Nancy Cooley

From: Jeff Loomis
Sent: Monday, October 10, 2016 3:35 PM
To: Nancy Cooley
Subject: Animal Shelter of Wood River Valley CUP - County Engineer Review

Nancy –

Per you request, I have reviewed the proposed Animal Shelter of the Wood River Valley ("Animal Shelter") Conditional Use Permit application, and offer the follow comments for consideration:

A. Project Summary

General/Construction Specifications: The application proposes a new 27,000 square feet "animal welfare campus" located on an approximately 20-acre parcel of land located on the south side of Croy Creek Road just west of the City of Hailey. The parcel is owned by the Animal Shelter of the Wood River Valley, Inc. All of the parcel of land is located in County R-5 zoning and is currently open space, with the main existing use to be the BCRD's non-motorized winter trails. The Animal Shelter is listed as a conditional use for this zoning in County Code. The proposed campus is a series of connected, single-story buildings, courtyards, and on-site driveways and parking designed to accommodate the increasing necessary services of, and strain on existing facilities of the existing Animal Shelter. The "campus" is designed in appearance and operation to be "harmonious" with the rural character of the surrounding area.

The construction drawings included with the application generally reference ISPWC construction standards and specifications for construction materials and procedures. While the campus is indicated as 27,000 square feet, the plans indicate the construction site will be over one acre.

Irrigation Water/Domestic Water: The application states the Animal Shelter presently holds Water Right Permit #37-22436, which is a groundwater permit, with a maximum allowed diversion rate of 0.64 cfs, for municipal purposes on the Croy Canyon property. The Animal Shelter also holds Water Right Permit #37-8650, which allows irrigation from groundwater of 1.5 acres, with a maximum diversion rate of 0.05 cfs. This Water Right Permit #37-8650 current place of use is in the Broadford Highland Subdivision.

The Animal Shelter intends to install a new groundwater well on-site to develop the municipal permit. In additional, I understand the Animal Shelter will transfer the place of use of the irrigation permit to the Croy Canyon property, and the new well will also provide water for irrigation purposes. The application indicates water quantity and quality are satisfactory for these uses, based on review of existing well logs and data

from the "Feasibility Study, Potable Water System: Spring Canyon Ranch," from Brockway Engineering, dated August 14, 2007. The well logs and data from this cited feasibility study were included for review with this application. In addition, email correspondence from Jim Laski, representing the Animal Shelter, to Tom Bergin (LUBS) indicates Brockway Engineering is working on a well [capacity] analysis for the Animal Shelter, but data from that analysis is not yet available.

Fire protection: Storage of required fire flows are indicated, generally, via on-site cisterns. No details of the proposed fire protection system are indicated in the application. Emergency vehicle access is provided via the site driveways and a gravel hammerhead turnaround to access the rear of the "campus."

Sewer: The application indicates the sewer system proposed is an individual, sub-surface disposal systems, consisting of septic tank treatment and a sub-surface drain field. The soils information provided indicates the individual sub-surface disposal system is a suitable system for the soils found.

Site Drainage: Site drainage for stormwater and snowmelt runoff, is proposed to be collected in catch basins and infiltrated on-site via drywells. There is abundant room for snow storage on the site. The Soils Report indicates roof and foundation drainage should be connected to the proposed drywells. The drywell details provided in the Soils Report are slightly different from the drywell detail provided on the construction plans.

Floodplain/floodway: No impacts to the FEMA mapped floodway and floodplain are identified in this application.

Wetlands: No wetlands are impacted by the proposed project, as submitted in this application.

Access/County Road Approaches: Two approaches from the site are proposed onto Croy Creek Road, a County maintained, paved roadway. The application indicates the approaches are separated from each other by the minimum breaking distance, according to AASHTO's design guidelines, using a travel speed of 45 mph. The nearest existing developed approach to this site is located approximately at the west property line of the project site lot, across Croy Creek Road; this approach accesses the existing Animal Shelter facilities. An undeveloped approach is adjacent to the west property line of the project site lot, accessing Lot 1, Block 1, Croy Creek Ranch Subdivision #2 (Simons Property), an approximate 64-acre flag lot situated south of the project site lot. The approaches are paved, 24-feet wide driveways, with 28-feet approach radii, aligned perpendicular to Croy Creek Road. The project indicates providing a 20-feet public utility and public pathway easement located adjacent to the Croy Creek Road right-of-way.

Traffic: At the pre-application meeting with LUBS staff and the applicant, I requested the applicant submit a left-turn lane warrant analysis, noting that most of the vehicles entering the proposed site will likely be in the westbound (from Hailey) and in conflict with a.m. peak hour eastbound traffic (to Hailey). The County does not have left-turn warrant criteria in County standards, and probably accepts ITD's left-turn warrant criteria in absence of County specific warrant criteria. The applicant provided a preliminary left-turn warrant analysis, dated September 9, 2016, using County provided traffic counts for traffic volume and directional assumptions on Croy Creek Road, and site Animal Shelter staff provided information for trip generation projected for the new facility. This study reported that the ITD warrant analysis does not recommend a left-turn lane at build-out (2018), but should be considered assuming some traffic growth by 2023. The study concluded no left-turn lane is warranted based on overall low opposing traffic volume of the projected left-turn movements into the site and recommended posting a lower speed limit (35 mph) from the currently posted 45 mph in the area of the project site.

Internal Roads/Parking: Internal roads are indicated to be paved 24 feet wide, with the exception of the emergency vehicle access to the rear of the campus, which is a gravel surface, 20 feet wide. Parking stalls are typically 9' wide and 18' deep. General road grading is indicated, typically with 2% cross-slope and 1% longitudinal grade. Gates are proposed, apparently to isolate, or close, the visitor access independent of the staff access. Parking lot and access lighting in indicated as overhead light fixtures.

B. County Engineer Comments

1. ISPWC standards and specifications for construction materials, methods, and testing are acceptable for this project. To ensure construction in accordance with County standards, the ISPWC references for all construction materials specifications (aggregates, asphalt, concrete, geotextiles, etc.), construction procedures, and testing, should be included on the final construction drawings. Since the construction site appears to be over one acre, the plans will need to include an erosion and sediment control plan (ESCP) to meet NPDES CGP requirements for construction activities. Such an ESCP may be included in a project SWPPP, which development of this SWPPP sometimes is deferred to the construction contractor. Per County requirements, the County should receive copies of the final construction plans, specifications, and schedule, stamped by a professional engineer, and indication of compliance with the NPDES NOI/SWPPP requirements, prior to the start of construction.

2. Based on a general review of the anticipated capacity of septic sewer design, the existing municipal Water Right Permit appears adequate for the domestic/commercial uses proposed. Based on a general review of the landscaping plans provided, the Water Right Permit for irrigation of 1.5 acres also appears this permit may be adequate for the uses proposed.

   The application is unclear with regards to stating that adequate water is available on-site to develop these water right permits. That is, the application indicates the Spring Creek Ranch Feasibility Study indicates adequate water is available, but I am not sure that Study included, or was specific to, development of a well on this site. In addition, Jim Laski's email correspondence to Tom Bergin indicates Brockway Engineering is currently working on an on-site well analysis. Either way, to ensure to the County that an adequate water supply is available, the applicant should provide the County with completed documentation for the indicated water permit place-of-use transfer, and documentation sufficiently supporting the proposed development of necessary diversions, storage, and distribution, for irrigation and domestic/commercial uses, prior to the completion of construction and final platting. In

addition, the proposed water system (i.e. well construction, storage structures, and distribution system details) should be included on final construction drawings, stamped by a professional engineer, and submitted to the County. New well construction is subject to IDWR Well Construction Requirements, including proof of no adverse impact to other wells.

3. The complete fire protection system plans, including any proposed fire hydrant locations and delivery capacity, should be included on the final construction plans, stamped by a professional engineer, and submitted to the County. Wood River Rural Fire should approve the fire protection system, including fire flow storage in proposed cisterns, fire flow delivery capacity, and any necessary fire hydrant locations, as appropriate. Approval of the fire protection system shall be submitted to the County prior to issuance of a Building Permit.

4. The proposed individual sewer system is subject to approval from SCPHD. An additional groundwater study may currently be in progress from Brockway Engineering, but this additional study is not referenced in the application's other submitted documents regarding the proposed septic system. Inclusion of a statement indicating the proposed septic system is not likely to adversely impact the groundwater or surface water quality down-gradient of the project, prior to start of construction, is recommended to indicate compliance with County standards.

5. The applicant should submit drywell calculations indicating the proposed size of the drywells are adequate for the area each drywell infiltrates, per the on-site soil infiltration capacity as indicated per the Soils Report soils data, or other on-site soil infiltration capacity data. The final construction plans details should follow the recommendations of the Soils Report, unless specific deviations from the Soils Report are justified by the responsible professional engineer-in-charge. A pipe trench detail should be included, or referenced, on the final construction plans. These final construction plans should be stamped by the professional engineer-in-charge, and provided to the County prior to the start of construction. As noted above in Comment #1, the construction site appears to be over one acre, and the plans will need to include an erosion and sediment control plan (ESCP) to meet NPDES CGP requirements for construction activities. Such an ESCP may be included in a project SWPPP, which development of this SWPPP may be deferred to the construction contractor. However, the County should receive copies of the completed ESCP prior to the start of construction.

6. The proposed two accesses are recommended as acceptable, as opposed to a more desirable single access for a single property, since another access would be expected with the given lot frontage, if the property was subdivided per the R-5 zoning. The County standard minimum approach spacing for R-5 zoning is 400 feet. The project proposes less than 20 feet separation from the access to Simons Property, approximately 60 feet from the existing approach to the existing Animal Shelter facilities, and 362 feet between the two proposed approaches. For consideration as an alternative to this proposed access layout, I suggest combining the "staff parking" access with the adjacent Simons Property approach. This Simons Property access is fixed in that location due to the flag lot configuration, and roughly aligns with the existing access to the Animal Shelter property on the north side of Croy Creek Road. If combining the west project approach with the adjacent Simon property is not possible, or not desired, then I suggest the west access to the project be relocated east to meet the County standard 400 feet access separation requirement for R-5 zoning. The applicant should provide an explanation why the minimum 400 feet separation between the two project site approaches cannot be met, and the proposed AASHTO stopping sight distance is proposed, instead.

7. With regards to the left-turn warrant analysis, the applicant should submit a final study report, stamped by a professional engineer to meet State of Idaho engineering practice requirements. Assuming the final study will report a similar analysis (that is, the traffic count, projections, and distribution assumptions do not change) and conclusions, I accept the assumptions presented.

I do not agree with the recommendation to lower the speed limit on this segment of Croy Creek road to 35 mph. Observed travel speeds in this segment of Croy Creek Road indicate the currently posted 45 mph speed limit is appropriate, and posting a lower speed limit is unlikely to have a significant effect on actual travel speeds, without almost constant enforcement. I do not know the history of this posted 45 mph speed limit on Croy Creek Road, but assuming this speed limit was recommended through appropriate review of either travel speeds or roadway design, the posted speed limit would not be out of compliance with County Code, as stated in the preliminary report submitted by the applicant.

With regards to a left-turn recommendation, I suggest a left-turn is not warranted. While I agree the ITD warrant analysis recommends consideration of a left-turn lane, the ITD analysis is very conservative, even compared to other methods of analyzing left-turn lane warrants. And probably most significantly, the traffic volumes on Croy Creek Road a relatively low when considering left-turn lane warrants. Given these low directional volumes, the vehicles desiring left-turning movements into the site, are likely to find ample, adequate gaps in eastbound traffic to complete the left-turn movement without delaying a significant number of vehicles in the westbound direction.

8. The proposed approaches to Croy Creek Road shall meet County approach standards, including roadside drainage and snow storage, and are subject to County approach permit approval from the Road & Bridge Department.

9. Internal roads indicate longitudinal drainage grades of 1%, which is pretty flat for drainage on asphalt....minimum 2% is suggested in these areas of longitudinal drainage on asphalt.

10. The applicant will need to indicate compliance with ADA requirements on final, professional engineer stamped, grading plans.

11. Proposed lighting will need to meet the County's dark sky requirements...the applicant may

Please let me know if you have questions regarding this review and the comments provided.

Thank you,

JEFF LOOMIS, PE

Blaine County Engineer