

LNGINEERING
Professional Engineers & Land Surveyors

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March 1, 2010

Melody Ranch HOA P.O. Box 4337 Jackson, WY 83001

ATTN:

**HOA Board of Directors** 

RE:

Melody Ranch - Upper Ranch P.U.D Review -

**Executive Summary and Final Report** 

Dear Board Members:

Nelson Engineering has completed the Infrastructure Review and prepared a Final Report. This letter constitutes an Executive Summary which is intended to summarize some key aspects of the Report including Reserve Account value and the Recommendations contained in the Report.

In general, the conclusion of the investigations and report are that the Melody Ranch infrastructure assets are of good quality and in a good state of repair. Groundwater and surface water rights are all in good standing. The water system and sewer collection system are functioning properly and receiving at least the minimum operational maintenance. The Melody Ranch Roadways are well constructed and, although in need of maintenance (primarily seal coating), in good condition. In addition, all regulatory requirements including those set by the State of Wyoming Department of Environmental Quality and Teton County appear to be met (with an exception noted in the recommendations below). By establishing, investing in, and implementing a routine preventative maintenance program for the infrastructure, the Melody Ranch Homeowners should be able to rely on their infrastructure for many years.

We understand that of particular interest to the Board are the conclusions about the Replacement Reserves or a "Reserve Account" value. A Reserve Account is the savings the HOA should have for capital improvements and replacement of infrastructure that has aged beyond its useful life. In regards to a Reserve Account, the Report includes two separate calculations for reserves. One calculation computes an amount for Replacement Reserves based upon Straight Depreciation of the original construction costs. The second spreadsheet calculates an amount for Replacement Reserves based upon Estimated Future Replacement Costs.

The Straight Depreciation (SD) Reserve Account approach should be used for consideration of the minimum amount to be saved for capital replacement. Use of this approach to determining Reserve Funds is based upon the philosophy that operational



maintenance will extend the life of the assets and that additional sources of funding (grants and loans) can be counted on for capital improvement projects. If the SD approach were used, the annual contribution to the Reserve Account would be near \$178,000 and the Reserve Account value today would be near \$2,000,000.

The Estimated Future Replacement (EFR) Costs Reserve Account approach is typically used for consideration of a maximum or conservative amount to be saved for capital replacement. Use of this approach to determining Reserve Funds is based upon the philosophy that the asset manager may be solely responsible for the costs of replacement of the assets. In addition this approach is appropriate for an asset management strategy that requires high quality condition of all assets. If the EFR approach were used, the annual contribution to the Reserve Account would be near \$271,000 and the Reserve Account value today would be near \$3,000,000.

Although the philosophy the MRHOA has and the amount of money to be held in reserves is entirely the decision of the HOA and the Board, Nelson Engineering recommends that MRHOA begin to move toward generating reserve savings per the EFR approach. This approach to reserves is recommended for the following reasons:

- We understand that the current Reserve Account value is lower than the amounts calculated by both the SD and the EFR methods, therefore, increasing the annual reserve saving per the EFR method will help to quickly grow the Reserve Account balance and reduce the reserve account shortfall.
- Construction Costs historically increase over time and the EFR method is based upon this fact whereas the SD method is not.
- The SD method will certainly lead to a shortfall in Reserves and therefore additional funding for a capital improvement project would be required; there are no guarantees that grant funding, loans or other sources of money will be available.
- Higher initial incremental savings can potentially avoid unplanned assessments if in the future the reserve account proves to be too small in value to cover required capital improvement costs.
- The Homeowners are accustomed to high quality infrastructure. A higher degree of saving will help ensure quality is maintained.

Although the assets are satisfactory for their purpose, some deficiencies were noted and the report lists items particular to the assets that are suggested to be addressed with the Developer. In addition, the Report presents recommendations on the broader subject of managing infrastructure assets. The recommendations are as follows:

## Recommendations for issues involving the Developer (in order of priority)

1. Request the Developer confirm the actual location of the sanitary sewer service to Lot 87 of RU2-3<sup>rd</sup> filing. If the service is within 50 feet of the Domestic Well, the Developer should be required to move the service so it complies with WDEQ rules.

- 2. Request the Developer install an appropriate stand-by power generator at the Balsam Lane Sewer Lift Station promptly. The WDEQ requirement is that a generator be provided if a pump station serves 50 or more homes. Approximately 55 homes are currently served by the pump station. A natural gas generator may be a good option especially if the generator can be connected directly to a natural gas pipeline. Lower Valley Energy should be contacted about this alternative. Also, in the long term, the HOA may look into replacing the diesel powered generator at the Water Booster Station with a natural gas unit. In that way, the fuel tank can be removed as fuel will no longer need to be delivered.
- 3. Require the Developer provide a record of, or provide a permanent utility easement for the waterline in the Agricultural Open Space.
- 4. Request the Developer improve the access to the domestic water wells. Improved access will reduce future well maintenance costs by minimizing landscaping repair expenses.
- 5. Request that the Developer provide an updated and accurate set of as-built plans for the infrastructure.
  - a. Nelson Engineering will provide a marked up set of current As-Builts with areas that appear inaccurate circled.
- 6. Request the Developer provide an Operation and Maintenance Manual for the Balsam Lane Sewer Lift Station.
- 7. Request the Developer provide more complete records of the infrastructure as noted in the Records and Documentation section of this report.
- 8. Request that the Developer provide proof of adjudication for all surface and ground water rights prior to turnover of the assets.
- 9. Request the Developer provide ownership status of the Little Horsethief Canyon Well.

## Recommendations – General (in order of priority)

- 1. The well casing of the abandoned well in the open space east of Melody Ranch Drive should be properly sealed to reduce chances of contamination.
- 2. The HOA should contract with a local electrical controls contractor to obtain the programming for the Programmable Logic Controller (PLC) so that the system can be restored more readily in the event of a PLC crash.
- 3. If sewer odors continue to be noticed around Chickadee Circle (or any other areas) the HOA should hire an engineer to investigate the issue.
- 4. Review the above recommended Operational and Maintenance Programs. The recommended program included herein is not intended to serve as an actual O&M Program but rather as a first step in developing one. It is recommended that the HOA develop a complete O&M Program with the assistance of engineers and the services of properly trained operators. Once prepared and approved by the HOA for implementation, the HOA must budget appropriately to fund the O&M Program.
- 5. The HOA should develop separate maintenance and capital replacement programs with separate revenues and expenditures for each program.

- 6. There are numerous benefits of forming a legal Utility or Service District. The HOA should investigate and review the benefits and disadvantages as it applies to their community.
- 7. Routinely clear branches and new growth at the subdivision road approaches to South Park Loop Road in order to maintain clear site lines as much as possible.
- 8. Foam rubber seals should be installed on the louver blades at the Booster station to reduce heating costs.
- 9. The HOA may wish to consider creation of a GIS based inventory of the assets which could include overview mapping, quantity of features, GPS and survey coordinate position of features, and linked feature information such physical descriptions, information and, permits and photos. Although development of this type of information system is a significant investment, the value provided over time for tracking changes and upgrades and for its operational advantages can be worthwhile. This type of information system can be based upon current as-builts and then further developed over time.

Although this Executive Summary presents the conclusions and recommendations contained in the Final Report, the Final Report contains much important information and discusses the investigations and findings in detail. Therefore, it is important that the Final Report be studied by the Board in its entirety. We are pleased to have been of service to the Melody Ranch Homeowners. As questions arise please contact:

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Respectfully Submitted,

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