Oregon Humane Society

Baugh Construction Oregon, Inc.

Greeting

With the help of over 7,000 donors, the Oregon Humane Society completed its most ambitious project in its 132 year history. The new animal resource center and educational facilities -- conceived in 1993 -- were completed in June of 2000. With this achievement, OHS begins a new chapter in its long and successful history as a progressive animal welfare organization.

The key to the success of the building project was the team of professionals committed to an investment in quality. All participants understood and believed in the mission of the Humane Society. The design for the building flowed from this understanding and continued throughout the two phases of construction. We remain indebted to our partners for their ingenuity, commitment and vision.

Within these pages you will find the elements of the capital campaign that raised the funds for the project, budgets, information about the corporate partners, details about the building and specific features, and other useful data. We hope this book will assist other organizations embarking on new projects to benefit from our efforts, replicate our successes, and learn from our experience. We would like to offer you whatever assistance we can provide. Please don't hesitate to ask.

Sharon Harmon, Executive Director
Oregon Humane Society

Introduction

⇨ History of OHS

⇨ Campaign Case Statement

History of the Oregon Humane Society

"Must do something for horses here" wrote Dr. Thomas Lamb Eliot into his journal after witnessing the brutal beating of a carriage horse. Attended by twelve prominent Portland citizens, Dr. Eliot led the Northwest's first humane movement meeting on November 17, 1868. The Society founded by Eliot initially focused on the plight of draft animals, but within a few years came to advocate for the protection of children and companion animals.

In August, 1880, The Oregon Humane Society (OHS) was formally incorporated. Mayor David P. Thompson was its first president, and Henry Corbett, George Himes, James Steel and William T. Shanahan its officers. Upon incorporation, Shanahan immediately began to arrange for the arrests and convictions of animal and child abusers. OHS served as Oregon's child and animal protection organization from 1881 until 1933.

In 1882, the incorporation papers were rewritten to include humane education. Our founders believed that teaching children to treat animals humanely would transfer to their relations with humans. This philosophy remains at the core of the Society's ideals.

In 1916, OHS took over the city pound. Two years later, the society purchased a four acre farm (which was later expanded to ten acres) in Northeast Portland and established a shelter for homeless animals. The building was destroyed by fire in 1938 and rebuilt in 1939. It served as the Society's headquarters until 1999.

Due to continuous contract battles, arguments over responsibilities, and contrary goals of the humane versus the pound aspects of its work, OHS terminated the city contract in 1972. Once again the Society was free to do the work for which it was originally founded. Since that time, OHS has been a stand-alone, non-profit organization, operating a single facility without the assistance of government funding or the burden of a municipal contract.

Peak animal traffic in the shelter hit an all time high of 54,992 animals received in 1973. Animal intake declined to an average of 15,000 animals per year and maintained that level from the early 1980s through 1999. Staff numbers continued to grow as did the number of volunteers working at the shelter. At the time of the move to the new building, the Oregon Humane Society had 600 volunteers and 48 employees. All of these animals and employees were housed in a building designed for 12 employees with a maximum capacity of 4,000 animals a year.

Today, OHS is a private animal welfare organization which fosters an environment of respect, responsibility and compassion for all animals through education, legislation and leadership. OHS exists solely on private donations and revenues from services to care for and find homes for homeless animals, investigate and stop the abuse of animals and educate the community on the humane treatment of all animals.

Campaign Case Statement

By 1989, the Society's facilities had deteriorated due to age and overuse. In 1939, no one could have imagined the breadth of the programs or demands for service from the public that the Society would experience fifty years later. By the 1990s the building was unsafe for employees and animals. Access for disabled clients and employees was extremely limited - the Occupational Health Safety Act and The Americans with Disabilities Act were not a consideration at the time of construction.

The conditions in the animal areas were particularly horrible. The real bottle neck for cats was the isolation area for incoming felines. Only 36 cages in a cramped room served over 10,000 cats a year received by the Society. There was no place for clients to get acquainted with a potential feline friend. The air system in the cattery simply recirculated disease laden stale air. The only area for isolation of sick cats was four cages in the grooming room, which also housed sick dogs in two kennels. Upper respiratory disease afflicted the majority of cats.

The dogs didn't have it much better. Sixty-five indoor/outdoor kennels housed a maximum population of 90 dogs. Cold winters would give rise to ice clogging the single four-inch drain serving all kennels on each side. Hot summers brought hordes of flies and sweltering conditions for the dogs and clients. Extensive cracking in the kennels' surfaces and the inability to control indoor climate made it increasingly difficult to maintain a healthy environment for the animals. The kennels were arranged facing each other in one long row. Clients had to walk the gauntlet between excited, barking dogs. Taking one dog out for a walk resulted in total uproar with the remaining dogs. Noise exceeded maximum levels on a consistent basis. The ensuing chaos meant more stress and more illness for the animals.

The kennels were cleaned with cold water at city pressure. Watering the lawn or flushing the toilet meant a severe drop in pressure. Many of the ancient cast iron pipes had broken and ceased to allow water to drain quickly but would allow sewer gas to rise into the kennel areas. Eventually, many drains were cemented over. Again, the isolation areas were extremely limited. Ten kennels served as isolation for incoming dogs, bite quarantine, protective custody and emergency boarding. A litter of puppies could be housed next to a sick stray dog, adjoining a kennel with a lunging Rottweiler, next to a kennel with a fearful new arrival.

The people areas of the shelter were equally dismal. Cramped offices and a staff spread out among three buildings and a trailer did not foster teamwork. Adequate heat and air conditioning were absent in most areas of the shelter. Lack of electricity meant a choice between lights and a fan in the summer. Computers crashed frequently with the resulting brown outs in the ungrounded system.

Despite all of this, the Society's programs were remarkably successful. Over 90% of the dogs received for adoption found new homes. Cats were adopted at a rate reaching 61%, compared to a national average of 25% for dogs and 24% for cats. Nearly 26,000 children received education on the humane treatment of animals and donor participation reached 34,000 supporters.

The building had long served the Society, but the needs of the organization and the demands from the community had outgrown and progressed far beyond the ability of the existing structure.

The new shelter was designed to address these issues and achieve many goals for the Society. The most important of these are:

- To decrease the number of animals euthanized and increase the percentage and absolute number of animals adopted to suitable, loving homes;

- To improve and expand humane education programs in Portland and throughout the state, building on our growth from 4,000 students a year to the current 26,000;

- To improve the building's public access and ease of use, to extend the Society's visibility, and to enable the organization to build on its role as a leader in humane issues throughout the region;

- To ensure that the Society uses its human and financial resources efficiently, to expand services by applying resources to productive purposes rather than to routine tasks imposed by an outmoded physical plant and expenses mandated by repairs to a decaying facility;

- To enable the Society to expand its role as a model and teaching center for all humane societies within Oregon and Southwest Washington;

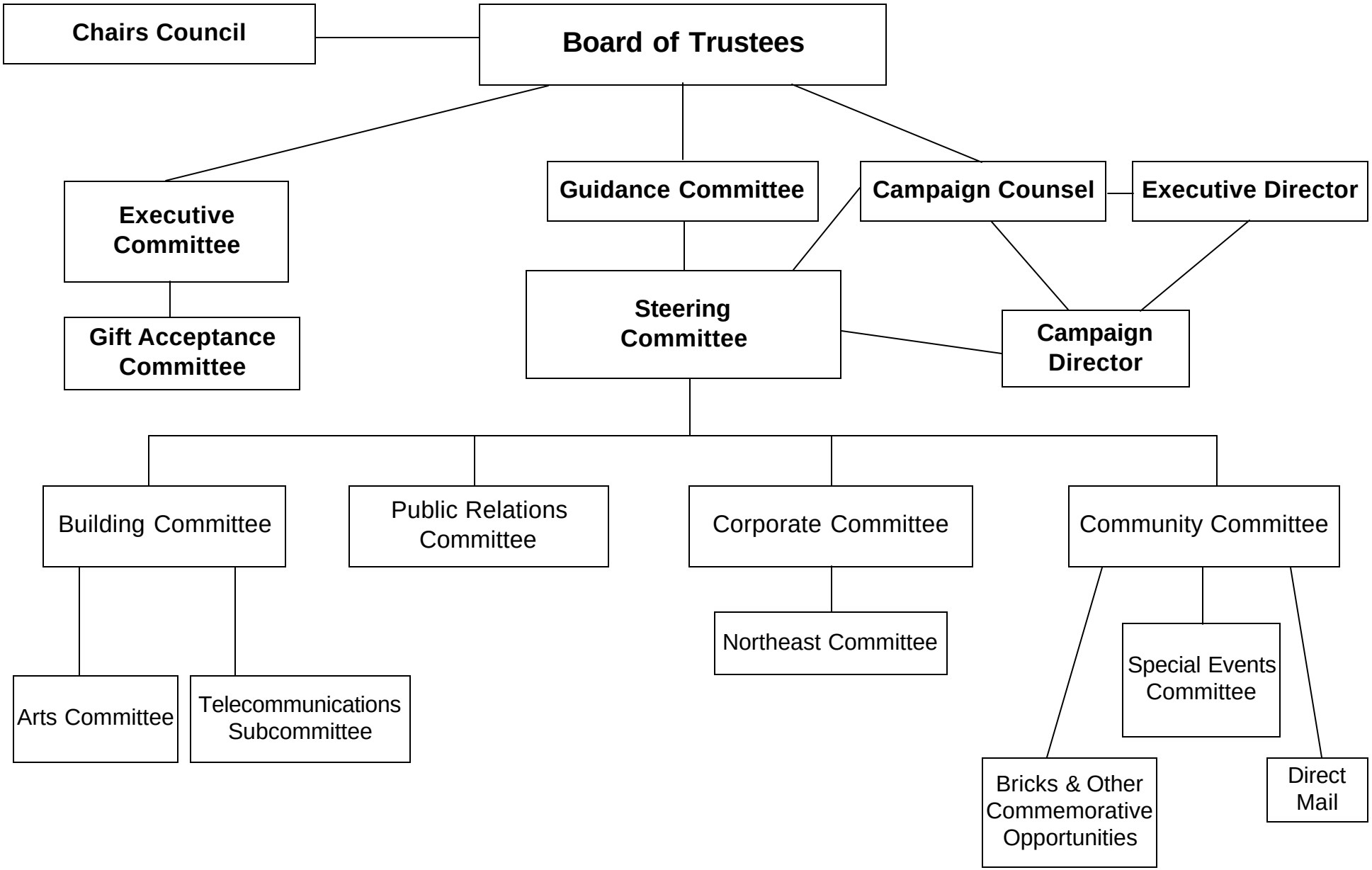
- To increase the accessibility of OHS programs to people of all abilities; and

- To create a resource center for homeless animals throughout the state. Successful, aggressive adoption programs will enable OHS to take in more surplus animals from other shelters, thereby having a broad impact on society by decreasing the euthanization of animals in many communities.

The Capital Campaign

- Campaign Structure
- Campaign Timeline
- Campaign Budget

Campaign Structure



Campaign Timeline

1993 Fall -- Project identified; OHS begins exploration of project

1994 Fall -- Committees established; fundraising begins

1995 Ankrom Moisan completed the first designs for the building

1998 Spring -- Building Committee reconstituted
July -- Owner's Representative (Milstead and Associates) hired
September -- General Contractor (Baugh Construction Oregon, Inc.) hired

1999 February -- Groundbreaking ceremony
November -- Phase I Completed

2000 January -- Campaign target reached
June -- Phase II completed

Campaign Budget

	Projected Expenses
OHS	
Capital Campaign	$ 313,357
Permit & Connection Fees	$ 62,000
Testing & Inspections	$ 13,000
Voice & Data	$ 64,000
Donor Recognition	$ 55,000
Grand Opening	$ 25,000
Reimbursable	$ 10,000
Construction Manager	$ 110,000
Total	$ 652,357
Construction	
Site, Shell & Interior Improvements	$ 6,306,879
Asbestos Removal	$ 5,000
Insurance	$ 9,415
Pre-Construction Services	$ 56,035
Total	$ 6,377,329
Architectural & Engineering	
Architectural & Engineering	$ 460,369
Environmental Analysis	$ 5,000
Geotechnical	$ 9,000
Total	$ 474,369
Furnishings & Equipment	
Furnishings & Equipment	$ 150,000
Cat Cages & Animal Care Equipment	$ 90,000
Incinerators	$ 66,121
Signage	$ 71,953
Total	$ 378,074
Grand Total	$ 7,882,129

Campaign to date $ 8,306,415
(includes in-kind donations)

The Project

- Project History
- Project Planning & Elements
- The Players
- Construction Schedule
- Construction Statistics

Project History

As part of a long range planning process, the Society identified the need for a new shelter in 1993 and began planning in earnest. Led by then Board Chair John Deering, the Society embarked upon the project. Staff were hired to coordinate the campaign. Pinson and Associates conducted a feasibility study. The Collins Group was engaged to provide fundraising consultation.

A wide assortment of committees was assembled (see chart on page 7). The first positions to be filled were the co-chairs of the campaign. Mr. Ernest C. Swigert and Mrs. Dolorosa Margulis graciously volunteered to lead the campaign. Mrs. Margulis quickly assembled the Chairs Council, an advisory body comprised of Portland's civic leaders, to provide the lead gifts to the campaign.

The Building Committee went to work on a preliminary design and budget for the project. Ankrom Moisan Associated Architects (AMAA) was chosen to design the facility with OTKM Construction providing consulting advice. The initial budget for the complete project was set at $6.4 million.

After AMAA finished the preliminary designs, a model was constructed to aid in gift solicitation. An animated walk-through video was developed by Ozymandius Productions. Wieden & Kennedy (one of the nations top advertising firms, famous for its Nike commercials) donated the production of a highly successful video supporting the need for the project. All of these productions were aimed at publicizing the compelling need for a new shelter.

Fundraising took longer than anticipated. In the beginning, the Board made a pledge not to finance any portion of the project; nor would construction begin on any portion that was not paid for. Bridge financing to cover multi-year pledges was established through Wells Fargo Bank, but it was not anticipated to be utilized.

In 1998, with the leadership of Board Chairman Stuart Soren, the Building Committee was reconstituted with new Board members and technical expertise provided by additional volunteers. Under the direction of Building Committee Chair Karen Weylandt, the committee established a more realistic budget that accurately reflected the impact of the delay in construction and all necessary costs needed to complete the project. The revised budget came to $8,000,000, compared to the original budget of $6.4 million. In the new budget, the construction costs alone escalated to a predicted $6.3 million, almost the entire original project budget. Unfortunately, the original budget did not contain costs for some essential equipment as it was believed the items could be secured as in-kind contributions.

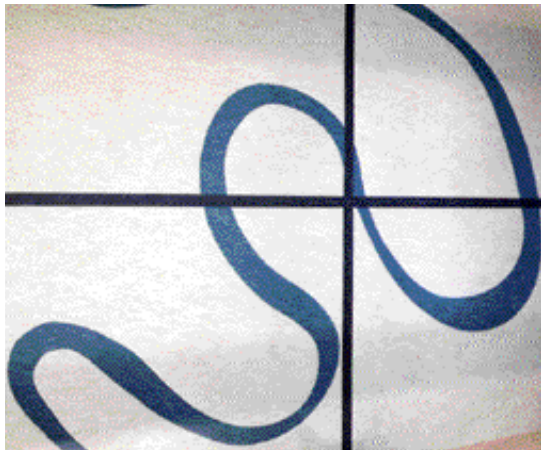
After re-evaluating the needs of the project and realizing that overseeing the day-to-day details of construction was beyond the scope of the Board, the committee set out to hire an owner’s representative. Requests for proposals were sent to three companies well known in the community. After careful consideration, Milstead and Associates was hired in July of 1998. Milstead and Associates was

to provide construction management and assist in bringing the current needs of OHS to the project team and into the new documents. Jerry Milstead then supervised the hiring of Baugh Construction. The building team consisting of Milstead and Associates, Inc., Ankrom Moisan Associated Architects and Baugh Construction Oregon, Inc. was now complete.

Construction began in February of 1999 and was completed in June of 2000.

A

B



C

A - The second floor balcony overlooks the lobby.
Photo by: Ed Hershberger.

B - The small animal room opens to the lobby and houses gerbils, rats and rabbits.
Photo by: Kelly Ballance.

C - View of the in-laid color on the lobby floor. The blue ribbon is a visual that leads the public from the cattery to the dog kennels.
Photo by: Ed Hershberger.

Project Planning

In planning the building, specific needs of the organization had to be analyzed. Numbers of kennels, program needs, adequate staff, client traffic and future needs were identified and presented to the architects. Functional relationships between programs and staff were established. OHS wanted the personality of the building to be centered on celebrating animals while keeping them healthy. An emphasis on marketing was stressed while remaining sensitive to our donors' fiscally conservative nature.

The finished building. The lobby entrance to the cattery can be seen in the background. On the left is one of the colony rooms.

After many meetings with OHS, combined with the knowledge gained from their volunteer service for the Humane Society, Ankrom Moisan Associated Architects identified five main goals that the building design needed to address. These were:

1) provide an environment to ensure the health and safety of the animals
2) provide a comfortable atmosphere for the public to come visit and adopt animals
3) break the stereotype of the dark, smelly, drab, institutional shelter
4) facilitate outreach and educational programs
5) incorporate and provide facilities for OHS's law enforcement and legislative programs

To develop the design, the building team visited top animal shelters across the country. The intent was to take the best elements of each and to improve upon their deficiencies. The team also looked at other buildings that facilitated different elements of the program such as veterinary hospitals, educational facilities, auditoriums, computer clean rooms, food preparation plants, and medical research facilities.

Flexibility of the animal holding areas was the basis for the design of the kennels. Four kennel pods, each served separately by the HVAC system are able to be locked down for security, safety, or disease control. In addition, separate pods provide a quieter, higher quality environment for the staff and public. The basic layout has dogs facing outward toward the public and away from the other dogs. Not directly facing another dog makes the animals more comfortable, less stressed and thus, more quiet. Special acoustical tiles in the ceiling to absorb sound also help with noise levels.

Installation of the puppy kennels. Notice the raised height of the kennels.

The puppy kennels were designed to be in the back of the kennel pod. Because the public can often be enthralled by puppies to the point of exclusion of adult animals, OHS and AMAA decided to place the puppies in the back. This way, the public views the adult dogs before seeing the puppies. Emphasis on the puppies is by no means minimized, and to ensure better viewing, the puppy kennels were raised off the floor. This allows the public to view more than the back of the dog without having to crouch down.

The cattery has special design considerations as well. In the old building, upper respiratory infections in felines spread quickly and led to the demise of many cats. To address this problem, the cattery has a consistent 14 air exchanges per hour 24 hours a day. Isolation rooms are served separately by the air handlers to further control airborne diseases. Another feature of the cattery system is the humidification system to reduce static, facilitate cleaning and provide added comfort for our felines. A central vacuuming system facilitates the management of cat hair and the cleaning of the cattery in general.

The animal receiving area was designed to accommodate a large number of both cats and dogs. Separate desks for the receiving of dogs and cats promotes a quieter atmosphere that results in less stress for the animals. The design team incorporated isolation cages connected to the receiving area and separate from the general population of animals, which allows animals to be held until they receive a health evaluation.

The construction project is the product of careful planning and responds to both current and future programmatic needs. The Society needed the capacity contained within the new building, even with no new programs or expansion of activities. The new building does, however, have room for future expansion of educational, volunteer, fund-raising, and public awareness activities. The new physical plant is designed to be efficient, attractive and inviting, but its primary focus is functional.

The finished cattery. On the left is one of the colony rooms. On the right is a wall of double-sided cages.

Photos by: Kelly Ballance

The animal receiving room. Notice the separate desks on either side of the central desk. The left side is used for dogs and the right side is used for cats. The door in the background leads to the isolation cages.

"The project has turned out better than any of us imagined and I think that it is due to Sharon's hard work. Over the course of the project it was great to get to know Sharon, to see her dedication to the Humane Society, to see everything they have accomplished, and to see how it all turned out. Sharon's hard work has resulted in one of the finest humane societies around.
"Campbell Crane chose to donate because we felt that that the Humane Society is a good neighbor and it was a worthwhile project for the community."

- Kris Kriessein of Campbell Crane
(in-kind donor)

Major Elements

HVAC

One of the most important aspects of the new facility is the heating, ventilating, and air conditioning system. Manfull Curtis Engineers, Inc. was the mechanical consulting engineer firm responsible for the HVAC and plumbing system design. The HVAC system utilized in the building is a state-of-the-art Trane system that meets the Society's needs well. The industry standard for maintaining the health of animals in an indoor facility is twelve air changes an hour. The new building exceeds this standard. This high level of circulation results in less communicable disease for the animals and a more pleasant environment for staff and visitors. In animal areas, air is circulated fourteen times every hour during the day. At night, the number decreases to eight changes per hour in the kennels, while in the cattery and isolation units, the change remains at fourteen. In areas designated for humans, there are eight changes per hour. The air change effect is maximized by the negative pressure in every room and the use of one-hundred percent fresh air brought in from the outside.

Bringing in the HVAC system for installation.

In the public animal areas, the air flow is designed to minimize odor and maximize comfort for the client and the animals. Fresh air is supplied on the public side, flows through the animal area, and is exhausted in the staff area. Odor bearing air flows away from the public at all times. The cattery even utilizes the adoption cat cages as part of the airflow system in that they are open on both sides. Air flows through the cages and is exhausted through vents in the ceiling on the staff side. The exhaust throughout the building is filtered to prevent the reintroduction of heavy particulates into the outside air. On the supply side, metal filters are used instead of paper for conservation purposes. Initially, paper filters were used, but these clogged quickly and had to be changed too frequently. To address this problem, Milstead and Associates suggested using metal filters, which not only work well, but are reusable and can also be recycled.

Maintaining temperature while utilizing fresh air intake was important for animal health and public comfort. To internally balance fluctuations in the temperature of the air brought in, a heat recovery system was designed to reclaim heat from the air being exhausted. The same heat transfer system is reversed in cooling seasons to "pre-cool" the entering air and exhaust the heat back outside.

The airflow in isolation rooms is of extreme importance in maintaining the health of the animals. The building has one mechanical unit dedicated entirely to the isolation rooms. As in all rooms, one hundred percent of the air is exhausted. Since more air is exhausted than brought in, there is negative pressure in the room. The negative pressure keeps air from being pushed out of the room and into other areas, thereby limiting the spread of airborne diseases.

Plumbing

The plumbing system is also designed to maximize disease control. Clean-outs and sinks are ample and easily accessible in animal areas, thus encouraging employee and area sanitation. In the dog area, each kennel has individual self-priming drains that prevent sewer gas from rising into the kennel. These drains are located at the split of each kennel and were designed for cleaning one side of the kennel while the animal occupied the other side. Individual drains prevent the spread of bacteria that often happened in the old gutter drains where the waste was passed through the back of each kennel as it was washed down the drain. Drain covers in the kennels have a baked-on finish to stand up to the rigors of pressure washing. Six-inch drains facilitate the removal of waste and help keep the system from clogging. Solid waste is disposed of by floor mounted flushing sanitary sinks. Flushing sinks allow for quick, easy and sanitary solid waste disposal.

In the grooming room, a special water temperature control sequence allows the ”ideal” temperature of water for bathing an animal to be constantly and promptly delivered, yet limits the maximum water temperature to prevent harm.

Six-inch drain pipes underneath the kennels

flush drains in the kennels

Electrical

Compact fluorescent bulbs were used wherever practical in order to conserve electricity. Natural lighting also helps with energy conservation and allows for the inclusion of plants. A lighting system that comes down on the face of the animal to provide better viewing for the public was desired and the lighting was designed to be uniform, without shadows. A three-level lighting system provides a cleaning mode with brighter lights to better see dirt, a public viewing mode with softer lights to cut down on glare, and a night mode to provide an even softer light to help quiet the dogs and conserve energy. This lighting, while able to be manually controlled, can also be controlled by time clocks to reduce power usage during off-hours. Dimmable lighting was used in the auditorium to create a warm and inviting atmosphere.

The building is equipped with a 300-kva three phase emergency generator system. If needed, this system will power the phones, computers, boiler components, and the outlets in critical areas such as receiving, euthanasia, and treatment rooms. The generator was equipped with an automatic transfer switch that senses any loss of power to the facility and starts the generator automatically.

The Players

The Project Team:
Ankrom Moisan and Associates, Milstead and Associates, Inc. and Baugh Construction, Oregon, Inc.

The project team consisted of Milstead and Associates, Inc., Ankrom Moisan Associated Architects and Baugh Construction Oregon, Inc. These three companies had worked together on previous projects and easily incorporated themselves into a team to create solutions to the needs of the Oregon Humane Society.

Owner's Representative: Milstead and Associates, Inc.

OHS hired Milstead and Associates in 1998 after recognizing that the day-to-day management of the construction would have been beyond the abilities of staff or Board. In the role of owner's representative, Milstead and Associates served as an extension of the Oregon Humane Society. Once hired, M&A designated a project manager to work closely with the Humane Society, making its contacts with architects, engineers, contractors, construction managers and facilities managers available. OHS entrusted M&A with the responsibility for negotiating the new construction contract and subsequent change orders. After a general contractor was hired, M&A assisted in bringing the current needs of OHS to the project team and into the new documents.

M&A
Milstead & Associates, Inc.
Construction Program Managers

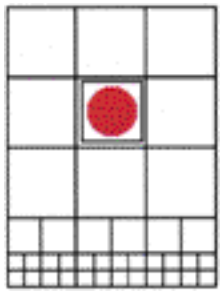
Throughout the project, M&A provided OHS with construction knowledge and expertise, worked to ensure that owner responsibilities were carried out in a timely manner and saw that owner requirements were accurately related to the other two members of the construction team. M&A also assisted OHS in managing the overall project budget and facilitated the resolution of complex technical issues that came up during the project.

Architect: Ankrom Moisan Associated Architects

Ankrom Moisan Associated Architects responded to the owner's request for proposals in 1993, and was later selected by the Board. In response to owner needs, the firm conducted a rigorous research effort. Early in that process, the owner and the architect toured similar facilities recently completed in the U.S. "What works well? What would you do differently, if you could do it over again?" were the questions frequently asked of other facility directors. To better understand the Humane Society's operation, the firm sent a

volunteer workforce, made up by members of their project design team, to OHS. Working along side OHS's staff for several days, the design team gained valuable insight and understanding to the needs of both animals and staff. The owner and architect worked closely as programmatic needs and spatial relationships were developed for the building.

As the architect, Ankrom Moisan carefully evaluated building systems and finish materials prior to selection. The choosing of these materials was complex. Like many projects, the available budget was a major component in the selection process. It was not always possible to incorporate the best-suited building system or material. Alternatives had to be identified and evaluated for cost and performance.



ANKROM MOISAN
ASSOCIATED ARCHITECTS

Even after designing the building and choosing the materials, Ankrom Moisan worked with the owner's representative, OHS and the general contractor to work through change orders on the design before and during construction.

General Contractor: Baugh Construction Oregon, Inc.

Immediately on hiring Milstead and Associates in 1998, the committee decided to renegotiate the contract for construction and open the process to competitively bid the project from top to bottom. Several quality firms were approached with a request for proposal to submit a bid for a negotiated, guaranteed maximum price contract. Four bids were received with the price varying from $5.9 to $6.5 million dollars. The three lowest bids were considered for an interview.

BAUGH construction OREGON INCORPORATED

After interviewing the three candidates, it was clear that Baugh Construction was head and shoulders above the rest. At the conclusion of negotiations, the contract was signed with Baugh Construction for $5.9 million, which included a contingency within the budget for $150,000 and a $60,000 donation from Baugh to OHS.

Baugh's contributions go beyond concrete and steel; through the ongoing value engineering process, Baugh saved OHS over $50,000 in construction costs and brought a number of in-kind contributions to the project. Because many of the systems installed in the building had not been used in a shelter type setting, Baugh performed extensive testing on-site to be sure various systems would work as desired before installation. Baugh's marketing department donated the production of a grant proposal to OHS at no cost and provided a person to create this project book.

In-Kind Contributions Donor List

Donor	Donation
Able Contractors	Asbestos removal
Architectural Signing NW	Interior signage
Arent Machinery	Discount on appliances
BASCO	Appliances at cost, donated appliances
Baugh Construction	In kind management, buyout, $60,000 of fee
Campbell Crane	Crane rental free, pay for labor
Carlson Testing	5% discount on services
Cessco	Equipment rentals at no cost
Crawford Door	Deduct $500 from bill
Datatech	Computer cable donation
Emmon's Enterprises	15% discount on phone, security system
Halton Equipment	Equipment rental, generator at cost, $5,000 donation
Hessel Tractor	Equipment rental
Malarkey Roofing	Roofing materials
New Tech Electric	Contract reduction
Oregon Builders Hardware	Contract reduction
Oregon Landscape Contractors Board	Landscaping
Parr Lumber	Building materials at cost
Ross Island Sand and Gravel	Concrete
Shoreline Manufacturing	Animal care equipment
The Home Depot	Pavers
Thermtec	Incinerator discount
TruGreen Landscaping	Paver installation

Construction Schedule

The building was designed to be built in two phases for the purpose of maintaining the shelter programs during construction. The first phase involved the dog kennels, education wing, adoption office, general storage, retail store, pocket pet area, administrative offices, and lobby. Once Phase I was completed, adoption and education staff, program managers, retail sales and dogs were moved to the new building. At that time, a portion of the old building was demolished and Phase II began. The second phase encompassed the cattery, feline services, rehabilitation and treatment areas, grooming room, euthanasia and receiving room. When Phase II was completed, the remainders of the Society's programs were moved into the new building and the old facility was demolished.

X Contract Awarded to Baugh Construction
9/24/98

X —— X Preconstruction/Value Engineering
9/24/98 2/15/99

X Ground Breaking Ceremony
2/24/99

X —— X Phase 1
2/15/99 11/1/99

X —— X Demolish Old Kennels
11/22/99 12/13/99

X —— X Phase 2
12/13/99 6/02/00

---------1998----------] [----------1999----------] [----------2000----------
SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

Construction Budget and Statistics

The overall construction budget was $6.3 million. The budget was met, due in part to numerous in-kind contributions by various companies.

Overall in the building there are:
12,100 square feet in the canine services area
  3,000 square feet in the cattery
12,000 square feet of office space
18,900 square feet of animal services and maintenance space
46,000 total square feet

2 floors
1 canine exercise area with five runs
112 parking spaces

The animal services area comprises 72.5% of the total building. The rehabilitation area comprises 1.5% and the office area comprises 26%.

The project team was presented with an “Excellence in Concrete” award for best usage of concrete for an industrial project in Oregon. Ross Island Sand and Gravel, the concrete supplier, nominated the project due to the various uses of concrete in the building.

Construction of the cattery area.

Construction of the kennel area.

“This project was very different from most. The owner concerns focused primarily on what the animals needed for their health and safety. Office space for staff comfort was important, but secondary to the animals. The owners were the animals, not the people.”

- Rachele Clark, Project Manager
Baugh Construction Oregon, Inc.

Special Features

- ⇨ Lobby
- ⇨ Animal Areas
- ⇨ Special Equipment

The Lobby

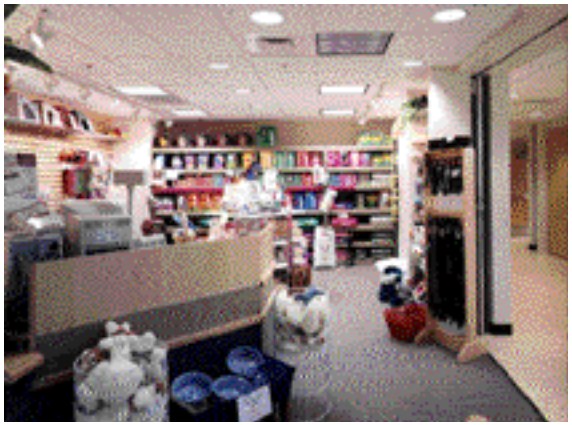
Lobby

The old building had 450 square feet of space in an unwelcoming, dark lobby. The lobby, retail and adoption areas were all bunched in the same cramped space. The lobby in the new building is spacious, with approximately 1,000 square feet that invite people to move freely from the reception area to the store to the adoption areas. It also allows the Society to better accommodate crowds during events. The reception desk is noticeably featured, with the separate retail and adoption areas clearly marked. High ceilings allow for banners and can accommodate seasonal displays and special events.

Lobby and reception desk. *Photo by: Ed Hershberger*

Store

In the old building, the retail area comprised 15 square feet of floor space and brought in $80,000 each year in revenue. The new retail area, “Best Friends Corner,” is prominently featured just off the main lobby, with 490 square feet of retail space. The new sales area has relieved adoption staff from cashier duties as adopters pay for their pet in the store, hopefully purchasing their pet supplies at the same time. The adoption staff is now able to focus on more adoptions - increasing staff efficiency and ultimately increasing the number of adoptions.



The “Best Friends Corner” store. *Photo by: Ed Hershberger*

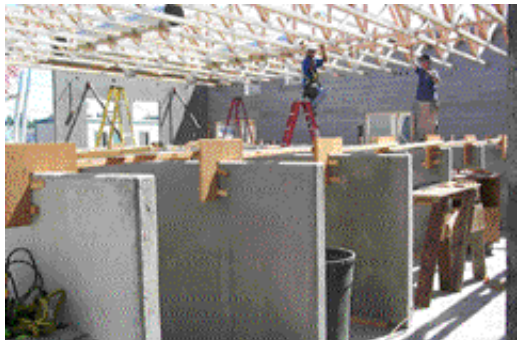
“Best Friends Corner” is unique in the local neighborhood, offering a wide variety of essential and fun supplies for pets at competitive prices; there is no other outlet for pet supplies beyond grocery stores within the vicinity. With a friendlier space, outdoor advertising to attract passing traffic and a wider variety of products, sales are anticipated to reach $160,000 the first year and continue to increase after that.

The Animal Areas

The animal areas at the Oregon Humane Society are equipped with various features designed to increase work efficiency and ensure animal comfort and health. The canine kennels are constructed with pre-cast concrete walls, LGL aluminum gates, and Stonhard floors. The cattery utilizes Medintech linoleum and Shoreline cages.

The Dog Kennels

In the dog kennels, concrete panel walls prevent nose-to-nose contact between the animals. This is less unsettling for the dogs and helps prevent the spread of disease. Concrete panels were chosen over the traditional porous concrete blocks because blocks have an uneven surface, are high maintenance, have a limited lifetime, and are more difficult to clean. Smooth surface panels ensure easy cleaning and leave no deep spaces in which bacteria can hide and multiply.

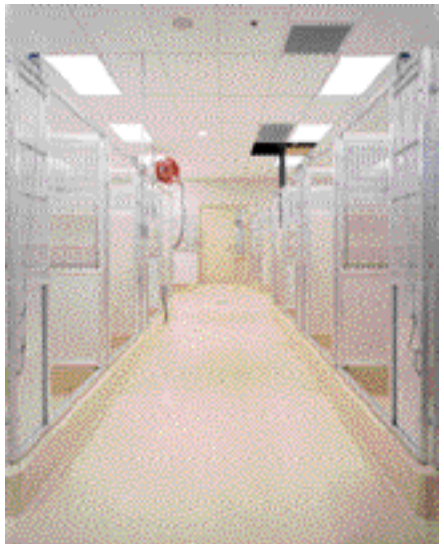


Construction of the kennels. The pre-cast panels separating each kennel can be seen in the foreground.

During construction, the panels were poured ten at a time in one area, transported and placed with a crane, and then set in the building with anchors. Concrete was then poured in place for the connecting walls and curbs to ensure stability, rigidity, and easy cleaning. Baugh took extra care with the preparation of the concrete panels for the finish. Concrete naturally has flaws which can make adding a finish difficult. Baugh resolved this issue by pressure washing and hand finishing the panels to create a near-perfect surface.

Even with all the research and problem solving done by the building team, the finish on the kennel walls was a challenge. AMAA researched dozens of different types of wall finishes, but found that even the finishes advertised as “animal-proof” do not stand up to the constant wear from dogs and could be very expensive and difficult to repair. After much testing, a chemical based epoxy coating was chosen for its durability and ease of maintenance.

Built-up epoxy flooring was used for sanitation and durability reasons. The system, supplied by Stonhard flooring, consists of three layers. The first layer is a trowelled down rock and sand based grout. An epoxy coating is placed over the grout and finished off with a urethane sealer. During the various mock-ups done, the Humane Society and Baugh found that a no-texture surface is best for clean-up and is easier on the animals’ paws. To provide traction for staff without roughness, a heavier stiple finish was used in the urethane coating.



The completed kennels. *Photo by: Ed Hershberger*

Because the epoxy flooring extends part way up the walls, something was needed to make the transition smooth between the epoxy flooring and the wall finish in order to maintain the necessary level surface. Baugh Construction tried a number of products to create a transition. A pic-proof material (the same as that used in jails) was found to be most compatible with the concrete, epoxy flooring and epoxy paint and was found to stand up to animal wear. This finish was used to smooth the transition.

LGL aluminum cages complete the main kennel structure. High Density Poly-ethylene (HDPE) separation gates were used in the kennels instead of aluminum or steel to minimize potential injuries to the animals. These gates separate the staff side of the kennel from the public side. HDPE gates, while strong and durable, are much lighter than aluminum or steel, so if the gate were accidentally released while the animal is underneath, the injury would be minimal. Other benefits of choosing the HDPE gates are that they are less expensive and easier to replace. While aluminum and steel gates must be fabricated in a shop, the HDPE gate can be cut to size on site.

LGL Kennel gates. In the background, the opening between the night cages and the day cages can be seen. HDPE gates were used to separate the two cages.

LGL aluminum caging is more cleanable, durable, and rigid than the usual chain link fencing. Furthermore, it is not as expensive as stainless steel. The vertical bars also allow the public a good view of the dogs.

For cleaning and waste management, flushable floor drains were installed. Each kennel is served by a separate drain. These drains have acid resistant enamel floor grates that separate solids. Double screens in the drains filter out large objects and help keep the pipes from clogging. Wash down systems have retractable hoses for easy storage and include special chemical insertion for sanitizing and cleaning the area.

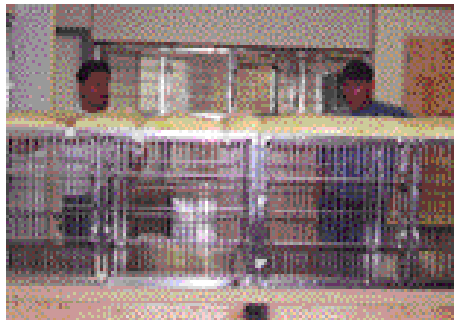
The automatic watering system.
Photo by: Kelly Ballance

An automatic dog watering system was included to provide a constant supply of fresh drinking water to each kennel. To create the system, Southland Industries contacted Nelson Manufacturing Company, a company that specializes in livestock and animal automated watering systems. Southland ran a one inch main water supply along the top of the kennel walls from the potable water supply, after installing a backflow preventor, to protect the main water supply from contamination. Having separate bowls in each kennel allows each bowl to be isolated for individual cleaning and servicing tasks. The bowls are made of stainless steel, with a float that adds water as it is used. The bowls are held in place with a stainless steel bracket, with a locking stainless steel slide for easy removal and disinfection between occupants.

Blue pod of kennels. *Photo by: Ed Hershberger*

The Cattery

The adoption area of the cattery opens up from the main lobby. It consists of five colony rooms with glass walls for the public to view the cats at leisure and at play. These colony rooms are equipped with blankets, balls, and furniture on which the cats can play, providing a fun way to view cats waiting for adoption.



Installation of the double-sided cages in the cattery. These allow for ease of access by the staff and for maximum ventilation benefits.

In addition to the colony rooms, 40 cages with doors on either side house cats in the adoption area. These double-sided cages allow staff access to the animals without interfering with the public's view of the felines. The adoption cat cages are custom made 24"x30"x48" cages with a HDPE divider in the middle. For peak summer months, the divider is left in to provide extra cages, while in the winter, when fewer cats are brought in, the divider is taken out.

Cages from the old cat shelter were brought over for reuse in the cattery isolation rooms. Though they date from 1985, these cages are indistinguishable from the new cages. There are 18 cages in the isolation room in addition to 42 isolation cages in animal receiving. The cat cages both in the adoption area and in the isolation rooms were provided by Shoreline Manufacturing.

The get acquainted room in the cattery.
Photo by: Kelly Ballance

As in the canine kennels, the airflow in the cattery is designed to reduce smell. The air comes in on the public side, flows through the cat cages, and exits on the staff side. A central vacuuming system allows staff to keep cat hair to a minimum. These features create a more pleasant atmosphere for the public and a healthier environment for the cats.

One of the challenges for Manfull Curtis Engineering was designing an airflow system that would reduce smell and provide for the health of the cats while not leading to their discomfort in any small way. Even though the Society wanted 14 air changes per hour, they did not want direct air on the cats, even to slightly ruffle their fur.

Cat waiting for adoption in the playroom.

"We chose to donate for three main reasons. Number one, for the dogs and cats. We like animals and the Humane Society helps relieve needless suffering of animals. Second, we are on Columbia Boulevard. There are lots of worthy causes out there, but if the people around the organization won't help, who will? We like to support our neighbors. Finally, The Oregon Humane Society does a great job. They utilize so many volunteers and they have a wonderful program for children, and for children who feel they don't have a friend, an animal can be a great friend."

- Sue Findlay of the Halton Company (formerly Halton Tractor)
(in-kind donor)

Special Equipment

While the building itself is designed for animal health and ease of use, it would not be complete without comparable equipment. In the old building, dishes were washed by hand and animal blankets were washed in a standard washer. The equipment in the new building follows the goals of the building itself in that they attempt to facilitate cleaning for the purpose of animal health. While the majority of the equipment is meant for the staff, the incinerators in the new building also cater to public services. The Society can continue to offer private incineration services to the public.

The pressure washer used in the animal areas is provided by American Equipment. It provides 140 degree temperature water at 800 psi. There are 18 stations in the shelter and up to four can be used simultaneously without loss of pressure or temperature. For ease of use, chemicals are injected at the station and premixed at a central, secure location. This insures the proper dilution at all times. There are two choices of chemicals that can be delivered: either a degreaser or disinfectant. These chemicals are conveyed in PVC piping to reduce corrosion and to reduce the amount of water consumption that would accompany flushing the line between rinse and chemical use.

The grooming room has a Clark Cage drying cage to quickly dry the animal's skin and hair after a bath and to help ensure animal health. A dry animal is less susceptible to the chills. Because the animal is dried by a machine and not a person, more animals can be groomed.

The laundry equipment used in the building is a Unimac 35 pound commercial washer and a Unimac 75 pound natural gas dryer. Detergent, surfactant and bleach are automatically injected and the washer is preprogrammed for different laundry such as blankets, toys, towel and uniforms. Natural gas equipment helps to reduce energy usage and makes the building more energy compliant. The grooming room is served by a separate stacking washer and dryer.

Dishes are no longer washed by hand. Dishwashers in the building are Hobart LX 18 H-2, which (like the laundry equipment) have chemical surfactant injected automatically.

There are two incinerators in the building. The larger incinerator used for general cremations is a Thermtec model G-16-P. The smaller incinerator, used for private cremations, is a Thermtec model S-18.

Thermtec incinerators. The one on the left is used for general cremations. The one on the right is used for private cremations.

Precautions Taken

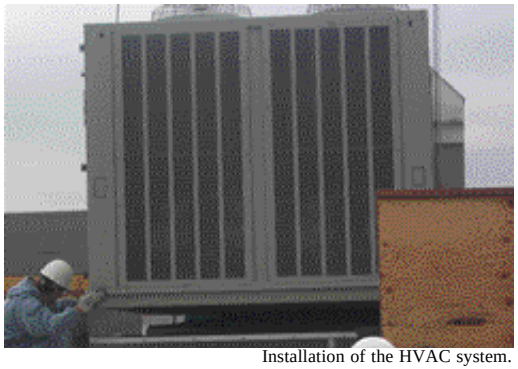
- ⇨ Environmental Safety
- ⇨ HDPE Kennel Gates
- ⇨ Fiberglass Doors
- ⇨ Training

Environmental Safety

Floors
Natural linoleum flooring was used in the lobby. This environmentally friendly flooring is more durable than sheet vinyl and allowed for an eye catching inlaid ribbon to draw clients into the animal areas.

Linoleum flooring in the lobby
Photo by: Ed Hershberger

Metal HVAC Filters
Metal filters are used on the supply side of the HVAC system. The paper filters initially used clogged quickly, resulting in a very high frequency of replacement. Durable, recyclable metal filters solved the problem and allowed OHS to be more environmentally friendly.

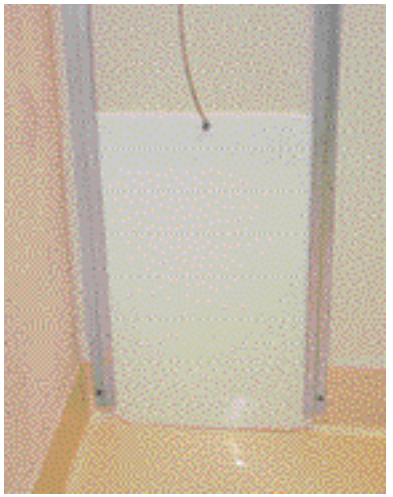


Installation of the HVAC system.

Energy Considerations
A building like this has the potential for high energy consumption. Wherever possible, OHS chose the energy-saving options, from compact fluorescent lighting to a HVAC system that re-captures exhausted heat and cooling.

HDPE Kennel Gates

High Density Poly-ethylene (HDPE) separation gates were used in the kennels instead of aluminum or steel to minimize potential injury to the animals. HDPE gates are much lighter than aluminum or steel, so if the gate were accidentally released while the animal is underneath, injury would be minimized.



The HDPE gate between the interior staff side and the exterior public side.
Photo by: Kelly Ballance

Fiberglass Doors

While visiting other animal facilities, AMAA viewed the corrosive effect animal wet areas can have on materials. Acids in animal urine and disinfectants can eat through even stainless steel, so AMAA decided to go with fiberglass. Fiberglass doors are 30% to 40% more expensive than hollow metal ones, but fiberglass will not rust. Thus, overall, OHS will save costs by having rust-proof doors. All hardware accompanying the doors is either stainless steel or brass.

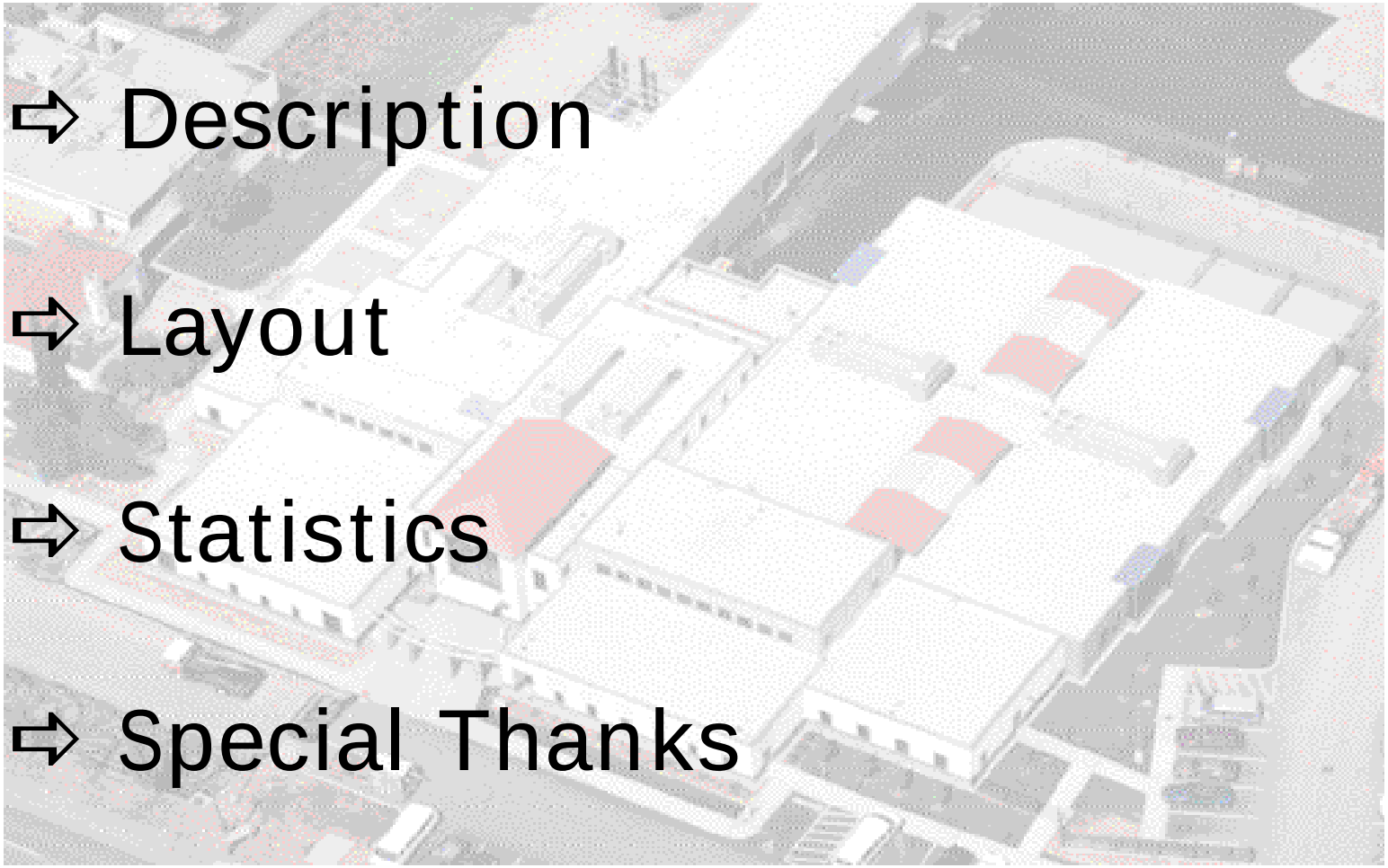
Training

Although it is typical for a general contractor to train the new owner on the care and use of the building's systems, OHS feels that Baugh went the extra mile. Certainly, constructing the building in two phases helped. There was no need for OHS to wait for an engineer to drive over to answer a question or show someone new how to use the systems for phase I; they were already on site working on the construction of phase II.

"I'm proud to have had the opportunity to work on this project with such a great group of people. The project posed unique problems that challenged the team from start to finish. The facility is designed and constructed to the highest level of concern for the care of animals. It would have been impossible for any of us involved in the project to ignore or discount this expression of compassion towards our furry friends by Sharon and her crew. And I cannot recall ever having the opportunity of challenging the Owner at ping-pong during the construction of a project. This has been a great time."

-Greg Handy, Senior Project Manager
Baugh Construction Oregon, Inc.

The Final Result



- ⇨ Description
- ⇨ Layout
- ⇨ Statistics
- ⇨ Special Thanks

Description

One of the main points of interest in the construction of this building is that a variety of materials was used. This one building incorporates concrete blocks, concrete tilt-ups, wood structure systems and steel structure systems into a unified structure that meets the Humane Society's needs and is aesthetically pleasing to the eye. This complex composition did not come without its challenges. One of the structural challenges the team faced was working out the connections between the metal stud and the wood stud systems.

Concrete block, metal, and wood structure of the building front

Concrete tilt-up walls used in the kennel area

The new facility provides enough holding capacity to absorb the periodic floods of dogs and cats so that marginal pets can be given time to heal, adjust and eventually find new homes. The situation for cats sees the largest impact with the new shelter. In the old building, a common but highly contagious and debilitating upper respiratory infection was virtually a death sentence for a cat. An infected cat had to be isolated, but space was limited. In the new shelter, added space, combined with a significantly improved air-exchange system, has greatly improved the outlook for OHS cats. In fact, the future for many animals that may have previously been considered unadoptable due to behavior or health problems greatly improves because the new building provides the time and the space for their rehabilitation.

The new shelter at the completion of Phase II.

"Working on this project was really an eye-opening experience. People think it is publicly funded, but it really depends on private donations."

-Jeffrey Los
Ankrom Moisan Associated Architects

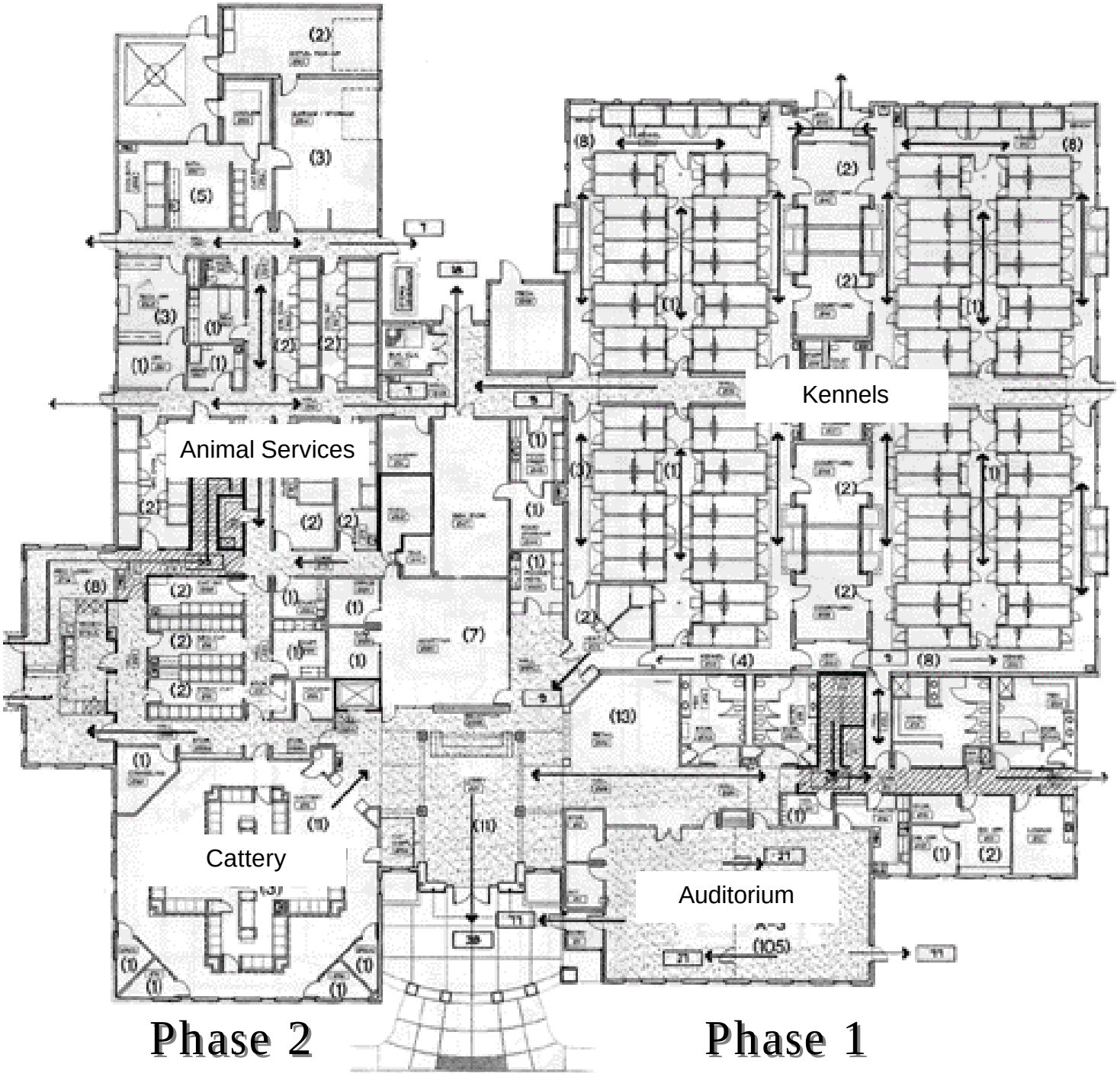
"The overall experience of the project team and the team atmosphere resulted in a successful, fun project of the highest quality."

- Joshua Dodson
Milstead & Associates, Inc.

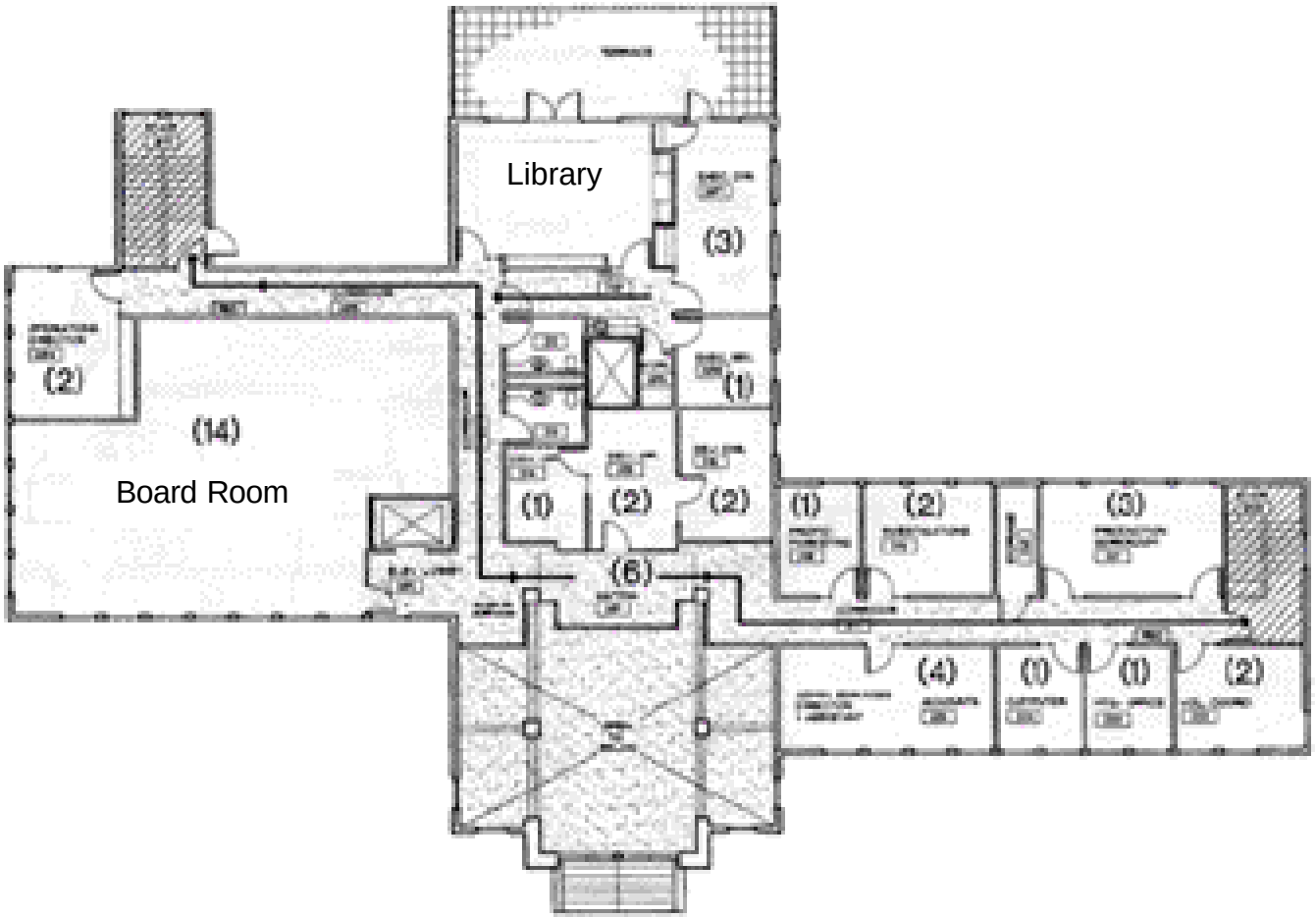
"This project was put together from the vast amount of knowledge of animal care and years of experience working in such an environment that the people at the Humane Society provided. All of the products we used and things we did were for the well-being of the animals. OHS has the best of the best in their facility."

-Joe Currie, Project Superintendent
Baugh Construction Oregon, Inc.

Layout - First Floor



Layout -
Second Floor



Statistics

Completion Time: 16 months
OHS Budget: $8.1 million
Contractor's Budget: $6.3 million

Building Specifics:

Cattery
40 adoption cages - 24"x48"x30" (dividable)
5 colony rooms (capacity of 16 each)
18 isolation cages - 24"x24"x30"
5 protective custody cages
double-sided cages
central vacuuming system

Canine Services
73 adoption kennels - 69 @ 4'x12', 4 @ 8'x12'
10 puppy kennels - 4'x6'
5 dog exercise yards - 20' x 42'

Animal Services
Grooming room
Treatment room

Animal Receiving and Rehabilitation
Separate entrances for cats and dogs
42 isolation cages for stray cats
42 isolation cages for owner released cats
6 isolation kennels for stray dogs
8 isolation kennels for owner released dogs
4 protective custody kennels

Small Animal Services
12 adoption rabbit cages
shelving for a variety of small animal cages
4 rabbit isolation cages
4 rodent isolation cages

Euthanasia Services
12 feline cages
3 canine kennels

Offices
9 on the first level
17 on the second level
7 in the adoptions area

Meeting Rooms
Auditorium - capacity of 125
Conference Room - capacity of 55
Library - capacity of 12

Employees: 70
Volunteers: 600
Total Animal Capacity: 450

Special Thanks

OHS would like to thank the following people for their help in the completion of this book:

Greg Handy of Baugh Construction Oregon, Inc.

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