

## Guidance Note 5.09

# The prefabrication checklist

### Scope

This Guidance Note suggests an outline agenda for a prefabrication meeting for the interested parties on a project or, alternatively, a checklist for a technical review.

Interested parties may include a representative from the client, the contractor, and the steelwork contractor. Other interested parties might include the designer, where the client or contractor has employed one to prepare a design and the independent inspection authority where appointed to oversee some or all of the fabrication activity.

### The prefabrication meeting

At the commencement of a contract that involves the fabrication of bridge steelwork, the parties involved may need to meet at an early stage to discuss the clarity of the contract provisions with respect to all the relevant technical issues.

The arrangements for carrying out the work need to be explained and recorded; access for inspection needs to be agreed; procedures for dealing with queries that arise need to be established.

An agenda that was drawn up by Messrs Sandberg for such initial meetings has been used within the steel bridge sector. A copy of that agenda is presented below, with a few additional points to cover increasing use of quality assurance schemes.

Careful consideration will need to be given to contractual arrangements encompassing quality management systems and agreed forms of self certification. This will need to cover input, if required, by the Designer and/or the inspector at clearly defined review stages, where necessary.

### Agenda

- 1.0 Meeting details
- 1.1 Purpose of meeting
- 1.2 Agenda
- 1.3 Official minutes
- 2.0 Fabrication programme
- 3.0 Specifications for materials and workmanship
  - 3.1 Application code and British Standards
  - 3.2 Use of other specifications and certificates of conformity (where permitted)
- 4.0 Sub contracting
  - 4.1 Flame cutting
  - 4.2 Fabrication and welding
  - 4.3 Bending
  - 4.4 Machining
  - 4.5 Non Destructive testing
  - 4.6 Destructive testing
  - 4.7 Protective treatment
  - 4.8 Site erection, welding, non-destructive testing and protective treatment
- 5.0 Materials supply
  - 5.1 Material specifications/codes and steel grades
  - 5.2 Mills inspection
  - 5.3 Supply condition
  - 5.4 Supply by stockists
  - 5.5 Certificates of test
- 6.0 Materials at Contractor's Works
  - 6.1 Contractor's quality management system for receipt
  - 6.2 Contractor's traceability system
  - 6.3 Certificates of test for Independent inspector's review
  - 6.4 Lamination checks
- 7.0 Drawings
- 8.0 Preparation of materials
  - 8.1 Flame cutting
  - 8.2 Preparation of edges, ends and surfaces

8.3 Fitted stiffeners  
8.4 Holes for bolts

9.0 Welding  
9.1 Welding procedure specifications  
9.2 Welding procedure qualification records  
9.3 Welder qualifications  
9.4 Welding preparations  
9.5 Temporary attachments  
9.6 Welding distortion  
9.7 Welding stud shear connectors

10.0 Bending

11.0 Straightening and flattening

12.0 Production test plates  
12.1 Location and numbers of production test plates  
12.2 Testing of production test plates

13.0 Non destructive testing of welding  
13.1 Methods of and areas requiring NDT for butt and fillet welds  
13.2 Acceptance levels for NDT  
13.3 NDT equipment calibration  
13.4 NDT operator qualifications  
13.5 NDT procedures  
13.6 NDT reports

14.0 Testing of stud shear connectors  
14.1 Ring testing  
14.2 Bend testing

15.0 Tolerances  
15.1 Tolerance requirements  
15.2 Temporary erection at contractor's works  
15.3 Fabricator's method for recording tolerance checks  
15.4 Independent inspector checks

16.0 Bolts, nuts and washers  
16.1 Preloaded fastener assemblies  
16.2 Methods of tightening and pre-load control for preloaded bolts

17.0 Handling and stacking

18.0 Protective treatment  
18.1 Protective treatment system  
18.2 Paint manufacturer and paint data sheets  
18.3 Paint storage  
18.4 Testing of paints

18.5 Contractor's quality management system for painting  
18.6 Painting environmental conditions  
18.7 Painting procedure trial  
18.8 Blast cleaning reference sample panel  
18.9 Metal spray reference sample panel  
18.10 Damage to protective treatment  
18.11 Contact surfaces of slip resistant bolted joints  
18.12 Independent inspector's involvement in protective treatment

19.0 General points  
19.1 Facilities for Independent inspector.  
19.2 Contractor's quality management documents review by Independent inspector  
19.3 Contractor's quality plan  
19.4 Inspector's quality plan  
19.5 Inspector's unconfirmed reports  
19.6 Independent inspector's contact with Client/Contractor/Designer  
19.7 Procedure(s) for dealing with imperfections, defects and other non-conformities

20.0 Requirements for submission of records; identify records required, responsibility for collation and arrangements for submission.  
20.1 Any special requirements or considerations