

Hospitals *by design*



- > **The timeline** p2
Our experts break down the key points of the building process and when they need to be completed.
- > **The checklist** p6
Veterinary architects and DVMS spill: Here's what you need for a successful veterinary hospital.

A special monthly package designed to help boost client compliance and make it easy for your team to educate pet owners about regular pet wellness care.

TOOLS:

Money \$\$\$

- >> How to finance your team's dream hospital
- >> **VIDEO:** How do I stretch my building budget?

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If you build it...

- >> **Q&A:** Building versus renovating
- >> New project? **18** things you should never, ever EVER do
- >> **VIDEO:** How to simplify the building process

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Case study

A financing nightmare:

The building process that cost twice as much as expected

p3

Location probs

- >> **VIDEO:** There goes the neighborhood—problems with zoning and planning
- >> **Ask the architect:**
5 keys to a great location
- >> Stuck in a strip mall? How to improve your leasehold's look

p4

Design with pet (owners) in mind

Simple steps to annoy clients with **bad** design choices

p4

THE time

30 to 36 months before move-in

Brainstorm motivations for building

- Identify your practice philosophy.
- Analyze your existing and future market.
- Estimate growth in income, staff, veterinarians, and services.
- Identify additional areas of potential growth.
- Develop a listing of project goals and needs.
- Gather information pertaining to the construction process.
- Attend the *Veterinary Economics* Hospital Design Conference. Visit dvm360.com/hdconf for more.



Dreaming big?

You'd like to give your team everything they want in a veterinary facility, but how can you afford it? Veterinary accountant Gary Glassman, CPA, helps you make smart money decisions and end up with a viable project. Scan the code, above right, to learn more. And then, find out what you can do to stretch your building budget by scanning the code, below right.



24 to 30 months before move-in

Assemble your team:

Management consultant, accountant, architect, real estate broker

Investigate your development options

Compare and contrast building new, renovating your current space, and leasing space.

Building new?

- Identify your desired location based on the market and projected city growth.
- Identify specific sites in your target market area.
- Compare and contrast sites based on cost, development potential, visibility, and constructability.
- Investigate a specific site.
- Confirm site size and identify easements.
- Confirm the availability of utilities: sewer, water, power, and gas.

- Confirm that the site is zoned correctly.
- Identify constraints that may impact development: soils, wetlands, or hazardous materials.

Expert Q&A: Building versus renovating

If you've outgrown your facilities but aren't sure if renovating or building new is better, scan for top tips from Mark Hafen, AIA.



New project? 18 things you should never do.

No. 1: You should NEVER ... build or buy anything without a current and accurate survey locating existing buildings, property lines and any easements. If you don't know the size and configuration of a parcel, absolutely, positively don't buy it. Want 17 more don't-even-think-about-it tips? Scan the code, right, or visit dvm360.com/hospitaldesigntoolkit.



line

Here's a breakdown of key points in the building process, and when they need to be completed.

Or expanding your existing facility?

- Determine the desirability of your existing facility in terms of community and market growth.
- Investigate the viability of renovating or expanding on the existing site.
- Confirm site size and identify easements.
- Confirm the availability of utilities: sewer, water, power, and gas.
- Confirm that the site is zoned correctly.
- Identify constraints that may impact development: soils, wetlands, or hazardous materials.
- Investigate the viability of renovating or expanding your existing building.
- Investigate the viability of existing structure, HVAC systems, roofing—architect or contractor can assist.



Or leasing space?

- Identify your desired lease locations based on the market and projected city growth.
- Identify specific leasehold spaces that are available in your area.
- Compare and contrast leasehold spaces based on cost, market, configuration, and visibility.
- Confirm that leasehold is adequate in size.
- Confirm that leasehold space is zoned properly.
- Confirm the availability of utilities.

Freaking out yet? It's cool. Just breathe

Is your head spinning from all of the details that go into building a new hospital? Mark Hafen, AIA, and Heather Lewis, AIA, of Animal Arts Architects, will help you prioritize and make the process as easy as possible.



To watch the video now, scan the code to the right. And find more resources at dvm360.com/hospitaldesigntoolkit.



18 to 24 months before move-in

Investigate your project feasibility

- Identify your project size and scope.
- Meet with your architect to develop a listing of required spaces and site needs.
- Cross-check your listing of required spaces with the available site, building, or lease space—architect can assist.
- Identify construction cost based on listing of spaces.



GETTY IMAGES

Don't forget to do your financing homework!

We dive into a case study where the whole building process cost twice the amount Dr. Jeff Walcoff, owner of Bennett Creek Animal Hospital in Clarksburg, Md., expected. Scan to learn the hard lessons from a veterinary practice owner who's been there.



Identify balance of project costs

- Evaluate site acquisition, equipment, design fees, and development costs.
- Compare project costs with available funds.
- Review funding options with your accountant, management consultant, and lending group.
- Secure a preliminary commitment for financing.
- Review your available cash and verify your project timeline with required target dates.

18 to 24 months before move-in

Initiate site purchase or lease negotiation

- *Note: If needed, initiate your planning and zoning applications. This process can require four to 18 months, so plan accordingly.*
- Hold a preliminary meeting with city officials to identify issues, process, and timeline.
- Meet with your architect to identify upcoming tasks.
- Hire a civil engineer to assist in the application process.
- Civil engineer, architect, or planner develops required exhibits for application.
- Complete application for city or county zoning.

There goes the neighborhood

Here's how to address common concerns with the zoning and planning process. Scan the code for advice from Heather Lewis, AIA.



- City or county reviews application and requests supplementary information.
- Obtain zoning approval.

Ask the architect: 5 keys to a great location

Wayne Usiak, AIA, senior partner of Wayne Usiak and Associates/BDA Architecture P.C., offers his tips to zero in on the perfect location. Scan the code for his expert advice.



18 months before move-in

Begin schematic design process

- Architect develops initial facility design: schematic floor plan, exterior appearance, and site layout.
- Gather information to begin drawing production.



For a new or existing site

- Obtain a current metes and bounds survey.
- Complete an improvement and topographic survey.
- Conduct a soils test.
- Complete a level one EPA study to identify potential hazardous materials on site.
- Develop information on existing buildings to remain.

- Develop plans for structural framing, building systems, utilities, and sewer.

For a leasehold space

- Obtain accurate drawings for potential lease space.
- Obtain accurate information about existing utilities (power and sewer) and existing HVAC.
- Sign off on schematic drawings.

- Retain a civil engineer and landscape architect to develop site drawings.
- Obtain preliminary pricing from your contractor based on schematic drawings.
- Confirm project construction cost and viability—architect, accountant, and management consultant can assist.

Improve your leasehold veterinary hospital's look

Are you stuck in a strip mall or neighborhood that's seen better days? Try these tips from veterinary architect Dan Chapel, AIA, to freshen up your practice's look. Scan the code for his expert advice.



Really wanna tick off your clients? Do this.

You know clients love a good challenge. The question is, are you making their clinic experience difficult enough? They'd be suspicious if there weren't a few hoops to jump through at your clinic—right? Wrong, says Dan Chapel, AIA, president of Chapel Associates Architects in Little Rock, Arkansas. Scan the code for his tips to keep clients happy.



12 to 18 months before move-in

Produce working drawings

- Authorize architect to proceed with working drawings.
- Provide additional detailed information to architect on equipment, cabinetry, HVAC, electrical requirements, and interior finishes.
- Architect forwards information to building consultants to produce structural, mechanical, and electrical drawings.
- Investigate retaining a contractor on a preliminary basis.
- Contractor reviews in-progress working drawings produced by architect for preliminary budget purposes.
- With architect, review drawings for compliance before release for bidding and building department.



10 to 12 months before move-in

Complete bidding, building application, and financing process

- Architect releases completed drawings for bidding and building department application.
- Architect gives final working drawings to contractor for pricing.
- Submit final working drawings to building department.
- Building department reviews application and requests additional information.
- Finalize financing requirements with bank.
- Work with bank on appraisal process.
- Building department releases drawings for construction.
- Contractor provides final bid.
- Owner and contractor review cost-saving alternatives.
- With contractor, finalize construction contract.

8 to 10 months before move-in

Oversee facility construction

- Review construction schedule with contractor and architect.
- Contractor begins construction.
- Architect approves pay requests to contractor on monthly basis.
- Architect and contractor develop punch list and wrap up construction.
- Contractor corrects punch list items.
- Architect executes certificate of occupancy.
- Take over utility bills and building insurance.
- Contractor gives owner warranty and service manuals for facility.
- Release final payments to contractor.

Move in to facility

Develop move-in and transition plan

- Move in.
- Retain HVAC contractor to provide ongoing service and maintenance.

12 months after move-in

Perform warranty walk-through

- Conduct warranty walk-through with architect and contractor.
- General contractor makes necessary repairs.

15%

—the extra amount you'll want to save up or negotiate with your lender for a contingency fund. That's easier than trying to scrounge up cash or bargain with the bank in the middle of construction.

Source: Dan Chapel, AIA, NCARB

Wise words ...

"Start early and gather as much information as possible. Keep a file of all the ideas you come across. You won't use them all when it's time to make decisions, but even the ideas you don't use could inspire something else."

—Dr. Ryan Steen, Frey Pet Hospital,
Cedar Rapids, Iowa

Frey Pet Hospital was awarded a Merit Award for design excellence in the 2013 *Veterinary Economics* Hospital Design Competition. For more on the story, scan the code, right.

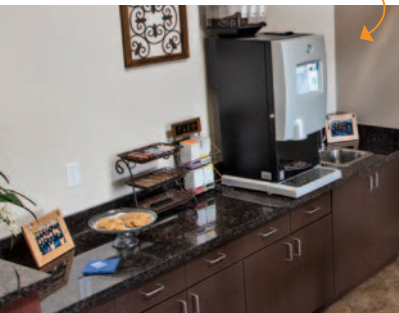


THE check

Furnishings and equipment

Waiting room

- Chairs or benches
- Brochure display stand
- Table lamps
- End tables
- Wastebasket, recycle bins
- Books for kids
- Magazines
- Coffee & water station
- Client education handouts



PALM BEACH VETERINARY SPECIALISTS;
CJ WALKER PHOTOGRAPHER

- Artwork
- Plants



- Wall-mounted monitor
- Non-skid mats for older pets

Front office

- Leashes, dog and cat treats

- Chairs
- Clock
- Computers
- Printer, copier, scanner, and fax machine
- Toner cartridges
- Credit card machine
- Paper shredder
- Phones
- Scheduling software
- Business card holder
- Calculators
- Clipboards
- Pencils, pens
- Two- and three-hole punch
- Postage stamps or meter
- Boxes of tissues
- Petty cash box
- Locking drawer for each person who handles cash
- Fire extinguisher
- Wastebasket, recycle bins



Bathroom

- Paper towels, dispenser
- Soap dispenser,
- Hand sanitizer
- Wastebasket
- Tissues
- Diaper changing station for each gender
- Toilet paper

- Toilet brush

Employee lounge

- Chairs, table
- Lockers for staff
- Wastebasket, recycle bins
- Microwave
- Coffee & water station



- Refrigerator
- Coat rack

Doctor's office

- Desk with locking drawer
- Pens, pencils
- Desk lamp
- Executive desk chair
- Side chairs
- Paging equipment
- Computer equipped with practice management software
- Printer
- File cabinet
- Bookcases
- Coat hook for door
- Fire safe or



- fireproof cabinet
- Pictures
- Plants
- Wastebasket, recycle bins

Exam rooms

- Computer central to all exam rooms (or in each)
- Wall-mounted monitor for client view
- Exam tables w/ non-skid top
- Sink
- Seating
- Towels
- Dog and cat treats, toys



- Pheromone dispensers
- Magazines
- Cabinets
- Waste receptacles
- Chart holders
- Sharps containers
- Nail trimmers
- Stethoscopes
- Styptic powder or pencils
- Reflex hammer
- Eye wash
- Cotton-tip applicators
- Assorted gauze
- Alcohol
- Lubricating jelly
- Storage jars
- Gloves
- Feline scale
- Small exotics or gram scale
- Otoscope
- Otoscope cones

list

We asked DVMs and veterinary architects for a list of what you need to furnish and stock a hospital.

- Ophthalmoscope
- Indirect viewing lens
- Binocular head loupe magnifier
- Thermometers
- Schirmer tear tests
- Fluorescein dye
- Assorted syringes and needles
- Penlights
- Anatomic models and posters



CONEJO VALLEY VETERINARY HOSPITAL; GREGORY MANCUSO PHOTOGRAPHY

Comfort or consultation room

- Sofa
- End tables
- Educational DVDs
- Reading material
- Bookshelf
- Television and DVD player
- Boxes of tissues
- Lamps
- Exam table
- Towels
- Blankets

Treatment area, pack prep, and lab

- Rolling stools

- Sinks
- Computer stations
- Wall-mounted monitors
- Digital patient monitoring
- Side chairs
- Refrigerator for samples
- Walk-on scale
- Wet table
- Waste disposal container (general)
- Waste disposal container (infectious)
- Dental unit: scaler, drill, polisher
- Dental instruments and supplies
- Safety goggles
- Endoscope and supplies
- Blood pressure monitor
- Portable O₂ unit
- Electrocardiograph
- Test tube rack
- Hematology, chemistry, and coagulation analyzers
- Centrifuge
- Hemocytometer
- Unopettes
- Manual cell counter
- Calculator



- Timer
- Ultrasound machine and supplies
- Refractometer
- Glucometer
- Digital radiography equipment
- Lead gloves and aprons
- Patient positioning devices
- Gloves, masks
- First aid kit
- Crash cart
- Resuscitation bag
- Clippers
- Tonometer
- Ear lavage equipment
- Tongue depressors



- Thermometers
- Splinting equipment
- Drug lock box, drug safe
- Culture media
- Diagnostic reagent strips
- Microscope, microscope slides, coverslips, stains, and holders
- Exam lights in treatment
- Dental x-ray unit
- IV track
- Lab mailing supplies
- Sterility indicators

- Laryngoscopes
- Biopsy jars
- Formalin
- Ethylene glycol test kit
- FeLV/FIV test kits
- Heartworm tests
- Elizabethan collars



- Muzzles
- Autoclave and trays
- Autoclave tape
- Ultrasonic cleaner
- Endotracheal tubes, stylets, and cleaning brush
- Endotracheal tube rack
- Feeding tubes
- Chest tubes
- Gas sterilizer
- Tracheostomy tubes
- Stomach tubes
- Stomach tube speculum
- IV fluid warmer
- IV poles and stands
- Fecalizer, centrifuge, and flotation solution
- Fecal loops, sample collection containers
- Nonabsorbent cat litter
- Urine collection containers
- Activated charcoal
- Gastric lavage supplies
- Barium
- Wood's lamp
- Surgical pack wraps
- Surgical caps, masks,



- gowns, and gloves
- Disinfectants
- Surgical scrub brushes and soak trays
- Surgical instrument cleaner
- Suture scissors
- Staple removal forceps
- Vaginal speculum



Surgery

- Surgical blades
- Surgical instruments
- Scrub sink
- Surgical drapes and towels
- Heated surgery table
- Surgical ties
- Portable suction unit
- Suction hoses and tips
- Crash cart
- Electrocardiograph
- Water-circulating or forced-air heating blankets
- Pulse oximeter
- ETCO₂ monitor
- Body temperature monitor
- Blood pressure monitor
- Suture material and needles
- Tissue adhesive
- Skin stapler
- Esophageal stethoscopes
- Anesthesia machine and supplies
- Respirometer
- Anesthesia masks
- Waste gas evacuation system
- Infusion pumps
- Syringe pump
- Induction chamber
- Mayo stand
- Surgical lights
- Lacrimal cannulas
- Cautery unit
- CO₂ surgical laser
- Radiosurgical unit

Hospital ward

- Nasal oxygen cannula,

- oxygen hood, humidifier, or oxygen cage
- Oxygen flowmeter
- Water-circulating or forced-air heating blankets
- Nebulizer
- Incubator
- Cages
- Litter pans
- Food and water bowls
- Washer and dryer
- Grooming tub and dryer
- Towels and blankets



- Catch pole
- Restraint bags, muzzles

Pharmacy

- Pill splitters
- Pill counting trays
- Pill crusher
- Prescription labels and printer
- Vials and bottles
- Pill guns

Other furnishings/ equipment

- Cleaning supplies for entire clinic
- Controlled substance safe
- Security system
- Vacuum cleaner

Office supplies

- File folders
- File folder labels, white
- Label maker
- Alphabetical or numerical tabs and year tabs
- "Pay at time of service" sign
- "Returned check policy" sign
- Phone message pads
- Scratch pads
- Standard-lined note pads
- Binders
- Sticky notes, large and small
- Cellophane tape
- Packing tape

- Staplers
- Paper clips, large and small
- Copier paper
- Scissors
- Glue sticks
- Desk calendars
- Pens
- Pencils
- Highlighters
- Erasers
- Dictionary
- Medical dictionary
- Medical and surgery reference library
- Vertical chart holders
- Large manila envelopes
- Letter envelopes
- Large rubber bands
- Return-address stamp
- Desk organizers
- "In" and "out" bins
- Time cards/clock or computerized version

Printed materials

- Letterhead stationery
- Letterhead envelopes
- Business cards
- Thank-you notes
- Practice brochure
- Promotional materials
- New patient information forms
- New patient medical history forms
- Prescription pads

Clinic supplies

- Insulin syringes
- Syringes (1, 3, 6, 12, 20, and 60 cc, plus 60 cc with catheter tip)
- Needles (25, 22, 20, and 18 gauge)
- Intraosseous needles
- Spinal needles
- Various biopsy needles
- Skin punch biopsy
- Tru-cut biopsy needles
- Sterile water, 500-ml bottles
- Sterile saline for injection
- Sterile saline for irrigation, six 250-ml bottles
- Urinary catheters
- Butterfly catheters
- Urinalysis tubes
- Jugular catheters
- Bulb syringe

- Blood transfusion kits
- IV infusion pumps
- Primary IV sets, secondary IV sets, and extension sets
- IV catheters (24, 22, 20, and 18 gauge)
- IV fluids (e.g., LRS, Normosol-R, sodium chloride, D5W)
- Male adapter plugs
- Penrose drains
- Porous tape
- Elastic tape
- Hematocrit tubes
- Alcohol wipes
- Safety goggles
- Wash bottles
- Bandages
- Gauze
- Stretch gauze
- Chlorhexidine
- Povidone-iodine
- Hydrogen peroxide
- Blood collection vials
- Clotting tubes
- Separation tubes
- Pipettes
- Sterile culture tubes and swabs
- Formalin jars
- Casting materials
- Lint rollers
- Roll cotton
- Stockinette
- Telfa pads
- Tourniquets
- Splints
- Leashes

Want MORE ?

Ask and you shall receive. We have expert videos, advice, Q&As, and all the tools you need to get started at **veterinaryhospitaldesign.dvm360.com**. Oh, and there are SO MANY PHOTO GALLERIES. Go get inspired!