

major investment project at

Padeswood cement works

■ how cement is made

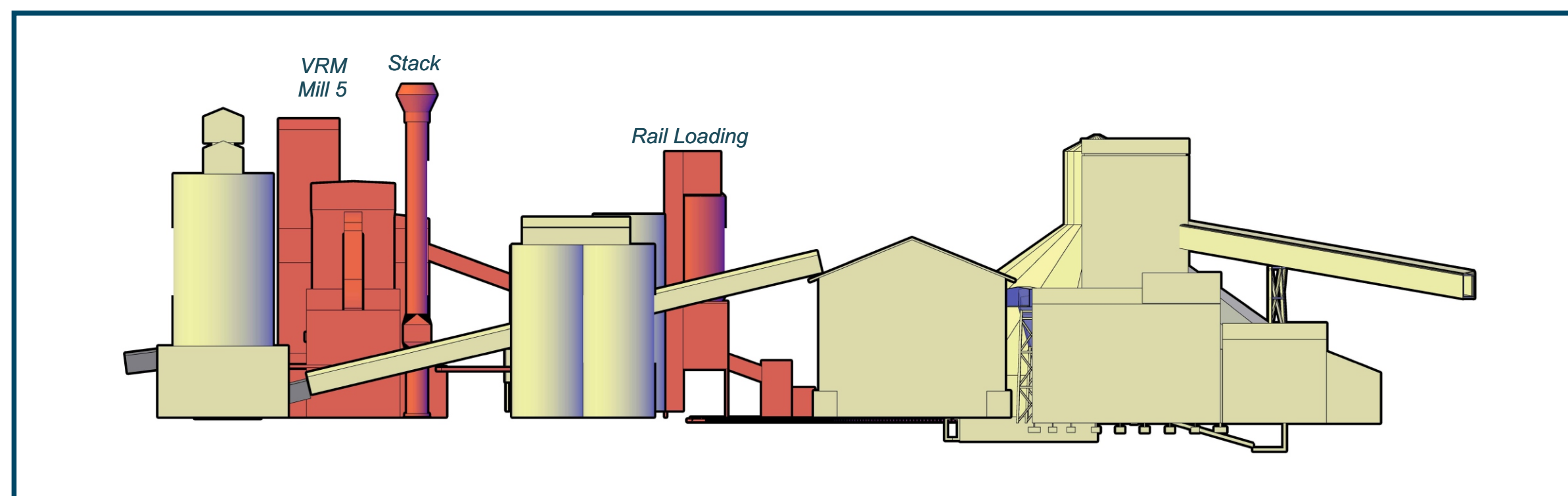
Cement is a critical ingredient in the manufacture of concrete – the world's most versatile construction material. It is made by heating crushed limestone and other minerals to over 1,450 degrees centigrade in a cylindrical rotary kiln. The heat is generated by precisely controlled burning of powdered coal and alternative fuels such as waste industrial solvents and meat and bone meal.

As the ground stone moves through the kiln, the elements change to form a new substance called clinker, which comes out as grey balls, about the size of marbles.

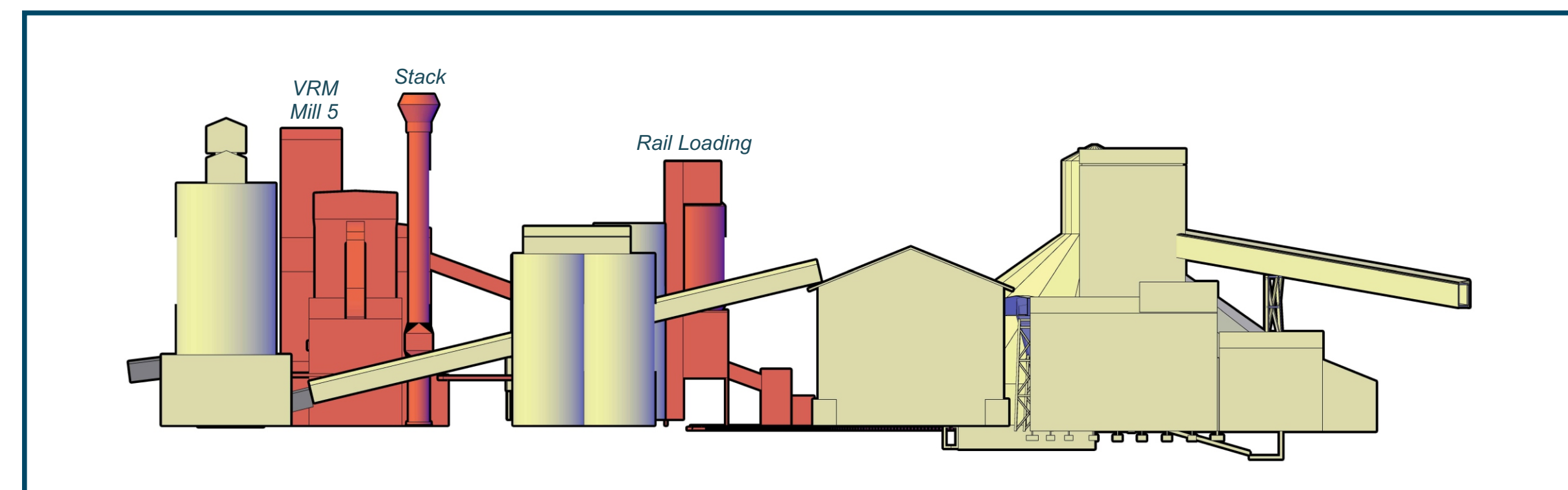
After the clinker is cooled, the milling plant grinds it into a fine powder and mixes it with small amounts of gypsum and limestone to make cement. The finished product is then put into 25kg bags and delivered to builders' merchants or into road tankers and transported to ready-mixed and precast concrete plants for use in a variety of construction projects.

The illustrations opposite show elevations of the existing plant in cream with the proposed plant shown in red.

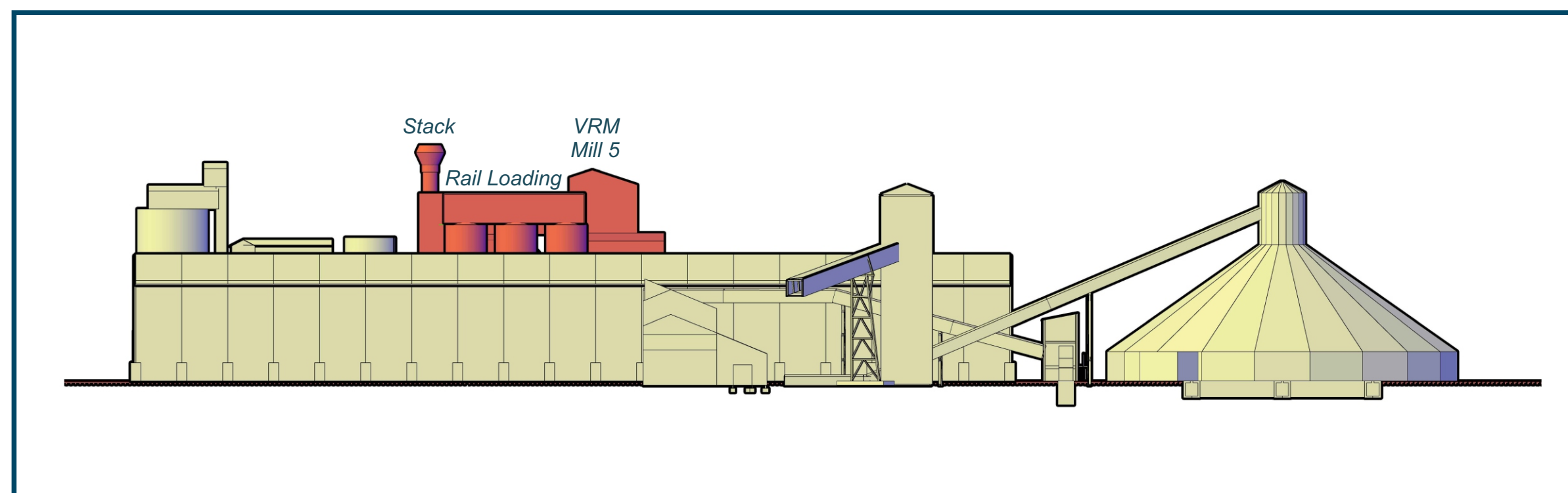
Northern elevation



Western elevation



Southern elevation



Eastern elevation

