ms consultants, inc.
engineers, architects, planners

I-480 REHABILITATION

CHALLENGE

THE HIGH TRAFFIC VOLUME ON ONE OF GREATER CLEVELAND'S MAJOR INTERSTATE REQUIRED AN INNOVATIVE APPROACH FOR REHABILITATION.

SERVICES

- Environmental Planning
- Field Survey
- Lighting
- Maintenance of Traffic
- Roadway Design
- Signage

I-480 REHABILITATION

Known as greater Cleveland's innerbelt, Interstate 480 serves as a major limited access thoroughfare connecting the east and west sides of this northeast Ohio city, in Cuyahoga County.

Working for Ohio Department of Transportation District 12, ms consultants provided rehabilitation design services for approximately three miles of I-480. This assignment, calling upon a collaborative project team of roadway, geotechnical and traffic engineers, originated as a safety update project, but was upgraded to include complete pavement replacement subsequent to the preliminary design including field reconnaissance.

DESIGN DETAILS

Running from milepost 15.84 to milepost 18.42, the project improved safety conditions on this multi-lane expressway. The new design added one lane in each direction for a portion of the project. The interchange with I-77 is one of the more densely traveled stretches of I-480 and required pavement replacement plans for

more than 20,236 feet of ramps. Modifications plans for two additional ramps at the Grange Road Interchange were provided.

Final design included drainage, roadway plans, design exceptions, signing and pavement marking, subsurface investigations and design for high-mast and/or low-mast lighting, slope stabilization, and maintenance of traffic plans.

HIGH TRAFFIC VOLUME SOLUTION

Due to concerns associated with the high traffic volume, ms recommended low-level aerial mapping. This method provided elevation accuracy to 0.05’ within paved areas and eliminated the need to profile the entire pavement by field crews. This process expedited the design by up to four months and provided substantial cost savings to the state.