

Crosstown Boulevard Hazardous Materials Information



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Summary of Findings

The Crosstown Boulevard study area is within a heavily urbanized portion of downtown Oklahoma City, Oklahoma. The Oklahoma Department of Transportation (ODOT) has completed numerous technical reports for the study area. The *Initial Site Assessment for Excavation and Construction of the Old Interstate 40 Crosstown Boulevard, Oklahoma City, Oklahoma* was completed for ODOT by Cardinal Engineering in June 2012. This Initial Site Assessment (ISA) identified potential sites of environmental contamination that could affect the project. The ISA included a review of historic aerial photographs, Sanborn fire insurance maps, and topographic maps, as well as a windshield survey of the corridor, a review of agency records, and interviews with relevant agency personnel.

The ISA identified 24 sites of potential environmental concern. Sites of concern included:

- Underground storage tank (UST) sites;
- Closed leaking UST case sites,
- Aboveground storage tank (AST) sites;
- Leaking AST sites;
- Dry cleaning facilities;
- Resource Conservation and Recovery Act (RCRA) small quantity generator;
- Non-generator and conditionally exempt small quantity generator sites;
- Solid waste recycling center;
- Comprehensive environmental response, compensation, and liability information system – no further remedial action planned (CERC-NFRAP) site;
- Historic gasoline stations;
- Industrial facilities; and
- Abandoned oil and gas wells/facilities.

The ISA concluded that contamination may be encountered during the excavation and construction activities associated with the Crosstown Boulevard, and workers need to be made aware of potential petroleum and chemical contamination in soil during excavation activities. If petroleum or chemical odors or staining are observed, the proper authorities would need to be contacted, and any contaminated soils would need to be managed properly.

In June 2013 Cardinal Engineering conducted a limited subsurface investigation along the I-40 Crosstown Boulevard to help evaluate whether soil and/or groundwater contamination existed in connection with sites of potential environmental contamination. After discussions with ODOT, five general areas were identified for subsurface investigation based on site proximity and likelihood of soil and/or groundwater disturbance during construction activities. As a result, not all of the sites of concern identified in the ISA were evaluated as part of the limited investigation. A total of 28 direct push borings were drilled in the five areas; 17 of the borings were drilled to groundwater and converted to temporary monitoring wells. One soil sample was collected from each of the 28 borings. Laboratory analytical results showed that borings

from only one of the areas (the intersection of former I-40 and Western Avenue) was not contaminated. The borings at the remaining four locations each contained soil and/or groundwater contamination at concentrations exceeding Oklahoma Department of Environmental Quality (ODEQ) Tier I Generic Cleanup Levels and/or United States Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs). Two borings between Compress Street and the Bricktown Canal indicated remnant contaminated materials.

In addition to the limited subsurface investigation, a limited lead assessment was also conducted. The purpose of this assessment was to evaluate potential lead impacts in near surface soil within the study area. A total of 36 soil samples were randomly collected and analyzed for lead. Several samples contained lead concentrations exceeding residential criteria; however, none exceeded the commercial/industrial criteria. Statistical analysis of the data set confirmed these findings.

The above work was compiled into the *Draft Limited Subsurface Investigation - Excavation and Construction of the Old Interstate 40 Crosstown Boulevard, Oklahoma City, Oklahoma* (Cardinal 2013). The limited subsurface investigation included several recommendations concerning the identified contamination:

- Appropriate measures should be taken if unidentified areas of affected soils, groundwater or underground storage tanks are encountered during development in the study area.
- Any contaminated materials excavated or removed as a result of activities in the study area would require appropriate management, treatment and/or disposal.
- Appropriate health and safety measures should be taken to limit exposure to workers and/or public to affected media.
- The need for vapor intrusion mitigation measures should be addressed prior to construction.
- Controls should be put in place at impacted areas to prevent access or exposure to impacted soils and/or groundwater.
- Controls should be put in place to prevent residential use of the study area.

A Supplemental ISA was conducted by Enercon Services, Inc. in March 2014 to assess additional properties for potential environmental concern along the alternatives that were not included in the 2012 ISA. The supplemental ISA consisted of a current (2014) environmental databases review and a site reconnaissance. The subsequent 2013 limited subsurface investigation included a review of the 2012 ISA and SSI. No additional environmental concern was identified in the supplemental ISA that warranted further investigation.

Additional sampling is currently underway in areas that are common to all four alternatives to define further the limits of contaminated materials that may require special handling during construction.

References (available upon request)

Cardinal Engineering, June 2012. *Initial Site Assessment for Excavation and Construction of the Old Interstate 40 Crosstown Boulevard, Oklahoma City, Oklahoma.*

Cardinal Engineering, June 2013. *Draft Limited Subsurface Investigation - Excavation and Construction of the Old Interstate 40 Crosstown Boulevard, Oklahoma City, Oklahoma.*

Enercon Services, Inc., March 2014. *Supplemental Initial Site Assessment, I-40 Crosstown Boulevard Project.*