

# HANEDA D-Runway Report (No.7) SAND TRANSPORTATION

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<http://www.pa.ktr.mlit.go.jp/haneda>

## STRUCTURE OF A NEW ISLAND

The structure of the new island of D runway is mainly composed of three structural parts, which are 1) reclaimed land by sand which is 2,020m's long and 430m's wide, 2) a large scale steel jacket platform on pile foundation, which is 1,100m's long and 520m's wide, in order not to block the flow of Tama river water and 3) four connection bridges, which are 620m's long each, two for airplanes and two for ground support vehicles, between the existing airport and the new island.

For the construction of above-mentioned reclaimed land, huge amounts of sand which exceeds 35 million cubic meters are required for sea-bed soil improvement and land reclamation.

## SUPPLY OF HUGE AMOUNTS OF SAND



In ordinary Japanese big projects, such as the Kansai international airport construction project, sand production sites are usually prepared by the government, and a contractor does not have a fully responsibility for securing the supply of huge amounts of land fill materials. On the other hand, due to the design-build method which is applied to this project, the JV as a contractor is responsible for securing the supply of huge amounts of sand on a commercial basis. As there are many mountain sand mining sites in Chiba prefecture which are permitted by the Chiba prefectural government and can supply necessary amounts of sand to HANEDA, just crossing the Tokyo bay, the supply of sand itself was thought possible. However, opposition against sand

mining and transportation was gradually becoming strong, and it has become a big issue for the MLIT and the JV to secure the supply of huge amounts of sand from Chiba in order to open a new runway in a designated time.

## SAND TRANSPORTATION

For the construction of D runway, at least 50 thousand cubic meters of sand was required everyday as land fill materials. To do so, number of sand transportation by dump trucks was thought to exceed 7,000 times everyday from sand mining sites to sea ports, from early morning to night, and it was anticipated that the traffic of dump trucks increased rapidly after the start of construction work, that lead to traffic noise, vibration, danger, accidents, fugitive dust etc. related to sand transportation. Therefore, it was essential for the MLIT as well as the JV to set up a meeting for the talk on "safe and sure sand transportation" and to alleviate anticipated problems for the people concerned along roads for transportation. Although it was rare case to set up such a meeting, the sand transportation would not be able to be carried out without an appropriate sand transportation plan.



For this reason, a meeting on "safe and sure mountain sand transportation" was set up among the Chiba prefectural government, the police department, five local city governments, the MLIT, the JV and the sand suppliers union. In the meeting, designated routes and time of sand transportation, number of dump trucks per each route, utilization of express toll routes, manner of driving, continuous education of drivers, stickers and ribbons to be attached to dump trucks, monitoring and patrol of sand transportation, damage repairs of roads, etc. were discussed several times, and "the plan on safe and sure mountain sand transportation" was finally approved in March 2007 before the start of construction, and then the plan was revised several times according to actual conditions.

Thus, sand transportation started gradually from April 2007, and two and half years have already passed at present. There are many claims of course, but sand transportation still continues by solving each problem one by one, and in coming January 2010, sand transportation will finish safely after lots of efforts by many people concerned on this project. (to be continued)