

Manistee High School Track



PROJECT: Manistee High School Track
CHALLENGE: Clay soils and rain, grade accuracy, work zone security and safety for students

SOLUTION: Gravel and stone on access roads, underdrainage systems, accurate robotic staking and communication to student population.

OWNER: Manistee Area Public Schools

CONTRACT AMOUNT: \$476,667.00

DESIGN ENGINEER: Foresite Design

ENGINEER CONTACT: (616) 949-4900

LOCATION: Manistee, Michigan

DATE STARTED: APRIL 24, 2017

DATE COMPLETED: JUNE 20, 2017

SELF-PERFORMED: 88%

PARTNERS: Top Line Electric, Kent Co, Michigan Pipe and Valve, Summer Land Surveying

Manistee High School had all the ingredients for a great track team: terrific coach, talented athletes, plenty of drive. What the school didn't have, though, was an actual track. For years, the lack of facilities had left coaches scrambling to find places to practice. The Manistee High School track team had only known what it was like to compete at away meets.

Adamant about giving its young athletes something better, Manistee Area Public Schools set to work raising funds for the project. Community support allowed the district to raise the necessary money without going to taxpayers for a millage. Team Elmer's won the bid and broke ground on the new track in late April 2017.

Though a relatively straight forward project, the Manistee High School track did come with challenges. The soils at the site were primarily clay, and rainy spring weather made for a slippery worksite. The clay, coupled with the flat surface of

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the worksite, also meant that it took a long time for water to drain away once the rains stopped, resulting in work delays.

Team Elmer's trucked in 500 tons of sand and 1,900 cubic yards of gravel, placing the new materials strategically around the project site. The gravel gave equipment extra traction, while the sand under cushion installed would help with drainage once the track was complete.

Over a mile of under drainage system was installed. A sand subbase was installed over the entire site, then every 25 feet, an underdrain was placed, adding a 4 – 6 inch sock pipe in a stone-filled trench connected to a 4 inch tile drain on the inside perimeter of the track. The outside perimeter included 3 ft deep stone trenches to allow water to drain away from the track quickly.

To create a satisfactory track, the site required accurate grading for an even foot surface as close to flat as possible. We ultimately utilized robotic staking methods, achieving a near-perfect flat surface grade, within one-tenth of an inch. The minimal margin of error was needed prior to handing the project off to our paving crew for the final pavement placement.

Crews continued to update school officials and students to keep them safe and out of the work zone. Both district officials and parents of track team members were thrilled with the work, and we are all looking forward to the first-ever at-home track meet at Manistee High School. After 1,504 man hours, we're happy to call this project a job well done.

Manistee High School Track By The Numbers

- Topsoil Strip: 5,500 Cubic Yards
- Balance Site: 2,600 Cubic Yards
- Import 2NS Gravel: 500 Tons
- 22A Road Gravel: 2,150 Tons
- Underdrain: 4,900 Lineal Feet
- Asphalt: 1,300 Tons
- Topsoil Re-spread: 3,000 Cubic Yards
- Restoration: 3.6 Acres

