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NOV 14 2005

PMB 2164  
1 Jackson Creek Rd.  
Montana City, MT 59634-2164  
406 449-9761  
406 449-9768 Fax

www.firelogistics.com

Ravalli County Planning Dept.  
1C-05-11-2005

November 7, 2005

Jason Rice, P.E.  
Landworks Consulting & Design, Inc.  
PO Box 7908  
Missoula, MT 59807

Dear Mr. Rice:

Subject: Design Elements – Sunnyside Orchards

After our meeting regarding the Sunnyside Orchards project and a site review, here are some design elements to incorporate into the Sunnyside Orchards project:

1. Consult with a forester to determine if there is enough on the proposed roads, road right-of-ways, and parks to warrant a well designed and presentable timber harvest to generate some revenue for the developer.
2. Consider dedicating a parcel of property to the Three Mile RFD for its use near the water storage tank location.
3. The trail system should be designed to allow a Type VI wildland fire engine to utilize it for access and to serve as a firebreak (10 foot clear area, with a drive able surface of 6-8 feet)
4. Water Supply Requirements:
  - a. If the entire project is built to include automatic fire sprinklers in all buildings, then the fire flows for the residential areas will be 500 gallons per minute, and the fire flows for the mixed use area will be 1000 gallons per minute.
  - b. If the entire project is not sprinkled, the fire flows are those in the Uniform Fire Code, which we provided to you.
  - c. Any component parts of the water system installed for the initial phases of the project should be designed to be incorporated into the overall design of the water system.
  - d. If the developer decides not to install water system components in the initial phases, the Three Mile RFD will require an alternate water delivery systems or a financial contribution in lieu of the water delivery system.
  - e. If the project is to be sprinkled, then the fire flow storage will be for 2 hours duration.
5. Defensible space requirements – 100 feet or to the lot lines.
6. Open Space Parks and Vacant Lots – There needs to be a covenant to require maintenance of the open space, parks and vacant lots so they do not become a wildland fire hazard.
7. The best covenants to serve as an example, that I am aware of, are from the Double Arrow Subdivision in Seeley Lake.
8. Cul-de-sacs should be designed with a paved surface and a radius of 60 feet.

If you have any questions, please call me.

Sincerely,

Bruce Suenram  
President

Copy to: Chief Russ Glese  
Ravalli County Planning Department  
File



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JAN 04 2006  
1C-06-01-15  
Ravalli County Planning Dept.

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December 26, 2005

Jason Rice, P.E.  
Landworks Consulting & Design, Inc.  
PO Box 7908  
Missoula, MT 59807

Dear Mr. Rice:

Subject: Legacy Ranch

In response to your letter of November 30<sup>th</sup>, I have consulted with my client the Three Mile RFD and we want to make it clear that Three Mile RFD's concerns we have been discussing with you are solely based on the need for the Three Mile RFD to identify possible adverse impacts of a potential subdivision design. We have the following comments which are designed to help mitigate those impacts:

1. The proposed cul-de-sac radius is an adverse impact and creates a public safety issue for this subdivision. A fire engine cannot turn around in such a cul-de-sac without backing up, which in turn affects the response time to an incident and the safety of the residents and responders.
2. Three Mile RFD has tested the turn around radius required for Engine 3011, the primary engine for structure fires, and it cannot be turned around in a cul-de-sac of a 50 foot radius without backing up.
3. The Uniform Fire Code adopted by the State of Montana says in §18.2.2.5.3 UFC, 2003 that the turning radius must be approved by the Fire Protection Authority Having Jurisdiction. The Three Mile RFD cannot approve a substandard cul-de-sac radius.
4. If the developer is proposing to donate land to the Three Mile RFD only to gain a concession from the district for the cul-de-sac radius, then the Three Mile RFD does not agree to accept the land and will require a second ingress-egress route for the project located as remotely as possible from the main entrances to the project.
5. We don't believe that you are allowed under DEQ-1 to provide cisterns or cash for this project to meet the fire flow requirements, thus the water supply system doesn't factor into a discussion about cul-de-sacs.
6. No Parking signs, are not an acceptable solution to parking on substandard cul-de-sacs because there will be no one to enforce the no parking requirements.
7. If the developer wishes to require that the entire subdivision be equipped with automatic fire sprinklers, then the Three Mile RFD will consider reducing the required radius of the cul-de-sacs.
8. The Three Mile RFD will consider as an option, a hammerhead T as an alternative to the typical cul-de-sac.

As you are aware, the Three Mile RFD has consistently opposed the adoption of the substandard radius for the cul-de-sac, steep road grades and narrow roads widths, and will not approve them in this project.

If you have any questions, please call me.

Sincerely,

A handwritten signature in cursive script that reads "Bruce Suenram". The signature is written in black ink and is positioned above a horizontal line that extends to the right.

Bruce Suenram  
President

Copy to: Chief Russ Giese  
Ravalli County Planning Department  
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March 6, 2006

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MAR 07 2006

Landworks Consulting & Design, Inc.  
Attn: Jason Rice, P.E.  
PO Box 7908  
Missoula, MT 59807

Ravalli County Planning Dept.  
10-06-03-333

Dear Mr. Rice:

Subject: **Legacy Ranch**

In response to your letter dated February 7, 2006 regarding Legacy Ranch design. We understand that you have met with the Fire Chief of Three Mile RFD and agreed to a design for the cul-de-sacs in your project, i.e., a "Hammerhead T."

Regarding the fire sprinklers on the Mixed Use parcels and needing only 1,000 gpm. That is only true if the buildings constructed on the parcels do not exceed the square footage in the Table H.5.1 I provided you, which equals a fire flow of 5,250 gpm (see excerpt from Table H.5.1 below) and represents pretty significant buildings).

Table H.5.1 Minimum Required Fire Flow and Flow Duration for Buildings					
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250

The hydrant flows and spacing requirements are also detailed in the same table. For one and two family dwellings having a fire area that does not exceed 3600 ft<sup>2</sup> shall be 1000 gpm for 2 hours. Fire flow and duration for dwellings in excess of 3600 ft<sup>2</sup> shall not be less than specified in Table H.5.1. If one and two family dwellings having a fire area in excess of 3,600 ft<sup>2</sup> are constructed, either the fire flow must be increased according to Table H.5.1 or they should be equipped with automatic fire sprinklers as described in the exception in § H.5.1 – Uniform Fire Codes, 2003.

Hydrants locations and distribution is according to Table I.3, which I have also provided to you.

In the Draft Covenants, Conditions and Restrictions, we would propose the following changes:

Page 5 – Responsibility and Authority of Association, item b. Next to last line, strike "as reasonably possible"

Page 21 – Design and Materials – 5<sup>th</sup> line, strike "and be approved by the fire agency with jurisdiction over the area." If you specify Class A or B roofing materials there is no need for the fire agency to have to approve of the building materials on each home.

The rest of the CCR's are very good, incorporating several of our recommendations for defensible space, maintenance of yards and open space, etc.

Thank you for the continued opportunity to work with you as you develop your project and application for submittal to Ravalli County.

As soon as you get an idea of the schedule of the hearings for this project, let me know so I can plan on attending.

Sincerely,



Bruce Suenram  
President

Copy to: Fire Chief Russ Giese  
Ravalli County Planning Department ←