This sound study was conducted by the architectural team as a part of the greater site analysis process, and was not a professional sound study. Sound levels were measured in decibels (dB) with an Ambrobe SM-10 Sound Meter at determined locations along Riverdale Road, corresponding to the north-south boundary of the site. Two values were determined at each location: a maximum sound level and a minimum sound level. The maximum sound levels at each location, ranging between 74.7 dB to 80.7 dB, were due to vehicles passing along the road.

110 dB: AUTO HORN AT 1 METER, STEEL MILL, RIVETING MACHINE, LIVE ROCK MUSIC

100 dB: MOTORCYCLE, FARM TRACTOR, JACKHAMMER, GARBAGE TRUCK

90 dB: POWER MOWER, MOTORCYCLE AT 25 FT, NEWSPAPER PRESS

80 dB: CITY TRAFFIC, GARBAGE DISPOSAL, DISHWASHER, FOOD BLENDER

70 dB: RADIO OR TV AUDIO, VACUUM CLEANER, CAR AT 65 MPH AT 25 FEET

60 dB: CONVERSATION IN RESTAURANT, OFFICE, BACKGROUND MUSIC

50 dB: QUIET SUBURB, CONVERSATION AT HOME

40 dB: LIBRARY, BIRD CALLS, LOWEST LIMIT OF URBAN AMBIENT SOUND
CAR HORN DECIBEL COUNT AND DISTANCES TO RIVERDALE ROAD

Sound levels were measured in decibels (dB) at determined distances of 10 ft, 100 ft, 200 ft, and 300 ft from the car horn. A typical car horn is 110 dB at 1 meter (3.28 ft). At the distance of 300 ft from the car horn, the sound level had been diminished to 72.1 dB.

The distance from the car horn to the nearest ambient sound study location (123rd & Riverdale) is approximately 1,432 ft. At this point, the car horn (pointed directly towards 123rd & Riverdale) was barely audible to the ear, and at a sound level undifferentiable from the ambient sound level at that location. At night, the car horn was distinguishable from the ambient sound, but caused no noticeable change in the recorded ambient sound level.

- The ambient sound on the site masks the sounds reaching Riverdale Road from the proposed building.
- The proposed building shields noise coming from the dog yards on the east side.

110 dB: Auto horn at 1 meter, Steel mill, Riveting machine, Live rock music
100 dB: Motorcycle, Farm tractor, Jackhammer, Garbage truck
90 dB: Power mower, Motorcycle at 25 ft, Newspaper press
80 dB: City traffic, Garbage disposal, Dishwasher, Food blender
70 dB: Radio or TV audio, Vacuum cleaner, Car at 65 MPH at 25 feet
60 dB: Conversation in restaurant, Office, Background music
50 dB: Quiet suburb, Conversation at home
40 dB: Library, Bird calls, Lowest limit of urban ambient sound
Sound levels were measured at night in decibels (dB) at determined distances from the recording location at 123rd & Riverdale. The maximum sound level of the air horn was 101 dB (recorded directly next to the horn).

The sound levels were recorded at the maximum 1,400 ft distance and roughly two-third (900 ft) and one-third (450 ft) increments of that distance across the field towards Riverdale Road.

- Animals will be inside during the nighttime; these exposed sounds will not be present.
- Distance diminishes sounds present on the site.

- 110 dB: Auto horn at 1 meter, steel mill, riveting machine, live rock music
- 100 dB: Motorcycle, farm tractor, jackhammer, garbage truck
- 90 dB: Power mower, motorcycle at 25 ft, newspaper press
- 80 dB: City traffic, garbage disposal, dishwasher, food blender
- 70 dB: Radio or TV audio, vacuum cleaner, car at 65 mph at 25 feet
- 60 dB: Conversation in restaurant, office, background music
- 50 dB: Quiet suburb, conversation at home
- 40 dB: Library, bird calls, lowest limit of urban ambient sound
The typical decibel range of a dog bark is between 60 dB and 110 dB, the loudest recorded bark at 113.1 dB, although the majority of dog barks fall between 80 dB and 90 dB. Maximum noise levels inside kennels generally fall between 95 dB to 115 dB.

Sound levels were measured in decibels (dB) at determined locations inside and outside of the Foothills Animal Shelter. The loudest measured sound level in the shelter was 105.5 dB within the dog isolation kennel run. Directly outside of the isolation kennels, the measured sound level maximum was 80.6 dB. This level was a result of the traffic along 6th Avenue and other ambient sounds. No dog barking was audible.

The outdoor kennels on the east side of the shelter achieved comparable results, with a maximum sound level of 82.2 dB (from directly next to the outdoor court-hold kennels) which had diminished to 72.2 dB from 50 feet away, at which the ambient noise from 6th Avenue became dominant. Revisiting the shelter at night, no dog barks were noticeable.

The sound level outside of the front entrance was measured at 59.3 dB, considerably lower than the outdoor spaces directly exposed to the heavy traffic on 6th Avenue, demonstrating the of noise the building shields from the entrance and parking lot.

- The building construction contains the interior sounds, masking them from the exterior.
EXISTING SOUND CONDITIONS AT LOWRY DOG PARK

Sound levels were measured in decibels (dB) from the fenced edge of the dog park at a western location, a central location, and an eastern location. A maximum sound level was recorded at each location. The maximum sound levels ranged between 65.5 dB and 77.7 dB. The activity at the dog park was moderate, with an estimate of 10-15 dogs present. No barking dogs were observed during the time spent at the site, and the majority of site-specific observed noise came from human conversation.

- Dog parks are closed during the nighttime; these exposed sounds will not be present. The proposed Adams County dog park will operate under similar hours.
- Distance diminishes sounds present on the site. The shortest distance between the Lowry Dog Park and the residential units is 710 ft. The proposed shortest distance between the dog park and the residential units at the Riverdale Site is 500 ft.
- The ambient sound at the site falls within the range of recorded ambient sound at the Riverdale site.
EXISTING SOUND CONDITIONS AT STAPLETON DOG PARK

Sound levels were measured in decibels (dB) from the fenced edge of the dog park at a southern location, a central location, and a northern location. A maximum sound level was recorded at each location. The maximum sound levels ranged between 68.5 dB and 71.0 dB. The activity at the dog park was heavy, with an estimate of 30-40 dogs present. No barking dogs were observed during the time spent at the site, and the majority of site-specific observed noise came from human conversation and passing vehicles.

- Dog parks are closed during the nighttime; these exposed sounds will not be present. The proposed Adams County dog park will operate under similar hours.
- Being in an urban environment, the sounds coming from the site are masked by the surrounding ambient sound.
- The shortest distance between the Stapleton Dog Park and the residential units is 70 ft. The proposed distance between the dog park and the residential units at the Riverdale Site is 500 ft.
- The ambient sound at the site falls within the range of recorded ambient sound at the Riverdale site.