

COMET STUDIOS

ENVIRONMENTALLY CONSCIOUS PLANNING, DESIGN & DEVELOPMENT

Construction Costs & Green Building Guidelines 2016

Serving Angel Fire, Eagle Nest, Santa Fe, Taos Region,
Taos Ski Valley & Beyond



Comet Studios offers full comprehensive planning, design & real estate development services for residential & commercial clients. Our projects vary from:

- Single Family Homes
- Cabins & Log Homes
- Custom Estates
- Condominiums & Live / Work Lofts
- New Urbanism Planning
- Land Analysis & Acquisition
- Real Estate Planning & Development
- Environmentally Conscious Renewable Energy Solutions

Construction costs always seem to be going up regardless of the economic times. Putting together a construction budget is more important now than ever. The following information can help you decide where to cut costs or where you can splurge, depending on your needs & budget.

GENERAL COSTS

Taos Ski Valley tends to run higher, regardless of home type, due to location, elevation & weather conditions.

- Economy home: \$150-\$190 p.s.f.
- Low-end custom home: \$200-\$225 p.s.f.
- Mid-range custom home: \$225-\$275 p.s.f.
- High-end custom home: \$300 p.s.f. and up
- 2x6 garage, insulated, slab, stucco, sheetrock: \$85-\$120 p.s.f.
- Typical portal w. slab floor: \$100 p.s.f.
- Typical carport w. slab floor: \$100 p.s.f.
- Typical kitchen: \$300-\$400 p.s.f.
- Typical bath: \$300-\$400 p.s.f.
- Typical LR or BR: \$175-\$225 p.s.f.
- Permits per \$1,000: \$3.00-\$5.00
- Workers Comp insurance: 15-20% of payroll
- Contractor profit & overhead: typically 15%, can be 10% on 10%
- Gross Receipts tax: town 8.1875% county 7.125%
- Annual price increases: historically 5-7%, recently lower



Architecture & engineering services, renewable energy solutions, landscaping, permits & other fees are additional as needed.

2016 Estimated Construction Cost Guidelines

Utility Package (builder's cost):	\$20,000
2,000 s.f. Home @ \$200/sf (builder's cost):	\$400,000
300 s.f. attached Portals @ \$115/sf (builder's cost):	\$34,500
500 s.f. Garage @ \$100/sf (builder's cost):	\$50,000
Subtotal:	\$504,500
15% Profit & Overhead:	\$75,675
8% Gross receipts tax:	\$46,414
Estimated total:	\$626,589



SITE DEVELOPMENT

- Waterwell w. PVC casing \$28-\$34 p.f.
- add for steel casing \$5-7 p.f.
- typical pump/wire/control package: \$5,000-\$7,000
- 300' waterwell complete: \$15,000-\$20,000
- 750 conc. tank for well housing: \$1,250
- 1,000 gal. septic system: \$4,000-\$6,000
- 1,500 gal. septic system: \$5,000-\$7,500
- 3" sewer line with trench: \$6.50-\$8.00 p.l.f.
- 4" sewer line with trench: \$7.50-\$9.00 p.l.f.
- 1" natural gas line with trench: \$6.00 p.l.f.
- 1" LP gas line with trench: \$6.00 p.l.f.
- 1" wirsbo water line with trench: \$8.00 p.l.f.

- 1" Sch. 40 PVC w. trench: \$7.50 p.l.f.
- Primary underground electric line*: \$3.95 p.l.f.
- Electrical transformer: varies
- 100amp meter base with disconnect: \$800-\$1,200
- 200amp meter base with disconnect: \$1,200-\$1,600
- Secondary underground electric cable*: \$3.50-\$5.00 p.l.f.
- 14' wide roadway (graded, 6" base course): \$14-\$16 p.l.f.
- 18' x 12" culvert: \$400-\$500
- 4' deep utility trench: \$4.00-\$7.00 p.l.f.
- Backhoe/bobcat per hour: \$80-\$100
- Underground telephone line: \$0-\$2.00 p.l.f.

UNIT COSTS

- 2'x 2' footing trench: \$3.50-\$6.50 p.l.f.
- 10"x 24" concrete footings: \$14-\$18 p.l.f.

- 8" CMU stem wall, three courses: \$22-\$25 p.l.f.
- Concrete slab including subgrade: \$10-\$15 p.s.f.
- 1" insulation beneath slab: \$1.00-\$1.50 p.s.f.
- 2" insulation beneath slab: \$2.00-\$3.00 p.s.f.
- Complete typ. foundations through slab: \$24-\$28 p.s.f.
- Tinted concrete: add \$1.00 p.s.f.
- Acid stained concrete: add \$5.00-\$8.00 p.s.f.
- 11-1/4" joisted TJI subfloor w. 3/4" ply: \$8.00-\$10.00 p.s.f..
- Wall systems: see #6 below
- 2x4 partitions: \$12-\$14 p.l.f.
- 2x6 partitions: \$14-\$18 p.l.f.
- Drywall 1/2" taped/textured: \$2.00-\$2.50 p.s.f.

Comet Studios Offers Renewable Energy Solutions

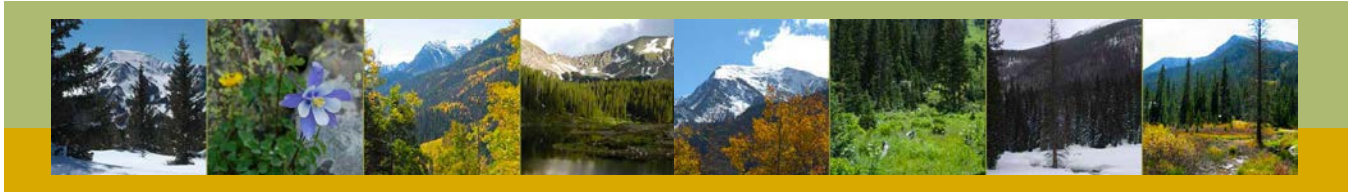
- Windows*: 3248 clad casement, lo-e: \$400-\$450 economy 3248 clad casement: \$200
- Skylights: 22"x46" and 46"x46"*: \$140/\$180
- 2246 operable skylight*: \$350
- 2246 Velux roof window*: \$775
- 10" Solatube skylight*: \$325

- 8" vigas*: \$6.00 p.l.f.
- 10" vigas*: \$6.50 p.l.f.
- 12" vigas*: \$7.50 p.l.f.
- 6x8 roughcut beams*: \$4.00 p.l.f.
- 8x8 roughcut beams*: \$6.00 p.l.f.
- Ceilings p.s.f.: 10" viga/herringbone aspen latilla: \$15-\$18 10" viga/coved plaster: \$16-\$20 10" viga/herringbone



roughcut: \$12-\$14
10" viga/herringbone T&G:
\$11-\$14 deduct for 6x8 beams: \$1.00

- Roof framing: 2x8 sys. with 3/8" CDX: \$9-\$11 p.s.f.
- Engineered trusses*: \$7-\$9 p.l.f.



PLUMBING & HEATING

- 30 gal. pressure tank: \$400-\$550*
- Water softener: \$1,200-\$3,000*
- Backwashing sediment filter: \$500-800*
- Cartridge sediment filter: \$100-\$250*
- Whole house activated carbon filter \$2,000-\$3,000*
- Reverse osmosis system: \$500-\$1,500*
- Radiant heat 12” centers. tubing only: \$2.00 p.s.f.
- Radiant heat 6” centers, tubing only: \$3.00 p.s.f.
- Hot water baseboard p.l.f: \$12-\$15
- Controls/valves per heating zone: \$600-\$700
- Boiler for typical 2,000sf house: \$4,000-\$6,000
- 40 gal. hi-recovery hot water heater: \$800-\$1,000*
- 40 gal. “Sidekick” hot water storage tank: \$1,300-\$1,600*
- Swamp cooler: \$2,000-\$2,500
- Air conditioning: \$18-\$22 p.s.f.
- Recirc pump and piping for hot water: \$600-\$800
- 120 BTU on-demand water heater: \$1,000-\$1,500*
- Floor drain: \$300-\$400
- Rough-in per fixture: \$750-\$1,000
- Installation per fixture: \$350-\$500
- Ductwork per bathroom fan: \$170-\$210
- Ductwork per range hood: \$225-\$325
- Frost-free hose faucet: \$100-\$150

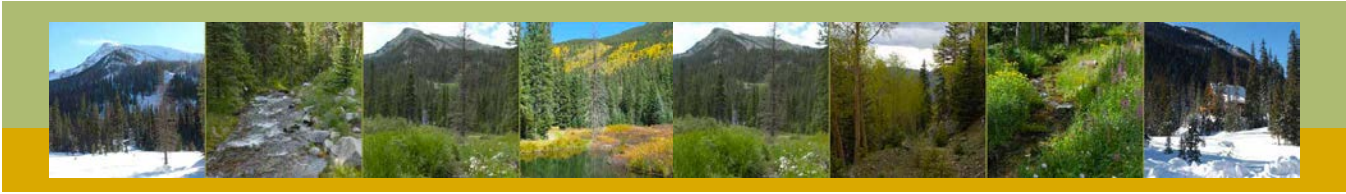
- Frost-free standpipe faucet: \$200-\$300
- Typical cast iron bathtub: \$600-\$800*
- Typical tub/shower valve: \$175-\$350*
- Typical shower valve: \$250-\$500*
- Typical lav faucet: \$150-\$250*
- Typical toilet: \$400-\$600*
- Typical 2-basin stainless kitchen sink: \$250-\$300
- Typical kitchen faucet with sprayer*: \$250-\$400
- Typical vitreous lavatory*: \$125-\$200



ELECTRICAL WIRING

- 100 Amp breaker panel: \$600-\$800
- 200 Amp breaker panel: \$800-\$1,200
- Rough-in and dacora trim per switch or plug: \$80-\$110
- Rough-in per light fixture or 110.v appliance: \$80-\$110
- 220v 50’ to oven or hot tub: \$600-\$800
- 220v 50’ to dryer: \$300-\$400
- Typical bathroom fan less ductwork: \$90-\$110
- Typical bathroom fan/light/heater less ductwork: \$300-\$450

- Floor devices—electrical or telephone: \$250-\$300
- Central surge protection: \$400-\$600
- Rough-in per doorbell and chime: \$250-\$350
- Rough-in and trim per audio speaker: \$150-\$200
- Rough-in and trim per telephone jack: \$80-\$100
- Rough-in and trim per TV jack: \$80-\$100
- Rough-in and trim per Cat-5 outlet: \$95-\$115
- Typical dimmer installed: \$100-\$135
- Typical recessed light installed: \$100-\$135
- Typical LV recessed light installed: \$175-\$250
- Low voltage transformer installed: \$250-\$325
- Surfacemount light fixture installation \$65-\$90*
- 18” closet fluorescent: \$35* • Ceiling fixtures, basic: \$20-\$75*
- Wall sconce, ceramic or copper: \$50-\$175*
- Monopoints: \$40-\$75*
- 8’ track: \$60-\$80 • Track light fixtures: \$50-\$150*
- Lo-voltage track fixtures w. transformer: \$150-\$250*
- Exterior floods: \$40-\$50*
- Bathroom bar lights: \$50-\$150*
- Bathroom valances, copper: \$100-\$250*
- Doorbell and chime: \$40-\$125*
- Ceiling fan: \$150-\$300*



COMPARATIVE COSTS:

Wall systems
(for 8' high plaster-prepped wall from slab to and including bond beam: R-value adjusted to reflect actual performance)

- 14" rastra \$130-\$135 p.l.f. (R=40)
- 12" rastra \$125-\$130 p.l.f. (R=36)
- 10" rastra \$120-\$125 p.l.f. (R=32)
- 14" adobe with 2" insulation \$100-\$110 p.l.f. (R=22)
- 10" adobe with 2" insulation \$90-\$100 p.l.f. (R=19)
- 14" pumice-crete \$95-\$105 p.l.f. (R=24-28)
- 18" strawbale with timberframe structure \$55-\$60 p.l.f. (R=46-48)
- 2x6 frame, drywall int., plywood ext. \$60-\$70 p.l.f. (R=19)
- 2x8 frame, drywall int. plywood ext. \$65-\$80 p.l.f. (R=24)
- 2x10 frame, drywall int. plywood ext. \$70-\$80 p.l.f. (R=30)
- LCD TV: \$700* and up
- Home theater components: \$250* (basic) \$1,000* and up (quality)
- Whole house state of the art audio-video: \$20,000 and up
- Fire suppression system: \$15-\$20 p.s.f.
- Central vacuum system: \$3,500-\$4,000
- 4" topsoil: \$.75 p.s.f.
- Shredded bark topping installed: \$.56 p.s.f.
- typical 4-zone drip irrigation timer/filter/valves from underground supply: \$1,500-\$2,000
- Drip irrigation per plant: \$3-\$6
- Water features: \$1,500 and up
- 6'-8' latilla fence: \$20-\$30 p.l.f.

SPECIALTY SYSTEMS

- Typical security system - rough-in only: \$350-\$875
- Typical security system - complete: \$2,000-\$3,000
- Security monitoring: \$30/month
- Satellite TV- usually free w. subscription • Satellite internet: \$100 to install plus \$50-\$70/mo.
- Whole house cellular interface: \$500-\$1,000 Smart thermostats: \$300-\$500* Data panel for low-voltage interface: \$300-\$500*
- "Structured" wiring for audio/video/telecom: \$275-\$375/drop

LANDSCAPING

(installed including soil amendments)

- 1-gal. plant: \$11-\$15
- 5-gal. plant: \$48-\$55
- 15-gal. plant: \$150-\$215
- Bluegrass sod w. 4" topsoil: \$4-\$6 p.s.f.
- Pinon per foot: \$25-\$30*
- Pine or spruce per foot: \$25-\$30*
- Fruit tree, 5 gal.: \$50-\$60
- Fruit tree, 15 gal.: \$150-\$200
- Shade tree, 15 gal.: \$200-\$250
- Weed barrier installed: \$.35 p.s.f.
- 6' masonry wall: \$50-\$200 p.l.f.
- Mossrock walls per s.f. of face: \$25-\$30
- Boulders: \$100-\$600
- Flagstone on sand: \$15-\$20 p.s.f.
- Flagstone on concrete: \$20-\$25 p.s.f.
- Brick on sand: \$10-\$12 p.s.f.
- Low voltage lighting per fixture: \$20-\$120



Confused about where to begin, what to do & how to get there? We can work with you in collaboration at every step of the way!



Wherever you are in your development process, Comet Studios can help you create the best possible solutions. Our insight and experience will help you to achieve your goals and a return on your investment by simplifying complex planning issues.



Regardless of project size, we can offer flexible, cost effective and efficient support, custom tailored to each individual project's requirements. Comet Studios offers economical, efficient and personalized attention to all phases of site planning, architectural design, construction documentation & renewable energy solutions.

RELATED COSTS

- Appraisal per plans/specs: \$500-\$750
- Appraisal of house: \$500-\$750
- Certified home inspection: \$275-\$500
- Builder's Risk insurance per \$100,000: \$20-\$42
- Water test, local: \$75-\$100
- Water test, National Testing Laboratories, \$325
- Realtors' commission, improved property: 6%
- Mortgage: may qualify for loans up to 80% of value of property. Costs and rates vary.
- Survey, typ. house on 2 acre: \$1,000-\$1,500
- Improvement location report: \$400
- ½ acre topographical survey: \$1,000-\$1,200

GREEN BUILDING & RENEWABLE ENERGY SYSTEMS

A. Electricity

- Photo-voltaic system w. batteries for typical 2,000 sf house: \$18,000-\$28,000*
- 12KW automatic back-up generator: \$3,000-5,000*
- Gridtie PV system for 2,000 sf house: \$10,000-\$20,000*
- 500 watt wind turbine: \$700 and up*
- Compact fluorescent light bulbs: \$10-\$30*
- Solar-Ready Rough-in: \$3000

B. Hot Water

- 120K BTU tankless water heater: \$1,000-\$1,500*
- 80 gallon hot water storage tank w. heat exchanger: \$1,200-\$1,600*
- 4x8 solar hot water collector: \$1,000-\$1,500*
- Basic 80 gallon active solar hot water system: \$5,000-\$7,000 installed

- State-of-the-art active solar heat and hot water system for 2,000sf house: (seven panels, controls, tank & heat exchanger, radiant tubing on 6" centers) \$35,000-\$45,000 installed less tax credits.

- 60 gallon passive solar water heater in clerestory: \$1,500-\$3,000

C. Water Systems

- Underground plastic cistern \$1.50-\$2.00 per gallon installed
- 30 gallon pressure tank: \$300-\$500*
- Solar waterwell pump packages: \$3,500-\$7,500*
- Whole house filtration for roof catchment supply: \$1,250-\$1,750

D. Wastewater and Solid Waste

- Complete graywater system (per NM code w. dedicated septic tank, split black/graywater lines, aeration/circulation, storage tank): \$15,000-\$25,000
- Plastic water tank only: \$1.50-\$1.75 gal.
- Cost of split black/graywater lines only: \$2,500-\$4,500
- Interior wetlands planter for graywater treatment: \$4,000-\$6,000

- Composting toilet: \$1,200-\$2,500*

E. Energy-efficient Appliances & Add-ons

- clothesline: \$5.00 • Conserve energy-efficient refrigerator: \$1,000-\$1,400*
- Sunfrost 19 c.f.energy-efficient refrigerator: \$3,500*
- Staber energy-efficient clothes washer: \$1,400-\$2,000*
- Premier spark ignition ranges: \$500-\$1,500*
- LP refrigerator \$1,200-\$1,600*
- insulating window coverings: \$15 p.s.f and up
- hot water tank insulating jacket: \$25-\$40*
- weatherstripping, typical exterior door: \$7-\$15



HERMES INSTRUCTIONS TO HIS ARCHITECT

It should be a house of wind.

It should have one door for each degree of a circle.

It should have more windows than walls, but not all of them should look on lovely views.

One should look on Olympus, another on Hades, one on the desert, another on a forest path, and at least one landscape never seen nor mapped, not even imagined.

It should be a house wherein to rest is to voyage.

It should be lit by sunrise in the kitchen, sunset in the living room and moonlight in the study.

The bedroom should be a deep mystery...

...Now, there's the plans. Build it.

- An excerpt from a Poem written by Peter Herring

F. General Construction / Healthy Home

- Typical 4'w. x 8' h. section of trombe wall (6" CMU plastered two sides; 4676 PDR glazing): \$200-\$225 p.l.f.
- Two-coat adobe interior plaster system, no wire coat: \$25-\$35 p.s.y.
- Micaceous clay slip coat: \$10-\$12 p.s.y.
- Adobe floor: \$10-\$12 p.s.f.
- Radon abatement system: \$1,500-\$2,000 for typical 2,000sf house.
- Reverse osmosis water filter: \$400-\$1,800*
- Whole house activated carbon water filter: \$2,000-\$3,000*
- Heat Recovery Ventilation (HRV) system for supertight homes or people with environmental sensitivities: \$7,000-\$10,000

ESTIMATED REMODELING COSTS:

Demolition is approximately 10% of improvement costs and is included in the following:

- Typical whole house remodel: \$75-\$150 p.s.f.
- Radical whole house remodel: \$150-\$225 p.s.f.
- Complete bathroom remodel: \$200-\$250 p.s.f.
- Complete kitchen remodel: \$200-250/p.s.f.
- Typical bedroom/living room remodel: \$50-\$100 p.s.f.

Green Remodeling Improvements

Top-rated For Cost-effectiveness & Performance:

Insulation:

- Add 2" of foam roofing over the existing roof (adding R-11): \$6 p.s.f.
- Weather stripping replacement \$50 per window or door

Heating:

- Complete active solar system for radiant heat and domestic hot water: \$25,000-\$35,000 for a 2,000 s.f. house
- Passive 60 gallon hot water pre-heater in clerestory: \$5,000-\$7,000

Daylighting:

- 10" Solatube \$400*
- 14" Solatube \$500*
- Solar greenhouse (site-built; fully glazed south wall, partially glazed roof): basic working shell: \$125-\$150 p.s.f.

Window Coverings:

- Industry-standard Hunter-Douglas duettes; \$25-\$40 p.s.f.

Water Quality:

- Whole-house activated carbon filter \$2,000-\$3,000* • point-of-delivery reverse osmosis: \$500-\$750*

Natural Cooling:

- Portals over east/west windows \$95-\$115 p.s.f.

KML
 Kachina Mountain Lodge - a Wilderness Eco-Home Community
 Mountain Home Site Investment Opportunity
 Private & Peaceful - Phase One Luxury Wilderness Home Sites are now available in Taos Ski Valley

Eco-Community Features:

- 100% solar power (active solar) with solar panels on the roof and solar water heating system
- High Performance Air Flow & Pressure Balancing and Filtration
- Low-VOC Paints, Stains, Sealers, Adhesives, and Finishes
- Green Living Area with Rain Water Harvesting System
- Custom Built, separate Entry, vestibule and Porch with Deck
- Energy Efficient Windows with Low-E Coatings
- Passive Solar Heating and Cooling System
- Energy Star Appliances
- High Quality Construction Materials
- High Quality Workmanship

Alpine Wilderness Home Features:

- Solid 2x8 Alpine Style Elm Home Design, Custom Tailored to accommodate your lifestyle needs & needs
- High Performance Air Flow & Pressure Balancing and Filtration
- Low-VOC Paints, Stains, Sealers, Adhesives, and Finishes
- Green Living Area with Rain Water Harvesting System
- Custom Built, separate Entry, vestibule and Porch with Deck
- Energy Efficient Windows with Low-E Coatings
- Passive Solar Heating and Cooling System
- Energy Star Appliances
- High Quality Construction Materials
- High Quality Workmanship

Community Investment Opportunity:

Participating in the development of this community offers a unique opportunity to invest in a high-quality, sustainable, and peaceful home. The investment includes the purchase of a lot and the construction of a home. The investment also includes the purchase of a share in the community, which will provide you with a voice in the development of the community. For more information, visit www.KachinaMountainLodge.com and www.GaiaQuest.com or call 505-231-4454



We are visionaries, grounded in creating viable solutions: dream makers, creating architecture as an art form and a backdrop for our lives.

"A necessary component of a sustainable future will be a sustainable built environment. We need a revolution in how we think about, design, construct, and operate buildings and communities.

We need buildings that take less from the earth and give more to the people.

Imagine homes, offices, and communities that are net producers of energy, food, clean water, and air; that support healthy and biological communities; and that achieve a natural beauty through their harmony with the earth."

- The Sustainability Project

Our Studio

Comet Studios is a dynamic consortium of creative professionals who share passion for the natural environment, sustainability & architectural excellence. With over twenty-five years of architectural planning & design experience, Comet Studios consortium combines the principles of New Urbanism with environmentally conscious planning and design, creating solutions that promote sustainable communities.

Our Creative Process

Successful planning & design integrates artistic vision, environmental sensitivity, community values and viable economics to create memorable communities that stand the test of time.

At the start of every project we help define the scope, budget, timeline, site specifications & constraints. In our design process we simplify the complex, clarify & refine ideas, identify needs & desires.

Our Philosophy

The Studios philosophy incorporates environmentally conscious green building design with innovative, cost effective, & renewable energy efficient solutions, in context with the surrounding community & the natural environment.

As professionals dedicated to providing viable solutions, we consider ourselves dream makers & visionaries, creating architecture & communities as an art form & backdrop for our lives.

"Considering ourselves dream makers, we strive to help our clients manifest their dreams & lifestyle goals. We believe that the dreams which accompany all human actions, should be nurtured by the places in which people live and work..." - John Edmund Halley
catalyst, permatect, planner, designer, visionary, dream maker, cultural creative, architectural sculptor, real estate developer, and environmentally conscious!

Call today to meet with John to discuss your project!