

DAKOTA COAL TRUCK DUMP AND UNIT TRAIN LOADOUT



PROJECT: New Limestone Truck Dump and Unit Train Loadout

CLIENT: Dakota Coal Company

LOCATION: Warren, Montana

SERVICES: Structural Engineering Design and Foundations

DESCRIPTION

River Consulting worked with a local engineering partner to provide the necessary structural and foundation engineering design for the client's limestone handling expansion.

Design of the limestone handling system included a truck dump and stilling shed structure, transfer structure, screen structure, surge bin structure, rail loadout structure, truck dump hopper, surge hopper, surge bin, conveyors, bents, tube gallery, and tube bents.

River Consulting worked with the client to provide solutions to meet the client's specific requests and meet a tight construction schedule. The project team designed the system utilizing the requested tube bents rather than typical A-frame bents and helical piers instead of concrete caissons for the foundations. The use of helical piers enabled the construction to advance quickly during the foundation stage and shaved off a month in the construction schedule.

PRINCIPAL FEATURES

- Structural and foundation engineering design
- Consultation with client for customized solutions
- Truck dump, still shed, transfer structure, screen structure, surge bin, structure and hopper, rail loadout, truck dump hopper, conveyors, bents, tube gallery and tube bents
- Design allowed for shortened foundation construction phase
- 150 helical piers installed in less than a week

