



Memorandum

To Ron Salvesen, Hyrum City Administrator

From Darin Hawkes, P.E.

Date Sept. 3, 2015

CC

Subject Mountain View Estates – Preliminary Plat Review

I've reviewed the following for compliance with City requirements and standard engineering practice as well as for boundary closure.

- Mountain View Estates Preliminary Plat prepared by Civil Solutions Group, Inc. dated August 26, 2015.

My comments are as follows and based on the Hyrum City Subdivision Preliminary Plan Checklist and my review.

General

1. Provide a complete construction cost estimate.
2. Provide proposed CC&Rs.
3. Provide proposed method to satisfy the security of performance requirement (i.e. bond, letter of credit, etc.).
4. Service Capacity Analysis
 - Culinary Water – The water system was added to the existing water system and analyzed based on the requirement of the State of Utah – Division of Drinking Water. Three scenarios were modeled with the following results:
 - i. Peak Day Demand plus Fire Flow (1500 gpm for 2 hrs. @ 20 psi minimum)
 1. The current piping system is insufficient to maintain this standard. The main line connection to the existing 14" water line in Elk Mountain must be maintained at a minimum of 12" to meet this pressure requirement. Furthermore, a 2009 memo written during the construction of Elk Mountain established the 1300 East line as the main feed to 660/6200 South taking the place of the master-planned 12" pipeline extension along Hammer Road. As such, the pipeline in 1330 east should be constructed as a 14" line through to 660/6200 South.

- ii. Peak Instantaneous Demand (minimum 30 psi)
 - 1. The system is sufficient to meet this requirement.
 - iii. Peak Day Demand (minimum 40 psi)
 - 1. Homes constructed with at finished floor elevation of 4832.00' or greater may have some issue with low pressure (below 40 psi) and may not meet this requirement. It appears that several lots located along the eastern edge of the development may be affect if they are built on or above existing natural grade.
- Sanitary Sewer
 - i. This area of the city was analyzed as part of the Hyrum South Wastewater Collection System Impact Fee Study. The study identified several critical section of the mainline collection piping along 300 South with the most critical section being between 300 & 400 East. This section at the time of the report had an estimated surplus capacity of approximately 700 ERC based on the existing homes and planned developments at the time. It is estimated that an additional 100-150 homes have been built or are currently planned that contribute flow to this section. This being the case, the addition of 210 ERC within Mountain View Estates brings the remaining surplus capacity within this critical section to approximately 340 - 390 ERC.
 - ii. Gravity piping for phases 1 & 2 along 1330 East for the tie into Elk Mountain should be maintained at 10". This 10" collector should be extended along 1330 East to 660/6200 South.
 - Secondary Irrigation
 - i. The secondary irrigation system has sufficient capacity to serve the area but looped connections through to Hammer and 660/6200 South should be planned.
5. Site access using existing dirt roads (Hammer, 660 South/6200 South) will require dust mitigation measures.

Preliminary Plat (Index, C001)

- 6. Remove the following Signature / Approval blocks:
 - County Surveyor's Certificate
 - County Commissioner's Approval and Acceptance
- 7. Delete "County" from the Planning Commission Chairman Approval and Acceptance block.
- 8. The lands to surrounding this parcel are existing agricultural area. As such, the following note must be added to the Plat: *"This area is subject to the normal everyday sounds, odors, sights,*

equipment, facilities, and all other aspects associated with an agricultural lifestyle. Future residents should also recognize the risks inherent with livestock."

9. Revise General Notes to read: "Setbacks per current city zoning requirements." Remove numeric references to setback sizes.

Preliminary Plat (Vicinity Layout, C101)

10. Written legal description does not match graphical depiction.
11. List, or otherwise note that all streets are to be "Dedicated Public Streets".
12. Typically, subdivisions of 20-30 lots require a second ingress/egress access. Phase 1 appears to contain 28 lots and is acceptable with a single access. However, subsequent phasing will require a second access be constructed.
13. Revise General Notes: See comment #9
14. Hammer Road and 660 South (6200 South) appear to be proposed as ½ width 68' right-of-way streets. A full 20' of asphalt is required.

Preliminary Plat (Site Plan, C102)

Preliminary Plat (Utility Plan, C103)

15. Pipe sizes in 1300 East for the water, sewer and irrigation are 14", 10" and 8", respectively per the Elk Mountain drawings. These sizes should be continued along 1330 East through the subdivision to 660/6200 South.
16. Provide proposed sanitary sewer pipe size, depth and slope.
17. Provide proposed pressure irrigation pipe size.
18. Provided documentation on easement for off-site sanitary sewer.
19. Phase 1 & 2 sewer should be gravity with a connection to existing sewer utilities in the 1300 South turn-about in Elk Mountain. Show the location and size of this utility on the plan.
20. Looped water and irrigation connections along Hammer Road (extension to Anvil Connection) and 660/6200 South will be required during phase 2 and subsequent phases and should be planned.

