CASE STUDY

Paddington New Yard

Crossrail, Paddington

Client:	Crossrail
Engineer:	Capita Symonds
Main Contractor:	Costain PLC
Sub Contractor:	Kelly Formwork
Market Sector:	Formwork for Ribbed Concrete Floors
Product:	Trough Moulds

The development of Paddington New Yard forms part of the extensive Crossrail infrastructure project transforming the rail transport system across London. Located between the Westbourne Park Tube station and London Paddington station, Paddington New Yard contains both the Royal Oak Portal and Westbourne Park Crossrail worksites. Cordek were able to assist in providing a formwork solution for the construction of a new 8000m^2 elevated bus deck which will connect to Westbourne Park Bus Garage.

Project Scope

The structural design required long spans and this was achieved using ribbed concrete slabs with depths of 800mm and 1000mm. The slab design was further complicated by having skewed spans and falls in two directions. The contractor's aim was to construct the deck slab in three phases over the course of 12 months.

> ***"Cordek delivered a first class service when supplying their trough mould system. They provided a detailed layout scheme that allowed us to optimise reuse and achieve our strict deadline."***
>
> Rod Watson, Operations Director at Kelly Formwork

The Solution

The contractor programmed the slab construction into more than ten slab pours split over the three phases. The Cordek Project Design Office then detailed a trough layout scheme which optimised the reuse of the trough moulds and achieved the phased programme. The flexibility of the trough moulds meant that the many one-off moulds required to achieve the skews and falls could be easily accommodated.

The Process

The re-useable trough moulds were manufactured by bonding a tough polypropylene skin onto a solid expanded polystyrene (EPS) core. The trough layout design requires a range of interlocking components; end units, standard units, make-up units and striker units to be manufactured which when assembled on site create the trough profiles and lengths required. Cordek provided detailed layout schedules and individually referenced units, supplied in phased deliveries to achieve the necessary pour sequence.

Summary

The ribbed concrete slab design achieved the long spans required and helped to reduce the volume of concrete and overall weight of the slab. The Cordek trough system of lightweight moulds allowed for easy manual handling in both installation and simple striking producing the desired concrete finish for this exposed application. Following construction, the EPS core of the trough moulds was recycled.

Please contact us for more information
01403 799600
info@cordek.com