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## 联通世界·首都的机场建设

### AIRPORT CONSTRUCTION IN THE CAPITAL

#### 跨越式发展的中国航空

#### LEAP-FROG DEVELOPMENT OF AVIATION INDUSTRY IN CHINA

从1958年中国第一个建成投入使用的大型民用机场，到中国第一个卫星式、具有现代意义的国际航空港，再到世界最大的航站楼；从初步开启拓展以机场为核心的经济开发模式，到超大型国际航空综合交通枢纽；从自力更生、自主设计，到与国际接轨、合作设计，再到最终实现了创作理念和技术革命的引领……

经过半个多世纪的探索和实践，北京建院见证了首都民航事业的跨越式发展。除首都机场以外，近十年来，北京建院先后承担了昆明长水国际机场、深圳宝安机场T3航站楼、南宁吴圩机场、桂林机场T2航站楼、长春机场T2航站楼、海口美兰国际机场T2航站楼等大型、超大型机场航站楼的工程设计。

从首都机场T1、T2航站楼，到T3航站楼，再到北京大兴国际机场，北京建院在实践中不断刷新航站楼设计领域的技术创新和突破，这场空中国门的巨大变革正是中国伟大开放和飞速发展的缩影。作为空中国门巨大变革的亲历者，北京建院始终为中国的机场建设不间断地提供设计服务，逐渐形成机场航站区规划、陆侧交通设计、航站楼建筑设计等方面的核心设计理念和方法，实现了创作理念和技术革命的引领。

Over the past 70 years, China has made great strides in the field of architecture: from its first large civic airport, which went into operation in 1958, to the country's first modern international airport with satellite design, to the world's biggest terminal; from the preliminary attempt to explore an airport-centered economic development model, to a super-large comprehen-

sive transportation hub for international transportation; from self-reliant and independent designs, and working according to international standards and with collaborative designs, and to finally leading the trend of design and technical revolution.

Through half a century of exploration and practice, BIAD has witnessed the rapid development of the capital's civic aviation industry. In addition to Capital Airport, BIAD has also designed large or super-large airport terminal designs, such as the Kunming Changshui International Airport, Terminal 3 of the Shenzhen Bao'an International Airport, Nanning Wuxu International Airport, Terminal 2 of the Guilin Liangjiang International Airport, Terminal 2 of the Changchun Longjia International Airport and Terminal 2 of the Haikou Meilan International Airport, one after one in recent 10 years.

From Terminal 1 and 2 of Beijing Capital International Airport to Terminal 3, and to Beijing Daxing International Airport, BIAD is constantly making technical innovations and breakthroughs through practice in the field of terminal design. This huge revolution of national gateway in the air is the epitome of China's Reform and Opening and rapid development. As a witness of the revolution in civic aviation, BIAD has consistently provided design services for China's airport construction and has gradually formed core design concepts and methods in terms of airport regional planning, transportation design on the ground, terminal architecture design etc., which gave it a leading position in design trends and technical revolution.



首都国际机场 T3 航站楼

Terminal 3 of Beijing Capital International Airport

### 首都国际机场 T1 航站楼

Terminal 1 of Beijing Capital International Airport

建成时间 Completion Year : 1979

建设面积 Building Area : 58 000m<sup>2</sup>

1980年1月1日, 首都机场T1航站楼及停机坪、楼前停车场等配套工程建成并正式投入使用, 这是我国当时最先进的机场。此后T1航站区经历了前后7次改扩建, 包括行李分拣大厅的改建, 主楼及引桥等的扩建, 并将航站楼面积增至8万m<sup>2</sup>, 旅客吞吐量提高到每年800万人次。

On January 1, 1980, Terminal 1 of Beijing Capital International Airport and its airplane apron, building parking lot and other supporting projects were completed and put into use. This was the most advanced airport in China at that time. After that, Terminal 1 has gone through seven renovations and expansions, including the luggage sorting hall, the main building and the approach bridge. The area of terminal has been expanded to 80,000 square meters, and the handling capacity of passengers has been increased to accommodate eight million passengers per year.



### 首都国际机场 T2 航站楼

Terminal 2 of Beijing Capital International Airport

建成时间 Completion Year: 1999

建设面积 Building Area : 327 000m<sup>2</sup>

1999年11月1日, 首都机场T2航站楼投入使用。工程从1995年开始动工建设, 历经4年建成。包括一座32.7万m<sup>2</sup>的国内单体建设面积最大的航站楼, 以及建设面积16.7万m<sup>2</sup>、可停放5000多辆汽车、当时亚洲最大的停车楼等17个配套项目。

On November 1, 1999, Terminal 2 of Beijing Capital International Airport was put into use. The project started construction in 1995 and was completed in 4 years. It included the largest terminal building in China with 327,000 square meters in area, and the largest parking building in Asia at that time with 167,000 square meters in area, and the capacity to park more than 5,000 cars. In addition, there are 17 other supporting projects.





### 首都国际机场 T3 航站楼

Terminal 3 of Beijing Capital International Airport

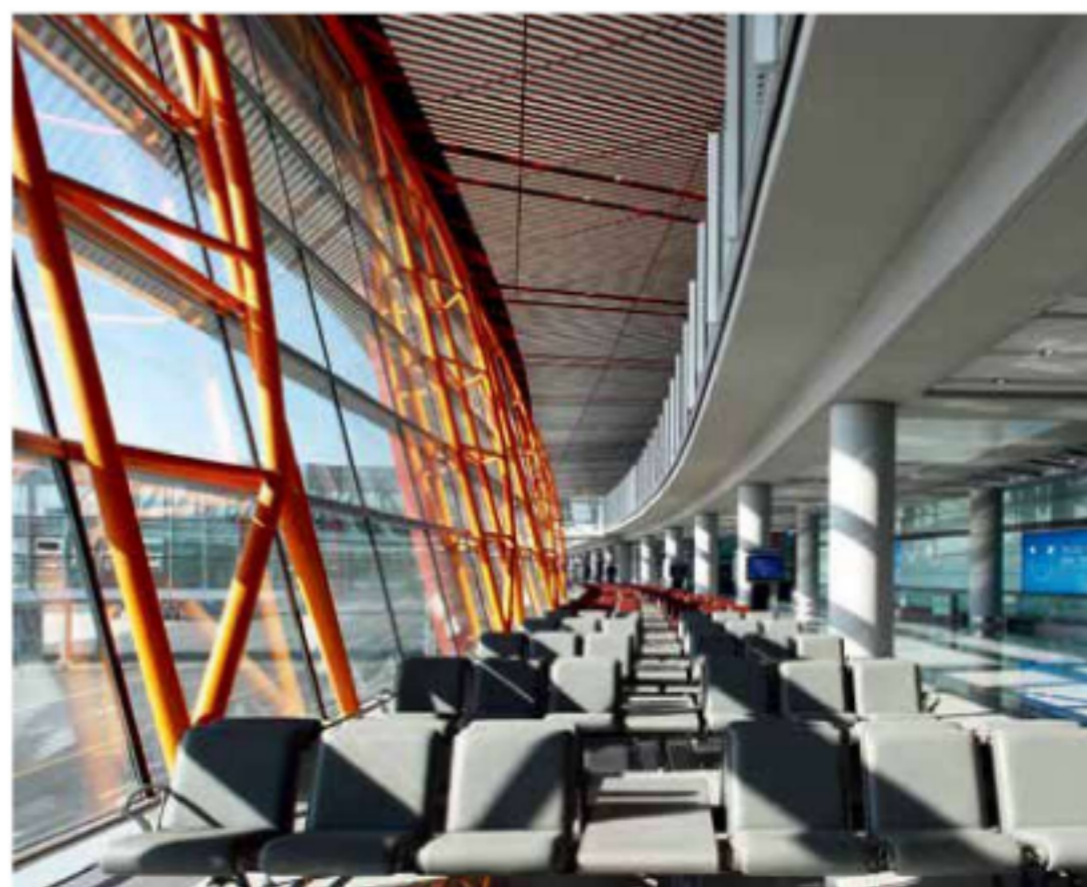
建成时间 Completion Year : 2008

建设面积 Building Area : 902 000m<sup>2</sup>

合作公司 Partner : NACO / Foster+Partners / ARUP

北京首都国际机场 T3 航站楼是中国第一个真正意义上的枢纽机场航站楼，由主楼、国际候机廊和楼前交通系统组成。南北向长 2900m，是当时世界上最大的单体建筑，整个工期仅为三年零九个月。T3 航站楼投入使用后，首都机场滑行道将由 71 条增为 137 条，停机位由 164 个增为 314 个，第三条跑道可供世界最大的空中客车 A380 客机起降。

Terminal 3 of Beijing Capital International Airport is the first hub terminal in China, consisting of a main passenger terminal, waiting hall for international departures and a transportation center. It was the largest single building in the world at the time of completion with a length of 2,900m running in the direction of north to south. The construction only took three years and nine months. After the opening of Terminal 3, the number of taxiways increased from 71 to 137, and the number of parking spaces for planes increased from 164 to 314. The third taxiway will make it possible for the world's largest commercial airliner, the Airbus A380, to take off and land at the airport.



## 北京大兴国际机场

Beijing Daxing International Airport

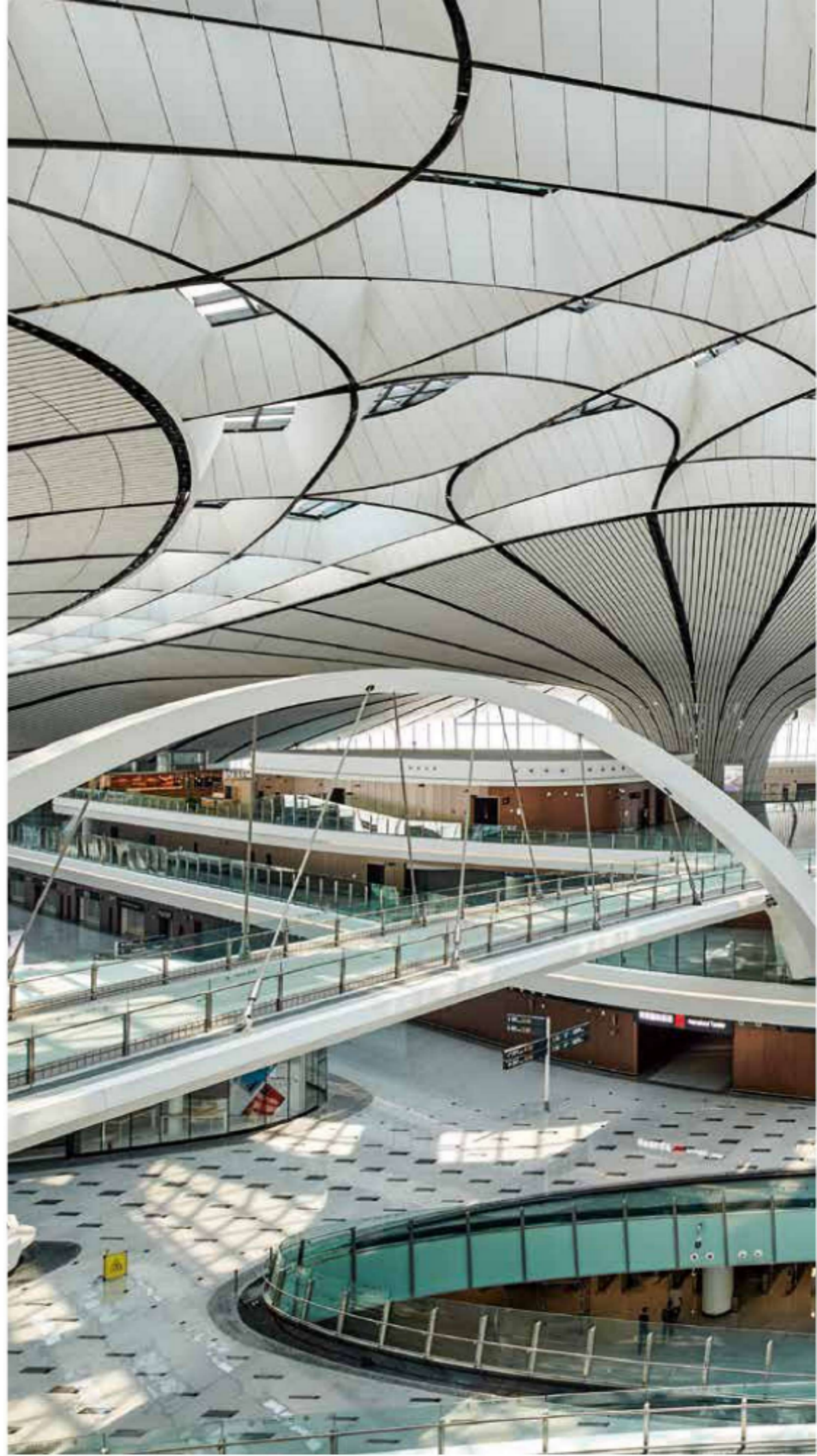
建成时间 Completion Year : 2019

航站区建设面积 Terminal Construction Area : 1.41km<sup>2</sup>

合作公司 Partner : 中国民航机场建设集团公司

北京大兴国际机场是北京在 21 世纪面向未来发展的超级工程，满足首期 4500 万人次旅客吞吐的设计容量。航站楼由中央主楼和 5 条互呈 60° 夹角的放射状指廊构成，航站楼以北的综合服务楼平面形状与航站楼的指廊相同，与航站楼共同形成了外包直径 1200m 的总体构型。机场中心区域的支撑间距达 200m，所形成的无柱空间可以完整地放下一个水立方。

Beijing Daxing International Airport is a super project of Beijing in 21st Century to meet the needs of future development, designed with an annual handling capacity of 45 million passengers. The terminal is composed of a central main building and five airside concourses at an angle of 60 degrees to each other. The comprehensive service building at the north of the terminal has the same shape as the concourses in the terminal and forms an overall configuration with the terminal building in an outer diameter of 1,200 meters. The distance between supporting columns in the central area of the airport is up to 200 meters, which forms a column-free space large enough for a complete Water Cube.





不忘初心 牢记使命





北京大兴国际机场

Beijing Daxing International Airport