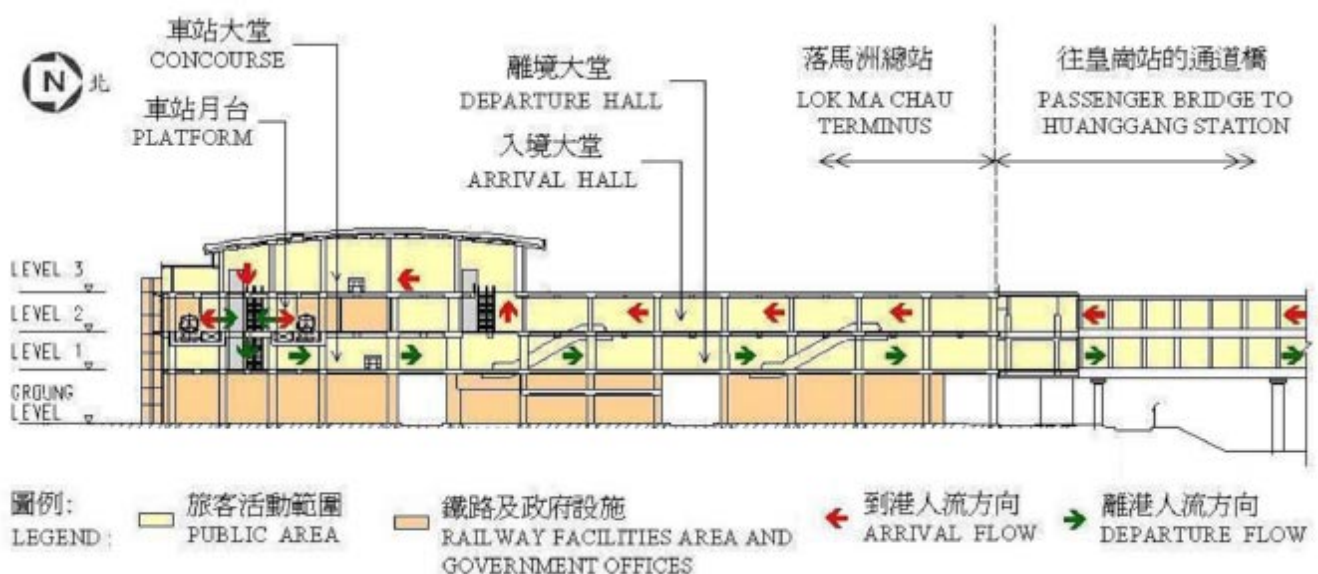


Boundary crossing facilities at the Lok Ma Chau Spur Line

What is the main difference between Kowloon-Canton Railway Corporation’s (KCRC) Lok Ma Chau Spur Line (Spur Line) and other railway projects completed in recent years? The answer is that the Spur Line is built for cross-boundary passengers instead of for domestic passengers. Hence, apart from the usual railway alignment and station works of railway project, the Spur Line includes the provision of boundary crossing control facilities and the passenger connection to the mainland.

The 7.4km long Spur Line railway will branch off from the existing East Rail north of Sheung Shui Station and will terminate at Lok Ma Chau (LMC) Terminus which is located in the fishpond area just south of Shenzhen River. The 6.4 hectares LMC Terminus site area is formed by filling up fishpond area and a large terminus building with a plan area of 2.5 hectares is being built on the fill up area.



Cross section of LMC Terminus

The railway platform and concourse will occupy the south portion of the LMC Terminus building whereas the cross boundary control point is on the north portion as illustrated in the cross section plan. Except at the railway platform, the movement of the departure and arrival passengers would be separated into different floors. Escalators and lifts will be provided for passengers to travel between the platform and the two concourses, and also between the arrival hall and the Level 3 concourse. Immigration and customs clearance will be processed at the departure hall on Level 1 and the arrival hall on Level 2 and the proposed cross-boundary clearance facilities can cater for a daily two-way passenger flow of 150,000. To meet greater demand during peak periods, about half of the immigration counters/channels in the arrival hall or the departure hall can be converted for contra-flow operation by utilizing two pairs of contra-flow escalators, thereby increasing the maximum handling capacity by 50% in the busy direction.

The design and construction of the cross boundary control point in the LMC Terminus building require regular coordination amongst KCRC, 6 user departments of the control point and Highways Department as facilitator of the railway project



Internal building works at the future departure hall

ever since commencement of design stage in 1999. Issues under discussion/coordination include layout and detailed requirements of the fitting out works and building services for the departure/arrival halls and Government's office area together with the associated construction interface arrangement between KCRC and Government contractors.

Topping out of the LMC Terminus building structure has been achieved in April 2005 with the internal fitting out works and building services installations by KCRC now in full swing. Based on the coordinated programme, installation of cross boundary clearance facilities by Government departments would commence in mid 2006.

The passenger connection between the LMC Terminus and Shenzhen will be via the Passenger Bridge to Huanggang Station across Shenzhen River. The 2-level



Passenger Bridge deck structure construction

Passenger Bridge is 240m long and 16.5m wide, and will be fully enclosed and fitted with air-conditioning and travelators for passenger comfort and convenience. The upper level is for arrival passengers (from Shenzhen) and the lower level is for departure. To meet the navigational requirement of Shenzhen River, the Passenger

Bridge adopts a cable-stayed design with a central span of 134m. The Passenger Bridge is a joint project by HKSAR Government and the Shenzhen Municipal Government.

The foundations, piers and main tower of the Passenger Bridge are completed and the bridge deck structure construction by Shenzhen is in progress. KCRC will commence the electrical and mechanical works at the end of 2005 in the HKSAR's portion of the Passenger Bridge after completion of the structure works by Shenzhen.

There is also an interesting topic in relation to locating the LMC Terminus in the ecological sensitive fishpond area. To mitigate the ecological impact, 27 hectares of fishponds near the LMC Terminus are enhanced by KCRC and this requirement has



Enhanced fishponds at the south side of LMC Terminus

taken account of both direct habitat loss and disturbance effect on the water birds due to the railway project. The objective is to increase the feeding opportunities for large water birds by active management of the enhanced fishponds, especially during the winter bird migration period, so as to raise the ecological value of the fishponds. Monitoring of the target water bird species is carried out and most of the set targets for the construction stage have been achieved. The water bird numbers are expected to increase upon completion of marshland and reedbed for more habitat diversity before the railway operation.