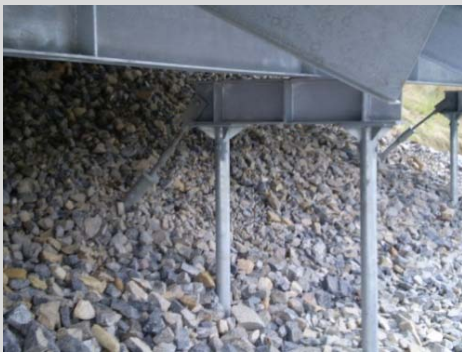


Ram Jack® Case Study

Grandstand Project • Narrows, VA



ECO-FRIENDLY



Situation:

Narrows High School in Narrows, Virginia needed a new 1250 seat grandstand for their sports facility. The grandstands were to be constructed on a steep hill side with a 2:1 slope with approximately 20'-0 of soft fill soils. The steep slope of the hill made it difficult to use and maneuver heavy equipment required with other deep foundation systems. There was also a tight timeline for the construction of the grandstand as it had to be installed within a 30 day time frame in order to be ready by the beginning of school and their football season. Ram Jack was added to the design team to provide a solution that would handle the design loads, be fast, efficient and long lasting.

Solution:

The design loads consisted of vertical loads of up to 57 kips and lateral loads comprising of sway and wind of up to 30 and 8 kips per support line; respectfully. Helical piles were designed to support the vertical loads. Helical anchors were designed to resist the lateral loads. Due to the elevation of the girders for the grandstand and the steepness of the hill, concrete pile caps were not an attractive alternative because of the form work and the amount of concrete required to be pumped up the hill. Therefore, a steel pile cap was designed that could be attached directly to the helical piles and anchors.

Conclusion:

Electing to use Ram Jack's deep driven steel foundation system saved the school district considerable time, labor, mess and expense. The helical piles, anchors and support caps were installed in 5 days. The grandstand structure was erected the following 5 days. Ram Jack helical piles and anchors redefine the term "INSTANT FOUNDATION".

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