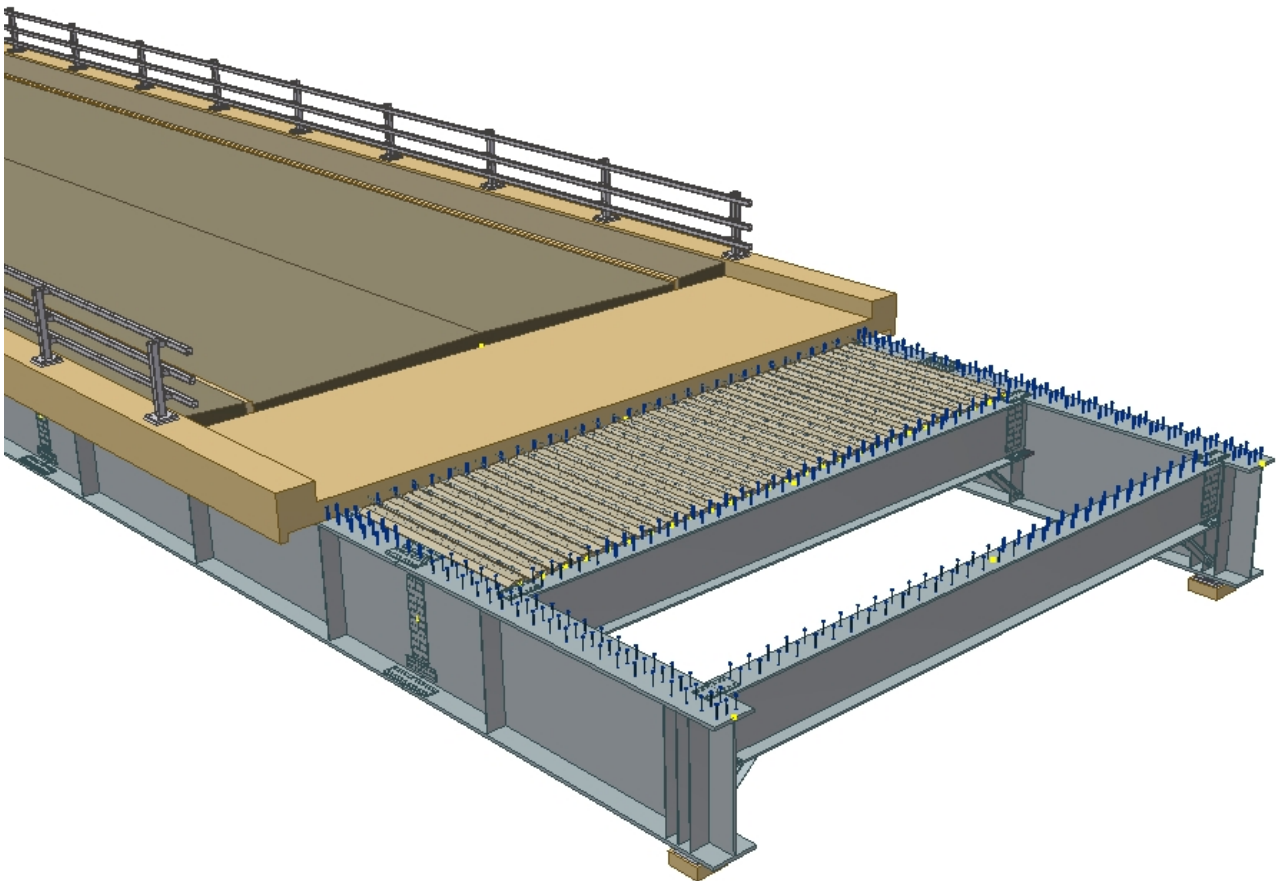




## **Dorman Long Technology**

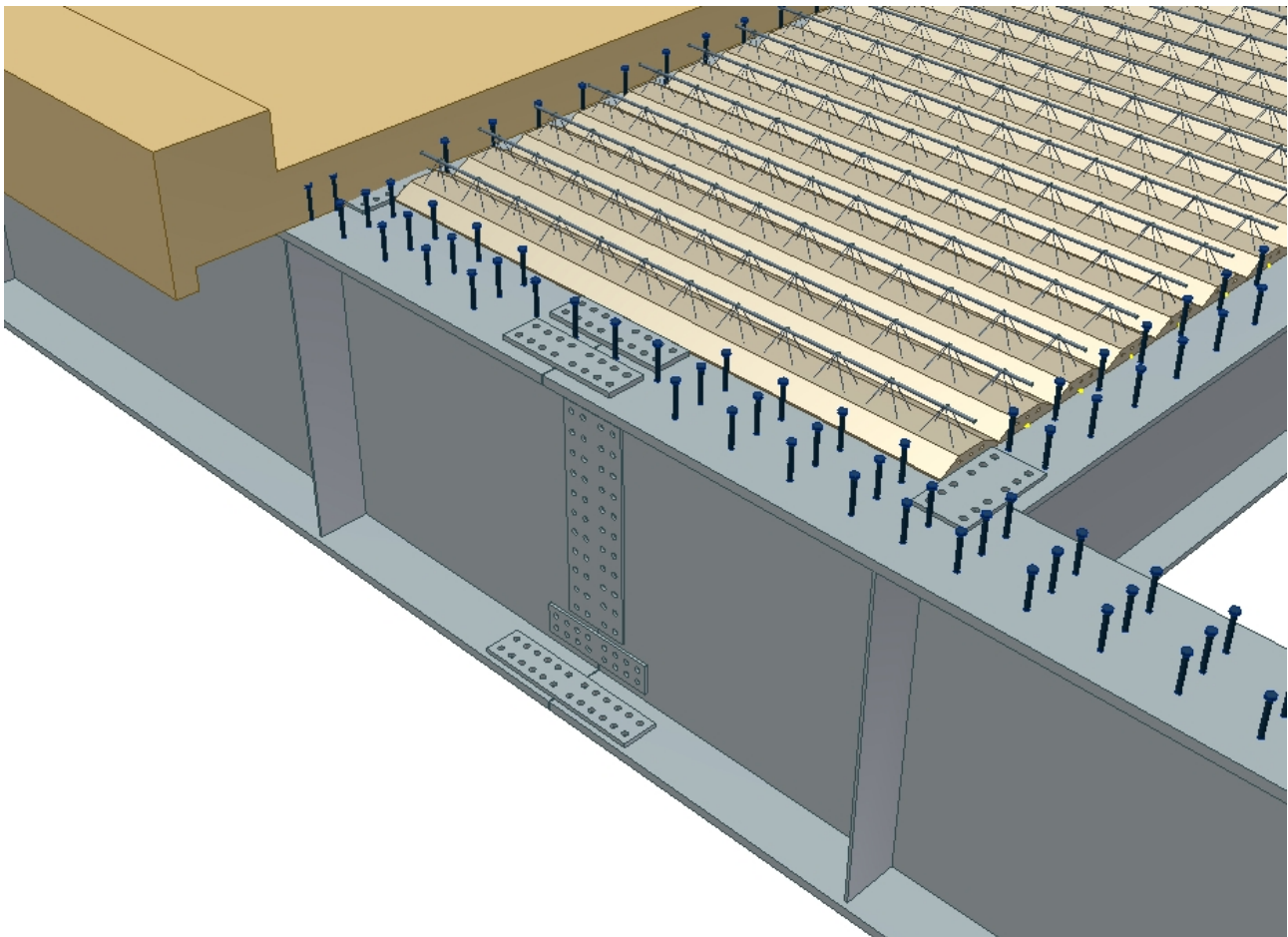
**Modular Bridges**  
Spans from 8m to 200m



## Introduction

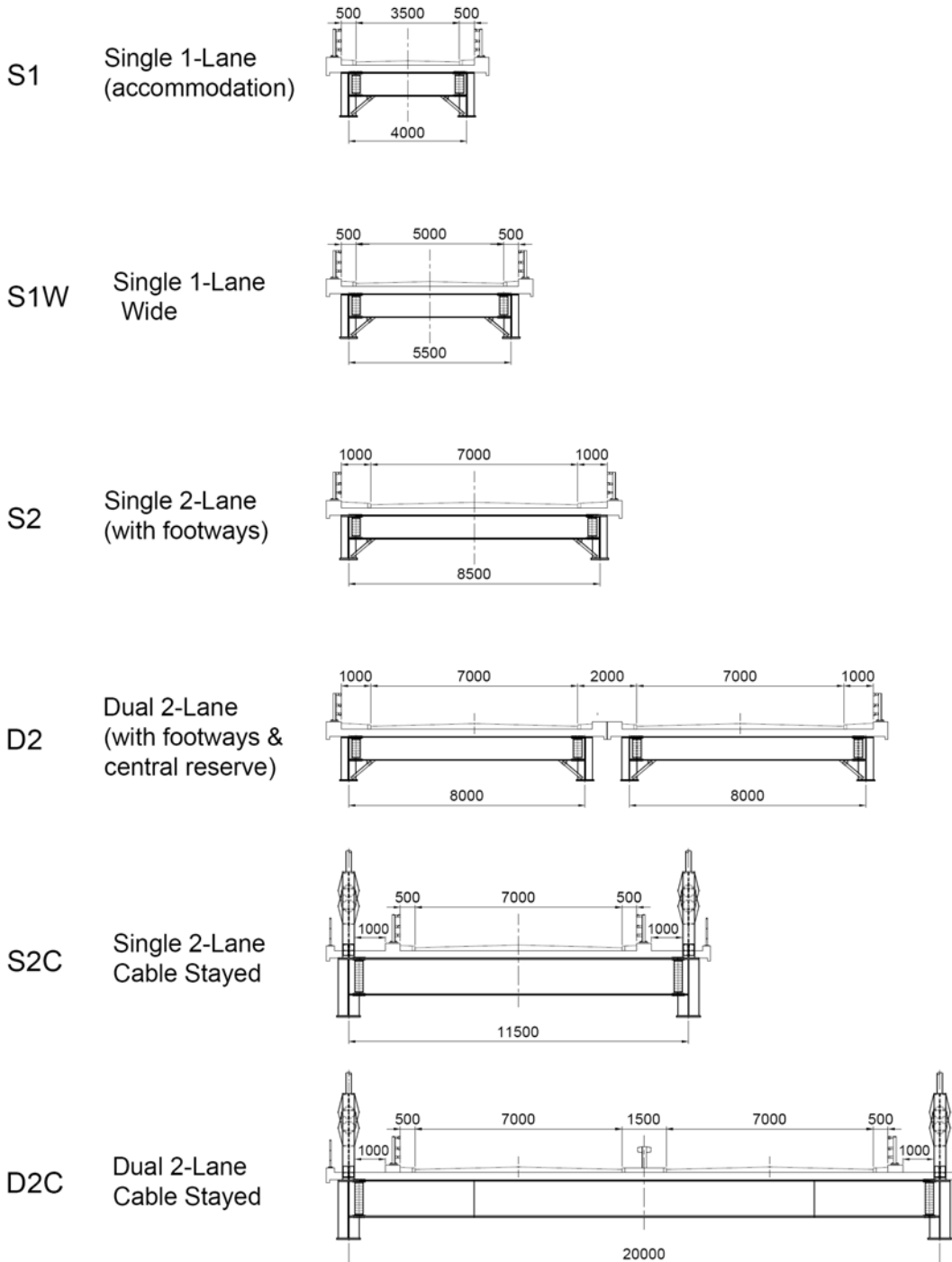
DLT Modular Bridges are steel/concrete composite structures that combine all the advantages of standardisation, prefabrication and modular construction with the form and best-practice details of a bespoke design. Features include:

- Flexible span range and carriageway options
- Loading to leading international standards
- Containerised for delivery
- Crane or launch erection
- Longer cable stayed spans available on request
- Minimal maintenance
- Simple construction



A ladder-beam arrangement of structural steelwork is topped by a composite reinforced concrete deck slab. Pre-cast formwork planks act compositely with an in-situ topping to form the concrete deck slab. The edge beams are also designed as pre-cast elements so no temporary formwork is required.

### CARRIAGEWAY OPTIONS

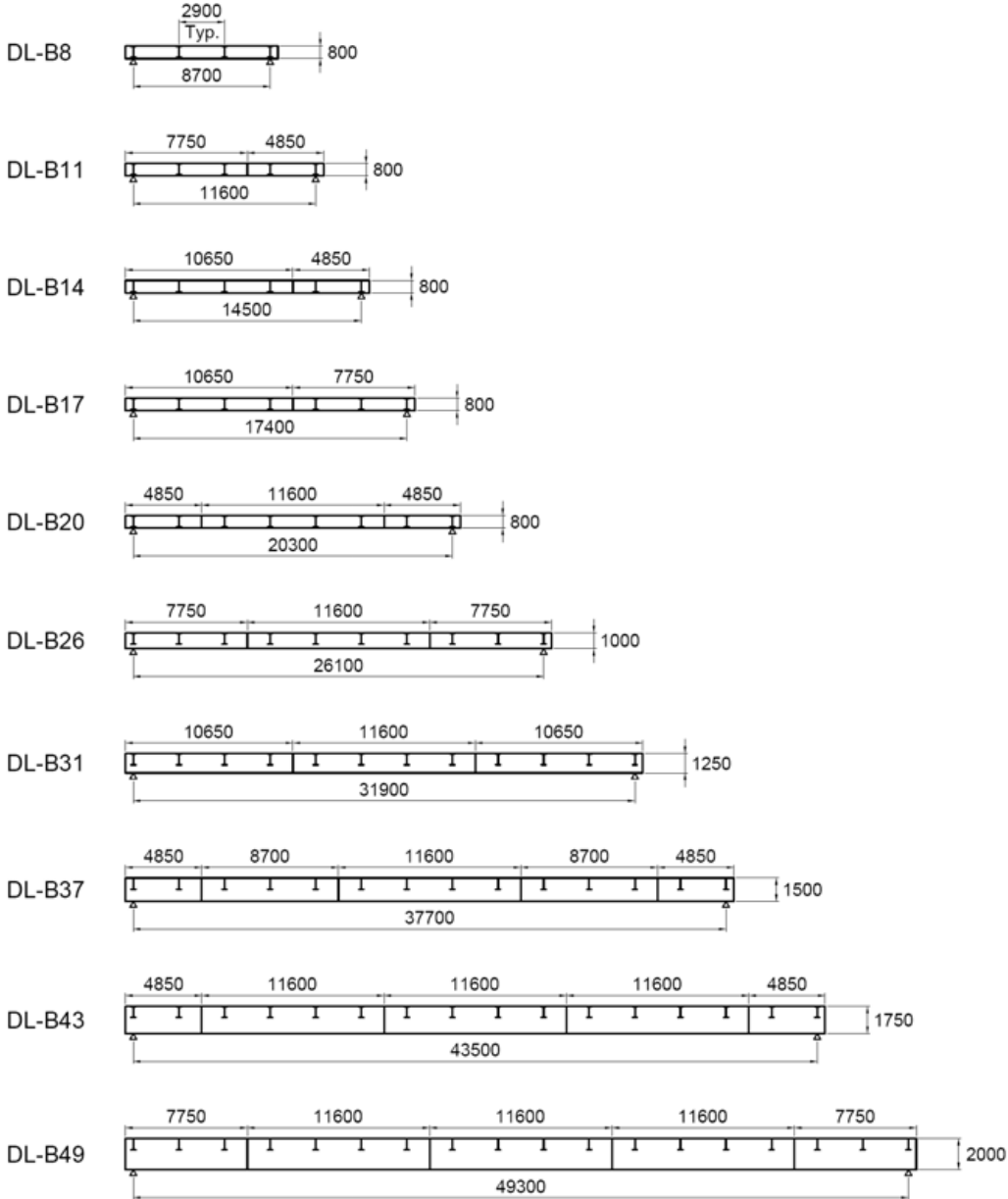


A number of carriageway width options are offered to suit most road standards. These range from a single track country lane carried by a bridge of overall width 5.5m to a dual 2-lane highway on a structure 19m wide.



**SPAN RANGE DL-B8 TO DL-B49**

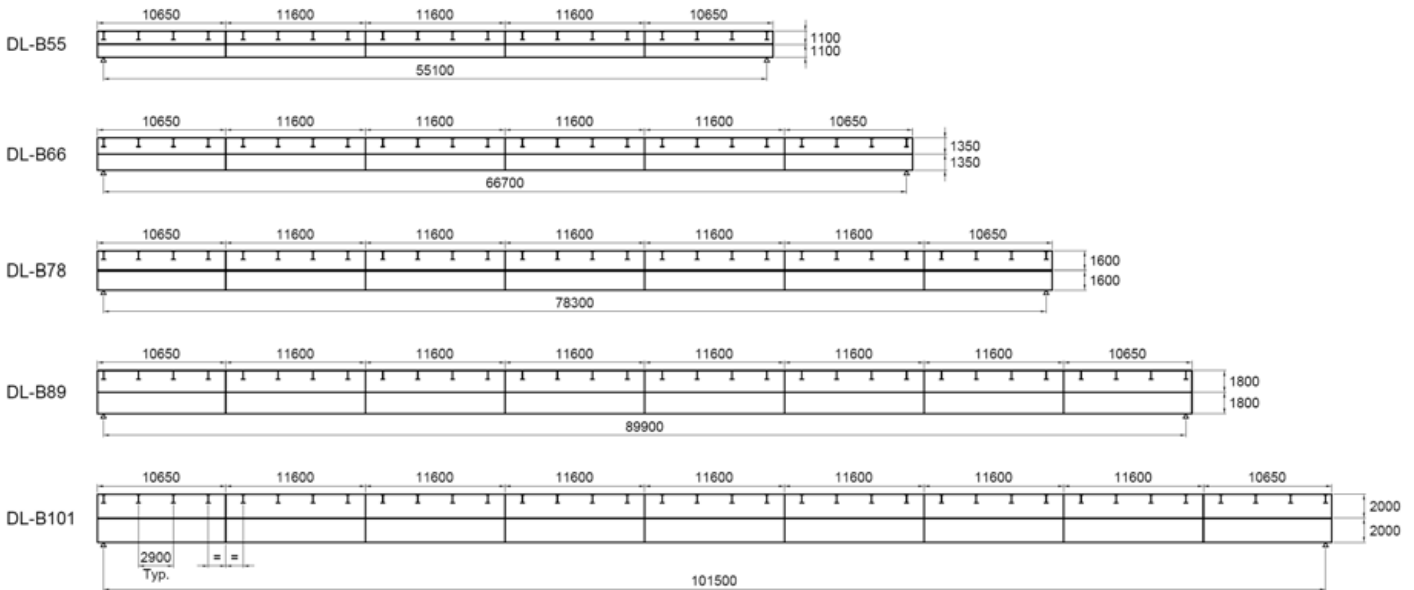
REF SPAN AND GIRDER LENGTHS



A large range of spans are available based on a cross-girder spacing of 2.9m. The two main plate girders are supplied in standard lengths based on a module of 11.6m to suit containerisation. In the range 8m to 49m they are supplied full depth, but for longer spans up to 101m they arrive on site as two half-depth pieces to be bolted together.

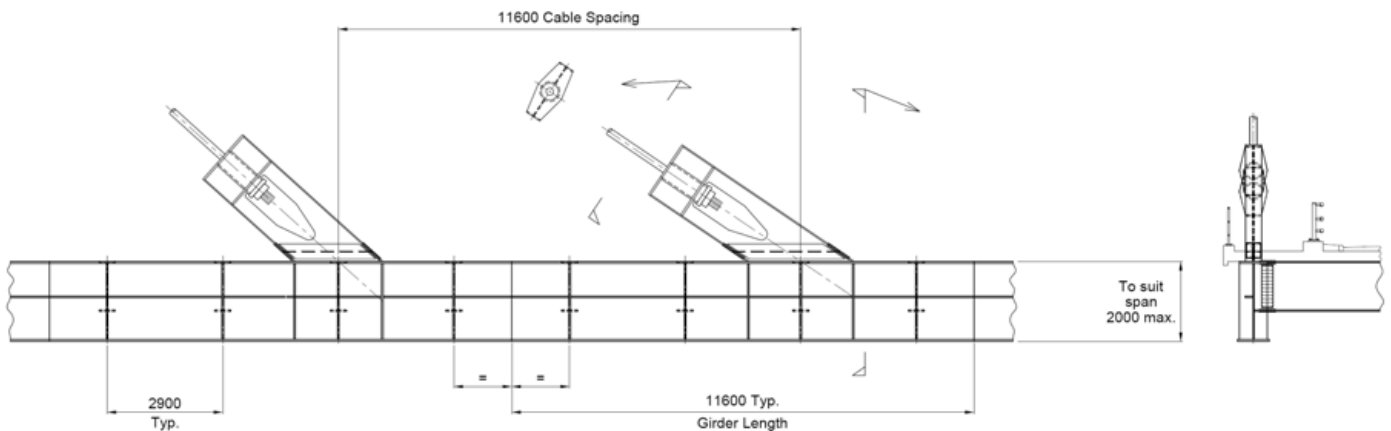
**SPAN RANGE DL-B55 TO DL-B101**

REF SPAN AND GIRDER LENGTHS



All the steel components are standardised, pre-fabricated and delivered to site in 40 ft containers. Stud shear connectors are provided on the girder top flanges for composite action with the concrete deck slab. All connections are bolted avoiding the need for any site welding and all steelwork is supplied with a corrosion protection system to suit environmental conditions. Bridge bearings, typically of the pot type, are designed and supplied with the steelwork, but not other specialist elements such as expansion joints and parapets

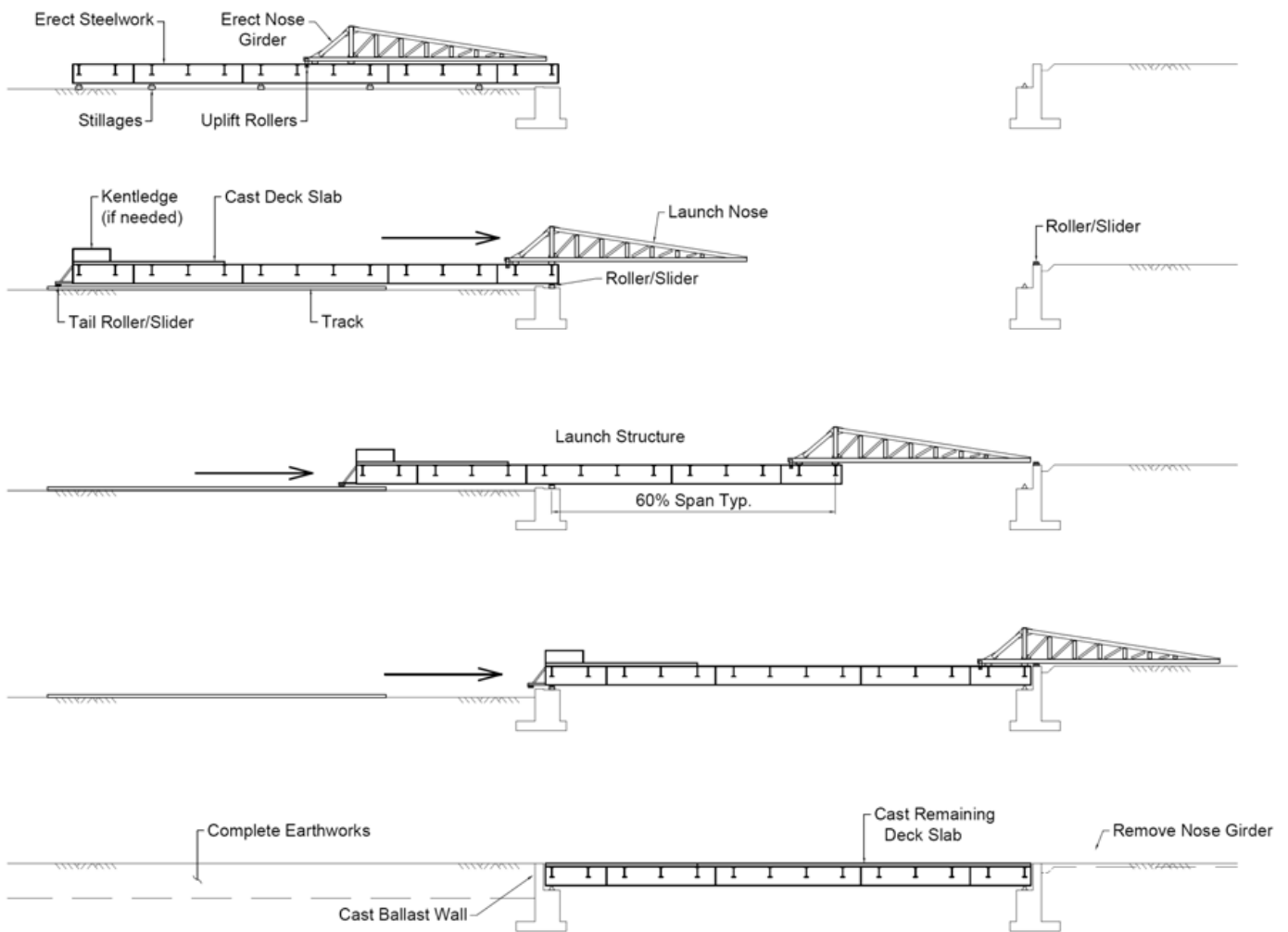
The system is also designed so that it can be suspended by stay cables allowing much longer spans to be crossed. Standard cable anchorages bolt to the top flanges of the main girders and at support positions the main girders are adaptable to incorporate connections to steel pylons.



**LONGER CABLE-STAYED SPANS DL-B100 TO DL-B200**

## Erection

Bridge steelwork is typically erected by mobile or crawler crane. However where access or availability of suitable capacity cranes is limited DLT Modular Bridges can be erected by launching from an assembly position behind one abutment. DLT can supply all the specialist launching equipment on a hire or purchase basis as part of the package.



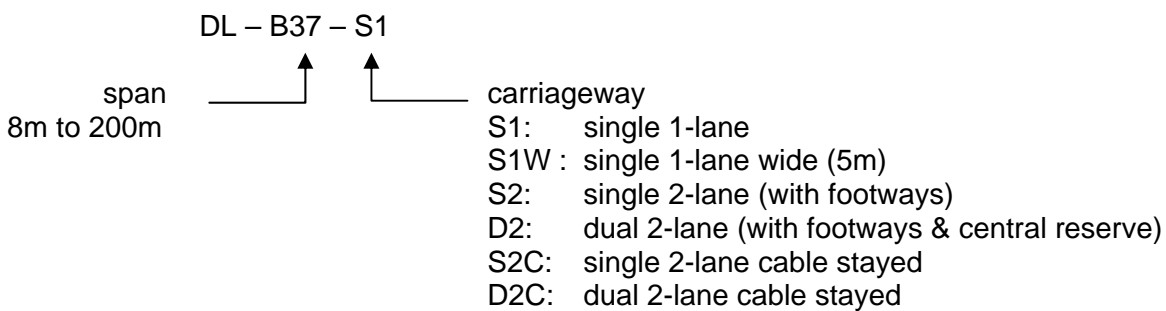
## Design

DLT Modular Bridges come with a comprehensive design service. A full set of design calculations can be provided for all the steel and concrete components forming the bridge superstructure covering both erection and in-service conditions. The calculations will be performed for traffic loading from various international standards to suit client requirements, eg Eurocode, BS5400, AASHTO.

A full set of arrangement and detailed drawings are supplied for approval and record purposes. For cable stayed spans the design service extends to full global analysis of the bridge and design of steel pylons if desired.

It is expected that design of the substructure will be carried out by the client to suit the specific bridge site and that he will also appoint a local contractor for the steelwork erection and concrete construction.

The following reference number system is used for specification of DLT Modular Bridges:





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