

# ARCHITECTURE

EHLINGER & ASSOCIATES

FOURTH QUARTER 1999



## SEASONS GREETINGS

The staff of Ehlinger & Associates extends Seasons Greetings to all of our friends who receive the newsletter. Merry Christmas, Happy Hanukkah, and Happy New Year.

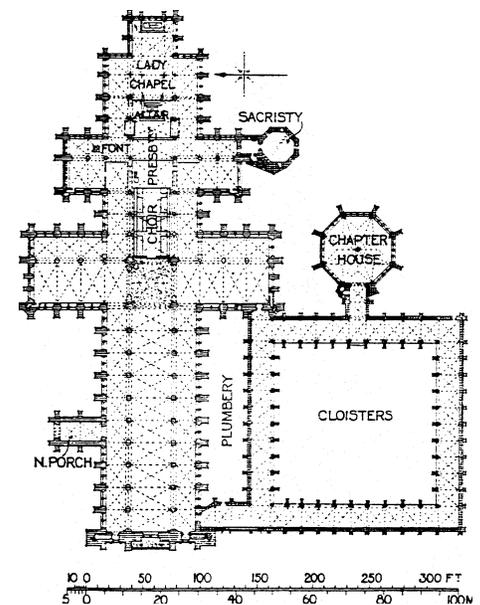
is a large park-like setting surrounding the cathedral that is walled off from the town; and it has the largest (404' tall) and most magnificent crossing tower and spire.

Salisbury is about 70 miles west southwest of London, and has been occupied since Roman times. Originally the town was called Old Sarum and was built as a fortified type of town by the Romans upon a hill that overlooked the entire valley of the Avon River. The name was changed, and the town was moved about two miles closer to the river. This occurred when lightning struck and destroyed the second cathedral built by the Normans on the top of the hill of Old Sarum. There was little reason to continue the fortified town as the countryside was secure and the winds were bitterly cold at the top of the hill. Also, it was more convenient to be closer to a source of water. So the town was moved slightly.

Salisbury was built in its entirety between 1220 and 1265, except for the spire over the main crossing tower which was added in the 16th century. It remarkably matches the earlier Early English Gothic style and ambiance of the main composition, however. The silver-gray limestone to construct the walls was quarried at Chilmark, about 12 miles away. The columns are of Purbeck marble.

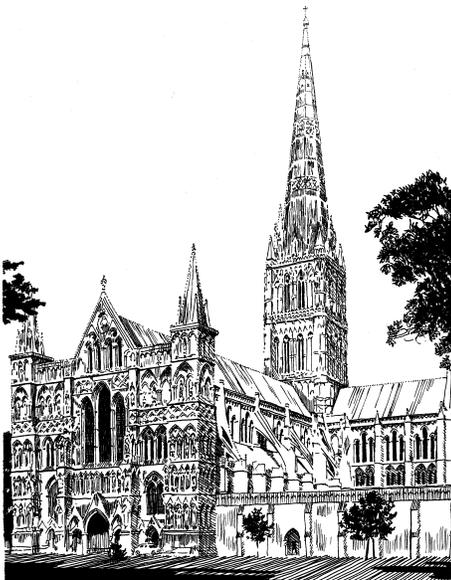
The close with its large space about the entire complex separates it from the world outside and affords wonderful views of every facade, but especially of the west and north. There was at one time a detached bell tower that was northwest of the west front. There were other subsidiary chapels that were attached to the choir, a delicate north porch front, and a Chapter House. Over the years Salisbury has been "restored" numerous times, sometimes to its detriment as many of these features were demolished along with some important interior features, such as the choir screen. Actually, the replacement choir screen was itself replaced in Victorian times with a wrought iron screen that is very light and airy and enhances the view of the entire nave.

The plan of Salisbury Cathedral is typically English with a squared off east end, unlike the rounded apsidal chevets of the French cathedrals and contains many monastic elements such as the Cloister and Chapter House. The plan of the nave is of an archiepiscopal cross where there are two horizontal bars or transepts. The secondary transept is referred to as the east transept. The tower is over the main transept.



The tower is of such weight and creates so much thrust (horizontal force) that there have been structural problems. The corner supports have been altered to accommodate the extra weight, iron banding (visible in the sketch) and chains were added to relieve the thrust. Still there is significant differential settlement and distortion of the supports at the tower that remains to this day.

Sir Christopher Wren was so impressed with the iron work when he was commissioned to survey the building in 1669 (though he hated iron in buildings), that he in turn added additional chains recommending that they be fabricated by smiths that did iron work (anchors and chains) for ships as they were the most competent iron workers.



## SALISBURY CATHEDRAL

This issue's limited edition signed print by Ladd P. Ehlinger is of the west front of Salisbury Cathedral. Salisbury is unique in many ways: it was completed in a short period of time, all in the same style; it is one of a handful of cathedrals that has a close (rhymes with dose), which



## STUDENT SERVICES & CLASSROOM BUILDING

The New Student Services & Classroom Building for Delgado community College was recently Substantially Complete. This is the flagship building for Delgado's Westbank Campus in Algiers. The building contains all of the administrative & faculty

offices, 3 tiered classrooms that function as a theater in the round when opened to each other seating 100, 12 classrooms, and a bookstore. The structure is concrete waffle slab, standing seam metal roof. The total cost was \$4,138,000.



**FRANTZ ELEMENTARY SCHOOL**

E&A has just finished its services on the Frantz Elementary School in New Orleans, LA. This school was originally designed in the 30's by Walter Christy, the in-house School Board Architect at that time, in the Art Deco style. The building was a mixture of reinforced concrete, exterior bearing brick masonry, and heavy timber construction, with stucco decorative panels.

Over the years, some slight settlement contributed to water intrusion of the brick masonry through cracking. This exacerbated the absorptiveness of the St. Joe brick, which is more absorptive when water is introduced directly to the interior beyond the hard face coating. The dampness attracted Formosan termites, which had heavily infested the wood structure and wood floor finishes in various areas.

The building was tuck-pointed wherein the deteriorated masonry joints and cracks were cleaned and repointed with mortar, the masonry was cleaned, the stucco patched, and then water-proofed with an opaque acrylic coating. Windows and doors were painted to match. The boiler room received a new roof, and a new boiler. Without a source of water, the termite colonies cannot sustain themselves. But to prevent the termites from re-establishing leaks, Sentricon termite treatment and damage repair was performed separately by the Owner's termite treatment consultant. Termite damage repairs were through the maintenance department respectively. The total cost was \$213,500.



**KELLER ELEMENTARY SCHOOL**

The reroofing and repairs of Keller Elementary School for Jefferson Parish School Board recently was substantially complete. This is a one story elementary school that was first constructed in 1965. The original architect had designed the classrooms as shed roofed individual wings connected by exterior corridors roofed over with built-up roofs. The Administrative areas were under the built-up roofs also and the Cafeteria is under a steep sloped asphalt shingle roof with a flat built-up roof on the top. The classroom wings were roofed with asphalt shingles on a steep slope on the sun screens and on a slight slope (2 on 12) on their main roofs, too slight to be recommended by the shingle manufacturers. The least slope recommended is 4 to 12 for asphalt shingles.

The school was previously reroofed in the early 80's by a different architect who removed the shingles from the classroom main roofs, replacing them with built-up roofs edged with gravel guards (embedded metal). This turned out not to be satisfactory, as the embedded metal expands and contracts at a different rate than the asphalt roof membrane, which led to leaks.

E&A replaced all of the shingle roofs with standing seam metal roofs which can adapt better to markedly different slopes, and the built-up roofs with modified bitumen roofs on sloped insulation board after building small parapets at their perimeters to eliminate all embedded metal. The total cost was \$505,000.