



FREDDIE MAC HQ5 PARKING GARAGE
MCLEAN, VA



NO CHALLENGE TOO GREAT, NO FOOTPRINT TOO SMALL.

The Freddie Mac HQ5 Parking Garage is a colossal nine-story facility located in McLean, VA. The structure features seven above-ground levels, as well as two levels enclosed beneath ground, offering a total of 1,492 spaces for visitors. While Tindall is no stranger to creating enormous parking structures that are as aesthetically pleasing as they are functional, it was clear from the design and development phase that the Tindall team would have several unique challenges ahead of them — including a jobsite located on a very tight footprint along a one-way street.



SPECIFICATIONS

9 stories total

454,000-sq.-ft. structure

1,492 parking spaces

2 levels enclosed below ground



DESIGNED TO WITHSTAND HEAVY LOADS



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UNIQUE CHALLENGES. CREATIVE PRECAST SOLUTIONS.

With the structure being built into a hillside, the first major hurdle of this project was to develop a robust structural frame capable of supporting 20 feet of retained earth on one side of the building. By leveraging its considerable engineering resources, Tindall devised a system of shear walls, floor slabs, and sturdy connections that allowed the garage to stabilize the adjacent slope without the added expense of an independent retaining wall.

The second challenge was designing the first two levels to withstand the loads of emergency vehicles and firetrucks — loads eight times higher than a typical parking garage is designed for. The solution for this came in the form of specially designed double tees, beams, and columns, as well as special bearing corbels. For the exterior, the structure featured architectural columns, walls, and spandrels with a custom formliner to elevate the aesthetic presence of the garage. In the end, Tindall was able to engineer a wide variety of specially designed components to meet the requirements of the project, all while offering the customer a more economical solution, a tighter schedule, and the signature support of the Tindall team.

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