Concrete Walls for Residential Landscaping

Insulating Concrete Forms

Radiant Floor Heating
Building Multifamily Homes—
A Unique Precast Concrete System

Right: The first form-finished
double-wall panels
are set into place with
a building crane.

Above: The precast
brick finish of The
Woodlawn fits
nicely into Chicago's
architecture.

Fur right: Cliff
Crawford has started
with multifamily
housing but plans
next to go into sin-
gle family.

Some of the first U.S. builders to
embrace an innovative European
double-wall precast concrete
system, Cliff and Janet Crawford
of Crawford Development Partners
are building multifamily homes
near the University of Chicago
campus on the city's South Side.

Cliff and Janet, a brother-and-
sister team, joined forces as
builder-developer. "We had suc-
cessful corporate careers," Cliff
said, "but we relished coming
back to our community and build-
ing fair-priced quality housing.

After we rehabbed a three story
unit with Chicago's building
program, we were ready for new
construction."

Their goal is to build high-
quality, safe, and energy-efficient
homes. "To construct this type of
home, we needed an edge over the
conventional sticks-and-bricks
builder. We found that edge with
precast concrete, specifically the
double-wall system by Dukane
Precast. We visited single family
homes built with this system, and
after running the numbers for
multifamily homes, it made even
better sense. The speed of precast
construction allowed us to reduce
our carrying costs, deliver superior
housing to the homeowner, and
achieve our profit. The homeowner-
s are the biggest winners be-
cause they get safety, quiet, and
extreme energy efficiency with the
marriage of innovative concrete
and insulating materials."

Construction of the first two
six-flat units of a new develop-
ment called The Woodlawn began
late last year. The buildings were
erected simultaneously by a crane
that worked from front to back.
The front third of each structure
was built to the full three-story
height, and then the crane was
repositioned to erect the back two-
thirds. Both building shells were
completed in approximately 15
working days. Double-wall precast
concrete panels made up the
exterior walls, ceilings/floors, and
stair landings. The 8-inch-thick
wall panels have two 2 3/4-inch
layer of polyurethane bio based
foam insulation. The buildings
used lightweight aggregate for the
interior walls between units to
achieve a four-hour fire-rating.

Conduits for electrical wiring
and phone/computer lines are
factory-installed inside walls. Both
sides of the wall and the 10-inch-

thick floor panels are form fin-
ished. Interior surfaces of the
precast walls are smooth, eliminat-
ing picking, insulation, and
drywall. A simple coat of paint
achieves a high-quality finish.
Floors and ceilings need no addi-
tional treatments.

Exterior wall textures—brick,
stucco, acid etched stone, simula-
ted limestone, and wood-grained
plank—are achieved with reusable
forms. The Woodlawn has a brick-
textured front and smooth panels
for the remaining three sides. The
elastomeric paint used to finish the
buildings drew rave reviews. The
three-bedroom, two-bath, 1600-
square-foot flats feature granite
countertops, hardwood floors,
private decks, and gated parking.

"Sales are brisk for these
units," says Crawford, whose
sights are set next on a significant
precast concrete, single-family
development in a Chicago suburb.

For more information on
Dukane Precast go to the Web site

Cliff and Janet Crawford are
president and vice
president, respect-
vily, of Crawford
Development
Partners, I I C, in
Evanston, Ill.