan Precast Products, Lenox, Mass.



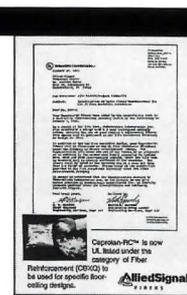
### 64. Baluster system

This new panel design meets the current UBC code for allowable opening, while still providing the maximum viewable area. The system consists of 24- by 24- by 5-in. panels in an alternating mirror image of each other, and was designed by Bob Ray Offenhauser & Associates. Von Hausen Studio, Compton, Calif.



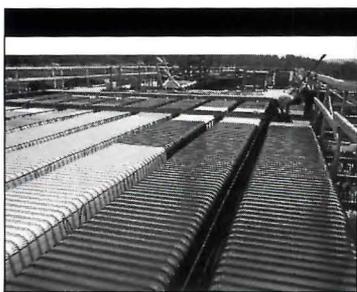
### 69. Cement and concrete video

An 11-minute video entitled "A New Stone Age: The Making of Portland Cement" offers an overview of the making of cement and its use in concrete. The video discusses concrete's energy efficiency and its emergence as an environmentally friendly building material. Accompanied by a booklet, the video costs \$25. Portland Cement Association, Skokie, Ill.



### 70. Fiber reinforcement

Caprolan-RC nylon fibers, which can be used as an alternative or in addition to wire mesh in concrete to control shrinkage cracking, will be listed in Underwriters Laboratories Inc.'s Fire Resistance Directory. High strength and toughness (15,000 psi) allow the fibers to reduce cracking and increase impact resistance. AlliedSignal Fibers, Petersburg, Va.



### 65. Curved metal formwork

A new "crimp-curving" process can produce custom-curving forms that are smooth, strong, and lightweight. Easy to install, the formwork can be used in a wide range of concrete construction applications. Panel substrates suitable for curved formwork include painted and unpainted steel up to 48 in. in width. Curveline, Inc., Ontario, Calif.



### 66. Water repellent

Chem-Trete BSM 40 water repellent is a clear, penetrating, silane-based formulation that is suited for protecting concrete in high-rise applications. The protective coating chemically bonds with the substrate, creating a long-term barrier against wind-driven rain and other sources of moisture. Huls America, Inc., Piscataway, N. J.



### 71. Concrete sealant

The ProSpec Graffiti Master Seal Sheet provides an overview of some advantages of Graffiti Master sealant, citing the water-based product's ability to seal out spray paint, markers, chalk, and other graffiti. The sealant is safe for indoor use and can be washed with soap and water to eliminate graffiti. Watson Bowman Acme Corp., Amherst, N. Y.



### 72. Bonding agents

Larsen concrete and plaster bonding agents offer high-performance bonding of cementitious material direct to structural surfaces. Weld-Crete is a chemical concrete bonding agent. Plaster-weld is a plaster-bonding agent for interior use only. Acrylic Admix 101 is an integrally added bonding agent. Larsen Products Corp.,

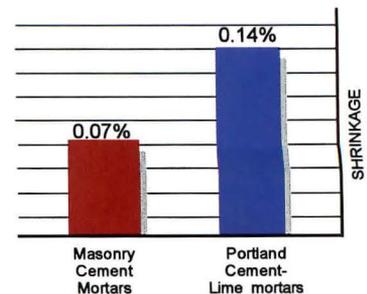
\* Product Data on CAD disk



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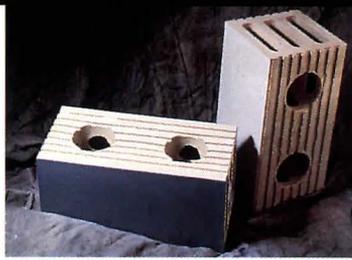
### 3. Colorful glass block

Solaris Trimline block comes in four styles that offer varying degrees of privacy. Peach, blue, and green integral colors are available. Aluminum grids as large as 8- by 12-ft facilitate installation, with glass only appearing on the exterior. Larger panels are possible for commercial uses by mullioning together standard sections. Acme Brick Co., Fort Worth.



### 4. Gasket liner holds thin brick

Brick gasket liner is a urethane mat with pockets that hold thin brick or tiles. The liner is attached to a precast bed. Thin bricks are then placed into the pockets, and concrete is poured over the assembly. This wet-casts the brick or tile into the concrete-panel face. Installation pictured: Museum of Modern Art, San Francisco. Scott System, Denver.



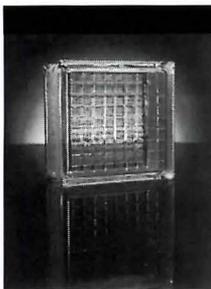
### 75. Seismic structural tile

A new construction in structural glazed facing tile adds two large vertical holes to the horizontally cored masonry unit. These holes allow placement of grout or steel bars to meet the security standards of the Federal Bureau of Prisons and Zone 4 seismic requirements. Stark Ceramics, Inc., Canton, Ohio.



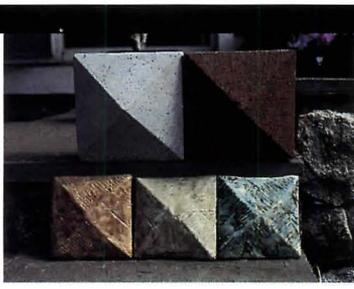
### 76. Stone design manual

An architectural binder seeks to promote uniform detailing of dimension stone, including granite, limestone, marble, quartz-based stone, and slate. Sections cover ASTM master material specifications, text standards, installation recommendations, and typical details. Trade price: \$89.50 plus shipping. Marble Institute of America, Farmington, Mich.



### 77. Glass block in new pattern

Textra glass block comes in a matrix design that combines sparkle and distortion of its multi-ribbed squares with transparent open areas. The pattern changes with movement, viewing point, and light source. It offers moderate light transmission and minimal privacy. Pittsburgh Corning Corp., Pittsburgh.\*



### 78. Pyramid-shaped block

Pyramid-shaped block comes in concrete and clay brick, and is available in a wide range of colors and finishes. Block is modular at 7 5/8-in. square by 3 5/8-in. high to base of pyramid, which is at a 30-degree angle. Tile is 6-in. square. Custom sizes may be ordered. Pyridium Block & Tile, Stamford, Conn.



### 79. Damage-resistant corners

Modular pre-glazed concrete-masonry corner units are designed for high-traffic areas. They come in standard wall thicknesses, and eliminate the need for cutting and piecing. Reference points allow for easy alignment, and blocks are simple to tie and reinforce, says manufacturer. Burns & Russell Co., Baltimore.



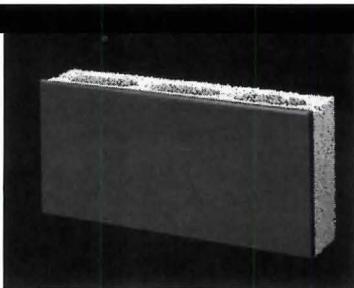
### 80. Classical balustrades

Balustrade elements known as Regency Range are derived from classical motifs and Somerset, England's heritage of stonemasonry. Made of cast stone using natural-stone ingredients, the balustrading comes in four finishes and textures: Portland, Yorkstone, Cotswold, and Birmingham Red. British-by-Nature, Beverly Hills, Calif.



### 81. Glass-block shower kits

Glass-block shower enclosures come in kits. Aluminum extrusions at corners snap together with aluminum grid wall sections, making a symmetrical joint without mortar or grout. Free software contains detail drawings and installation details on 3.5-in. diskettes for either AutoCAD DWG or generic files in DXF/IBP Glass Block System. Acme Brick Co., Fort Worth.\*



### 82. Improved block glaze

Manufacturer's Astra-Glaze-SW lightweight concrete blocks now come with an improved finish that makes for greater color consistency and brighter colors. With recent USDA approval, the units may now be used for food-processing applications. Trenwyth Industries, Inc., Enigsville, Pa.



### 83. Cast-stone ornament

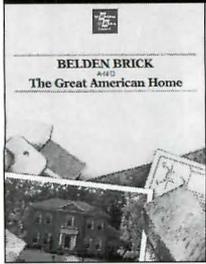
Friezes, keystones, and medallions made of cast stone and known as SculptStone are described in an eight-page brochure. Units come in assorted shapes and sizes up to 48 in., and in historical, geometric, animal, and floral motifs. Data available on CAD for AutoCAD. Pineapple Grove Designs, Delray Beach, Fla.\*



### 84. Stone identification guide

Quick-reference stone pocket guide makes it easier to identify marble and granite. Each of several booklets contains over 135 3- by 5-in. full-scale color plates of natural-stone types, each identified on the back with name, country of origin, and technical data. VMC-TAC, Dallas.

\* Product Data on CAD disk



### 85. Brick

This four-color brochure highlights some of the advantages of brick as a building material and offers an overview of the Belden Brick Co., which has been operated by the same family for over 100 years. The company's bricks, made in six plants in Ohio, are available in over 200 colors, sizes, and textures. The Belden Brick Co., Canton, Ohio.



### 86. Greek marble

A broad range of marbles from Greece are displayed in a four-color product sheet distributed by the Hellenic Export Promotion Organization. The sampling ranges from ash white marble from the island of Paros to the pink stone of Lafkos and the green of Tinos. Greek Trade Commission, New York City.



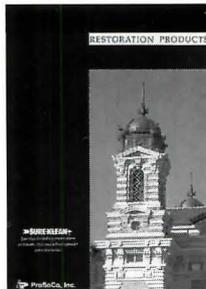
### 87. Thin stone sheets

RSgs7 is a 5/16-in. composite sheet of ultra-thin natural marble, granite, or limestone reinforced with fiberglass and epoxy. The sheets can be applied in large sizes with adhesives and mechanical attachment to exterior surfaces, interior walls, floors, ceilings, soffits, movable partitions, and furniture. Marble Technics, New York City.



### 88. Clay products and tile

*In Partnership with the Imagination* is a video that serves as an introduction to clay products and tiles from Endicott. Available for free, the video covers the company's broad range of colors, textures, and shapes of bricks and clay products. Endicott Clay Products Co./Endicott Tile Ltd., Fairbury, Neb.



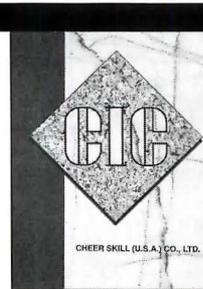
### 89. Masonry restoration

A complete specifications guide for Sure Klean Restoration Products is available on computer diskette, and comes with a printed copy, product brochure, and product data sheets. The diskette is free for both DOS and Macintosh users in 3.5-in. and 5.25-in. sizes. The guide follows CSI 3-Part format. ProSoCo, Inc., Kansas City, Kansas.\*



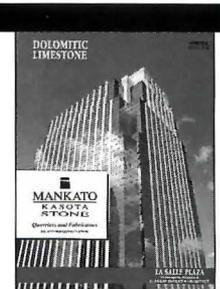
### 90. Architectural masonry

Architectural masonry products, as well as roof tiles and landscape products, are available from companies around the country under the Oldcastle brand name. Products include masonry units, ballast pavers, plaza pavers, interlocking pavers, fire-rated wall systems, energy-efficient wall systems, and segmental retaining walls. Oldcastle, Inc., Atlanta.



### 91. Chinese granite

A four-page color brochure introduces Cheer Skill's collection of marble and granite from China and around the world. The line includes some stones unique to China, as well as more familiar stones from places like Italy. The parent company is in Hong Kong, but American distribution is from the Midwest. Cheer Skill (USA) Co., Park Forest, Ill.



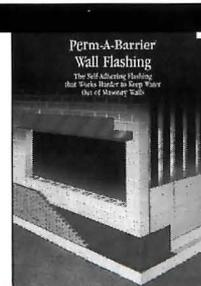
### 92. Minnesota limestone

Dolomitic limestone from southern Minnesota comes in three colors—cream, golden buff, and gray—and can be cut either across the stone beds to reveal veins or with the sedimentary bed to reveal flowered patterns. Mainly calcium carbonate and magnesium, the stone has above-average hardness. Mankato-Kasota Stone, Inc., Mankato, Minn.



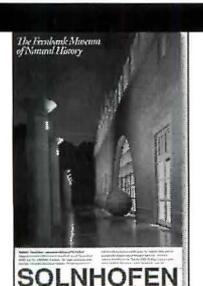
### 93. Rockface masonry

RichStone masonry units offer the color and texture of natural stone in a variety of block sizes and shapes. Surfaces can be either burnished or rockface, and blocks can have a combination of the two finishes. Scoring and fluting are available on most units. United Glazed Products, division of the Burns & Russell Co., Baltimore.



### 94. Water repellent

Dry-Block is a system of two liquid polymeric admixes, one that is mixed with concrete during manufacturing and the other that is used during mortar preparation. The admixes become integral with the concrete, forming a low-maintenance water repellent. Grace Construction Products, Cambridge, Mass.



### 95. Fossil stone

Examples of fossils found in Solnhofen limestone are shown in the company's four-page Fossilstone brochure. Formed during the Jurassic Period 150 million years ago and incorporating the remains of nautilus, marine worms, and corals, Fossilstones come in colors such as beige, gray, and green. Solnhofen Natural Stone, Inc., San Francisco.



### 96. Glass block

A 16-page catalog from Pittsburgh Corning presents design information, detail drawings, and specifications for mortared installations for its Glass-Block line of products. The catalog, including drawings, is also available on 5.25-in. and 3.5-in. computer diskettes. Pittsburgh Corning, Pittsburgh.\*

\* Product Data on CAD disk

For more information, write item numbers on Reader Service Cards.



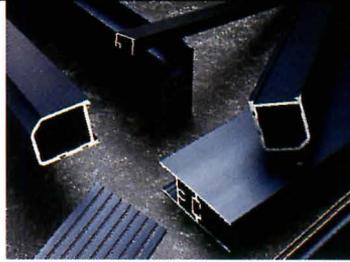
### 97. Ornate replica

A cast-iron canopy at the Joliet, Illinois, train station was replicated in sand-cast aluminum painted to match the Beaux Arts original (A. M. Kinney Associates, Inc., restoration architects). Rubber molds of the elaborate elements were used to recreate the intricate details using the lost-wax process. Historical Arts & Casting, Inc., West Jordan, Utah.



### 98. Custom-rail system

The Decorail is an integrated series of post, panel, rail, kneewall, traffic control, display, and partition components in an Art Deco motif. The balcony rail pictured has Art Deco-style finials on top of anodized-brass posts holding panels of safety glass. Wylie Systems, Etobicoke, Ont.



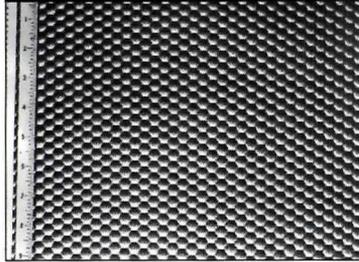
### 99. Blue anodized aluminum

The Spectracolor electrolytic color-anodize process allows aluminum to be manufactured in a variety of metallic shades previously unavailable. KeyAno 2000 blue, offered in both dark and light tones, will be followed by red, green, gray, and bronze colors. Metal meets all pertinent ASTM test standards. Keymark Corp., Fonda, N. Y.



### 100. Cast-iron stairs

A replica of a decorative straight-stair style often found on 19th-century townhouses. The cast-iron Kensington can be ordered in modules, from a two-step unit for a low porch to a multiple-landing fire exit installation as shown. Stairs come in kit form, with treads, risers, side panels, and fasteners. Steptoe & Wife, Toronto, Ont.



### 101. Multidirectional metal

Pattern 6-HC can be used at various angles, eliminating the waste of trimmed pieces. The design is said to diffuse light evenly, without hot spots, and to be more rigid than flat metals. Shown in satin-finish brass, the pattern comes in a number of colors, metals, and finishes, and gauges up to 1/8-in. thick. Rigidized Metals Corp., Buffalo, N. Y.



### 102. Long-span catwalk

The Heavy Duty Grip Strut catwalk spans 24-ft openings with minimal deflection, reducing costs of extra supports. Large, diamond-shaped openings will not collect gravel, mud, snow, or ice; steel grating available up to 36-in. wide with 5-in. integral towboards. GS Metals Corp., Pinckneyville, Ill.



### 103. Pre-engineered stair

Furnished factory-built to specified dimensions, the Quick Stair incorporates a standard design with three tread and three handrail options. Pre-poured treads are said to provide the sound-dampening of conventional concrete-pan treads; stair meets all code requirements. CAD-format details available. Anderson Industries, Denver.\*



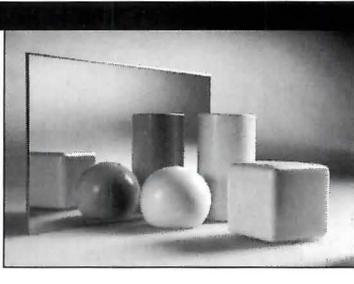
### 104. Nylon-over-steel rail

A new process makes an environmentally safe, cadmium-free nylon product, as well as greatly improving UV- and weather-resistance. ADA-compliant rail and balustrade systems are built with colorful nylon over a continuous, galvanized-steel core; connections are internal, with no exposed fasteners. W&W Sales, Ltd., Spring Valley, N. Y.



### 105. Interior spaceframes

New finishes and framing geometries are offered for the Meroform spaceframe, suggested as a design solution for ceilings, displays, and interior graphic structures. Chrome, anodized, and many powder-coat color finishes. MERO Systems Group, Div. of MERO Structures, Inc., Germantown, Wis.



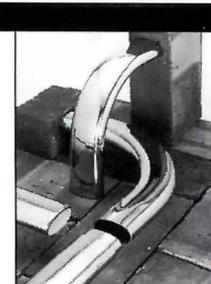
### 106. Non-directional stainless

Stainless-steel sheet has a totally non-directional mirror-polish finish. Suitable for elevator cabs, column covers, ceilings, and other architectural applications, metal may also be ordered in bronze, blue, gold, red, green, and black electro-chemical colors. Clark Metals, Inc., Gardena, Calif.



### 107. Nickel-silver rails

A new handrail-metal option from this architectural-metal manufacturer, nickel silver (also referred to as white bronze) adds a warm silver color to interiors. Unprotected metal will tarnish to a mottled gray-green patina in about six years. Julius Blum & Co., Inc., Carlstadt, N. J.



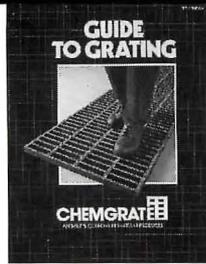
### 108. Oval handrails

An oval extrusion used in marine applications, British-made Oval 316 tubing is now available for handrails, spiral staircases, barriers, and other architectural components. Made in sizes from 3/4- to 5-in., tube can be supplied with radius bends and forms in both planes, in satin-mill and mirror finishes. Malcolm Cole Ltd., Opa-Locka, Fla.

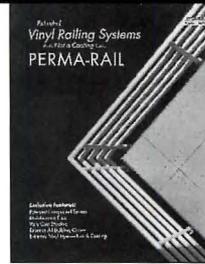
\* Product Data on CAD disk



**109. Elastic expansion joint**  
Completely non-metallic, the Interspan joint withstands the climate, loads, and movement of exposed concrete decks, parking ramps, and other automotive- and pedestrian-traffic structures. Installed with epoxy applied on three surfaces. Cannot catch heels or trap dirt. Larsen Products Corp., Rockville, Md.



**110. Gratings and stair treads**  
A PC-based electronic manual as well as a 16-page catalog help design and specify FRP grating, stair treads, and floor plate. Includes charts, load and deflection tables, and stair-tread calculation programs for all slip-resistant, one-piece grating products. Chemgrate Corp., Woodinville, Wash.\*



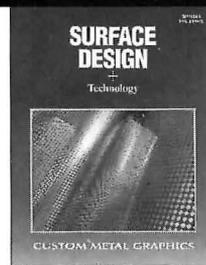
**111. Vinyl-rail system**  
Extruded vinyl-pipe railings are suggested for marine, industrial, residential, and other applications where appearance or cost of maintenance is a concern. The Perma-Rail component system permits site-specific assemblies from heavy-gauge vinyl fittings. Perma-Rail, Inc., Columbia, Md.



**112. ADA-compliant joints**  
The Iso-Flex textured seal makes concrete expansion joints watertight while providing slip-reducing traction for pedestrian and automotive traffic. An illustrated brochure describes the molded seal and lists technical data and test results. Harry S. Peterson Co., Berea, Ohio.



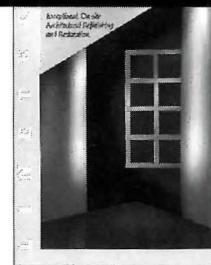
**113. Aluminum railing**  
An architectural catalog explains the functional, structural, and design features of Series 900 heavy-duty aluminum-rail components. Offered in rail and post styles that meet the specific decorative and code requirements of industrial, multifamily, residential, and institutional applications. Superior Aluminum Products, Russia, Ohio.



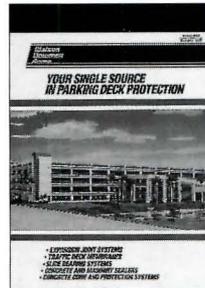
**114. Graphics on metal**  
Fabricator can execute custom and standardized finishes on sheet metal, from design concept to completed installation. Techniques include multi-directional and non-directional brushing, sandblasting, polishing, and electroplating on stainless steel, brass, copper, and nickel silver. Surface Design + Technology, Hialeah, Fla.



**115. Curving capabilities**  
A six-page booklet outlines various methods of metal curving, available for any architectural project requiring custom shapes in aluminum, brass, steel, bronze, and other metals. Applications include window, skylight, and storefront framing, handrails, lighting fixtures, and signage structures. J. Sussman, Inc. Jamaica, N. Y.



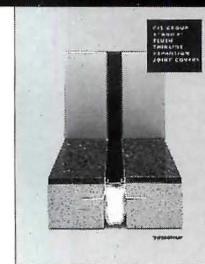
**116. Metal refinishing**  
Brochure on architectural field-service capabilities provides an overview of "state-of-the-art" painting processes and restoration techniques for column covers, panels, curtain walls, storefronts, entrances, and other building components of metal, porcelain-on-steel, brick, concrete, glass, and plastic. Linetec, Wausau, Wis.



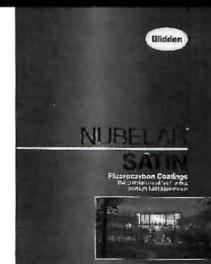
**117. Parking structures**  
Catalog details specialty construction products that improve the long-term performance of parking structures, including concrete cure additives, traffic-bearing membranes, ProSpec concrete and masonry cleaners, and Wabo compression seals, slide bearings, and expansion and seismic joints. Watson Bowman Acme Corp., Amherst, N. Y.



**118. Anodizing standards**  
An architectural application kit contains samples of the six most commonly produced and requested anodized-aluminum colors included in this industry group's color uniformity assurance program: what you see is what you'll get. Aluminum Anodizers Council, Wauconda, Ill.



**119. Unobtrusive joints**  
The Flush Thinline expansion-joint cover, offered in one- and two-in. widths, is said to blend well with adjacent surfaces, as its smooth dual-duronmeter gasket is flexible enough to allow full movement without needing surface grooves. Conspec Systems, Inc., Muncy, Pa.



**120. Industrial coatings**  
A brochure on Nubelar Satin fluorocarbon coating for exterior aluminum, galvanized steel, or Galvalume includes a spec sheet with physical-property data, and color photos of architectural applications such as cladding, fascia, curtain wall, spandrels, and column covers. The Glidden Co., Cleveland.

\* Product Data on CAD disk

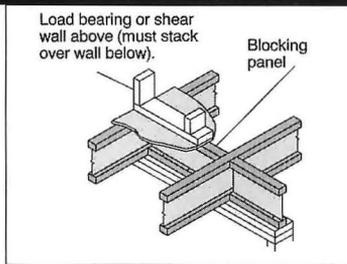
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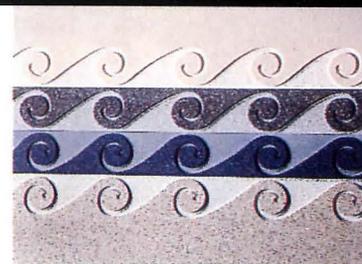
**121. Molded-stone millwork**  
Cassel, a composite, stone-look product for interior use, comes as veneer wall panels, 5/16-in.-thick, and as trim, furnished as crown moldings, baseboards, light cover, and door surrounds. Installs by adhesive or clips; has a Class I fire rating. DecoForm Corp., Etobicoke, Ont.



**122. FRP belvedere**  
For a restoration of Buffalo's Niagara Mohawk building, Kideney Architects replicated weathered terra-cotta elements in fiberglass-reinforced plastic. Rubber molds copied the original elements of the rooftop lantern to create new pieces said to be indistinguishable from the ceramic ones, even up close. Molded Fiber Glass, Union City, Pa.\*



**123. No-squeak floor joists**  
The Silent Floor structural system now features Performance Plus web members, which combine the strength of oriented-strand board with the dimensional stability of plywood for a stronger, more weather-resistant joist. Also, the system's Micro-Lam (laminated-veneer lumber) flange has been made stronger. Trus Joist MacMillan, Boise, Idaho.\*



**124. Solid-surface selection**  
The Avonite range of solid-surface material now includes 30 different solid colors and stone-look patterns. All can be specified in matte, satin, or gloss finish. New colorations pictured are limestone, quarry gray, royal sapphire, and desert tan. Avonite, Belen, N. M.



**125. Pastel woodgrain HPL**  
Cool blues and greens, a soft yellow, and a copper color, while not found in natural wood, are offered by this Italian source of decorative high-pressure laminates in a new line, Serie Acero Legni Colorati. There are six woodgrain colors, all in the Soft Surface finish. Abet, Inc., Teterboro, N. J.



**126. Solid-surface CAD**  
New software provides help in the specification, fabrication, and installation of Fountainhead solid-surface material. On 5.25- or 3.5-in. disks, the program has over 150 drawings for use with AutoCAD. Applications include commercial food-service counters, toilet partitions, and wet walls as well as residential uses. Nevamar, Odenton, Md.\*



**127. Biocomposite material**  
NewStone is said to look like granite and work like wood. Made from recycled and renewable resources—soybean protein and used newspaper—its random pattern disguises joints. Applications include desktops, furniture, trim, and windowsills. Tested to ASTM standards, it has a Class 2 fire rating. Phenix Composites, Inc., Mankato, Minn.



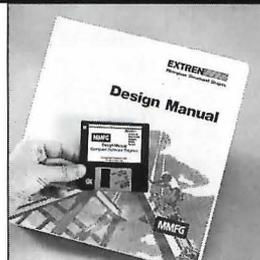
**128. Chemical-resist composite**  
Trespa solid architectural material combines color selection with reagent-level chemical resistance. It is non-porous and will not support bacteria or fungus. Various grades are suggested for lab tops and shelving, as shown, as well as furniture, lockers, toilet partitions, and exterior cladding. Hoechst Celanese, Somerville, N. J.



**129. Fashion laminate**  
Pearlescent veining on dark copper, sapphire, and purple backgrounds characterize this maker's new Aztec pattern laminate. Designs available in a choice of surface textures, including Hi-Velvet and pebbly Crystal. Applications include elevator cabs, wall panels, furniture, and cabinetry. Westinghouse Micarta, Hampton, S. C.



**130. Formable sheet**  
Architect Michael McDonough's Ribbon Candy Chair demonstrates the unique properties of Nuvel, jointly developed by General Electric and Formica. Said to have many of the appearance and performance qualities of traditional solid-surface material, such as seamability, at less cost, Nuvel can be postformed easily. Formica Corp., Cincinnati.



**131. Fiberglass structural shapes**  
A design-manual computer program offers help in working with Extren beams, columns, and other structural components, and Duradek non-corroding decking. Specification options include deflection limitations, beam conditions, and loads. Hard copy also offered. Cost: \$99.95. Morrison Molded Fiber Glass, Bristol, Va.\*



**132. Nature-motif laminate**  
A line extension added 22 new colors and patterns to the Design Group I collection. Shown is Caldera Jade, a blend of verdigris with taupe and gray colorways. A new finely textured standard finish, #60, provides consistent gloss levels regardless of the lay of the material. Architectural sample program. 800/433-3222. Wilsonart, Temple, Tex.

\* Product Data on CAD disk

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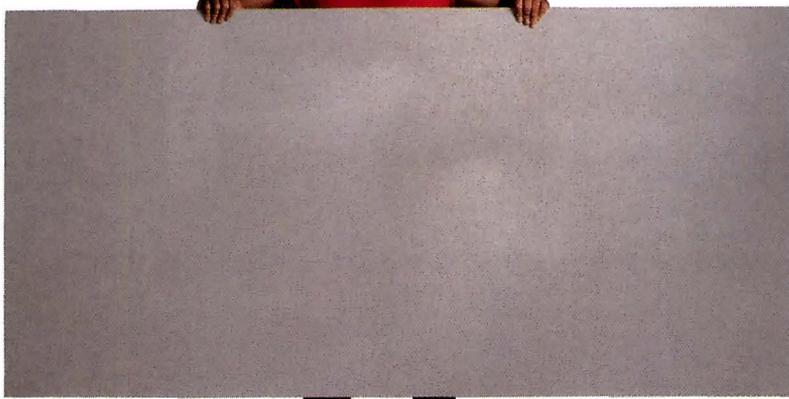
and solid because it's fiber from – amazingly It can take more

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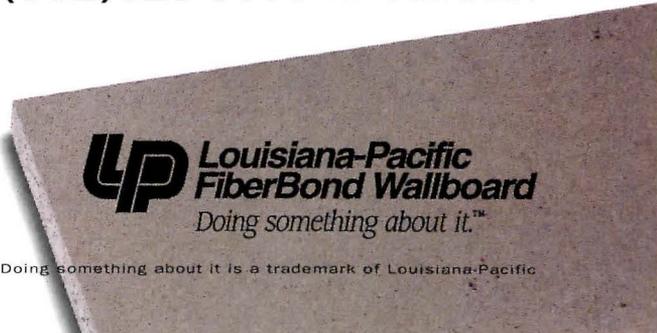
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### 133. Laminate guidebook

At 50 pages, *The Complete Book of Laminate Surfaces* is just that, a walkthrough of corporate development and new product technologies, with all Formica products shown close-up and in-use. A Zip Chip program offers return-mail samples to architects and designers. Formica Corporation, Cincinnati.



### 134. Beaded-plank panels

An APA-rated paneling for interior and exterior applications, 4- by 8-ft Ply-Bead sheets combine the economical strength of plywood with the decorative appearance of beaded planking. Available in two thicknesses, sanded and ready to paint or stain. Georgia-Pacific Corp., Atlanta.



### 135. Oak stairs

An eight-page catalog shows wood curved and spiral stairs in various configurations—as a grand, traditional staircase off an entry foyer, or as space-saving access to an office loft—detailing rail, tread, riser, and stringer options in pine, oak, and poplar. A. J. Stairs, Inc., Brick, N. J.



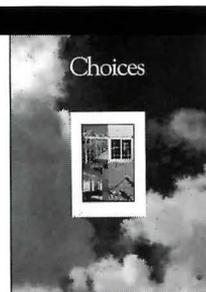
### 136. Fire-retardant wood

Dricon-treated fire-retardant wood is said to provide greater design latitude for the architect, as an alternative to construction materials classified as non-combustible for weather-protected applications. A 16-page catalog covers hygroscopicity, fire performance, appearance, strength factors, and other properties. Hickson Corp., Atlanta.



### 137. Architectural details

Orac Decor is a British-made line of high-density polyurethane cornice moldings, chair rails, door surrounds, and other authentically detailed decorative elements. A catalog offers 22 pages of material specifications, with all products shown in detail drawings and colorful application photos. Orac Decor U. S. A., Lodi, N. J.



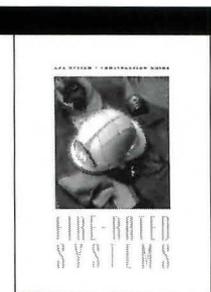
### 138. Renewable resource

Noting that nothing can be sustained that cannot be renewed, *Choices* brochure discusses the environmental impact of building-material selection, and compares the low-energy and less-polluting production of wood construction members to concrete, steel, and petroleum-based products. Western Wood Products Association, Portland, Ore.



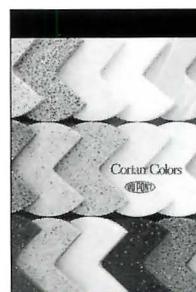
### 139. Laminated-veneer lumber

A 12-page catalog describes Gang-Lam W LVL as a minimal-waste, reliably performing member with more load-bearing capacity per pound than solid sawn lumber. Includes load tables and connection and framing details, and explains how Wood-E software helps design with engineered beams and joists. Louisiana-Pacific Corp., Portland, Ore.



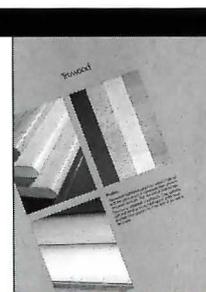
### 140. Rated wood construction

Revised in May, 1993, an 18-page booklet is described as the latest word on cost-effective fire-rated construction systems, using wood and wood structural panels. Brochure covers safety criteria, protection methods, and updated building-code and UL-listing references. \$2 charge. American Plywood Association, Tacoma, Wash.



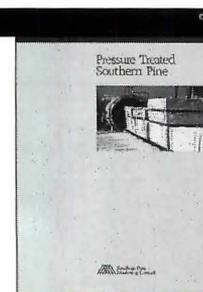
### 141. Solid-surface palette

A design brochure illustrates all Corian colors, including 10 new 1993 shades, grouped into different families based on esthetics. Corian is said not to fade under UV exposure, to be uniform and consistent from sheet to sheet, and to be non-metameric (not changing in color under different light sources). DuPont Co., Wilmington, Del.\*



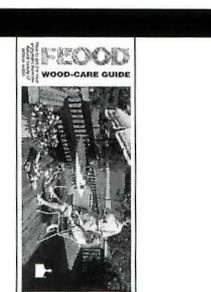
### 142. Wood-veneer laminate

Truwood sheet is a high-pressure laminate in which the decorative surface is unfinished wood veneer, in any of eight popular wood species, ready for staining and sealing. The laminating process is said to make the wood surface harder than standard veneer; can be curved to a 2-in. radius. Laminart, Inc., Elk Grove Village, Ill.



### 143. Southern pine lumber

A 14-page brochure explains how the unique cellular structure of Southern pine species facilitates pressure treatment with EPA-approved chemicals. Lists code requirements, design values, standard size and appearance considerations, and suggests fasteners and finishes. Southern Forest Product Association, Kenner, La.



### 144. Wood-care tips

Flood's 28-page *Wood-Care Guide* covers Seasonite stabilizing treatment, Dekswood cleaner, and CWF-UV ultraviolet-resistant clear wood finish, showing how the products look after application to new pressure-treated and other exterior wood surfaces, including roofs. Gives wood-problem-solving tips. The Flood Co., Hudson, Ohio.

\* Product Data on CAD disk



**145. Roof-drainage products**  
Rain-carrying gutters, leaders, eave and slope boxes, downspouts, and ornamental conductor heads can be specified in copper, as shown, as well as aluminum in several high-gloss white, bronze, and brown enamels, and a galvanized finish. K-system gutters can come in single lengths of up to 37 ft. Benjamin Obdyke, Inc., Warminster, Pa.



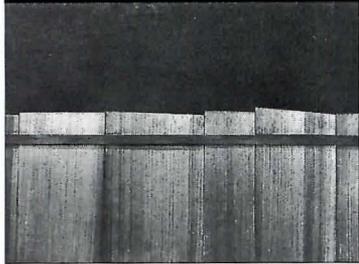
**146. Push-button shading**  
This manufacturer offers a new full-function electrically controlled venetian blind for all its models and sizes of roof windows and skylights. Blinds are eggshell white, supported by four ladder cords to prevent sagging; they adjust to control glare and raise completely for an unimpeded view. Velux-America, Inc., Greenwood, S. C.\*



**147. French-style roof tile**  
A vertically embossed clay roof tile with a geometric design and defined texture, Gran Marseille comes in 20 standard colors, including new shades of patina green and Vermont gray. Field tile is 9- by 14-in., and is said to have exceptional cross-breaking strength and color fastness. Ludowici-Celadon, Inc., New Lexington, Ohio.



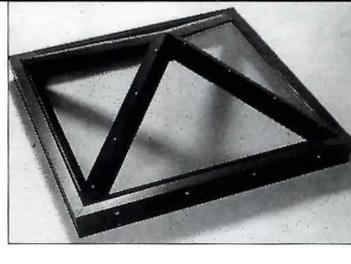
**148. Reinforced mod-bit roofing**  
A roll-roofing cap sheet reinforced with a polyester mat, DynaLastic 180 SBS-rubber and asphalt roofing is said to offer elasticity, tensile strength, better accommodation of thermal stress, and to resist punctures. Surfacing granules come in black, white, and colors. Manville Roofing Systems, Div. of Schuller International, Inc., Denver.\*



**149. Cedar roof panels**  
The Cedar Panel Roof System is an easy-to-install, 40-in. long panel of cedar shakes or shingles designed for steep roofing and mansards. Backed with #30 felt, shingles are mounted on wood nailing and hurricane bars, and come in three different styles. Shakertown, Winlock, Wash.



**150. Sealant for plastics**  
GE is marketing a silicone sealant developed specifically for primerless adhesion to plastics, including Lexan and other polycarbonate sheet products, PVC, and various types of fiberglass. Offered in four colors plus translucent, LexSil SPS2900 will not craze plastic. GE Silicones, Waterford, N. Y.



**151. Pyramid skylight**  
Five sizes of aluminum-framed pyramid skylights come ready to install, completely assembled and glazed with insulated, tinted safety glass. Available in sizes up to 8- by 8-ft, with a 7/12 pitch, units meet all pertinent AAMA and building-code specifications. Skytech Systems, Bloomsburg, Pa.\*



**152. Cedar-look siding**  
A new line, Cedar Lane solid-vinyl siding is said to provide a natural, stained-wood appearance without the maintenance drawbacks of real cedar. Embossed with a random woodgrain, the siding comes in three clapboard profiles and coordinating trims, and accessories such as vents and lighting blocks. Georgia-Pacific Corp., Atlanta.



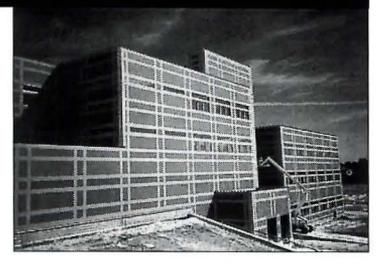
**153. Fire stops**  
Using Firecode penetration-sealing compound with Thermafiber safing insulation is said to offer an economical fire-stop system that blocks smoke, flame, toxic gas, and water to all national building-code standards. Insulation is placed by hand, then the compound is troweled in place over it. United States Gypsum Co., Chicago.\*



**154. Rot-resistant shingles**  
Cedar+Plus CCA natural-cedar shakes and shingles, pressure-treated with an EPA-approved preservative and pesticide, offer a 50-year warranty against fungal decay, even in humid climates. The Clarke Group, Sumas, Wash.



**155. Custom-color roofing**  
This maker's reinforced, heat-weldable thermoplastic sheet can now be specified in computer-matched colors for roofs as small as 5,000 sq ft. Colored membranes add a decorative and functional design element to prominent, visible roofs. Sarnafil, Inc., Canton, Mass.



**156. Panelized tile facade**  
A recent application of the Cygnus wall system by the architectural firm HOK used about 200,000 ceramic tiles, bonded with structural silicone, to build a 170,000-sq-ft facade with reduced radar reflectivity, a requirement of the governmental-agency client. Eastern Exterior Wall Systems, Inc., Lehigh Valley, Pa.

\* Product Data on CAD disk

# 7 • THERMAL & MOISTURE PROTECTION Literature

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on Reader Service Cards.



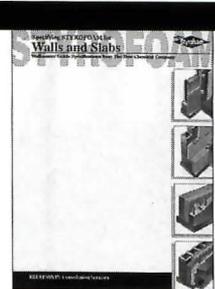
**169. Standing-seam snow guard**  
This non-penetrating snow guard will not compromise the integrity or finish of metal roofs. Traditional in appearance, it clamps to standing seams without restricting thermal movement. The product is available in cast aluminum and bronze; custom colors can be ordered to match prefinished metals. Real-Tool, Inc., Purcellville, Va.



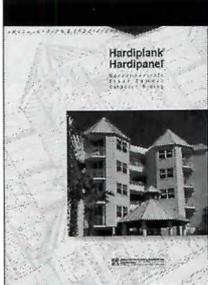
**170. Fire-rated roof decking**  
Flame Break is a new roof decking made of performance-rated plywood or oriented-strand board bonded with a layer of gypsum board that has imbedded glass-mat faces and a silicone-treated core. As a result, the product combines dimensional stability with low flame spread and moisture protection. Georgia-Pacific, Atlanta.



**171. Vinyl siding**  
Vinyl siding, soffit systems, accessories, and finishing trim from CertainTeed are low-maintenance products made from the company's own PVC resin. A comprehensive siding-color system offers a wide selection, and all products are made with solid color throughout. CertainTeed Corp., Vinyl Building Products Group, Valley Forge, Pa.



**172. Foam insulation**  
Styrofoam brand rigid insulation is an extruded polystyrene foam that can be used in residential and commercial walls and slabs. Its dense, closed-cell structure gives the product excellent moisture resistance, thermal performance, and compressive strength. Made with HCFC blowing agents, it is CFC-free. The Dow Chemical Co., Midland, Mich.



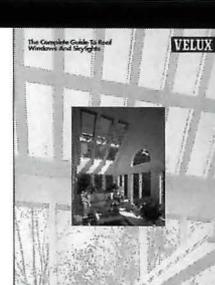
**173. Cement siding**  
Hardiplank and Hardipanel are lap-and vertical-fiber cement siding products that won't rot, are non-combustible, and immune to water damage, salt spray, termites, and, when properly installed, hurricane-force winds. Textures include smooth, wood-grain, and rough-sawn. James Hardie Building Products, Inc., Fontana, Calif.



**174. Metal-roof panel**  
Met-Tile is a metal-roofing panel that imitates the look of tile. At less than 125 lb per square, the product is about one-tenth the weight of most clay tiles. Panels run up to 20 feet in length and provide insulating air space that improves energy efficiency. Vertical application without horizontal laps helps wind resistance. Met-Tile, Inc., Ontario, Calif.



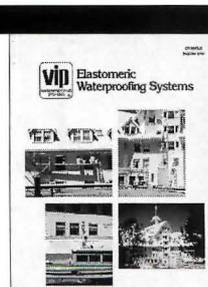
**175. Protective treatments**  
ProSoCo water repellents penetrate deeply to provide long-term protection against damage and staining from water intrusion. Sure Klean Weather Seal products use silane and siloxane technologies to protect vertical masonry surfaces, while Stand Off items protect tiles, pavers, and stone. ProSoCo, Inc., Kansas City, Kansas.\*



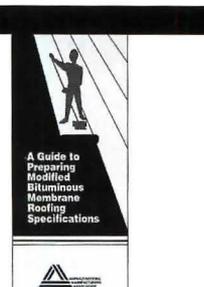
**176. Roof windows and skylights**  
The Complete Guide to Roof Windows and Skylights presents design ideas and applications for the Velux line of products. The guide includes information on installation, choosing the proper models, and finishing techniques, and introduces the new Electric Venetian Blind and Flat Roof Curb. Velux-America, Inc., Greenwood, S. C.\*



**177. Fiber-cement roofing**  
FireFree is a lightweight fiber-cement roofing material for residential and commercial buildings. The product weighs under 400 lb per square and is freeze-thaw resistant so it can be used in all climates. It has a Class A fire rating and comes in three styles: Rustic Shake, Quarry Slate, and Classic Shingle. Re-Con Building Products, Inc., Sumas, Wash.



**178. Elastomeric waterproofing**  
A new brochure from the VIP Division of the Flood Co. provides details on selecting the proper elastomeric waterproofing system. Products offered by VIP combine structural flex with elongation properties to compensate for thermal expansion and contraction, shrinkage, and movement cracks. VIP Division of the Flood Co., Hudson, Ohio.



**179. Modified-bitumen roofing**  
Published by the Asphalt Roofing Manufacturers Association, this guide helps direct readers to materials that can shed new light on the proper design, application, and specification of asphalt roofing enhanced with agents such as polypropylene and synthetic rubber. Asphalt Roofing Manufacturers Association, Rockville, Md.



**180. Fire protection**  
FireMaster fire-protection products are made from inorganic and non-combustible materials and range from wraps, blankets, and boards to putties and mastics. Applications include cable tray/conduit fire protection, construction/safing joint protection, and liners for fire-training facilities. Thermal Ceramics, Augusta, Ga.

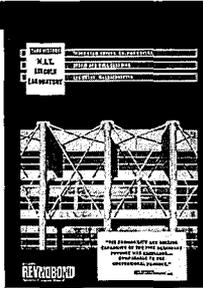
\* Product Data on CAD disk

7 • THERMAL & MOISTURE PROTECTION Literature



**181. Metal-roof retrofit**

A 36-page design manual explains the NuRoof framing system, which supplies slope and a structural base for roofing over a leaking flat roof. Design flexibility is stressed, with a choice of slopes, hips, valleys, gable endwalls, vertical and trapezoidal standing-seam panels. Metal components come in a selection of colors. MBCI, Houston.



**182. Cladding materials**

A series of architectural case studies highlight in-use design, cost, and installation benefits claimed for Reynobond fire-retardant aluminum composite material. Design solutions include ability to match straight runs with multi-step radius corners. Includes as-built photos and detail drawings. Reynolds Metals Co., Richmond, Va.



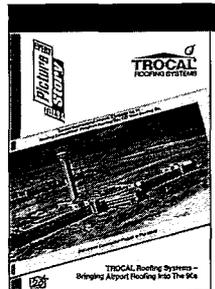
**183. Cedar siding**

A 20-page reference, *Specifying Cedar Siding*, describes and illustrates (with color photos and line drawings) the bevel, tongue-and-groove, channel, and board-and-batten siding products produced by member mills. Includes grade and coverage data, and shows cedar on completed projects. Western Red Cedar Lumber Association, Vancouver, B. C.



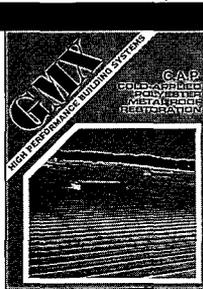
**184. Fire stops for fiber optics**

An eight-page brochure describes fire-stop protection materials designed for fiber-optic cables, including those with PVC and PE jackets and inner ducts. Penetrations and inner duct openings are sealed with fire-resistant materials that expand under heat to seal out flames, smoke, toxic fumes, and water. 3M, Fire Protection, St. Paul, Minn.



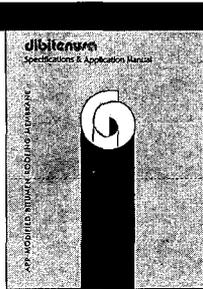
**185. Roofing problem solver**

One of a series, *Bringing Airport Roofing into the '90s* outlines the high-performance, cost-effective advantages attributed to thermoplastic single-ply materials on very large, very visible, projects such as the 1,350,000-sq-ft Denver International Airport. TROCAL Roofing Systems, Piscataway, N. J.



**186. Cold-applied roofing**

The C. A. Cold-applied polyester—system is said to provide cost-effective metal-roof restoration and preservation, sealing, rustproofing, and to improve the appearance of existing metal roofs. The monolithic surface resists UV and reduces under-roof temperatures. GMX, Inc., Cleveland.\*



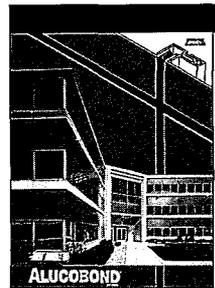
**187. APP-modified bitumen**

A complete, updated specifications and design manual contains 150 pages on the appropriate selection and detailing of all Dibiten USA roofing products, including waterproofing materials. Excellent layout, black and white photos, and two-color details. Dibiten USA, South Gate, Calif.



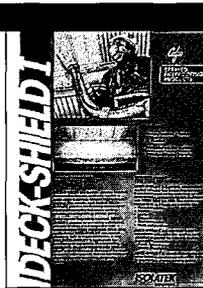
**188. Visible roof project**

An illustrated case history spells out the reasons Paul Steelman Architects specified Bondcote fabric-reinforced NBP membrane for the flat roofs of the enormous MGM Grand Theme Park in Las Vegas: superior UV resistance, no loss of color or thickness over time, and non-curing installation flexibility. BondCote Corp., LaGrange, Ga.\*



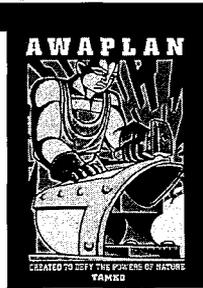
**189. Curvable cladding**

A capabilities brochure covering the long-term (20 year) in-place performance history of Aluobond Material describes the cladding as an economical alternative to brick, marble, granite, and pre-cast materials. New less-expensive attachment systems and new color options are illustrated. A-T-I, Benton, Ky.



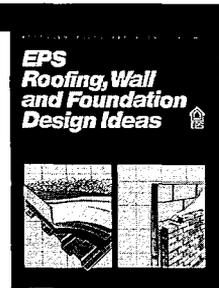
**190. Sprayed fireproofing**

Cafco Deck-Shield I is said to be an abrasion-resistant fireproofing for exposed steel surfaces. Drying to a smooth surface, it can withstand the day-to-day abuse found in mechanical rooms, parking garages, and elevator shafts. Offers FR ratings of up to four hours, and a noise-reduction coefficient of 0.65. Isolatak International, Stanhope, N. J.\*



**191. SBS-modified roll roofing**

A 12-page architectural brochure, illustrated in this maker's strong graphics style, includes "everything you need to know" about Awaplan SBS-modified polyester roll roofing. Interactive software assists in generating CSI-format specifications, drawings, and construction details. TAMKO Asphalt Products, Joplin, Mo.\*



**192. Assured R values**

An overview of expanded polystyrene insulation gives product characteristics and illustrates specific uses—on wood or metal decks, sub-slab insulation, exterior sheathing—with line drawings. Explains the long-term, consistent thermal performance backed by the Accu-R quality-assurance program. Society of the Plastics Industry, Tampa.

\* Product Data on CAD disk

For more information,  
write item numbers  
on Reader Service Cards.



**193. Fiber-cement slate**  
Said to be the only manufactured slate with an unpainted, quarried-slate finish, SupraSlate II comes in Bangor black, Pennsylvania gray, Vermont green, Rutland red, and Granville purple. Data sheet illustrates all colors and edge treatment; lists freeze-thaw, UL, and other test data. Supradur, Rye, N. Y.



**194. Skylights**  
This maker's complete line of skylights and roof windows is covered in a new, full-color architectural specification catalog. Details, installation suggestions, and dimensional data given for all models; also highlights accessories such as pleated shades, motorization, and telescoping poles. Thermo-Vu Sunlite Industries, Edgewood, N. Y.



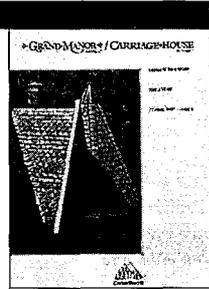
**195. Intumescent firestops**  
Silicone Pensil firestop systems are said to be designed to simplify specification, installation, and inspection procedures in a number of applications, including three-hour, UL-classified floor and wall voids and penetrations. Technical guide details use of Pensil sealants, foams, and intumescent putty. GE Silicones, Waterford, N. Y.



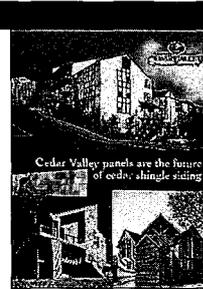
**196. Multi-ply vapor barriers**  
A laminate of high-density polyethylene and nylon yarn, Griffolyn sheets perform as vapor barriers under slabs and roof decks and in cold-storage facilities, and reduce heat transfer through wall and ceilings to lower interior humidity and prevent in-wall condensation. Puncture-resistant; tape sealable. Griffolyn, Reef Industries, Inc., Houston.



**197. EIFS restoration**  
A four-page brochure describes Dryvit's new Care and Restoration of Exteriors (C.A.R.E.) program designed for buildings clad with EIFS. It suggests fast and economical options for those buildings that could use new design elements, protective coatings, renewed color, or other preventative maintenance. Dryvit Systems, Inc., West Warwick, R. I.\*



**198. Customized shingle roofs**  
Residential-roofing guide illustrates some custom roof designs possible with combination applications of Grand Manor and Carriage House slate- and shake-look asphalt shingles. Old-time patterns include mid-roof fish-scale and beaver-tail patterns, zigzags, and graphics. CertainTeed Corp., Valley Forge, Pa.



**199. Panelized cedar shingles**  
Portfolio of light-commercial and residential projects explains how the panel concept makes the best, most economical, and least wasteful use of natural cedar shingles. An interleaved fiberglass-reinforced asphaltic moisture barrier and interlocking end joints improve sidings' performance and appearance. Cedar Valley Shingle Systems, Hollister, Calif.



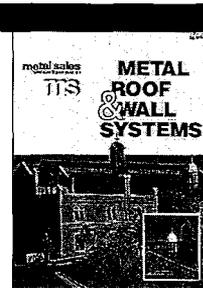
**200. Copper-roofing system**  
Revere, trying to reduce the perceived complexity of roofing with copper and lower and stabilize material costs, developed a system of solid-copper shingle panels and concealed joint pans. A four-page brochure highlights system components and ease of installation. Revere Copper Products, Inc., Rome, N. Y.



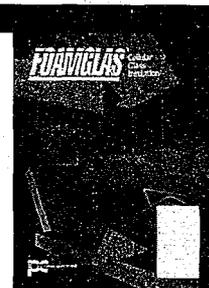
**201. Roofing insulations**  
A brand-new, 40-page catalog features product data and photos, fastening patterns, and application specs for isocyanurate-composite and perlite-based insulation products, in board and other forms, for built-up, modified-bitumen, and single-ply roof systems. Manville Roofing Systems, A Div. of Schuller International, Inc., Denver.\*



**202. FRP rain gutters**  
The Resolite gutter and downspout system resists attack from corrosive material washed off roof surfaces, even in severe building environments such as smelters or pulp mills. Molded gutter and downspout sections snap together; gray, beige, or white colors standard. Custom colors on volume orders. Resolite, A United Dominion Co., Zelenople, Pa.



**203. Metal roof systems**  
Building components—siding, standing-seam and architectural roof panels—are available in 17 different profiles, several gauge and pretreatment options, and nine standard colors. Design catalog from this 30-year-old firm illustrates them all, and lists manufacturing locations. Metal Sales Manufacturing Corp., Louisville, Ky.

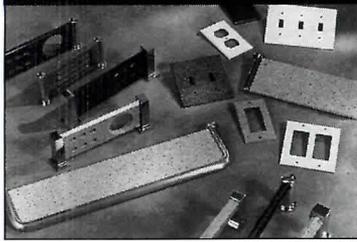


**204. Cellular-glass insulation**  
Its all-glass, closed-cell composition is said to make Foamglas the only insulation available that is impermeable to moisture in liquid or vapor form. A 20-page catalog documents the very-long-term, consistent performance claimed for the non-combustible board product. Pittsburgh Corning Corp., Pittsburgh.

\*Product Data on CAD disk

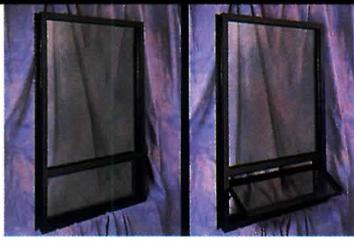
## 8 • DOORS & WINDOWS Products

For more information,  
write item numbers  
on Reader Service Cards.



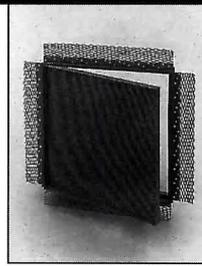
### 217. Bath accessories

The ARIA line of towel bars, soap dishes, shelves, switch plates, robe hooks, paper dispensers, toothbrush holders, and shower caddies is made of Corian with solid-brass trim and reinforcement. There is a wide selection of finishes. The company also makes Corian shower bases. Colonial Bronze Co., Torrington, Conn.



### 218. Thin-trim window vents

Billed as a "concealed vent," the operable exterior-opening lower panel has minimal visible trim. The metal GLASSvent opens on four-bar hinges, has sturdy locking hardware, and is compatible with thermal-framing lines. Panels pass certified tests for water and air penetration, as well as structure and U value. Kawneer Co., Norcross, Ga.



### 219. Access panels

New fire-rated models from this manufacturer accommodate edge conditions for two different wall finishes. The FDPW has plaster-stop flanges and the FDWB has a drywall bead. Model CP (photo) is a recessed panel with metal lath for plaster ceilings. J. L. Industries, Bloomington, Minn.



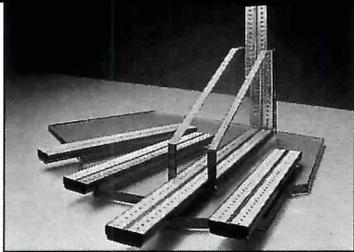
### 220. Art-glass panels

Renato Toso and Noti Massari have created two glass designs. One relies on the colorless transparency of the material and contains designs "traced in air" (photo). The other is Murano glass patterned with red, blue, and gray "ancient signs." Both are said to be suitable for skylights and doors, and wood or metal frames. Lecos USA, Inc., Edison, N. J.



### 221. Swiveling TV bracket

Heavy-duty performance in relation to a modest size are said to be major features. The load capacity is 180 lb. The extension is 14 in. Bracket holds set up to 32 in. diagonal measure. A 16-in. mounting plate and unit-support brackets are designed to eliminate rocking. Comes in black or zinc-plate finish. Accuride, Santa Fe Springs, Calif.



### 222. Thermal-glass spacer

Said to be more effective at sealing out moisture and air penetration than conventional aluminum and carbon-steel spacers, the SST model is made of laser-welded light-gauge stainless steel to resist corrosion. The spacer is corrugated for structural performance and novel appearance, and is lap-welded for rigidity. Allmetal, Inc. Itasca, Ill.



### 223. Seven-ply FR door

A three-ply "skin" has a 1/50-in. face veneer over a particleboard core, and is said to accept stains uniformly. Factory staining is available. Industrial-grade hardboard is another option. The SP model has a 20-minute fire rating. Weyerhaeuser Co., Marshfield, Wis.



### 224. Insulated divided lights

Each light is a separate double-glazed unit in this manufacturer's Williamsburg line. Advantages over lines in which wood dividers are attached to the face of one insulated-glass unit are said to be: reduced chance of stress and lower replacement costs. Dividers are 7/8-in. wide. Weather Shield, Inc., Medford, Wis.\*



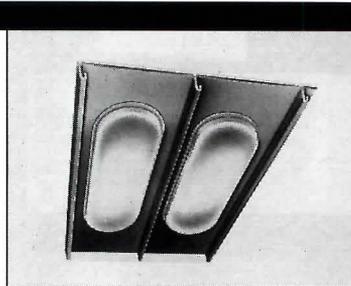
### 225. Folding glazed units

Offering a 92-percent free opening in folded-back position, this system can be used for doors, windows, and full walls. Flush-bolt locking and screens to cover the full opening are included. Glass is insulated, tempered, and tinted bronze. Aluminum frames are available in white or bronze finish and 14 standard sizes. Skytech Systems, Bloomsburg, Pa.



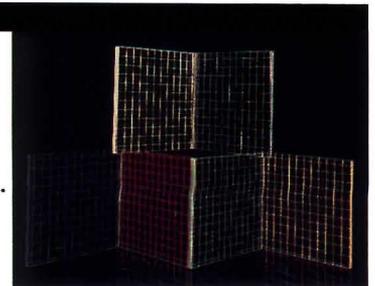
### 226. Vinyl windows

Intended for domestic use, these solid-vinyl window and door units are said to never rot, peel, crack, rust, scratch, dent, or stain. Configurations include standard bay windows, small bay windows for use in such locations as over kitchen sinks, tilt-in windows, and sliding doors. Louisiana-Pacific Corp., Portland, Ore.



### 227. Metal-roof skylights

Insulated vacuum-formed domes are designed to be installed between standing-seam panels 16 in. wide. The company's installers cut panels to accept 11- by 48-in. Sealrite light-transmitting units, which are factory-sealed to the metal; unit is supplied as a roofing panel. Sequentia, Strongsville, Ohio.



### 228. Colored wire glass

"Georgian" colored laminated clear-float wire safety glass is offered in red, blue, white, black, brown, green, and yellow. Wire is electronically welded mild steel. Thickness is 1/4-in. Standard size is 62-in. by 106 19/64-in. Other sizes available. FDI Glass Corp., Fairfax, Va.

\* Product Data on CAD disk

**229. Key-in-lever lockset**

The Survivor, a grade 1 cylindrical lockset with an exclusive clutch-action locking mechanism, reduces damage when locked because non-rigid outside lever turns without opening latch. Automatically adjustable for door thicknesses from 1 5/8- to 1 7/8-in. without use of spacer plates. Marks Hardware, Inc., Amityville,

**230. Non-reflecting glass**

Amiran, the first non-reflective window glass, was developed through a special dipping process that coats both sides of the glass with a thin transparent skin. Reduces reflections from 8 percent to less than 1 percent, and cuts lighting costs and fading. Suitable for showrooms, shops, and restaurants. Schott Corp., Yonkers, N. Y.

**231. Starck lever handle**

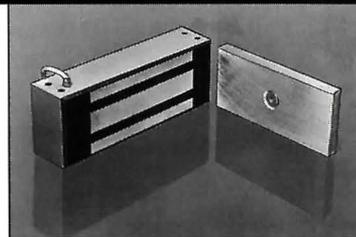
From FSB in Germany, the PSI Series polished-lever door handle designed by Philippe Starck echoes the shape of its circular, matte-silver backplate. Asymmetric forms indicate what the designs do and how. It can be furnished with passage, privacy, and entry lock and latch sets. FSB For The Ironmonger, Inc., Chicago.

**232. Laminated glass**

Colored- or clear-textured glass laminated on large tempered or safety-glass surfaces produces a cost-effective way of creating shatterproof architectural glass with a full range of patterns and textures. Can be applied to any thickness of float glass. Palmer-Pohlmann Studio, Inc., Atlanta.

**233. Warp-resistant French door**

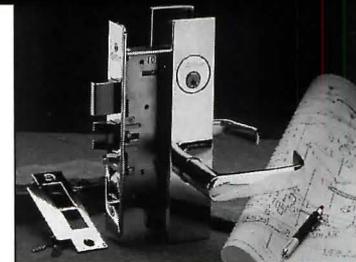
A new French door can be hinged in a wide variety of configurations. Wood stile has innovative, fiber-reinforced core that is said to eliminate warpage and be three times as strong as wood. Does not react to moisture or temperature change. Meets NWWDA Grade 60 Commercial performance standards. Marvin Windows & Doors, Warroad, Minn.\*

**234. Electromagnetic lock**

The Adams Rite magnet Series 1200, a high-security lock with 1,200 lb. of holding force, has options that include face-mounting for inswing doors, monitoring, surface wiring, and indicator lights. Internal electronic circuits designed to provide instant release and avoid residual magnetism. Adams Rite Manufacturing Co., City of Industry, Calif.

**235. Solar-control glass**

California Series laminated glass consists of a thin wavelength-selective Heat Mirror XIR coated film sandwiched between PVB and glass. Reduces solar load by 30 to 40 percent while reflecting heat outside of building. Offers high light transmission and low visible reflectivity. Wide palette of colors. Southwall Technologies, Inc., Palo Alto, Calif.

**236. Mortise locksets**

The ML2200 and ML2200HS Series, two newly configured mortise locksets, feature chrome-plated lockcases, stainless-steel anti-friction latch inserts, and stainless-steel stops. Many cylinder options offered including master ring. Institution- and classroom-function deadlocks available. Corbin Russwin Architectural Hardware, Berlin, Conn.

**237. Curved glass**

Specialized curved and angle-bent glass sheets are fabricated by manufacturer for custom-designed or assembly-line architectural glass and manufacturers' display cases. Large-scale shapes can be made in laminated, tempered, insulated, reflective, and tinted glass as well as standard glass. Dlubak Corp., Freeport, Pa.

**238. Thermal glass**

InSol-Edge technology increases inside-glass temperature along window edges and overall insulating performance. Combines the strength of two galvanized-steel spacers separated by low-density, moisture-resistant foam. Flow of cold and heat is practically eliminated and condensation significantly reduced. Hurd Millwork Co., Inc., Medford, Wis.\*

**239. Gliding garage door**

The Quiet-Glide raised-panel, 2-in. sectional garage door features CFC-free molded polystyrene panels to provide extra-quiet operation. Polystyrene backer and dovetail design add strength and durability. Available with windows and trim and in all sizes except 12- and 14-ft widths. Stanley Door Systems, Troy, Mich.

**240. Lever lock**

Schlage Lock Company's ADA-compliant S-Series Saturn keyed lever is a light- to medium-duty commercial lock. Used in lower trafficked commercial areas such as interior offices, medical centers, stores/shops, and bathrooms, and heavy-duty residential and multifamily houses. Schlage Lock Co., San Francisco.

\* Product Data on CAD disk

For more information, write item numbers on Reader Service Cards.



**241. Residential entrance**  
Suggested as appropriate for several architectural home styles, the Venetia fir or hemlock door features decorative lights with beveled glass set like a mosaic in brass coming. Doors come in 3-ft and 42-in. widths, up to 8-ft high; matching sidelights are an option. Simpson Door Co., McCleary, Wash.



**242. Rated veneered grillwork**  
Fire doors with veneer-wrapped grills now qualify for 20- through 90-minute labels, allowing architects to specify a French door style or a divided-light insert while meeting occupancy-code requirements. Door bead and grillwork can be provided in all available foreign and domestic veneers. Eggers Industries, Appleton, Wis.



**243. Architectural glass**  
Truly monumental installations (entrance pictured is 10- by 17-ft) can be created with blown, cast, beveled, and stained glass fabricated in wood and/or metal structures. Custom glass panels become site-specific skylights, domes, window walls, and entries. Jurs Architectural Glass, Oakland, Calif.



**244. Vinyl-framed windows**  
A new product from a maker of commercial and residential aluminum windows, Aurora windows and patio doors are made with multi-chambered vinyl extrusions in bright white or almond. UV-stabilized vinyl is said to offer superior energy efficiency and long-term, low-maintenance performance. Acorn Window Systems, Inc., Detroit.



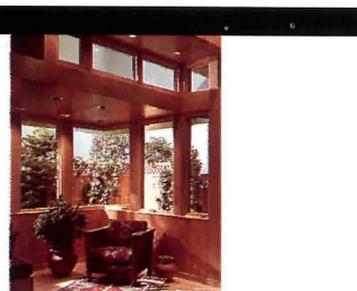
**245. French door**  
The Marquis insulated entrance features thinner muntins and bars that coordinate with popular window-glazing styles, and wider, 4 3/4-in. stiles that will accept most decorative hardware and locksets. Door comes in pine, oak, and fir, as well as one-, 10-, and 15-light designs. Nicolai Doors, Oshkosh, Wis.



**246. ICU sliders**  
Described as easy to install and maintain, RotoSwing manual (non-automatic) sliding and swing doors come in two-, three-, and four-leaf models that offer immediate access to patients in intensive- and critical-care hospital units. Can be installed without a floor track; wide range of finish options. RotoSwing Division, EFCO Corp., Monett, Mo.\*



**247. Clad-wood French door**  
Made with an extruded-aluminum exterior, new French doors have natural, vertical-grain Douglas fir on the inside. Metal may be finished in white, sand, or dark bronze; wood interior surfaces may be stained or painted. Line offers several grid, hardware, and energy-saving glazing options. Milgard Manufacturing, Inc., Tacoma, Wash.\*



**248. Mullionless corner window**  
The CornerView unit, made of clear pine on the interior and with an aluminum exterior in any standard or custom EnduraClad color, miters two lights of clear glass to create a totally unimpeded view. Units may be stacked two high; three sizes, up to 5-ft 5-in. high. Pella Corporation, Pella, Iowa.\*



**249. Tamper-resistant closer**  
HS 83-series surface closers provide vandal- and tamper-resistance for openings that must meet accessibility codes yet be secure against deliberate damage. An adjustable spring-power range lets the closer meet both interior and exterior-door opening-force requirements. The Dorma Group, Reamstown, Pa.



**250. Art Glass panels**  
A decorative option for new or existing Andersen windows, maple-trimmed Art Glass panels in over 100 shapes include elements such as clear antiqued glass, semi-privacy lights, and colorful stained glass in Art Deco, Victorian, contemporary, Tudor, and other motifs. Andersen Windows, Inc., Bayport, Minn.\*



**251. Panic entrance**  
A new concealed, vertical-rod exit device, VIP II has a slim appearance with narrow sightlines and hidden fasteners. Available for narrow-, medium-, and wide-stile entrances, the device is rated for use in schools, hospitals, and other high-traffic applications; touch bar has a non-slip linear-tread pattern. Vistawall Architectural Products, Terrell, Tex.



**252. Warning surface**  
Metal and rubber Traction Tread modules can be secured onto a variety of walking surfaces, or embedded in concrete as illustrated, to provide detectable warnings for the visually handicapped at the top of stair runs, escalators, and other locations specified under ADA 4.29.2 criteria. Zero International, Inc., Bronx, N. Y.\*

\* Product Data on CAD disk

# WE WERE LOOKING FOR A WINDOW COMPANY THAT WOULD HELP THE GOVERNMENT RESIST LEAKS AND INFILTRATION.



General Services Administration Building, Oakland, CA. Architect: Kaplan, McLaughlin & Diaz. General Contractor: Walsh Construction Co. Products: Custom 5600 Curtain Wall, Series D-500 Entrance, Series 2000 Sliding Glass Doors, Custom Series 890 Equa-Vu™ and System II™ Windows.

*The GSA contract called for random testing to verify the air infiltration and water resistance specifications of the building's glazing systems.*

*The curtain wall, storefront, doors, and windows all had to perform to spec or they would be rejected.*

*We wanted to work with a manufacturer that could give us the kind of products and performance we needed to keep the job moving on time and on budget.*

*We awarded the job to EFCO.*



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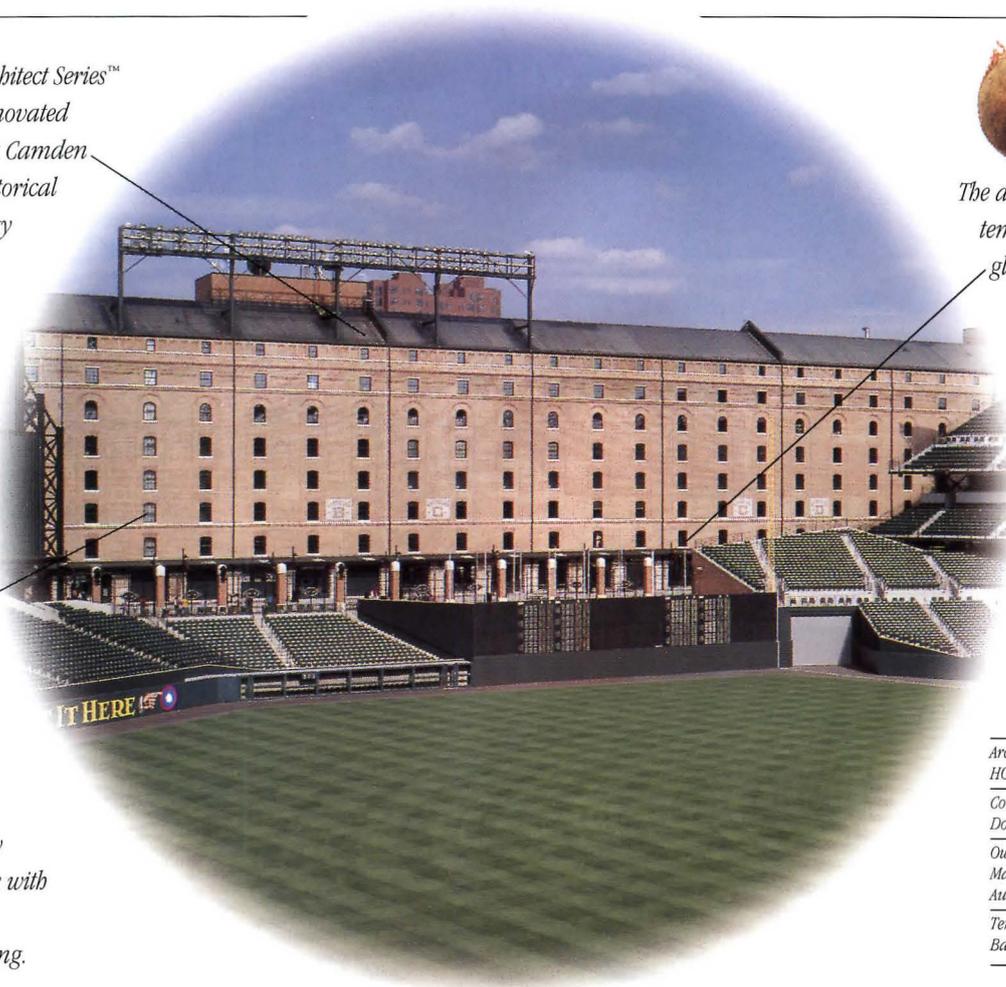
# 817 hits. No errors.

The 817 Pella® Architect Series™ windows in the renovated B&O Warehouse at Camden Yards combine historical authenticity, energy efficiency and low maintenance.

The architect specified tempered safety glass for windows within range of Baltimore Oriole bats.



Only Pella could provide historically authentic windows with low-maintenance aluminum cladding.



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HOK Sports Facilities Group  
Contractor:  
Donohoe Construction  
Owner:  
Maryland Stadium Authority  
Tenant:  
Baltimore Orioles

“We felt very strongly that the replacement windows should have the appearance of true divided light on both the exterior and interior,” explains Janet Marie Smith, Vice President of Planning and Development for the Baltimore Orioles. “We were delighted to find a window from Pella that would give us the authentic look, the energy efficiency and the low maintenance we wanted, at a competitive price.” Let the Pella Commercial Division provide innovative solutions (and architectural support services) for your window challenges. Contact your Pella Commercial Specialist.

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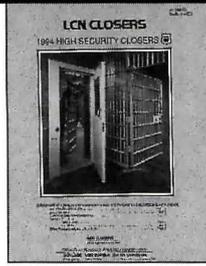


For more information,  
write item numbers  
on Reader Service Cards.



### 253. Protective doors

Exterior and interior rolling doors and grilles are covered in a 24-page color brochure. The galvanized-steel and aluminum doors provide security and protection from the elements. Options include fire-proofing, motorized operation, a baked-enamel finish, and automatic closing in the event of fire. Cornell Iron Works, Mountaintop, Pa.



### 254. Door closers

A user-friendly closer designed to reduce the force required to open a door by 75 percent is one of the products described in LCN's eight-page brochure. Other items include electrical closing devices that function in tandem with existing alarm systems. Drawings detail various construction and mounting options. LCN Closers, Princeton, Ill.



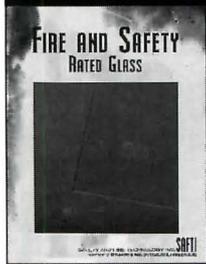
### 255. Window dressing

Soleil hurricane-resistant, roll-down shutters offer both automatic and manual louvering, can be lacquered to specification, and are constructed of either Burmese teak, Honduran mahogany, or aluminium. In a six-page brochure, color photos show the shutters in place. Schematic drawings and plans also provided. Soleil Shutters, Inc., Riverdale, N. Y.



### 256. Translucent insulating glass

A detail of the skylight in Camberly Town Centre, Surrey, opens the trilingual, 16-page brochure by Okalux. Color photos show the light-diffusing insulating glass used in both new buildings and restorations. Cross-sections detail the capillary-slab design. A chart provides data on light transmission and deflection. Schott Corp., Yonkers, N. Y.



### 257. Fire-resistant glass

Photos, drawings, and specs of two types of labeled glazing are included in an eight-page color booklet. Contraflam consists of a polymer gel between two sheets of glass, and can have a 90-minute glazed-wall rating. Pyrowiss is a single sheet tempered to withstand the heat of a fire. SAFTI, Div. of O'Keeffe's, Inc., San Francisco.



### 258. Windows and doors of vinyl

Schematic drawings and cross-section photos detail the construction and applications of Rehau windows and doors in an eight-page catalog. The vinyl composition is impact- and weather-resistant. Products are available in many shapes and colors. An optional roller-shutter system is designed to provide additional security. Rehau, Inc., Leesburg, Va.



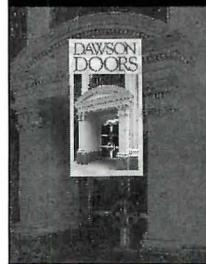
### 259. Three-panel sliding door

The compact, microprocessor-driven motor in the Dura-Glide Telescoping Sliding Door makes small openings wider, and the synchronized panels start and stop simultaneously. Powered or manual operation. Security glazing and approach sensor are standard. Photos and additional details in a color flier. Stanley Works, Farmington, Conn.\*



### 260. The inner life of glass

Transparent? Opaque? You decide with Priva-lite. With the flip of a switch an inner layer of Taliq Liquid Crystal Film is rearranged, making frosted glass completely see-through. Before and after photos illustrate the dual nature of Priva-lite glass. Frost-ones include neutral, bronze, and gray. St. Roch Euroglass, White Plains, N. Y.



### 261. Metal doors

A color Dawson portfolio showcases custom doors installed in actual projects. Pre-engineered doors and frames are also available. Single-piece manufacturing. No surface welding. Norcore polycarbonite honeycomb core. Steel combination gravel-stop and fascia available on all doors. Optional steel thresholds. Dawson Doors, Jamestown, N. Y.



### 262. Architectural hardware

Color catalog offers several models of doorpulls and shower-door hinges constructed of aluminium, steel, brass, or bronze. Spherical and T-shaped pulls available, as well as standard and custom designs. Polished-metal hinges join wall to glass and glass to glass. Scale drawings accompany each product. Hiawatha, Inc., Bloomington, Minn.



### 263. Locks

In a four-color, four-page brochure, Arrow describes its light-, medium-, and high-traffic cylindrical locks. Steel, brass, and alloy construction. H-series and M-series feature interchangeable and custom keying. All locks ADA compliant. Photos and scaled diagrams of each 139 series. Arrow Lock, Brooklyn, N. Y.



### 264. Laminated glass

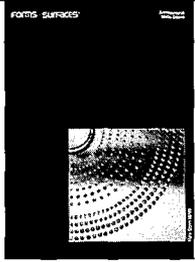
Globe Amerada's 16-page booklet includes photos of the laminated safety-glass installed in Chicago's new Comiskey Park. Glass interlayers with polyvinyl butyral are bonded under heat in autoclaves. Performance data, construction specifications, applications, and examples in color. Globe Amerada Glass Co., Elk Grove Village, Ill.

\* Product Data on CAD disk

For more information, write item numbers on Reader Service Cards.



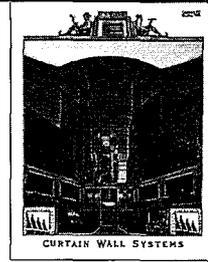
**265. Special windows**  
A 12-page capabilities brochure describes expertise developed since 1906 making complex metal-framed windows for churches and other prominent structures. Aluminum-framed windows can be produced in virtually any shape or size, including designs that match historical fenestration with pivoted ventilators. J. Sussman, Inc., Jamaica, N. Y.



**266. Metal-faced doors**  
A colorful brochure illustrates dozens of doors made of embossed metal over a solid-wood core. Some have dots and stripes in striking, one-of-a-kind patterns; other styles juxtapose different metals in five standard—or any custom—design. Forms+Surfaces, Inc., Santa Barbara, Calif.



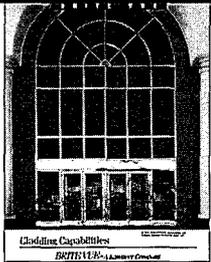
**267. Security glazing**  
Glass laminated with Saflex PVB interlayer can meet the specific levels of security and storm-resistance required by most high-value architectural applications, such as museums, embassy facilities, banks, and stores. Spec binder and CAD software reference complete design, load, and testing parameters. Monsanto Co., St. Louis.\*



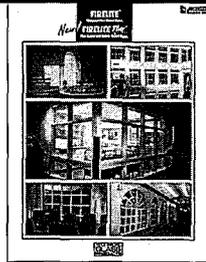
**268. Curtain-wall design**  
A color portfolio illustrates recent high-rise office and institutional projects incorporating stick, butt-glazed, slope-glazed, and I-beam curtain-wall designs in custom colors and styles that integrate with the manufacturer's storefronts and entrances. EFCO Corp., Monett, Mo.\*



**269. Solid-brass locksets**  
Omnia's 12-page catalog covers six distinct hardware styles, all offered across a range of entrance, interior, and passage configurations that allow a design theme to be carried throughout the home. The 2 1/2-in. backset mortise locks are built for high traffic and security requirements. Omnia Industries, Inc., Cedar Grove, N. J.



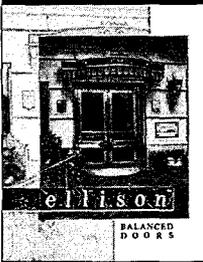
**270. Custom-cladding services**  
When a project calls for the lustre of polished brass, the sparkle of stainless steel, or the richness of bronze, Brite Vue has the capability of cladding aluminum curtain walls, framing, or entrance systems with these metals. A catalog page describes these and other specialty metal services. Kawneer Co., Inc., Norcross, Ga.



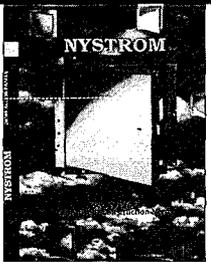
**271. Fire-rated glass**  
An architectural catalog provides technical, dimensional, and code information on two labeled glazing products: FireLite wireless glass-ceramic, a 60-minute vision light, and laminated FireLite Plus, an impact-resistant, safety-rated version. Both configurations fit standard fire-rated frames. Technical Glass Products, Kirkland, Wash.



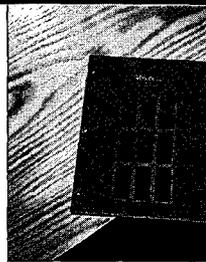
**272. Six-panel door system**  
The Nana bi-folding French-door assembly is a series of glazed panels that can span openings as wide as 18 ft 5 in., expanding indoor/outdoor space in homes, shops, and restaurants. An eight-page brochure illustrates panel, hardware, and glazing options, showing the wall as installed. Nana Windows & Doors, Inc., Mill Valley, Calif.



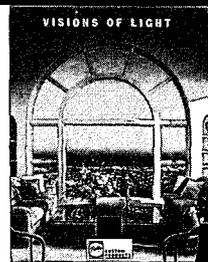
**273. Balanced doors**  
It is spring pressure which slows the swing-back of a balanced door. A new 16-page catalog previews a line of balanced doors made of stainless steel, bronze, extruded aluminium, or tempered glass that are ADA-compliant without powered operation. Color photos of each door type, specs, and mechanical details included. Ellison Bronze, Falconer, N. Y.



**274. Panels for access**  
Four types of access panels are featured in an eight-page brochure from Nystrom: fire-rated, flush, recessed, and security. Each is made from commercial-grade cold-rolled steel, but can vary in the gauge of steel used. Every panel offered in a range of sizes; custom modification available. Nystrom, Minneapolis.\*

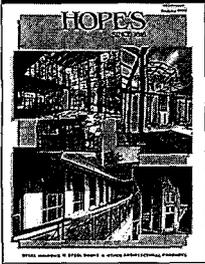


**275. Architectural doors**  
Solid-core, hollow-core, fire-rated, and lead-lined doors, each useful in a variety of commercial and institutional applications, are drawn and described in a four-page catalog. Choice of six veneers. Beveled and squared vision panels. Custom colors and finishes available. Vancouver Door, Inc., Puyallup, Wash.



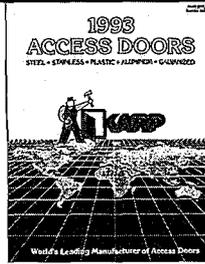
**276. Picture windows**  
Custom windows in a variety of configurations fill an architectural brochure. Fixed and casement units and corner windows without obstructing supports are suggested for new construction and retrofit. Insulating glass, aluminum exterior cladding, and custom woods are optional. Approved by preservation groups. Pella Corp., Pella, Iowa.\*

\* Product Data on CAD disk



**277. Steel windows**

This manufacturer's 1994 catalog has 12 pages on windows and glazed-door assemblies made of hot-rolled or formed steel, illustrating architectural applications, design features, and thermal performance. Steel frames can accept large IG units without increasing sight lines. Hope's Architectural Products, Inc., Jamestown, N. Y.



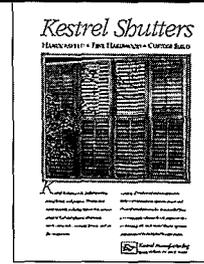
**278. Access doors**

An 18-page catalog illustrates access doors and panels for all types of walls and ceilings. Standard configurations and mountings—recessed, flush, and surface-mounted—are offered for all occupancies; a custom-door division accommodates special metal, hinging, or wall-opening requirements. Karp Associates, Inc., Maspeth, N. Y.



**279. Automatic windows**

Motorized windows can be specified as part of a total home-automation system that controls security, temperature, lighting, and appliances. Temperature, moisture, or carbon-dioxide monitors can signal windows to open or close. Ideal for physically limited users and remote openings. Marvin Windows & Doors, Warroad, Minn.\*



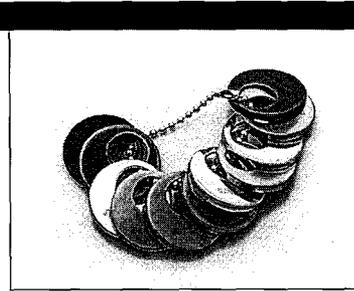
**280. Shutters**

Available made-to-order and in knocked-down kit form, hardwood window shutters are made using blind-pocket mortise-and-tenon construction and solid-brass fasteners and hinges. Can be specified in woods for interior or exterior, as fully operable louvers or a solid-panel style. Kestrel Manufacturing, Elverson, Pa.



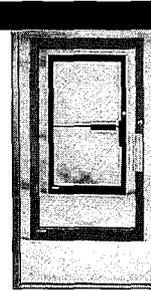
**281. Composite window**

Orion residential windows are made of Composit C/G, an especially heat-resistant thermoplastic developed by GE Plastics. White, tan, and dark-brown extruded frames are colorfast, thermally-efficient, and meet or exceed all pertinent AAMA and ASTM standards. Complast, Inc., Minneapolis.



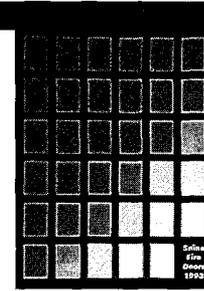
**282. Hardware finishes**

Available from Schlage to help architects specifying locksets and other door hardware, a finish sampling ring holds 11 standard metal-color options, such as simulated 613 bronze, bright brass, satin brass (blackened), bright, satin, and oil-rubbed bronze, and bright chrome. Schlage Lock Co., San Francisco.



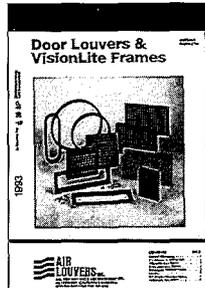
**283. Aluminum entrances**

Standard and special-use doors and entrance systems are detailed in a 12-page architectural catalog. Included are glazed-panel and flush doors, bi-fold units for wide openings, and narrow-, medium-, and wide-stile doors that replicate the look of vintage apartment buildings. REBCO, Inc., Paterson, N. J.



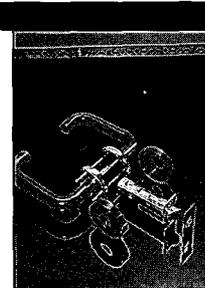
**284. Fire-door operators**

Listed and labeled operators for sliding fire doors have a battery backup for closing and emergency egress; no closing weights, reels, cables, or disconnects are required. Brochure explains how the easy-to-test devices install on new or existing doors subject to everyday use. Saino Manufacturing Co., Memphis, Tenn.



**285. Door options**

A brochure gives dimensional data and frame details for all of this maker's ventilating door louvers and VisionLite glazing frames, which can come with listed wire glass. Louvers can be fixed or adjustable; a spring-loaded, fusible-link-activated model achieves a 1 1/2-hr rating in both hollow-metal and composite fire doors. Air Louvers, Inc., Pico Rivera, Calif.



**286. Lever-handle hardware**

Constructed of sanitary, warm-to-the-touch nylon over stainless-steel and brass components, HEWI door hardware, accessories, knobs, pulls, hooks, and rail systems are presented in a complete 16-page catalog. All 13 color choices are illustrated. HEWI, Inc., Lancaster, Pa.



**287. Architectural hardware**

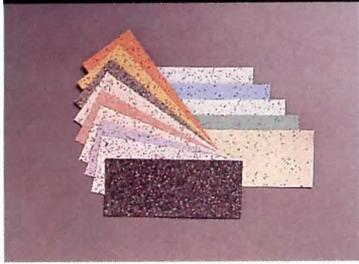
Apparently for the first time, all of this manufacturer's hardware—locksets, exit devices, door closers, and key systems—are presented in a single, 100-page-plus, catalog. The redesigned format highlights all handicap-code-compliant products. Corbin Russwin Architectural Hardware, Berlin, Conn.



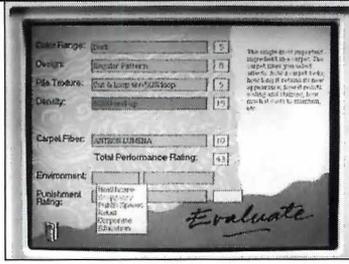
**288. Heavy-duty hinges**

An illustrated brochure offers detailed specification guidance for a full line of high-performance door-hinge systems, including the Unigear continuous hinge, the high-traffic Unipin hinge, and cam-lift hinges for sound-rated doors. Zero International, Bronx, N. Y.

\* Product Data on CAD disk



**289. Non-toxic wall finish**  
Acrylic-latex multicolor finishing system offers the durability of alkyd colors but, as a water-based decorative finish, avoids the odor and VOC emissions of oil-based products. System dries in a half hour and resists dirt, fingerprints, and mildew, according to manufacturer. California Products Corp., Cambridge, Mass.



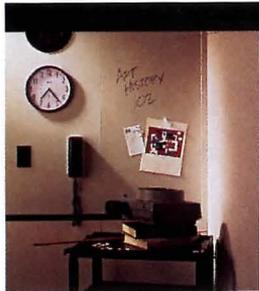
**290. Software evaluates carpets**  
Known as Carpet Mentor, software runs under Microsoft Windows and allows architects to develop accurate fiber-specific carpet specs that take into account carpet construction, design, and yarn type, as well as carpet's intended use, exposure, traffic, and other environmental factors. DuPont Co., Wilmington, Del.\*



**291. High-traffic coating**  
Decocoat X is designed for high-traffic exterior and interior surfaces. Product combines multicolored aggregate beads in an acrylic binder for a virtually indestructible finish, says manufacturer. Related design kit allows specifier to create custom colors. Color combinations are limited only by the 14 colored beads. Sto Industries, Atlanta.\*



**292. Tile warns sight-impaired**  
Warning tile alerts visually impaired of an approaching hazard such as pools or vehicular-traffic areas. Resilient tile is part of manufacturer's system of tiles, treads, risers, and stringers, and comes in eight colors. Tile meets appropriate ADA requirements and ANSI standards, according to manufacturer. Flexco, Chamblee, Ga.\*



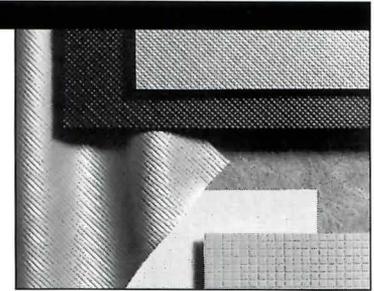
**293. Classroom wall**  
The Learning Wall is simply reconfigured to fit changed classroom sizes demanded, for example, by computer integration, relocating lab stations, or adding ADA-compliant facilities. System consists of gypsum wall panels and door frames, along with interchangeable support studs and finish trim. USG Interiors, Inc., Chicago.\*



**294. Detectable warning tile**  
Warning tile for the sight-impaired is said to meet all physical property requirements of ADA and ANSI A-137.1. Impervious, frost-resistant tile comes in 2 1/16-in. square sizes and is available in black, white, and daffodil. Dal-Tile Corp., Dallas.



**295. High-NRC panels**  
A 3/8-in. thick 2-ply fiberglass-core acoustical panel system delivers high NRC values, and absorbs impact without destroying effectiveness. Available in 4- by 8-, 4- by 9-, and 4- by 10-ft standard panels (plus custom sizes), panels are installed with a V-joint reveal or coordinated moldings. Construction Specialties, Inc., Cranford, N.J.



**296. Embossed wallcoverings**  
Collection of Type II vinyl wallcoverings offers architectural embossings and innovative printing. Known as Counterpart/3, product comes in nine patterns, in a broad selection of colors and textures. Suitable for healthcare, and institutions, as well as commercial, retail, and hospitality uses. Maharam, New York City.



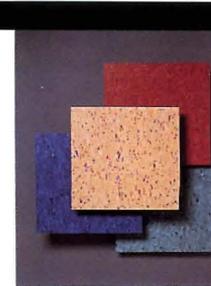
**297. Bulgarian limestone**  
Flooring is made from a mixture of three Bulgarian stones to provide a veiny appearance in a beige/cream color range. Blue English and French stones also available. Colors make possible checkerboard patterns. Floor can be laid indoors or out. Paris Ceramics, New York City.



**298. Vinyl tile in 18 colors**  
New colors in manufacturer's Standard Excelon Imperial Texture vinyl-composition-tile series include six off-white colors with high light reflectivity. Suitable for healthcare, retail, and educational uses, tile offers a textured look based on tone-on-tone grained visual elements. Armstrong World Industries, Inc., Lancaster, Pa.



**299. Security wall panel**  
Composite wall panel is made of 3/4-in. or 5/8-in. fire-rated gypsum wallboard laminated with a .081-in. opaque Lexan LT300 polycarbonate sheet. Exposed surface is then finished with traditional drywall materials. Suitable for interior security uses such as correctional facilities. Coreguard, Inc., Bay City, Mich.

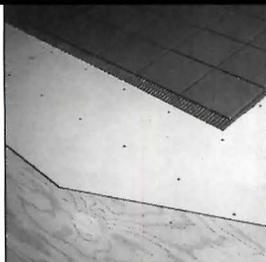


**300. VCT in 60 colors**  
Vinyl-composition tile comes in two series: Essentials, offering 48 base-grade colors, and Inspirations, offering 12. Product complies with requirements of ASTM 1066-87 for Composition 1, Class 2 VCT, according to manufacturer, and is suitable for high-traffic areas. Mannington Commercial, Salem, N. J.

\* Product Data on CAD disk



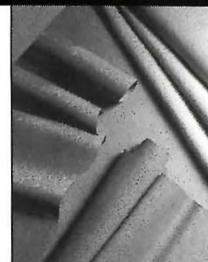
**301. Laminated-wood flooring**  
A new narrow width, Windsor 2 1/4-in.-wide strip can be installed in areas said to be too abusive for conventional wood-floor products. Finished in a medium-gloss, UV-cured polyurethane, the five-ply floor comes in six colors, and can be glued, nailed, or floated over many subfloors on-, above, or below-grade. Mannington Mills, High Point, N. C.



**302. Thin FRC underlayment**  
Ultraboard, made of autoclaved fiber-reinforced cement, comes in a 1/4-in.-thickness for use as an underlayment, resilient-flooring substrate, and ceramic-tile backerboard for both vertical and horizontal applications. Panels weigh 1.9 lb psf, can be scored and snapped, or cut and drilled with normal wood-working tools. Eternit, Inc., Blandon, Pa.



**303. Rubber-floor options**  
The Noraplan Stone system offers floor products with consistent colors and coordinated designs across areas with distinct functional requirements. Standard-traffic Stone flooring comes in 13 colors; Stone A1 resists static-electricity discharge; and Stone Elastic muffles footfalls. Freudenberg Building Systems, Inc., Lawrence, Mass.



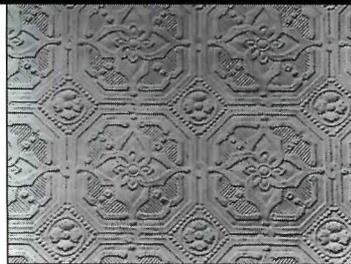
**304. Textile wallcovering**  
An expanded pattern and color range in Gossamer Steel wallcoverings includes jacquards in motifs drawn from nature. Fine-denier yarn is said to improve seaming; synthetic material meets or exceeds federal, state, and local toxicity, flammability, and other standards. Koroseal Wallcoverings, Fairlawn, Ohio.



**305. Sculptured border tiles**  
Based on design elements from nature popular in Arts & Crafts Movement ceramics, art tiles simulate tree branches, pine cones, vines, and animals. Highly dimensional, they are suggested as wall borders and fireplace and backsplash trims. Color range includes deep greens, russett, and deep blue. Country Floors, Inc., New York City.



**306. Three-dimensional ceiling**  
The Dynamix metal reveal-edge suspended ceiling comes in a choice of panel sizes, metal types, perforation patterns, and finishes. Said to be more durable than standard mineral-board or fiberglass ceiling panels, they qualify for a Class A flame-spread rating. Chicago Metallic, Chicago.



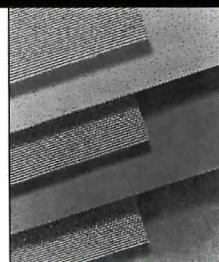
**307. Ornate wallcoverings**  
Available from stock, Anaglypta SupaDurable Victorian-era wallcoverings are made with cotton fiber; and are said to be hard-wearing enough for high-traffic wall areas yet light enough to use on ceilings. The embossed wallcovering is finished on-site with paint or faux treatments. Outwater Plastic Industries, Inc., Wood-Ridge, N. J.



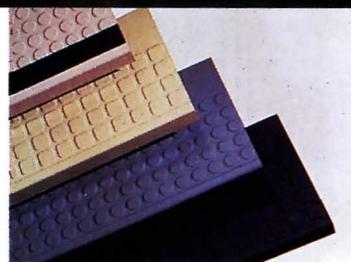
**308. Mosaic-look sheet vinyl**  
A new design suggested for residential use, Celestial sheet-vinyl flooring offers a range of mosaic-tile patterns, in relatively bright colors. Pictured is Zodiac, a pearlescent look with multi-colored tile star bursts and white "mortar joints." Congoleum Corp., Mercerville, N. J.



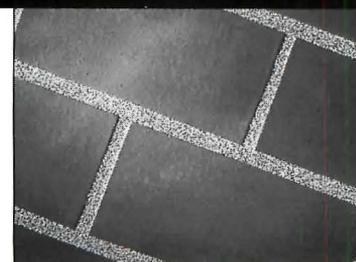
**309. Glazed porcelain pavers**  
A new, 16- by 16-in. paver size meets architectural demand for large-area tile requiring minimal grout lines. Made using recycled materials, Imperva and other glazed porcelain tile products have water absorption rates near zero, and breaking strengths are said to be double the industry standard. Summitville Tiles, Inc., Summitville, Ohio.



**310. Noise-control wallcovering**  
Acousticord, a fusion-bonded ribbed-texture blend of wool/mohair and synthetic yarns, deadens sound, cushions impact, and provides a level of thermal insulation in commercial buildings. Contrasting colors may be juxtaposed to create wall graphics; the surface is compatible with both Velcro and pushpins. Eurotex, Philadelphia.



**311. Safety stair treads**  
Made to match Johnsonite rubber or vinyl floor tiles in color and luster, treads meet visibility requirements with a clearly contrasting 2-in.-wide abrasive strip insert. Stair products come in a selection of raised-, square-disk, and smooth-surface treatments. Johnsonite, Chagrin Falls, Ohio.



**312. Speckled grouts**  
Described as stain proof, grouts have less than 1/2 percent water absorption. Setting materials are offered in 35 solid colors, seven Spec-L blends, and a new, highly chemical-resistant epoxy suggested for kitchen use where spills aren't cleaned up quickly. Latierete, Inc., Bethany, Conn.\*

\* Product Data on CAD disk



**313. Gypsum wall panel**

Ultracode Core is the first single-layer interior gypsum-board wall system to provide a two-hour fire rating, says its manufacturer. The 3/4-in. Sheetrock gypsum panels are 4-ft wide and come in lengths of 8, 9, 10, and 12 ft. Because it is a single-layer system, the product reduces both labor and material costs. United States Gypsum Co., Chicago.\*



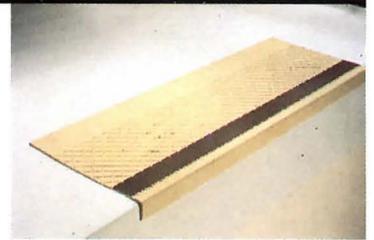
**314. Ceiling system**

The Bold Beam ceiling treatment can be installed as easily as acoustical tee-grid systems, but adds depth and detail to ceiling designs. A modular system that can incorporate a luminous ceiling, Bold Beam is available in real wood veneers, as well as painted and laminated surfaces. Norton Industries, Lakewood, Ohio.



**315. Prefinished wall panels**

Available in four color combinations, the Gold Bond Durason Da Vinci Collection of prefinished vinyl-covered gypsum wall panels achieve a one-hour fire rating when used with steel or wood studs. The color combinations imitate the look of stone. Gold Bond Building Products, a National Gypsum Division, Charlotte, N.C.



**316. Stair treads**

The Grip Strip VI Series of stair treads for the visually impaired meets building codes that require contrasting color strips at least 2-in. wide on the top and lower tread of each stairway. Treads come in nearly a dozen different colors with contrasting strips of black, gray, brown, or yellow. Musson Rubber Co., Akron, Ohio.



**317. Porcelain tiles**

The Old Stone series of porcelain tiles recalls the look of natural stone pavers with their dimpled surface and variations in shades. The tiles are 1/2-in. thick and come as either triangles or 6-in.-by-6-in. squares. Available in nine earth colors, the tiles can be used indoors or out, on floors or facades. Buchtal Ceramics, Roswell, Ga.



**318. Carved ceiling panels**

A new series of carved ceiling panels, entitled Cirrus Themes, features whimsical designs of trains, leaves, galaxies, friendly animal tracks, and alphabet letters. The fine-textured 2- by 2-ft panels are available for either 9/16-in. or 15/16-in. T-bar grid systems. Armstrong Contract Interiors, Lancaster, Pa.



**319. Interior wall finishes**

Surface Systems is a line of wall-surfacing products that offers a range of materials and finishes, from natural wood and metal veneers to high-pressure laminates and faux stone. The product is a pre-engineered system with 16- by-24-in. or 24-in. square panel modules for easy installation. Marlite, Dover, Ohio.



**320. Exterior coating system**

Loxon Exterior Masonry Acrylic Coating is a VOC-compliant coating system specifically engineered for above-grade masonry surfaces. The complete Loxon system (including primer and topcoat) is designed to protect demanding surfaces such as highly alkaline masonry and marginally cured concrete. The Sherwin-Williams Co., Cleveland.\*



**321. Metal-ceiling system**

A new installation system gives Casettes metal-ceiling panels the monolithic look of drywall but with total downward accessibility. The system uses a standard 15/16-in. exposed tee grid on a 24-in. module to create narrow reveals. Panels are either smooth, or perforated for acoustical absorption. Armstrong Contract Interiors, Lancaster, Pa.



**322. Vinyl floor tiles**

Collage vinyl-composition floor tiles include multi-colored Thru Chip mottles throughout their thickness to maintain colors even after years of use. The collection of tiles comes in 12 color schemes that were created to harmonize with existing commercial and institutional environments. Tarkett, Parsippany, N. J.



**323. Flat and engraved tiles**

The Steppes Portfolio is a collection of floor, wall, countertop, accent, and trim tiles available in two monochromatic colors: Lumina white and French Provincial cream. The line includes 8-in.-square engraved and field tiles, a 12-in.-sq engraved tile, and engraved listellos. Florida Tile Industries, Lakeland, Fla.



**324. Resilient flooring**

Developed in England, Arteca resilient flooring imitates the look of wood, tile, marble, brick, or stone. Instead of being sold in prefabricated sheets, Arteca floors are created using custom-cut tiles, strips, inlays, and borders. A CAD/computer-aided-manufacturing process provides flexibility in designs and colors. Courtaulds Flooring U. S., Louisville, Ky.

\* Product Data on CAD disk

Q

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### 337. Multicolor textures

Described as a durable, UL Class A fire-rated alternative to paint and vinyl, Zolatone multicolor wall finish comes in various degrees of texture. A specification folder holds actual samples, from marble-like creams and tans to dark granite looks. Surface Protection Industries Co., Los Angeles.



### 338. Cast-stone tiles/panels

A brand-new Design Information Catalog covers Armstone cast-marble floor tiles, interior wall panels, and Permetage resin-reinforced Travertine Marble and Granite tiles. Contains architectural specifications, test data on physical characteristics, installation recommendations, and maintenance tips. PermaGrain Products, Inc., Media, Pa.



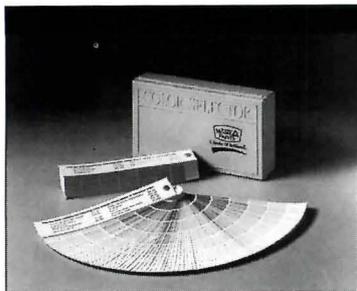
### 339. Tile-setting products

Pertinent characteristics and specification compliances for a full line of grouts, mortars, adhesives, and other tile materials illustrated in a 1994 architectural catalog. Contains reference charts, installation diagrams, and technical and packaging information. MAPEI Corp., Elk Grove Village, Ill.\*



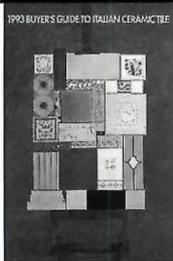
### 340. Hardwood flooring

Flooring made of Northern-grown hardwoods—maple, ash, oak, cherry, and beech—shown in contemporary, classic, and country styles. Planks come in either 2 1/4- or 1 1/2-in widths and random lengths; “shorts” also frequently available. A four-color, eight-page booklet illustrates all wood types and grades. Action Floor Systems, Inc., Mercer, Wis.



### 341. Historic and other paints

A new fan deck holds paint chips of over 1,850 distinct shades, including Moore-O-Matic custom colors for commercial, industrial, and residential use, as well as the 174 colors in this manufacturer’s Historical Collection. Benjamin Moore & Co., Montvale, N. J.



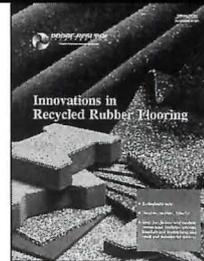
### 342. Italian ceramic tile

Produced by the Italian Trade Commission, a new buyer’s guide organizes information by tile type, use, designer, and manufacturer. Listings include 162 Italian ceramic-tile manufacturers active in the American market. An on-line computer service sources distributors and outlets for all tile. Italian Tile Center, New York City.



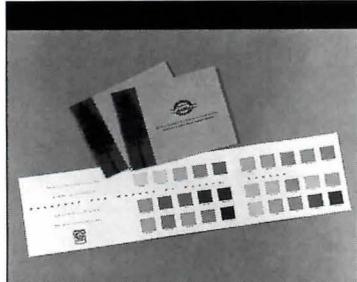
### 343. Indoor/outdoor tile

The design versatility of indoor/outdoor, all-weather ceramic tile is illustrated in an eight-page, full-color brochure. Extensive installation photography is included along with color swatches, performance specifications, special trim shapes, and installation and maintenance recommendations. Metropolitan Ceramics, Canton, Ohio.



### 344. Recycled-rubber flooring

Everlast, Ever-Roll, and Regupol Pavers and Tiles are made from 100-percent recycled-tire rubber. Flooring is known for its sound- and impact-absorption properties. Suggested for pedestrian-friendly interior applications as well as outdoor sports surfaces. Comes in bright and deep colors. Dodge-Regupol, Inc., Lancaster, Pa.



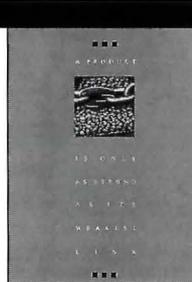
### 345. Earthtone acrylic stains

A new Earthtone Custom Color Card introduces an expanded line of solid-color, 100-percent acrylic exterior stains. Paint dealers can mix any of the over-30 O.V.T. stain colors using just three all-acrylic tint bases. Said to be exceptionally durable, the stains have a 12-year guarantee when applied to new wood. Samuel Cabot, Inc., Newburyport, Mass.



### 346. Vinyl/linoleum floors

Available to architects, interior designers, and specifiers, the Forbo Floor Covering Sample Set contains a facts binder, folders featuring linoleum and vinyl flooring, and eight flooring-sample strap sets. Sets include patterns and colorways for the new MultiStep sheet vinyl and Colorstyle solid-vinyl tile floorings. Forbo Industries, Inc., Hazleton, Pa.



### 347. Durable carpeting

Woven interlock carpets, in a wide range of patterns, textures, and fibers, are displayed in an eight-panel fold-out color brochure. Suitable for busy commercial locations subject to wheeled traffic such as educational facilities, healthcare, airports, and shopping centers. Mohawk Commercial Carpet, Atlanta.



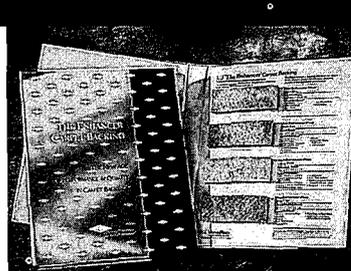
### 348. Ceramic tiles

Prepared for the architect and specifier, a 60-page catalog covers a full range of commercially-rated tile products for walls and floors. Also describes natural-stone tile, installation materials, custom-design services, and a loose-tile sample program. Separate residential catalog available upon request. American Olean Tile Co., Lansdale, Pa.

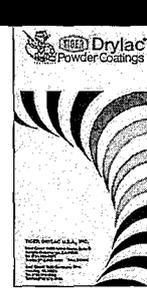
\* Product Data on CAD disk



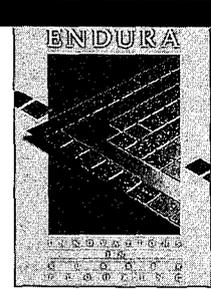
**349. Laminated-plank flooring**  
An updated Architectural Sampler for the Timeless Series II line of acrylic-impregnated, laminated-plank flooring contains samples of its complete color palette including three new colors—Burnished Oak, Natural Cherry, and Hazel Oak. Range includes 25 classic and contemporary colors. PermaGrain Products, Inc., Media, Pa.



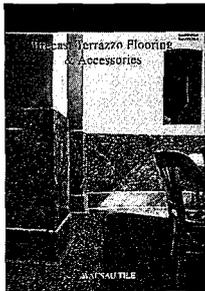
**350. Carpet backing**  
An architect folder containing specific updates describes properties and performance of The Enhancer Plus carpet backing. Information includes acoustical properties, moisture performance, flammability, thermal resistance, shock absorbance, carpet-face retention, and ADA requirements. Dow U.S.A., Dalton, Ga.



**351. Powder coatings**  
A 16-page powder coatings color chart and stocklist contains product descriptions, features, and applications. Also includes minimum order amount, packaging, storage time, theoretical coverage, cure parameters, substrates and pretreatment, methods of processing, and measures of saltspray and acid resistance. Tiger Drylac U.S.A., Inc.



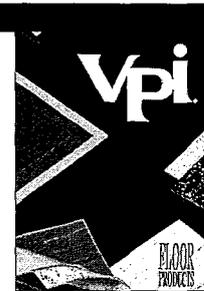
**352. Rubber flooring**  
Endura rubber flooring is said to combine durability, comfort, and slip resistance. Installations include convention centers, college chemistry labs, research laboratories, and sports stadiums. A 12-page, four-color booklet describes product range and shows flooring designs and colors. Endura Flooring, Waltham, Mass.



**353. Precast terrazzo flooring**  
New installation procedure makes precast-terrazzo flooring easier and cleaner to install. Square-edge tiles are set with a 1/16-in. minus joint, grouted flush, and then ground and polished on site. Catalog shows application photos, color swatches, standard and custom accessories, and technical data. Wausau Tile, Inc., Wausau, Wis.



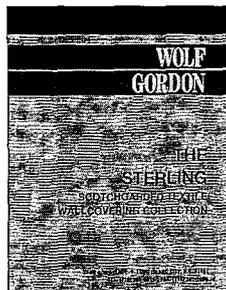
**354. Custom tile signage**  
Questech Premium Metals are used for architectural surfacing, trim, signage, graphics, display, and merchandising. A combination of real metals and polymers, the material may be cast in a multitude of forms and textures ranging from high relief to delicate patterns. Four-color, fold-out brochure demonstrates applications. Intaglio, Ltd., New York City.



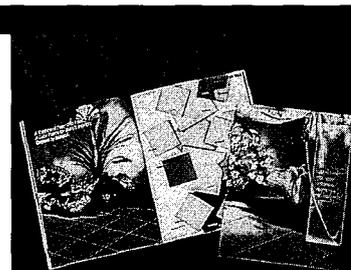
**355. Floor products**  
A 34-page catalog, loaded with illustrations, charts, and specifications, demonstrates a broad range of rubber, vinyl, and static-control flooring and accessories. Applications include educational, light-industrial, hospital, retail, office, and hospitality. Detailed resistance chart. VPI, Sheboygan, Wis.



**356. Acoustical ceilings**  
The Voyager line of commercial-grade ceilings satisfies applications requiring Class A ratings and acoustical properties. A four-page brochure describes physical properties, designs, sizes, and specifications of the complete mineral-ceiling product line. Celotex Corp., Tampa, Fla.\*



**357. Textile wallcoverings**  
The Sterling Collection, comprised primarily of linen, cotton, and rayon, offers horizontal weaves and jacquard-patterned wallcoverings in eight decorative colors. Patterns are stocked in the U. S., Scotchguarded, and meet Type I, Class A specifications. Suitable for healthcare environments. Wolf-Gordon, Long Island City, N. Y.



**358. Tile flooring**  
American Marazzi's 1993/1994 product catalog illustrates a broad variety of styles, patterns, colors, and sizes of its tile selection for residential and commercial applications, indoor and out. American Marazzi Tile, Inc., Sunnyvale, Tex.

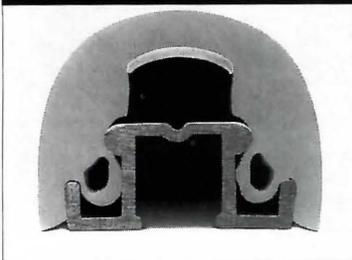


**359. Concrete floor coating**  
The Chemglaze concrete floor-coating system offers a complete line of products for severe-service environments in a color selection of popular shades. An informational booklet and specification sheets explain preparation products, primers, epoxy resurfacers, topcoats, and auxiliary products. Lord Industrial Coatings, Erie, Pa.



**360. Latex mortar**  
A brochure describes Super Flex latex-modified thin-set mortar. Its makers say it handles hard-to-bond tiles and unusual substrates with unsurpassed bond strength. Designed for interior or exterior installation of a vast array of surfaces including all types of ceramic, porcelain, glass, and natural-stone tiles and surfaces. TEC Inc., Palatine, Ill.

\* Product Data on CAD disk



### 361. Bumper system

The Boston Bumper System, made of non-shrinking flexible vinyl strengthened with a backbone of rigid metal extrusion, offers shock absorbance, impact resistance, and radius capabilities. Provides damage protection for fixtures and walls. Easy installation. Available in 18 standard colors and custom colors. Boston Metal Products, Medford, Mass.\*



### 362. Fireplace mantels

Mantels created from architectural drawings or existing designs offer unlimited design possibilities for commercial and residential applications. May be ordered in any size and in many kinds of wood. Handcarved designs include: Louis XVI and Classic and Country looks in the French and English manner. Chadsworth Inc., Atlanta.



### 363. Building directory system

King Link, a solid-state, stand-alone, touch-screen computer, gives users access to a system capable of displaying thousands of lines of information. Combines state-of-the-art technology with experience in the design and manufacture of architectural sign products. King Products Ltd., Mississauga, Ont..\*



### 364. Structural signage

Spaceframe systems provide signage in virtually any color. A maintenance-free finish consisting of galvanized steel coated with polyester powder that insures long life. Complete CAD and specification software services available. Mero Structures, Inc., Germantown, Wis.\*



### 365. Glass-top sink module

A glass-top sink module designed for wall-mounting directly into modular Series M mirrored cabinet Stacking System appears suspended in space. Fully mirrored, 30-in.-high cabinet with 3/4-in. clear furniture-quality glass top contains a stainless-steel bowl, chrome faucet, and trap. Plumbing is hidden within cabinet. Robern, Inc., Bensalem, Pa.\*



### 366. Ergonomic railings

Acrovyn's three new ergonomically styled hand railings offer an array of design options. Dividing railing height into individual sections provides up to five different color options in one railing. Can be mixed/matched from 63 solid colors and 53 stone or wood patterns. High-impact vinyl/acrylic material. C/S Group, Muncy, Pa.



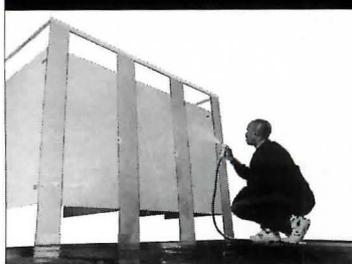
### 367. Bicycle-storage locker

The Cycle Pod's wedge-shaped, space-saving design allows for optimum space utilization for bicycle storage. Molded from coextruded, engineering polymer with a structural steel frame, pods can be installed individually, in circular configurations, or in rows. Weather-proof and vandal-proof. Rally Enterprises, Inc., Santa Rosa, Calif.



### 368. Porch-screening system

Porch-screening frame system eliminates staples, nails, wooden lattice, and paint. Combines maintenance-free vinyl with spline screening method that adapts to wooden frame porches. Allows quick replacement for fiberglass and aluminum screens. Available in 8-ft lengths in white, gray, beige, and brown. Screen Tight, Georgetown, S. C.\*



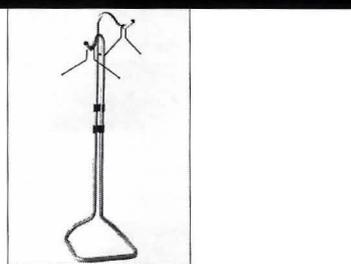
### 369. Phenolic compartments

Phenolic-toilet, shower, and dressing compartments all constructed of heavy-duty stainless steel. Doors, partitions, and pilasters guaranteed not to warp or delaminate under high moisture conditions. Ideal for hose-down cleaning. Available in overhead braced, floor-mounted, and ceiling-hung configurations. Metpar Corp., Westbury, N.Y.\*



### 370. Advanced training system

The Tactics Plus Advanced Training System is a wall-mounted, double-track modular system that allows overlapping of reversible writing surfaces, tackable panels, flip charts, and projection screens for training seminars. Lightweight components can be moved and placed across corners. Peter Pepper Products, Inc., Compton, Calif.



### 371. Floor costumers

The TD1 and TD2 floor costumers combine a smooth, sleek form with a modern, powder-coated steel finish in gray or soft beige. The TD1 design features an umbrella holder and one coat hook, while the TD2 design includes two coat hooks. Both costumers are fitted with completely untraditional hangers. Vogel Peterson, Garden Grove, Calif.



### 372. Library shelving system

The Legacy Shelving System customizes media storage and shelving to exact specifications. Accommodates all media formats: cassette and video tapes, compact discs, laser discs, and books. Options include flat shelving, angled media storage, and roll-out glide drawers. Reinforced steel and wood. Bretford Manufacturing, Inc., Schiller Park, Ill.

\* Product Data on CAD disk



**373. Modular sign systems**

Modular signs can be made of virtually any material, and in any shape or size, through precision-registration on perforated metal chassis. Replacement components can be interchanged. Meets all ADA requirements. ASIvision software with database-management system and a drawing program is also available. ASI Sign Systems, Inc., Dallas.\*



**374. Partition/cubicle systems**

Melamine-covered phenolic panels are used to form framed and frameless Marathon and NT Normbau systems. Both are said to be waterproof, rustproof, and impervious to chemical damage. Standard- and custom-colors can be mixed or matched. W&W Sales Ltd., Spring Valley, N. Y.



**375. Bath-in-a-box**

The Rain Room is an all-tile, self-contained wet area with 5-ft whirlpool tub and separate shower. Coordinated wall panels, ceiling, ceramic-tile shower tray, and accessories come in kit form. Rain Room can be completely installed in eight hours by two workers using dry-construction methods, says the maker. Hoxan America, Inc., Piscataway, N. J.



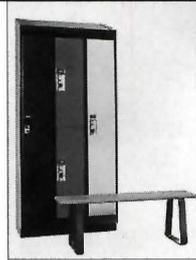
**376. Custom signage**

ADA-compliant interior and exterior sign systems feature carved signs that are available in most building materials, from mirrored metal to marble. Raised-lettering signage is achieved with the manufacturer's Graphic Blast process. Free catalog, samples, and a loan-out video are available. Best Manufacturing Sign Systems, Montrose, Colo.



**377. Awning fabric**

Awntex vinyl-coated polyester in an open-weave construction is said to provide shading without trapping heat or airflow. Two styles offer 70- and 90-percent shade factors. Open-mesh weave is designed to reduce dirt build-up and promote rapid drying. Fabric is said to be mildew-, UV-, flame-, and water-resistant. The Astrup Co., Cleveland.



**378. Locker systems**

Honeycomb-core hollow-metal doors withstand wear and tear, says the maker. Louvers create two channels for unobstructed ventilation. Continuous piano hinge provides additional strength. Powder coating in 17 color choices gives brilliant, hard, even finish. Hadrian Manufacturing, Inc., Burlington, Ont.



**379. Braille signage**

Architectural signage for the visually impaired is said to meet or exceed ADA requirements. In addition to generic signage, customized signs are available for those who require specific colors, logos, materials, manufacturing processes, and designs. Certified by the Lighthouse for the Blind. Intelligent Signage, Inc., Sarasota, Fla.



**380. Atomizer ring**

Water-saving shower ring generates delicate mists, allowing bather to remain warm in the tub and cooler after a steam bath. Available in five standard metal finishes: nickel silver, brushed nickel, gold, silver and gold, and steel and gold. Kallista, Inc., San Leandro, Calif.



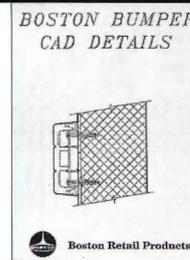
**381. Concrete toilet partition**

Designed to foil vandals and peeping toms, concrete toilet-stall panels resist hand drilling since they are nearly twice as strong as sidewalk concrete. Only 1 1/4-in. thick, the ADA-compliant partitions can be retrofit. Standard white and beige colors can be coordinated with doors and pilasters. Restroom Facilities Corp., Reno, Nev.



**382. Accessible signage**

ADA-compliant Adapt line is available in a variety of choices: single unit in any size, color, or shape; retrofit plate for existing signage; raised numbers or letters with Braille window and modular inserts. Also, standard-symbol and lettered signage. Signage survey sent on request. Innerface Architectural Signage, Inc., Lilburn, Ga.



**383. CAD bumper details**

The Boston Bumper wall-protection line on AutoCAD 12 includes drawings of seven profiles, end treatments, and corners. Available on 3.5- and 5.25-in. diskettes, software is said to save architects time by reducing drafting. Boston Retail Products, Division of Boston Metal Products Corp., Medford, Mass.\*

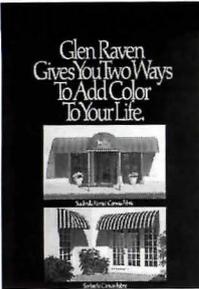


**384. Protective handrails**

Contoured to fit the hand, aluminum handrails come in one-color solid and two-color accent-stripe versions. Designed to protect 5 1/2 in. of wall surface, rails have 1 1/2 in. of gripping area to aid the elderly and disabled. Each rail style complies with flammability standards and ADA accessibility guideline 4.26.2. Pawling Corp., Wassauc, N. Y.

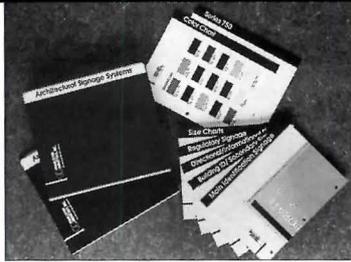
\* Product Data on CAD disk

For more information, write item numbers on Reader Service Cards.



### 385. Canvas fabric

Woven from self-extinguishing modacrylic fiber, the Sunbrella line comes in 90 solids and patterns for use as awnings, canopies, cabanas, and other indoor and outdoor uses. Three brochures include Sunbrella and Firesist fabric specifications, palette of colors and patterns available, Glen Raven Mills, Inc., Glen Raven, N. C.



### 386. Signage guide

New architectural binder is designed to guide the architect/specifier through typical signage requirements of a project. Includes information on interior and exterior signage systems, with sections on specifications, colors and finishes; graphic options; and ADA compliance requirements. Charleston Industries, Elk Grove, Ill.



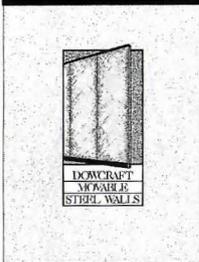
### 387. Toilet compartments

A new four-page catalog gives details of the Thrislington line of European-styled toilet compartments. Information on the Lotus 1200 series and the 1300 Combat series for heavy-duty demands is included. Bobrick Washroom Equipment, Inc., North Hollywood, Calif.



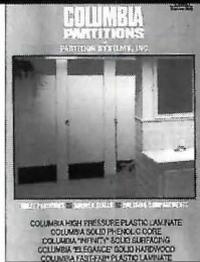
### 388. Lockers and postboxes

Security-locker line is presented in 12-page brochure with specifications, color guides, and locker-construction details. Styles shown range from coin-operated lockers to cluster-box units for apartment mailrooms; from luggage lockers to pistol lockups. American Locker Security Systems, Jamestown, N. Y.



### 389. Movable office walls

Floor-to-ceiling systems are highlighted in an eight-page brochure: the design-oriented Benchmark Series I, in a wide choice of coverings and finishes; the more moderately priced Academic Wall; and the economical Rapid Wall Series 2. Cutaway-section illustrations detail construction of each system. Dowcraft Corp., Falconer, N. Y.



### 390. Stalls and compartments

New brochure highlights phenolic-core toilet compartments, which are overhead-braced, floor-supported, and ceiling-hung. Also shown: the Infinity and Fast-Tab lines of compartments and stalls and the Elegance solid-hardwood line of toilet cubicles. Partition Systems, Inc. Columbia, S. C.



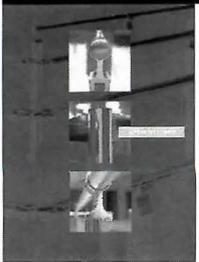
### 391. Hospital accessories

Stainless-steel washroom accessories are detailed in a 48-page guide. The products are especially suited for hospital, school, commercial, and hotel/motel use. The lines featured are especially suitable for the needs of the physically challenged. A&J Washroom Accessories, New Windsor, N. Y.



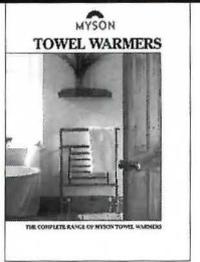
### 392. Vinyl latticework

Deteriorating wood latticework can be replaced with vinyl latticework that never needs painting. Comes in 10 standard colors, and diagonal and rectangular patterns for home as well as commercial use. Aluminum railing and framing systems available with commercial versions. Eight-page brochure sent on request. Cross Industries, Atlanta.



### 393. Traffic-control rails

Sturdy uprights and crossbars can be used for support while waiting for counter service. All elements of Deco-rail system are fixed, and come in three styles—Art Deco, Contemporary, and Gothic. Six finishes—brass, bronze, black, copper, chrome, and pewter—and customized versions are available. Wylie Systems, Mississauga, Ont.



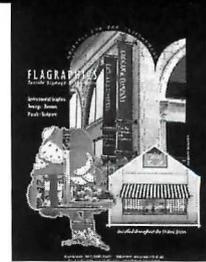
### 394. Towel warmers

A 20-page brochure features the complete line of Myson towel warmers. Handcrafted by English artisans in Britain, the warmers come in a range of styles and a variety of finishes, including chrome, brass, gold-plate, and 22k gold, as well as a palette of coordinating colors. Accessories also available. Myson, Inc., Essex Junction, Vt.



### 395. Crowd-control systems

Tensabarrier portable traffic-control have constant-force spring tapes that pull out easily yet remain taut and sag-free. Literature also shows signs, frames, and utility and decorative rail systems, including turnstiles, gates, and stair rails, and specialty items like sneeze guards and drink-rail bars. Lawrence Metal Products, Inc., Bay Shore, N. Y.



### 396. Banners and flags

Custom-design banners, flags, and awnings can add a splash of color to lobby interiors and restaurant facades. Most work is done by applique process, some by silkscreen. A complete line of national and international flags, flagpoles, and banner hardware is also featured in the company's literature package. Flagraphics, Somerville, Mass.

\* Product Data on CAD disk



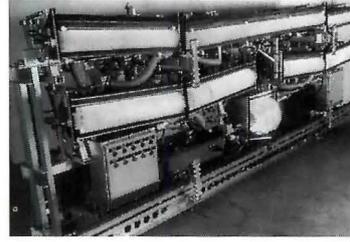
### 397. Wallbed system

Sico introduces an attractive wallbed system to improve both the functionality and livability of today's home. Its "Power Pak" fingertip controls are said to require virtually no more effort than it takes to open or close a door or desk drawer. The furniture line is available in black, natural oak woodgrain, white, and almond. Sico, Inc., Minneapolis.



### 398. Compact dishwasher

Where space is a premium, Miele Slimline dishwasher combines upscale features such as a stainless-steel interior, three wash arms, quiet operation, and a cutlery tray with surprisingly large capacity. This 17 1/2-in. wide dishwasher fits snugly into small spaces. Miele Appliances, Inc., Somerset, N. J.



### 399. Automatic window washer

A custom-designed automatic window washer for highrises enables buildings to be washed at least eight times a year. All of the building's vertical exterior is washed, not just the windows. The operator remains safely on the roof of the building. SteepleJack, Inc., Minneapolis.



### 400. Refrigerator/freezer

Traulsen & Co introduces ULTIMA, a 48-in. wide refrigerator/freezer for homeowners who want a professional-quality unit. It features two self-closing, full-length doors, and stainless-steel interior and exterior construction. Options include custom-framed plastic laminates on the cabinet exterior. Traulsen & Co., College Point, N. Y.



### 401. Custom cabinetry

Rutt's new Empire style cabinetry, shown here configured as a home theater system, features doors with mitered frames, solid center panels, cabinets with quintel-mullion doors, beveled glass, diamond-shaped details, and ornamented drape pulls. Available in a variety of woods, finishes and colors. Rutt Custom Cabinetry, Goodville, Pa.



### 402. Store fixtures

Mero presents store fixtures with maximum flexibility and a minimum number of parts. Each system fully integrates with the others, supplying the designer with an extensive library of possible solutions. Features a variety of finish and material options and a broad line of accessories. Can be reconfigured at minimal cost. Mero, Germantown, Wis.



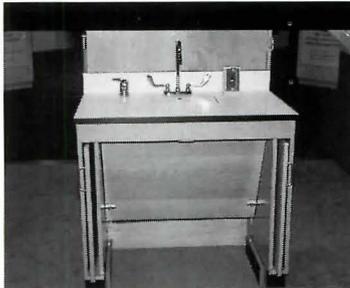
### 403. Mailflow systems

Kwik-File offers innovative mailroom design. Components have beveled shelf fronts, self-adhering label holders, rounded corners, PVC edging that prevents peeling, chipping and breaking, recessed door handles, and three riser heights, all in one-piece sorter construction with custom design capabilities. Kwik-File, Inc., Minneapolis.



### 404. Kitchen cabinetry

Snaidero's newest Italian design has the look of fine furniture. It has a melange of laminates, woods, lacquer finishes, restful pastels, and glass doors. Worktops are covered with scratch-proof, impact- and acid-resistant laminate, and door hinges with built-in springs that permit the doors to be perfectly adjusted. Snaidero International, Los Angeles.



### 405. Adjustable table

Mobile lab station and adjustable table for the physically challenged is designed to allow wheelchair access from either side. One-in.-thick top material must be specified. Ideal for biology or chemistry labs and classes. Meets ADA requirements. Mohon International, Paris, Tenn.



### 406. Chef-style range

Wolf Range offers redesigned lift-off burners and drip pans for their Gourmet Series. Also available are chef-size porcelain ovens, large-capacity spillover bowls, thermostatically-controlled commercial-grade griddles and infrared charbroilers. Gourmet Series stoves come in black and stainless steel. Wolf Range, Compton, Calif.



### 407. Security panel

Model LHSP offers maximum security for prison and detention facilities, with a 3/16-in. plate-steel door, box-formed and welded (to discourage tampering), with 2- by 3- by 3/16-in. steel angle frame. The hingeless design improves security to areas where removal of doors is necessary. J. L. Industries, Bloomington, Minn.



### 408. Compact kitchens

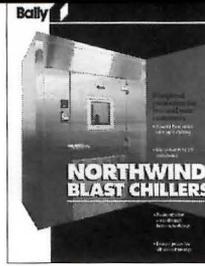
The high-pressure-laminate kitchens feature all-steel cabinets, and resist moisture absorption, warping, and delamination. The baked-enamel finish can be color-coordinated to the laminate selection and can match every color and pattern offered by Wilsonart, Formica, and Nevamar. Dwyer Products, Michigan City, Ind.



**409. Integrated dishwashers**  
The Bosch "Integrated Series" represents the optimum design approach for fitting the dishwasher into the kitchen environment. A four-color brochure describes measurements and cabinetry styles so that designers can tailor dishwashers to match the grid of the kitchen design. Robert Bosch Corp., Broadview, Ill.



**410. Custom kitchens**  
A four-color, 32-page booklet displays traditional, "Old World", and contemporary custom-made kitchen cabinetry styles, finishes, and new-product offerings. Attractive rooms show the latest in functional and decorative hardware, door styles, and overall new design applications. Heritage, New Holland, Pa.



**411. Commercial refrigeration**  
Bally Northwind Blast Chillers cool quickly and safely without freezing to keep foods safe and meet demanding HACCP requirements. A two-page brochure describes units, contamination hazards, and a probe and monitoring system. Appropriate for institutions, commercial operations, and large restaurants. Bally Engineered Structures, Inc., Bally, Pa.



**412. ADA complaint pay phone**  
A four-page brochure is offered to help architects and builders comply with the accessibility requirements outlined in Title III of the Americans with Disabilities Act. Telephone kiosks designed to comply with ADA requirements for new and existing pay-phone installations are described. Fortec, Inc., Waukesha, Wis.



**413. Appliance planning**  
*The Less Challenging Home*, a guide for architects, builders, and remodelers, describes how careful planning and proper selection of kitchen and laundry appliances can meet the needs of people with physical or mental limitations. The 24-page booklet has many good suggestions and provides diagrams. Whirlpool, Benton Harbor, Mich.



**414. Kitchen accessories**  
Customized kitchens with fine wood cabinetry and accessories take advantage of every inch of available space. An eight-page brochure gives a sampling of cabinet styles, wine racks, shelving, drawers, glass doors, moldings, and decorative hardware. Timberlake Cabinet Company, Winchester, Va.



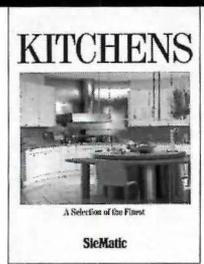
**415. Custom cabinetry**  
A 45-page Design Guide highlights an elegant selection of traditional, country, and contemporary-kitchen cabinetry. And a 21-page product guide, gives a general overview of accessories including door styles, storage options, finishes, and hardware. Wood-Mode Cabinetry, Kremer, Pa.



**416. Discreet refrigeration**  
The producer of built-in refrigeration equipment offers a 20-page booklet describing high-quality custom-designed units. Blending into the overall room, the products fit flush with 24-in. deep kitchen cabinets. Decorative panels complement decor. Spec guide is offered to architects. Sub-Zero Freezer Co., Inc., Madison, Wis.



**417. Wood-burning stoves**  
Energy King introduces a redesigned combustion system in its Legacy line of non-catalytic wood stoves and fireplace inserts. EPA-approved product refinements result in appliances that burn cleaner and produce more heat. Information available for different sizes and models. Chippewa Welding, Chippewa Falls, Wis.



**418. Kitchen interiors**  
A fold-out poster introduces SieMatic's modern, European range of kitchen designs and accessories featuring interiors and quality storage units. The SieMatic Kitchen Book with over 180 pages of kitchen interior design suggestions is also available. SieMatic Corp., Treviso, Pa.



**419. Hands-free wood stove**  
The Firelight is the only wood stove to offer hands-free operation of the top-loading door. Top door is opened and closed by foot pedal located beneath the ashtray. Equipped with oversized ashpan. Capable of heating 1,500-sq-ft space. Accommodates 22-in. logs and burns up to 12 hours. Jotul USA, Inc., Portland, Me.



**420. English cabinetry**  
Smallbone offers new Pilaster Collection brochure. Hand-painted kitchen cabinetry influenced by classicism of the 18th century Georgian period displays fitted and free-standing pieces such as larders, bacon settles, and dressers. Full range of neutral colors, color washes, and translucent glazes available. SieMatic Corp., Treviso, Pa.



**421. Adjustable work surfaces**  
Interaction Counterforce tables have a handle-operated mechanism that adjusts to heights anywhere between 24 to 41 in. and a built-in weight adjustability range of up to 100 lb. Eight table-top shapes and 18 laminate and 28 veneer colors are available. The Knoll Group, New York City.



**422. Rotating cabinets**  
Inspired by the "lazy susan," Twinfile cabinets have rotating interior-storage compartments. The units come in six sizes and can be stacked to create room partitions. A range of colors is available. TAB Products Co., Palo Alto, Calif.\*



**423. Window blinds**  
SheerView horizontal 1-in.-wide aluminum blinds have a random pattern of pin holes that allows light to filter through metal slats, while providing privacy and glare control. The blinds come with a steel headrail and a concealed mounting system. Levolor Corp., Sunnyvale, Calif.



**424. Casegoods**  
A drawer unit, wardrobe, desk, and television stand are part of the Concert collection of casegoods and seating intended for healthcare use. Cabinets have swivel shelves for easier patient use and contoured edges. Health Design, Div. of Brayton International, High Point, N. C.



**425. Patient-care furniture**  
Patient-care furniture in four styles—Cambridge, Concord, Ashby, and Carlisle—features laminate tops, solid-oak drawer fronts, hardwood oak veneer surfaces, smooth-action drawer slides, and drawer pulls said to be particularly easy to grasp. Adden Furniture, Inc., Lowell, Mass.



**426. Faux leather**  
Watershed, made from a biodegradable water-based urethane, is intended to resemble leather. Available in 30 colors, the material is water-resistant and said to be easy to clean and maintain. Watershed costs \$2.89 per sq ft. DesignTex, Woodside, N. Y.



**427. Cabinet system**  
The Liasion cabinet system was designed by Jean Beirise. Cabinet tops and bottoms contain raceways for routing voice and data cables. The units are 15 1/2-in. deep and come in four different heights and three widths. Herman Miller, Inc., Zeeland, Mich.\*



**428. Benches**  
Designer Scott Regenbogen drew inspiration from a wide variety of sources—ranging from Greek Revival to American Arts & Crafts—for his East Side Collection of seven benches. The benches are intended for use in lobbies, waiting rooms, and executive offices. HBF, Hickory, N. C.



**429. Entrance mat**  
Pedimat II is the manufacturer's latest addition to its line of entrance mats. Six rail colors, intended to coordinate with carpet treads and floor surfaces, are available. The mats have vinyl/acrylic treads and aluminum hinge connectors. Construction Specialties, Inc., Muncy, Pa.



**430. Office furniture**  
The manufacturer's reconfigurable office furniture is intended for use in reception areas, cafeterias, and conference rooms. A variety of colors, finishes, and coordinating office accessories is available. Mero Systems Group, Germantown, Wis.



**431. Fabrics**  
Fabrics designed by Debra Lehman-Smith (shown) are part of the 3 By 5 (three fabrics from five designers) collection. The collection includes 17 designs in 175 colorways, with prices ranging from \$25 to \$75 pr yd. F. S. Contract, Div. of Schumacher, New York City.



**432. Office partitions**  
Since the stackable panels of the manufacturer's Interior Options Program do not require an inner-frame structure, they can be added or removed as necessary. Panel surface treatments include textiles, laminates, and woods. Panel trim comes in wood or metal. JG Furniture Systems, Inc., Quakertown, Pa.\*

\* Product Data on CAD disk



**433. Task chair**

The new TEChair II task chair has adjustable arm height and width; seat height and angle; and back height, depth, and angle. American Seating Company, Grand Rapids, Mich.



**434. Wood-framed furniture**

The Jane Family of wood and upholstered chairs (in arm and armless versions), two- and three-seat sofas, stools, and tables was designed by David Ritch and Mark Saffell. Frames are of maple and ash. Charlotte Co., Inc., Belding, Mich.\*



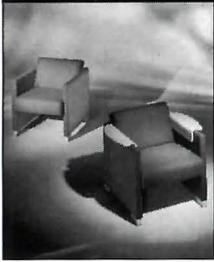
**435. Contract-application fabric**

The manufacturer's new collection of fabrics for contract use includes Darien Grospoint, made of 100 percent cotton. Yarn in two different sizes and a variety of colors visually enhances the traditional grospoint construction. Brunshwig & Fils, New York City.



**436. Shade headrail**

A gently curved headrail is a recent addition to the Lightlines Designer Series of micro- and mini-blinds. The headrail can accommodate valances and slats without gaps between the top slat and the headrail. It comes with hidden mounting brackets. Hunter Douglas Window Fashions, Upper Saddle River, N. J.



**437. Lounge furniture**

Overlay is a seating series designed by Brian Kane for health-care applications. A variety of wood types can be specified to cap armrests and protect the upholstery. Coordinating tables and sofas are also available. Wieland Furniture, Grabill, Ind.



**438. Occasional tables**

Los Angeles architect David Kellen's collection of tables has tops in rectangular and tri-arc shapes. Tops come in a variety of materials, including Venetian plaster, Corian, and wood veneer. Atelier International, Long Island City, N. Y.



**439. Flame-resistant fabrics**

Fahrenheit is a collection of Class A flame-resistant woven upholstery fabrics made with a Monsanto modacrylic fiber. The collection includes 12 patterns and 212 colorways, which are treated with a Teflon soil and stain repellent. Douglass Industries, Inc., Egg Harbor, N. J.



**440. Artificial "windows"**

ARTificial Windows is a collection of wood-frame light boxes containing back-lit photographs of over 160 different scenes, including golf courses, beaches, gardens, and snow-capped mountains. ARTificial Windows, Div. of Vemco Corp., San Dimas, Calif.



**441. Sun shading**

Sun shades made of fiberglass scrim can be ordered with custom super-graphic designs. The shades' ability to admit light is unaffected by the designs, while the fire-resistant scrim is said to minimize interior heat gain, according to the manufacturer. Sol-R-Veil, Inc., Bronx, N. Y.



**442. Ergonomic stool**

The Protitl Two, a recent addition to the manufacturer's line of ergonomic seating, is an adjustable height stand/sit stool intended for people who work standing up. By allowing users to partially sit as needed, the stool is said to relieve pressure and weight on backs, legs, and feet. BioFit Engineered Seating, Waterville, Ohio.



**443. Desk accessories**

Decathlon, a collection of desk accessories that includes different-size trays, a calendar, and pencil cup, was designed by Ross Lovegrove and Julian Brown. The rubber-like plastic "tread" of the pieces was inspired by the design of athletic shoes. The Knoll Group, New York City.



**444. Patient chair**

The Wedgewood patient chair has curved arms and legs made of 22 plies of hardwood laminations. Solid hardwood keystones give additional armrest support. A curved backrest is intended to provide lumbar support. Sauder Manufacturing Co., Archbold, Ohio.

\* Product Data on CAD disk



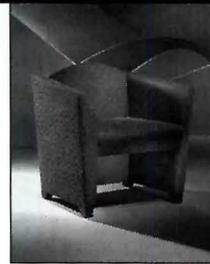
**445. Tables**

Intended for use in conference rooms, corporate cafeterias, and training rooms, the Derby table has three base elements—column, base foot, toe pad—that can be specified in one finish or a combination of colors. A variety of different-shape tops is available. Vecta, Grand Prairie, Tex.



**446. Chair**

New options have been added to the Uni chair designed by Werther Toffoloni, including arms, two stacking versions, and additional back-rest options. Made of solid beechwood, the chair frame is secured by cast-aluminum inserts bolted through legs and steel frame. Atelier International, Long Island City, N. Y.



**447. Seating**

A new seating collection designed by Lisa Smith is intended to coordinate with the manufacturer's collection of casegoods. Ascent Seating has exposed maple legs; upholstery comes in a variety of textiles and leathers. Mueller, a Haworth Co., Holland, Mich.



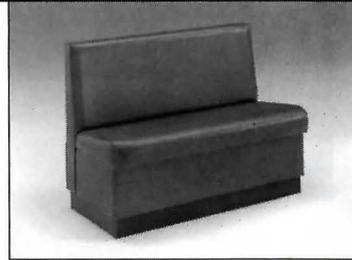
**448. Library furniture**

The components of this modular library carrel can be assembled in linear or pinwheel configurations. Made of solid hardwood, the carrels are constructed using traditional joinery methods. Thos. Moser Cabinetmaker, Inc., Auburn, Maine.



**449. Fabric**

Montpellier is a silk chenille fabric intended for use in high-end hospitality and office settings. A multi-colored warp gives the fabric a subtle color contrast. Seven colorways are available. Brunschwig & Fils, New York City.



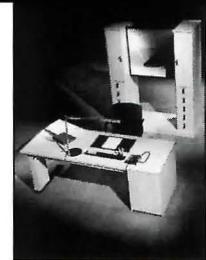
**450. Seating**

CAD drafting and layout services are used to fit the manufacturer's chairs and stools within a client floorplan and budget. Coordinating counters and millwork can also be included on three-dimensional proposed installation views. Plymold Seating, Kenyon, Minn.\*



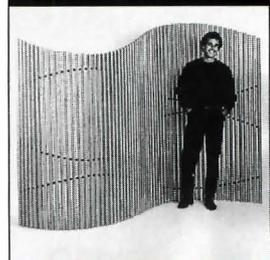
**451. Office seating**

The Accolade office chair comes in high-back, mid-back, and sled-base versions. The height and tilt of the seat and back can be adjusted independently and arm rests can be positioned at one of five different heights. Haworth, Inc., Holland, Mich.\*



**452. Office furniture**

The Orfeo furniture system, designed by Atkinson Design Associates, includes freestanding, beam-linked desks, storage units, boardroom tables, lighting, and paper-storage accessories. A concealed steel chassis provides wire management. Kimball Europe, London.



**453. Screen**

Designed by Glendon Good, the Poseidon Screen is an adjustable room divider made of aluminum, nylon, and rubber. Good's collection of furniture also includes tables and stools. Abraxas, Berkeley, Calif.



**454. Fabric**

Designed by Tim Van Campen American Mosaic is a textile collection of five different intricate computer-generated patterns intended for contract use. A variety of colors is available. The Knoll Group, New York City.



**455. Casements**

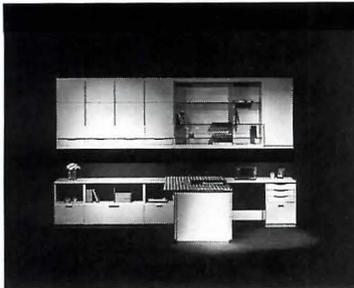
The new Bubble Dot pattern is intended to resemble bubbles floating to the surface of a champagne flute, according to the manufacturer. Made of silk, the fabric is woven in France at widths of 51 in. Gretchen Belinger, Inc., Cohoes, N. Y.



**456. Airport seating**

Raphael Lounging, designed by Roger K. Leib, was recently installed in public areas of San Francisco Airport (above). Armrests use a dense, self-skinning foam said to resist punctures. Add Interior Systems, Inc., Los Angeles.

\* Product Data on CAD disk



**457. Office furniture**

The Attache collection of office furniture includes desks, workstations, storage units, and credenzas (shown). Designed by Lauren Rottet and Richard Riveire, the system is based on a modular grid, allowing a variety of combinations. The pieces come in the manufacturer's standard woods and 12 Chemcolor finishes. Halcon, Stewartville, Minn.



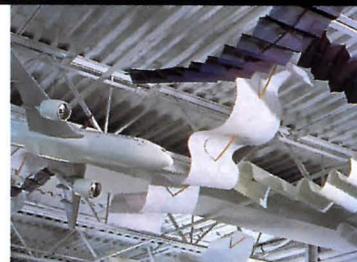
**458. Streamlined office**

A collection of office furniture designed by Marina McDonald Rezek is constructed of maple, with polished-aluminum handles. Desks can be ordered with chrome or stainless-steel bases and 3/4-in.- or 1-in.-thick glass tops. Jazz Furniture & Lighting, Inc., Los Angeles.



**459. Adjustable worksurface**

WorkZone is a collection of tables that adjust to heights between 23 and 34 in. The tables can be ordered with coordinating privacy screens and horizontal and vertical wire-management components. Post-formed or bull-nosed edges can be specified. KI, Green Bay, Wis.



**460. Banners**

Industrial artist Koryn Rolstad works with architects and interior designers to create installations for large public spaces and atriums. Rolstad's installation in a corporate cafeteria (above), for example, is constructed of fiberglass rods, air-brushed stainless-steel mesh, and air-brushed spun web polyester. Bannerworks, Inc., Seattle.



**461. Fabrics**

Jazz Masterworks is a fabric collection that includes Ragtime, Rhythm and Blues, and Basie patterns. All patterns are constructed of a cotton and rayon blend. A selection of 30 coordinated colors is available. Arc-Com Fabrics, Inc., Orangeburg, N. Y.



**462. Guest chair**

The Oberlin chair designed by Michael Vanderbyl has a perforated plywood backrest. The chair is 22 1/2 in. wide, 23 1/4 in. deep, and 34 in. high. It comes in maple or cherry, with the manufacturer's standard finishes. Bernhardt Furniture Co., Lenoir, N. C.



**463. Upholstery collection**

Surface Play is a line of nine upholstery fabrics designed by Laura Guido Clark. The collection includes cotton/polyesters, cotton/polypropylenes, cotton/polyester/rayons, and all-cottons in a variety of constructions. Carnegie, Rockville Centre, N. Y.



**464. Office casegoods**

Nines, a wood casegoods line, is based on a nine-inch-square module. Designed by Don Brinkmann of Gensler Associates, the collection of desks, credenzas, storage units, conference and occasional tables, is available in 10 veneers and five colors. Stow Davis, Kentwood, Mich.



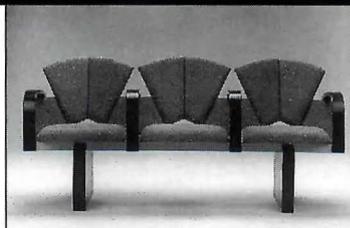
**465. Side chair**

Player is a moderately priced stackable side chair that can be ordered with or without armrests. The light-weight frame is available in chrome finish or a choice of seven colors. Steelcase, Inc., Grand Rapids, Mich.



**466. China**

Italian designer Ettore Sottsass's new collection of china tableware for manufacturer Alessi is called "La Bella Tavola" or the Beautiful Table. The collection includes coordinating coffee and tea pots, milk jugs, and sugar bowls. The Markuse Corp., Woburn, Mass.



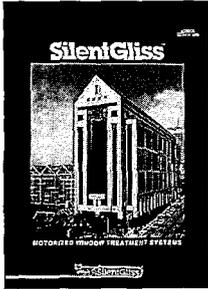
**467. Seating**

Originally designed for the lobby of the Holy Cross Hospital in Silver Spring, Maryland, Ariascape seating was designed by Peter Danko in two- and three-seat units. Other of Danko's body-conscious designs are included in the design collection of New York City's Museum of Modern Art. Danko, Clinton, Md.



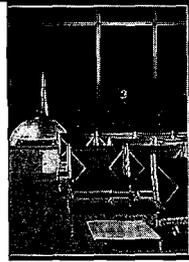
**468. Fiber art**

Jodi Kanter's custom-designed fiber artwork for interior spaces includes an installation at B. F. Goodrich Aerospace, in Akron, Ohio (shown). Kanter says her fiber art not only visually enhances a corporate lobby, it also provides acoustical benefits. Jodi Kanter Custom Designs In Weaving, Lyndhurst, Ohio.



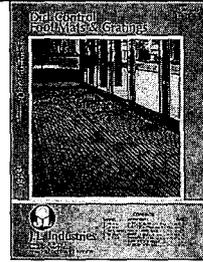
**469. Window hardware**

A 12-page color brochure outlines the manufacturer's line of manual and motorized hardware for draperies, vertical blinds, soft shades, roller blinds, skylights, and panel-moving systems. Silent Gliss, a curved and motorized product custom-made for each application, is highlighted. Silent Gliss USA, Inc., Loganville, Ga.



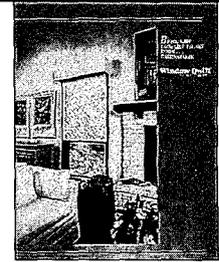
**470. Seating**

Tandem seating, originally designed in 1962 for Chicago's O'Hare International Airport by Charles and Ray Eames, is the focus of a four-page color brochure. Tables may be interspersed with the seats in a variety of configurations up to 10 units per support beam. Herman Miller, Inc., Zeeland, Mich. \*



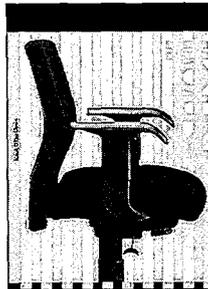
**471. Mats and grating**

Roll-up mats and installed gratings intended to control dirt and eliminate slippery wet floors are described in a four-page color brochure. Specifications and insert details are included, showing thin-slab and drain-pan applications. J. L. Industries, Bloomington, Minn.



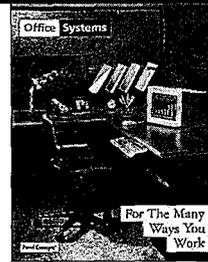
**472. Insulating shades**

Window Quilt, a five-layer composite of insulation, vapor barrier, and protective covering is said to eliminate window drafts and heat loss by as much as 80 percent, according to a six-page color brochure. Ten colors and two quilting patterns are available. Shades operate manually or with an electric motor. Northern Cross Industries, Brattleboro, Vt.



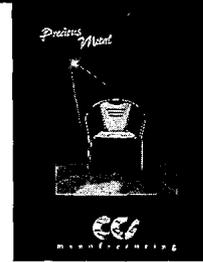
**473. Office seating**

A 62-page brochure outlines the manufacturer's line of office chairs, including well-known designs by Richard Sapper, Charles Pollock, Niels Diffrient, Ettore Sottsass, and Frank Gehry. A selection of finishes and upholstery fabrics is pictured. The Knoll Group, New York City.



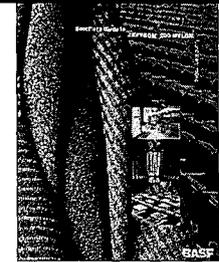
**474. Office systems**

New additions to a line of office furniture are reviewed in a 12-page color brochure, including a midline electrical system, an alternative to panel-base raceways. Provides power at the work-surface level and cluster corner shelving. Panel Concepts, Inc., Santa Ana, Calif.



**475. Metal furniture**

A 26-page color brochure outlines the manufacturer's collection of metal furniture suitable for indoor and outdoor use. Designs with frames of rectangular steel tubing, welded flat steel, and tubular steel coated with a polyester-epoxy powder finish are shown. Sizes and colors are listed. Continental Creative Sales, Inc., Garfield, N. J.



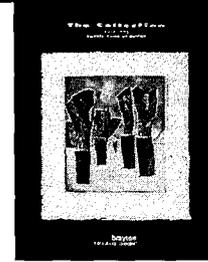
**476. Upholstery fabric**

A specification guide outlines the benefits of Zeftron 200 nylon upholstery fabric, said to be highly fade- and dirt-resistant. Abrasion resistance, performance, cleaning, and environmental data is included. BASF Corp., New York City.



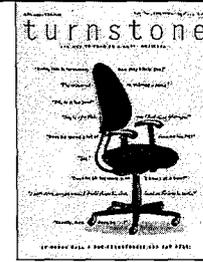
**477. Outdoor furniture**

Teak furniture, market umbrellas, and textiles suitable for outdoor use are described in a color brochure. The furniture collection, designed by Mark Singer, includes chaise longues, chairs, ottomans, dining tables, sofas, and side tables in three teak finishes. GIATI Designs, Inc., Santa Barbara, Calif.



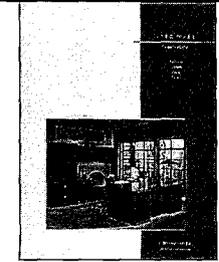
**478. Contract collection**

Commemorating the company's 25th anniversary, a new catalog reviews an entire product line, including lounge seating, office seating, and tables. Dimensions of all products are listed, as well as available finishes and upholstery fabrics. Brayton International Collection, High Point, N. C.



**479. Office furniture**

Desks, seating, storage, and a variety of "work tools" for office or home-office use are outlined in a 52-page catalog. Targeted at small businesses, this new division of Steelcase promises 48-hour or five-day delivery and flexible lease plans. Turnstone, Wyoming, Mich.



**480. Modular casegoods**

New literature on Spec-Wall components describes additional panel-edge options, including radius and beveled-edge detailing. A wire-management harness provides computer connectors and isolated circuits for computer use, as well as standard electric and telephone hook-ups. Dar/Ran Furniture Industries, High Point, N. C.

\* Product Data on CAD disk

For more information, write item numbers on Reader Service Cards.



**481. Tensile-structure fabric**  
Sheerfill Architectural Membrane, a woven electrical-grade Fiberglas substrate coated with Teflon PTFE, has sheltered the La Verne University library (The Shaver Partnership, architect) without problems for over 20 years. Noncombustible per E-136, fabric passes NFPA 701; it is highly translucent while reflecting most solar heat. Chemfab, Buffalo, N. Y.



**482. Clearspan skylight system**  
A Michigan college building by Hobbs + Black, architect, uses a very-long-span insulated translucent skylight that combines insulated fiberglass panels with a pre-engineered aluminum structural system. The manufacturer provides site-specific services from design to installation. Structures Unlimited, Inc., Manchester, N. H.



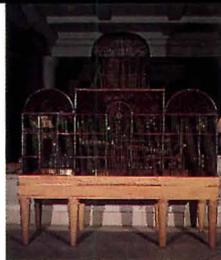
**483. Adaptable habitat**  
A climate-controlled structure with a sloping glass roof—whose 10-ft-high glass front wall can withstand the impact of a 300-lb panda bear—illustrates the adaptable nature of Skytech's solarium and skylight systems. The manufacturer provides design, fabrication, and installation services. Skytech Systems, Bloomsburg, Pa.



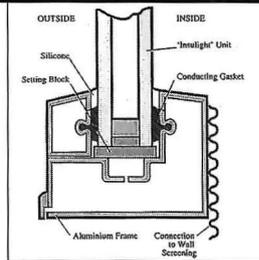
**484. Modular detention units**  
Modularized detention units are factory-built of steel and rolled into place on-site. Assembled modules may consist of up to six cells, and weigh one-third as much as a typical concrete cell. Units come pre-wired and pre-plumbed. Cell fronts, chase walls, and wall panels are also available. Hopeman Correctional Systems, Waynesboro, Va.



**485. Fiberglass structures**  
A 37-ft-tall, all-fiberglass spire atop the NationsBank building in Atlanta houses communications antennae. The spire illustrates how Durashield foam-core panels and Extren structural I-beams and angles can be used together to prefabricate architectural structures that are transparent to electromagnetic waves. MMFG, Bristol, Va.



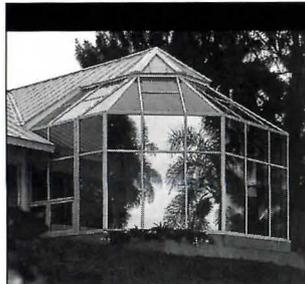
**486. Amazing aviaries**  
Artist William Bateman Ruffner designs and constructs large, functional aviaries that make reference to a number of styles, including Victorian, Post Modern, and Art Deco. The cages are handmade of brass, bronze, copper, and steel, in a series of limited editions or to order (without birds). British-By-Nature, Beverly Hills.



**487. EMI-proof glass**  
Datatop glazing safeguards information held on computers from unauthorized interrogation from the outside, interference, or loss due to extraneous electronic noise, as might be produced by radar. No metal mesh is embedded in the glass, and impact resistance and light transmission are high. Pilkington Architectural, Tampa, Fla.



**488. Invisible speaker panels**  
Invisigrille integrated acoustical speaker panels match Celotex's Cashmere line of lay-in ceiling panels. A factory-painted fabric covers the opening in the panel where the speakers are mounted. The fabric is said to coordinate well with the textured surface of the panels, which resemble fine fabric. Celotex Corp., Tampa, Fla.



**489. Super-insulating solarium**  
This maker's solarium structures can now be ordered with R-10 Maxi-Glas, developed exclusively for flat-glass applications. This 1 1/8-in.-thick, R-10 configuration has two layers of Heat Mirror 77 film suspended within Krypton gas; warm-edge spacers give the units additional insulating capability. Sunshine Rooms, Wichita, Kan.



**490. Tensile structures**  
The transit-bus depot in Northgate, Washington, designed by the Zimmer Gunsul Frasca Partnership, is an example of a Birdair Tensioned Membrane Structure. The Teflon-coated fiberglass structures can be used for many building types, including small-scale sports, performing arts, and transportation facilities. Birdair, Inc., Amherst, N. Y.



**491. Over-aisle storage**  
Over-aisle Mezzanine Systems allow floor space to be created in normally wasted space. The units come in 8-ft or 10-ft heights, and can be ordered with several floor-grating styles and a number of accessories, such as railings, drop gates, and stairways. Load-bearing capacity of the units is 150 pfs. Equipto, Aurora, Ill.



**492. X-ray barriers**  
Clear-Pb Lead-plastic X-ray Barriers and Windows are shatter-resistant, transparent plastic imbedded with 30 percent lead, by weight. It replaces the traditional tiny lead-glass windows with panoramic views of the X-ray room, using either permanently installed sheets of plastic, or temporary barriers. Nuclear Associates, Carle Place, N. Y.

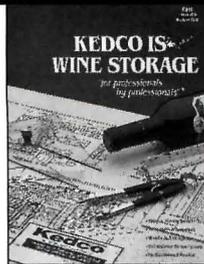
\* Product Data on CAD disk

For more information, write item numbers on Reader Service Cards.



### 493. Radio-frequency shielding

A computerized design manual—software on 3.5-in., PC-compatible disks—is offered to assist the architect specifying all-fiberglass structures for radio-frequency shielding applications. It supplies complete beam, loading, shear, and deflection data for FRP beams and decking components. Morrison Molded Fiber Glass Co., Bristol, Va.\*



### 494. Wine cellars

Working from supplied data (the number of wine bottles needing storage) Kedco can design bins, cabinets, racks, and refrigerated units to an architect's specifications. Brochure illustrates storage applications from a kitchen closet to large retail stores and restaurants. Kedco Wine Storage Systems, Farmingdale, N. Y.



### 495. Interior spaceframes

A four-color, eight-page 1994 catalog describes and illustrates MERO spaceframes, trussing and mezzanines, aluminum display cases, ceiling systems, and trusses. Details, applications, and design services are featured. MERO Systems Group, Germantown, Wis.



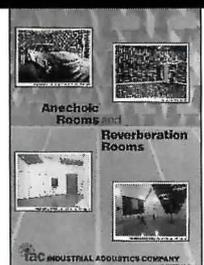
### 496. Acoustical environments

Noise-absorbing and controlling components engineered primarily for music-education facilities are explained. A questionnaire highlights the design parameters vital to insuring a comfortable, productive environment for any type of music-oriented application. Wenger Corp., Owatonna, Minn.



### 497. Motorized pool cover

Automatic covers of reinforced vinyl are custom-fit into unobtrusive tracks to form a tight, protective, and insulating cover over indoor and outdoor swimming pools. Can fit any straight-edge pool up to 25- by 75-ft; a surface-mount universal track system accommodates curved and existing installations. Cover-pools, Inc., Salt Lake City.



### 498. Anechoic rooms

An 18-page illustrated technical brochure explains how over 40 years of expertise in building acoustic test facilities, including over 150 large and small anechoic (free field) and reverberation rooms, has developed sound-control products for any architectural application. Details design-assistance services. Industrial Acoustic Co., Bronx, N. Y.



### 499. Buildings ready-to-go

A color portfolio illustrates as-built applications of modular and mobile structures used as both temporary and permanent space for sales offices, branch banks, clinics, classrooms, detention facilities, and other customized adaptations. Structures may be designed to user's needs, or drawn from inventory. GE Capital Modular Space, Devon, Pa.



### 500. Clean-room envelopes

A color brochure explains how Unistrut can handle all aspects of clean-room construction, including walls, floors, ceilings, structural supports, and equipment hook-ups. Describes a full range of planning, construction, and technical-support services based on 40 years of experience. Unistrut Corp., Ann Arbor, Mich.\*



### 501. Parking lot show-and-tell

A 20-minute video profiles design and construction basics for new concrete parking lots, examining site planning, subgrade prep, quality concrete-mix designs, placing and finishing, slab jointing, and traffic control. Small charge; brochure also offered. Portland Cement Association, Skokie, Ill.\*



### 502. Daylit pavilion

A color catalog illustrates how translucent Danpalon panels, opening roof system, and perimeter walls and sliding doors of insulated, tempered, glass can turn an outdoor pool into a year-round recreational facility. Motorized-roof technology can also be applied to skylights or atriums. CPI International, Solar Structures Division, Mundelein, Ill.



### 503. EMI-shielding fabric

A brochure and CAD software provide architectural-design and installation data on Flection metalized material. A metal-plated polyester or nylon fabric, Flection comes in various constructions to shield across a wide dB range. Material supplied in continuous, cut-to-fit rolls; will not trap moisture vapor. Monsanto Chemical Co., St. Louis.\*

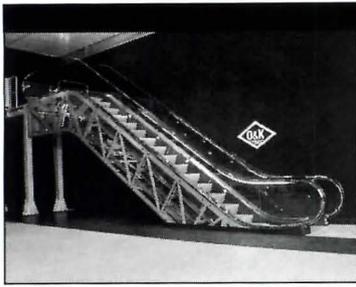


### 504. Wood-framed solarium

One of several residential and commercial catalogs offered, an eight-page color brochure suggests the open and airy feeling made possible by a solarium addition. Woodhaven units are made of laminated pine or cedar, with exterior aluminum cladding, and may be add-ons or freestanding. Florian Greenhouse, Inc., West Milford, N. J.\*

\* Product Data on CAD disk

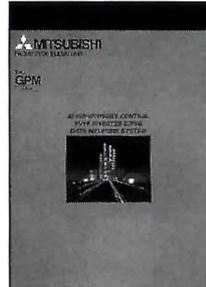
For more information, write item numbers on Reader Service Cards.



**505. "Esthetic" escalator**  
The new TransVario escalator is said to work well as an architectural-design component. Glass balustrades fitted directly to handrails can be spot-lit for special effects; widely projecting stair ends add balance and greater safety without additional rails. Needing no drive chains and belts, space requirements are reduced. O&K, Newport News, Va.



**506. Automated cable car**  
Computer-controlled transport handles difficult urban sites requiring tight curves and lightweight structures. Each POMA cable car holds 40 people, and can run at 22 mph up steep gradients. Multiple-jaw grips connect cars with traction cables integrated in the track; cars can reverse without maneuvering. POMA America, Inc., Grand Junction, Colo.



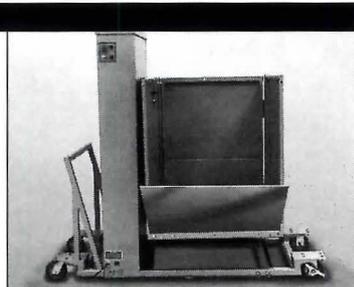
**511. Quick and smart**  
Artificial-intelligence technology used in new elevator controls allows the system to make qualitative judgments based on immense databases of elevator-traffic information. Card-dispatching decisions are made on total travel-time needs of passengers, not just waiting time. Said to greatly reduce elevator downtime. MEC Elevator Co., Cypress, Calif.



**512. Accessible elevators**  
Dover offers a new, "common sense" guide to evaluating existing elevators for ADA standards, and will answer specific questions an architect or building owner may have about any type of elevator upgrade. Dover Elevator Systems, Inc., Memphis, Tenn.



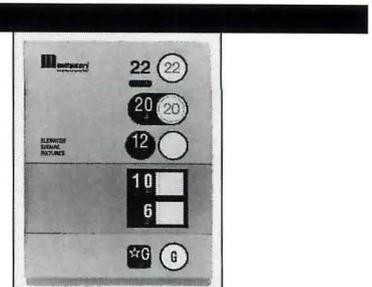
**507. Battery-powered elevator**  
Model BP Elevette offers full and continuous operation during power outages. With a rated capacity of 500 lbs. it can travel a maximum of 50 ft at a speed of 28 fpm. Can be ordered in standard-wood or custom-built cars, in any combination of one, two, or three gates. Inclinator Company of America, Inc., Harrisburg, Pa.



**508. Portable platform lift**  
The Portable Unit Package for Porch-Lift vertical platform lifts provides the solution when only temporary access is required, as for special events in facilities with low-rise barriers. Unit can be stored out of sight. Lifting heights to 72 in.; loads up to 750 lbs. Access Industries, Inc., Grandview, Mo.



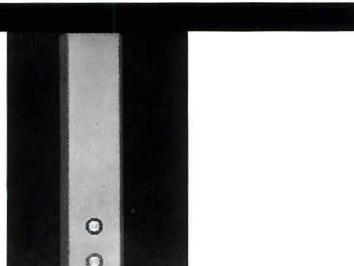
**513. Economical elevator**  
The Excelelevator, a 2:1 roped hydraulic residential elevator, is said to be as economically priced as most winding-drum lifts while offering smooth, gentle starts and stops. Rated for 700 lbs.; travels at 30 fpm to a maximum height of 50 ft. Four cab-design, wood-gate, and panel options. Waupaca Elevator Co., Inc., Waupaca, Wis.



**514. Signal fixtures**  
A 16-page color brochure illustrates three significantly upgraded in-cab and lobby elevator-signal styles: Conventional, Vector, and Select. Each now meets all ADA requirements, and offers a variety of options to meet design and specification needs of architects and building owners. Montgomery Elevator Co., Moline, Ill.



**509. Larger but smaller**  
A new utility container for use with this maker's Electric Track Vehicle material-transport system has a lower profile but provides 20 percent more usable cargo space than existing containers. System uses self-propelled vehicles that travel both horizontally and vertically along a network of aluminum track. TransLogic Corp., Denver.



**510. ADA-compliant controls**  
An overlay design allows the labor-saving re-use of existing wiring conduits and boxes when upgrading in-cab or hall-landing elevator-control panels to meet accessibility requirements. Metal parts can be specified in either bronze or stainless, in #4 and #8 finishes. A. D. A. Elevator Products, East Lansing, Mich.



**515. Passenger conveyors**  
Compaveyor booklet illustrates two types of conveyors that move a large volume of traffic: the RSE for inclines of up to 10-12 degrees, and the RSH for inclines of up to four degrees. A short pallet design is said to minimize space requirements; "no-axle" mechanics reduce operational noise. Schindler Elevator Corp., Morristown, N. J.

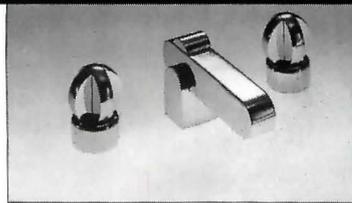


**516. Stair-lift design**  
A newly revised guide has 40 pages with information on codes, layouts, installation photos, and site requirements. Stair- and platform-lift systems can be installed indoors and out, often with minimal impact on building appearance. Videos show lifts in use; specification text on disk. Garaventa (Canada) Ltd., Blaine, Wash.\*

\* Product Data on CAD disk



**517. New sink colors**  
Blanco, a manufacturer of composite sinks, recently added two colors. Opal, which has a green metallic effect, has been added to the existing Silacron colors: white, almond, black and metallic. Polar, simulating white granite, has been added to the existing Silgranit colors: Impala, Sand, and Perla. Blanco, Blackwood, N. J.



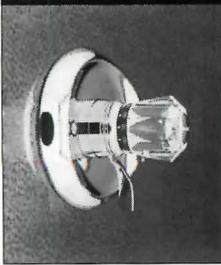
**518. Lavatory set**  
The sleek, sculptural Colorado lavatory set is finished in gold and polished chrome. The Colorado design is available for all functions in the bathroom, and in many other finishes. It is installed using the company's Quick-Prep valving system. Paul Associates, Long Island City, N. Y.



**519. Contemporary sink**  
The Notorious sink, imported by Watercolors, Inc., is available in two versions: with tops of solid glass or veneered pear wood. The bowl, made of polished 18/8 stainless steel, is recessed into the console top, and supported by tapered legs finished in plated polished chrome. Watercolors, Inc., Garrison, N. Y.



**520. Lead-free fountains**  
The Design 2000 Cooler with the WaterSentry Lead Removal System reduces soluble and insoluble lead content to .015 mg/L and removes more than 75 percent of free available chlorine. A monitor counts water usage and sounds an alarm when the filter needs to be replaced. Available in barrier-free models. Elkay, Oak Brook, Ill.



**521. Auto-mixing valve**  
The Grohmix pressure-balance mixing valve allows the user to pre-set the water temperature as easily as setting a thermostat. Accurate to 1F, the temperature can be set anywhere in the 60F- to 100F-range. Hotter temperatures can be achieved by pushing an override button. Grohe America, Bloomington, Ill.



**522. Barrier-free products**  
Danish designs for the physically challenged—hand rails, support arms, shower chairs, and adjustable fixtures—made by Pressalit A/S, are now being distributed by American Standard. Fittings are designed to combine functionality with an attractive, non-institutional appearance. American Standard/Pressalit, Piscataway, N. J.\*



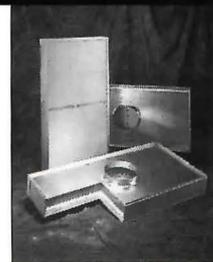
**523. Hydronic heating system**  
The Radiant Floor Heating (RFH) system circulates 90F- to 120F-water through pipes encased in or stapled to the subfloor, producing economical, even heat without drafts or condensation. The manufacturer makes a complete line of RFH systems, such as floor, radiator, and hot water/air coil. Rehau, Inc., Leesburg, Va.



**524. ADA-complying commode**  
The TurboFlush Model 4740 is 17 1/2-in. tall, and has an elongated bowl. It is made of vitreous china and uses only 1.5 gal. of water per flush. The toilet meets both ADA and water-saving requirements, and is suitable for hotels, office buildings, and hospitals, and homes and apartments. Briggs Industries, Tampa, Fla.



**525. Adjustable showerheads**  
The InTouch II showerhead delivers water at a low 2.5 gallons per minute while providing wide, narrow, strong, or soft spray, as well as a pulsating massage. A temporary-shut-off setting turns the water-flow down to a trickle while soaping or shampooing. Interbath, Inc., City of Industry, Calif.



**526. Ducted ceiling filters**  
The Cam-1 PX and BasiCam PX filter modules work for a full range of cleanroom applications. The Cam-1 PX, for cleanrooms as demanding as Class M1.5, has a damper which can be adjusted for precise laminar flow. The BasiCam PX is a damperless version for Class M6.5 to M4.5 applications. Farr Co., Los Angeles.



**527. Bath fittings**  
German-made Groupe Jado fittings come in styles from traditional to contemporary, with a range of products in each design: lavatory faucets, shower sets, towel bars, and accessories. Pictured are Series Walz handles and spout, designed by New Yorker Kevin Walz. Jado Bathroom and Hardware Manufacturing Corp., Camarillo, Calif.



**528. Electronic urinals**  
The Bardon Touchless Lite urinal features electronics and flush valve incorporated in a chamber integral to the urinal, and secured by a lockable lid. The unit uses only 1/2-gallon per flush, has a 14-in. extended rim to comply with accessibility requirements, and comes in 11 colors. Kohler Co., Kohler, Wis.



**529. Anti-scald controls**

Monitor-series valves prevent temperature fluctuation by automatically compensating for pressure surges before water leaves the pipes. Indicators eliminate guesswork in installation. High-end models offer bathwater-adjustable volume and temperature controls. Washerless. Delta Faucet Co., Indianapolis.



**530. The fans of flight**

The fantasy flyer is a replica of the F-4U World War II Corsair Navy Fighter Plane, with its 4-foot blades matching the original propeller scheme. An 8-ft applique applied to the ceiling is styled after the cockpit, wings, and landing gear. Combines air circulation and aerial assault. Three reversible speeds. Hunter Fan Co., Memphis, Tenn.



**531. Gilt-edged faucet**

A coat-of-arms and insets of 24-karat gold-plated brass distinguish the Cesello spread lavatory faucet uniform symmetrical design and ceramic-disk valve technology. Created by jewelry designer Antonio Bullo and manufactured by Sottini in Italy. Pictured above in chrome; also available in white. American Standard. Piscataway, N. J.\*



**532. Sub-surface heating**

Fluid-circulating, corrosion-proof polyethylene tubing is installed below a floor, sidewalk, driveway, or playing field. When the liquid is heated, warmth rises to melt snow and ice or heat a room. Can be used under a variety of surfaces, from concrete to grass. Temperature can be adjusted from room to room. Heatlink, Grand Rapids, Mich.



**533. Vanity**

Countertop, mirror, cabinets, lighting, and fireclay pedestal lavatory are part of the new Trocadero Suite shown above. The unit measures 63-in. long by 24-in. deep by 82-in. high. Cabinets are available in maple veneer (shown) and in white; countertop is Avonite. Designed by Jacob Delafon of France. Dual-basin vanity an option. Kohler Co., Kohler, Wis.



**534. Barrier-free bubbler**

This ADA-compliant, wall-mounted water fountain is designed for both indoor and outdoor applications. The Double Bubbler is available only in granite-colored, weatherproof stone aggregate. Stainless-steel basin. Front push-button operation. Vandal-resistant. Freestanding models also available. Halsey Taylor, Inc., Oak Brook, Ill.



**535. Baseboard accents**

DesignLine offers rust-proof, extruded-aluminum baseboards in 19 colors for use with hot-water heating systems. Interchangeable inserts are available in over sixty colors. The baseboards rise 6 1/2-in. off the floor and mount close to the wall. Inserts can be matched to existing wallpaper or paint. Even heat distribution. Mestek, Inc. Westfield, Mass.



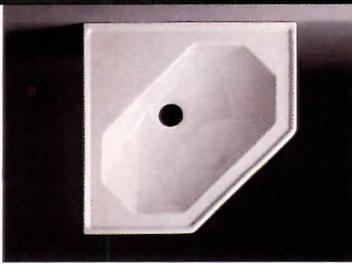
**536. Outdoor fountain**

A new pedestal-mounted drinking fountain offers dual-height bubblers to help comply with ADA requirements. Constructed of vibracast, a reinforced concrete, with concrete guards over chrome-plated bubblers. Waste strainers allow for top-down access. Color tile insets are optional. For outdoor use only. Haws Drinking Faucet Co., Berkeley, Calif.



**537. Undermount sinks**

A new line of dual-basin sinks offers 18-gauge, stainless-steel construction in three styles: a traditional-style sink, a contemporary design featuring round bowls, and the largest model, two bowls of equal size (13 1/2-in. wide by 16-in. long by 7 5/8-in. deep). All with scratch-resistant finishes. Elkay Manufacturing, Oak Brook, Ill.



**538. Powder-room basin**

This compact, corner wash basin is designed to fit in small washrooms. Its German-made straight lines and balance are designed to recall the classic Bauhaus style. The Series 1930 line from Duravit features other pieces, including a water-closet and bidet. Bathroom furniture is also available. Santile International Corp., Norcross, Ga.



**539. Radiance**

Five years in the making, the Entran 3 radiant heating system is designed to compete with up-market European systems. Four-layer hose construction. UL listed, Entran is rated to -40F and warrantied to 200F. Can be installed in cold weather. Corrosion-resistant. Brass valves and unions. Goodyear/Heatway. Springfield, Mo.



**540. The kitchen sink**

The Surell sink is constructed of cast, non-porous material and is solid throughout. Flushmount or undermount installation options. Available in two sizes: 16- by 21- by 8 1/4-in., and 16- by 10- by 6 1/2-in. Stain-, burn-, and scratch-resistant. Choice of six solid, pastel colors. Formica Corp., Cincinnati.

\* Product Data on CAD disk



### 541. Snow melts

The Infloor radiant-heating system is designed for both under-floor interior heating and outdoor snow and ice melting. Water is treated with propylene glycol and heated. Indoors, 1/2-in. or 3/4-in. tubes allow for 1,000-ft circuits. Outside, a single manifold can distribute heat to 500-ft of tubing. Gyp-Crete, Corp., Hamel, Minn.\*



### 542. Bathing kits

Corian tub and shower-wall kits offer easy, five-step installation, even over existing tile. Three-wall tub and two-wall and three-wall showers are available. Grout-free, cornerless design. Non-porous surface discourages mold growth. Cut to specification. Choose from six colors. Color-matched trim molding. DuPont Co., Wilmington, Del.\*



### 543. Steel sinks

A new eight-page catalog from Dayton pictures a builder's line of stainless-steel sinks. Single- and double-bowl models are offered in three grades of resilient, chip-resistant steel. A special section is devoted to ADA-compliant basins. The catalog also features a line of sink accessories designed to fit Dayton's sinks. Elkay, Oak Brook, Ill.\*



### 544. Bathroom chic

Designer lavatories, tubs, and toilets are featured in a new 24-page brochure. Most products are made of molded fireclay — a composite of clay, kaolin, talc, and pre-fired clay particles. Stain, scratch, and rust-resistant. Porcher, Chicago.



### 545. Sinks and faucets

Featured in a new 20-page, full-color catalog are 18 styles of faucets, 11 sink designs, and an array of kitchen accessories. Photos, specs, and schematic drawings of products. Some designed by Danish architect Arne Jacobsen and seen in the design collection of New York's MOMA. Kroin, Cambridge, Mass.



### 546. Vitreous china

Six water-save toilets, most flushometer-ready, are featured in a four-page catalog of commercial restroom products. Push-action, self-closing metered faucet. Wall-hung lavatories offer self-draining soap dishes. Urinals available in three sizes. ADA-compliant. Black and white photos. Gerber, Chicago.



### 547. ADA faucets

A new brochure lists and illustrates faucets that comply with the Americans with Disabilities Act and ANSI accessibility standards. Featured products include a lever-operated, slow-closing metering faucet, and an offset grid strainer for installation in wheelchair-accessible sinks. Chicago Faucet, Des Plaines, Ill.



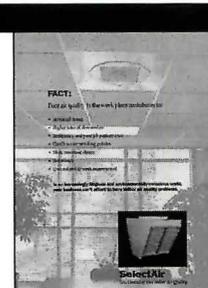
### 548. Whirlpools

A new catalog by a well-known maker of whirlpool baths pictures a line of tubs, showers, and accessories. The smooth acrylic finish is stain-resistant. Thirteen models feature room for two. Variety of shapes, sizes, colors. Adjustable jets and slip-resistant bottom. Jacuzzi, Walnut Creek, Calif.



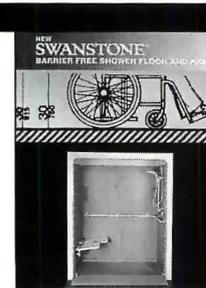
### 549. Electronic plumbing

A new line of battery-operated plumbing products is designed to comply with the ADA and to make life more comfortable for the physically impaired. Products include self-flushing urinal and toilet valves and hands-free faucets. A single six-volt battery can run one unit for five years. Toto Kiki U. S. A. Inc., Orange, Calif.



### 550. Air filtration

A new air-filtration system works with two filters. A particle filter traps smoke and dust while a carbon filter absorbs gases and chemical vapors. One unit cleans and circulates 250 cubic feet of air each minute. Designed for both suspended and sheetrock ceilings. Components are UL listed. SelectAir, Charlotte, N. C.



### 551. ADA-friendly shower

A four-page catalog features a shower, shower floor, and ramp built of solid-surface material to comply with ADA requirements. Included in the brochure are color photographs, charts, new and retrofit installation possibilities, and schematic drawings. Swanstone, St. Louis.



### 552. Wooden grills

Seven models of floor-set wood grills for forced-air heating systems are featured in a new catalog. Models are designed to fit into either wood or carpeted floors; flush or framed. Made of red or white oak, or hard maple. Custom woods and sizing available. Grill Works, Minnetonka, Minn.

\* Product Data on CAD disk



**553. Vandal-resistant sconce**  
The Columbus is a vandal-resistant wall-mounted fixture, with a cast aluminum housing, stainless-steel face struts, and a clear, UV-stabilized polycarbonate lens. An optically designed perforated-aluminum diffuser controls glare from compact-fluorescent or high-intensity discharge sources. Poulsen Lighting, Inc., Miami.



**554. Bauhaus lamp**  
The NT709 table lamp has been created with a classic Bauhaus look, combining a gracefully tapered stem and delicate base. The 25-in.-tall lamp has been created in brushed or polished brass or chrome. Black or white lacquered-paper shades are available with a choice of white or gold linings. Nessen Lighting, Mamaroneck, N. Y.



**555. Low-profile sconce**  
The Surf sconce, designed by Piotr Sierakowski, projects only 3 1/2-in., meeting ADA requirements. It is available in mahogany or maple woods, or gold or silver leaf on maple, or may be custom finished. The sconce can be specified with either a 13W compact-fluorescent lamp, or a 60W T-lamp. Baldinger Architectural Lighting, Inc., Astoria, N. Y.



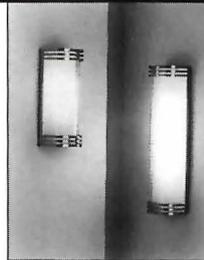
**556. Invisible sound system**  
The Freespace bass module, when used with the FreeSpace suspended-ceiling adaptor, can be mounted above a suspended tile ceiling. The assembly meets UL-2043, which allows it to be mounted in plenum air spaces. The module directs its speakers through a conventional ceiling grille, and is otherwise invisible. Bose Corp., Framingham, Mass.



**557. Tear-drop fixture**  
The Esplanade is designed to replicate the tear-drop-style streetlights common to the first half of this century. The 20- to 35-ft-high fixtures provide uniform pavement illumination, while the globe emits only a soft glow. Takes HID lamps up to 400W or incandescent lamps. Unique Solutions Div. of Holophane Co., Newark, Ohio.\*



**558. Fiber-optic illuminator**  
The 501 fiber-optic illuminator employs a 400W custom-designed metal-halide lamp, and is 30 times brighter than the illuminator originally introduced by this manufacturer in 1986. The illuminator uses quick-start ballasts and is UL-listed for indoor and damp outdoor locations. Fiberstars, Inc., Fremont, Calif.



**559. Versatile sconce**  
The Meridian wall sconce is ideal for bath and vanity applications and in corridors, elevators, and lobbies. Fabricated from solid bar stock and fluted glass, the sconces are available with compact-fluorescent or incandescent lamping, and in brass or chrome finishes. ADA compliance information is available. Boyd Lighting Co., San Francisco.



**560. UV floodlight**  
The scene above is illuminated by the WF400 Flood, a UL-listed UV floodlight that can illuminate fluorescent-painted objects up to 80 ft away. Constructed of corrosion-resistant aluminum, the fixture is ideal for film, video, display, and stage lighting. The manufacturer also provides special-effects design services. Wildfire, Inc., Los Angeles.



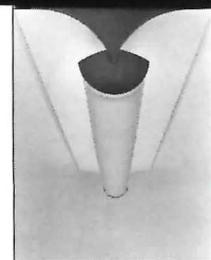
**561. Mini wall pack**  
The MicroPro wall pack is suggested for security or perimeter lighting. The housing is made of molded polycarbonate, with an impact-resistant acrylic lens, and is available with HID or compact-fluorescent lamps in a variety of wattages. It can be mounted to recessed boxes or wired with surface conduit. Stonco, a division of Genlyte, Union, N. J.



**562. Tiny halogen flood**  
The extremely versatile Micro-Flood is a compact exterior floodlight which has a die-cast aluminum housing and tempered-glass lens. The 12V model can be equipped with either a bi-pin halogen lamp or an MR16. The 120V model uses a T3 halogen lamp. Barn doors and fixed hoods are available. Kim Lighting, City of Industry, Calif.

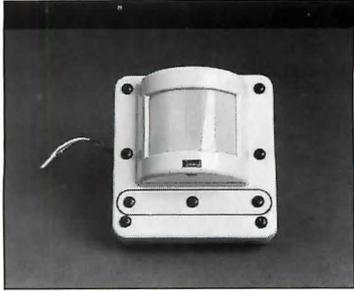


**563. Cast lighting bollards**  
The Sierra model of the StoneForms family of fiber-reinforced concrete lighting bollards is pictured above. The fixtures are designed to withstand the rigors of public environments without looking institutional. Lamping options include standard- and low-voltage incandescent, HID, and fluorescent. Woodform, Portland, Ore.



**564. Recessed uplight**  
The RC luminaire combines the visual comfort of an indirect uplight with the convenience of a recessed fixture. The fixture uses a perforated-metal refractor basket, backed by an opal lens inlay to minimize fixture brightness. The fixture is available in three recessed sizes, and a surface-mounted model. Zumtobel Lighting, Inc., Garfield, N. J.\*

\* Product Data on CAD disk



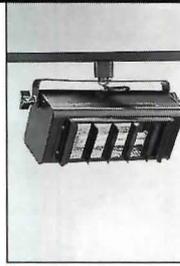
**565. Low-temperature sensors**

The CB-100 and CB-200 passive infrared occupancy sensors are designed to control lighting in cold, damp environments, as low as -40F for the CB-100 and 20F for the CB-200. The gasketed, watertight units can be used to interface with hvac, EMS, and monitoring systems in addition to lighting. The Watt Stopper, Inc., Santa Clara, Calif.



**566. Task-lighting system**

The System-2 task light is wall-mounted. It has a unique mid-arm joint which allows the light to be moved up and down and from left to right. The cool reflector-shade has a protective lens to reduce UV rays. The unit uses a 35W halogen lamp, and may be used with a quick-connect cord or hard wired. Luxo Corp., Port Chester, N. Y.



**567. Fluorescent flood**

The FF18 fluorescent wall washer uses 2-18W compact-fluorescent lamps to create broad washes of light. Ideal for galleries, museums, and showrooms, the six-pound fixture comes with an electronic ballast, removable louver, and an accessory holder that accepts glass color filters. Times Square Lighting, New York City.



**568. LED exit sign**

The Signature LED exit sign consumes only 6.5W of electricity while providing bright, uniform illumination of the 3/4-in. letter stroke. The LED lamps have a rated life of 25 years, virtually eliminating lamp replacement. The nickel-cadmium batteries and electronics are concealed within the sign housing. Lithonia Lighting, Conyers, Ga.



**569. Mini-emergency light**

A tiny emergency luminaire takes advantage of the super-efficiencies of a 5W halogen lamp and precision optics to rival the performance of larger units. The lights quick-mount to any 4-in. octagonal box. The maintenance-free sealed battery and precision charger are contained within the fixture housing. Yorlkite Electronics, Inc., Bensalem, Pa.



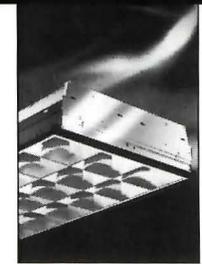
**570. Low-watt PAR lamp**

A new 60W Capsylite PAR38 lamp with 17,500 CBCP and a 10-deg beam has been developed. In some circumstances it can be used to replace ordinary 150W PAR38s with 11,500 CBCP and 15-deg beam-spreads. The 3000K halogen lamps maintain full light output over their 2500-hour rated life. Osram Sylvania, Inc., Danvers, Mass.



**571. Brass wall sconce**

The sculptural, solid-brass wall sconce performs its uplighting task through the use of a 500W quartz lamp. A reflector is used to project light across the ceiling, and a back-splash shield eliminates the typical hot spot on the wall over the fixture. The mirror-polished fixture weighs 35 lb. Voight Lighting Industries, Inc., Leonia, N.J.



**572. Low-brightness luminaires**

The PC/2 family of low-brightness parabolic fluorescent luminaires uses proprietary technology to totally eliminate VDT glare, according to the manufacturer. New fixtures include 1- by 4-ft wall-wash and recessed luminaires, and a 1- by 2-ft one-lamp fixture. Metalux Division, Cooper Lighting, Elk Grove, Ill.



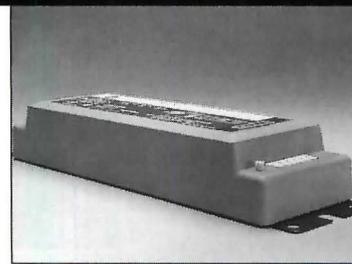
**573. Adjustable medical light**

An infrared remote-controller is used to aim a motorized, ceiling-recessed, 150W low-voltage halogen examination light, and adjust its intensity. The control wand stores on a magnetic wall plate, and a built-in beeper reminds users to return the wand where it belongs. Plug-in components simplify servicing. The Kirlin Co., Detroit.



**574. Indirect luminaire**

The Classica indirect luminaire uses lighted, perforated sides to balance brightnesses and eliminate VDT screen glare. The fixture is 13-in. wide by 3 1/2-in. deep, and can be lamped with 2, 3, or 4 T8 lamps or 2 40W or 50W compact-fluorescent lamps, depending on job requirements. Litecontrol Corp., Hanson, Mass.



**575. Adjustable ballast**

The Ultra 3000 electronic ballast can be preset by the user to any of four settings to optimize task-light level and energy savings. The ballast is designed for use with 1-, 2-, and 3-lamp fixtures. The electronic units produce silent, flicker-free light, with +5 percent total harmonic distortion. Canterra International, Englewood, Colo.

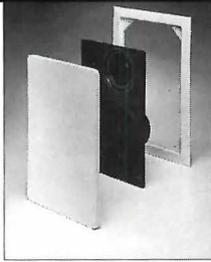


**576. Table lamp**

The sleek Onidia lamp designed by Santiago Calatrava has a 17-in.-high base of molded glass-fiber reinforced nylon. The rotating cast aluminum diffusing head incorporates a high-efficiency reflector for a 20W, 12V halogen lamp. A two-level switch controls the lamp's intensity. Artemide, Inc., Farmingdale, N. Y.

**577. Computer task lamp**

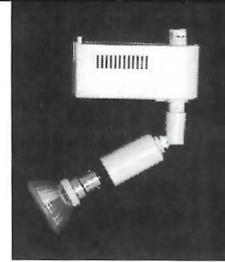
The 13W compact fluorescent Birdy task light was designed by the Elixer Design Group of France. Translucent or solid shades are available in five colors. A louver on the underside of the fixture head directs light onto the work surface, while preventing glare on computer screens. J. O. L. T. Lighting, Ltd., Capron, Ill.

**578. In-wall loudspeakers**

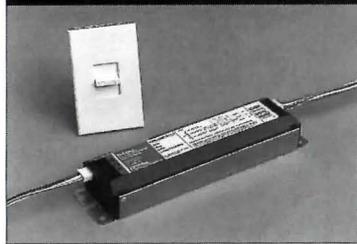
The AuraStyle in-wall loudspeaker assemblies mount in side walls or ceilings, and may be easily installed in new or retrofit construction. The two- or three-way versions offer excellent bass response and high-power handling, according to the manufacturer. Installation aids and wiring accessories are available. Atlas/Soundolier, Fenton, Mo.

**579. Asymmetric HID fixture**

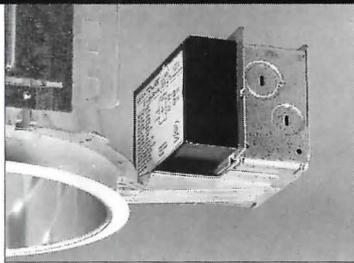
The Compact Surface-Mounted HID Series luminaires extend only 4 3/4-in. from the surface they mount to. They combine rigid, extruded asymmetric reflectors with high-output, metal-halide lamps. The fixture produces even light output, and wide lateral distribution. Elliptipar, Inc., West Haven, Conn.

**580. Retro-track heads**

The MR-Snap-16 is a low-voltage fixture that snaps onto existing 120V track. It has an integral transformer that uses small MR16 lamps available in a variety of beamspreads. The fixture replaces bulkier, less efficient full-voltage track heads and is available in black or white. Spartan Lighting Equipment Co., Div. C. E. W. Lighting, Inc. Dallas.

**581. Dimming ballast**

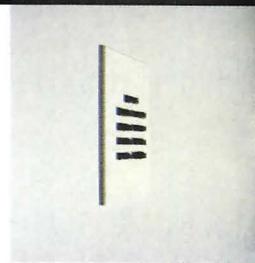
A new addition to the Hi-lume line of electronic-fluorescent ballasts has been introduced. The ballast operates 3-lamp, T8 fixtures at 277V, and is capable of dimming them as low as 1 percent of full output. The flicker-free, solid-state unit yields 95-percent power factor, and less than 10 percent total harmonic distortion. Lutron Electronics, Coopersburg, Pa.

**582. Efficient downlights**

Calculite downlights maximize the output of compact-fluorescent lamps by using electronic ballasts, precision reflector optics, and reducing lumen depreciation due to heat build-up. A wide variety of luminaire types is available with many iridescence-free reflector types. Lightolier Division of Genlyte, Secaucus, N. J.\*

**583. Wet-location luminaires**

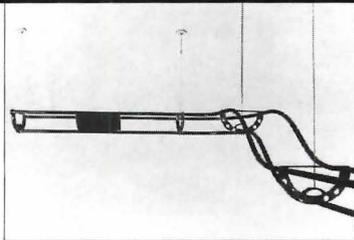
A family of extremely durable recessed ceiling luminaires are UL-listed for wet locations. Finished in brushed stainless steel, the luminaires use 20W or 50W low-voltage halogen lamps, and are available with symmetrical, elliptical, or asymmetrical distributions. Many custom-applied colors are available. BEGA/US, Carpinteria, CA.

**584. Touch controls**

Multi-button touch controls can eliminate wallbox dimmers, toggle switches, and other controls. Using a central-control unit, several control boxes can operate one load, or one control can operate several loads. Wiring is simple and flexible. Several different styles of touch controls are available. Light Touch, Salt Lake City.

**585. Photometric database**

DataMetrics is a database that supplies qualified lighting professionals with photometric data for the manufacturer's lighting fixtures. The annually updated disks come in 5.25-in. or 3.5-in. formats, and the photometric data is written in the IESNA91 format supported by most lighting-calculation software. Edison Price Lighting, New York City.\*

**586. Truss-mount indirects**

The Lightruss System is a series of indirect lighting modules that are supported by a continuous truss system. The trusses are formed of three extruded aluminum tubes, separated by aluminum bulkheads. These can be configured many different ways, and a wide variety of optical systems and light sources is available. SPI Lighting, Mequon, Wis.

**587. Adaptable floor lamp**

The Aladino, a floor lamp conceived by Matthias Dietz, uses either incandescent or halogen lamps. The lamp's shade designs are based on a cultural theme, such as the first, "Far East Impressions," which was designed by a group of leading Japanese designers. Future editions will be feature other cultural themes. Belux AG, Switzerland.

**588. Illuminance meter**

The TL-1 is an inexpensive, easy-to-carry illuminance meter. Models of the meter are available to take measurements either in footcandles or lux ranging from 0.01 to 1,999 in footcandles, or 0.1 to 19,990 in lux, expandable with an optional neutral-density filter. Flickering light and deviation between sources can be measured. Minolta, Ramsey, N. J.

\* Product Data on CAD disk



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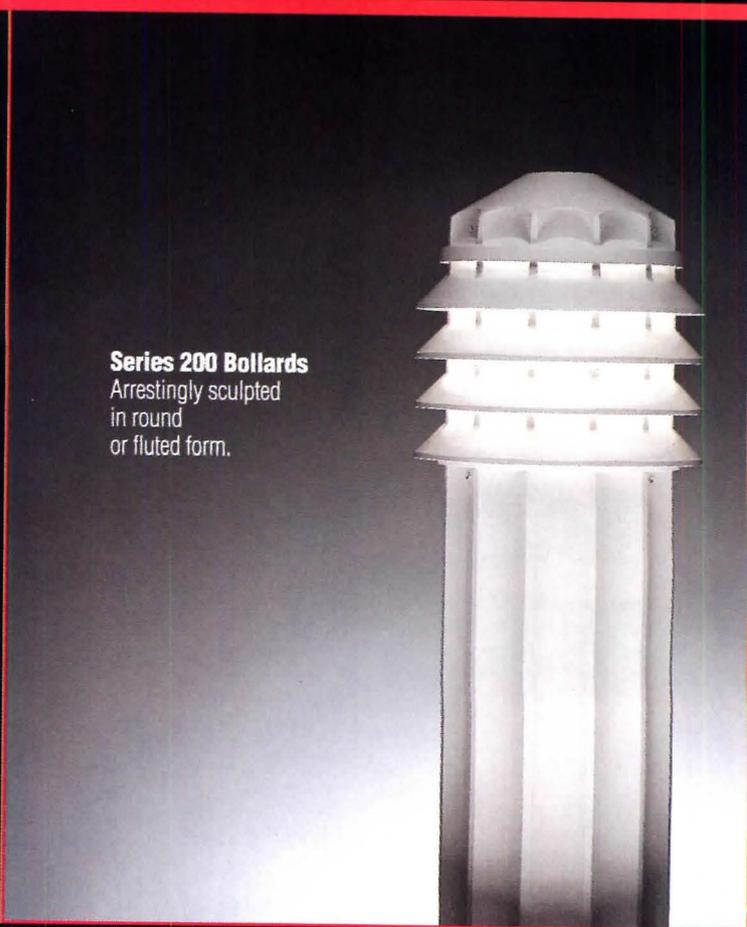
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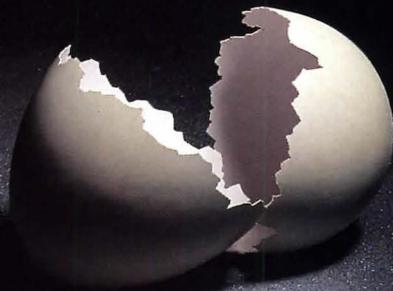


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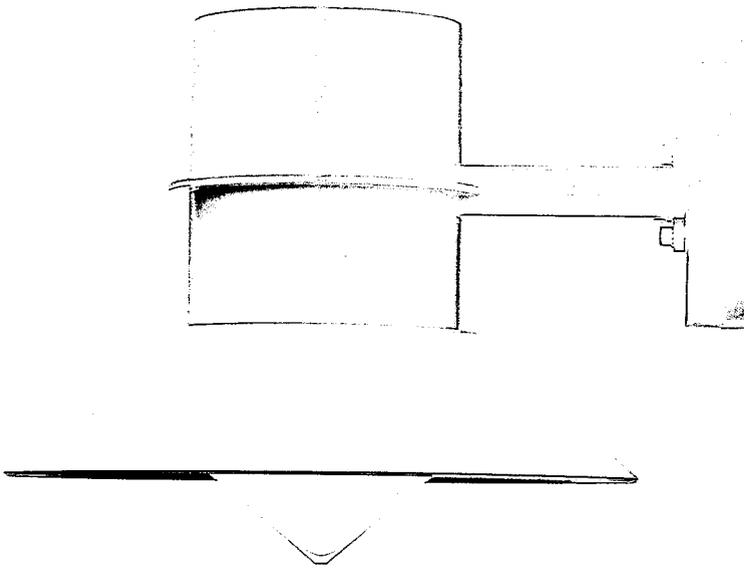
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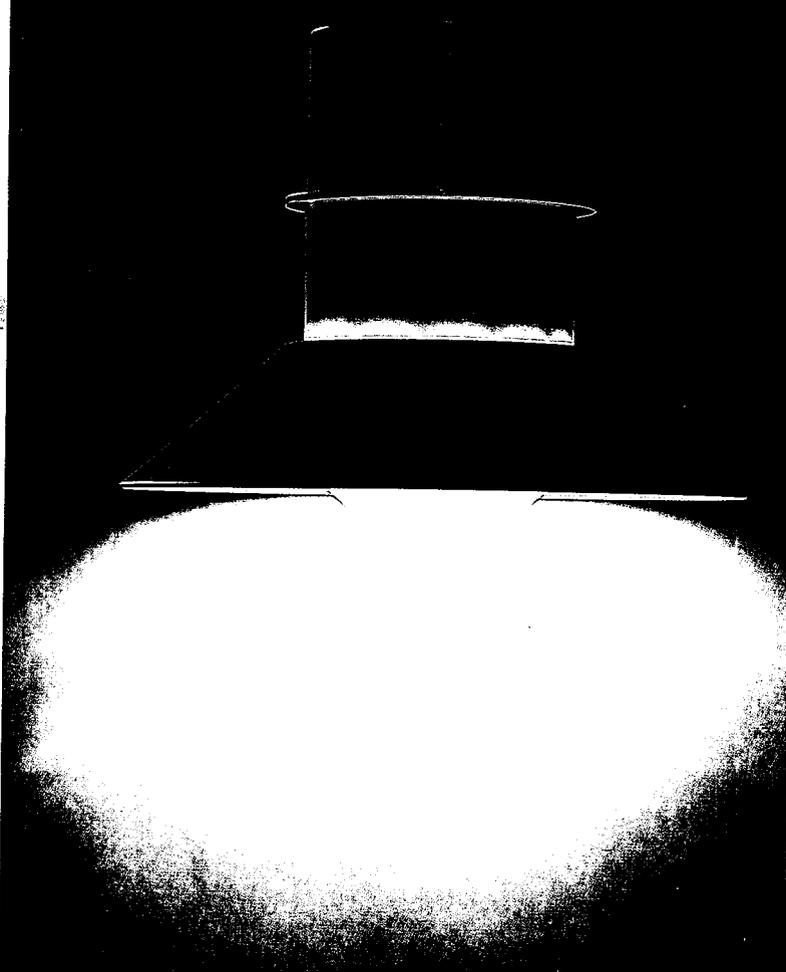
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### 589. Task-lighting system

The Hangtight system allows task lighting to be mounted directly to office partitions, freeing up desk space while allowing the luminaires to be easily adjusted. Several different styles of louver-shielded halogen and compact-fluorescent luminaires are illustrated. Dazor Manufacturing Corp., St. Louis.



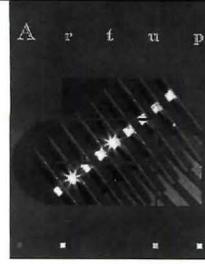
### 590. Complete track line

A 68-page track catalog includes product-system specifications, information on lighting techniques, and lamp-selection criteria and data. The "Creating with Light" section of the catalog explains photometric charts and wallwashing, and shows how to illuminate objects like sculpture and tabletops. Capri Lighting, Los Angeles.



### 591. Control devices

Lighting-control devices are featured in a 60-page catalog. Specification information on incandescent and fluorescent dimmers in many styles is included, such as sliding, rocker, rotary, and preset types, as well as occupancy sensors and motor-speed controls. Leviton Manufacturing Co., Little Neck, N. Y.



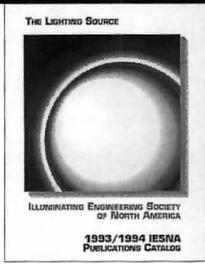
### 592. Decorative catalog

An extensive four-color catalog illustrates an array of highly sculptural halogen and incandescent lighting devices, including pendants, floor lamps, sconces, and desk lamps. Dimensioned line-drawings and fixture specifications are given. Artup Corp., Santa Ana, Calif.



### 593. Projection luminaires

A fact sheet lists and explains practical solutions for exotic lighting challenges. The sheet details the manufacturer's line of heavy-duty, UL-listed products, which are designed to resist exposure to moisture, chemicals, saltwater, shock, and vibration. Phoenix Products Co., Milwaukee.



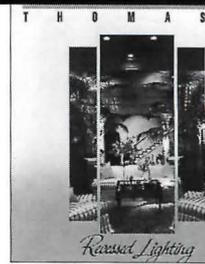
### 594. Publications guide

Lighting Sources brochure describes the publications of the Illuminating Engineering Society of North America. Included are standard references such as the IESNA Lighting Handbook, the Recommended Practices book, lighting design guides, energy-management guides, and calculation guides. IESNA, New York City.



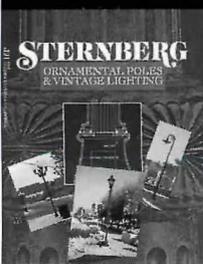
### 595. Specification guide

The 128-page Specification and Application Guide for lighting professionals, distributors, and end-users has been updated and improved. New information on the National Energy Policy Act of 1992 and the Green Lights Program is included, as is a 24-page application guide. Philips Lighting, Somerset, N. J.



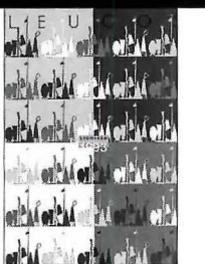
### 596. Recessed-lighting guide

A 20-page recessed-lighting catalog features 140 products, including low-voltage and energy-efficient compact-fluorescent downlights. IC and non-IC incandescent housings for specific uses like sloped ceilings and remodeling are shown. Eighteen 4- and 6-in. universal trims are offered. Residential Lighting Div., Thomas Industries, Louisville, Ky.



### 597. Vintage exterior lighting

A 64-page color catalog presents a comprehensive array of vintage exterior-lighting products, including posts, luminaires, and bollards. Acorn- and globe-type luminaires can be matched with an extensive assortment of poles. Four-color application photographs and photometrics are included. Sternberg Vintage Lighting, Chicago.



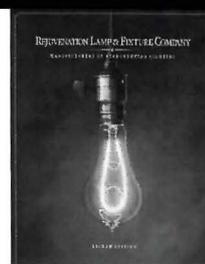
### 598. Designer luminaires

A lavishly illustrated four-color catalog features Leucos U. S. A.'s extensive line of pendants, wall sconces, and table and floor lamps. The fixtures are said to be suitable for projects as diverse as corporate headquarters, shops, hotels, night-clubs, residences, and cruise liners. Leucos U. S. A., Edison, N. J.



### 599. Efficient direct/indirect

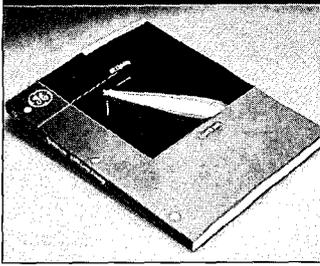
The Series 90 is a pendant-mount, direct/indirect fluorescent luminaire whose light distribution is nominally 60 percent indirect and 40 percent direct. Its use creates a visually comfortable environment with fewer luminaires, says the manufacturer. A four-page folder listing product features; photometrics are available. NeoRay Lighting, Brooklyn, N. Y.



### 600. 20th-Century replicas

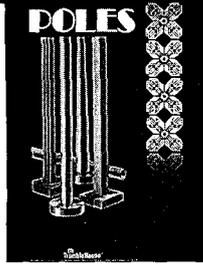
A 40-page color catalog illustrates a full line of UL-listed Victorian, Arts and Crafts, Art Deco, and other 20th-century light-fixture reproductions, available in pendant, wall, table- and floor-lamp styles. Art glass and globe options and a complete ordering guide are included. Rejuvenation Lamp and Fixture Co., Portland, Ore.

\* Product Data on CAD disk



**601. Lamp catalog**

The Spectrum 9200 Lamp Catalog lists lamps for a wide range of applications. Lamp types include incandescent, halogen, fluorescent, stage, and studio lamps. Bulb shape, wattage, voltage, lumens, rated life hours, CRI and color temperature, dimensions, and other information are listed. General Electric Co., Nela Park, Ohio.



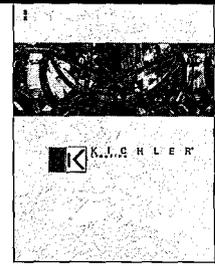
**602. Pole catalog**

A comprehensive lighting-pole catalog is available. The catalog features fibers embedded and anchor-bolted fiberglass, concrete, wood, steel, and aluminum poles. Metal poles are available in square, round, straight, and tapered shapes up to 40 ft tall. Aluminum poles also come in a cruciform shape. Many finishes are available. TrimbleHouse, Norcross, Ga.



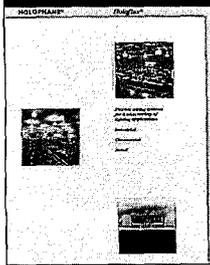
**603. Sunlight collector**

The Himawari is a sunlight-collection device which uses Fresnel lenses mounted in a sun-tracking unit to focus light on the ends of fiber-optic cables. The light—almost identical in spectrum to sunlight—is transmitted via the cables to any location where needed. Most ultraviolet and infrared light is eliminated in the process. Mitsubishi Intl. Corp., New York City.



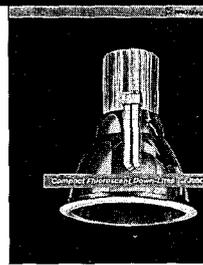
**604. Full-line catalog**

A full-line color lighting catalog presents over 1,100 traditional and contemporary lighting products, including chandeliers, pendants, wall sconces, ceiling units, and bath and vanity products. Exterior post- and wall-mounted fixtures and a full line of landscape-lighting products are also included. Kichler Lighting, Cleveland.



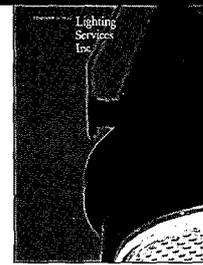
**605. Flexible wiring system**

The Holoflex flexible wiring system is described in a 12-page brochure. The system is complete from panel or junction box throughout the lighting installation, and allows fixtures in commercial, industrial, and institutional settings to be disconnected and rearranged without interrupting power to other fixtures. Holophane, Newark, Ohio.



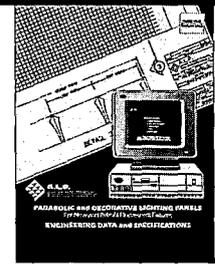
**606. Compact-fluorescent line**

A 12-page color brochure illustrates a complete line of compact-fluorescent fixtures. Included are 6- and 8-in. recessed models, recessed spread lens fixtures, recessed squares and ovals, and step lights. Insulated ceiling (I.C.) recessed fixtures, emergency-light battery backups, and incandescent fixture conversion kits are illustrated. Juno Lighting, Des Plaines, Ill.



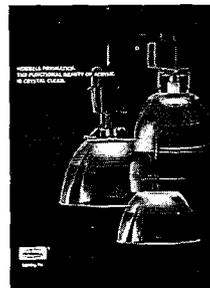
**607. Track-lighting catalog**

A 16-page catalog presents track, accent, and display-lighting equipment. Featured are track systems, various track-mounting devices, long-throw spotlighting fixtures, low-voltage spotlighting, line-voltage, tungsten-halogen and compact-fluorescent fixtures, and filters and accessories. Lighting Services, Inc., Stony Point, N. Y.



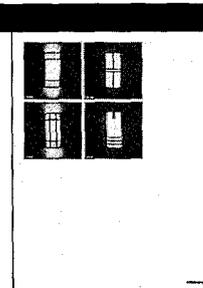
**608. Parabolic panels**

An engineering data and specifications guide to a wide range of specular-finished plastic and aluminum parabolic panels and baffles is available. The guide gives relevant dimensions, cutoff angles, and finish options. Photometric data include candela charts, lumen summaries, and more. A.L.P. Lighting and Ceiling Products, Niles, Ill.



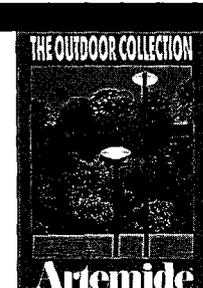
**609. Prismatic luminaires**

The Prismatics are a complete family of luminaires fitted with injection-molded acrylic reflectors, available with metal-halide or high-pressure sodium lamps. They offer high-quality, three-dimensional task lighting in a number of settings, from retail to industrial, according to the manufacturer. Hubbell Lighting Inc., Glen Allen, Va.



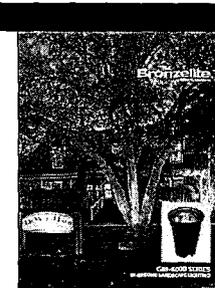
**610. Sconces and pendants**

A series of catalog inserts details a number of contemporary sconces and pendants. The inserts give complete information on the fixtures, including color application photographs, pertinent dimensions, photometrics, finish, mounting, lamping and ballast information, and wiring requirements. Visa Lighting, Milwaukee.



**611. Exterior catalog**

A 44-page catalog illustrates a full line of contemporary exterior luminaires, including wall- and ceiling-mounted fixtures, pole-mounted fixtures, and hollards. Most are available in incandescent and fluorescent. The catalog includes photographs, lamping information, drawings, and photometric data. Artemide, Inc., Farmingdale, N. Y.

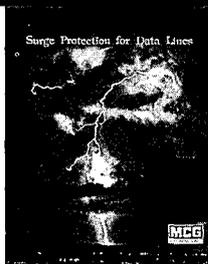


**612. In-ground lights**

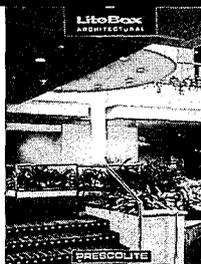
A family of burial landscape-lighting fixtures features composite housings, sealed optics, versatile optics, encapsulated ballasts where required, and a full range of accessories. A 20-page specification guide illustrates these features as well as giving installation instructions and more. Bronzelite, a division of Genlyte, San Marcos, Texas.

**613. Raceway options**

The Access raceway is used as a baseboard, and its two-channel design can accommodate video, data, coaxial, or phone cables. It is UL listed for up to 300VAC. Snap-on covers come in white, gray, black, cherry, maple, mahogany, white oak, and custom colors or veneers. Corner pieces eliminate miter joints. Wiremold Co., West Hartford, Conn.

**614. Surge protection**

A 16-page catalog and application guide offers surge protection for virtually every data, signal, or telephone-line application. The guide shows how RS232, 485, 4-20, MA loops, modems, FAX and PBX, and LANs can all be protected from damage by transient overvoltage. MCG Electronics, Deer Park, N. Y.

**615. Downlight family**

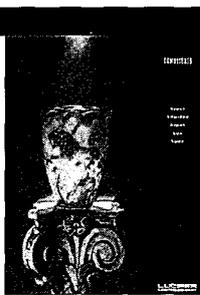
The Lite Box series of architectural downlights features precision-made Alzak reflectors, preadjusted sockets, and die-cast trim rings. All of the trims have the same dimensions, ensuring a consistent appearance in the ceiling, whether an incandescent, low-voltage, compact-fluorescent or HID model is selected. Prescolite, San Leandro, Calif.

**616. Low-voltage landscape**

A 12-page catalog illustrates safe, compact low-voltage garden lighting fixtures. Architectural-grade products featured include path lights, flood lights, well, tier, and step lights, and numerous accessories. Various garden lighting effects are illustrated. Intermatic Inc., Spring Grove, Ill.

**617. Mini bollard**

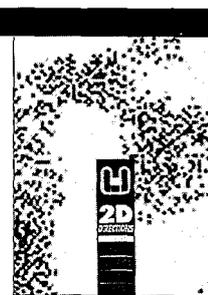
The Compact Bollard Series of 24- to 32-in.-high garden lights provides soft pools of light for orientation and safety. Constructed of extruded and die-cast aluminum, the units use louvers and a prismatic-glass optical system. Incandescent, compact-fluorescent, or HID lamps are available. Kim Lighting, Inc., City of Industry, Calif.

**618. Low-voltage downlight line**

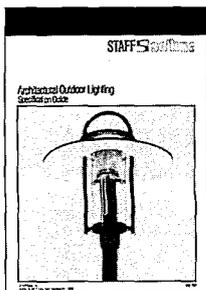
A 16-page brochure illustrates a full line of low-voltage downlights. A complete explanation of the fixtures' housing construction, transformer types, lamp, fuse, trim, and accessory options is given, along with extensive photometric data and color photographs of applications. Lucifer Lighting Co., San Antonio.

**619. Lighting-product poster**

A four-page gatefold poster uses color photographs taken at notable installations to illustrate BEGA's full product line. Spheres, pendants, bollards, flood- and buried-uplights, garden luminaires, and pole-mounted lights are shown. Phone numbers of product representatives are given. BEGA, Carpinteria, Calif.

**620. 2-D fixture brochure**

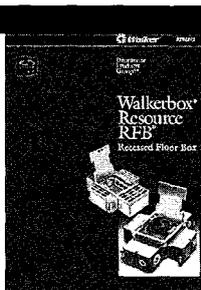
An entertaining and informative eight-page catalog insert traces the history of the search for the perfect light source, culminating in the introduction of the 2-D fluorescent lamp. The insert discusses lamp efficacy, fixture types available, payback, and annual energy savings. Alta Illumination Co., Division of CSL Lighting Mfg., Valencia, Calif.

**621. Exterior catalog**

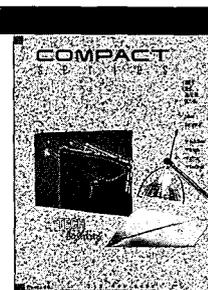
A 68-page catalog gives comprehensive details on a complete line of exterior lighting fixtures including dimensions, lamping options, fixture specifications, photometrics, finishing, and ordering information. Bollards, wall- and pole-mounts, and illuminated handrails are illustrated. Staff Sales, Inc. Highland, N. Y.

**622. Outdoor fixtures**

A 20-page, four-color catalog presents photographs of an array of exterior lighting fixtures. Cast-aluminum sconces, pole-mounted luminaires, and bollards are pictured, along with drawings and overall dimensions. The fixtures are guaranteed against corrosion for 20 years. Noral Lighting Inc., Cleveland.

**623. Floor boxes**

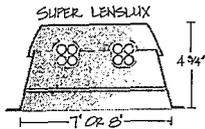
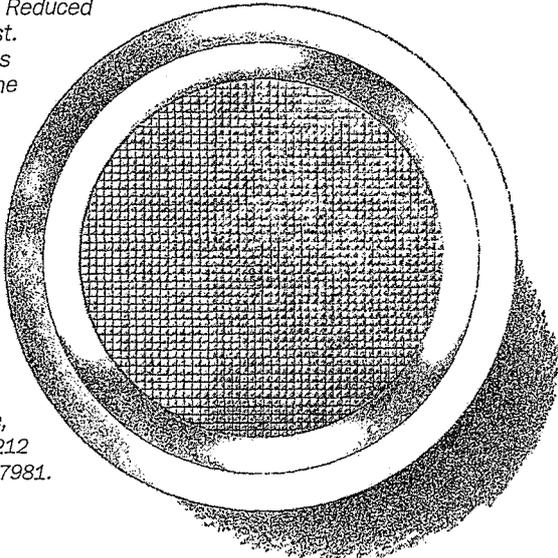
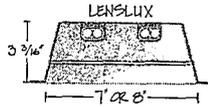
The Walkerbox RFB is a cast-iron multi-service recessed floor box that can accommodate single or duplex power, GFI and surge-protection devices, modular jacks, or LANs. The brochure gives installation details, and lists features of various models and accessories available. Walker Division of Butler Manufacturing, Parkersburg, W. Va.

**624. Compact cantilevers**

A clamp-on portable luminaire uses up to a 50W MR16 lamp, which is cantilevered from an adjustable, telescoping arm. The unit is intended for display purposes, and comes with a 50W plug-in transformer. A kit with five luminaires, carrying case, and a 250W transformer is available, as is a ceiling-canopy-mounted model. Tech Lighting, Chicago.

## LENSLUX™

Announcing Lenslux: our first lensed downlight for compact fluorescent. Energy efficiency without exposed lamps. Low brightness prismatic lens. Elegant regressed trim in six finishes. Increased spacing ratios. Reduced ceiling contrast. Shallow recess depth. All in one well-groomed package. 7" and 8" sizes for 18 to 52 watts, with options for dimming and emergency lighting. For information and the name of your local representative, call 212-838-5212 or fax 212-888-7981.

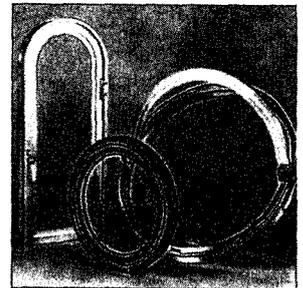
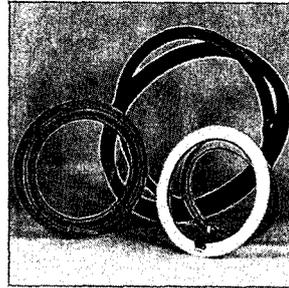
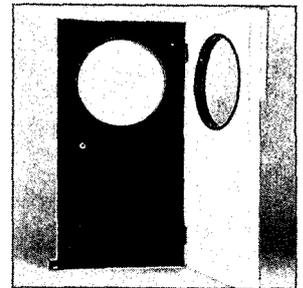


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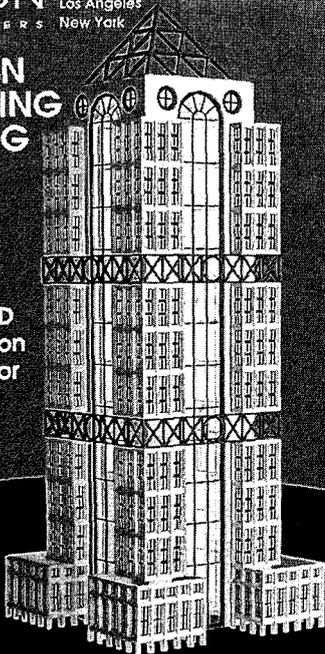
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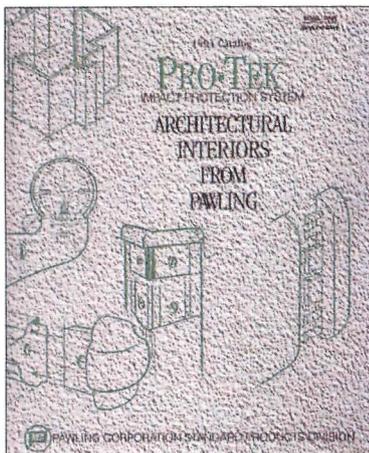
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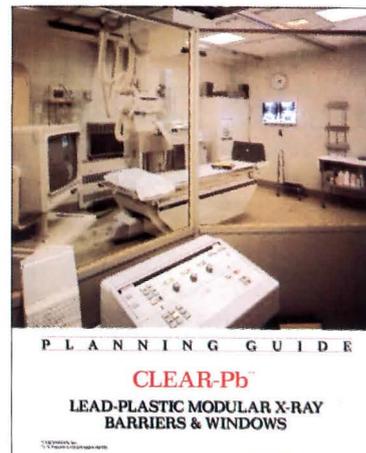


**Pawling Corporation**

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## Free X-Ray Room Planning Guide

New guide illustrates user-designed installations of CLEAR-Pb Lead-Plastic Modular Barriers and Windows in hospitals, radiation therapy centers. CLEAR-Pb is a transparent, lead-impregnated plastic sheet in lead equivalencies from 0.3 to 2.0 mm; over 200 stock sizes up to 6 x 8 ft. (larger on special order). Nuclear Associates.



**Nuclear Associates**

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More than 350 products made of cast iron, perforated metal, steel, welded wire & wood are offered in a dozen different design series in styles from traditional to contemporary. Ash receptacles, benches, bike racks, bollards, litter containers, picnic & game tables are presented in design coordinated families. Over 170 designer colors available. Photos, technical data & product dimensions are shown. Call 1-800-547-1940 (ext. 502).



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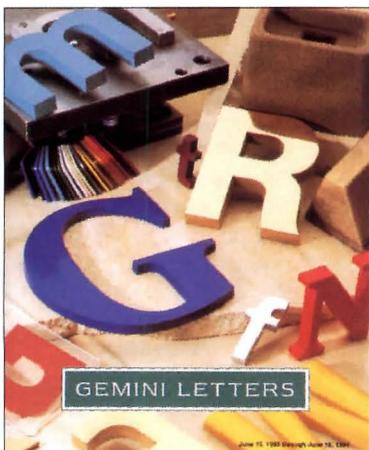


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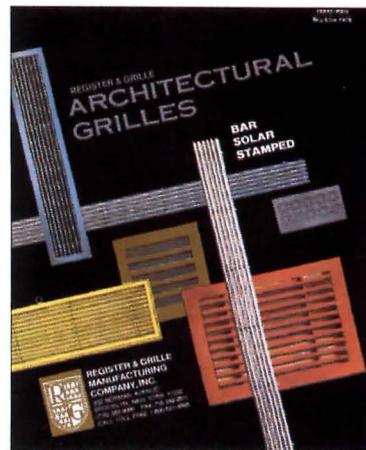


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Hoover Treated Wood Products' new 12-page Sweet's catalog features Pyro-Guard third generation interior fire retardant lumber and plywood for roof sheathing and other structural uses; Exterior Fire-X FRT lumber and plywood for decks, balconies, siding and other outside uses; and CCA preservative treated lumber and plywood that's kiln dried after treatment.

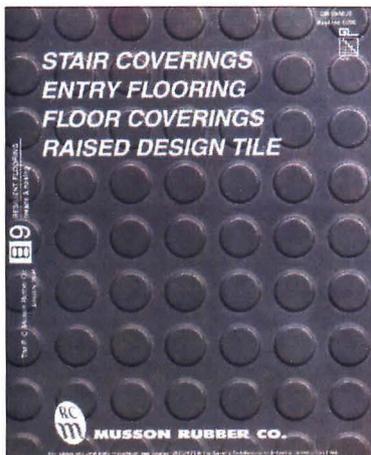


**Hoover Treated Wood**

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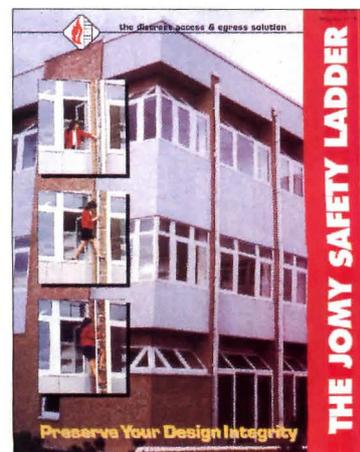


**Cross Industries**

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## The Discrete Access & Egress Solution

Security requirements, space constraints, and aesthetic considerations are a few of the problem-solving applications for the JOMY Safety Ladder. The JOMY Safety Ladder looks like a drainpipe when closed, but opens to a heavy-duty ladder with slip-resistant rungs and a safety rail. The ladder's discrete appearance makes it an ideal solution for access and egress requirements.



**JOMY Safety Ladder Co.**

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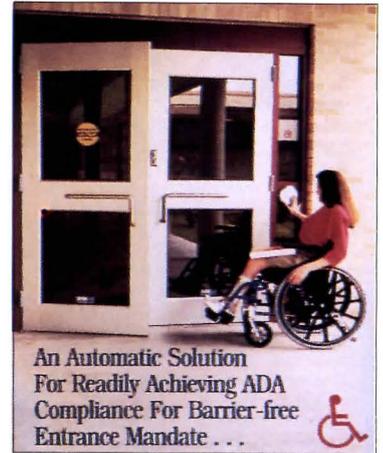


**Egan Visual**

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Our **EasyAccess™** swing door operator makes complying with the ADA 1990 mandate "readily achievable." ADA defines this as "easily accomplishable...without much difficulty or expense." The **EasyAccess** operator, installed without structural modifications, creates an affordably priced, barrier-free entrance for the physically disabled. Automatic operation with a push of a button.



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## System 40/60

System 40/60 by **Datel-Byrum** of North America features Danish design and engineering in hundreds of storage and work station products for hospitals, labs, clinics and pharmacies. The line includes cabinets, carts, nursing stations, desks, pull-out cabinets and more. Modular storage components such as trays, baskets and shelves, provide organized storage, convenience, and versatility.

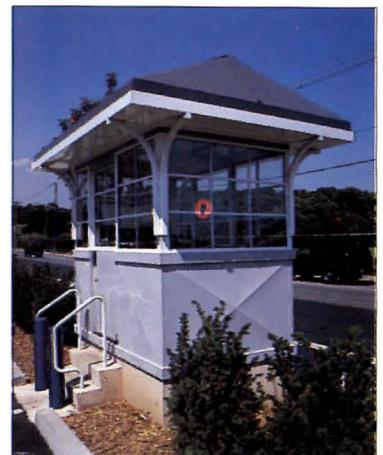


**Datel-Byrum of North America**

Circle 1067 on Inquiry card

## B.I.G. Catalog of 294 Steel Booth Models

Pre-assembled & pre-wired, ready-to-install steel booths from **B.I.G. Enterprises**. We've been designing & manufacturing booths for over 20 years to blend pleasingly with any architectural style & ergonomic need. Easy to install, handi-cap approved, we deliver throughout the world. Call or write for your free catalog of 294 booth models. Call Dave King 800-669-1449 or write 9702 E. Rush St., S. El Monte, CA 91733-1730.



**B.I.G. Enterprises**

Circle 1068 on Inquiry card

## 1994 Plumbing Fixtures

Intersan's 1994 line of commercial plumbing fixtures are highlighted in this 4 page brochure. Intersan's battery operated sensor products are presented including **Sanispray Washfountains**, **Sanifount wall hung three person lavatory system** and the **Istronic battery operated faucets**. Intersan fixtures are designed for schools, medical facilities and office buildings.



**Intersan**

Circle 1069 on Inquiry card

## Walkway Covers and Vestibules

**Mapes Industries** manufactures a complete line of pre-engineered walkways and vestibules to meet any budget or design consideration. Cost conscious roll formed, heavy duty extruded, or high tech acrylic styles are available in both standard and custom designs. A free Design Guide and budget information are available by calling 800-228-2391 or Fax 402-466-2790.



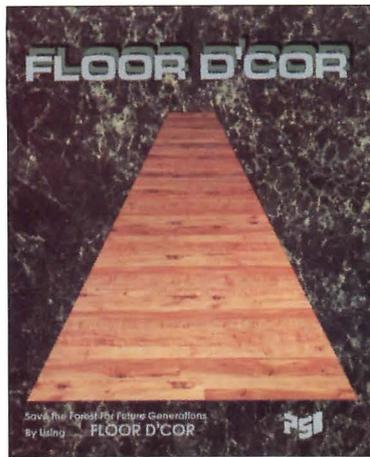
**Mapes Industries, Inc.**

Circle 1070 on Inquiry card

# CATALOG PREVIEW '94

## High-Wear Laminate Flooring System

This innovative laminate-clad flooring system mfg. by Panel Specialists, Inc. creates the traditional beauty of natural flooring by using 21st century material technology. FLOOR D'COR is a floating floor system, tongue & grooved on all four sides in standard plank sizes of 11 1/2" x 48" & available in over 250 laminate colors & patterns. Nature's look of elegance & charm is preserved while durability is enhanced to provide a floor that will offer a lifetime of service in the most demanding traffic areas. FLOOR D'COR is "made in the USA" & readily available so no project need suffer from the delays caused by scarcity of raw materials or the lead time of imported products.

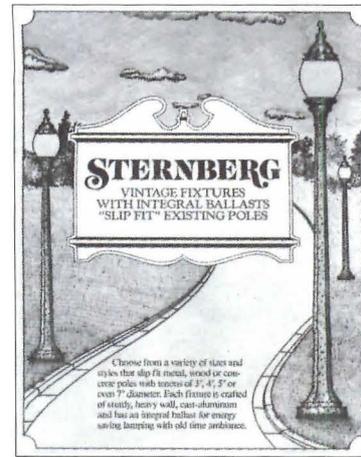


Panel Specialist, Inc.

Circle 1071 on Inquiry card

## Sternberg Slip-Fit Lighting Fixtures

Sternberg Vintage Lighting has a new, expanded 8-page brochure describing commercial scale, cast-aluminum fixtures that will fit on existing concrete and metal poles. All have integral ballasts for a range of HID lamping. A variety of fitters for 3" through 7" tenons plus decorative arms are also described.



Sternberg

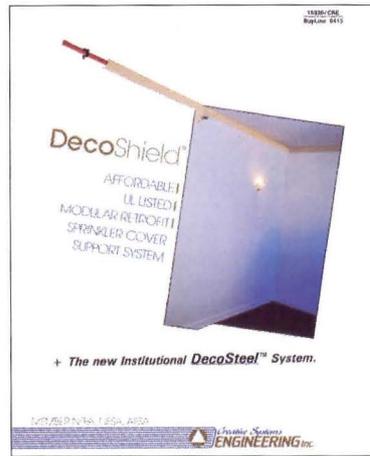
Circle 1072 on Inquiry card

## DecoShield® & DecoSteel™

The UL Listed DecoShield® Modular Cover/Support System and the New Institutional DecoSteel™ System. An attractive and economical alternative for:

- \*Fire Sprinkler Retrofits.
- \*Plumbing, HVAC, Medical, Communications, & Gas Piping.
- \*CPVC, Steel or Copper.
- \*Use below asbestos ceilings.

Call (800) 873-0894 for more information

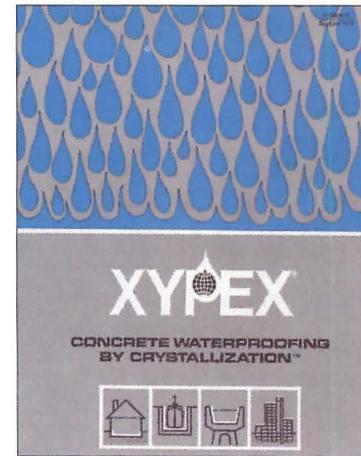


Creative System Engineering, Inc.

Circle 1073 on Inquiry card

## Concrete Waterproofing by Crystallization

Applied as a slurry coating, Xypex is a chemical treatment that waterproofs by penetrating the concrete with a crystalline formation that 'plugs' the pores of the structure preventing water seepage. Xypex is ideal for use on the 'inside' of wet underground structures. For more information call 604-273-5265, or fax 604-270-0451.



Xypex Chemical Co.

Circle 1074 on Inquiry card

## HANG-TIGHT PARTITION MOUNTING SYSTEM

Dazor Mfg. Corp. manufactures a full range of adjustable-arm lighting designed for a variety of applications. The most exciting solution for integrating task lighting with office workstations is the DAZOR PC-LITE plus the HANG-TIGHT wall partition mounting system. The PC-LITE uses an energy-efficient 18-watt compact fluorescent with a parabolic louver to control the light & eliminate glare. The HANG-TIGHT system frees up valuable desk-top space by mounting Dazor task lights on workstation wall partitions.



Dazor Manufacturing

Circle 1075 on Inquiry card

## Total Opening Systems

Absolutely everything you need to finish an opening securely in the widest variety of materials is explained in detail in this comprehensive catalog from ESSEX Industries. SARGENT architectural hardware, CURRIES hollow metal doors & frames, GRAHAM wooden doors, MCKINNEY hinges and MCKINNEY Parker washroom accessories come together in this comprehensive reference work from the quality single source of total opening systems. Call; 1-800-945-0536.



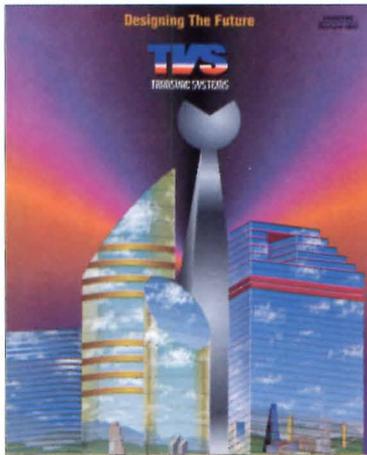
ESSEX Industries, Inc.

Circle 1076 on Inquiry card

## AUTOMATED VACUUM TRANSPORT SYSTEMS

Waste and/or Soiled Linen

- Perfect for large hospitals and similar buildings that serve thousands of people
- Improve the building environment, management, and maintenance
- Full-vacuum and gravity/vacuum technology
- Custom design each system to building specifications

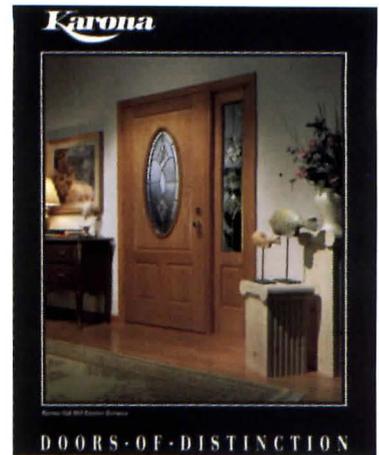


**TRANSVAC SYSTEM INC.**

Circle 1077 on Inquiry card

## Doors of Distinction

Karona Inc. is located in Grand Rapids, Michigan, the fine furniture capital of the world, and is the leading custom door manufacturer in America. Our doors are structurally superior as well as traditionally beautiful and will enhance any entranceway. In Karona's new plant, we use state-of-the-art woodworking and computer controlled production equipment to transform the finest woods into doors that offer the look of tradition, with the performance of tomorrow.



**Karona, Inc.**

Circle 1078 on Inquiry card

## New Information on Garaventa Stair-Lifts

Garaventa, the leading manufacturer of wheelchair platform lifts, has just revised and updated your *Stair-Lift Design and Planning Guide*. This 40-page booklet is now more comprehensive and easier to read than ever before. It'll answer your concerns on ADA compliance, layouts, contract specifications, and more. Call today for your free copy: 800-663-6556, 604-594-0422

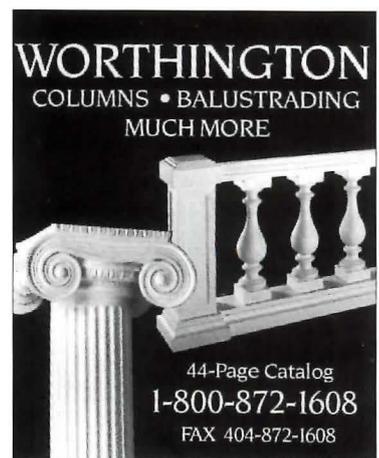


**Garaventa**

Circle 1079 on Inquiry card

## Fiberworth Column & Balustrading

Introducing the Fiberworth Column and Balustrading. These Fiberglass composite products are the leaders in their industry. Fiberworth Columns are loadbearing and architecturally correct. The same premier precision as our other products; wood column, moulding, niches and much more. Shipped factory direct. 44-page color catalog available. 800-872-1608.

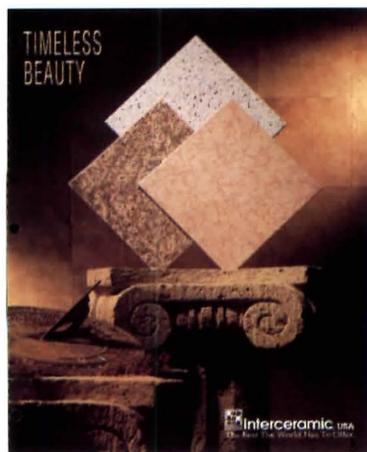


**Worthington Group, Ltd.**

Circle 1080 on Inquiry card

## Ceramic Tile Catalog

We provide tile to enhance any environment - both commercial and residential. From exceptional floor tile and graceful mosaics to glistening marble and natural granite. Whatever your design, Interceramic tile will add that distinctive touch of beauty. Call today for a free brochure: 1-800-496-TILE. The Best The World Has To Offer.

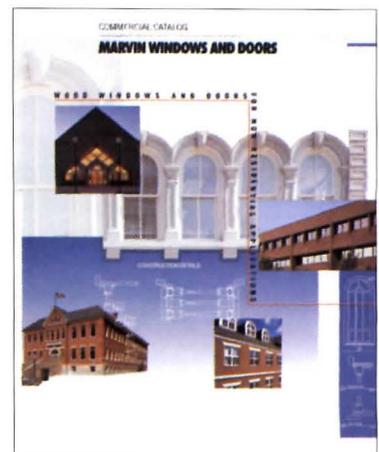


**Interceramic USA**

Circle 1081 on Inquiry card

## Marvin's Commercial Catalog

Marvin Windows & Doors' new commercial catalog describes the extensive commercial capabilities of Marvin's entire line of wood and clad wood windows and doors. The catalog provides information on product styles, performance and design capabilities, as well as Marvin's Architectural Support Department and other non-residential services. Includes the Magnum Series, Marvin's premiere products for commercial applications.



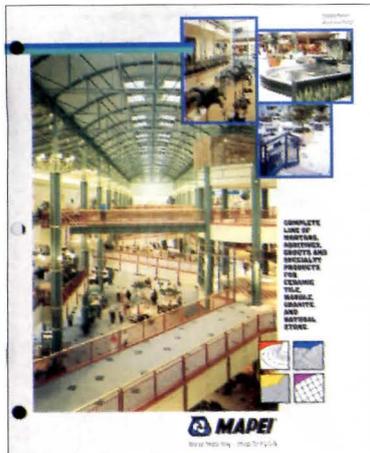
**Marvin Windows**

Circle 1082 on Inquiry card

# CATALOG PREVIEW '94

## Mapei's 1994 Catalog

MAPEI's 16-page 1994 product catalog introduces an expanded grout color offering and features pertinent product characteristics and specification compliances. The catalog contains detailed technical drawings of typical installations, plus reference charts containing physical properties, installation coverages, and packaging information. The catalog coordinates with MAPEI's product color-code and graphic theme currently carried throughout its packaging and technical literature.



### Mapei Corporation

Circle 1083 on Inquiry card

## Intelligent ADA Signage Solutions

ISI introduces the most progressive signage solutions that comply with the stringent requirements dictated by the ADA. Unlike many sign manufacturers, our only business is ADA related. We know the needs of architects and designers and can assist you in performing site surveys and can offer guidance throughout the entire compliance process. No other company provides greater flexibility in product design. By utilizing multiple manufacturing processes, ISI is better equipped to meet your varying sign needs. Call ISI today...we'll help your customer become ADA compliant in no time, *Nationwide Network* 813-953-6001

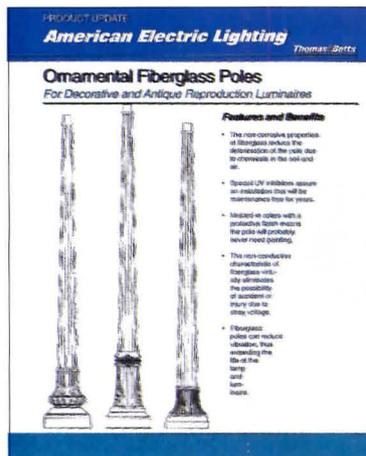


### Intelligent Signage, Inc.

Circle 1084 on Inquiry card

## Ornamental Fiberglass Light Poles

Thomas & Betts announces the addition of a new series of decorative antique poles to its American Electric Lighting product line. These three new poles: the Washington, the Kaiser, and the Tudor are available individually or as a package with the American Electric Lighting decorative fixtures: the Bainbridge and the Athens.

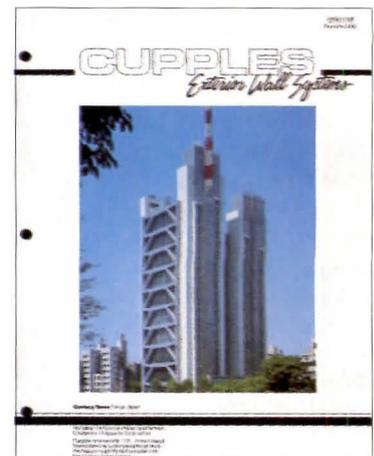


### Thomas & Betts

Circle 1085 on Inquiry card

## Curtain Wall, Honeycomb Panels & Extrusions

Recent research and development by Cupples Products has added the following New features: 6 3/4" system depth, 1/4" glass pockets for 1/4" vision glass, 2 1/2" system width, stack rail design, thermally broken system (pour & debridge) and a thermally improved system (PVC isolators). Cupples provides in-house capabilities to design, engineer, extrude, fabricate, finish, install & glaze.

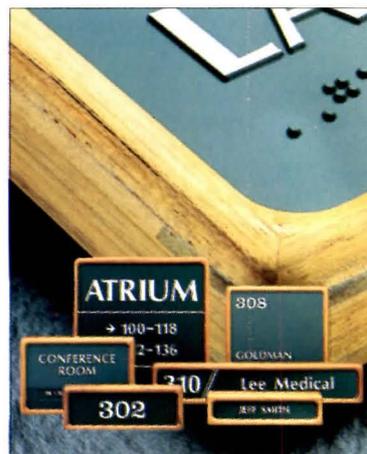


### Cupples

Circle 1086 on Inquiry card

## ADA Signage

Let Kroy Sign Systems take care of ADA signage compliance for your next projects. Kroy's ADA Tactile Sign Series complies with ADA code for tactile letters, Grade 2 Braille and pictograms. Kroy can also retrofit current signage by applying a tactile plate to the surface of the existing sign. Call for free ADA booklet: 800-733-5769.

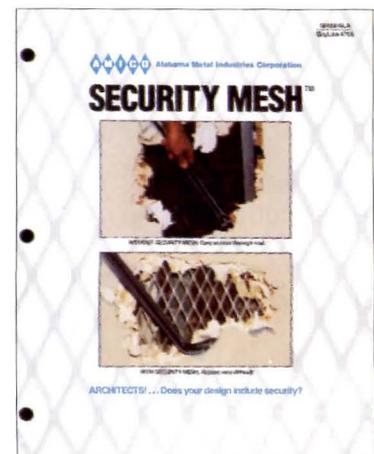


### Kroy Sign Systems

Circle 1087 on Inquiry card

## Amico Security Mesh™

SECURITY MESH is designed to act as a penetration barrier behind plaster or drywall finishes in either walls or ceilings. It is made by simultaneously cutting and stretching a solid sheet of steel...making Security Mesh one continuous sheet that will not unravel at the strands. Wherever security is critical...SECURITY MESH is your answer. Contact AMICO at 1-800-366-2642.

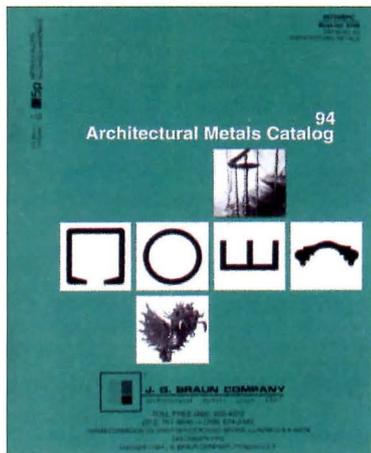


### Amico

Circle 1088 on Inquiry card

### Architectural Metals

J.G. Braun Co. supplies aluminum, architectural bronze, steel, iron & brass items, including handrails & accessories, angle & channel, round, square & rectangular tubing & bars, brackets, spindles, starting posts, collars, finials, post caps, pipe railing components, rosettes & various balls. (Stamped steel ornaments in our other catalog.) For free catalogs, (800) 323-4072.

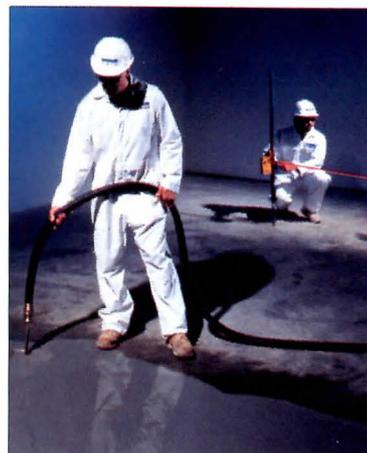


**J.G. Braun Company**

Circle 1089 on Inquiry card

### Gyp-Crete®, The Floor Specialists

New 1994 brochure features complete line of quality underlayment for new construction, renovation and repair. Whatever the challenge - from self-leveling applications to advanced sound and fire control - Gyp-Crete has a product designed to accomplish the task. Technical data and specifications are included. For a free brochure, call 1-800-356-7887, or fax 612-478-2431.

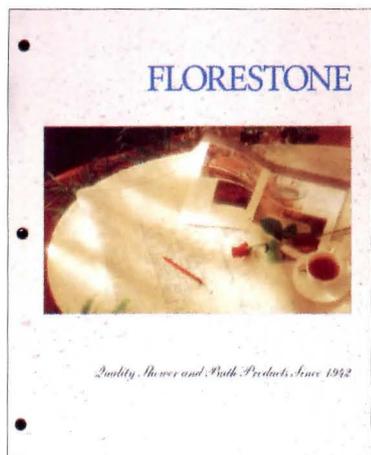


**Gyp-Crete Corporation**

Circle 1090 on Inquiry card

### Barrier-Free Showers and Baths

New color catalog features over 180 shower and bath products, including terrazzo shower bases. Many barrier-free products are featured, including two-piece and three-piece models for remodeling projects. Specifiers and architects receive full product specification binders. Call 1-800-446-8827 or fax 1-209-661-2070.



**Florestone Products Co.**

Circle 1091 on Inquiry card

### Rinnai's Newest Thermostat Models

More than just a heater - an investment in comfort that pays dividends in \$\$\$'s! Easy-to-use features, automatic pushbutton ignition, fully automatic thermostat, uses clean burning natural or LP gas, cost 3-4 times less than electricity, 1 1/2-2 times less than kerosene. AGA design certified, best warranties in the industry. Call 800-621-9419 or send for your free brochure today.

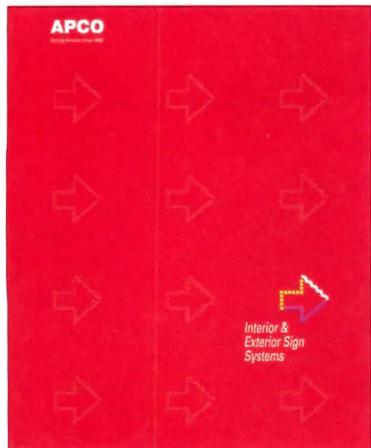


**Rinnai**

Circle 1092 on Inquiry card

### Architectural Signage

Since 1966 APCO has met your wayfinding and identification needs with the broadest range of architectural signage products available anywhere. Our product line features Interior and Exterior Sign Systems, Displays, Directories, Signmaking Software, and a variety of sign solutions designed to help you meet the requirements of the Americans with Disabilities Act. Call (404) 688-9000.

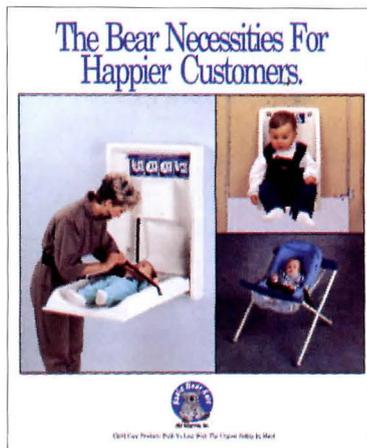


**APCO**

Circle 1093 on Inquiry card

### Koala Bear Kare Brochure

The Bear Necessities For Happier Customers, the update Koala Bear Kare product brochure, is now available from JBJ Industries. The brochure provides full details on the Koala Bear Kare line of customer service child care products. Now, parents can keep a baby in a car seat safe and secure in the Infant Seat Kradle instead of on the table or on the floor. The brochure also describes the Child Protection Seat, which allows a parent to keep their baby safely in view while occupying a restroom stall, and the popular Baby Changing Station, which makes diaper changing in public places safe, sanitary and convenient. For a copy of the Koala Bear Kare brochure, call 1-800-666-0363.



**Koala Corporation**

Circle 1094 on Inquiry card

# CATALOG PREVIEW '94

## Ascend in Style

The standard "Princeton" double helix spiral stair (no center pole) rotates 180 degrees, however custom degrees of rotation can be manufactured. Shown is a 315 degree white oak stair. Wide selection of rail and baluster styles, as well as wood species. Family owned, quality is an A.J. Stairs commitment. Call for a free estimate and color brochure 800-STAIR-85 or in N.J. call (908) 477-8080, or fax (908) 477-8085.

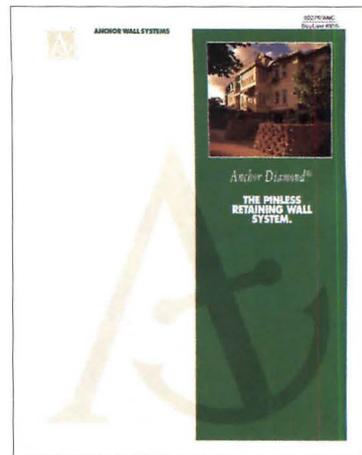


**A.J. Stairs, Inc.**

Circle 1095 on Inquiry card

## Anchor Diamond® Pinless Retaining Wall System

Anchor Wall Systems new full-color catalogue offers complete product specification information, installation guidelines and reinforcement usage for its pinless and mortarless segmental retaining wall system that is flexible in design, easily installed, long lasting and a cost-effective choice for any commercial or residential retaining wall need. Call (800) 473-4452 for a free catalogue and manufacturer's name.

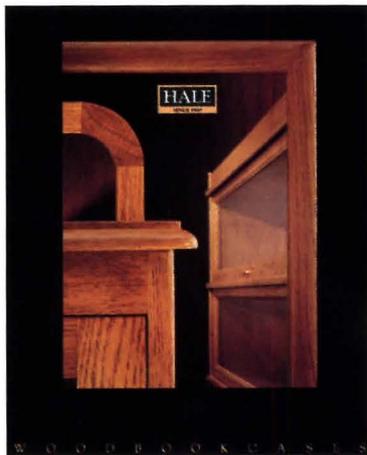


**Anchor Wall Systems**

Circle 1096 on Inquiry card

## Hale Manufacturing For The Finest Bookcases

Hale's new catalog features their traditionally beautiful and functional bookcases, including the new 500 LTD Series. All distinctively hand-crafted wood bookcases enhance their 86 year old reputation as "The Finest" bookcase builders. Bookcases are available in a variety of heights, woods and finishes. Call 1-800-USE-Hale for a free catalog.



**HALE MFG.**

Circle 1097 on Inquiry card

## Real Tool, Inc. Snow Guards

Real-Tool Inc. produces one-piece, non-penetrating Snow Guards for standing seam metal roofs in bronze, lead-coated and cast aluminum alloy in mill finish, primed and custom colored. Range of sizes accommodate seam widths from 3/16" to 13/16", and seam configurations including double lock and mechanically seamed, and most capped, snap-lock, Z-clip and C-type prefinished architectural profiles.

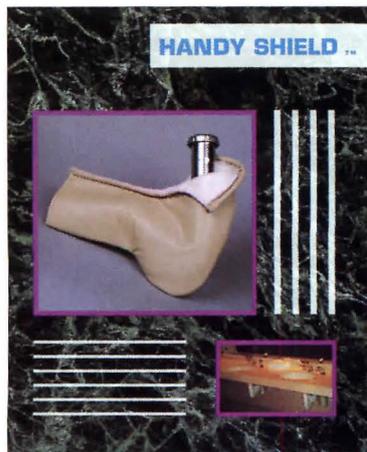


**Real-Tool Inc.**

Circle 1098 on Inquiry card

## HANDY-SHIELD™ BY PLUMBEREX PRODUCTS

HANDY-SHIELD safety covers conform to the Americans Disability Act(ADA) whenever insulation of drain & supply lines are required to protect individuals in wheel-chairs from burns or injury, under water basins. HANDY-SHIELD features a unique conforming style with interior foam lining and exterior vinyl texture in an array of colors, resulting in an appealing finished product

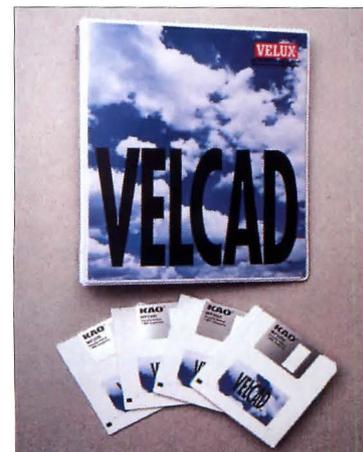


**Plumberex**

Circle 1099 on Inquiry card

## NEW VELCAD SOFTWARE

VELUX introduces the first design software created exclusively for roof windows & skylights. Designed in Microsoft Windows™ 3.0 & operable within or out of AutoCAD®, VELCAD accommodates two levels of user experience & can generate & receive .DXF files. VELCAD users can print detail drawings & specs & interfacing with AUTOCAD, can manipulate elevations, drawings and schedules. Contains a drawing viewer for printing & viewing head, jamb & still designs. Available free-of-charge to design professionals.

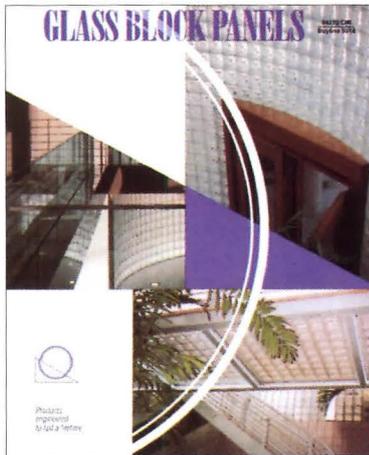


**Velux-America, Inc.**

Circle 1100 on Inquiry card

### Prefabricated Glass Block Panels

Circle Redmont now offers standard size, prefabricated glass block panels for installation as skylights, barrel vaults, skybridges, floor and deck lights, stairtreads and landings, sidewalks, wall panels and complete structures. Structurally engineered, preglazed and fully waterproof, these panels are also available in custom sizes and a variety of glass block designs. Circle Redmont panels are constructed of reinforced monolithic grids in concrete or steel using solid glass block pavers or aluminum using hollow glass block. Call for copies of new brochures 1-800-358-3888.

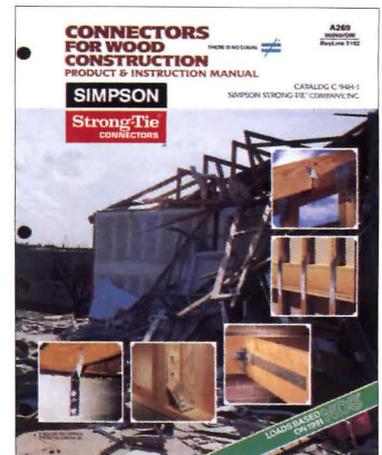


**Circle Redmont**

Circle 1101 on Inquiry card

### Connectors for Wood Construction

The standard reference for specifiers of wood-to-wood and wood-to-concrete connectors, Simpson Strong-Tie®'s 80-page catalog includes dimensions, specs, load tables, installation drawings and building code acceptances (BOCA, ICBO, NER and SBCCI). All loads are now based on 1991 National Design Specifications. Essential for architects, structural engineers, contractors, and building inspectors. Electronic catalog and DFX library available.

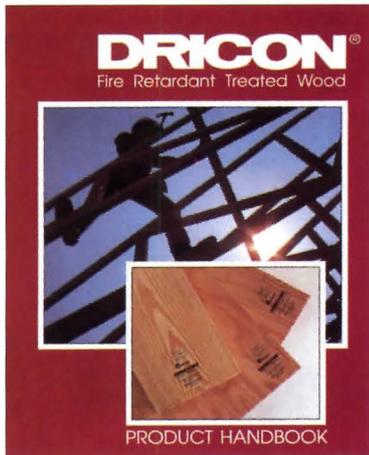


**Simpson Strong-Tie Connectors**

Circle 1102 on Inquiry card

### Fire Retardant Treated Wood

Dricon® FRTW has not experienced a single failure due to heat degradation since its introduction in 1981. It's patented, carries a 40-year builders' warranty, has been registered with EPA for termite resistance, is listed with AWWA, and complies with all three model codes. This brochure explains its use and specification.

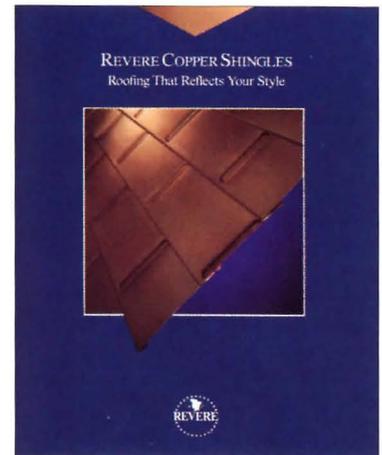


**Hickson Corporation**

Circle 1103 on Inquiry card

### Revere Copper Shingles

Revere Copper Shingles are quicker and easier to install than ordinary asphalt shingles. There are no special skills required and no special tools. Because Revere shingles are manufactured from solid copper, not a foil laminate, they will likely last as long as the building they protect. To learn more about our copper shingles, or any of our other copper roofing products, call us toll-free at (800) 448-1776.



**Revere Copper Products**

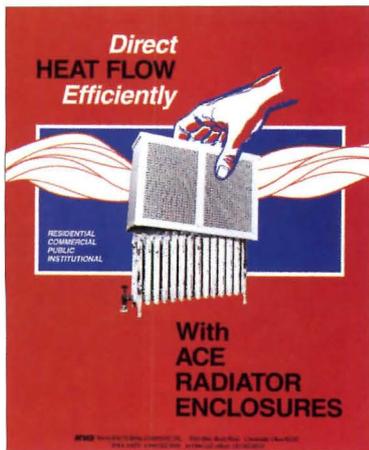
Circle 1104 on Inquiry card

### Metal Cabinetry

Manufacturers of custom metal cabinetry specializing in:

- \*Radiator enclosures for steam and hot water heating systems.
- \*Fin tube (baseboard) heating replacement covers.
- \*Fan coil replacement covers.
- \*Bookcases and shelving for schools.

In business since 1934 serving residential, commercial, public and institutional building owners and renovators. For a free brochure 1-800-543-7040

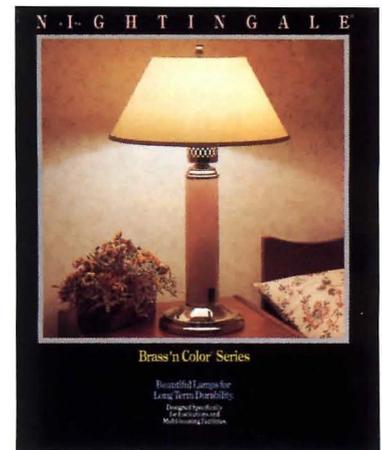


**Arasco Mfg. Company**

Circle 1105 on Inquiry card

### Adjustable Fixture Co.

New heavy-duty, tamper-resistant lamps for public areas, lounges, resident rooms & university apartments. Handsome Brass 'n Color table & floor lamps available in 7 designer colors or the Benjamin Moore color of your choice. Options include a night light, plug-in receptacle, theft-resistant Perma-Mount base & Safety Guard to prevent bulb removal. UL listed & CSA approved. Free 30 day trial offer. (800) 558-2628, or fax (414) 964-2944 for info. & samples



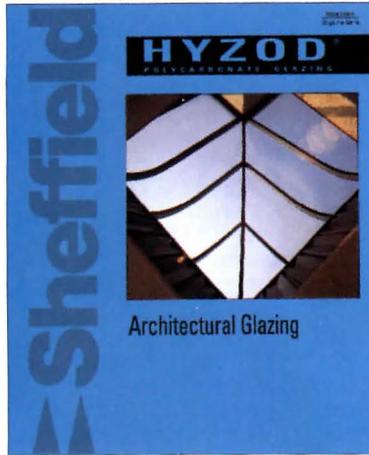
**Adjustable Fixture Co.**

Circle 1106 on Inquiry card

# CATALOG PREVIEW '94

## The Superior Architectural Glazing

HYZOD Polycarbonate Sheet is a tough, versatile glazing combining superior breakage protection and broad design latitude. With impact strength 250 times that of flat glass, HYZOD sheet provides lasting protection with the freedom to design and construct curved architectural glazing at a considerable cost savings compared to glass and acrylic. Sheffield Plastics (800) 628-5084

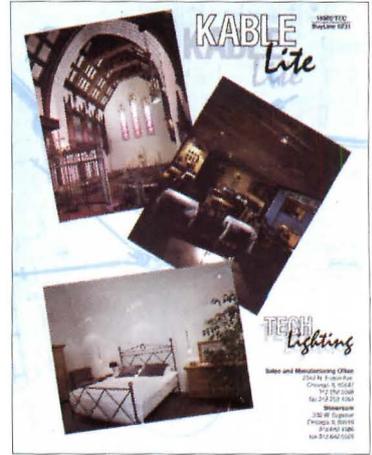


Sheffield Plastics

Circle 1107 on Inquiry card

## Low Voltage Cable Lighting

Low voltage kable lighting is the track lighting of the 90's. It works on horizontal and vertical planes, and any plane in 3D space, offering pendants, sconces and heads. TECH Lighting's Kable Lite is the best selling UL, ETL and CSA listed low voltage cable system in the nation. Look for our new Kable Lite brochure in this year's edition of Sweet's or call us at 312-252-0008.

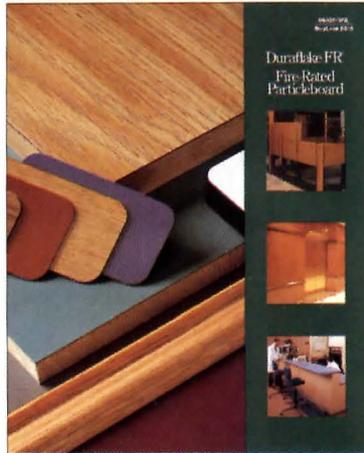


Tech Lighting

Circle 1108 on Inquiry card

## Duraflake FR Fire-Rated Particleboard

DURAFLAKE FR is a smooth, grain-free, class I fire-rated particleboard panel designed to meet fire code regulations. It is an excellent substrate for fine wood veneers, high and low pressure laminates and vinyls in all wall systems, furniture and fixture applications where fire codes and public safety are critical. Contact Willamette Industries, Inc., P.O. Box 428, Albany, OR 907321 or call (503) 928-3341.

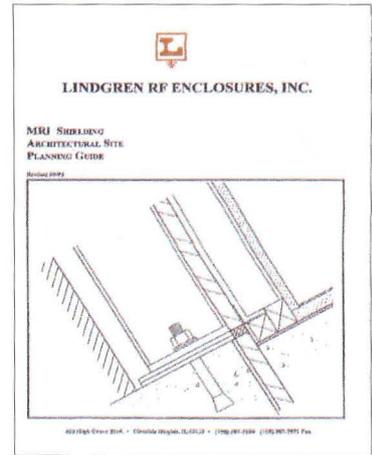


Duraflake

Circle 1109 on Inquiry card

## Architectural Shielding Systems

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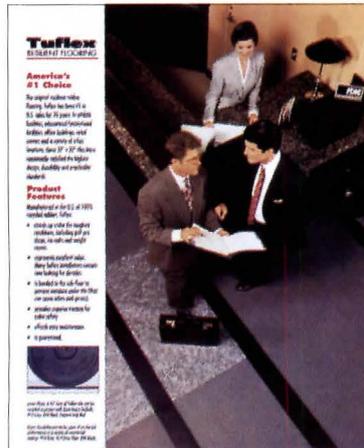


Lindgren R.F. Enclosures, Inc.

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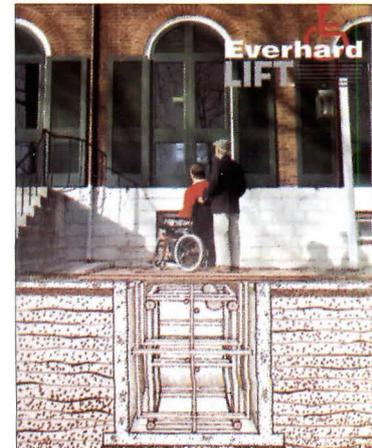


Tuflex Rubber Products

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## Everhard Lift

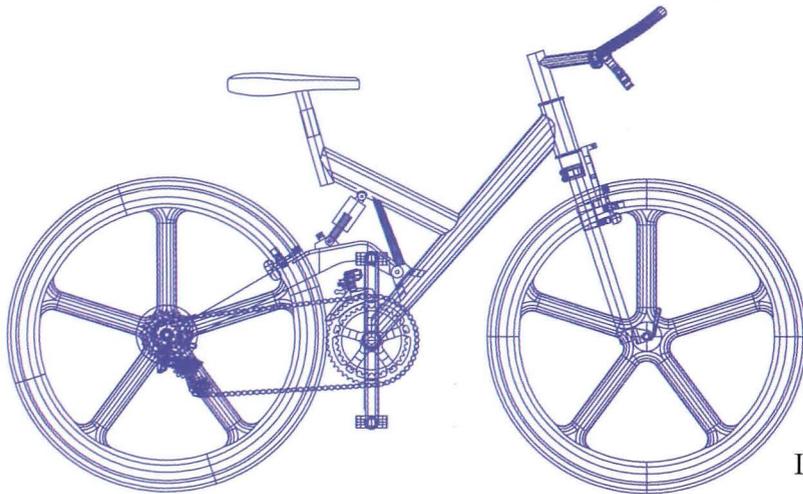
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