

PROJECT DESCRIPTION

Freedom Plant Mining Permit Modification



Location:
Freedom, New York

Client:
Lafarge North
America

Client Contact:
Mr. Tony Distefano
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Lafarge's Freedom Gravel Mine is located on both sides of County Road 21 in the Town of Freedom, Cattaraugus County. The gravel processing plant is located to the southwest of County Road 21 and Elton Creek, while the mining area is located northeast of the road.

The mining permit modification consisted of construction and operation of a conveyor crossing over County Road 21 and Elton Creek. This proposed modification to the operation of the gravel mine will allow for the transfer of unprocessed sand and gravel from the mining area northeast of County Road 21 to the processing and stockpiling area, southwest of the road. A field conveyor was used to transport sand and gravel to an enclosed gallery that passes over County Road 21 and Elton Creek and continues to a hopper that feeds the processing plant.

MMCE also assisted in designing the enclosed gallery caisson foundation and steel frame supports. MMCE designed the concrete foundations, including the dimensions and reinforcing, meeting the American Concrete Institute code. MMCE designed the steel frames that extended from the base of the conveyor to the top of the foundations using loads and connection information provided by the conveyor manufacturer. The steel frames, fabrication requirements and construction specifications were shown on 24 by 36 inch drawings.