## BUROHAPPOLD ENGINEERING





## MAHA KUMBH 2015 PILGRIMAGE CROWD FLOW STUDY NASHIK, INDIA

BuroHappold provided high level advice to a consortium of public bodies including Kulwant Kumar Sarangal – Commissioner of Police, Prof. Jamkar - Vice Chancello of Maharashtra university of Health Sciences, and a group of stakeholders interested in making the Maha Kumbh event in 2014 a success.

The Nasik Maha Kumbh Mela celebration is held once in every 12 years in Nashik (and in the neighbouring town of Trimbakeshwar) – the next one being scheduled from August 2015. It draws millions of devotees and tourists from all over the country and the world. According to historical records. There are a great number of challenges associated with the sheer volume of crowd, complex rituals and itineraries, and the limitation of space within the Ghats (bathing sites) and streetscape within an old city like Nasik.

Our work involved providing a high level guidance on zoning strategies to segregate the traffic and pedestrians using 3 different zones: the core (pedestrian only), primary (shuttle only), and secondary (parking only). The shuttle was also used to control the flow and therefore the density of crowd within the congested inner core. A series of practical advice such as effective route diversion points, shuttle bus control options, pilgrim holding areas etc. were presented during a meeting in Nashik with the key stakeholders. A key part of our recommendations was on a holistic approach to providing a longterm strategy, on capturing the performance during the events in 2015, and highlighting the lessons learnt for long term reference and future events (in Nashik as well as for crowd gathering events in other parts of India).

## CLIENT

Ministry of Hajj & Ministry of Higher Education, Saudi Arabia

DURATION 2015

SERVICES PROVIDED BY BUROHAPPOLD

Smart Space - People Flow & Space Analysis