# ADDITIONAL INFORMATION ON 3618 ASPENWOOD DRIVE

## INTERIOR FEATURES:

**Heating/Cooling:**

**2 larger units are geothermal groundwater sourced heat pumps (GHP) placed in service in March,2013. They also provide some heating to both water heaters in the main house and to the swimming pool. Air handlers for the 2 GHP units were replaced in spring of 2021.**

**The smaller unit for the game room/unfinished area is a conventional air source heat pump. Conventional air sourced heat pump and air handler for the game room/unfinished area was placed in service June, 2011.**

**Garage apartment has conventional air sourced heat pump, and the unit was replaced under warranty in July, 2010. Condensing unit for garage apartment had compressor replaced under warranty in September, 2017.**

**Wood burning fireplace with outside air source supply for combustion air.**

**Central vacuum throughout main house.**

**Large unfinished area/storage:**

**25'x21'. Second level. Floored and air-conditioned. Partially wired and rough plumbed as an efficiency apartment. One breaker box with spare space is accessible to finish wiring this unfinished area.**

**Small unfinished area/storage:**

**15'x10'. Floored and air-conditioned. Could be finished as part of the efficiency apartment.**

**EXTERIOR FEATURES:**

**Pool and Spa/Patio:**

**Waterfall from spa to pool. Screen enclosure of all. Patio has elevated wooden deck accessible from primary bedroom and den area.**

**Pool House:**

**Contains heater for pool and spa, pumps for pool, pump for GHP pool water side heat exchanger, pool filter, chlorinator, and other pool equipment. Heater is fueled by propane.**

**Roof:**

**Composition shingles.**
**Main house upper roof, pool house, and garage replaced in May,2002.**
**Main house front porch replaced July, 2017.**
**Garage apartment original roof installed in Fall of 2006.**

**UTILITIES:**

**Sewage:**

**The house and garage apartment both use the same conventional septic system, and the waste stream goes into a collection tank where it is stored and dosed by pumping into the aerobic sewer system on timed intervals instead of flowing into a conventional underground drain field by gravity flow. In the event of pump failure, the waste stream can be gravity flowed into the aerobic system until the pump is fixed. The aerobic system additionally treats the water sufficiently to allow for its safe use for irrigation water on the lawn. Under normal circumstances these spray applications occur in the early morning hours. The aerobic system is a Norweco system which avoids the use**

**of a compressor to inject air into the waste stream by the use of an air inducer, which is more reliable.**

**Water:**

**Onsite water well including whole-house prefilter and a salt/resin-based water softener. (Water to lawn sprinklers, trailer pad, and dog pen are not softened.)**

**Security System:**

**Main House: ADT. System is hardwired to magnetic switches to all windows and doors in the main house, and it includes smoke/fire protection with battery back-up. It is monitored by a land phone line. Hard wiring includes one location for a motion/glass breakage detector in the den, but it is not installed.**

**Garage Apartment: Hard-wired for security system covering all windows and doors (first and second floor), including the magnetic switches, except for the vehicle door. Panel/electronics/arming stations/audible alarm for the system are not installed.**

**Foundation:**

**Main house and garage apartment are supported by drilled bell bottom piers founded at 8 ft. below existing grade and have steel reinforced interior and perimeter grade beams. Main 3-car garage is a post tension slab.**

**Propane Tank:**

**500 gallon tank located below ground. Used for heating pool and spa. Has line to walkway by main garage for use with a small generator. There is an electric power transfer switch and plug for small propane powered generator for the garage breaker panel. This powers the water well and aerobic sewer system. There is a second electric power transfer switch plug for the garage apartment breaker panel, but not a propane line to this one.**

**ENERGY EFFICIENT FEATURES:**

**Windows:**

**Main house has double sash, but not double hung windows throughout. (i.e. conventional divided light exterior sash top and bottom, and a second none divided bottom sash are moveable with multiple fixed positions, and removeable inside top and bottom sashes. This creates a thermal efficiency improvement air gap between the sashes, and it makes the space between the sashes cleanable from the inside.)**

**Garage Apartment has double pane, argon filled single hung windows and doors with windows throughout the 1st and 2nd floors of the apartment.**

**Geothermal/Ground water sourced heat pump units (GHP):**

**GHPs for 5 ton and 3 ton units. These are very efficient and have exceptional design life. Both units were installed in March, 2013. The two units reject or reclaim heat ground water to two domestic hot water tanks in the main house and to the swimming pool. The GHP and 1/2 HP circulating water pumps are in the main house attic. No freeze damage issues occurred during the February, 2021, super cold event combined with loss of power to the GHP system. The closed loop of clean water either picks up heat from the water sands via heat transfer through the HDPE pipe wall in the winter heating season, or rejects heat to the water sands in the summer cooling season. The GHP compressor doesn't see the same type of extreme loading as an air sourced heat pump.**

**Radiant Barriers:**

**Radiant barriers are installed in the main house attic and on the underside of the apartment roof underlayment.**