Merrembeena

Case Study
C1223-010

Year
2024

Client
CBH

Site/Location
Merrembeena / Bunkers

Region
Wheat Belt, Western Australia

Scope
Insitu Stabilisation of existing Pavement to Wearing Course

Total Production
43,000M2

Product Type
C-12 +

Carbon Sequestered
520T

Safety
Zero LTIs

Project Summary

In October 2024 CBH Group engaged C-Twelve (C12) to upgrade the overflow bunkers and associated the DOG road, and associated access roads at the northwest portion of the CBH Mirambeena Grain Storage Facility. The upgrade aims to convert the existing, weather-affected, and deteriorating surfaces into a durable, sealed pavement system designed for a 40-year service life.

Cooperative Bulk Handling (CBH) has requested that C-Twelve provide a treatment solution for areas where unsealed bunkers and DOG roads currently exist. Site visits conducted in July 2023 noted wet conditions, heavy rainfall, and high clay content in the existing gravel—factors that have led to cracking and deformation, particularly around the weighbridge area. The facility comprises three bunkers (two approximately 220 m long by 32 m wide, and one 200 m by 32 m) with capacities of around 30 kt and 27 kt, respectively, and DOG roads that are 13.5 m wide.

The proposed upgrade leverages detailed geotechnical investigations and advanced pavement design analyses to recommend a robust stabilised pavement system. By using the C-Twelve Plus system with specific emulsion and biochar dosages, the design aims to deliver a resilient and durable solution that meets the high traffic demands and challenging site conditions at the CBH Mirambeena Grain Storage Facility.

C-Twelve
62-64 Wittenberg Drive
Canning Vale WA 6155
0401 334 421
www.c-twelve.com.au