

# Foundation work par excellence

## Architect Mario Kleff sets a new trend on construction sites

With his Wandeegroup he not only holds the record of being contracted on more than 40 condominiums, he also wants to see the overall construction quality of Pattaya's building stock increase



**T**he numbers just keep on growing for the Wandeegroup. No sooner had the Tappraya Road architects reported in the November issue of **REM** a record 34 condominium permit approvals in two years, than the company announced a further three condos as planning started on the Park Royal No 4 project just before the magazine went to press.

And if that wasn't enough, with the year drawing to a close lead architect Mario Kleff revealed his company had been

contracted to design a new mega project to be constructed on 16 rai of land in Jomtien and consisting of at least nine more condominium blocks.

Mario was reluctant to reveal too many details about this latest project which brings his company's total condominium approvals to a staggering 46 in just two years – a clear record for a Pattaya-based architectural firm set during two of the toughest years for business that the region has known.

"All I can tell you at the

moment is that we have just completed the master plans and we are preparing working drawings and final presentation materials," he said.

### Green design

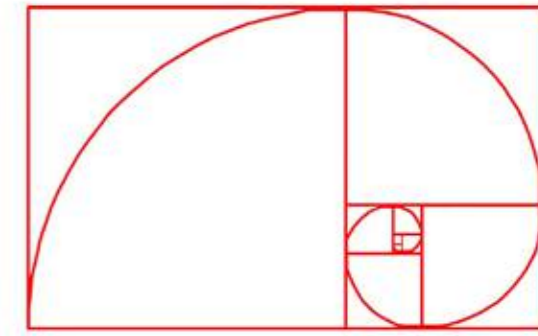
"It is, however, going to be a 'green' design – ecologically friendly with plenty of landscaped areas and water features – and when finished it will provide the market with more than 1,000 new units for sale."

Bucking the trend of the industry over the last year or so,

Mario's Wandeegroup design and construction business goes into 2010 with a full to bursting order book, but two projects in particular that Mario believes merit attention are Park Royal No 2 and the modern Thai-style house being constructed at Phoenix Golf Course for Khun Toy.

Park Royal No 2 will be an outstanding, eight-storey, 79-unit condominium block on Pratamnak Hill featuring very large spans as a result of Mario's use of his exclusive 90-

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Everything is based on the Golden Mean.





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centimetre cellular steel 'I' beams and constructed with glass and steel with virtually no concrete. Even the bedroom, bathroom and elevator walls will be glass with the exterior clad in shining green glass.

The Phoenix Golf Course villa, which again will incorporate 90-centimetre 'I' beams to facilitate huge 24-metre spans, will be unique comprising 700 square metres of living space over two floors plus a pool and garden on nearly one rai of land. But as stunning as these two developments will be, the innovation lies not in what the eye will see but rather in what it won't see.

**Extreme foundations**

"Both these projects feature what I call 'extreme' foundations," said Mario, whose engineering approach to architecture underpins all his modern and often futuristic designs.

"The foundations on both these projects are big



Unique fondation works in Pattaya's Park Royal No 2.

and very different from the norm – so much so that the local authorities were quite perplexed as to why I should provide foundations capable of supporting a 15-storey building on a project as small as a two-storey house.

"The fact is that these foundations, coupled with the use of my 90-centimetre cellular steel beams, open up a whole range of design possibilities, enabling me to design distinctive, unique properties. Of course, it would be easy for the Wandegroup to submit designs to the local authority which meet the minimum construction requirements, but we exceed those by about 250 per cent.

"And one reason I do it is because I want to see the overall construction quality of Pattaya's building stock increased."

Foundations for the 400 square metre footprint of the Phoenix villa consist of a

network of interlaced steel rods which can be clearly seen in the accompanying pictures. These rods disperse the weight of the building more evenly, providing much better balance and stress loads to the 90-centimetre vertical beams which facilitate the huge spans.

The foundations of Park Royal No.2 follow the same style but are, as Mario put it, "a little bit more extreme".

**Unique foundations**

"There is piling everywhere ... more than 200 of them on the entire site," he said. "And on top of these there are numerous 'I' beams. These foundations are unique. I designed the whole thing as one huge block and with the footings up to 2.2 metres deep it will require 695 cubic metres of concrete which we will need to provide in one pouring.

"With the average truck carrying between four and six

cubic metres of concrete, you can imagine just how many vehicles will be required! And the whole thing has to be completed in five hours. Nothing like it has ever been attempted before."

Mario Kleff is renowned for the speed with which he works – a quality he puts down to his engineering approach to architecture.

"My engineering solutions are the reason I can design a condo block in a week," he said. "People don't believe me, but it's true that Park Royal No 3, consisting of two nine-storey condominium blocks, was designed on a Friday evening. The detailed plans were completed over the weekend and construction started the following Tuesday."

Likewise, The Wave condominium project with more than 150 units set the previous record with Mario producing engineering and master plans,

3D presentations and blueprints and obtaining an official construction permit in just two weeks.

With the second building of Park Royal No 3 now under construction, work on Park Royal No 4 will start in the New Year, along with the first of three condominiums for Club Royal and the new mega project recently announced for Jomtien. Meanwhile, construction of both the featured projects here – Park Royal No 2 and the Phoenix Golf Course villa – should be completed by April at the latest.

**More projects**

"It's certainly been a busy couple of years for us at the Wandegroup," said Mario. "And we look forward to embarking on more successful projects in 2010 which hopefully will extend Pattaya's construction boundaries even

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**SPECIALFEATURE**

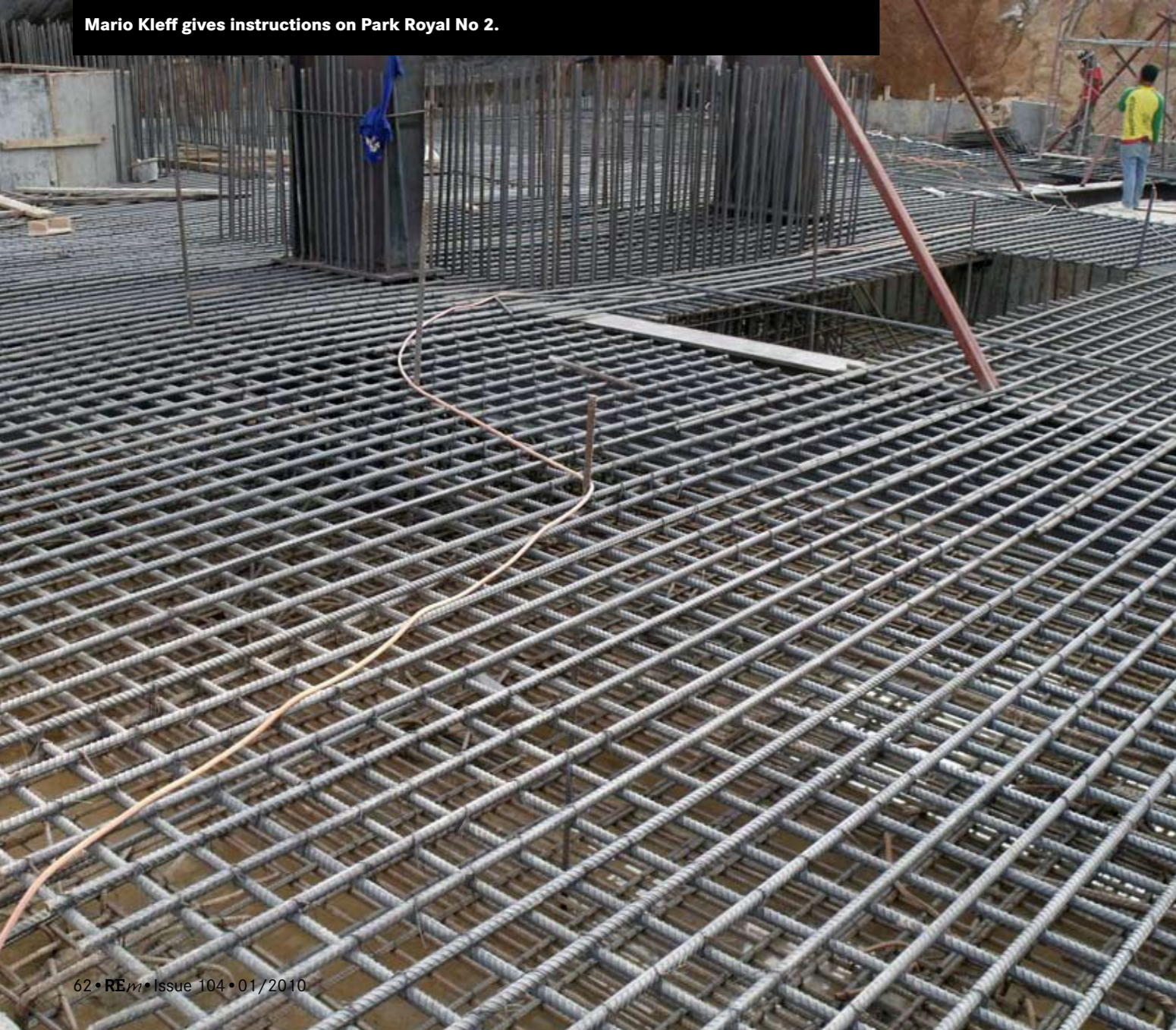


**Mario Kleff gives instructions on Park Royal No 2.**

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further. All I can say is watch this space!”  
“Park Royal No.2 is set to feature a collection of 79 luxury apartments which emphasize a sense of transparency and translucency through ultra-modern style and design. This project is one of my latest creations – an outstanding nine-storey construction and it sets another benchmark in Pattaya,” said Mario.  
“The construction quality and the entire structural design will show a new direction in the construction business. A kind of showplace for all involved such as the Wandee group, Siam Yamato – the manufacturing



**Mario's team prepares to receive new directions.**



**Foundation work on the house located at Phoenix Golf Course.**

company for these beams – and Heights Holdings can prove their vision of being a top class developer.”  
The Wandee group in cooperation with Siam Yamato Steel introduces a new quality product to Thailand’s market – the largest and strongest I-beam available, which is used on Park Royal No 2 and the house at Phoenix Golf Course in the first place.  
“One of the biggest difficulties I found, was the solution of having over such large spans a minimum of concrete use on floor levels,” added Mario.

**No loss of strength**  
“To span over such distances span-crete and concrete pouring with thickness of more than 40-50 cm is needed. We could reduce this to a size of just over 30 cm without any loss of strength. This, indeed, will prove to be a new direction on Post-Tension use and technique.  
“I decided to use green tint reflective glass panels on exterior, partly interior walls, as much as possible which will provide maximum natural light throughout the buildings, and it will allow home owners to enjoy the sunrise or sunset as a luxury hors d’oeuvre.” Ω