Brilliant Commercial and Office Complex

This complex is the first home center in Kerman city with 6 floors in a land area of 62,000 m2 and approximately of 181,000 m2 of structure with 372 commercial units, 48 office units, hypermarket, cinema campus, roof garden, exhibition space, food court, restaurant and cultural complex, amusement park, sports space and more than 1,400 multi-story car parking units located in the heart of Kerman city on Imam Khomeini Highway, Imam Sadegh Blvd.



Technical key features of this project are:

- Design and construction of post-tension slabs with 24m long spans in the commercial area.
- About 30% reduction in structural materials (reinforcement, concrete and formwork).
- Reducing beam heights from 2m to 80cm in 24-meter spans in the commercial spaces.
- Approx. 25% reduction in the total structural weight compared to normal concrete structures.
- Construction of 4m long cantilevers in the project commercial areas.
- Creating free columns space by removing some columns in the project.
- Increasing the entire project structural strength by using prestressing technology.
- High speed of construction, completion of 2,000 square meters area in 10 days.
- Post tension system reduced the conventional formwork assembling cycle from 17 to 5 days.
- Stressing the prestressed strands after 4 days after the concrete reached 22 Mpa of strength.

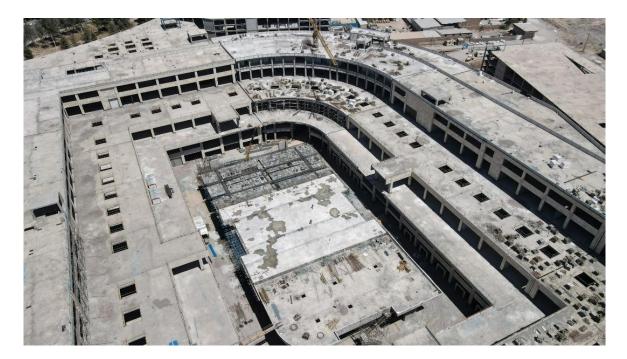


Effects of prestressing:

Using the post-tensioning system for the project structure slabs and beams creates numerous advantages to this project such as: waterproof slabs, long spans, creating longer cantilevers, increasing the number of car-park spaces, creating more column-free spaces, greater resistance to earthquakes and more resistant to corrosion and other important structural factors.



In addition, due to the significant reduction in the beam heights (about 1.2m) and the use of less concrete and reinforcement in the construction of this complex, its height and weight have also been reduced to an acceptable level compared to conventional concrete methods, which had also increased the structural resistance against earthquakes.



Reasons for the high structural durability of Brilliant complex is due to the concept of prestressing technology, which clearly states that when the mass of structures is reduced by using quality and light materials, the result will be a reduction in the weight of the slabs and finally the entire structure. Therefore, the lighter the building, the higher its resistance to weather conditions and earthquakes.

All mentioned points should be designed and built by professionals and experts in this field in a completely standard and principled way. The combination of reinforcement and concreting with the prestressing method results in a strong, non-permeable and high-quality structure.



The Brilliant complex project is in the heart of Kerman city and is considered one of the most beautiful, resistant and unique structures in Kerman province and in the south part of Iran

AFID International Development is a professional post-tension contractor and specialized in all related structure projects in the civil and building industries. The company is active in the civil and construction market and provides design innovation, technology and solutions to its projects and has a vision and mission to achieve the best position in the prestressing and post-tension market and to be a reliable and trustworthy partner to its clients.

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