CSPCWG 5 ACTION 11: Secretary to draft revised specification B-381 (Bridges), including some examples, and include in WG letter.
Note: A few examples have been supplied and are inserted below. Probably it will not be necessary to retain all of them in the final version.

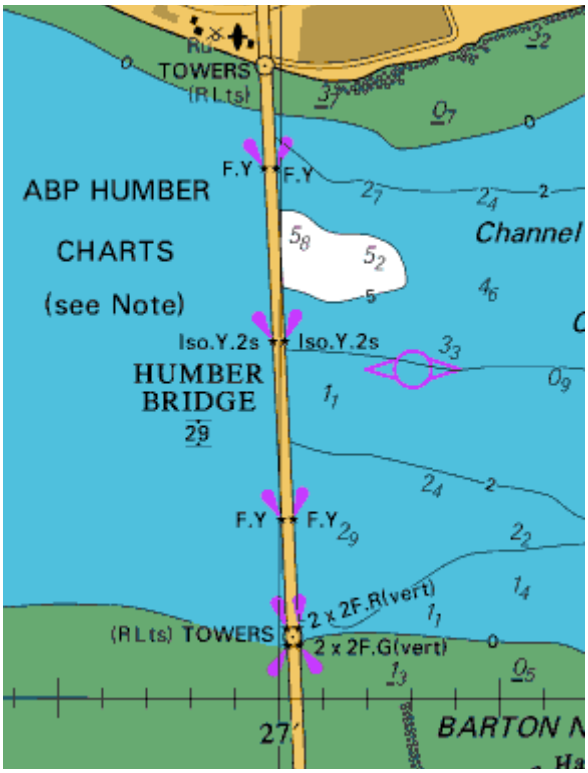
Draft additional specification (existing B-381.3 and B381.4 to be renumbered)

381.3 Bridge supports

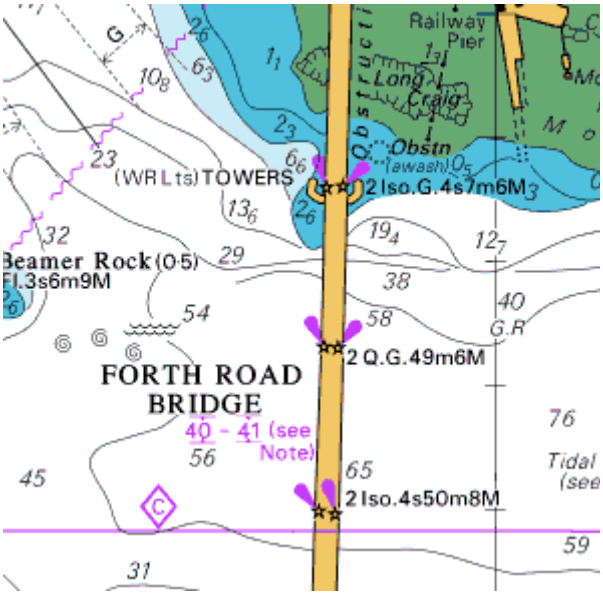
Bridge supports may be an obstruction to navigation and should be charted (if the positions are known). It is difficult to be prescriptive about how they should be charted, as circumstances may vary considerably. Some options (which may be combined) are:

- Where bridge supports carry navigation lights (and/or daymarks), chart as small light stars (and/or beacons) with appropriate descriptions. Add a legend, eg 'TOWER', 'Pylon', as appropriate to distinguish between lights on the bridge superstructure and on bridge supports (examples A to C);
- For suspension bridges, or others for which the supports extend above the bridge, a position circle symbol with legend should be shown, eg 'TOWER', 'Pylon' (example B) or, if large enough scale, the tower can be shown to scale (example F);
- Where bridge supports are wider than the actual bridge, show to scale in plan outline (usually continuing the bridge sides through the widening, unless it is known that the bridge itself widens at those points) (example C and D);
- The supports may also be shown as lines across the bridge, even if they do not protrude beyond the width of the bridge or above the bridge (examples E to G);
- Insert a large-scale inset plan to enable the above actions to be taken (example F and G)
- Add a profile view diagram (example H and I):

Example A (Source: United Kingdom Hydrographic Office)

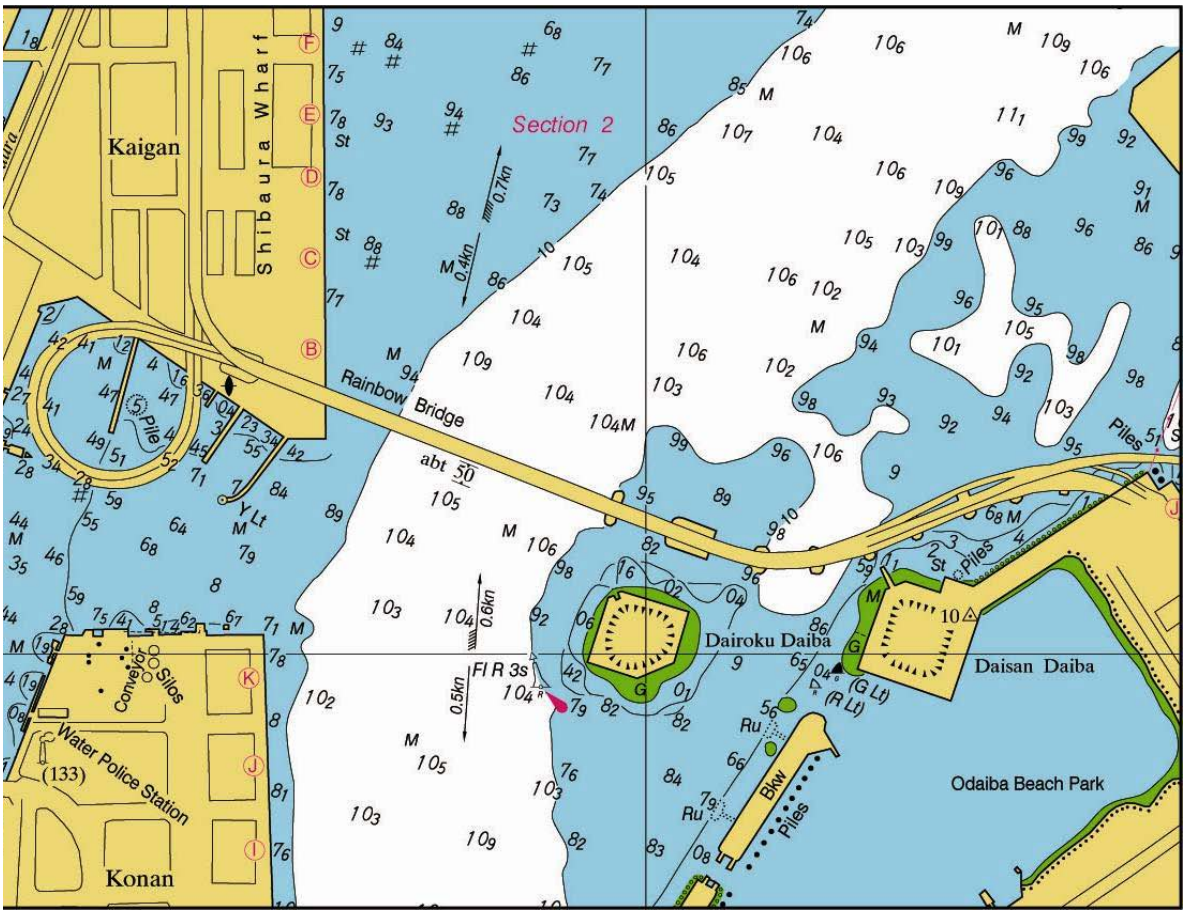


Example B

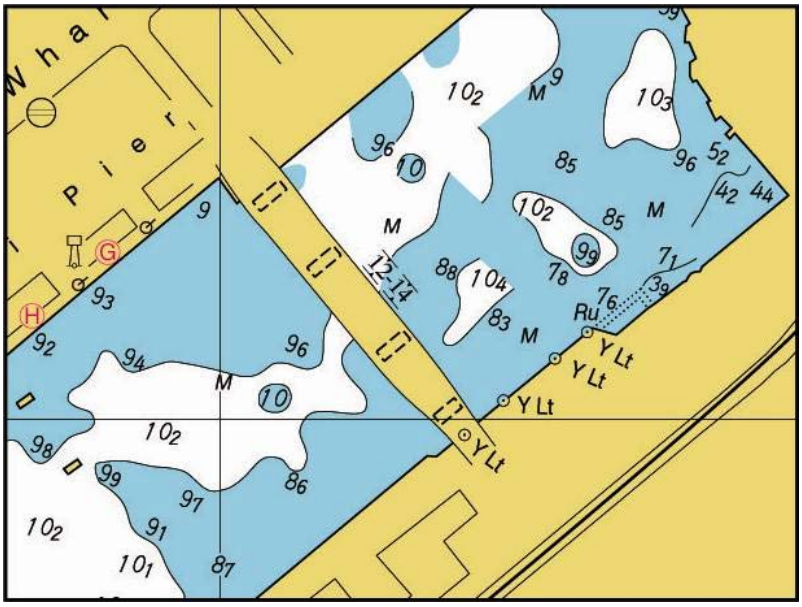


Example C

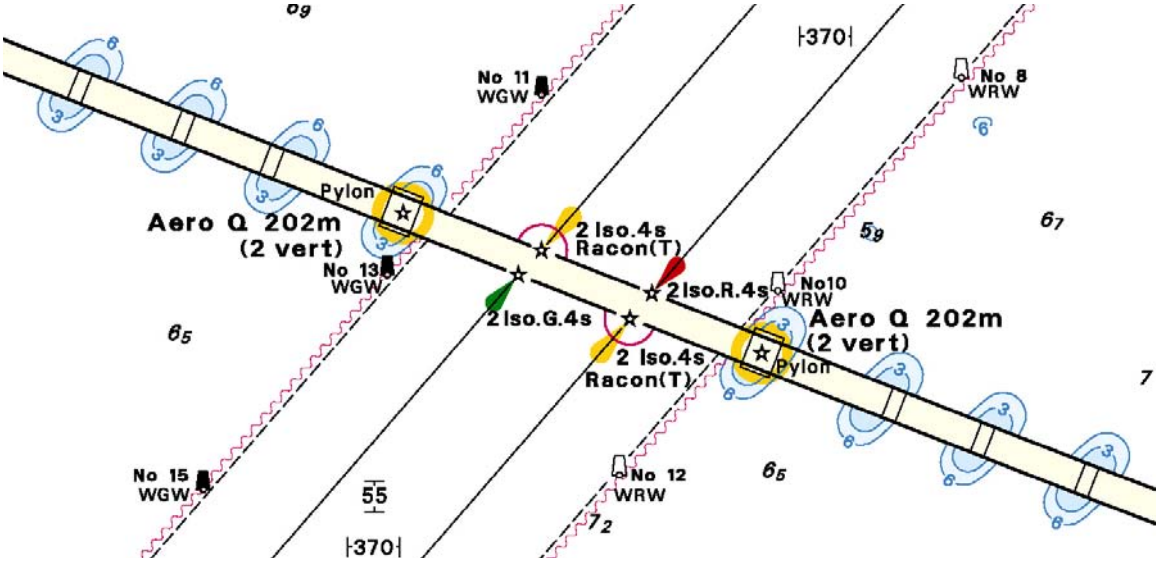
Examples B & C (Source: United Kingdom Hydrographic Office)



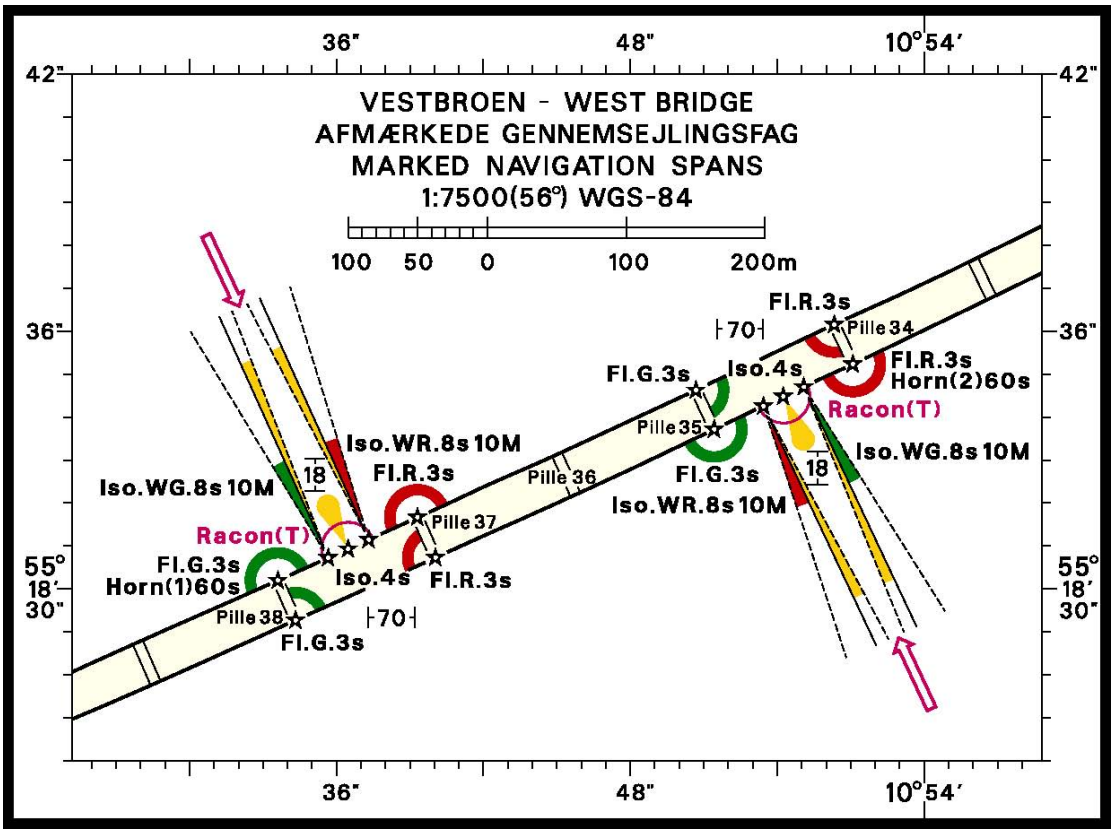
Example D (Source: Japanese Hydrographic and Oceanographic Department)



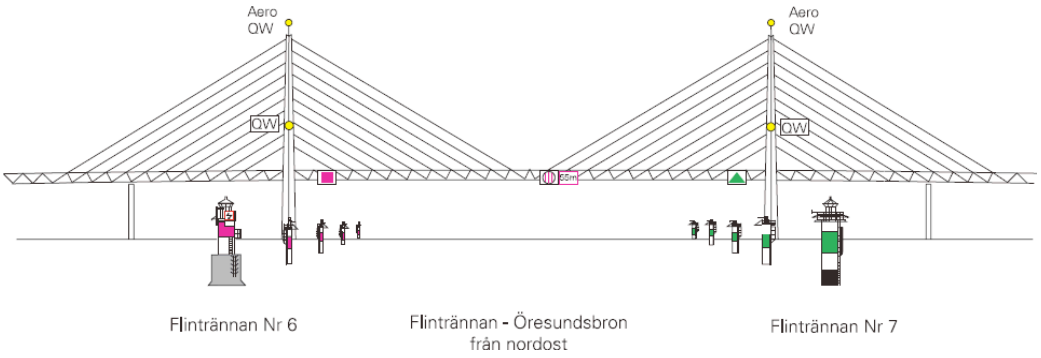
Example E (Source: Japanese Hydrographic and Oceanographic Department)



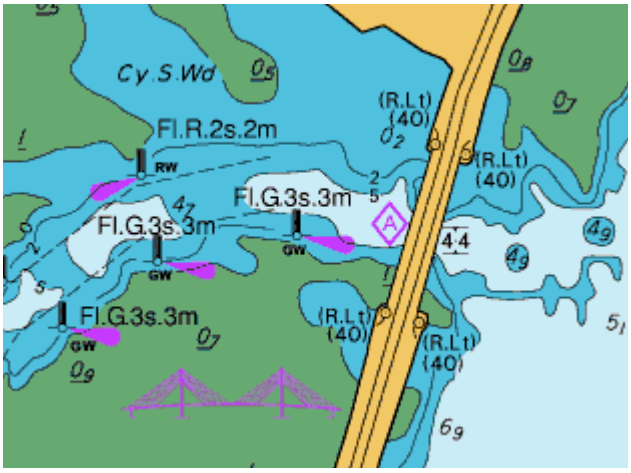
Example F (Source: Danish Maritime Safety Administration)



Example G (Source: Danish Maritime Safety Administration)



Example H (Source: Swedish Maritime Administration)



Example I (Source: Bahrain Chart)

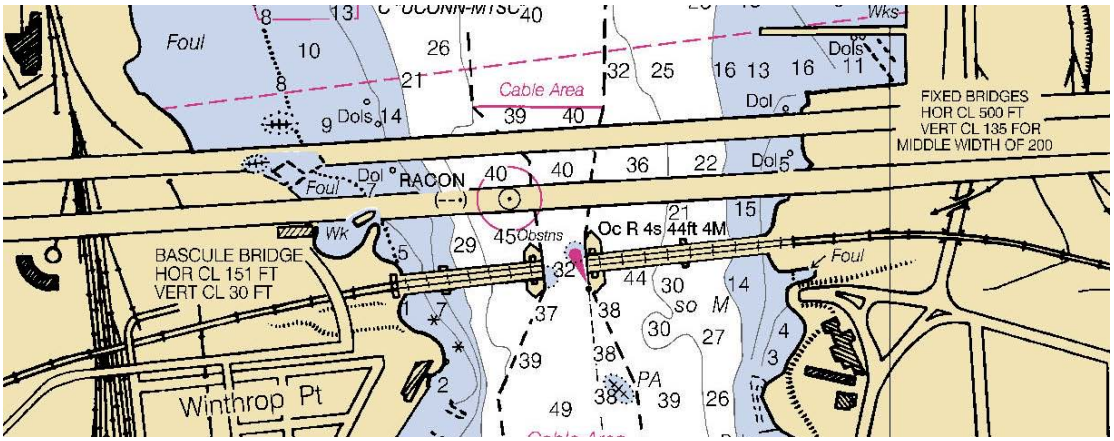
381.4 Depth (including obstructions) under bridges

The physical presence of a bridge can affect the flow of water and hence the location of shoals and deeper channels in its vicinity, including underneath it. Normal sounding selection principles apply in the waters either side of a bridge. However, it may be appropriate to select a sounding (or obstruction) which is under the bridge (either because it is a controlling depth, or because depth varies significantly across the width of a bridge span). In such cases it should be shown as a 'sounding out of position', in accordance with the guidance at M-4 B-412.2. I11 (using a pointer) is to be preferred to I12, as the exact position under the span may be important.

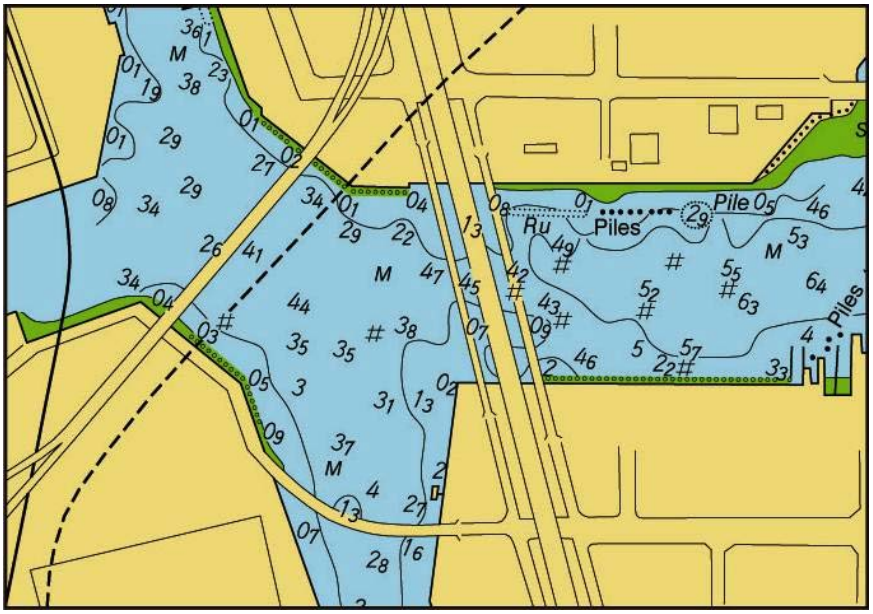
Other options are:

- to break the bridge, to allow bathymetry to be shown in the normal way (Example A)
- show soundings in there true position, with the bridge and land tint retained over the top (Example B).

Depth contours should normally be broken at the bridge as it will usually be obvious where the contours go. On very large scale charts, where the bridge is shown to scale and it clarifies the picture, the contours can be continued through the bridge.



Example A (Source: United States Office of Coast Survey)



Example B (Source: Japanese Hydrographic and Oceanographic Department)