



ACCESSIBLE HOMES

We explore how to size and design a dog den (doghouse) or pet space, as well as spaces that will encourage youth participation in the routine and pet activities required by the animal on a daily basis.

Pet Space Design + Animal Therapy = A Happy Youngster And A Cool Pet Pad

BY CHARLES M. SCHWAB ARCHITECT

Have you ever wondered if a service dog or assistance animal could benefit your child and family? Has your youngster asked you if he or she could have a pet? A better question may be, when was the last time they did? Chances are, you have answered affirmatively to one of those questions. Maybe your family has already discovered the many pleasures that furry friends can bring to any household.

In this article, we explore how to size and design a dog den (doghouse) or pet space, as well as spaces that will encourage youth participation in the routine and pet activities required by the animal on a daily basis. Pets and assistance animals have the ability to bring pure happiness and joy. They can be of assistance in many ways, performing specific tasks and providing emotional support at the same time. A dog can truly be a kid's best friend.

The hypothesis here is that your child or youth with impairment will be more likely be able to carry out pet care routines when they actively take part in the design of the pet care & living spaces. By making the dog room or pet space useable and functional for the youngster and the animal, the youngster will be more empowered (and more willing) to participate in many of the pet care activities that having a pet requires.

Estimates are that 78 million dogs and 85.5 million cats are family owned in the USA. Approximately 44% of all households in the United States have a dog and 35% have a cat. That accounts for over half of all families living with pets. The percentages in Canada and Mexico are similar. North Americans love their pets!

WHAT DO SERVICE AND ASSISTANCE DOGS DO?

Before we think about animal space, let us look at the various ways dogs in particular can assist people with disabilities. The possibilities and real-life examples are endless; here are but a few:

- *Mobility Assistance Dogs assist and are trained to complete everyday tasks and can assist with transportation (in the case of a mini horse), by pulling a person along in their wheelchair. They can fetch and perform other tasks.*
- *Guide Dogs lead a person who is blind or visually impaired.*
- *Autism Assistance Dogs are trained companions for children with autism and can provide emotional support by helping them cope with unfamiliar and difficult situations.*
- *Diabetes Assistance Dogs help type 1 diabetics by detecting low blood sugar with the scent of the person's breath. They help fetch food or get help if needed.*
- *Seizure Alert Dogs assist people who suffer from seizures. Seizure alert dogs know when to warn their owners of the possibility of a near seizure, even before it occurs.*
- *Hearing dogs are trained to help hard of hearing and deaf people when to be aware of and react to sounds such as alarms or ringing phones, just to name a few of their talents.*
- *Veteran Service Dogs help those with PTSD by being "buddy dogs" while providing comfort and therapeutic support.*
- *Rescue Dogs are a valuable asset in wilderness tracking for lost people, natural disasters, and in locating missing people after major disasters. Dogs save lives!*

Those are just a few of the helpful tasks assistance dogs can provide. A number of other animal species serve as assistance animals, and of course all kinds of critters can be fun companions, even when they are not specifically trained to perform tasks. Most people have fond memories of their childhood pets.



CARING FOR EACHOTHER: Designing the pets' environment will help the young person think through how to feed, clean and exercise the animal within its habitat. When your youngster assists in designing the animal's habitat, it helps nurture healthy emotions toward all living things.

TAKE YOUR TIME, DO ANIMAL AND HEALTH HOMEWORK FIRST

Before we go any further, perhaps it makes sense to consider how realistic it is for your child with a disability and family to care for and manage an animal's life and care, let alone an energetic and active dog. Simply put, there is a lot of work and time involved when caring for a pet.

Children with disabilities will have different abilities to cope with and perform the tasks of caring for a pet or assistance animal. Parents with a youngster with specific needs will likely need to consider additional safety measures before deciding if a pet or dog is a good fit for them and the family. For example, a rambunctious dog, not well-tempered or trained as an assistance animal, may knock over a fragile child using a mobility aid, stand aid or another device. A barking dog or screeching bird may scare or cause sensory stressors for some children. It will be best to choose a pet that comforts and also may be comforting for the neighborhood kids.

Always discuss the pros and cons of having assistance animals and pets of any kind with your youth's Pediatrician, Occupational or Physical Therapist, Animal Therapy Advocate, and perhaps an animal shelter representative that has experience with connecting similar animal companions with families like yours.

The American with Disabilities Act (ADA) allows a person with disabilities to escort them into public places when they are trained to do so. There are very specific laws in the USA and this is a hot and evolving topic.

Think big picture space and place design first: consider where you live, will live and plans for your families' future. Will you be moving often? Do you live in a small apartment or house?

Housing and Urban Development (HUD) guidelines for reasonable accommodation and section 504 of the Fair Housing Act also provide you rights to accommodate assistance animals in an apartment complex with four units or more. (*See the references links below*)

Be sure to be aware of your rights and discuss this with the landlord if you are an apartment owner before you spend a lot of effort designing a perfect space for Fido. If you are adopting a pet from an animal shelter, ask if you can bring the animal home for a few days before you adopt it permanently. In the case of an assistance animal, there will most likely be paperwork and a waiting period before you design the animal shelter or room space.

CARE GUIDELINES FOR FAMILIES CARING FOR ANIMALS

Professional advice from child psychiatrists shares children's abilities to care for animals. The list is created for ambulating and typically healthy children as it does not reference kids with disabilities. Readers here are probably aware that disabilities are as unique as the youngsters' personalities, and so you as parents will perhaps know best when your child or youth is ready for an animal companion. Remember to consult with your child's health professionals first. The following list is adapted from the American Academy of Child and Adolescent Psychiatry (AACAP):

- *Children under the age of 10 are typically unable to care for a large animal on their own.*
- *Very young children (under the age of 4) should be monitored at all times when in the presence of pets. Children at these early ages do not have the maturity to control their aggressive and angry impulses.*
- *Parents should always oversee care activities to make sure the*

pet is properly cared for, even when they believe the youngster is old enough to care for the pet successfully.

- *Parents need to be prepared to care for the pet and take full responsibility if their youngster slacks off or becomes ill and no longer performs daily pet care.*
- *Remind the youngster on a regular basis and in a gentle manner, that animals are like people: need food, water, exercise and they need to go potty too. Someone needs to let them out (if it is a dog).*
- *Be prepared to find a new home for the pet if your youngster continues to neglect the pet. Make this clear prior to bringing the pet into your home.*
- *AACAP reminds us that parents are role models for their youngsters and they will adopt responsible pet behavior by watching their parent's actions.*

Remember, there is also the cost of pet food, maybe cat litter, as well as finding the time to walk a dog, groom it and clean up after it does its business. There are pet health care needs and everything else that comes with all living critters.

In some cases, the best approach may be to start with a bug or small animals such as a gerbil, turtle, lizard or a small bird if that is your pleasure. The idea is to experiment by starting with a small pet and see how your child or youth is able to assist with the pet chores. All pets can have emotional and therapeutic benefits. The last thing you want to do is create more stress on the family and the neighbors too.

One more thing: recent research suggests that raising a young child in the presence of animals may actually reduce the likelihood of developing allergies from pets by building up the child's immunity to them. Dogs and cats have fur while monkeys have hair and are usually not a nuisance to people of all ages with allergies. Consider the health pros and cons of the entire family.

CHILD + PARENT = PET SPACE DESIGNERS

Okay, after you have done your homework and are up to the task of designing the animal haven, dog den, or birdhouse, now what? It is time for the fun animal space design. Have you ever thought your youngster can play an active role in designing the pooch's own space? Inviting your youngster to participate in the design of the animal's physical environment can instill responsible pet care behavior. It may even motivate them more when it is time for the daily pet care chores. When the child helps create a routine that works well for them too, the task becomes more pleasurable.

Since kids and pets both respond well and are comforted through a consistent routine, teaching a child how to design for the pet's daily care – with a regular lifestyle that is in harmony with their own – can be a valuable experience. For all children and youth, the responsibilities that come with pet care can be an avenue toward independence and increased self-esteem, among a

myriad of other health and social benefits.

Designing the pet's environment will help the young person think through how to feed, clean and exercise the animal within its habitat. When your youngster assists in designing the animal's habitat, it helps nurture healthy emotions toward all living critters. These feelings may stay with your kid, creating lifetime positive memories of their early years. What more could you ask for?



BESTIES: Pets and assistance animals have the ability to bring pure happiness and joy. They can be of assistance in many ways, performing specific tasks and providing emotional support at the same time. A dog can truly be a kid's best friend.

As mentioned earlier, this experience can lead to a stronger bond with the animal and increased independence for the youngster.

Our goal is also to make pet care accessible for the youngster encouraging empowerment not frustration. I hope that by now, you have conferred with the pediatrician or therapist and you are well aware of youngster's abilities. If your dog is a service animal, it is important to first consult the service dog trainer before designing the most appropriate dog den space. There may be strict boarding requirements and the concept of interaction with the shelter design may not be advisable.

All living things need space to live and move. When dogs feel stressed they like to have a cover over their bodies for cozy protection. Dogs are den animals meaning they like a defined space that will become their own territory. The den helps relieve Fido's stress.

MEASURE THE DOG FIRST BEFORE YOU SIZE THE DOG SHELTER

Ok, let's start and get your youngster involved, if possible. That's the whole idea here. Animal Welfare Act Regulations require that a primary enclosure for an adult dog (in the following example that will be a dog house or den) without nursing puppies, must have enough space to stand, sit and move about freely. It must be able to lie comfortably and walk in a normal manner.

Space must also be high enough therefore the primary shelter/enclosure must be 6 inches higher than the dog. Following is an example of how to calculate the dog's minimum space needs for either an outdoor doghouse or indoor shelter (inside cage, under steps, under a cabinet etc.)

Based on a 30-inch dog, he needs a 3-foot square space so he could turn around comfortably. If it was 2 feet wide by 4 feet 6 inches it would still amount to 9 square feet total, but since it is not square, the dog could not turn around and be cozy.

We all know how animals can be particu-

lar about finding the "just right" position to lay down and relax. The dog simply needs space enough to turn around within his dog house, turning left or right as he gets cozy. Pet space should have no sharp edges to cut the pooch's paws and sensitive snout, the floor should be accessible to be cleaned.

Explain to your youngster (if he or she uses a wheelchair) that dogs can turn around in circles in much the same way that a mechanical wheelchair revolves around its center, more or less. I say this so you can make an analogy

with your child's mobility device, showing how the dog needs space to turn around, just like the child does in his own room.

Keep in mind this is for one dog only. There are calculations for dogs nursing puppies as well. This may seem like too much information, but the point is that all animals are required to have safe and sufficient space to move about a place. Your youngster has now had their first DIY home design lesson!

DESIGN SPACE WITH YOUNGSTER FOR DOG / PET CARE!

Cleaning: This can be tricky. I have designed open grates 30 x 30 inches (or larger) in garages or outside the door near a hose bib. This area can then serve as a wheelchair wheel-wash and a dog-wash station. I include cellulose free "glass-matt" wallboard on the garage walls three feet up so it does not get wet or moldy. Some people have "pet spas" with ramps for the dog to walk up into a shallow tub. Pet spas are becoming popular in multi-family housing complexes.

When the dog wash is inside, of course a flexible hand hose is a fine faucet fixture. The dog room or space may in the mudroom where the pet's paws can be cleaned of yard muck before entering into the main house. A separate space adjacent to a mudroom can be decorated and made special by your son or daughter. The biggest trick is to make it enjoyable for your young designer, accessible and safe for the entire family.

Eating: It may be difficult for your youngster to reach into a bag with a scoop or reach down to the floor to fill Fido's bowl. This is an opportunity for a fixer-upper person to design a dog feeding station with the youngster. Have you ever seen at the store where they put grains and nuts in a bin with a funnel that empties when it is pushed? Maybe create a dog food shute-drop that slides its food down a slide to a dog bowl: think Hot Wheels ramp.

Exercise: Automatic pet door openers are very popular for this very reason: to let the pooch out to do his business when he wants. Think about security and how that will work. There is a link to an article I wrote about automatic people and pet doors below. An article titled "Wag More: A Tale for Healthy Living" (www.harvard-health.com) gives the following advice (I have tweaked it for service dogs and youngsters using a wheelchair):

1. Chart your strolling (both walking and rolling) path ahead of time. Make sure it's accessible and stable for the wheelchair and there are clear sight lines.
2. Set a goal; dogs need to exercise at least once a day. The article says a good rule of thumb is to walk a dog two blocks a day for every 10 lbs. of the dogs body weight.
3. Design the exercise regimen for the dog. Make sure the youngster can participate, if not, be there for support.
4. Teach your dog to heal on a leash. There are all kinds of wheelchair dog walking devices. Lastly, have cool water prepared when you return or bring it with you.

Decorate the dog pad! Why not try it and see how much your child is really interested in design and art? It becomes art when your child takes part in decorating the doghouse or painting it and making the end project an extension of him-

Dog Houses: Minimum Space Requirements

Dog Length inch (IN.)	Square Feet. Needed	Dog Length inch (IN.)	Square Feet. Needed	Dog Length inch (IN.)	Square Feet. Needed
7 IN.	1.17	19 IN.	4.34	31 IN.	9.51
8	1.36	20	4.69	32	10.03
9	1.56	21	5.06	33	10.56
10	1.78	22	5.44	34	11.11
11	2.01	23	5.84	36	12.25
12	2.25	24	6.25	38	13.44
13	2.51	25	6.67	40	14.69
14	2.78	26	7.11	42	16.00
15	3.06	27	7.56	44	17.36
16	3.36	28	8.03	46	18.78
17	3.67	29	8.51	48	20.25
18	4.0	30	9.00	50	21.78

Chart design © 2018 Charles M. Schwab Architect

The above chart is adopted from Animal Welfare Act Regulations. (9 CFR 3.6 (c)(1)(i)). For further reference refer to the latest 2017 USDA Bluebook, Animal Welfare Act and Animal Welfare Regulations. www.aphis.usda.gov/animal_welfare

1. Measure the dog height from the floor to the top of the dog's head in inches, then add 6 inches to that. This number is the ceiling height of pooch's pet pad. Write the height down.

2. Now measure the dog's length. With the dog in a normal standing position, or when lying down flat on his side, measure the dog along a straight line from the tip of his nose to the base of the tail, not the end of the tail. Then also add 6 inches to this number.

3. Let us presume your dog is 30 inches from the tip of his nose to the base of his tail, then add 6 inches to that for a total of 36 inches.

4. This is simple. The square foot minimum is then 36 inches x 36 inches = 1296 square inches.

5. Since there are 144 inches in a square foot, we divide 1296 divided by 144 = 9 square feet. 36 inches = 3 feet. So simple, 3 feet x 3 feet = 9 feet.

(See the table as a guide to help you determine your dog's space needs based on his body length.)

self. Maybe even embellish it with a few kid stickers that can be removed over time and made new again over time.

Give your youngster all the benefits and happy memories that the dog can offer. Pets are considered part of the family, so why not treat them as such from the start and by getting your youngster involved in designing their space? The benefits may be even more profound than you could ever imagine. •

Please let me know how your child participates in the animal space design and send pictures so I can post them on my Pinterest page of service and assistance animals. Contact me anytime at charlesschwab@universaldesignonline

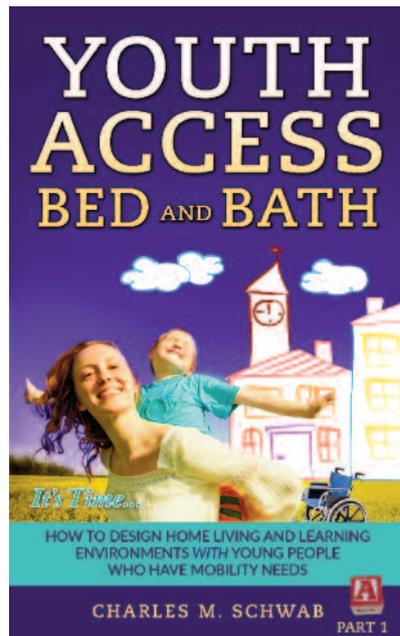
References

1. Complete references for this article are available at <https://accessiblehealthhome.com/?p=620>
2. You can view a free animal shelter webinar, and read about other kinds of assistance animals the ADA and HUD, Fair Housing Act at my blog post at <https://accessiblehealthhome.com/?p=624>
3. The Automatic Door Openers for Pets and People post is <https://accessiblehealthhome.com/?p=630>

ABOUT THE AUTHOR:



Charles M. Schwab is a licensed Architect and Author of Universal Designed Smart Homes for the 21st Century, 102 home plans you can order and build. He has contributed to *EP Magazine* since 2005 and has written over 50 home design articles about design for all. He is a Certified Aging-in-Place professional (CAPS), Certified Green Professional (CGP), Universal Design Certified Professional (UDCP). He has designed hundreds of accessible and healthy homes utilizing the systems approach of "universal design-ing."



Have you ever wondered how to design your son or daughter's home environments with their participation so it works best for them, you, the entire family and helpers too? Schwab's new book series titled *Youth Access Bed and Bath: How to Design Living and Learning Environments with Young People Who Have Mobility Needs, Part 1* starts with the bedroom and bathroom and guides you through the process.

Originally titled *Child Access Bed and Bath*, the expanded book series takes a holistic approach to accessible and healthy home design that is fun, yet serious enough with specifications, and educational too. It encourages parents to involve their youngsters in "universal design-ing" their own home environment for health and wellness. Another goal is

to eliminate fear of the unknown for new and adopting parents by offering awareness and a pro-active, U-Designing approach. The series is scheduled to finally be available on Amazon Kindle in early August. Those who signed up for a copy last year will receive theirs. Visit www.AccessibleHealthHome.com to learn more. Or contact CharlesSchwab@UniversalDesignOnline.com

