



Marathon Oil Bridge

Detroit, Michigan



Spanning eleven active railroad tracks, the Marathon Oil Bridge needs durable protection from the rough, corrosive industrial environment of the Detroit railway system. With a rigorous and intensive production schedule, the bridge was able to take advantage of the quick turnover provided by the hot-dip galvanizing process.

Over the years, expansion of the oil refinery was limited due to the fact the industrial property owned by Marathon Oil is split into two tracts divided by a span of railroad tracks. Economic conditions lead Marathon management to link the two tracts in an effort to expand production capacities and create new jobs for the local market. Time and budget constraints dictated a bridge carrying large pipes over the tracks was the most viable option for connecting the two tracts.

Limited access to the private railroad property meant it was necessary to pre-construct the bridge, and then lift it into place in large sections. The steel elements were speedily hot-dip galvanized before pre-construction. The galvanizing process is performed indoors, independent of weather, allowing for the quick turnover necessary to keep a project on schedule. The structure was then assembled, disassembled, shipped, and reassembled before being lifted into place by cranes.

Because of the strictures of private property access and need for speedy installation, there would be no time for coating touch-up, nor was there access once installed. Paint for corrosion

protection would have required such efforts, both initially and continuously throughout the life of the structure. Because future access to the structure was not guaranteed, the structure needed a maintenance-free corrosion protection system – hot-dip galvanized steel meets this requirement.

Located in the harshest of the five environmental categories – industrial – the bridge needed durable, long-lasting protection for the 950 tons of structural steel ladders, handrails, sheet steel and fasteners. The tough zinc coating, which is more difficult to penetrate than the substrate steel itself, will protect the bridge from nicks and scratches caused by flying gravel or daily wear-and-tear.

The project, originally scrutinized by the public, will now serve as a testament to the quick turnover and superior corrosion protection of galvanized steel. Because the pieces could be galvanized and immediately put into the field, crews were in and out of the private property in short order, while the bridge will provide years of maintenance-free service to Marathon Oil. 🌱



Galvanizer

AZZ Galvanizing Services - Hamilton

Specifier

Marathon Oil Company

Architect/Engineer

Bristol Steel & Conveyor Corporation

industrial



American Galvanizers Association