The Point of France luxury condominiums overlook a pond and park in Edina, Minnesota.

Exposed aggregate prefab panels were a challenge to build but provide dramatic texture for the multi-angle exterior of Point of France condominium project.

**STEEL PREFAB: Selling a Design Change**

_A Minnesota Contractor Used Experience And Steel Framing to Speed Up, Improve a Major Construction Project_

By Wallace Neal

Conroy Brothers Company, plastering contractor, proposed a design change for exterior facing that trimmed several months off the construction schedule for a 13-story condominium in Edina, Minnesota. The change allowed them to prefabricate most of the exterior off site, using steel framed panels with plaster and exposed aggregate surface.

Completing the $9½ million Point of France “condominium estate” ahead of time is putting money in the bank for Lanvesco, the developer. Earlier occupancy has accelerated cash flow, meaning faster return on investment.

But Conroy Brothers, Bloomington, Minnesota, also profited. Previous experience in off site panel-making gave them confidence in the design innovation and the change gave them an inside track to getting a $500,000 contract.

**Promote Change**

Conroy Brothers’ success in landing this major contract suggests how to keep getting work when construction volume is down as it is now—work actively with architects and contractors, offer technical help and develop and promote your firm’s special technology. They could have bid the project as drawn, but with no more than an equal chance against other plastering firms bidding. Promoting a change to a technique they specialize in gave Conroy Brothers an edge.

Korsunsky-Krank Architects, Inc., had thought of prefab panels when designing the job but assumed the dimensional problems

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RAISING MONEY:
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employees is tricky but often provides a source of small amounts of additional capital.

This has an extra advantage in that it tends to draw employees closer to the business.

— If current assets of one’s business are unencumbered then mortgages on buildings and equipment should be considered. The debt may then be repaid out of earnings if all goes well.

— In-company loans from funds that have been set aside for various purposes should never be overlooked especially if extra funds are needed for only a short period of time.

Where money has been set aside for depreciation, amortization, investment, etc., these idle funds may have value for use under circumstances that have a high probability of return.

They should seldom be used when repayment over a long period of time is involved since the business may be seriously handicapped and its chance for success in the future diminished.

— Direct loans from sources outside of the conventional money lending fields offer an opportunity.

Those sources include available trade union funds that are often invested in business enterprises of all kinds, area insurance companies also doing so on smaller scale than in the past, co-ops, etc.

— Modest loans from suppliers and manufacturers who have non-working capital available for just this type of investment are available under some circumstances. This step isn’t usually justified if control of your business must be sacrificed, in any way.

Inquiry within the trade will quickly reveal whether or not these exist within your specific area.

— Merger with some other business which has a heavy reserve of cash and is looking for the kind of opportunity offered by your operation, is still another method for obtaining additional capital.

That is particularly true where your own business is a strong one whose only weakness is a shortage of capital funds needed to expand profitable operations.

— Should you or a key executive carry a large insurance policy with several years in force this offers still one more good source of inexpensive loans for business purposes.

Almost every insurance company makes such loans against the cash surrender value of the policy held by the individual. You need only to inquire of your insurance agent about availability and cost.

— Sacrifice of some assets of the business which currently have limited value as profit producers is a step that can also be taken when extra capital is needed.

Any such move requires a great deal of thought and analysis. A firm conclusion is well reached in assurance that these conditions will not change shortly. If they do the earning power of these assets can be much greater than that programmed under the expansion idea for which these dollars are to be used.

— If major sums lie dormant in long overdue customer accounts a vigorous drive to collect them may produce such additional capital. Even if the effort is only partially successful it can reduce the total amount of additional money to be borrowed.

Use these sources as starters and if none provide the desired solution they will perhaps lead to additional sources of capital funds at present unpublicized.

PREFAB:
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on the multi-angled, balconied building would be too critical. The exterior is a continuous series of 135° angles, with the widest facet only 17 feet. Then, during the bidding period, an alert Roy Bertelson of Conroy Brothers suggested panels, assuring them the ±3/16” tolerance could be met.

The architects didn’t want floor slab edges exposed, however, and lapping them with panels thicker than the two inches allowed for field-applied material meant setting out the building face, creating a need for major redesign. It looked like prefab panels were not in the picture.

Bertelson’s firm, however, designed an extended two-inch thick lip for the panels using channel iron and steel bracing, that allowed them to lap over the 6½” slab edges without altering building dimensions. The architects accepted the idea, and Conroy Brothers got the job.

To produce the 1850 panels involved, Conroy Brothers leased a 15,000 square foot warehouse. Angle iron jigs were built for 18 different size panels, which ranged in size from 14’ x 4’ to 4’ x 2’. Framing, engineered by Inryco for wind load and hoisting stresses, was welded of 16 ga. structural studs. A perimeter 1” casing bead served as a ground for the applied finish. To the framing they fastened 1” Styrofoam and metal lath, applied a ½” base coat and, after curing, applied ½” of Thoroseal Bedcote (an acrylic-modified cement bedding for exposed aggregates. The project is the first to use a reformulated version with improved bonding characteristics.) A white Arctic Quartz aggregate was seeded in and after curing an acrylic glaze was sprayed on.

Panels Trucked

Panels were trucked to the Point of France site and hoisted by tower crane to each floor. Conroy Brothers shop-built two small rolling floor cranes to lift panels over...
the edge and into position. These had no trouble handling even the largest panel, weighing 1400 lbs. Thus all panels were placed and fastened from inside the building.

The 135° facts of the exterior, incidentally, carried through for the layout of interior drywall partitions, which amounted to a hefty $620,000 subcontract in drywall and related work for Seamless Drywall, Inc. The numerous obtuse angles prompted the firm to obtain custom fabricated 135° studs. They used bendable metal-faced tape to cover the corner joints.

Using an exterior skin of prefab steel-framed panels offered many advantages to the job besides shaving completion time. Soil conditions required pile foundations and weight was an important factor in building design—steel framing and plaster saved considerable weight compared with such optional skins as pre-cast concrete, which had also been considered.

Point of France was enclosed in the winter. To do that with field applied plaster or masonry would have meant poly enclosures and temporary heat, adding to costs and time. Except for field plastered end sections, scaffolding wasn’t needed. That cut scaffold costs to one-fourth what it would have been with all field applied work. Also, if scaffolds had been needed all around, the contractor couldn’t have graded, backfilled or done any site work until plastering was done, adding to completion time.

The owner found that the construction method helped make unit sales earlier, because prospects could visualize sooner how the finished building would look. When the contractor was pouring the eighth floor slab, Conroy Brothers started facing the first floor, and soon after the angled architectural lines became apparent, uncluttered by scaffolding.

There are advantages to their firm as well, says Roy Bertelson, who made the initial sales contacts and also managed the project for Conroy Brothers.

Own Lead Time

“We can build in our own lead time, start whenever we want, not wait until someone is ready,” he says. “We can do it with a smaller crew and we’re not rushed. Panels are ready when the job is ready.”

“We can set up for regular production. There’s better quality control. Curing in a heated area is faster and more reliable. Jigs help hold dimensions better. Good, uniform lighting helps workmanship. And it’s more efficient—the start-to-finish time is much faster compared with on the job work.”

Bertelson says selling off-site fabricating benefits his industry, because it makes plastered steel-frame systems more competitive with other facings such as block or brick.

“It’s an advantage, to Conroy Brothers, too,” he adds, “because we know how to do it. Most other companies around here haven’t had any experience with this.”

Bertelson says selling off-site fabricating benefits his industry, because it makes plastered steel-frame systems more competitive with other facings such as block or brick.

Design for the Point of France exterior facing is based on the Minne-Wall system developed by the Minnesota Lathing and Plastering Bureau and used on a large number of Upper Midwest projects.

Conroy Brothers has done a number of Minne-Wall jobs where panel fabrication was done on the job site, and did a large off-site panel job for the Cincinnati Coliseum. That experience made them confident they could tackle the unusually complex Point of France project, Bertelson says.

“A lot of people in the industry, including other plastering people, felt it couldn’t be done. The architect had misgivings, too. I’ll have to say that we even had second thoughts ourselves at times.”

Mock-up Panel

“We decided to make a mock-up panel first, to work out any bugs, and to have something to show the architect and owner that our design was OK,” says Bertelson. “We wanted to assure ourselves, too, that the bracing for the lip was very strong, because it could be a potential spot for cracking.”

With their work completed in August, Bertelson scores Point of France a success, and a profitable job. Capitalizing on Conroy Brothers’ growing edge of experience, Bertelson is already in touch with architects or contractors on four other projects, telling them, “We can save you time and money like we did for Point of France.”