

ALCYN House

Trinity, NC

Foyer - 23'8" X 22' 4"

- Italian Marble Floor
- Crystal Chandelier
- Two Story Double Staircase
- Hand Painted Walls
- Steps Down into Living Room, Dining Room and Ballroom

Living Room – 32'3" X 23'8"

- Formal living area
- Chandelier
- Fireplace with Decorative Mantle and Gas Logs
- Quaint Garden Room across hall has matching openings with Radius transoms and leads to veranda

Sunroom – 24' X 12'6"

- Ceramic Tile Floor
- Doors to Patio

Two-Story Ballroom – 32'3" X 23'9"

- Red Oak Parquet Floor newly refinished
- Four Interior Columns
- Twenty-one foot high ceiling
- Chandelier
- Palladium Window with Balcony overhang
- Fireplace with Gas Logs

Dining Room – 23'9" X 20'

- Marble Floor
- Chair Rail
- Fireplace with Gas Logs

Kitchen – 23'5" X 29'3"

- Large U-shaped Island with Tile Counter Tops
- Wine Rack
- Desk Area
- 2 Dishwashers
- Jenn-Air-Flat Surface Range/Oven

- Tile Counters
- Double Oven (3 total)
- Disposal and Trash Compactor
- Lots of Cabinet Storage
- Copper Lighting
- Columns
- Red Oak Hardwood Floors

Breakfast Area – Area size included in Kitchen sq. ft.

- Newly Redecorated
- Fireplace with Gas Logs with a raised hearth and Wood Box plus a Brass Warming Oven
- Three sets of French Doors with Radius Transoms leading to the 82' Veranda with Fountain
- Red Oak Hardwood Floor

Butler Pantry – 8'4" X 7'6"

- Lots of Cabinets
- Tile Counter Top
- Hardwood Floor

Laundry – 12'6" X 11'

- Connections for 2 Washer & Dryers
- Sink
- Tile Floor

Game Room – 24' X 17'5"

- Gas Fireplace (portable)
- Carpeted Floor

This home has an unfinished basement with over 5,000 square feet. The basement has ground level entry and double doors.

Upper Level

Library – 22'4" X 14'

- Overlooks Foyer and Ballroom
- Book Cases
- Carpeted Floor

Master Bedroom – 20' X 19'8"

- Fireplace with Decorative Mantle
- Double French Doors with Radius Transoms lead to 72 foot upper level, covered porch
- Huge Walk-In Closet (49'5" X 8')
- Sitting Room (19'3" X 16'5") with skylight
- Bath includes sunken Tub – Separate Shower – 2 sinks
2 water closets – heat lamp – bidet

Bedroom – 23'3" X 18'6"

- Fireplace (Gas Hookup)
- Carpeted Floor

Sitting Room – 13'1" X 16'5"

- Doors to Balcony
- Carpeted Floor

Bedroom – 19'9" X 17'3"

- Fireplace
- French Doors to Balcony
- Carpeted Floor

Bedroom – 24'2" X 12'5"

- Carpeted Floor

There are 5 full baths on the upper level

In-Law Suite/Office Wing

- This area is presently being used as an office complex but each office has potential of being a bedroom:
- Living Room/Reception Area – 24' X 15'
- Bedroom/Office – 13' X 10'
- Bedroom/Office – 13' X 10'
- Exercise Room/Office – 23'7" X 12'
- Kitchen area is plumbed
- Full bath
- Separate side, rear and basement entry

- Separate parking area

Apartment Over Garage

- Plumbed for Kitchen – 7' X 9'
- Living Room – 17'6" X 9'
- Bedroom – 12'5" X 9'
- Full Bath
- Kitchen area and Full Bath have Hardwood Floors

Some other outstanding features about this property are as follows:
Easy access to I-85. Location wise, it is just 15 minutes to the center of High Point and also convenient to Greensboro, Thomasville, Asheboro and Winston-Salem. The taxes in Randolph County are comparatively low. The home is very energy efficient. The utilities are buried on this property as well as a 500 gallon propane tank. An "In Ground" invisible fence contains rear yard for pet control. There is 12-telephone line service from street to house.

Mechanical Systems in the Alcyn House

Systems Described

- Heat and Air Conditioning
- House Insulation
- Plumbing
- Septic
- Electrical
- Alarm
- Telephone and Television
- Cable
- Fireplaces

Heating and Air

The heating and cooling are handled by a five heat pump system.

One unit handles the office wing and the upstairs closet above the office. A two-stage heat, one-stage cooling, programmable thermostat that is located in the office space on the first floor, controls this unit.

Two more units are coupled to supply the first floor, and the last two are coupled to supply the upper floor (with the exception of the closet over the office). The coupled arrangement allows the heating and cooling to call on a single unit for heat/cooling when demand is light, thereby improving efficiency. If demand increased, the second unit is activated for additional capacity. In heating mode, the third stage (electric strip heat inside the main air handler) will be activated, but only if the outside air temperature falls below 17 degrees Fahrenheit. This is done to prevent the use of the least efficient heat when the temperature is mild, but the user has changed the requested temperature by more than three degrees from the current level which is the primary trigger for multiple stages. The two thermostats, one located on the second floor, and one on the main floor control the compressors and air handlers. They are three-stage heat, and two-stage cooling, programmable with seven-day cycles, weekday, and weekend selections, and four main cycles for each day (wake, day, leave, and evening). The times setbacks, and startup are all user programmable.

Inside, the air handlers are set to start simultaneously, even if only one compressor is activated. This prevents an "air short circuit" in the handlers themselves. The air system is designed for high volume (large pipe), low velocity airflow to minimize drafts, and maintain consistent temperatures throughout. The air delivery system uses splitters (rather than dampers) to control the air distribution, to minimize pressure loss over the controls. All ducts are rigid pipe, up to the final distribution point, whereupon flexible duct with wire skeletons (semi-rigid) is used to transition to the room vents. Once again, this minimizes loss of flow due to turbulence. First floor delivery is from below, and second floor delivery is from above, with the exception of the upstairs closet, which is supplied from below, since it is tied into the office air handler.

All supply vents are vane closure, to allow for easy control. There is a single return for each of the three zones, and the main house return uses a specialized micro-filter to eliminate most air-borne particulate matter.

House Insulation and Windows

The house insulation and wall construction were done to specifications designed by Guaranteed Efficient Systems, which uses a state of the art design concept to minimize air infiltration (while keeping fresh-air changes at a very healthy level), stop airflow in walls (chimney effect), and to seal all wall systems through the use of infrared-reflective film on the inside wall. This technology was developed at MIT in the Crystal House, and also suggested the

use of low-emissive glass (low-e) in the main palladium window in the Ballroom. All wall joints, corners, sill plates, and window and door openings were taped, caulked, and covered with this film. This approach resulted in the house being awarded the Best Energy Efficient rate (lowest cost) by Duke Power even though more than 12% of the exterior structure is window glass. Duke Power executives from all across North Carolina have toured the house to study its design and the insulation system design features it contains.

All doors and windows have glass with double thermal pane construction and are at least 1-5/8" thick, and the openings are weather-stripped.

All walls between rooms are fully stuffed with insulation to minimize sound transmission and all tubs and showers are insulated to minimize heat loss.

Plumbing

The house is entirely plumbed with type "L" copper, and has a two-zone aqua-stat controlled circulating hot water supply. This provides instant hot water at all fixtures. Hot water is supplied by two eighty-gallon electric heater (one for each zone), with quick recovery heaters.

The main supply line is a two-inch main, hooked into a 3/4" saddle supply hooked to the Davidson Water Company supply at the street (no well). The 3/4" supply tap was selected to minimize the minimum monthly water charge (which is based on the tap size). The two-inch supply line was installed in the event that a need for a large supply would be required at some future point. The two-inch main transitions to a one-inch supply, upon entry into the basement.

There are several shutoffs located strategically among the various supply areas, so that in the event of a plumbing problem, a small section of the house can be isolated, while the remainder of the house can remain functional.

Septic

There are two septic tanks with a 1,000 gallon capacity each. 1,800 feet of drip line with a bull nose valve allowing the user to switch from one line to the other.

Electrical

The main service to the house consists of an 800 amp main panel, supplied by a transformer and underground supply mains. The transformer is located on the property near the rear driveway.

From the main panel, there are five sub-delivery panels located around the house for local control of all circuitry. Oversize number 12 copper wire is used for all panel-to-fixture delivery.

Control of most lighting fixtures is through a low-voltage relay control system. This allows control from multiple points without complicated high voltage wiring and high voltage switches. Most room lighting on the main floor is also dimmer-controlled. The controls can be extended to additional control points easily. Pre-wiring for a master control point is located on the first floor, and a second master control point in the master bedroom.

Alarm

A hardwired alarm system covers the entire house, with sensors located at all windows and doors, including the upper floor. A hardwired fire sensor system is integrated into the alarm system, with sensors located at all strategic points within the house. The system uses an auto-dialer for penetration alert and fire alarm, which is sent to a full-time monitoring company.

Telephone and Television

The house is wired with a 12-line entry cable, which currently feeds both single line devices (fax, answering machine) and a key-switch system, which is pre-wired throughout the house. All local room runs return to the signals closet, and the office feeds to a panel below the office area.

Cable

The house is also pre-wired for cable television delivery to all rooms. Cable is currently installed for Internet service and basic cable service. A satellite system is installed and connected to the master distribution system.

Fireplaces

There are eight (8) fireplaces in the home. Seven (7) of them are masonry and there is one free standing. The masonry fireplaces have fresh-air sup-

ply vents routed into their combustion chambers to minimize use of indoor air. The four (4) first masonry units were converted to use of gas logs, fed by an underground 500 gallon propane tank. An additional unit is installed in the billiard room. The bedroom fireplaces remain wood burning.