

# Project Summary

## Mall Redevelopment: Historic Landfill Site

**Client:**

Development 3000, LLC

**Project Manager**

Ms. Amy Haak, PG

**Regulatory Status**

Closed with GIS listing, cap maintenance plan

**Project Features**

- Establish ER TIF District
- Soil Characterization for multiple contaminants
- Soil Excavation Oversight
- Groundwater Monitoring
- Hazardous Waste Delineation
- Soil disposal permitting of hazardous and non-hazardous waste
- Methane monitoring
- Design methane collection system
- Development at Historic Fill Site Application completed
- Groundwater Natural Attenuation
- Engineered Barrier

**BEFORE**



**AFTER**



**Introduction and Value to Client**

A shopping center property was purchased with the intent to redevelop the land. Part of the parcel was a former landfill. Site investigation and remediation activities were completed within seven months of initiation, and the development project stayed on schedule.

**Synopsis**

Historical records were examined and interviews of neighbors conducted to aid in the determination regarding the origin and nature of waste placed in the landfill in the 1940's. It was learned a creek formerly bisected the property; sewer pipe was laid in the creek bed and refuse used as backfill around the sewer and to level the area. This refuse corridor extended over several city blocks.

The refuse material was not suitable for building upon and would require removal for redevelopment to continue. The redevelopment schedule was tight and it was essential that funding be procured to offset some of the remediation costs. Arrangements were made with the local municipality to establish an Environmental Remediation Tax Incremental Financing (ER TIF) district. This was the third ER TIF established in the State of Wisconsin.

Borings were advanced to determine the extent and thickness of the waste over areas of the site where the building was proposed. Samples were collected of both the refuse material and underlying native soil for waste characterization and site characterization purposes. Contaminants identified at the site included volatile organic compounds, polycyclic aromatic compounds, and metals. There were areas where the waste was characterized as hazardous based upon elevated lead concentrations. Monitoring wells were installed for groundwater and methane monitoring.

Prior to initiating any remediation activities at the site, and prior to start of building construction, a "Development at Historic Fill Site of Licensed Landfill Exemption Application" was completed and submitted to the WDNR. Alpha Terra directed excavation of more than 41,000 tons of hazardous waste and refuse material. Specifications were drawn up for an appropriate methane collection and monitoring system for the new facility. Groundwater monitoring activities continued until natural attenuation could be documented. Engineering controls were also used for closure.