

Efficient Signage Is Good Medicine

By Gareth Fenley

The interior of a typical big medical center is something like an ant-hill. Even staff members know only some of the possible routes and destinations. In one study of hospital visitors, the single greatest source of stress was trying not to get lost in the building. The solutions to the way-finding problem are mostly common sense, but imposing them effectively on a multifacility maze can claim 0.75 percent to 1 percent of gross construction cost.

Small facilities can be equipped with signs by a vendor, preferably with a senior hospital administrator creating the sign vocabulary and closely overseeing the project. However, complex facilities require an environmental graphic designer, a specialist who works either as an independent consultant or as a member of an architecture firm. The Society of Environmental Graphic Designers (Cambridge, Mass.) can refer prospective clients to over 700 members who plan and design graphic elements in buildings, including many who specialize in medical facilities. A way-finding consultant can contribute most to a project if brought in during the programming phase and given a realistic budget.

When Scottish Rite Children's Medical Center of Atlanta recently underwent a major expansion, vice president Karla Yearwood wanted a way-finding specialist on the team. The environmental graphic designer for her project was Marcus Merritt of Heery International. "He pointed out some obvious things we wouldn't have picked up on," she says. "We get so used to our facility, we forget there are turns people have to make. Graphic designers can pinpoint major problem areas fairly quickly."

Names and numbers

The way spaces are identified is a root source of clarity or confusion. "When clients start by talking about how big they want the signs to be, we switch to what they want the buildings to be called," says Jon Roll, a Cambridge consultant. "Buildings have to have clear names and be numbered in a consistent way. You might be better off spending money renumbering the buildings rather than buying a particular piece of artwork. In the long run, the renumbering will serve you better."

A few simple rules for producing a sensible numbering system:

- Designate connecting floors with the same number. Designate floors below ground level with a prefix first-time users can understand.
- Begin all room numbers with the number of the level.
- Make the room-numbering system flexible, allowing future expansion and subdivision without making chaos of the overall system.
- Use numbers consistently on floors with similar uses and layout.
- Use a simple system, such as a continuous series with odd numbers on the left and even on the right.

Gareth Fenley writes frequently about architecture. Cecilia Mitchell provided research assistance for this article.

Jean Smith photos, except as noted



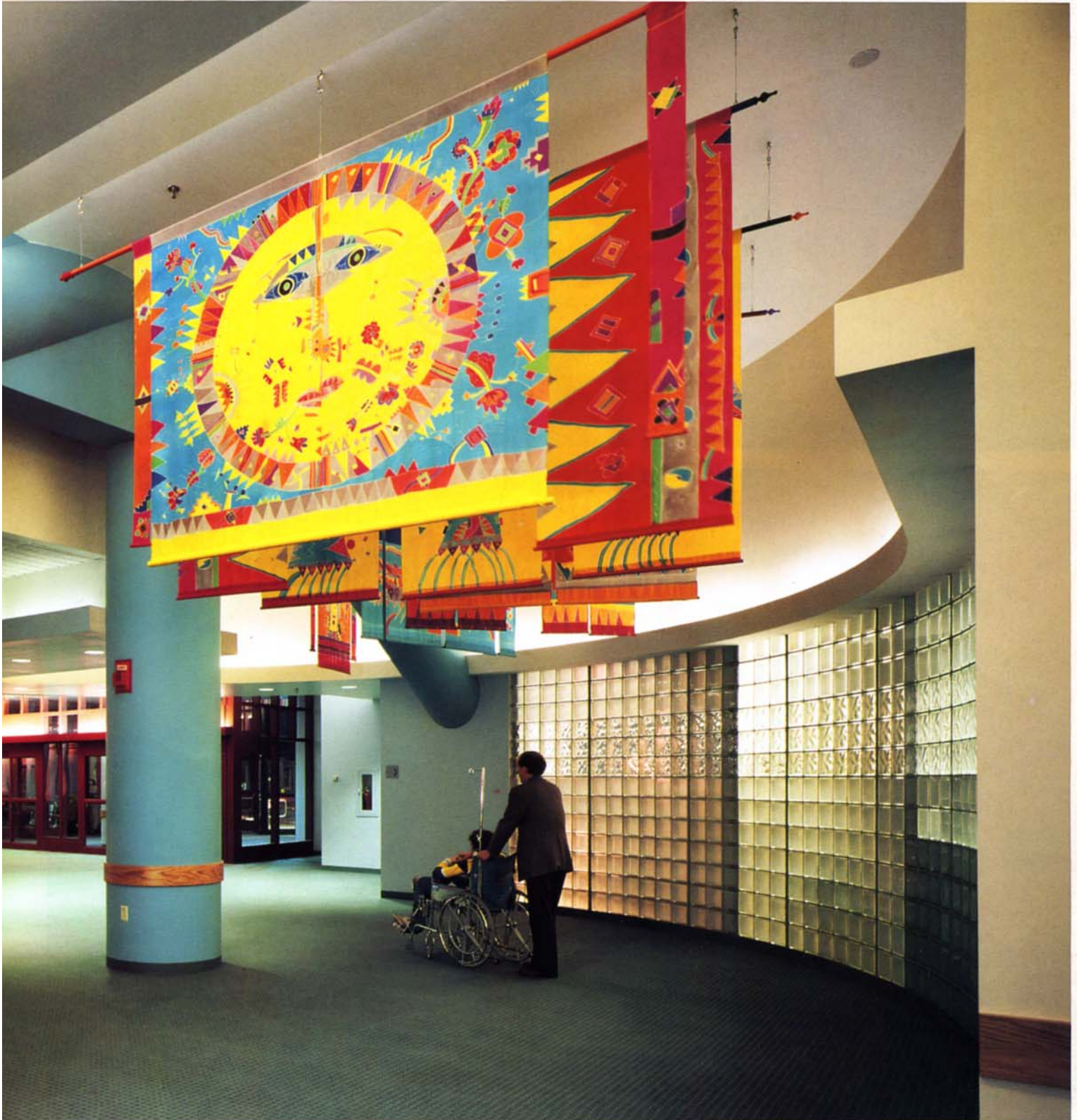
Clear sightlines help newcomers begin to make sense of this circulation node at Children's Hospital, Boston, while the distinctive architecture and bright graphics create a

memorable impression that will be recognized on the way out.

Credits

Architect: Shepley Bulfinch Richardson and Abbott

Graphics: Jon Roll & Associates, Inc.





Logical, legible signs at Children's Hospital, Boston, tell exactly what people want to know at this point: where they are and which ways lead to three destination zones.

Credits

Architect: Shepley Bulfinch Richardson and Abbott

Graphics: Jon Roll & Associates, Inc.

Signage that identifies each destination, such as this at Dartmouth Hitchcock Medical Center, Lebanon, N. H., is essential to hospitals.

Credits

Architect: Shepley Bulfinch Richardson and Abbott

Graphics: Jon Roll & Associates, Inc.

Signs and the ADA

This year, every U. S. hospital must choose either to change its signs or face the possibility of a lawsuit. The Americans with Disabilities Act (ADA) of 1990 has extended civil-rights protections to persons with disabilities. Guidelines issued in July, 1991, by the Architectural and Transportation Barriers Compliance Board will be enforced by the Department of Justice. For noncompliance, building owners may be fined up to \$100,000.

Signage is covered by ADA guidelines intended to make public buildings accessible to the blind and visually impaired. Most signs in medical facilities are covered by detailed standards for typeface, finish, and mounting. In addition, many wall-mounted signs now must include tactile graphics so people can read them by touch.

All architectural barriers must have been removed from existing buildings by early 1992, to the extent "readily achievable." Providing tactile signs is considered readily achievable, because of low cost and wide availability. All new construction and major renovations with first occupancy after January 26, 1993, must comply fully with ADA standards. Signs not required to comply include menus and all other temporary signs, such as personnel signs and tenant identification. Building directories and orientation maps are exempt. In some cases, text telephones for use by hearing-impaired people must be located on a directory.

The biggest change in current practice will be the new tactile signs, which must have both braille and raised lettering. All wall-mounted signs that designate permanent rooms and spaces must be tactile. Examples include room and suite numbers, restroom signs, and fire-exit signs. In hospitals, most destination names need not be tactile, according to Ellen Harland, accessibility specialist at the compliance board. "The words 'Coronary Lab' are not necessarily a permanent sign, because the department could move at some point," she says.

Where tactile signs are required, the raised characters must be all capitals. Signs must

be centered 60 in. above finished floor on the wall adjacent to the latch side of the door or, if that is not possible, on the nearest wall.

Most hospital signage need not meet the tactile requirements, but must conform to a second set of standards for typeface and style. This set applies to all signs that provide direction to or information about the function of spaces. Examples include directional signs (virtually any sign with an arrow), department and office identification signs, information signs (operating hours, policies, etc.), and regulatory signs such as "No Smoking."

"Some of the rules are very specific," says Marcus Merritt, environmental graphic designer at Heery International, Atlanta. "It will be a real challenge to develop signs that meet the ADA's requirements as well as good design qualities. There will be a learning curve for all of us, including the environmental graphic designer, the hospital administrator, and the guidelines board."

Although many of the guidelines simply codify common design practice, tactile signs pose a new challenge. "Right now, there are not many ways of doing tactile lettering that are economic and feasible, but I think more will be developed," predicts Merritt. Etched plaques are expensive, while glued-on letters may be subject to vandalism. Many designers would like to use thick adhesive-backed vinyl lettering, but it is not currently on the market. As for braille, there are no inexpensive ways to make it integral to a sign. The glued-on tiles currently available are considered ugly.

Graphic design consultant Jon Roll of Cambridge recommends using standard, generic materials to meet ADA standards. For example, use painted wood or acrylic rather than a proprietary plastic system with subsurface color. "That way, as we get more clear over the next few years about what is required, the hospital won't be locked into a sign system," says Roll. "We can't honestly say we know the ins and outs at this point."

- Start the sequence as close as possible to the main entry point on each floor.
- Avoid using letters in room numbers. If letters must be used, avoid I, O, and Q, which can look like numbers.

Because room numbers affect many internal operations, changing them requires meticulous coordination with telephone and nurse-call systems, as well as tracking programs used by laboratories, dietary departments, inventory control, and so forth. On one project, the “Sub1” and “Sub2” floors had to be renamed because the new elevator’s LED readout had only two digits.

Wayfinding strategies

Once a sensible numbering system is in place, multiple reinforcing elements can help people find their destinations. People will use several different methods to find their way. Designers should strive to support such methods as:

Seeing a destination and walking toward it. For 99 percent of the population—that is, people who can see—this is the surest and simplest way-finding method. In recognition of this, hospital entrances should be visible from the street and from parking areas. Every building should have a direct line of sight between the front door and the main information desk.

Asking for help. Most people prefer spoken directions to signs. Architects should pay attention to acoustics at information desks, lobbies, and nurses’ stations.

Following a path, such as a colored line on the floor. A floor line gives constant reassurance of being on track, but no sense of where one is in relation to either end of the path. If floor lines are used, there should be only a few, and the colors should be high in contrast. (Many people cannot tell blue from green or red from orange.) Colored bands or lines should never be used for decoration if they are used elsewhere in the same facility as way-finding cues.

Forming a mental map. A well-designed “You Are Here” map helps many people, but even more important is the architecture itself. The layout of a new building and its relation to other buildings should be easy to understand. Atriums, courtyards, and views to the exterior are valuable orienting features. The relative size and floor treatment of corridors should relate meaningfully to circulation routes. Related destinations should be grouped in zones, such as a concourse of retail shops. Interior landmarks—such as distinctive art objects, for instance—also serve as reference points that people notice and remember.

Getting information from signs. The entire system of signs must direct people from city streets to the correct parking area into the right building and then to the final destination inside. Signs should be placed at decision points, spots where people need and expect to find information. Typical examples are street approaches, parking lots, lobbies, elevator interiors, and corridor intersections. People

also need reassurance signs to keep them going past another major destination, or when a cue such as double doors or a change in floor covering tells them they are entering another area.

Destinations themselves also need signs. “Identification signs in hospitals are typically poor,” says way-finding researcher Janet Carpman of Carpman Grant Associates, Ann Arbor, Mich. “Directional signs may get people to the area, but then people don’t recognize it when they get there.”

Meaningful messages

Some messages are more important than others. Giving too much information at once without emphasis results in signage so confusing it will be ignored. Signs are a major investment, and they must be thoughtfully planned to work as a clear, consistent, and helpful system.

Ideally, hospital signs should use simple terms for buildings or departments, not technical or esoteric words. “Ambulatory Care,” for example, means “Ambulance” to many people. Whatever terms are chosen must be used consistently.

Arrows should appear only on directional signs, and they should look like arrows, not abstract designs. Although some designers advocate the use of symbols and pictograms, research shows they often confuse people. Hospitals should never use symbols that can create anxiety, such as a picture of a surgical tool.

Maps should follow these principles:

- Orient each map so that forward is up. This is the single most important principle, yet it is often ignored.
- Put maps near a feature that gives visitors a point of reference.
- Show architectural elements and landmarks on the map.
- Use a bird’s-eye perspective view, not a plan.
- Provide an inset showing the relation of the mapped portion of the building to the rest of the medical center.

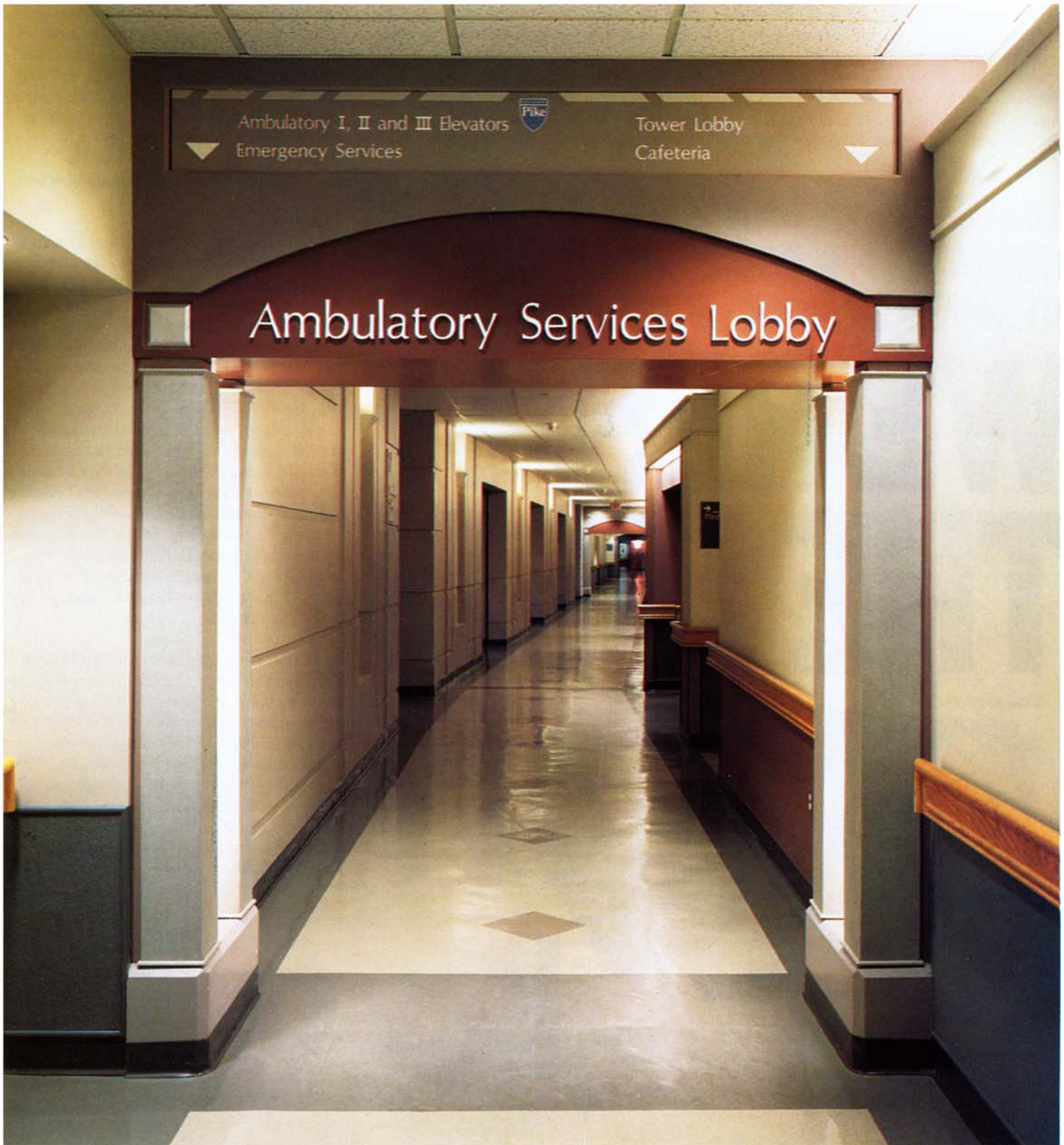


In directing visitors through the complications of Brigham and Women's Hospital, Boston, Mass., hospital staff refer to the main circulation path as "the pike" (see top).

Credits

Architect: Tsoi/Kobus & Associates, Inc.

Graphics: Jon Roll & Associates, Inc.



Sam Sweezy