



## Agenda Item 5A

# Estates of Snowy Acres Preliminary Plat Staff Report

to the  
**Planning Commission**  
**City of De Soto, Kansas**  
June 18, 2007

Agenda Item:	Consider Preliminary Plat for Estates of Snowy Acres, 15 acres on the west side of Corliss Road between 84 <sup>th</sup> Terrace and 86 <sup>th</sup> Street.
Meeting Date:	June 26 <sup>th</sup> , 2007
Owners/Developer:	Steven and Nancy Jane Jarboe 8550 Corliss Road De Soto, Kansas  QHS Construction Rick Hollingsworth 30427 West 87 <sup>th</sup> Street De Soto, Kansas
Surveyor:	Herring Surveying Company 315 North 5 <sup>th</sup> Street Leavenworth, Kansas 913-651-3858
Engineer:	Level 4 Engineering 207 South 5 <sup>th</sup> Street Leavenworth, Kansas 913-682-8600
Report Prepared By:	Mike Brungardt, City Engineer Kim Buttrum, AICP, City Planner
Submittal Materials:	Preliminary Plat entitled "Estates of Snowy Acres" dated 5/14/07 Preliminary Plan & Profile sheet for 85 <sup>th</sup> Terrace dated 6/18/07 Preliminary Grading Plan dated 6/18/07
Attached Materials:	Exhibit A: Letter from Building Official Steve Chick regarding septic suitability.

### I. GENERAL DESCRIPTION

**A.** The preliminary plat application for the Estates of Snowy Acres consists of 7 lots on approximately 15 acres in the City's 'R-0', Residential Suburban zoning district. One of the proposed lots contains an existing single-family home. The plat includes the construction of a cul-de-sac that will extend westward from Corliss Road just north of 86<sup>th</sup> Street. The proposal is a low density single-family residential development with an average lot size of 1.95 acres.



**B.** A previous version of this subdivision was considered by the Planning Commission in April of 2007, but tabled because of concerns relating to the length of the cul-de-sac previously proposed. The application has since been revised to reduce the cul-de-sac length, and eliminate the mid-block turn around bulb.

**C.** Proposed site improvements include one cul-de-sac extending west from Corliss Road for a distance of 482 feet. It is 28-feet in width with concrete curb and gutter, enclosed storm sewer elements and turn around radius of 50 feet.

**D.** A general location map of the property is shown below:

General Location Map



Aerial Map





## II. Review of General Zoning Requirements

**A. Existing Zoning:** The subject property is currently zoned 'R-0' Residential Suburban. The proposed land use associated with this application is single family residential. This use is allowed within the 'R-0' zoning district, and does not require a rezoning or the issuance of a special use permit.

**B. Future Land Use Map:** The future land use designation for this property is 'Low Density Residential' which is defined as 1 unit per acre or fewer. As proposed, the preliminary plat is 0.47 units per acre. The proposed development is therefore in conformance with the Future Land Use Map.

**C. Platting:** The southern 10 acres is platted as Lot 1 of Snowy Acres and is currently owned by Rick Hollingsworth. The northern 5 acres of the subject parcel is not platted and is currently owned by Steve and Nancy Jarboe. This application is a replat of the previously platted Snowy Acres lot, and a plat of the previously unplatted 5-acre parcel to the north. The approval of a Preliminary Plat is the first step in the platting process. Prior to the issuance of building permits for any lot within the proposed subdivision, a Final Plat must be submitted and approved by the Planning Commission and City Council in conformance with the Subdivision Regulations, and filed with the County Register of Deeds office. Excise tax for the lots is due upon final platting. The final plat can include all the property, or only a portion of the property included in the Preliminary Plat.

**D. Rural Development Standards:** Although this proposal is for a low density, large lot subdivision, and is within the Rural Subdivision Overlay area, the applicant is proposing to construct an urban standard public street with concrete curbs and gutters. As such, neither the allowances nor the further restrictions contained in the rural subdivision design standards apply.

**E. Septic System Requirements:** Because this development is not served by the public sewer system, on-site septic systems will be necessary. It is therefore important to investigate closely the ability of the existing soils and proposed lot configuration to support the installation of septic systems that are in conformance with the City's regulations. A report on the septic system suitability for this development is attached hereto as *Exhibit A*.

**F. Landscaping:** The applicant chose not to submit new landscaping plans. Following is staff's review of the landscaping plan dated April 16, 2007. The Estates of Snowy Acres site is proposed to be developed under the 'R-0' zoning district. According to the 'Right-of-Way and Transition Buffer' table in Article 8 of the Zoning Regulations, no right-of-way landscaping is required in this district. Regardless, the applicant has provided street trees along Corliss Road and the future 85th Terrace. The street trees meet the requirements; they are spaced at regular 40 foot intervals, with landscaping notes and diagrams conforming to city standards. There are fifty (50) trees depicted on the plat, with only 2 different species of tree. Variety is necessary to add visual interest and to anticipate the possibility of disease particular to a certain species. The applicant has gone far above and beyond the landscaping requirements. Staff recommends approval of the landscaping with the condition that five (5) different species are planted. Staff also recommends that a plan note be added that states the applicant's intent to preserve existing trees, along with language describing how this is to be achieved throughout the construction process (i.e. temporary fencing, contractor fines for tree injury or removal, etc).



### III. Preliminary Plat Review

#### A. Submittal Materials: Subdivision Regulations, Section 4.03

The submittal materials have been reviewed to ensure that all the necessary information is present to facilitate an adequate review of the proposal. In addition to the materials provided in the Planning Commission's packets, the applicant submitted a drainage study outlining the stormwater management plan for the subdivision. It is concluded that all the required submittals are present, and in conformance with the requirements of the Subdivision Regulations.

#### B. Improvements, Dedications and Design: Subdivision Regulations, Article 6

##### 1. General Improvements: Section 6.01

This section requires conformance with applicable laws, rules and regulations including statutory zoning provisions, building codes, fire safety standards, the Comprehensive Plan, the City's Capital Improvement Plan, KDHE requirements, applicable overlay districts and other similar requirements. Upon review of these applicable standards, it is determined that the proposal is in conformance with these criteria, with the possible exception of the on-site septic systems, which is addressed later in this report.

##### 2. Adequate Public Facilities: Section 6.02

To ensure that property is developed only with appropriate and adequate public facilities, and in accordance with the Comprehensive Plan, no preliminary plat application should be approved unless it is determined that the existing or proposed off-site public facilities are adequate to support and serve the density of the proposed subdivision.

##### a) Standards Relating to Offsite Infrastructure

- (1) **Water Supply:** The preliminary plat proposes a connection to an existing 6" line along the west side of Corliss Road. A review of the flow testing records for the fire hydrant at this intersection reveals that this existing line has adequate capacity to serve the domestic and fire flow needs of the proposed 7 lot subdivision.
- (2) **Sanitary Sewer:** There is no public sewer available to the site. On-site septic systems will be required. Further analysis of the septic system requirements is presented later in this report.
- (3) **Storm Sewer:** The proposed subdivision does not directly connect to any existing enclosed or improved stormwater system.
- (4) **Stormwater Management:** The subdivision proposal includes two stormwater detention facilities. One is located between Lots 2 and 3, and the other is located between Lots 6 and 7. These detention facilities are placed in series, the northern pond accepts the outflow from the southern pond. In total they accept the runoff from approximately 31.4 acres, 8.2 of which are on site. The remainder of the drainage area tributary to the detention facility is offsite. There is another existing drainage channel that traverses Lots 4 and 5. This channel has a tributary area of 16.45 acres, 6.77 of which are on site. No detention is proposed for the western drainage area of the subdivision. The two existing streams converge approximately 350 feet north of the subdivision, just north of 84<sup>th</sup> Terrace.



The applicant has submitted a drainage study outlining the pre and post development runoff patterns from the site. Because the western drainage area will not be detained, the peak flows downstream of Lots 4 and 5 will increase slightly. However, the study indicates that the stormwater detention facilities in the eastern portion of the site will reduce peak flows enough to compensate for the un-detained flows in the western lots. In summary, it is proven through the information provided in the drainage study that the proposed detention facilities are capable of limiting runoff from the developed site to slightly below the levels of the existing undeveloped property. It is therefore concluded that proposed subdivision meets the City's runoff criteria and is in general conformance with stormwater management requirements.

There is an existing stream that crosses the northwestern portion of Lot 6. The preliminary plat should indicate the dedication of a drainage easement for this stream.

(5) **Roads:** Access to the subdivision is from 83<sup>rd</sup> Street via Corliss Road. Corliss is designated as an arterial road in the City's Comprehensive Plan. While Corliss is currently in fair condition with a chip seal surface, its geometrical configuration does not meet the City's standards for collector or arterial road types. Narrow lane widths, steep vertical curves, and poor sight lines characterize the portion of Corliss from 83<sup>rd</sup> Street to the proposed subdivision entrance. The potential need to improve the existing road network in the area and the justification for requiring off-site road improvements must be weighed against the impact to the roads caused by the proposed development. The proposed subdivision consists of 7 single-family residential lots, which will contain 6 new homes. This will increase the daily traffic load onto Corliss by approximately 60 vehicle trips per day. While the increased traffic loads from the proposed subdivision do not initially trigger the need for substantial improvements to the surrounding roadway geometry, the development will contribute to the need for increased maintenance for the road system. For this reason, it is recommended that the developer sign an agreement not to protest a benefit district for future road maintenance, safety and capacity upgrades to Corliss Road adjacent to the subject property.

### **3. Lots: Section 6.03**

According to the 'R-0' District Regulations contained in Zoning Regulations, the minimum lot area is 11,000 square feet and the minimum lot width is 100 feet measured at the front setback line. The district requirements stipulate a minimum front yard setback of 50 feet. All of the proposed lots meet the district requirements.

There is an existing access easement across the north 50 feet of Lots 6 and 7. This easement provides access to the 5-acre un-plated parcel directly west of Lot 6. Although the aerial photograph does not show it, there is an existing driveway within this easement along with a waterline and other utilities extending from Corliss Road to the west. The driveway is shown on the grading plan, but the associated utilities are not. These improvements must be maintained during the construction of the subdivision, and they should be indicated on the preliminary plat document.

### **4. Blocks: Section 6.04**

The proposed preliminary plat layout is consistent with the requirements for block length, width, easements, and pedestrian access. The dual cul-de-sac arrangement, with a length of 482 feet,



is also consistent with the requirements for dead end roads, which limit cul-de-sac length to 500 feet.

**5. Streets: Section 6.05**

As previously stated, the interior roadways are to be constructed to urban local access standards. The preliminary plat application correctly indicates the road width of 28 feet, right-of-way widths of 50 feet, and cul-de-sac turning radius of 50 feet. A concrete sidewalk is indicated on the south side of the street, and concrete curbs and gutters are shown. The name of the street should be changed from "85<sup>th</sup> Terrace Court" to "85<sup>th</sup> Terrace".

**6. Storm Sewer: Section 6.06**

The proposed storm sewer elements associated with the street construction are consistent with the requirements of the Subdivision Regulations, as is the stormwater management plan previously addressed in this report.

**7. Sanitary Sewers: Section 6.07**

On site septic systems will be needed to provide for the sanitary sewer disposal of the proposed lots. The applicant has coordinated with Steve Chick, De Soto's Building Official, to perform a septic system site evaluation on each lot within the proposed subdivision. The results of Mr. Chick's investigations are contained in his letter attached as **Exhibit A**. Attached to this report is a letter from Steve Chick, the City's Building Inspector regarding his findings on the suitability of the soil conditions on the site are generally suitable for septic systems, although Lots 1 and 2 may require mounds or shallow mounds due to their smaller size. It is staffs overall opinion that each of the proposed lots is capable of sustaining septic systems.

**8. Water Supply: Section 6.08**

The plat indicates a new 6-inch water main along the proposed cul-de-sac. It will connect to the existing 6-inch line along the west side of Corliss Road. There is one proposed fire hydrant located at the end of proposed 6-inch line adjacent to Lot 3. In accordance with the subdivision regulations, each lot must be within 250 feet of a fire hydrant. In this case, all 7 proposed lots are within this specified distance.

**9. Utilities: Section 6.09**

Adequate allowances for the installation of other public utilities including gas, power, cable, and telephone services have been made. Utility easements are provided around the parameter of each lot and along the proposed rights-of-way.

**10. Sidewalks: Section 6.10**

A 5-foot concrete sidewalk is required along the south side of the proposed street. This walk is shown on the plat document.

**11. Open Space: Section 6.11**

In accordance with the Subdivision Regulations, all developments are required to contribute either park land or fees in lieu of park land. The amount of dedication required is 4% of the land being subdivided. In this case, the area would be approximately 0.58 acres. In accordance with the 'Future Parks and Service Area Map' contained within the Comprehensive Plan, there are no projected neighborhood or regional parks in the area of the proposed subdivision. Because the proposed and existing nature of development in this area is rural-residential, the need for



common public open space is somewhat diminished. It is therefore recommended to accept the fee in lieu of parkland dedication for this subdivision. Park fees are currently \$350 per unit, due upon building permit application.

#### **IV. Conclusions and Recommendations**

The overall density and land use proposed is consistent with the Zoning and Subdivision regulations for this parcel, as well as the Future Land Use plan and other policies of the Comprehensive Plan. The general layout and design of the subdivision is consistent with the City's regulations and follows standard engineering and planning principals. Approval of this Preliminary Plat is therefore recommended, conditioned upon the following revisions being made to the preliminary plat prior to the Planning Commission's consideration of the Final Plat:

- A.** It is recommended that the developer sign an agreement not to protest a benefit district for future road maintenance, safety and capacity upgrades to Corliss Road adjacent to the subdivision.
- B.** The utilities along the existing driveway within the access easement across Lots 6 and 7 must be shown on the preliminary plat along with a note indicating that they will be preserved.
- C.** The plat should be revised to show a drainage easement across the northwestern corner of Lot 6 to for the existing creek.
- D.** The name of the proposed street should be changed to read "85<sup>th</sup> Terrace".
- E.** The applicant must submit a revised landscaping plan, depicting five (5) different species of street trees and a note stating the applicant's intent to preserve existing trees, along with language describing how this is to be achieved throughout the construction process (i.e. temporary fencing, contractor fines for tree injury or removal, etc).

END OF REPORT  
EXHIBITS TO FOLLOW