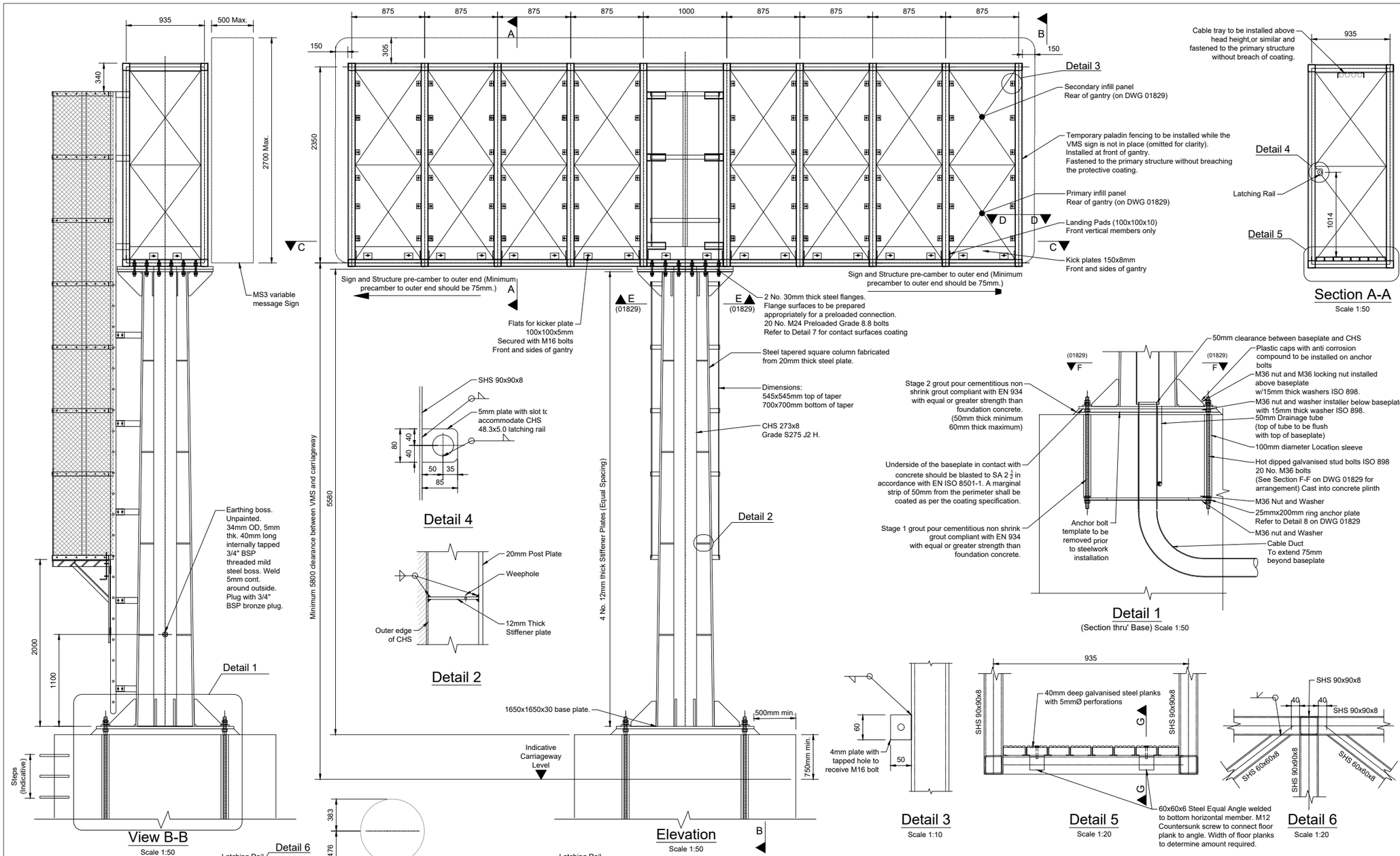

NOTES:

1. The purpose of this detail is to ensure a consistency of structural form for MS3 gantries across the National Road network. All section sizes and details are minimum indicative size only. TII take no responsibility for the structural or geometrical adequacy of these details. It is the responsibility of the Designer to analyse, design and detail the MS3 gantry, connection details and its associated reinforced concrete foundation in accordance with the Eurocodes, their associated Irish national annexes, TII publications and all other design documents as appropriate.
2. All gantry support posts shall be designed to withstand the vehicle collision loads given in Table 4.2 of DN-STR-03010 regardless of the presence of a vehicle restraint system.
3. The Designer for specific gantries shall provide structural drawings for the specific gantry. All information that is site specific must be included in these drawings.
4. All dimensions are in millimetres.
5. Steel shall be S355 J2+N to IS EN 10025-2 unless otherwise noted. The main plates in the steel column (20mm thick) shall have improved through thickness properties, class Z15 to IE EN 10164. Hollow sections to be Grade S355J2H to ISEN10210 unless noted otherwise.
6. The steelwork dimensions shown are specified for a mean temperature of 15 degrees centigrade.
7. Structural steelwork to be in accordance with TII Standard CC-SPW-01800.
8. Protection to steelwork to be in accordance with TII Standard CC-SPW-01900. Colour of exposed top coat to be BS4800 Grey 18B21
9. A suitably qualified welding inspector in accordance with CC-SPW-01800 and a suitable qualified paint inspector in accordance with CC-SPW-01900 should be supplied by the Contractor for inspection purposes outlined in the specifications and drawings.
10. Temporary welded attachments shall be subject to approval by the Employer.
11. Lifting eyes to be designed by steelwork fabricator and submitted to the Designer of specific gantries for approval at least 4 weeks prior to fabrication.
12. Any temporary arrangement required for installation of elements of the gantry prior to site connection shall be agreed with the Designer of specific gantries 4 weeks prior to fabrication.
13. Method of erection of the gantry to be approved by the Designer of the specific gantry.
14. Hard stamping not permitted on any permanently exposed surfaces.
15. The SCD is based on a maximum VMS weight of 1600kg.
16. Maximum height of sign to be 2700mm and maximum width to be 8800mm.
17. Alignment of the gantry relative to the road should be such as not to cause reflection of headlights from the signage directly back at drivers.
18. The maximum allowable deflection of the gantry shall be in accordance with Table 3.1 of DN-STR-03010. Designer shall verify gantry is within allowable limits of Table 3.1.
19. VMS attachment details, cable runs, and non-structural elements shall be confirmed by the Designer of the specific gantries with the supplier.
20. It is the responsibility of the Designer to ensure that proposed VMS sign will attach to the gantry without modification to the proposed structure outlined in this drawing.
21. The VMS fixing points to the steelwork shall be distributed equally across the steelwork members with a minimum of 6 x 2 attachments (horizontal x vertical) to ensure equal weight distribution of the VMS on the gantry.
22. The SCD is based on a maximum structural steelwork mass of 3225kg support by the post (excluding weight of VMS, and excluding weight of column). The structural adequacy of the project specific gantry shall be verified by the Designer of the specific gantry.
23. Weld symbols are in accordance with IS EN ISO 2553 System A. Crossing welds should be avoided when possible.
24. All fillet welds shall be a minimum 6mm leg length and continuous unless noted otherwise. The Designer is to verify the adequacy of all welds.
25. Where required, supplementary reinforcement to resist tension and shear forces at the holding down anchors shall be provided in accordance with IS EN 1992-4.
26. Minimum class of concrete in foundation to be C40/50 to IS EN 1992-1-1.
27. All bolts shall be as described on the drawing and coated in accordance with IS EN ISO 10684. Painting on site of all bolted connection areas will be required. Contact areas of preloaded connections to receive surface treatment class B to IS EN 1090-2. The torque method (IS EN 1090) shall not be used for the tightening of preloaded bolts.
28. All bolt assemblies shall be inspected after preloading and tensioning for any signs of coating damage due to installation. Where damage has occurred, a repair of the damaged coating shall be completed in accordance with ISO 1461. This repair shall be inspected and approved by a competent coating inspector.
29. Cope holes and re-entrant corners shall have a radius of at least 25mm or 1.25 times the plate thickness, whichever is greater, unless noted otherwise.
30. All bolts and nuts to be vibration resistant. All holding down bolts shall have plastic caps with anti corrosion compound installed on anchor bolts.
31. All fixtures/fittings required to attach gantry equipment to the gantry should be protected against corrosion in accordance with TII Standard CC-SPW-01900.
32. No drilling of structural steel is permitted.
33. A pre-camber is to be included for in the design to accommodate the structural deflection at the tip of the cantilever to avoid visible downward deformation under permanent actions. Stated pre-camber on SCD based on weights given in Note 15 and Note 22, and based on a near-rigid foundation.
34. The ducting, chamber and cabinet arrangement for the distribution of power supplies, feeder pillars and communication cabling shall be in accordance with CC-SCD-01508.
35. Electric earthing shall be provided in accordance with CC-SCD-01508.
36. Galvanic corrosion shall be reduced by using non-conductive spacers and sleeves between contacting dissimilar metals.
37. The Designer of specific gantries shall be subject to, and shall comply with the technical approval procedures for structures contained within DN-STR-03001 of the TII Publications.
38. Provision shall be made to cover any voids or gaps between the gantry and the equipment to protect from objects falling onto the carriageway below. The detailing of these provisions shall be undertaken on a structure specific basis and shall not conflict with the requirements of the primary steelwork.

Bonneagar Iompair Éireann
Transport Infrastructure Ireland

ACTIVITY: Construction & Commissioning

PUBLICATION TITLE
GANTRY GROUP 10
GENERAL ARRANGEMENT OF GANTRY GROUP 10 SHEET 1 OF 2

STREAM	SHEET	HISTORICAL REFERENCE	DOCUMENTATION SET	PUBLICATION DATE	PUBLICATION NUMBER: ACTIVITY	STREAM	DRAWING NUMBER
STANDARD CONSTRUCTION DETAIL (SCD)	A3		STANDARD	DECEMBER 2025	CC	SCD	01828