



**Environmental  
Management  
Services**

## **COMAH Bund Survey and Construction Case Study**

---

### **Summary**

Following a scheduled audit by a COMAH inspector our client was advised that their bunds were in breach of CIRIA C736 standards. Our Environmental Consultants conducted a survey of the bund and found several non-conformities, including impact damage which was beyond economic repair.

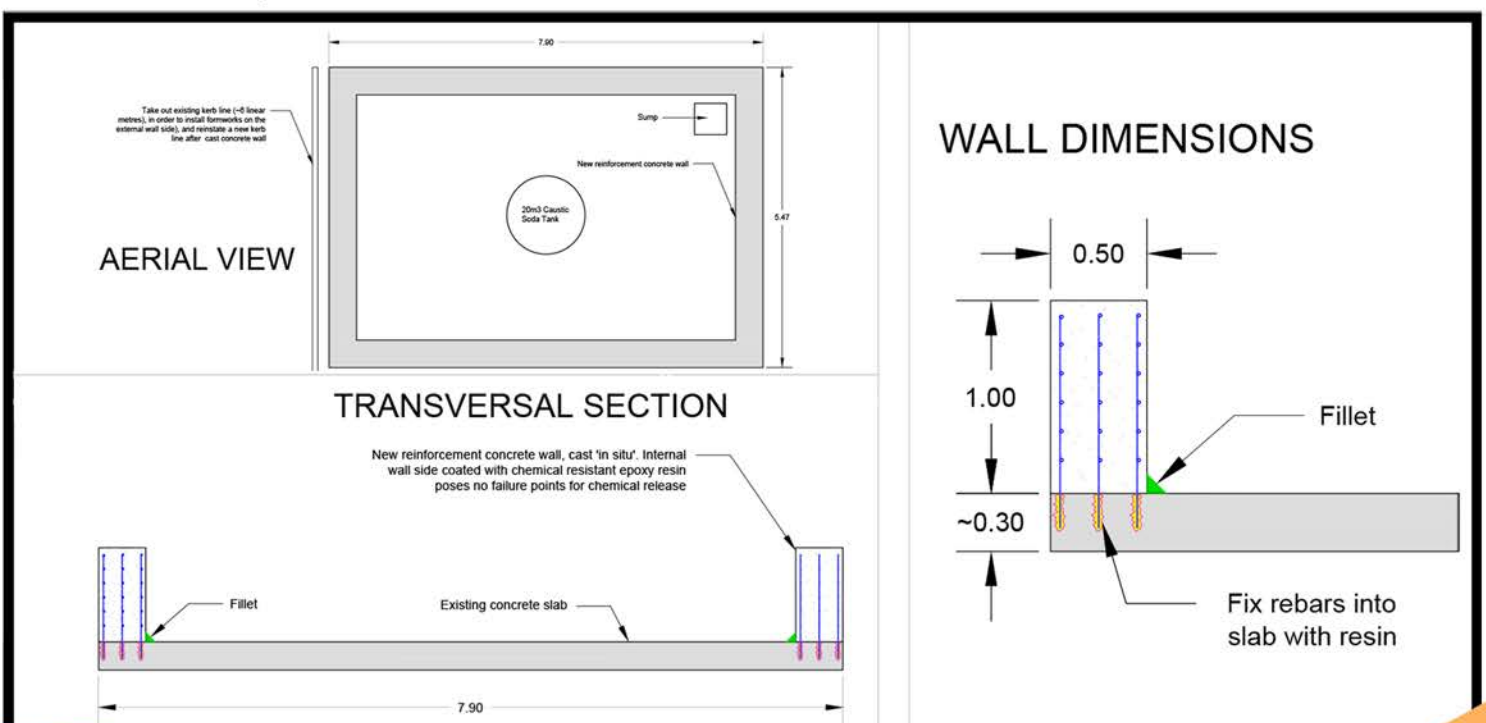
We designed a specification to meet all legislation and conducted the construction of a new bund compliant with the relevant standards.



Following a scheduled audit by a COMAH inspector our client was advised that their bunds were in breach of CIRIA C736 standards. Our Environmental Consultants conducted a survey of the bund and found several non-conformities; there were fractures throughout the concrete bund floor and the walls were constructed from double-skin engineering brick, which under the COMAH regulations is unsuitable and unfit for purpose.

We also found evidence of the concrete being corroded on the wall-floor joint by the caustic soda being stored within the bund. It was also established that the wall had been subjected to vehicle impact and superficially repaired with silicon mastic sealant. The wall was therefore no longer able to withstand the level of internal pressure which it had been originally designed to.

Our consultancy team designed a bund specification which would comply with all legislation including but not limited to the COMAH Regulations and CIRIA (C736). Based on this specification, taking into account the capacity and contents of the tank, our civil engineers designed a bund. This design was passed to the client and subsequently the officiating COMAH inspector to clarify that this specification upgraded the bund to necessary standards.





All of the existing bund walls had to be removed due to the structural insecurities found during the survey. A new wall was then constructed using a rebar cage and shuttering, allowing all walls to be formed in a single concrete pour. The sump was also moved to incorporate the new thicker walls.





A fillet was then installed running along the wall-floor joints to ensure all potential failure points within the bund were sealed. The walls, fillets, sump and the entire floor were then coated with a chemical resistant two part epoxy resin.



Following the project the client arranged for a follow up visit with the COMAH auditor who confirmed the bund was up to specification.

