Winchester Area SPCA

Admissions Building Replacement

Concept Package

111 Featherbed Lane
Winchester, Virginia 22601

SPCA WINCHESTER FREDERICK CLARKE

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Winchester Area SPCA - Admissions Building

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Pre-Design

Statement

The current Winchester Area SPCA Admissions building has run its course. The building no longer serves the needs of the current SPCA volume and desired quality of care. Explorations into renovations have been previously made, but the building's masonry walls and current layout proved difficult to modify. The building also lacks adequate ventilation and is thoroughly outdated. After reviewing all possible alternatives, it is the Board of Directors' opinion that the building be replaced with a new structure to better serve it's mission.

This Concept Package represents the history and ideas that have gone into the development of the replacement Admissions Building. It is to be used for pricing and general knowledge and as a starting point for the project.

Existing Entrance

Existing Cat Kennel

Existing Dog Kennel

Existing Exterior

In Spring of 2022, the Winchester Area SPCA Campus Committee toured several local animal shelters in the surrounding vicinity. The tour included Loudoun County Animal Shelter, Albermarle County SPCA, Middleburg Humane Foundation, and the Humane Society of Warren County.

Loudoun County Animal Shelter

The Loudoun County Animal Shelter was the most recently built of the shelters on the tour. This grand building was the first to showcase a separate entrance for cats and dogs. It was designed around “Fear Free” and included many thoughtful details.

Middleburg Humane Foundation

This 12,000sf building is also newer construction. However, it was built with residential building materials, which won’t hold up to the wear and tear to which these shelters are subjected. Along with the standard program, they also offered a shop and a grooming space which they rent out to local businesses.

Pre-Design

Program - Case Studies

Charlottesville - Albermarle SPCA

The Charlottesville - Albermarle SPCA featured a courtyard building, protecting most of the dog runs from the public. It also featured a second story Administrative area, a retail shop, and built-in cat condos. The facility had ample fenced outdoor space for play.

Humane Society of Warren County

The Humane Society of Warren County was a solid masonry building. It was first on the tour stop and was also the oldest building. The highlight of the building was a covered outdoor section for cleaning crates.

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Pre-Design

Program - Building Program

SPCA - Admissions Center Program					
Description	**Quantity**	**Dimensions**	**SF**	**Proposed Total SF**	**Actual Total SF**
Administrative Area					
Cat entrance	1	5x10	50	50	27
Waiting/Lobby (Cat)	1	6x12	72	72	173
Dog entrance	1	5x10	50	50	27
Waiting/Lobby (Dog)	1	6x12	72	72	173
Shared Intake desk (2 staff)	1	10x10	100	100	100
Public Restroom	2	7x6	42	84	128
Offices	2	10x10	100	200	222
Workroom/Copy Area	1	5x15	75	75	75
Breakroom	1	12x15	180	180	182
Staff Lockers	1	1x10	10	10	29
Conference/Training Room	1	12x15	180	180	181
Storage	1	2x10	20	20	23
Staff Restroom (with shower)	1	7x10	70	70	92
Volunteer Room	1	5x10	50	50	
Subtotal				**1213**	**1432**
Canine					
Intake Room	1	8x8	64	64	63
Holding Area (16 spaces)	16		25	400	538
Bite Quaratine	2		25	50	78
Laundry (holding)	1	3x6	18	18	
Storage (holding)	1	2x5	10	10	97
Ready Room (holding)	1	5x5	25	25	
Isolation (2 spaces)	2		25	50	
Iso Scrub		2x10			
Laundry (iso)	1	3x6	18	18	17
Food Prep (iso)	1	5x5	25	25	23
Storage (iso)	1	2x5	10	10	23
Subtotal				**670**	**839**
Feline					
Intake Room	1	8x8	64	64	63
Holding Area (24 spaces)	1		225	225	186
Laundry (holding)	1	3x6	18	18	18
Ready Room (holding)	1	5x5	25	25	25
Isolation (6 spaces)	1		200	200	93
Ring Worm Room (6 spaces)	1	5x5	25	25	93
Laundry (iso)	1	3x6	18	18	17
Food Prep (iso)	1	5x5	25	25	23
Storage (iso)	1	2x5	10	10	23
Subtotal				**610**	**541**
Small Animals					
Flex Room	1		100	100	93
Subtotal				**100**	**93**
Clinic					
Exam Room	1	12x12	144	144	129
Dental Room	1	10x10	100		107

Surgery Room	1	12x12	144	144	129
Recovery Room (for 12) Dogs	1		100	100	65
Recovery Room - Cats (24)	1		200	200	
Lab Area/Pharm	1	6x20	120	120	56
Scub Area	1	3x5	15	15	15
Subtotal				**723**	**501**
Common/Shared Space					
Grooming Area	1	8x8	64	64	47
Subtotal				**64**	**47**
Building Support					
Low Voltage	1	2x10	20	20	
Maintenance Storage	1		100	100	31
Main Electrical	1		200	200	25
Housekeeping	1	5x5	25	25	
Loading Area	1	15x20	300	300	285
Food Storage (industrial shelving)	1		100	100	71
Litter Storage	1		50	50	54
Bedding Storage	1		50	50	
Dirty Crate Area	1		100	100	97
Clean Crate Area	1		100	100	97
Subtotal				**1045**	**660**
Building Subtotal				**4425**	**4113**
Misc. Areas					
Walls, Corridors and Chases					
Subtotal				**885**	**2508.93**
TOTAL				5310	6621.93
**No incenerator					
**No Animal Control Area					
**Combined Iso/Quarantine					
**No Freezer					
**No Record Storage					
NOTES					
1. Site Requirements include: Dog Run/Park, Public access parking per current code, dedicated staff parking, dumpster pad					
2. Provide dedicated high pressure water supply to holding/iso areas. Epoxy coating for floors and integrated base throughout					
3. Emergency Generator					
4. Dedicated cage exhaust					

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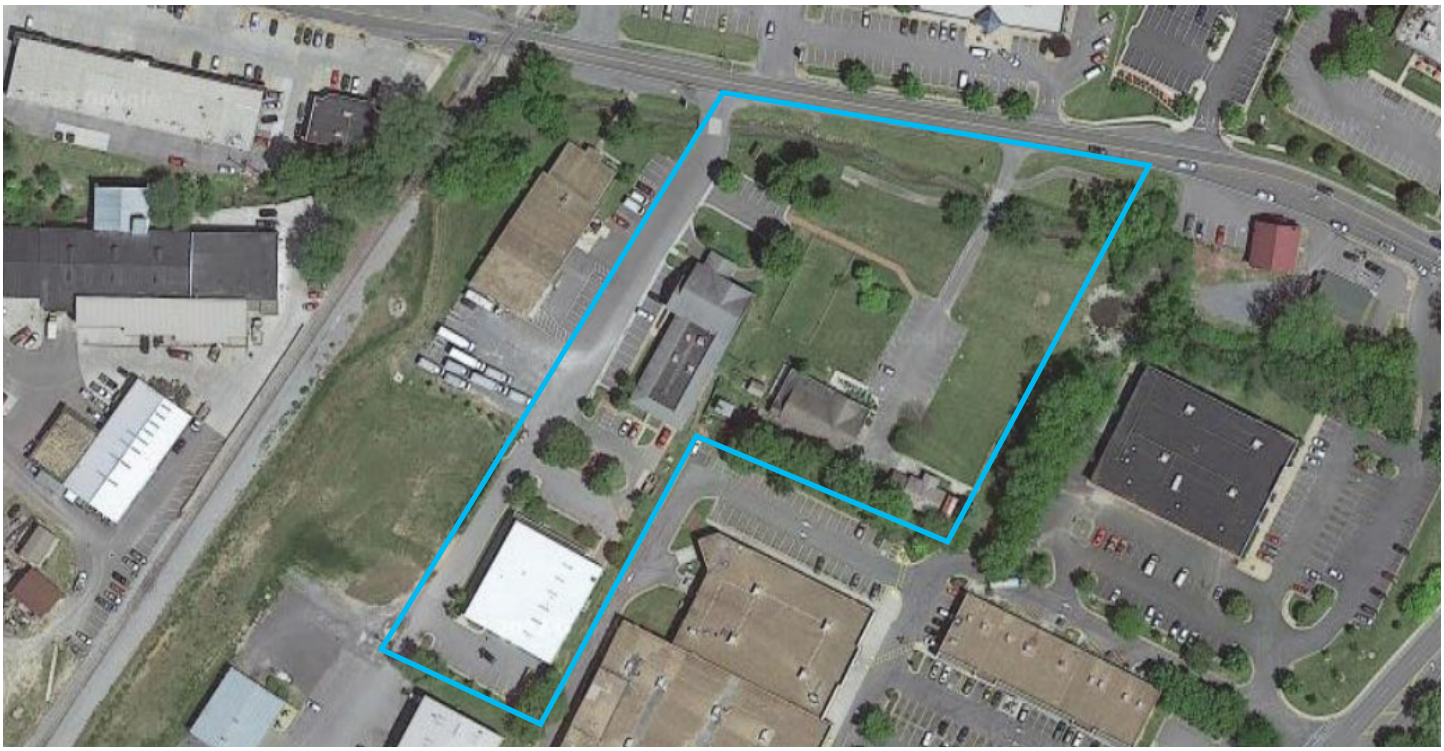
Sitework

Sitework

Existing Conditions - Location and Site



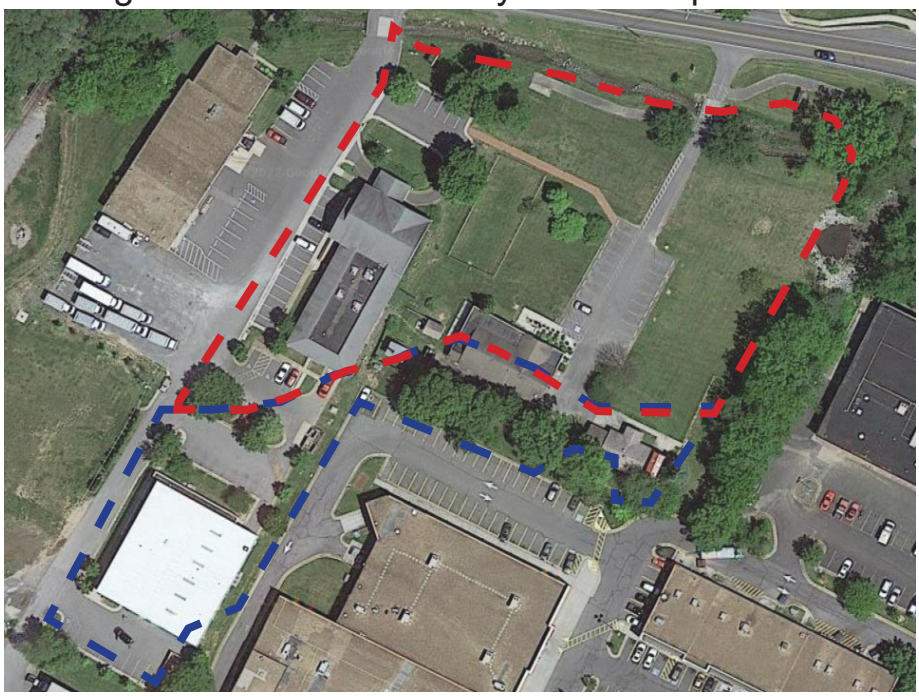
The current SPCA campus sits along Featherbed Lane and has an address of 115 Featherbed Lane, Winchester VA 22601. The campus is comprised of two separate parcels of land totaling 3.867 acres within the City of Winchester, VA limits. The first parcel with a Tax Map #252-01-31A is 1.799 acres and houses the current Adoption Center and Thrift Shop. The second parcel of land with Tax Map #252-01-30 houses the current Admissions Center, a decommissioned incinerator, a separate storage building, and is 2.068 acres.

Existing Conditions - Floodway and Floodplain

The SPCA borders Abrams Creek and is relatively flat, the majority of the land lies within a Floodway Zone as defined by FEMA.

The rear portion of the site lies within a Floodplain as defined by FEMA.

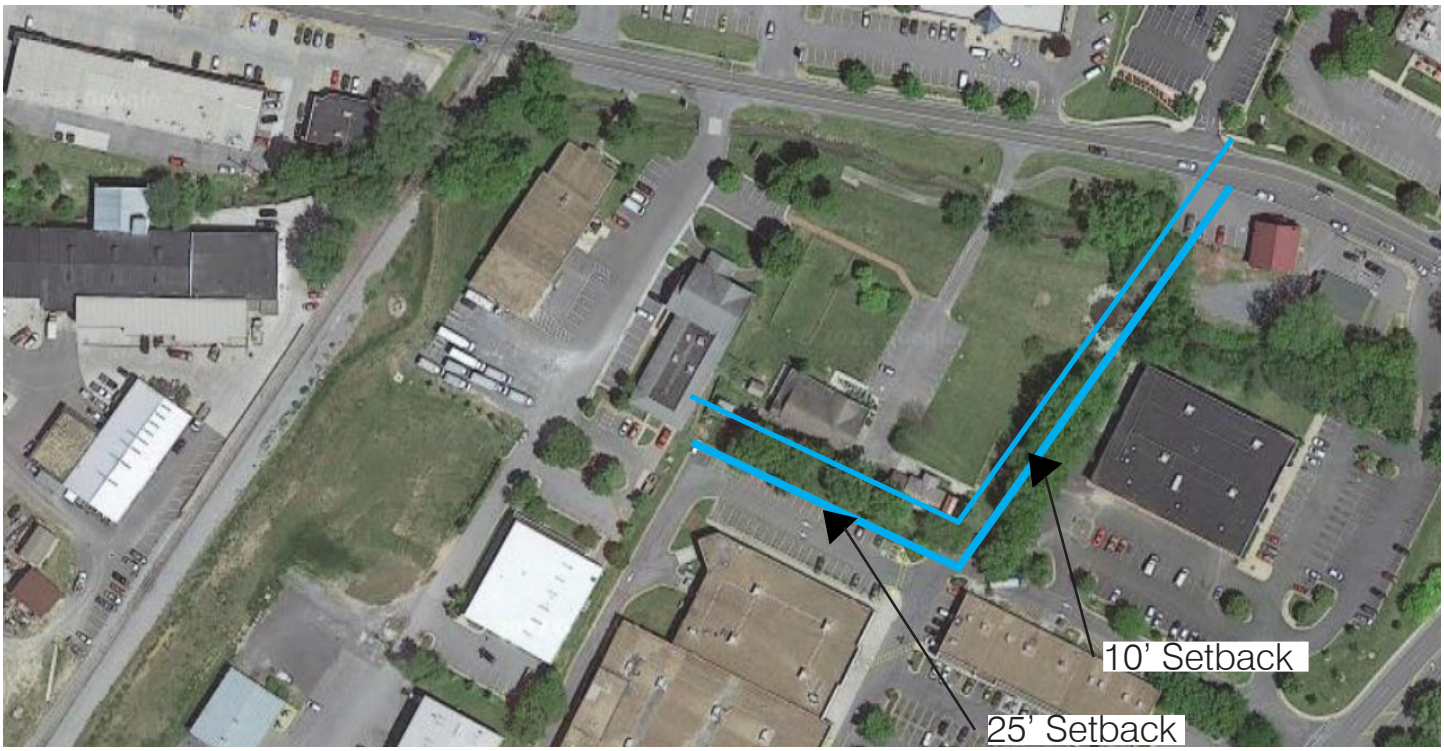
The site currently has several issues with flooding each year.



FLOODWAY

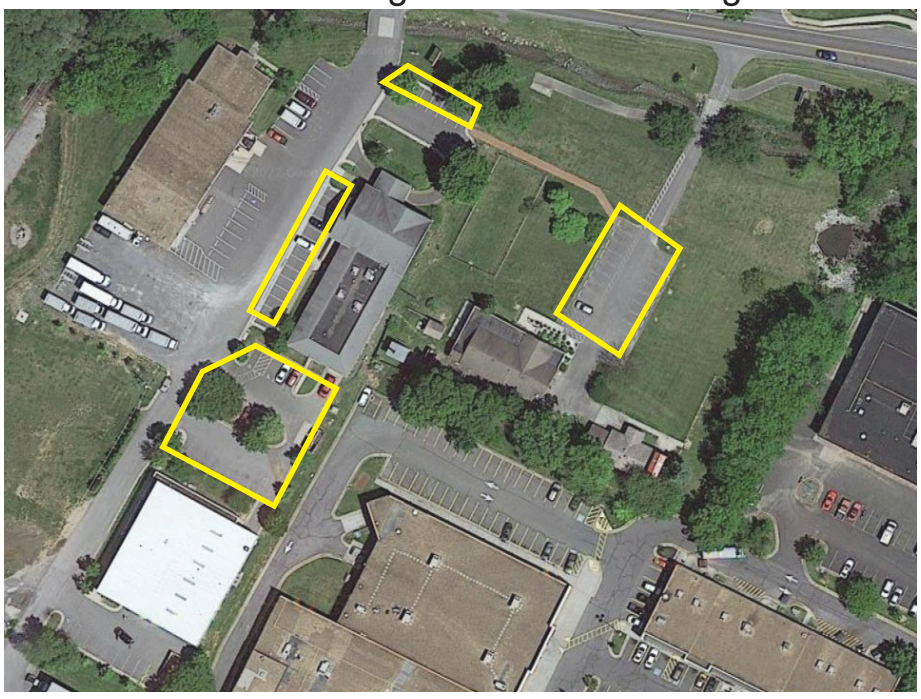
FLOODPLAIN

Existing Conditions - Zoning and Setbacks



The SPCA campus is zoned Commercial Industrial (CM1) and is within the City of Winchester, VA. This zoning requires a 35’ front setback, a 10’ side setback, and a 25’ rear setback . It also has a density of 20,000sf per building with a minimum lot width of 125’. requirement.

Existing Conditions - Zoning Setbacks



The current parking on site is broken up per building. They currently have 66 parking spaces on campus. They will be required to have 67 parking spaces once the new Admissions Center is complete.

Sitework

Sitework - Proposed Site Plan

The current site will be updated during the construction of the new Admission Building. The existing parking lot will be demolished along with the existing Admissions Center. The current driveway will be extended to the new Admissions Building loading dock. A new pervious paver parking lot will also be added in front of the building. New native and bird and bee friendly landscaping will be included along the parking lot and along the main building.

In an effort to better connect individual campus buildings to each other, a series of permeable walkways will be included, and additional bollard path lights will be added. Fenced dog play areas will also be included in the site work.


Bollard Style Lighting


Pervious Paver Parking


Dog Play Areas

Landscaping

It is the intent that all new plantings be native to the area and not require substantial watering once established. The plantings will also aim to attract local pollinators and provide habitat to birds and other wildlife. The species below are a design intent but subject to change.

Southern Lady Fern

Eastern Red Cedar

Pennsylvania Sedge

Butterfly Weed

Silky Dogwood

Common Yarrow

Witch Hazel

Tall Coreopsis

Eastern Redbud

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Proposed Building Design

Proposed Building Design

Building - Proposed Layout

Building Layout
The proposed 6,600 sf building is laid out in a long rectangle tucked into the Floodplain, outside of the Floodway, and along the rear. At the center of the building the Main Entrance and Intake desk split the building into Public and Private sides. The Main Entrance is divided into separate cat and dog intake and waiting areas that share the same intake desk.

To the West side of the building, the Administration Suite is located in the front NW corner and boasts large storefront glazing. To the East side of the Main Entrance lies the internal Vet Clinic with punched opening windows at a higher height than the storefront opposite. The Cat areas are located in the rear center portion of the building. The Dog area is located on the East and SE section of the building with access to outdoor covered runs. All runs have concrete floors and are enclosed by specialty kennels inside and chain-link on the exterior. The Loading Dock and Cage cleaning areas finish the building on the SW side.

Proposed Building Design

Building Exterior Renderings

Front View

The front of the new Admissions building aims to welcome the community inside and be a beacon for the overall SPCA campus. The main entrance is announced with a steel, storefront and wood entrance canopy. The left and right sides of the building are clad in an exposed fastener Architectural panel. Storefront glazing and operable windows poke through the facade. A large monument sign will help anchor the building.

Side View

The architectural panels wrap around the Western side of the building where an employee entrance and loading area is located. The employee entrance shall have a pre-manufactured awning to help with inclement weather. The loading area will feature a large overhead sectional door.

Proposed Building Design

Building Exterior Renderings

Side View

The Eastern side of the building will also feature the architectural panels. This side will house the outdoor dog runs. The dog runs will be an 8’ chain link fence with concrete pads below and a steel canopy above for protection from inclement weather.

Rear View

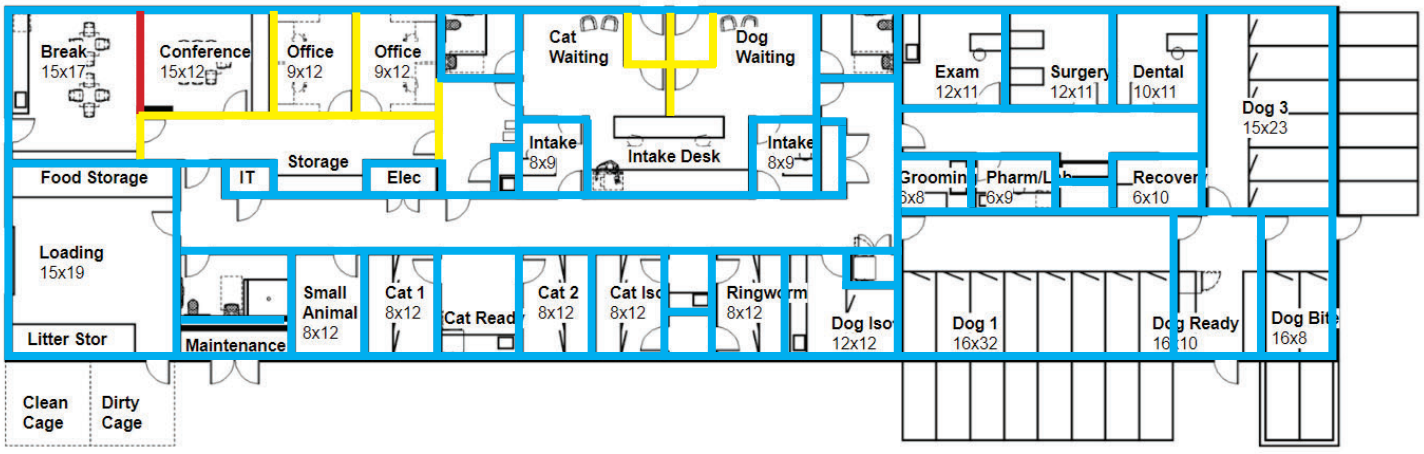
The back of the building will clad with a more cost effective single skin metal panel with punched openings for windows and doors. A metal canopy will also cover the cage cleaning areas.

Structure
The main 6,600 sf structure of the building will be composed of steel and reinforced concrete masonry units. The building shall be laid out with regular steel structural bays on an insulated slab on grade construction. Non load-bearing cmu walls and select metal stud framed gypsum board walls will be used for interior partitions.

The main roof height shall be 15' AFF with the main center gable being 25' tall. The main roof shall be a membrane roof on acoustic metal decking, sitting on metal bar joists. The main roof shall pitch to an external gutter system at the rear of the building. All HVAC equipment shall sit on the roof with two roof access hatches being located on opposite sides of the building.

Since the building is located in a Floodplain and is commercial in nature, it will have to be flood-proofed up to a point above the 100 year Floodplain elevation.

Wall Type Diagram



- CMU BLOCK
- DRYWALL
- Movable Partition

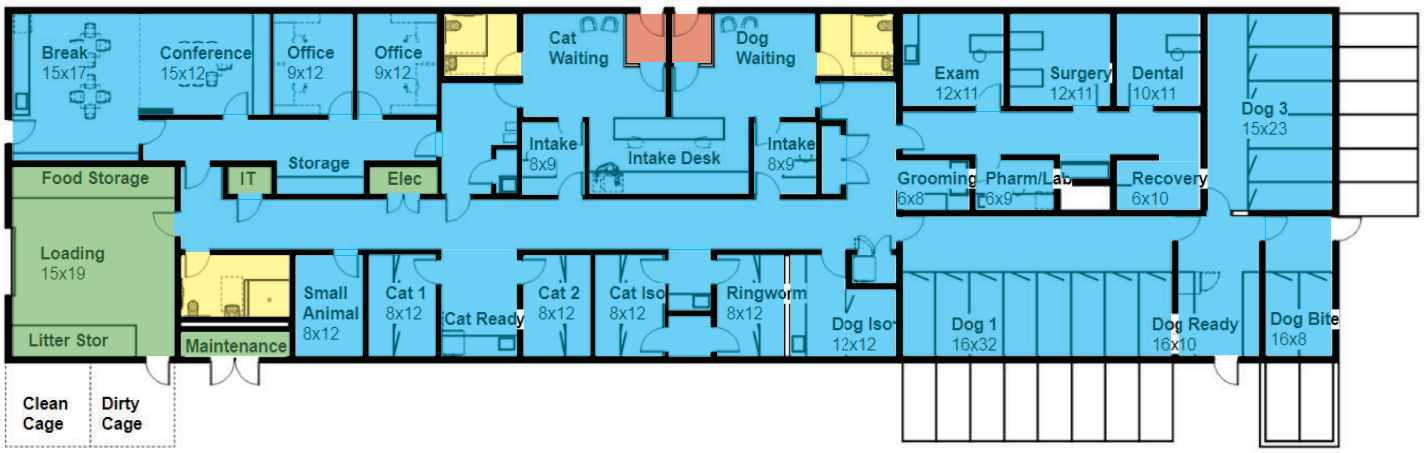
Proposed Building Design

Interior Materials

Dog Kennels

The dog areas will feature epoxy floors with plenty of floor drains. The ceilings will be exposed and use acoustic metal decking to absorb sound. Along the painted cmu walls will be additional acoustic panels to soak up noise. The dog kennels shall be phenolic or other non-metal construction, include a clear panel along the bottom, and have a guillotine type access door for access control to the exterior dog runs.

Flooring Type Diagram



- EPOXY FLOORING
- TILE FLOORING
- PAINTED CONCRETE
- ABRASIVE ACTION CARPET

The cat areas will feature several multi-sized acrylic cat condos with movable openings in between to accommodate mothers and kittens as well as provide more area to move. The condos shall be built into the wall to help reduce cleaning. Each condominium shall have a dedicated localized exhaust.

Proposed Building Design

Interior Materials

Flooring
The majority of the floors will use an epoxy system with integral base. Restrooms will feature tile on the floors with cove base. Any utility rooms will consist of painted concrete. The entrance vestibule will feature an abrasive action carpet (non recessed).

Walls
The majority of walls will be painted cmu with an integral epoxy base. Any walls within the Administration Suite shall be a painted 5/8" moisture resistant gypsum board with rubber base. All restrooms will feature a 5' tile waistcoat around the walls. Select accent walls will feature floor to ceiling wall tile. There shall be an overhead, hung movable partition between the Conference Room and adjacent Break Room with writable wall surface.

Ceilings and Lighting
The majority of ceilings will be exposed and feature acoustic metal decking, suspended indirect lighting, and spiral ductwork. These ceilings and all associated MEPFP will be painted a single color. Ceilings in restrooms and the Admin area shall be an acoustic grid with direct/indirect LED lights.

Doors
All doors shall be commercial grade solid core doors with mortise style hardware. All frames shall be 2" painted metal. Exterior doors shall feature electronic card access hardware and be self closing. Doors in offices shall be a solid core Dutch style door and will permit the bottom half to be closed while allowing the upper half to be open. Hardware shall be Schlage or equal commercial grade. There shall be a full height movable partition between the Conference Room and Break Room.

Storefront
The Main Entrance Vestibule and dividing wall between the Cat and Dog intakes shall be a thermally broken storefront system with insulated code compliant glazing.

Casework and Millwork
All Casework will be plastic laminate with solid surface tops. Casework shall use solid plywood construction for the boxes, with a flush front and wire pulls. A cove rubber base shall be used around the base. Casework shall be found in the Break Room, Conference Room, Admin storage area, Exam, Surgery, Dental, Pharmacy, Cat/Dog Ready Rooms, and Cat/Dog Iso Rooms.

Millwork shall be made of solid plywood and veneer construction and feature quartz or solid surface counters. Millwork is limited to the main intake desk.

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Mechanical / Electrical / Plumbing

Domestic Water Service:
A new water service line and meter will need to be brought in and shall include an approved backflow preventer assembly. Flow testing will be required to determine whether a domestic water booster pump will be required. All water piping shall be insulated copper piping with code compliant piping insulation. Pressure regulating valves shall be provided as required on the piping to ensure the pressure is at acceptable level for equipment connections.

Sanitary Waste and Vent Piping:
A new sanitary lateral will be connected to the building from the sanitary sewer infrastructure. A backwater valve shall be provided on the proposed sanitary lateral. 2-inch to 6-inch PVC schedule 40 pipes can be used for under slab sanitary systems. All other sanitary piping shall be cast iron. All horizontal sanitary piping 2-inch and smaller shall be sloped 1/4” per foot and 3-inch and larger piping shall be sloped at 1/8” per foot. All rooms with animal access will include floor drains as well as utility rooms. All floor drains shall include a trap primer.

Storm Water Systems:
Storm water collected on the flat roof of the building shall be drained to external gutters in the back and connect to below grade storm water laterals. These storm water laterals shall connect to the current storm infrastructure.

Domestic Hot Water Systems:
A new domestic hot water generation shall be provided by a storage tank-type gas-fired water heater. The system shall be provided with a domestic hot water recirculation pump and loop serving the entire building. A main thermostatic mixing valve shall be provided for the main hot water distribution and ASSE 1070 compliant point-of-use thermostatic mixing valves shall be provided as required at individual lavatory fixtures.

Plumbing Fixtures:
Plumbing fixtures will be specified as low consumption models. The water closets shall be 1.28 GPF or better, sensor operated flush valve type. All lavatories will have low flow faucets or aerators specified (.5 GPM) that are sensor operated. Water hammer arrestors shall be placed on plumbing fixture supply piping in accordance with the latest adopted version of the IPC.

Gas Utility Service
The building will be provided with a new natural gas service. Gas piping distribution shall be Schedule 40 black steel piping and fittings suitable for the gas pressure. The new gas piping distribution shall be connected to the packaged rooftop HVAC systems and the new gas-fired domestic water heater.

Automatic Sprinkler Systems:
The new building will be fully sprinklered. A new 6" dedicated fire service line will need to be brought in. The automatic sprinkler system shall provide complete coverage for the entire building per NFPA 13. A Fire Department Connection (FDC) shall be routed from the service main to the rear of the building. Hydraulic calculations shall be performed after review of the available water flow/pressure test results to determine if a fiew pump will be necessary.

Fire Alarm Systems:
The building shall include a digital, addressable fire alarm (FA) system with wiring, equipment and devices. A fire alarm control panel shall be installed in the Main Electrical Room. The system shall be provided with auto-dialer for remote site monitoring of the fire alarm system. A fire alarm graphic annunciator panel (FAAP) with fire zones designated per current codes shall be installed for the building. The panel shall be located in the main entrance vestibule and shall be coordinated with the local Emergency Services. Smoke detection shall be limited within the building as allowed by code for a fully sprinklered buildilng. A complete audible and visual alarm system shall be provided throughout the building to meet current codes and ADA requirements. The following new FA device items shall be connected and supervised by the fire alarm system:
- Duct mounted smoke detectors
- Space mounted smoke detectors
- Manual pull stations
- Sprinkler valves and tamper switches
- Audio/Visual notification devices

Electrical Service:
The HVAC equipment shall be provided with digital controls with monitoring and adjustments through a manufacturer provided central controller with web-based user interface. The HVAC system shall be composed of a Variable Refrigerant Flow (VRF) system for general space conditioning. The VRF systems shall consist of air-cooled roof mounted exterior heat pump units. Refrigerant shall be distributed throughout the space from the exterior air-cooled system modules via three-pipe refrigerant copper piping distribution to heat-recovery branch selector boxes located through the ceiling areas of the space. A high and low-pressure vapor refrigerant line set along with a liquid refrigerant line set in the three-pipe distribution shall allow the various thermal control zones/rooms to heat or cool independently and simultaneously throughout the year. It will allow the VRF system to transfer or “recover” energy from one thermal control zone/room to another to reduce the amount of energy required for the overall system to heat/cool the interior spaces. From the heat-recovery branch selector boxes a two-line set refrigerant copper piping distribution shall be routed to indoor evaporator sections in the indoor ceiling cassette or ducted above ceiling units. These units will provide individual heating/cooling conditioning directly to the respective thermal control zones/rooms.

Supplemental wall heating units shall be provided adjacent to all exterior doors.

General exhaust/relief air from the buildilng, as well as toilet exhaust air shall be ducted back to the energy recovery ventilator or through dedicated exhaust air systems. Dedicated exhaust will be provided to each individual cat condo. Each room that may contain an animal shall be provided with general exhaust. The exhaust ventilation air per fixture shall be calculated based on the 2012 International Mechanical Code, Section 403.3 and ASHRAE 62.1 ventilation requirements. Conditioned relief air from adjacent areas shall be transfered into the rooms as needed, maintaining a negative air pressure in respect to the other areas.

Electrical Service:
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Normal Power Distribution:
The normal power distribution system shall originate at the main switchboard distribution sections. Conduit shall be run concealed in interior finished spaces and parallel or at right angles to the building structure. All conductors shall be Type THHN/THWN copper wire in conduit. Receptacles shall be appropriately placed for serving equipment and convenience use. Wiring devices shall be heavy duty, specification grade. Fused safety switches shall be provided for all HVAC equipment.

Emergency Power Distribution:
A roof mounted gas-fired emergency generator shall be provided and located out of the Floodplain. An Automatic Transfer Switch (ATS) shall be provided to a distribution panel for the emergency lighting and life safety loads. Another Automatic Transfer Switch (ATS) shall be provided for the discretionary emergency loads such as IT/Server equipment. Per current building code all life safety and discretionary emergency power distribution shall be isolated from another.

Lighting Systems:
Lighting levels shall be designed in accordance with the IESNA / ASHRAE 90.1 recommendations. Lighting systems in the general areas shall be designed to maintain an average 30 foot-candles for general illumination. Lighting systems in offices shall be designed to maintain an average 40-50 foot-candles. Lighting fixtures shall be recessed in the ceiling or pendant mounted from the ceiling, with high efficiency LED lamps and electronic ballast. The buildilng shall be equipped with localized controls for daylight harvesting, occupancy sensors, and manual dimming controls. Support spaces shall be provided with manual switches. Exterior site lighting shall include pole mounted LED fixtures, full cut-off type. Lighting shall be controlled by lighting controls and exterior photocell.

Specialty Systems:
A new telecommunications service shall be provided at the rear of the buildilng and shall terminate at a backboard in the IT closet. The special systems shall include telecommunications, security system, and other systems as required by Owner. Provisions for power and conduit pathways to these systems shall be provided as necessary. Outlet locations and rough-ins shall be provided where required. Design and specification for such systems and all required electrical and conduit pathway requirements shall be provided from the Owner's preferred system vendors.