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Jon Tuthill Construction is a full-service construction company.

They have a strong focus in three areas: new construction, remodels and historic renovations. Tuthill began his building career in 1981 and his son, Jonathan, joined the company in 2006 after graduating from college. Tuthill utilizes the principles of building science in the construction process.

Understanding the science behind air, heat and water movement is critical to the construction of a comfortable and healthy building. Moisture, airflow, indoor air quality, composition of building materials and electromagnetic fields all play a part in the final product. Tuthill's goal is to create a home that is beautiful, comfortable, safe and inviting.

**Q:** How did you learn the tools of the trade?

**A:** I am originally from Albuquerque and had a 10-year career as a hospital microbiologist and epidemiologist. Finding myself ready for a career change, I moved here with a friend who was a licensed contractor. For several years he was my business partner and mentor. I have been building in the Durango area now for 32 years.

**Q:** How long have you lived in Durango?

**A:** My parents have owned a cabin at Vallecito since the early '60s, so I had been coming to the area for many years. I think in the back of my mind, I always planned to live here some day. Giving up a solid career in the medical profession was a risky move, but one I'm glad I took. My wife, Gail, and I were married at the courthouse in Durango, and our three children were born here. The community spirit and small size of Durango is a major reason why we remain here. Of course, those sunny skies, great weather, outdoor activities and beautiful views don't hurt.

**Q:** What are some challenges specific to working in the Durango area?

**A:** There are many challenges to building in Durango, and they can be summed up in two words: climate and location. Our climate is one with high diurnal temperature variations, which is a challenge when building homes. People want to be comfortable in their home no matter what the weather is like outside.

It is challenging to provide a high-performance home that accounts for wide temperature swings. Ice dams may sound foreign to outsiders, but Durango residents know about them all too well. We build homes that outperform the norm in our challenging climate. Location is another challenge we face in Durango.

Most Durango residents come here for the remoteness and lack of "city life" that can be a burden to everyday living. That same freedom comes with a downside when building. Material costs are higher, as well as labor costs. This is often a big challenge when clients are used to lower pricing in different states.

**Q:** Why are energy-efficient and healthy building practices important to you?

**A:** With a background in microbiology and epidemiology, I think it was inevitable that I began to look at building and construction materials from a health standpoint. Much has been written about toxic materials being used in homes. Material Safety Data Sheets are required on all manufactured products and list the chemical components in each product. These sheets can be confusing and difficult to understand for many people, but are extremely valuable to someone trained to read them.

Most people would be shocked to learn of the number and types of toxic chemicals incorporated into a new home or remodel. These chemicals not only end up in your home but also pollute our landfills. There is little to no government regulation on chemicals used, and the industry has done a poor job of self-regulation. Our company now pays close attention to things such as VOCs, SVOCs, formaldehyde and other undesirables. We

are avid supporters of the Safe Chemicals Act. (Read more about this at <http://www.saferchemicals.org>.)

JTC has focused heavily on green, healthy and energy-efficient building. We are the only Building Biologists and Healthy Homes Specialists in the area, and one of only three Master Certified Green Professionals in the state of Colorado. The importance of integrating healthier building practices and energy efficiency into the construction process is a main priority for us.

We are seeing an increasing awareness and desire to follow practices in these areas from our clients. It is increasingly being viewed as the standard, and no longer seen as a special request. We feel most green programs fall short due to their focus on the structure and not the integration of the people living within. Many green practices call for tightly sealed structures to increase the building's performance, but this can be detrimental to occupants if proper ventilation is not in place. All those toxic materials used in the construction process can emit fumes and particles that build up within the structure. With nowhere to go in a tightly sealed energy-efficient building, the pollutants remain and can potentially cause health issues.

**Q:** What are some of the health hazards of remodeling older homes in Durango?

**A:** There are many potential health hazards. Lead-based paint was widely used prior to 1978 and is a top health hazard in remodeling. The EPA's 2008 Lead-Based Paint Renovation, Repair and Painting Rule regulates renovations on houses built prior to 1978.

They offer a certification process for contractors and require safe work practices to be followed and verified for the safety of all involved. The possibility for lead-based paint in older homes is especially high. This should be a concern to anybody living in these houses, but especially to those with children as they are at the highest risk for lead poisoning. Following the EPA regulations on older homes makes renovations more complicated, time consuming and costly, but it serves to protect the health of the occupants and workers. Other hazards include radon, mold and asbestos.

**Q:** What is your favorite completed project in the Durango area to date?

**A:** Favorite projects generally translate into favorite clients. The projects I tend to enjoy the most are the projects in which the clients are easy to work with. I have done multiple remodels or new builds for the same great clients several times over – sometimes on the same house. I think my all-time favorite project is a house on County Road 250 where we are just completing our third remodel project.

**Q:** If you could build anything in Durango, what and where would it be?

**A:** I would love to build a home on the river utilizing the best of healthy home construction practices. This home would also be self-sustained and off the grid. In fact, I think I'll start planning this.