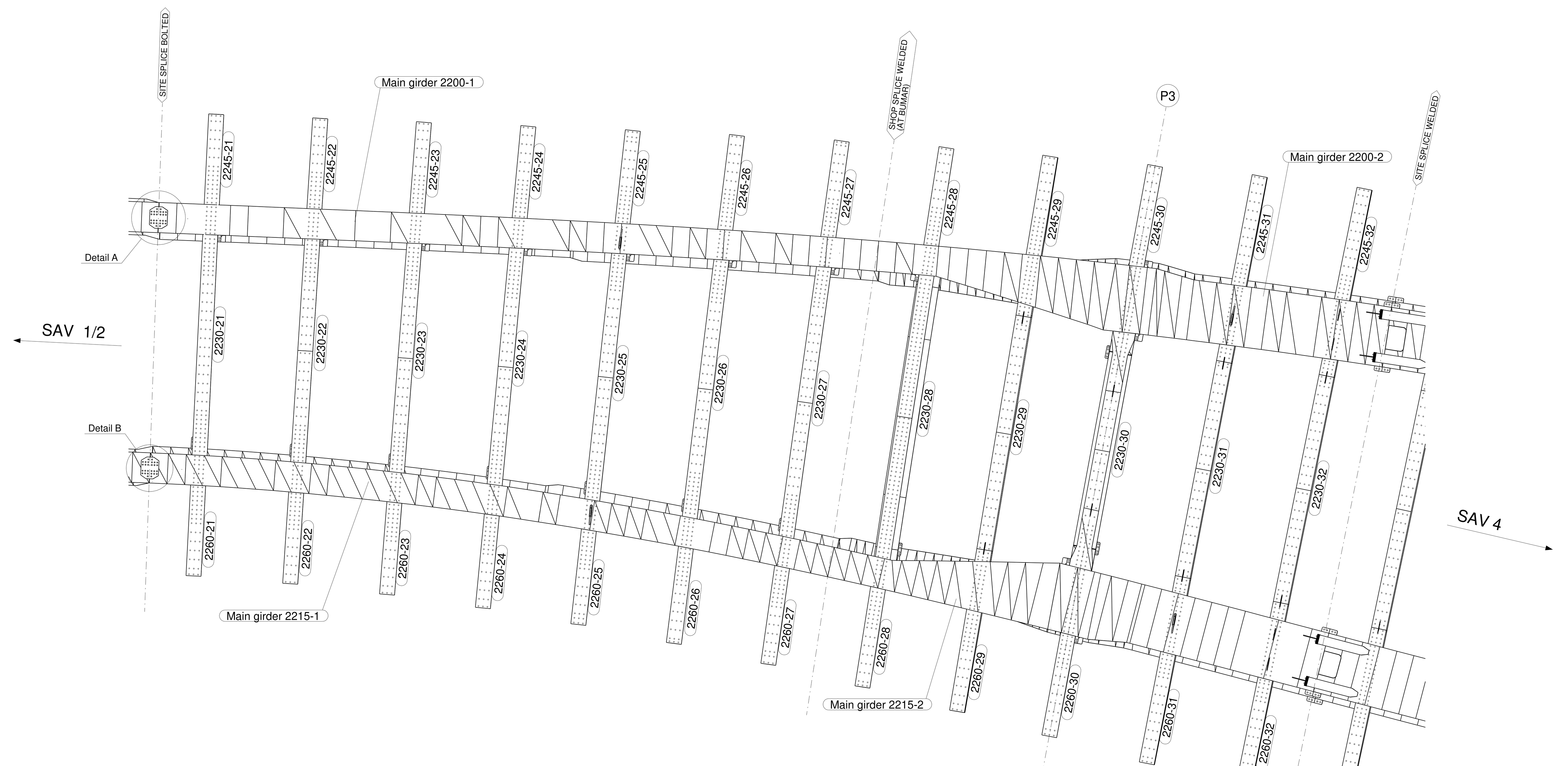
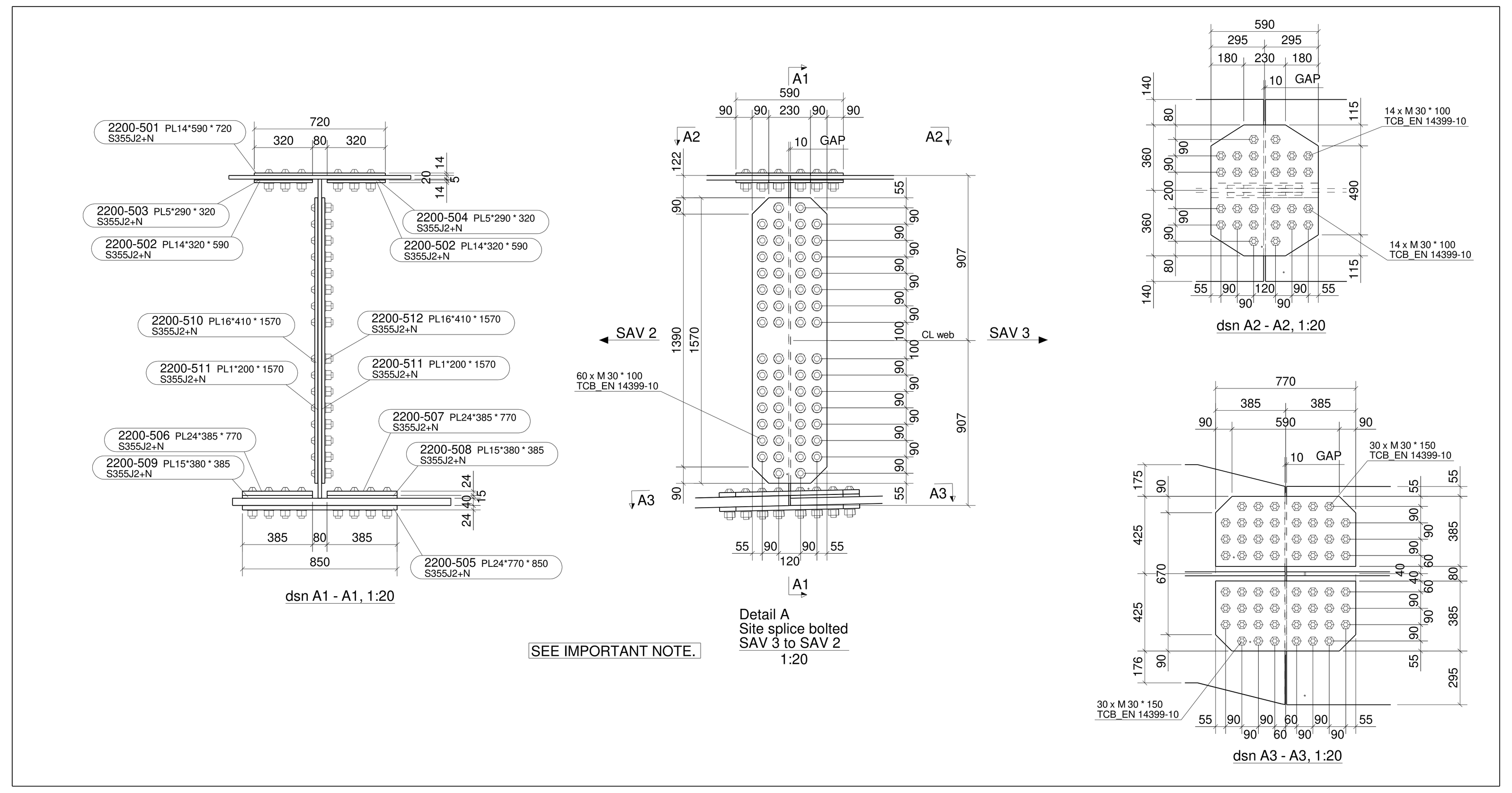
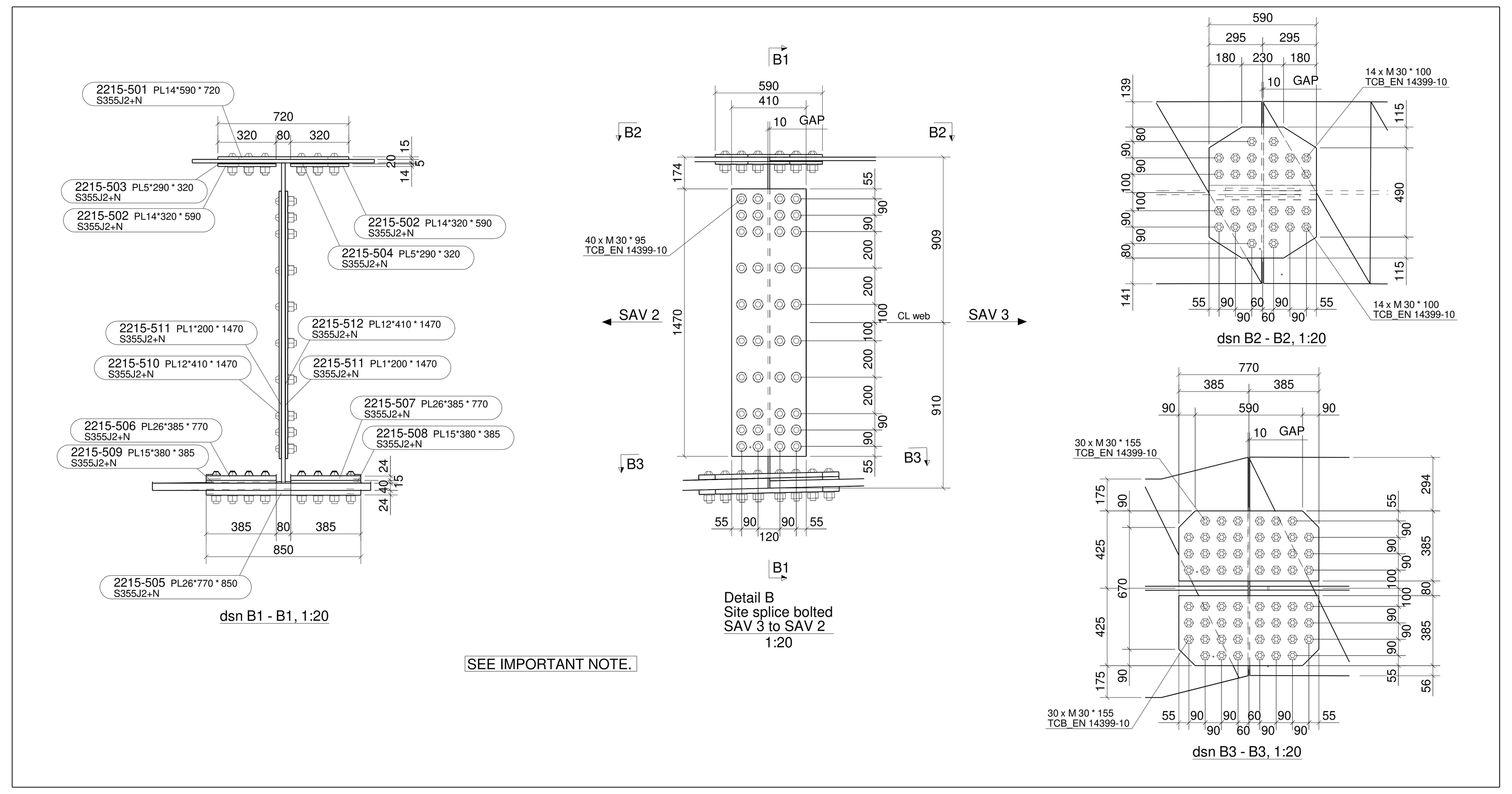


SAV 3 - TG21 to 32

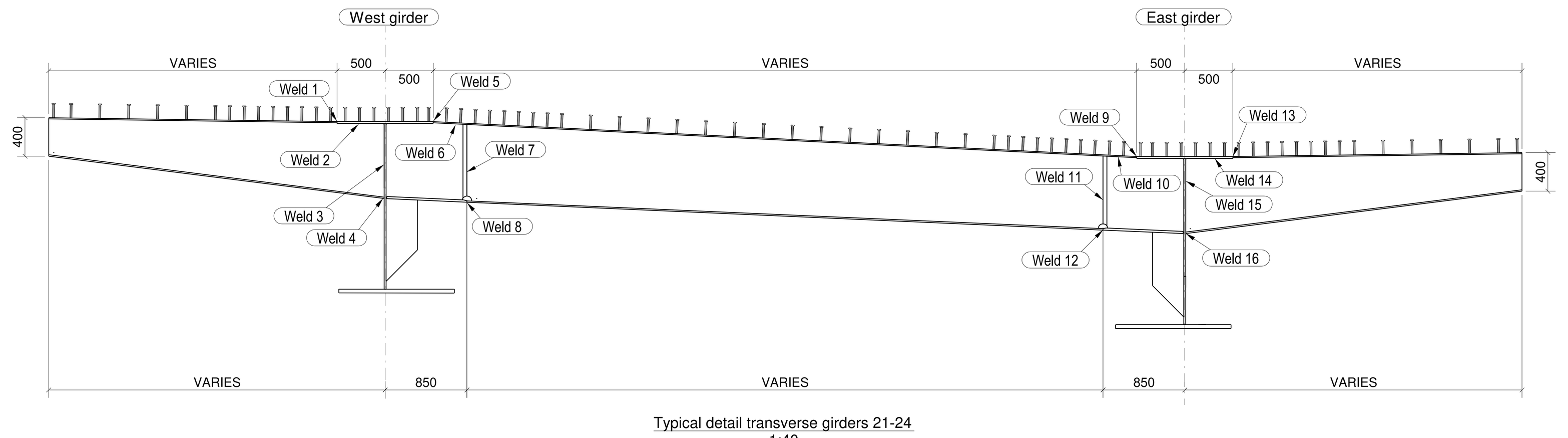
SOUTH APPROACH VIADUCT



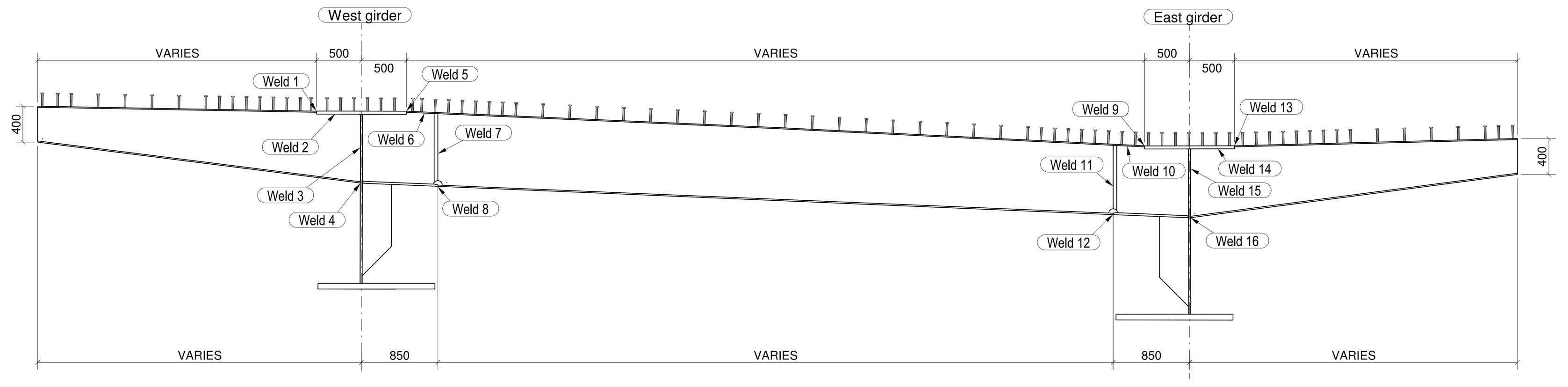


IMPORTANT NOTE:

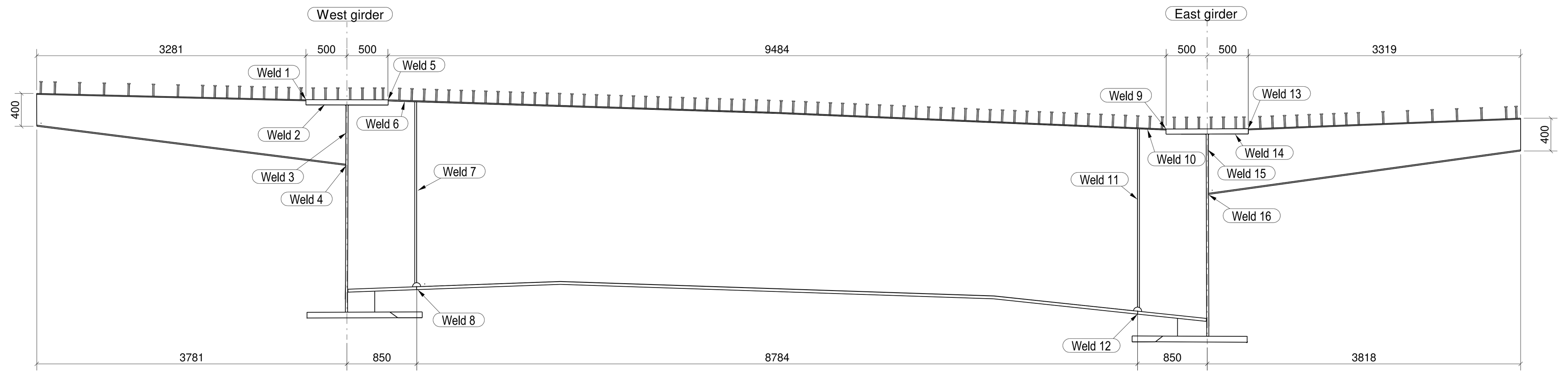
- Drill all boltholes in the splice plates theoretically, with the automatic cutting/ drilling machine.
- After assembly of the bridge parts in the Wondelgem yard, measure the main girders and cut off excess length.
- Temporarily mount the splice plate on the main girder and drill holes; detach, mount on the adjacent main girder, temporarily mount and drill.
- After drilling, mount the splice plates on a bridge section with temporary bolts.
- When lifting on site, slide the bridge section between the splice plates with a small horizontal movement.
- Using cherrypickers along both sides of a main girder (but never under a suspended load) fix the splice plates on the main girder webs with barrel pins and bolts, while the bridge part is hanging in the crane.
- Calculation note must show which bolts must be placed to ensure stability, before disconnecting the load from the crane.
- The remaining bolts are fastened with cherry pickers.



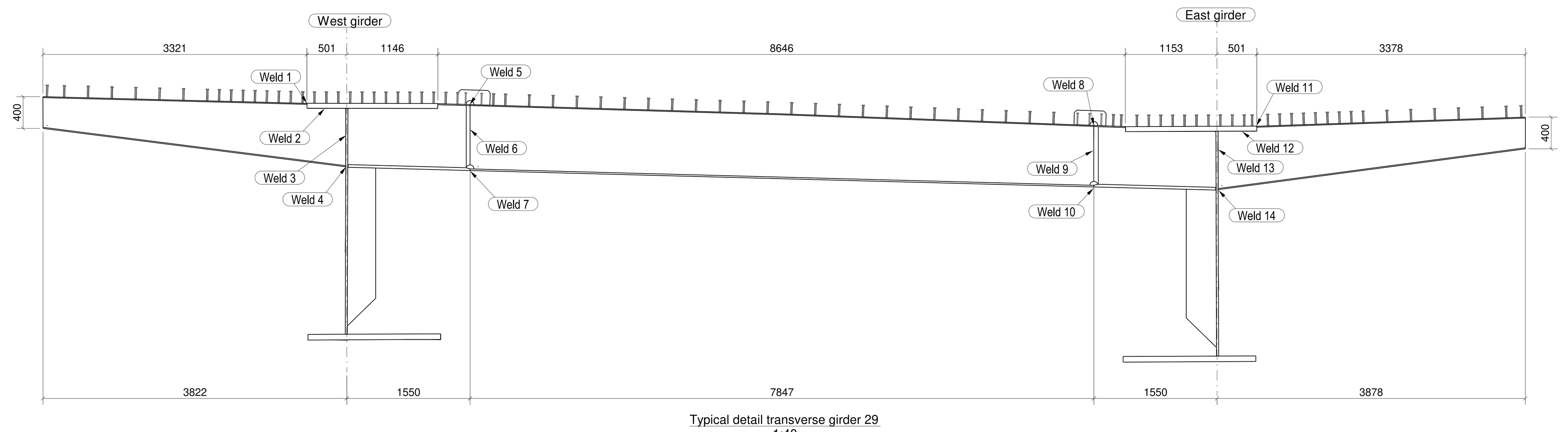
Typical detail transverse girders 21-24
1:40



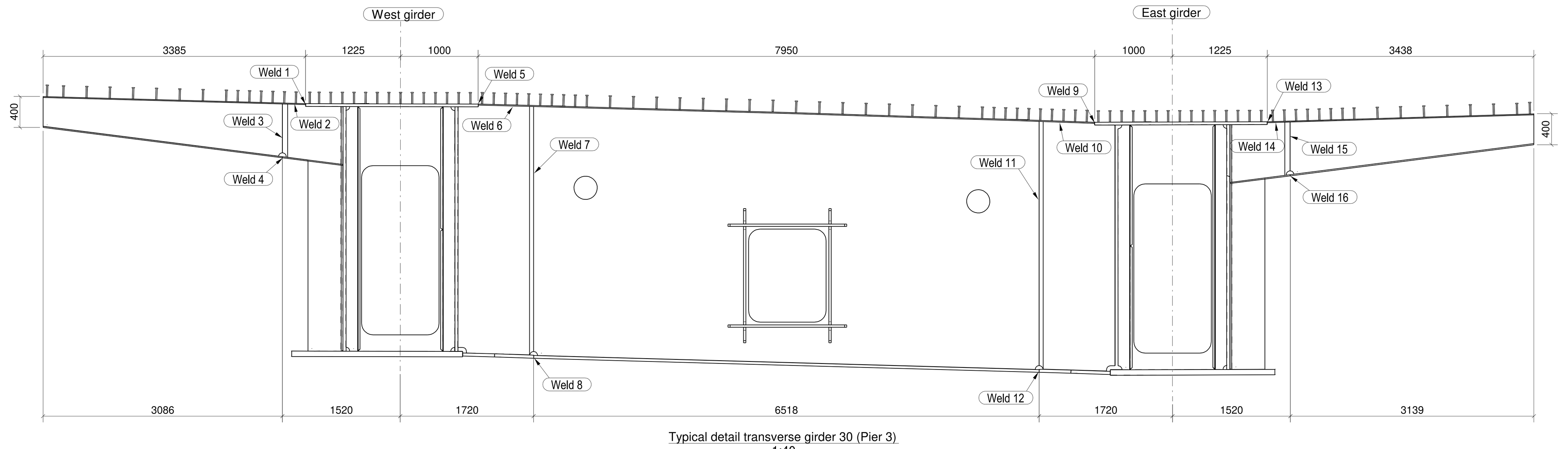
Typical detail transverse girders 25-27
1:40



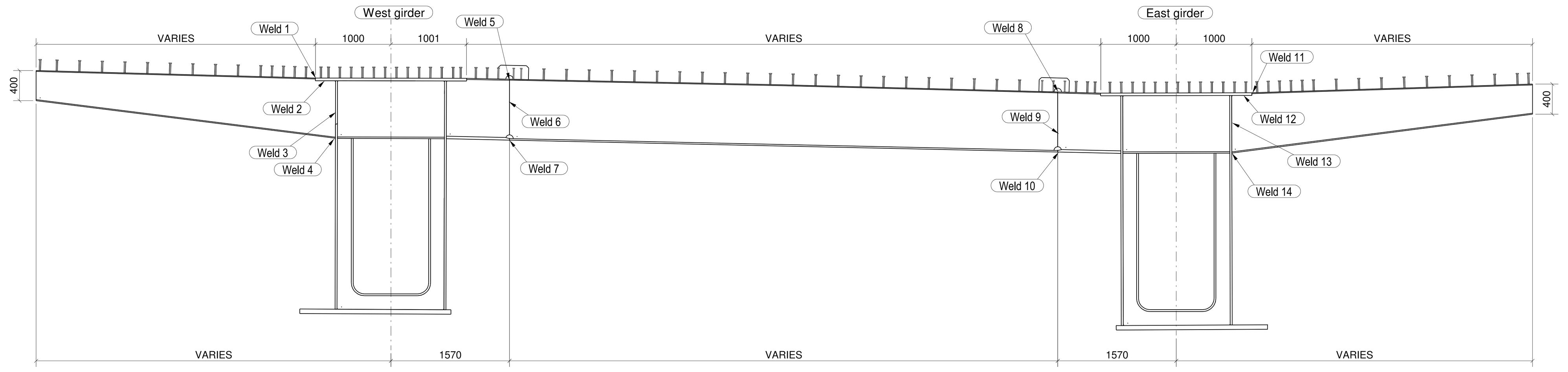
Typical detail transverse girder 28
1:40



Typical detail transverse girder 29
1:40



Typical detail transverse girder 30 (Pier 3)
1:40



Typical detail transverse girders 31-32
1:40

SAV 3	Cantilever WEST				Transverse girder								Cantilever EAST			
	Weld 1	Weld 2	Weld 3	Weld 4	Weld 5	Weld 6	Weld 7	Weld 8	Weld 9	Weld 10	Weld 11	Weld 12	Weld 13	Weld 14	Weld 15	Weld 16
Transverse girder 21	SW48	4 ◺◺	6 ◺◺	10 ◺◺	SW47	4 ◺◺	SW88	SW89	SW46	4 ◺◺	SW88	SW89	SW48	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 22	SW48	4 ◺◺	6 ◺◺	10 ◺◺	SW47	4 ◺◺	SW88	SW89	SW46	4 ◺◺	SW88	SW89	SW48	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 23	SW48	4 ◺◺	6 ◺◺	10 ◺◺	SW47	4 ◺◺	SW88	SW89	SW46	4 ◺◺	SW88	SW89	SW48	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 24	SW48	4 ◺◺	6 ◺◺	10 ◺◺	SW47	4 ◺◺	SW88	SW89	SW46	4 ◺◺	SW88	SW89	SW48	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 25	SW50	4 ◺◺	6 ◺◺	10 ◺◺	SW49	4 ◺◺	SW88	SW89	SW124	4 ◺◺	SW88	SW89	SW50	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 26	SW50	4 ◺◺	6 ◺◺	10 ◺◺	SW49	4 ◺◺	SW88	SW89	SW124	4 ◺◺	SW88	SW89	SW50	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 27	SW50	4 ◺◺	6 ◺◺	10 ◺◺	SW49	4 ◺◺	SW88	SW89	SW124	4 ◺◺	SW88	SW89	SW50	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 28	SW107	4 ◺◺	6 ◺◺	10 ◺◺	SW112	4 ◺◺	SW111	SW110	SW113	4 ◺◺	SW111	SW110	SW109	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 29	see table below															
Transverse girder 30	SW106	6 ◺◺	SW122	SW123	SW118	8 ◺◺	SW120	SW121	SW119	8 ◺◺	SW120	SW121	SW108	6 ◺◺	SW122	SW123
Transverse girder 31	see table below															
Transverse girder 32	see table below															

SAV 3	Cantilever WEST				Transverse girder						Cantilever EAST			
	Weld 1	Weld 2	Weld 3	Weld 4	Weld 5	Weld 6	Weld 7	Weld 8	Weld 9	Weld 10	Weld 11	Weld 12	Weld 13	Weld 14
Transverse girder 29	SW107	4 ◺◺	6 ◺◺	10 ◺◺	SW1	SW4	SW114	SW1	SW4	SW114	SW109	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 31	SW106	4 ◺◺	6 ◺◺	10 ◺◺	SW1	SW95	SW114	SW1	SW95	SW114	SW108	4 ◺◺	6 ◺◺	10 ◺◺
Transverse girder 32	SW106	4 ◺◺	6 ◺◺	10 ◺◺	SW1	SW95	SW114	SW1	SW95	SW114	SW108	4 ◺◺	6 ◺◺	10 ◺◺

General note :

Execution :

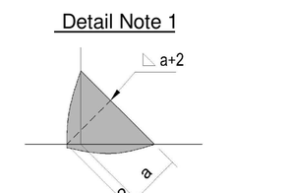
1 - **Steel Quality (EN 10025) :**
- t <35mm: Grade S355J2 +N
- 35mm ⩽ t < 40mm: Grade S355K2 +N
- 40mm ⩽ t < 63mm: Grade S355NL
- t >63mm: Grade S355NL
- Steelwork in shims and taper plates to be grade S275J2 + N
- Stainless steel shall be corrosion resistance class CRC iii, grade 1.4404 stainless steel in accordance with BS EN 1993-1-4 annex A, unless noted otherwise.

2 - **Shear studs BS EN ISO13918 :**
Unless noted otherwise, all shear studs to be 22mm diameter by 150mm high, sd1 studs in accordance with BS EN ISO 13918.
Steel grade: S235J2 +C450

3 - **Welds CLASS 3 :**
- All welds shall be performed continuously around the complete perimeter unless noted otherwise.
- Dimensions of fillet welds are minimum effective throat thickness unless noted otherwise.
- Welds according to weld catalogue workshop or worksite

-TLL3RC-VBSC-NA-DL-DR-CB-001005: North & South Approach Viaduct – Weld catalogue Workshop
-TLL3RC-VBSC-NA-DL-DR-CB-001006: North & South Approach Viaduct – Weld catalogue Site
-TLL3RC-VBSC-BR-DL-DR-CB-003005: Bascule Bridge – Weld catalogue Workshop
-TLL3RC-VBSC-BR-DL-DR-CB-003006: Bascule Bridge – Weld catalogue Site

- Note 1 : Deep penetration fillet welds to be in accordance with EN 1090-2:2018 §12.4.4 (b) ; see detail Note 1



4 - **Excecution class : EXC3 EN1090-2:2018 :**

5 - **Tolerances according to EN1090-1 and EN1090-2 :**

-TLL3RC-VBSC-NA-DL-DR-CB-001003: North Approach Viaduct – Fabrication Tolerances
-TLL3RC-VBSC-SA-DL-DR-CB-002003: South Approach Viaduct – Fabrication Tolerances
-TLL3RC-VBSC-BR-DL-DR-CB-003003: Bascule Bridge – Fabrication Tolerances

6 - **Annotations :**
Dimensions in mm.

7 - **Conservation :**

-TLL3RC-VBSC-NA-DL-DR-CB-001003: North Approach Viaduct – Paint Drawing
-TLL3RC-VBSC-SA-DL-DR-CB-002003: South Approach Viaduct – Paint Drawing
-TLL3RC-VBSC-BR-DL-DR-CB-003003: Bascule Bridge – Paint Drawing

Erection :

1 - **Steel Quality :**
Shall be specified on the drawings and calculation notes.

2 - **Welds :**
- All welds shall be performed continuously around the complete perimeter unless noted otherwise.
- Where permanent backing material is used for single sided welds, the material must be closely fitted and firmly. Located only by tack welds in the root of the permanent weld.

3 - **Annotations :**
Dimensions in mm.

4 - **Bolted assemblies :**
All bolts to be M24 or M30 class 10.9 HRC bolts to BS EN14399 in standard clearance holes unless noted otherwise. All bolts to be preloaded to the minimum values stated in table 18 of BS EN 1090 unless noted otherwise.
All stainless steel bolted connections to be grade A4-80 to BS EN ISO 3506.

5 - **C.o.G. :**
Center of gravity.
Weight in metric tons.

6 - **Conservation :**

-TLL3RC-VBSC-NA-DL-DR-CB-001003: North Approach Viaduct – Paint Drawing
-TLL3RC-VBSC-SA-DL-DR-CB-002003: South Approach Viaduct – Paint Drawing
-TLL3RC-VBSC-BR-DL-DR-CB-003003: Bascule Bridge – Paint Drawing

Rev	Date	Drawn	Checked	Approved	Description
P01	28.09.2021	MWA	FC		First Issue - For Approval

GULL WING LOWESTOFT — FARRANS A CRH COMPANY — VICTOR BUYCK STEEL CONSTRUCTION

Project: Gull Wing Bridge Lowestoft
Lake Lothing Third Crossing

Part: SOUTH APPROACH VIADUCT

Subject: GENERAL ARRANGEMENT DRAWING

Title: GENERAL ARRANGEMENT SAV 3

Project number: 2661/19

Papersize: A0++

Scale: As indicated

Projection:

Project	Orginator	Zone	Level	Type	Discipline	Number	Revision
TLL3RC	VBSC	SA	DL	DR	CB	002103	P01