

**PHASE I ENVIRONMENTAL SITE ASSESSMENT
DOROTHY PATACH ENVIRONMENTAL AREA
4903 SOUTH 20TH STREET
OMAHA, DOUGLAS COUNTY, NEBRASKA**

Prepared for:
**South Omaha Neighborhood Alliance &
the Omaha Brownfields Coalition**



**Benesch Project No. 00120137.00
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1.0 SUMMARY

This Phase I Environmental Site Assessment (ESA) was conducted on behalf of the Omaha Brownfields Coalition (lead coalition partner Metropolitan Area Planning Agency [MAPA]) (“User”) in conformance with the scope and limitations of ASTM Standard Practice E 1527-13. The Property ESA was conducted under the Brownfields Coalition Assessment Grant (Grant) awarded by the United States Environmental Protection Agency to the Omaha Brownfields Coalition (USEPA Cooperative Agreement Nos. BF-97727801 & BF-97727901, dated October 1, 2011). The Omaha Brownfields Coalition (Coalition) subsequently directed Alfred Benesch & Company (Benesch) to perform an ESA on the Dorothy Patach Natural Environmental Area located at 19th & ‘N’ Streets in Omaha, Douglas County, Nebraska (the “Property”).

The Property was developed prior to 1901 as approximately twenty-two parcels, at which time eleven residences occupied the Property. By 1926, only one residence occupied the Property. The Property was open space or wooded area along a deep ravine, until 1975 when portions of the Property began to be utilized as an unlicensed construction and debris landfill by Gammel Construction. The City of Omaha Street Maintenance Department began using the landfill along with Gammel Construction in 1991 to dispose of street maintenance debris and tear out materials. The Property was donated to the City of Omaha circa 1995, after which time the City of Omaha continued to use the landfill. The Property was last used as a landfill in 2000, after which time it was capped. Currently, it is open space and is designated as the Dorothy Patach Natural Environmental Area.

The Property is currently made up of numerous parcels with no structures present. However, an area on the east half of the Property near ‘N’ Street has been designated as a community garden area by the South Omaha Neighborhood Alliance, who plans to acquire the Property from the City of Omaha. A walking path traverses the middle of the Property from north to south, which has recently been covered with wood chips, along with the community garden area.

The area surrounding the Property is characterized by residential and industrial properties to the north, residential, undeveloped and wooded properties to the south, a recreational facility to the west across 20th Street, and a wooded area to the east. Access to the Property is from ‘N’ Street off of South 20th Street.

The Property is located within the Omaha Lead National Priority List (NPL) and CERCLIS project boundaries (aka Omaha Lead Site [OLS]) which encompass a significant portion of east Omaha. Although the OLS source areas have been abated, the impact of the OLS on the Property itself is unknown at this time, and may still be significant with regard to either potential contamination or environmental liability. As such the OLS represents a *recognized environmental condition (REC)* for the Property. Based on current regulatory status, and distance and estimated groundwater gradient relative to the Property, none of the other Federal Agency Database listings represent a *recognized environmental condition* for the Property at this time.

According to City of Omaha personnel and review of Nebraska Department of Environmental Quality (NDEQ) records, the Property was previously used as a construction and demolition (C&D) landfill by the

City of Omaha Street Maintenance department and Gammel Construction for disposal of concrete rubble and asphalt from street repair and construction projects, and other debris including street sweepings. The Property was used by Gammel Construction beginning circa 1975 and the City of Omaha began using it circa 1991. The Property was last used as a landfill in 2000, according to NDEQ records. The Property has since been graded over. Based on interviews with City of Omaha personnel and review of NDEQ documents, only C&D materials, debris and street sweepings were disposed of at this site. The historic use of the site as a landfill is considered a *controlled recognized environmental condition (CREC)* for the Property. It is considered a CREC due to the soil cap (protective barrier/institutional control) that was required by state regulations to be placed over the landfill once it was closed, although no “known contamination” was present. Any impacts to the Property from the disposal of street sweepings is considered *de minimis*.

Based on review of Sanborn® maps and city directories, the property at 1814 ‘N’ Street, located north across ‘N’ Street from the Property, has historically been operated as an auto service facility (circa 1931-1956). This facility is located cross/up gradient from the Property and is considered a REC, as these types of facilities are known to use, generate, and store various types of chemical products which may have been released to the subsurface and impacted the soil or groundwater beneath the site and migrated onto the Property.

2.0 INTRODUCTION

2.1 Purpose

The purpose of the Phase I ESA process is to identify, to the extent feasible, *recognized environmental conditions (REC)*, *historic recognized environmental conditions (HREC)*, and *controlled recognized environmental conditions (CREC)*, in connection with the Property. The term *recognized environmental condition* shall mean the presence or likely presence of any hazardous substances or petroleum products on the Property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the Property or into the ground, groundwater, or surface water of the Property. The term HREC refers to a resolved or cleaned up site that has received closure from a regulatory agency. A CREC refers to sites that have been closed but are managed under activity and use limitations (e.g. complying with use restrictions, maintaining a protective barrier over known contamination). The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally would not be subject to an enforcement action if brought to the attention of the appropriate governmental agencies.

2.2 Scope of Services

The scope of services included a Phase I Environmental Site Assessment performed in general accordance with ASTM Standard E 1527-13.

2.3 Significant Assumptions

None.

2.4 Limitations and Exceptions

The following potential environmental issues are beyond the scope of ASTM Practice E 1527-13:

- Asbestos-containing materials,
- Radon,
- Lead-based paint,
- Lead in drinking water,
- Wetlands,
- Regulatory compliance,
- Cultural and historic resources,
- Industrial hygiene,
- Health and safety,
- Ecological resources,
- Endangered species,
- Indoor air quality,
- Biological agents, and
- Mold.

In the course of this assessment, Benesch has relied on information from outside parties, such as regulatory agencies and interview sources. Benesch has made no independent investigation as to the validity, completeness or accuracy of such information provided by third parties. Benesch does not express or imply any warranty regarding information provided by third party sources.

Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with the Property. The material in this report reflects our best judgment in light of information that was readily available at the time of preparation.

2.5 Special Terms and Conditions

None.

2.6 User Reliance

This report was prepared by Benesch at the request of and for the sole benefit and use of the “User”; South Omaha Neighborhood Alliance and their assigns; the City of Omaha; and the Omaha Brownfields Coalition (lead coalition partner Metropolitan Area Planning Agency [MAPA]), subject to the limitations described in the report and in the contracting agreement between Benesch and the Omaha Brownfields Coalition.

Benesch acknowledges that this report will become a matter of public record and copies of this report will be available for review and reproduction through the MAPA website and/or the Freedom of Information Act (FOIA). Nevertheless, this report is intended for the exclusive use and reliance of the User in assessing environmental issues associated with the Property, and any use or reliance of this report by other parties is prohibited without the express written consent of the User and Benesch.

This report is complete only as an entire document and no section is intended to be used separately. Any unauthorized use a third party makes of this report, or any reliance on or decision made on the basis of it, is the responsibility of such third party. The User and Benesch are indemnified against any liability resulting from such third party use, reliance or decisions.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The Property is located at 4903 South 20th Street in Omaha, Douglas County, Nebraska. The Property is comprised of sixteen parcels and in total encompasses approximately 3.3-acres (143,748 square feet [s.f.]). The Property is currently undeveloped with no structures present.

A legal description of the Property is provided in Appendix D (Assessor). According to the *Omaha South, Nebraska-Iowa Quadrangle* USGS 7.5-minute topographic map dated 1994; the Property is located in the SW $\frac{1}{4}$ of Section 3, Township 14 North, Range 13 East of the 6th Principal Meridian, Douglas County, Nebraska.

A Site Location Map and Site Diagram depicting the Property are provided in Appendix A. Site Photographs are provided in Appendix B. Additional maps and figures are provided in Appendix D (Historical Research Documentation) and Appendix F (Other Supporting Documentation).

3.2 Surrounding Area General Characteristics

The area surrounding the Property is characterized by residential and industrial use parcels along 'N' Street to the north, a wooded area adjacent east, residential and undeveloped parcels to the south, and recreational property to the west across 20th Street.

3.3 Current Use of the Property

The Property is currently utilized as the Dorothy Patach Natural Environmental Area. The Property is open space with no structures. A community garden along 'N' Street just east of 19th Street was observed to be under construction during the site reconnaissance. The Property is currently comprised of 16 parcels, ranging in size from 0.6 acres to 0.71 acres. The Property was previously designated as a "natural environmental area" by the City of Omaha after its use of the Property as a landfill for disposal of concrete and debris from street maintenance projects. The "natural environmental area" designation meant that little to no routine maintenance would be performed on the Property.

3.4 Description of Property Improvements

The following table provides general descriptions of the Property improvements.

PROPERTY IMPROVEMENTS	
Size of Property parcel (approx.)	3.3-acres, 143,748 s.f.
Size of Property structure (approx.)	NA
Construction Date	NA
General Building Description	NA
General Topography of Property	The Property slopes down gradient to the southeast.
Adjoining and/or Access/Egress Roads	Access is provided via 'N' Street. A walking path also enters the site from the south.
Paved or Concrete Areas (including parking)	None
Landscaped, Unimproved and/or Undeveloped Areas	The entire area is undeveloped.
Surface Water	None
Potable Water Source	Metropolitan Utilities District (MUD) is the service provider for the Property,
Sanitary Sewer Utility	The City of Omaha Department of Public Works (DPW) is the service provider for the Property,
Storm Sewer Utility	DPW is the service provider for the Property.
Electrical Utility	The Omaha Public Power District (OPPD) is the service provider for the Property.
Natural Gas Utility	MUD is the service provider for the Property.
Emergency Power	None.
Current Occupancy Status	No structures present.

Sources: Douglas County Assessor Property Records and site reconnaissance observations

3.5 Current Uses of the Adjoining Properties

The current uses of the parcels adjoining the Property are identified below.

North: 'N' Street followed by undeveloped, residential and industrial parcels.

East: Wooded area.

South: Undeveloped and residential parcels.

West: 20th Street followed by H.P. Smith Training Facility .

4.0 USER PROVIDED INFORMATION

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the “Brownfields Amendments”), the User must provide the following information (if available) to the Environmental Professional. Failure to provide this information could result in a determination that “All Appropriate Inquiry” is not complete. The following information was provided by the City of Omaha and the South Omaha Neighborhood Alliance, with regard to the Property and adjoining parcels. A copy of the Phase I ESA User Questionnaires completed by City of Omaha and the South Omaha Neighborhood Alliance is provided in Appendix E.

- The User reported no environmental cleanup liens for the Property.
- The User reported no Activity and Use Limitations (AULs) for the Property.
- The User reported no specialized knowledge or experience related to the Property or nearby properties.
- The User reported knowledge of degreasers, oil, and others chemicals that are typically associated with auto repair, that are currently present or may have once been present on the Property.
- The User reported no knowledge of any spills or other chemical releases that have taken place on the Property.
- The User reported no knowledge of any environmental cleanups that have taken place on the Property.
- The User reported no obvious indicators regarding the presence or likely presence of contamination at the Property.

The User provided the following additional information to assist the Environmental Professional:

- The Phase I ESA is being performed for managing risk associated with the potential use of the Property as a community garden by the South Omaha Neighborhood Alliance.
- The City of Omaha and the South Omaha Neighborhood Alliance are working on an agreement that would allow the South Omaha Neighborhood Alliance to use the Property for three years.
- The Property is located at 4903 South 20th Street in Omaha, Douglas County, Nebraska. According to the Property owner, the Property was previously used as a landfill by the Street Maintenance department for disposal of debris from street maintenance projects (e.g. concrete, debris, street sweepings). It was last used in 2000, after which the site was graded over. The parties who will rely on the Phase I ESA report are the South Omaha Neighborhood Alliance and the Omaha Brownfields Coalition (lead coalition partner MAPA).
- The site contact was identified as Mr. Dennis Bryers with the City of Omaha, and Mr. Mike Battershell with the South Omaha Neighborhood Alliance.
- No special terms and conditions were agreed upon by the Environmental Professional.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

The regulatory agency database report discussed in this section, provided by Environmental Data Resources, Inc. (EDR) of Milford, Connecticut, was reviewed for information regarding reported releases of hazardous substances and petroleum products on or near the Property. Benesch also conducted a limited review of the unmapped or orphan listings within the database report, cross-referencing available address information and facility names, where feasible. Unmapped sites are listings that could not be plotted with confidence, but are potentially in the general area of the Property based on the partial street address, city, or zip code. Any unmapped site that was identified by Benesch as being within the approximate minimum search distance from the Property based on the site reconnaissance and/or cross-referencing to mapped listings has been included in the discussion in the following section. A copy of the EDR Radius Map Report is provided in Appendix C. The following is a summary of the findings of the database review.

SUMMARY OF FEDERAL, STATE AND TRIBAL DATABASE FINDINGS			
Regulatory Database	Approx. Minimum Search Distance	Property Listed?	Total # Sites Listed
Federal National Priority (NPL)	1 mile	No	1
Federal Delisted NPL	1 mile	No	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	½ mile	No	2
Federal CERCLIS No Further Remedial Action Planned (NFRAP)	½ mile	No	0
Federal Resource Conservation and Recovery Act (RCRA), Corrective Action facilities (CORRACTS)	1 mile	No	0
Federal RCRIS non-CORRACTS Treatment, Storage, and Disposal Facilities (TSD)	½ mile	No	0
Federal RCRA Generators	¼ mile	No	0
Federal Institutional Control/Engineering Control Registry	½ mile	No	1
Federal Emergency Response Notification System (ERNS) list	½ mile	No	0
State and Tribal (equivalent) NPL	1 mile	No	0
State and Tribal CERCLIS	½ mile	No	2
State and Tribal Landfill or Solid Waste Disposal Sites	½ mile	No	0
State and Tribal Leaking Underground and Aboveground Storage Tanks (LUST/LAST) sites	½ mile	Yes	18
State and Tribal Registered Underground Storage Tanks (UST) and Aboveground Storage Tanks (AST)	¼ mile	Yes	3
State and Tribal Institutional Control or Engineering Control Registry	¼ mile	No	0
State and Tribal Voluntary Cleanup Site	½ mile	No	0
Federal, State and Tribal Brownfield Sites	½ mile	No	3
Former Manufactured Gas Plant (FMGP) Sites	1 mile	No	0
US Historical Auto Station/Cleaners	¼ mile	No	20

Federal Agency Database Listings

The Property is located within the Omaha Lead National Priority List (NPL) and CERCLIS project boundaries (aka Omaha Lead Site [OLS]) which encompass a significant portion of Omaha. In addition, one Federal Institutional and Engineering Control site is associated with the OLS.

The OLS listing on the NPL is resultant from airborne lead particulate contamination of near surface soils over a widespread area of north-central, south-central, and downtown Omaha as a result of historic lead smelting and recycling activities conducted at two former industrial facilities (Asarco and Gould Battery) which were located approximately 4 miles north-northeast of the Property. The area of the former Asarco facility was redeveloped circa 2000 into a city park (Lewis and Clark Landing) with regulatory oversight provided by the Nebraska Department of Environmental Quality (NDEQ) and the U.S. Environmental Protection Agency (USEPA). The area of the former Gould Battery facility was redeveloped as part the ConAgra corporate campus approximately 20 years ago with regulatory oversight provided by the NDEQ and USEPA.

Although the OLS source areas have been abated, the impact of the OLS on the Property itself is unknown at this time, and may still be significant with regard to either potential contamination or environmental liability. The former landfill on the Property was capped when the landfill was closed; however, the extents of the landfill on the Property and the source of the cap material are unknown; therefore, impacts from the OLS may still be present on the Property. As such the OLS represents a *recognized environmental condition* (REC) for the Property.

One additional CERCLIS site is located within the relevant search distance from the Property (Former Carter White Lead Facility, J Avenue and 22nd Street, 0.42 miles northwest). Based on current regulatory status and distance from the Property, this facility does not represent a *recognized environmental condition* for the Property at this time.

State Agency Database Listings

The Property or adjoining parcels were not listed in the EDR database report. However, several listings are located in the vicinity of the Property.

There are two (2) State equivalent CERCLIS NE SHWS (State Superfund Program List) sites (Salvation Army Kroc Center, 2825 Y Street, 0.87 miles south-southeast, and Syngenta Crop Protection, 4111 Gibson Road, 0.97 miles northeast) located within the relevant search radius of the Property. Based on current regulatory status, distance, and/or estimated down or cross-gradient location relative to the Property, these sites do not represent a *recognized environmental condition* for the Property at this time.

There are thirteen (13) leaking underground storage tank (LUST) sites, and five (5) leaking aboveground storage tank (LAST) site located within the relevant search radius of the Property. The NDEQ has issued a 'No Further Action' (NFA) letter for all 5 of the LAST sites and 8 of the 13 LUST sites. Based on current regulatory status these sites do not represent a REC for the Property at this time. Based on distance or estimated down or cross-gradient location relative to the Property, none of the remaining 5 LUST sites represent a *recognized environmental condition* for the Property at this time.

Three (3) NE Brownfield sites are located within the relevant search distances from the Property. Based on current regulatory status, distance, and/or estimated down or cross-gradient location relative to the Property, these sites do not represent a *recognized environmental condition* for the Property at this time.

There are a total of 20 US Historical Auto Station (18) and US Historical Cleaners (2) sites located within the relevant search distances from the Property. These are historical sites, that based on business name and/or category, may have been operated as a gas or service station. One US historical auto station, although listed as two sites at same address (John Hagan Garage and Jacob's Service, 1814 'N' Street, located north across 'N' Street), is located adjacent to the Property. This listing represents a *recognized environmental condition* for the Property at this time. Based on lack of regulatory data, distance, and/or estimated down or cross-gradient location relative to the Property, the remaining sites do not represent a REC for the Property at this time.

Orphan Summary Listings

The Property is not listed in the Orphan Summary. Sites in the Orphan Summary of the EDR report have insufficient address information for an exact location to be mapped. Based on the limited information available, none of the sites listed in the Orphan Summary appear to be located in the Property vicinity, and therefore, are not considered significant at this time.

5.2 Additional Environmental Record Sources

Douglas County Health Department

Benesch contacted Mr. Jon Ruff, Environmental Health Specialist with the Sanitary Engineering Section of the Douglas County Health Department (DCHD) for environmental records regarding the Property located at 4808 South 26th Street. According to Mr. Ruff, the DCHD records contained information for the Property regarding the Gammel landfill, dated 1993 when was designated an "unpermitted" C&D landfill by NDEQ. DCHD did not have any other records regarding the Property.

A Record of Conversation documenting the information Mr. Ruff researched for Benesch is provided in Appendix E.

Nebraska Department of Environmental Quality

Benesch performed a NDEQ file search for additional regulatory information, if any, regarding the Property and surrounding properties at <http://degims2.deq.state.ne.us/degflex/DEQ.html>. Based on review of NDEQ files, the Property is listed under Gammel Construction Landfill under the Integrated Waste Management (IWM) program. Review of NDEQ documents indicates that Gammel Construction began landfill activities in 1975 and continued until circa 1995, disposing of construction debris. In 1992, a letter was issued to Gammel Construction indicating that a permit was not required to operate the landfill due to the type of material being disposed of at the facility. The City of Omaha used it from circa 1993 until 2000 to dispose of construction debris and street sweepings, after which it was closed and capped. In 2003 a letter requiring No Further Action to close the landfill was issued by NDEQ after

additional measures were taken by the City of Omaha to properly cap the landfill. The NDEQ listing for the Property as a former landfill represents a *controlled recognized environmental condition* (CREC) for the Property. A copy of the NDEQ records are included in Appendix C.

No other NDEQ records were found for the Property or surrounding properties.

Nebraska Department of Natural Resources

Benesch obtained water well registration information for the Property from the Nebraska Department of Natural Resources (NDNR) website at <http://dnrdata.dnr.ne.gov/wellscs>. According to the NDNR information, no registered water wells are located at the Property. A copy of the NDNR water well registration information for the area of the Property is provided in Appendix F.

Omaha Public Power District

Benesch contacted Mr. Marty Wetenkamp, Supervisor of Environmental Health & Safety, Safety and Technical Training Division with the Omaha Public Power District (OPPD) for general information regarding OPPD owned and operated electrical transformers in the Property vicinity. OPPD acknowledges responsibility for cleanup of any potential contamination associated with their electrical transformers. OPPD records indicate no reported spillage of poly-chlorinated biphenyls (PCBs) from electrical transformers in the immediate vicinity of the Property. A copy of the PCB report from OPPD is provided in Appendix F.

State Fire Marshal

Benesch requested the Nebraska State Fire Marshal (SFM) provide file information regarding petroleum storage tanks located at the Property. The SFM database does not contain record of a registered tank for the Property address.

5.3 Physical Setting Sources

Topography

Based on a review of the USGS 7.5 Minute Series Topographic Map *Omaha South, Nebraska-Iowa Quadrangle* dated 1994, the Property is located an average of approximately 1,034 feet above mean sea level (msl) with elevation decreasing northwest to southeast. No urban drainage ways are depicted in the vicinity of the Property; however, prior to the use of the Property as a landfill, a ravine ran through the site from northwest to southeast. Although, the *Omaha Vicinity, Nebraska Sheet*, dated 1898 depicts a perennial stream running through the Property from northwest to southeast towards the Missouri River. The elevation listed above represents the elevation of the Property in 1994. It is currently higher than that since it has been filled in and was graded over after 2000. It is estimated that the Property is located an average of approximately 1,100 feet above msl since being graded over. A copy of a portion of the USGS Map for the area of the Property is provided as Figure 1 in Appendix A.

Soils

The United States Department of Agriculture (USDA) Soil Conservation Service *Soil Survey of Douglas and Sarpy Counties, Nebraska*, classifies the soils in the vicinity of the Property, prior to being graded over, as Monona silt loam, 11 to 17 percent slopes (MoE). Monona series soils are deep, well-drained, nearly level to very steep soils that formed in loess. Monona soils are fine textured and exhibit moderate permeability and high available water capacity.

Hydrology

Based on the topography of the area of the Property, local groundwater is estimated to flow to the southeast along the natural drainage way which leads to the Missouri River. Regionally groundwater flows to the east toward the Missouri River. Based on information contained in the EDR report and NDNR well information, in addition to the site history (e.g. landfill usage, fill and cap), Benesch estimates that shallow groundwater exists at depths greater than 20 feet below ground surface (bgs) at the Property. Note that the topography of the Property slopes downward 10 to 20 feet across the site from northwest to southeast. Estimated groundwater levels and/or flow direction(s) may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations.

5.4 Historical Use Information

The following table summarizes the findings of the research presented below pertaining to historical use of the Property and surrounding areas.

HISTORICAL USE SUMMARY				
Approximate Time Period	Identified Historical Uses		Source(s)	Intervals/Comments
	Property	Surrounding Area		
1901	The Property is depicted as approximately 20 parcels. 19 th Street intersects the Property down the middle and 18 th Street borders the Property to the East. 11 residences are depicted on the Property along 20 th Street, 19 th Street, 18 th Street, and 'N' Street.	The Property is surrounded by residences and undeveloped parcels in all directions, storefronts to the northeast, and Curo Mineral Springs north across 'N' Street (1812).	Sanborn® Map	Property was first developed as residential sometime prior to 1901.
1926	One residence is listed on the Property in city directories.	Curo Mineral Springs is listed.	City Directories	Houses and through streets removed prior to 1926.
1938	The Property is depicted as wooded and open space, with no apparent structures. 18 th and 19 th Streets from 'N' to 'O' Streets are not present. Drainage way/ravine apparent from NW to SE.	Appears to be mostly residential and wooded areas or open space surrounding the Property.	Aerial photograph	No significant data gaps.
1941-1951	No residences are listed or apparent on the Property.	1812 'N' Street is listed as Independent Produce. 1814 'N' Street is listed as Al's Auto & Truck Svc. And Jacobs Svc. (1946)	City Directories Aerial Photographs	No significant data gaps.
1952	A structure is depicted in the NW ¼ of the Property with an entrance off of 'N' Street. No other structures are depicted.	Appears to be mostly residential, undeveloped parcels, or wooded areas surrounding the Property.	Aerial Photograph	No significant data gaps.
1962-1964	The Property is depicted as approximately 20 parcels. All are vacant with the exception of one residence on far southeast parcel.	The Property is surrounded mostly by residences or undeveloped parcels. An auto repair facility (1814) and concrete products facility (1812) are depicted north across 'N' Street.	Sanborn® Map	No significant data gaps
1969-1970	The Property is mostly wooded, with a structure depicted in the SE corner and possibly one in the NW quadrant with driveways.	Appears to be mostly residential, undeveloped parcels, or wooded areas surrounding the Property.	Aerial Photograph	No significant data gaps

HISTORICAL USE SUMMARY				
Approximate Time Period	Identified Historical Uses		Source(s)	Intervals/Comments
	Property	Surrounding Area		
1979-1982	The east half of the Property appears to be in use (Gammel landfill). One structure may be depicted in NW quadrant.	Appears to be mostly residential, undeveloped parcels, or wooded areas surrounding the Property.	Aerial Photograph NDEQ File	No significant data gaps
1990-1999	Appears that the landfill has expanded to the west half of the Property. Wooded areas are depicted along west, south, and east boundaries. Landfill even further west in 1999 photo	Appears to be mostly residential, undeveloped parcels, or wooded areas surrounding the Property.	Aerial Photograph Interviews	No significant data gaps
2002-Present	The Property appears to be graded over with wooded area along the west, south, and east boundaries.	Appears to be mostly residential, undeveloped parcels, or wooded areas surrounding the Property.	Aerial Photographs Site Reconnaissance Interviews	No significant data gaps

Aerial Photographs

Available aerial photographs of the Property and surrounding area ranged from 1941 to 2012. Benesch obtained aerial photographs from the following sources: the Douglas County Engineer's office dated 1941, 1955, 1965 and 1971; and *The EDR Aerial Photo Decade Package* with aerial photographs dated 1952, 1969, 1975, 1982, 1988, 1990, 1994, 1999, 2002, 2006, 2007, 2009, 2010, and 2012. The following table provides descriptions and interpretations from the aerial photograph review.

AERIAL PHOTOGRAPH SUMMARY	
Year	Comments
2013, 2009, 2005, 2002	Property: The Property is depicted similar to site observations with no structures located thereon. The Property has been capped since its' use as a landfill. Surrounding Area: The area surrounding the Property is depicted similar to site observations with wooded areas adjacent south and east; wooded area further east, residential, industrial, wooded and undeveloped parcels to the north, commercial property to the northwest, recreational property to the west, and wooded parcels and residential property to the south.
1999, 1994, 1990	Property: The Property is depicted as a landfill, with wooded areas along the south and east Property boundaries. Surrounding Area: The area surrounding the Property is depicted similar to site observations with wooded areas adjacent south and east; wooded area further east, residential, industrial, wooded and undeveloped parcels to the north, commercial property to the northwest, and wooded parcels and residential property to the south. The property to the west appears undeveloped.

AERIAL PHOTOGRAPH SUMMARY (Cont'd)	
Year	Comments
1979, 1982	<p>Property: It appears that the east half is utilized for landfill activities, and possibly a portion of the Property in the NW quadrant. It is difficult to discern Property features in the 1982 photograph.</p> <p>Surrounding Area: The area surrounding the Property is depicted similar to site observations with wooded areas adjacent south and east; wooded area further east, residential, industrial, wooded and undeveloped parcels to the north, commercial property to the northwest, and wooded parcels and residential property to the south. The property to the west appears to be an open lot.</p>
1969-1970	<p>Property: The Property is depicted as mostly wooded. A structure is depicted in the SW corner of the Property and possibly in the NW quadrant, with drives leading to each.</p> <p>Surrounding Area: : The area surrounding the Property is depicted by residential, industrial, and undeveloped property to the north, an open lot to the west, wooded area and residential property to the south, and wooded areas to the east.</p>
1952	<p>Property: The Property is depicted as mostly wooded with one structure depicted in the NW quadrant with an entranceway coming off of 'N' Street.</p> <p>Surrounding Area: The area surrounding the Property is depicted by wooded, residential and industrial property to the north, undeveloped property to the west, wooded area and residential property to the south, and wooded areas to the east.</p>
1938, 1949	<p>Property: The Property is depicted as mostly wooded, with open space in the drainage way to the southeast.</p> <p>Surrounding Area: The area surrounding the Property is depicted by wooded areas, residential, and industrial property to the north, east and west, and residential properties to the south.</p>

The review of aerial photographs identified features indicative of *recognized environmental conditions* at the Property; the industrial facility (auto repair shop) located adjacent north of the Property across 'N' Street. There is a potential that materials used or stored at the adjacent auto repair facility may have leaked to the subsurface and migrated onto the Property, potentially impacting the soil or groundwater beneath the Property. Copies of historical aerial photographs for the Property and vicinity are provided in Appendix D.

Historic Topographic Maps

Benesch reviewed available historical USGS Topographic Maps for the Property, including the *Omaha South, Nebraska-Iowa Quadrangle*, dated 1956 (photo-revised 1969, 1975 and 1984); the *Omaha South, Nebraska-Iowa Quadrangle*, dated 1994; and the *Omaha Vicinity, Nebraska Sheet*, dated 1898 for information regarding past uses of the Property. The Property is depicted on the 1898-1984 USGS maps as platted urban land. The 1898 map depicts a perennial stream running through the Property from northwest to southeast towards the Missouri River. All maps depict topography consistent with the current topography at the site, although, as previously mentioned, portions of the site currently sit at a higher elevation since it has been filled in and graded over.

The review of historical USGS Maps did not identify other features indicative of *recognized environmental conditions* at the Property and/or the immediate surrounding area. Copies of historical USGS Topographic maps for the Property are provided in Appendix D.

City Directories

Benesch reviewed historical city street directory information provided in *The EDR City Directory Abstract*. EDR generally researched *Polk City Directories* and Cole Information Services (or predecessor versions) for the area of the Property in approximate 5-year intervals dating from 1915 to 2013. The current address is 4903 South 20th Street; however, 19th Street previously intersected the middle of the Property, while 18th Street previously ran along the east Property line. Therefore, the historic addresses listed on 18th and 19th Streets south of 'N' no longer exist. The following table has Property and adjoining listings based on a review of the historical city directory information.

CITY DIRECTORIES SUMMARY		
Address	Listed Dates	City Directory Listing
Property (4919 S. 20 th Street, 4918 S. 19 th Street)	1926	Residential
Property (4908 S. 19 th Street)	1965-1970	Residential (1970-vacant)
Property (all other possible addresses)	NA	No other addresses on Property listed in city directories
1812 'N' Street (North)	1956-2001	Concrete Products facility
	1941-1951	Independent Produce, Agnes Sokey (1946)
	1926-1936	Curo Mineral Springs
1814 'N' Street	2001	John Kudirka (Decorating, painting paper)
	1970-1980	Stadwald & Sons Construction
	1961-1965	Vacant
	1941-1951	Auto Service (Al's Auto, Jacobs Service)
	1936	Vacant
	1931	John Hagan Garage
1822 'N' Street	1941-2007	Residential
4830 S. 19 th Street (North)	1970-2007	Residential
4923 S. 20 th Street (South)	1926-1995	Residential

Based on review of city directories, the Property has been occupied by three residences; listed in 1926 and from 1965 to 1970. The historic presence of residences on the Property are not considered an environmental concern for the Property.

The review of city directories identified an adjacent address listing that is indicative of a *recognized environmental condition* for the Property. John Hagan Garage (1931), Al's Auto Service (1941, 1951), and Jacobs Service (1946), located at 1814 'N' Street adjacent north of the Property were listed in the city directories. These listings are considered to be a *recognized environmental condition* for the Property. If any spills of materials used, generated, or stored by these facilities occurred, there is the potential that the contaminated material may have impacted the soil or groundwater beneath and/or migrated onto the Property.

A copy of *The EDR City Directory Abstract* is provided in Appendix D.

Fire Insurance Maps

EDR provided Benesch with Sanborn® maps for the Property and vicinity for the years 1901, 1962 and 1964. The following are descriptions and interpretations from the review of historic fire insurance maps for the Property.

FIRE INSURANCE MAP SUMMARY	
Year	Comments
1964, 1962	<p>Property: The Property is depicted as twenty parcels, while only the southeastern most parcel is occupied by a residence. 19th Street through the Property is labeled as 'Not Open' in 1964.</p> <p>Surrounding Area: 'N' Street followed by the a concrete products facility, an auto repair facility, one residence and numerous vacant parcels to the north. 18th Street followed by numerous vacant parcels to the east. Numerous residences and two vacant parcels to the south. 20th Street followed by vacant parcels to the west.</p>
1901	<p>Property: The Property is depicted as twenty parcels and occupied by numerous dwellings. 19th Street is depicted going through the middle of the Property while 18th Street forms the approximate eastern Property line. Two residences each are depicted on 19th and 20th Street, Four residences are depicted on 'N' Street east of 19th Street, and three residences are depicted on 18th Street.</p> <p>Surrounding Area: 'N' Street followed by the Curo Mineral Springs and numerous vacant parcels to the north. 18th Street followed by one residence and numerous vacant parcels to the east. Numerous residences and three vacant parcels to the south. 20th Street followed by a store on the SW corner of 20th and 'N' Street and vacant parcels to the west.</p>

The review of Sanborn® maps for the Property and vicinity identified a *recognized environmental condition* for the Property with regard to the auto repair facility located adjacent to the Property across 'N' Street to the east and north. If any spills of materials used, generated, or stored by this facility have occurred, there is the potential that the contaminated material may have impacted the soil or groundwater beneath and/or migrated onto the Property. Copies of historical Sanborn® maps for the Property are provided in Appendix D.

County Assessor Property Tax Files

Benesch accessed real estate tax information for the Property on the Douglas County Assessor's website at <http://douglasne.wgxtreme.com>. Information about the Property parcels are listed provided below.

Address	Parcel ID	Parcel Size (Ac)	Structure Size (ft ²)	Const. Date
4903 S. 26 th St.	0414400002	0.71	NA	NA
'N' Street	0414260000	0.41	NA	NA
4920 S. 20 th St.	0414270002	0.29	NA	NA
1819 'N' St.	0414220000	0.06	NA	NA
1815 'N' St.	0414210002	0.19	NA	NA
4911 S. 19 th St.	0414190000	0.14	NA	NA
4915 S. 19 th St.	0414180000	0.14	NA	NA
4919 S. 19 th St.	0414170000	0.14	NA	NA
4923 S. 19 th St.	0414160000	0.14	NA	NA
4904 S. 18 th St.	0414040000	0.11	NA	NA
4908 S. 18 th St.	0414050000	0.14	NA	NA
4912 S. 18 th St.	0414060000	0.14	NA	NA
4916 S. 18 th St.	0414070000	0.14	NA	NA
4924 S. 18 th St.	0414090000	0.14	NA	NA
4928 S. 18 th St.	0414100000	0.14	NA	NA
4920 s. 20 th St.	0414080000	0.14	NA	NA

A copy of the Douglas County Assessor information is provided in Appendix F.

Douglas County Health Department Publications

Benesch reviewed the following publications issued by the Douglas County Health Department (DCHD) for information regarding historic landfills, if any, located in the vicinity of the Property:

Status of Dumps and Dumping in Omaha and Douglas County, dated August 1968; and
Report on DUMP SITES AND LANDFILLS within City and Three Mile Limit, dated December 23, 1963.

Prior to 1965, Douglas County did not operate a landfill and vendors generally used private, unregulated landfills for trash and waste disposal. A review of the DCHD historical landfill information indicates the nearest such landfills in the vicinity of the Property were located at 20th and 'H' Streets approximately 0.5 miles north of the Property, and at 19th and 'S' Streets approximately 0.36 miles south of the Property. In addition, the Property was used as a landfill from 1975 until approximately 2000 for the disposal of demolition debris and street sweepings, although not listed in these reports. Neither of the landfills at 20th and 'H' or 19th and 'S' Streets represents a REC for the Property at this time. However; the historic use of the Property as a landfill for street sweepings is considered a *recognized environmental condition* for the Property. A copy of the DCHD landfill information is provided in Appendix D.

Land Title Records and Environmental Liens

The acquisition of recorded land title records was not conducted within the scope of services for this Phase I ESA. Benesch assumes any prospective buyers and sellers of the Property will arrange for title search services at an appropriate time, which would include a review and evaluation of environmental liens or AULs regarding the Property (activity and use limitations, e.g. restrictive or protective covenants regarding environmental issues), if any.

Prior Reports

No previous reports were provided to Benesch for review and inclusion in this ESA report.

Building Department Records

Historical building department records, if any, were not reviewed. In the opinion of the environmental professionals, no additional significant information is expected from this source.

Zoning/Land Use Records

Historical Zoning/Land Use Records were not reviewed. In the opinion of the environmental professionals, no additional significant information is expected from this source. According to information obtained from the Douglas County Assessor via <http://douglasne.mapping-online.com>, the Property parcels are currently not zoned (Ex Government), as they are owned by the City of Omaha; however, it is assumed that they were previously zoned industrial. The parcel to the west are also

designated Ex Government, while the parcels to the north are zoned residential and industrial, and parcels to the east and south are zoned residential. A copy of the zoning map for the south Omaha vicinity is provided in Appendix F.

Other Historical Sources

No additional historical sources were reviewed.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

Site reconnaissance methodology involved a walking and driving inspection of the Property and vicinity on July 10, 2015 by Brian Fettin of Benesch. All areas of the Property were accessed with observations noted and there were no conditions which limited observations (i.e. access issues, physical barriers, or weather). Photographic documentation of the site reconnaissance is provided in Appendix B.

6.2 General Site Setting

The Property is primarily open space with wooded areas along the east, south, and west Property lines. The Property slopes from northwest to southeast along a natural drainage way (former ravine). The Property is bordered by 'N' Street on the north, from which the site is accessed. There are no structures present on the Property; however, a community garden was under construction at the time of the site visit, which is located along 'N' Street just east of 19th Street. The Property is located in a mixed use area generally characterized by residential properties to the north and south, along with two industrial properties to the north, a heavily wooded area to the east, and 20th Street followed by a recreational facility to the west. Two elevated sewer manholes were observed near the middle of the Property and a newly installed municipal water hand pump was observed in the community garden area. Refer to the site diagram in Appendix A.

6.3 Site Reconnaissance Observations

The objective of a site reconnaissance is to obtain information indicating the likelihood of identifying *recognized environmental conditions* in connection with the Property. The observations made during the site reconnaissance are identified in the following table and described in the following sections.

SITE CHARACTERISTICS		
Category	Site Feature	Observed
Site Operations, Processes and Equipment	Emergency Generators	
	Elevators	
	Air Compressors	
	Hydraulic Lifts	
	Dry Cleaning	
	Photo Processing	
	Ventilation Hoods and/or Incinerators	
	Waste Water Treatment Systems	
	Heating and/or Cooling Systems	
Other Processes or Equipment		
Aboveground Chemical or Waste Storage	Aboveground Storage Tanks (ASTs)	
	Drums, Barrels and/or Containers > 5 gallons	
	MSDS	

SITE CHARACTERISTICS (Cont'd)		
Category	Site Feature	Observed
Underground Chemical or Waste Storage, Drainage or Collection Systems	Underground Storage Tanks (USTs)	
	Sumps, Cisterns, Catch Basins and/or Dry Wells	
	Grease Traps	
	Septic Tanks and/or Leach Fields	
	Oil/Water Separators	
	Pipelines	
	Interior Floor Drains	
Electrical Transformers and/or PCBs	Transformers and/or Capacitors	
	Other Equipment	
Releases or Potential Releases	Stressed Vegetation	x
	Stained Soil	
	Stained Pavement	
	Leachate and/or Waste Seeps	
	Trash, Debris, Waste Materials	x
	Dumping or Disposal Areas	
	Construction/Demolition Debris	x
	Surface Water Discoloration, Odor, Sheen and/or Free Phase Product	
	Strong, Pungent or Noxious Odors	
	Exterior Pipe Discharges, Effluent Discharges	
Other Notable Site Features	Surface Water Bodies	
	Quarries or Pits	
	Wells	

Stressed Vegetation

An area of stressed vegetation was observed on the Property on the north half west of 19th Street. It appears that this area is an area of shallow cap soil. This area of stressed vegetation is not considered a concern; however, it is recommended that sufficient cap soil be placed in this area to support vegetative cover and to comply with state landfill closure regulations.

Trash, Debris, Waste Materials/Construction/Demolition Debris

Debris/waste piles consisting primarily of concrete rubble, along with trash, a few scattered tires, and wood were observed in the wooded areas along the east, south, and west Property lines. It appears and is assumed that much of the rubble is construction debris that was placed at the site when it was utilized as a landfill and was not properly buried or capped. It is likely that some of the material and other trash (tires, wood) at the site has been dumped illegally. These areas are not considered an environmental concern in connection with the site; however, it is recommended that these areas be cleaned up by

properly capping where appropriate, and/or removing and disposing of these materials in accordance with local and state regulations.

Vapor Migration Screening

ASTM Standard E 1527-13 clarifies that the vapor pathway should be considered in the Phase I ESA because a vapor would be considered a release to the environment. No extensive vapor migration assessment was conducted as part of this assessment. Benesch relied on the regulatory agency database records review report provided by EDR, information from the NDEQ, historical information, site reconnaissance, and review of current site conditions to assess the potential for vapor migration on the Property. Based on the records review report, information from the NDEQ, historical information, and site reconnaissance, there is potential for vapor migration from the adjacent historical sites (1814 'N' Street, former auto repair facility) listed in the records review report. The extent of any soil and/or groundwater contamination beneath the Property, if any, is unknown. Potential vapor migration is possible but unlikely to significantly impact the Property given site conditions (no structures on site, no basements). Therefore, the vapor migration screening revealed no evidence of *recognized environmental conditions* in connection with the Property.

7.0 INTERVIEWS

The following persons were contacted to obtain information regarding *recognized environmental conditions* in connection with the Property:

Role	Name	Title	Entity	Interview Type
User Representative/Current Property Owner	Mr. Dennis Bryers	City of Omaha Landscape Architect	City of Omaha	E-mail/User Questionnaire dennis.bryers@cityofomaha.org
Neighborhood Association Representative	Mr. Mike Battershell	South Omaha Neighborhood Alliance Member	South Omaha Neighborhood Alliance	E-mail/User Questionnaire mike@bergmanincentives.com
Local Utility	Mr. Marty Wetenkamp	Supervisor Environmental Health & Safety	Safety & Training Division, Omaha Public Power District (OPPD)	Benesch request and OPPD response via letter and email mjwetenkamp@oppd.com
Local Government Agency	Mr. Jon Ruff	Environmental Health Specialist, Sanitary Engineering Dept.	Douglas County Health Department	Electronic mail via jon.ruff@douglascountyne.gov Telephone 402.444.7485
State Government Agency	Records Management	Records Management	NDEQ	Email Ndeq.records@nebraska.gov

Relevant interview information has been incorporated into the appropriate sections of this ESA report. A Record of Conversation form documenting the interview information and the User Questionnaire for the Property is provided in Appendix E.

8.0 FINDINGS

8.1 Findings

Site Reconnaissance

The Property, designated the Dorothy Patach Environmental Area, is located at 4903 South 20th Street in Omaha, Douglas County, Nebraska. The Property is primarily open space with wooded areas along the east, south, and west Property lines. The Property slopes from northwest to southeast along a natural drainage way (former ravine). The Property is bordered by 'N' Street on the north, from which the site is accessed. There are no structures present on the Property; however, a community garden was under construction at the time of the site visit, which is located along 'N' Street just east of 19th Street. The Property is located in a mixed use area generally characterized by residential and industrial properties to the north, residential properties to the south, a heavily wooded area to the east, and 20th Street followed by a recreational facility to the west. Two elevated sewer manholes were observed near the middle of the Property and a newly installed municipal water hand pump was observed in the community garden area.

No *recognized environmental condition* were observed during the site reconnaissance; however, it is recommended that the area of shallow soil cover and the debris/trash piles, discussed in Section 6.3, be addressed accordingly.

Regulatory Records Review

The Property is located within the Omaha Lead National Priority List (NPL) and CERCLIS project boundaries (aka Omaha Lead Site [OLS]) which encompass a significant portion of east Omaha. Although the OLS source areas have been abated, the impact of the OLS on the Property itself is unknown at this time, and may still be significant with regard to either potential contamination or environmental liability. As such the OLS represents a *recognized environmental condition* for the Property.

One additional CERCLIS site is located within the relevant search distance from the Property (Former Carter White Lead Facility, J Avenue and 22nd Street, 0.42 miles northwest). Based on current regulatory status and distance from the Property, this facility does not represent a *recognized environmental condition* for the Property at this time.

State Agency Database Listings

There are two (2) State equivalent CERCLIS NE SHWS (State Superfund Program List) sites (Salvation Army Kroc Center, 2825 Y Street, 0.87 miles south-southeast, and Syngenta Crop Protection, 4111 Gibson Road, 0.97 miles northeast) located within the relevant search radius of the Property. Based on current regulatory status, distance, and/or estimated down or cross-gradient location relative to the Property, these sites do not represent a *recognized environmental condition* for the Property at this time.

There are thirteen (13) leaking underground storage tank (LUST) sites, and five (5) leaking aboveground storage tank (LAST) site located within the relevant search radius of the Property. The NDEQ has issued

a 'No Further Action' (NFA) letter for all 5 of the LAST sites and 8 of the 13 LUST sites. Based on current regulatory status these sites do not represent a REC for the Property at this time. Based on distance or estimated down or cross-gradient location relative to the Property, none of the remaining 5 LUST sites represent a *recognized environmental condition* for the Property at this time.

Three (3) NE Brownfield sites are located within the relevant search distances from the Property. Based on current regulatory status, distance, and/or estimated down or cross-gradient location relative to the Property, these sites do not represent a *recognized environmental condition* for the Property at this time.

There are a total of 20 US Historical Auto Station (18) and US Historical Cleaners (2) sites located within the relevant search distances from the Property. These are historical sites, that based on business name and/or category, may have been operated as a gas or service station. One US historical auto station, although listed as two sites at same address (John Hagan Garage and Jacob's Service, 1814 'N' Street, located north across 'N' Street), is located adjacent to the Property. This site represents a *recognized environmental condition* for the Property at this time. Based on lack of regulatory data, distance, and/or estimated down or cross-gradient location relative to the Property, the remaining sites do not represent a *recognized environmental condition* for the Property at this time.

Orphan Summary Listings

The Property is not listed in the Orphan Summary. Sites in the Orphan Summary of the EDR report have insufficient address information for an exact location to be mapped. Based on the limited information available, none of the sites listed in the Orphan Summary appear to be located in the Property vicinity, and therefore, are not considered significant at this time.

Interviews

Relevant interview information has been incorporated into the appropriate sections of this ESA report and is summarized in Section 7.0. According to Interview information, the Property was historically utilized as a landfill by Gammel Construction and the City of Omaha for disposal of construction debris and street sweepings. Mr. Battershell indicated that the South Omaha Neighborhood Alliance intends to use at least a portion of the Property for a community garden, which will expand in size over the next few years.

Benesch contacted Mr. Jon Ruff, Environmental Health Specialist with the Sanitary Engineering Section of the Douglas County Health Department (DCHD) for environmental records regarding the Property located at 4808 South 26th Street. According to Mr. Ruff, the DCHD records contained information for the Property regarding the Gammel landfill, dated 1993 when was designated an "unpermitted" C&D landfill by NDEQ. DCHD did not have any other records regarding the Property.

A Record of Conversation documenting the information Mr. Ruff researched for Benesch is provided in Appendix E.

OPPD records indicate no reported spillage of poly-chlorinated biphenyls (PCBs) from electrical transformers in the vicinity of the Property.

NDEQ records indicated that the Property is in the Integrated Waste Management (IWM) program, which is listed as Gammel Construction Landfill. Review of NDEQ documents indicates that Gammel began landfill activities in 1975 and continued until circa 1995, disposing of construction debris. The City of Omaha used it from circa 1991 until 2000 to dispose of construction debris and street sweepings, after which it was closed and capped. In 2003 a letter requiring No Further Action to close the landfill was issued by NDEQ after additional measures were taken by the City of Omaha to properly cap the landfill. The NDEQ listing for the Property as a former landfill does represent a *controlled recognized environmental condition* for the Property.

8.2 Historical Summary

The Property was developed prior to 1901 as approximately twenty-two parcels, at which time eleven residences occupied the Property. By 1926, only one residence occupied the Property. The Property was open space or wooded area along a deep ravine, until 1975 when portions of the Property began to be utilized as an unlicensed construction and debris landfill by Gammel Construction. The Property was donated to the City of Omaha circa 1995, at which time the City of Omaha Street Maintenance Department used the landfill to dispose of street maintenance debris and tear out materials. The Property was last used as a landfill in 2000, after which time it was capped, according to state landfill closure regulations. Currently, it is open space and is designated as the Dorothy Patach Natural Environmental Area.

The review of city directories and Sanborn® maps indicated that the adjacent parcel located north across 'N' Street (1814 'N' Street) has been occupied by various auto repair facilities from 1931 to 1951 (John Hagan Garage, Al's Auto Service, Jacobs Service).

The historic use of the Property as a landfill for the disposal of street sweepings, and the presence of the adjacent auto repair shop constitute *recognized environmental conditions* for the Property.

8.3 Data Gap Analysis

A data gap is a lack of or inability to obtain information by the environmental professional that could affect the ability of the environmental professional to identify conditions indicative of releases or threatened releases. The ASTM standard specifies that all obvious uses of the Property shall be identified back to first developed use or 1940, whichever is earlier; and that review of standard historical sources at intervals of less than five years is not required. Further, if the use of the Property appears unchanged over a period longer than five years, then it is not required to research the use during that period.

The history of the Property has been researched to 1901 (fire insurance map), 1898 (topographic map), 1926 (city directory), and 1938 (aerial photograph). Minor data gaps spanning more than five years exist. Based on review of historical records, the use of the Property has changed minimally since it has been developed. Initially, the Property was occupied by numerous residences, followed by undeveloped and

wooded parcels, and later utilized as a C&D landfill, followed by open space after capping and closure of the landfill.

Although there are data gaps regarding the historic use of the Property (1901-1925), it is the opinion of the environmental professional that this data gap is not significant and does not affect our ability to identify recognized environmental conditions in connection with the Property.

9.0 OPINION

Benesch performed a Phase I Environmental Site Assessment of the Property in general conformance with the scope and limitations of ASTM Practice E 1527-13. Any exceptions to, or deviations from, this practice are described in Sections 2.2 and 2.4 of this report. This assessment has revealed evidence of *recognized environmental conditions* (RECs) and *controlled recognized environmental conditions* (CRECs) in connection with the Property as follows:

The Property is located within the Omaha Lead Site (OLS) boundaries which encompass a significant portion of Omaha. Although the OLS source areas have been abated, the impact of the OLS on the Property itself is unknown at this time, and may still be significant with regard to either potential contamination or environmental liability when redeveloping the Property. As such the OLS represents a REC for the Property.

The city directories list the adjacent property to the north across 'N' Street (1814 'N' Street) as an auto repair facility (John Hagan Garage, Al's Auto Service, Jacobs Service) from 1931 to 1951. There is a potential that a release of solvents and/or petroleum products at this facility may have impacted the soil or groundwater beneath and migrated onto the Property. The historic usage of the adjacent property as an auto repair facility represents a REC for the Property.

Benesch recommends conducting a Phase II Environmental Site Assessment (ESA) at the Property to assess the potential impacts to the site as a result of the above noted *recognized environmental conditions*. This would involve limited sampling of the soil and groundwater to assess for the presence of chemicals of potential concern (COPCs).

Review of NDEQ records and interviews with City of Omaha personnel indicated that the Property was historically used as a C&D landfill for disposal of construction debris in addition to street sweepings. The historic usage of the Property as a landfill represents a CREC for the Property. However, based on the type of material disposed of at the facility and the issuance of a No Further Action letter from the NDEQ in regards to the cap, further assessment of the Property to address this CREC is not recommended.

As mentioned previously, Benesch recommends properly capping or removing all C&D materials that are present along the east and south Property lines, and removing all trash, specifically tires, and properly disposing of in accordance with all local, state, and federal regulations.

10.0 DEVIATIONS

There were no significant deviations from ASTM Standard Practice E 1527-13 noted during the course of this assessment.

11.0 ADDITIONAL SERVICES

No additional services beyond the scope of ASTM Standard E 1527-13 were requested by the User for this assessment.

12.0 REFERENCES

ASTM International, *Standard Practice for Environmental Site Assessments: Phase One Environmental Site Assessment Process*, ASTM Designation E 1527-13, November 2013.

Douglas County Assessor, Property records, parcel maps, and a zoning map accessed via the internet website <http://douglasne.mapping-online.com>.

Douglas County Engineer, aerial photographs dated 1941, 1955, 1965 and 1971.

Douglas County Health Department, *Status of Dumps and Dumping in Omaha and Douglas County*, dated August 1968 and *Report on DUMP SITES AND LANDFILLS within City and Three Mile Limit*, dated December 23, 1963.

Environmental Data Resources, Inc. (EDR), *The EDR Radius Map™ Report*; Inquiry No. 04318716.2r dated June 8, 2015.

EDR, *The EDR Aerial Photo Decade Package*, Inquiry No. 4318716.9 dated June 9, 2015. Aerial photographs dated 2012, 2010, 2009, 2007, 2006, 2002, 1999, 1994, 1990, 1982, 1979, 1970, 1969, 1952, 1949, and 1938.

EDR, *The EDR City Directory Abstract*, Inquiry No. 4318716.5 dated June 29, 2015. Includes *R.L. Polk and Company* and *Cole Information Services, Omaha, Nebraska Area Wide Directories* (and predecessor editions) dated 1915, 1926, 1931, 1936, 1941, 1946, 1951, 1956, 1961, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2001, 2007, 2008, and 2013.

EDR, *Certified Sanborn® Map Report*, Inquiry No. 4318716.3 dated June 9, 2015. Sanborn® fire insurance maps dated 1901, 1962 and 1964.

EDR, *EDR Historical Topographic Map Report*, Inquiry No. 4318716.4 dated June 8, 2015.

United States Geological Society (USGS), 7.5 Minute Topographic Map Series *Omaha South, Nebraska-Iowa Quadrangle*, dated 1956 (photo-revised 1969, 1975 and 1984) and *Omaha South, Nebraska-Iowa Quadrangle*, dated 1994. USGS, 30 Minute Topographic Map Series *Omaha Vicinity, Nebraska Sheet*, dated 1898.

Nebraska Department of Natural Resources, Registered Groundwater Wells Database accessed via the internet website <http://dnrdata.dnr.ne.gov/wellscs/Results>.

12.0 REFERENCES – CONTINUED

Nebraska Geologic Survey, *Geologic Bedrock Map of Nebraska*, compiled by Raymond Birched, et al, Conservation & Survey Division, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln, dated 1986.

Conservation & Survey Division, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln, *Configuration of the Water Table, Nebraska-Spring 1979*, dated 1980.

United States Department of Agriculture (USDA) Soil Conservation Service, *Soil Survey of Douglas and Sarpy Counties, Nebraska*, published 1975; soils and geology information.

13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 40 CFR 312.10. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject Property. We have developed and performed the all appropriate inquiries in general conformance with the standards and practices set forth in 40 CFR Part 312. Resumes for the Benesch environmental professionals are provided in Appendix G.

Report Prepared By:

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Brian Fetta
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Report Reviewed By:

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