

PHASE I ENVIRONMENTAL SITE ASSESSMENT

**ALLENTOWN ARENA SITE
WEST HAMILTON TO WEST LINDEN STREETS
NORTH 6TH TO NORTH 8TH STREETS**

ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA

Prepared for:

Allentown Economic Development Corporation

Benesch Project No. 00060089.00 task 00001

July 2011

Prepared By:



**Alfred Benesch & Company
840 Hamilton Street
Allentown, PA 18101
610.439.7066**

TABLE OF CONTENTS

1.0	SUMMARY	1
2.0	INTRODUCTION	2
2.1	Purpose	2
2.2	Scope of Services	2
2.3	Significant Assumptions	2
2.4	Limitations and Exceptions	2
2.5	Special Terms and Conditions	3
2.6	User Reliance	3
3.0	SITE DESCRIPTION	4
3.1	Location and Legal Description	4
3.2	Surrounding Area General Characteristics.....	4
3.3	Current Use of the Property.....	5
3.4	Description of Property Improvements	5
3.5	Current Uses of the Adjoining Properties	5
4.0	USER PROVIDED INFORMATION	6
5.0	RECORDS REVIEW	7
5.1	Standard Environmental Record Sources	7
5.2	Additional Environmental Record Sources	9
5.3	Physical Setting Sources	10
5.4	Historical Use Information	11
6.0	SITE RECONNAISSANCE	17
6.1	Methodology and Limiting Conditions	17
6.2	General Site Setting	17
6.3	Site Reconnaissance Observations	17
7.0	INTERVIEWS	21
8.0	FINDINGS	22
8.1	Findings	22
8.2	Historical Summary	23
8.3	Data Gap Analysis	23
9.0	OPINION	24
10.0	CONCLUSIONS	25
11.0	DEVIATIONS	26
12.0	ADDITIONAL SERVICES	27
13.0	REFERENCES	28
14.0	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS	29

TABLE OF CONTENTS (CONTINUED)

APPENDICES

Appendix A	Figures
	Site Location Map
	Site Diagram
	Property Parcels Ownership Maps
Appendix B	Site Photographs
Appendix C	Regulatory Records Documentation
Appendix D	Historical Research Documentation
Appendix E	Interview Documentation
Appendix F	Other Supporting Documentation
Appendix G	Qualifications of Environmental Professionals

1.0 SUMMARY

Alfred Benesch & Company (Benesch) has performed a Phase I Environmental Site Assessment (ESA) on approximately 64 parcels encompassing two city blocks located between West Hamilton and West Linden Streets, and North 6th and North 8th Streets in downtown Allentown, Lehigh County, Pennsylvania (the Property). This report was prepared by Benesch at the request of and for the sole benefit and use of the "User"; the Allentown Economic Development Corporation (AEDC) in conformance with the scope and limitations of ASTM Standard Practice E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

The parcels comprising the Property have reportedly been utilized for commercial and residential purposes since the late 1800s. Some of the historical uses (paint stores, 1960s dry cleaner facility one block north of the Property, garment factories, 1930s auto repair facility and machine shop, Glidden Paint and Great Lakes Chemicals located at 609 West Hamilton Street) present potential environmental concerns for the Property. However, based on the history of municipally supplied potable water and sanitary sewer services in downtown Allentown, and an absence of regulatory action regarding these above noted facilities, the potential environmental concerns noted above do not appear to be significant at this time. Of particular note is that the Property and vicinity has not been historically zoned for industrial use.

In the course of this investigation, no *recognized environmental conditions* were identified for 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 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 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 1527-05.

2.3 Significant Assumptions

None.

2.4 Limitations and Exceptions

The following potential environmental issues are beyond the scope of ASTM Practice E 1527-05:

- Asbestos-containing materials (ACM),
- Lead-based paint,
- Radon,
- 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.

Of specific note on the above non ASTM scope list are ACM, lead-based paint, and indoor air quality issues including radon and mold which are likely to be encountered in numerous Property structures and should be dealt with according to local, state, and federal guidelines.

This report addresses certain physical characteristics of the Property with regard to the release or presence of petroleum products or hazardous substances. It is not intended to warrant or otherwise imply that the Property is or is not free from conditions, materials, or substances, which could adversely impact the environment or pose a threat to public health and safety.

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 recognized environmental conditions 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"; the Allentown Economic Development Corporation (AEDC) subject to the limitations described in the report and in the agreement between Benesch and the User regarding environmental issues associated with the Property. 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 consists of approximately 64 parcels encompassing two city blocks located between West Hamilton and West Linden Streets, and North 6th and North 8th Streets in downtown Allentown, Lehigh County, Pennsylvania. Lehigh County Assessor information including a parcel map with addresses, parcel identification numbers (PIN), parcel acreage, building dimensions and dates of construction, and current use for the Property parcels is provided in Appendix F. Obtaining legal descriptions for all the Property parcels is beyond the scope of this assessment.

Addresses Benesch obtained for the Property parcels are as follows:

- 10, 18, 24, 32, 34, 36, 38, 42, and 44 North 6th Street,
- 15 and 38 North Church Street,
- 12, 15, 22, 27, 33, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, and 48 North 7th Street,
- No parcel addresses were identified along North Hall Street or North Silk Street,
- 21, 23, 29, 31, 33, 35, 37, 39, 41 and 43 North 8th Street,
- 610, 612, 624, 716, 720 and 728 West Linden Street, and
- 601, 605, 615, 619, 623, 625, 627A, 627C, 701, 705, 707, 709, 711, 713, 715, 719, 721, 723, 725, 729, 733 and 739 West Hamilton Street.
- No parcel addresses were identified along West Court Street, West Edison Street, or West Howe Street.

Note that the above list should not be considered definitive. There may be additional parcel addresses not identified above that are located within the Property boundaries.

According to the *Allentown East, Pennsylvania Quadrangle* USGS 7.5-minute topographic map dated 1999 and GPS information, the approximate center point of the Property parcels is located at Latitude 40.602800 North (40° 36' 10.1") and Longitude 75.47190 West (75° 28' 18.8"), Lehigh County, Pennsylvania.

A Site Location Map and Site Diagram depicting the Property parcels are provided as Figures 1 and 2, respectively in Appendix A. Property Parcels Ownership Maps obtained from the Allentown Economic Development Corporation are provided as Figure 3 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 parcels is characterized by commercial, residential and municipal uses.

3.3 Current Use of the Property

The Property parcels are characterized by commercial and multi-family residential uses with some vacant structures and surface parking lots.

3.4 Description of Property Improvements

The following table provides general descriptions of the Property and improvements.

PROPERTY IMPROVEMENTS	
Property Description	The Property consists of approximately 64 parcels encompassing two city blocks located between West Hamilton and West Linden Streets and North 6 th & North 8 th Streets in downtown Allentown, PA. Lehigh County Assessor information for the Property parcels is provided in Appendix F.
General Topography of Property	Relatively flat to gently rolling urban land exhibiting a topographic gradient to the east toward the Lehigh River.
Access Roads	<p>North/South roads North 6th Street, North Church Street, North 7th Street, North Hall Street, North Silk Street and North 8th Street.</p> <p>East West roads West Hamilton Street, West Howe Street, West Court Street, West Edison Street and West Linden Street.</p>
Potable Water	City of Allentown, PA
Sanitary and Storm Sewer	City of Allentown, PA Department of Public Works.
Electrical	Pennsylvania Power & Light (PPL)
Natural Gas Utility	UGI Corporation

3.5 Current Uses of the Adjoining Properties

The current uses of the adjoining properties are identified below.

North: West Linden Street followed by residential and commercial land use.

East: North 6th Street followed by municipal, residential and commercial land use.

South: West Hamilton Street followed by residential and commercial land use.

West: North 8th Street followed by residential and commercial land use.

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 Mr. Scott Unger, Executive Director with the Allentown Economic Development Corporation (User representative) with regard to the Property parcels. A copy of the Phase I ESA User Questionnaire completed by Mr. Unger 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 the purchase price would likely reflect fair market value.
- The User reported no knowledge of specific chemicals 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, with the exception of lead based paint and ACM abatement activities conducted at the 716-18 West Linden Street and 22 North 6th Street structures.
- 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 as part of the proposed Allentown, Pennsylvania Arena project to comply with ‘All Appropriate Inquiry’ for planning for and managing risk associated with potential acquisition or redevelopment of the Property.
- AEDC provided Benesch with Property Parcels Ownership Maps (Figure 3, Appendix A) identifying the Property parcels which are generally located between Hamilton and Linden Streets and North 6th and North 8th Streets in downtown Allentown, Lehigh County, Pennsylvania.
- The party who will rely on the Phase I ESA report is the Allentown Economic Development Corporation.
- 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	0
Federal Delisted NPL	1 mile	No	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list	½ mile	No	1
Federal CERCLIS No Further Remedial Action Planned (NFRAP)	½ mile	No	2
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	3
Federal Institutional Control/Engineering Control Registry	½ mile	No	0
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	0
State and Tribal Landfill or Solid Waste Disposal Sites	½ mile	No	0
State and Tribal Leaking Underground Storage Tanks (LUST) sites	½ mile	No	8
State and Tribal Registered Underground Storage Tanks (UST) and Aboveground Storage Tanks (AST)	¼ mile	No	0
State and Tribal Institutional Control or Engineering Control Registry	¼ mile	No	1
State and Tribal Voluntary Cleanup Site	½ mile	Yes	31
Federal, State and Tribal Brownfield Sites	½ mile	Yes	5

SUMMARY OF FEDERAL, STATE AND TRIBAL DATABASE FINDINGS			
Regulatory Database	Approx. Minimum Search Distance	Property Listed?	Total # Sites Listed
Former Manufactured Gas Plant (FMGP) Sites	1 mile	No	1

Federal Agency Database Listings

The Property (approximately 64 parcels encompassing two city blocks located in downtown Allentown) is not listed in the EDR Federal Agency Database Listings. One CERCLIS site (Allentown Mercury Spill, 9th & Chew Streets), two CERCLIS-NFRAP sites (Fogelsville Site, 435 Hamilton Street; Mack Trucks Inc., 601 South 10th Street) and three relevant RCRA-SQG sites (Sanders Reinhardt Co., 711-13 Linden Street [adjoining property north]; 7-Eleven No. 23337, 107 North 7th Street [adjoining property north]; and the Morning Call Inc., 101 North 6th Street [adjoining property northeast]; all of which have a current EPA regulatory status of “No Violations Found”) were identified within the relevant search radii. Based on distance, topography, estimated groundwater gradient, the apparent nature of contaminants, and/or current regulatory status, none of the sites listed in the federal agency databases appear to represent *recognized environmental conditions* for the Property at this time.

State Agency Database Listings

There are three parcels located within the Property boundaries (Reading Buttonwood LLP, 609 Hamilton Street; Sal’s Spaghetti House, 18-22 North 6th Street; and 716-718 Linden Street) that are noted in the EDR State Agency Database Listings as explained further below.

Eight LUST sites (Lehigh Co. Parking, 30 North 5th Street; Anthony Meckes Texaco, 42-44 South 5th Street; Lehigh Co. Courthouse, 455 Hamilton Street; Sacred Heart Hospital, 421 Chew Street; Phoenix Square, 333 Court Street; Mobile Service, 502 North 7th Street; Fuller Co. Allentown Plant, 600 South 10th Street; and Coleman Electric, 530-544 North 7th Street), one relevant AST/UST site (the Morning Call Inc., 101 North 6th Street [adjoining property northeast], tanks installed 1999 with no reported leaks to date), one Institutional Control site (Bridgeworks Industrial Site, 601 South 10th Street), thirty-one (31) State and Tribal voluntary cleanup (VCP) sites (30 of these VCP sites apparently involve PCBs and electrical transformers on power poles or electrical substations in the vicinity of 2 North 9th Street; 2020 Building, 405 West Linden Street; PPL Pole, 409 Union Street; and **Reading Butterwood LLP, 609 Hamilton Street [located within Property boundary]**), five US, State and Tribal Brownfields sites (**Sal’s Spaghetti House, 18-22 North 6th [located within Property boundary]; 716-718 Linden Street [located within Property boundary]**; Bridgeworks Industrial Site, 601 South 10th Street; 912 Jackson Street; and Allentown Incinerator Site, South 3rd Street), and one FMGP site (UGI Corporation Gas Plant-Allentown, 2nd & Union Streets) were identified within the relevant search radii.

The EDR database report provides no information for the Reading Butterwood, LLP VCP site located within the Property boundaries, other than to note that there are deed restrictions placed on the site. According to EDR, the Sal’s Spaghetti House VCP site received an assessment grant from the Lehigh Valley Economic Development Corporation (LVEDC) to perform an

Environmental Site Assessment. The Allentown Redevelopment Authority acquired the Sal's parcel in 2006. The restaurant structure formerly located on the Sal's parcel was reportedly demolished within the last five years and the Cosmopolitan Restaurant structure has been constructed at this location. According to EDR, the 716-718 Linden Street VCP site received an assessment grant from the LVEDC to perform an Environmental Site Assessment. Asbestos and lead-based paint was reportedly found and abated/removed from the 716-18 Linden parcel, which was historically utilized for town homes that were subsequently demolished in April 2009.

Based on distance, topography, estimated groundwater gradient, and/or current regulatory status, none of the sites listed in the state agency databases appear to represent *recognized environmental conditions* for the Property at this time.

Orphan Summary Listings

The Property was 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 study area. Based on distance, topography, estimated groundwater gradient, and/or current regulatory status, the sites listed in the Orphan Summary are not considered *recognized environmental conditions* for the Property at this time.

5.2 Additional Environmental Record Sources

Boring Logs

Benesch obtained boring logs prepared by Langan Engineering & Environmental of Philadelphia, PA (Langan) which performed preliminary geotechnical exploration services for Hammes at the Allentown Arena site on May 5 and 6, 2011. A review of the boring logs indicated that Langan did not observe gross indications of contamination (e.g. odors and/or discolored soils reflective of petroleum or solvent impacts) during recent geotechnical field exploration activities conducted at the Property. The limited review of the Langan boring logs did not provide information representing *recognized environmental conditions* for the Property at this time. Copies of the Langan boring logs are provided in Appendix F.

Allentown Fire Department

Benesch submitted a right-to-know request with the office of the City of Allentown Solicitor seeking any available information from the Allentown Fire Department (and/or Fire Prevention Bureau) regarding fires, tanks (ASTs and USTs), and hazardous materials use/storage/spills at the Property parcels. The Allentown Fire Department (AFD) provided the following information regarding tanks at the Property:

- 41 North 8th Street; Answernet, Inc. office, one 275-gallon #2 heating oil tank was installed February 2009.

- 626 West Hamilton Street; retail, one 1,000-gallon gasoline UST was removed November 3, 1987.
- 739 West Hamilton Street; retail, one 10,000-gallon fuel oil UST was removed September 2004.
- 728 and 730 West Linden Street; retail/storage (former garment factory), one 12,000-gallon and two 6,000-gallon fuel oil USTs were filled in place with concrete February 2002.

The review of the AFD tank files did not provide information representing *recognized environmental conditions* for the Property at this time. Copies of the AFD information are provided in Appendix F.

Allentown Environmental Health Services Department

Benesch submitted a right-to-know request with the office of the City of Allentown Solicitor seeking any available information from the Allentown Environmental Health Services Department regarding tanks (ASTs and USTs) and hazardous materials use/storage/spills at the Property parcels. The Allentown Environmental Health Services Department (AEHSD) provided file information regarding air pollution complaints for the 711 West Hamilton Street parcel at the Property. The review of the AEHSD files did not provide information representing *recognized environmental conditions* for the Property at this time. Copies of the AEHSD information are provided in Appendix F.

5.3 Physical Setting Sources

Topography

Based on a review of the USGS 7.5 Minute Series Topographic Map *Allentown East, Pennsylvania Quadrangle* (dated 1999) the Property is located approximately 355 feet above mean sea level (msl). The Property is depicted as relatively flat to gently rolling urban land exhibiting a downward topographic gradient east toward the Lehigh River Creek which is located approximately 0.8-mile to the east. 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 EDR database report contains information from the United States Department of Agriculture (USDA) Soil Conservation Service *Soil Survey of Lehigh County, Pennsylvania* which classifies the soils in the vicinity of the Property as Urban land, variable with no additional soils information provided.

Hydrology

Based on the topography of the area of the Property, groundwater is estimated to flow to the east toward and along the Lehigh River. Based on information provided by the Langan

geotechnical report and the EDR database report for the vicinity of the Property, Benesch estimates that shallow groundwater exists at depths greater than 50 feet below ground surface (bgs) at the Property. However, 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. According to EDR, no public water supply wells are located within relevant search distances from the Property.

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 Period	Identified Historical Uses		Source(s)	Intervals/Comments
	Property	Surrounding Area		
Prior to 1940.	Commercial and residential use.	Commercial, residential and municipal use.	Aerial Photograph Sanborn® Maps Topographic Map County Assessor	No significant data gaps.
1940-1960	Commercial and residential use.	Commercial, residential and municipal use.	Aerial Photographs County Assessor Sanborn® Maps Topographic Maps Zoning Map	No significant data gaps.
1961-1980s	Commercial and residential use.	Commercial, residential and municipal use.	Aerial Photographs City Directories County Assessor Sanborn® Maps Topographic Maps Zoning Map	No significant data gaps.
1980s to 2000	Commercial and residential use.	Commercial, residential and municipal use.	Aerial Photographs City directories County Assessor Topographic Maps	No significant data gaps.
2000 to present	Commercial and residential use.	Commercial, residential and municipal use.	Aerial Photographs City directories County Assessor Local Agencies Interviews Zoning Maps	No significant data gaps.

Aerial Photographs

Available aerial photographs of the Property and surrounding area ranged from 1939 to 2009. Benesch obtained aerial photographs from the following sources: the *EDR Aerial Photo Decade Package*, Inquiry No. 3053190.5 (USGS photos obtained by EDR for the Property vicinity dated 1999, 1992, 1987, 1981, 1974, 1971, 1962, 1957, 1955 and 1939); and a USGS photo dated 2009 obtained via the internet website <http://maps.yahoo.com>. The following table provides descriptions and interpretations from the aerial photograph review.

AERIAL PHOTOGRAPH SUMMARY	
Year	Comments
2009	Property and Surrounding Area: The Property and surrounding area is generally depicted similar to site reconnaissance observations with apparent commercial and residential uses, surface parking lots, and vacant parcels.
1999, 1992, 1987, 1981, 1974, 1971, 1962, 1957, 1955, and 1939	Property and Surrounding Area: The Property and surrounding area is depicted with apparent commercial and residential uses, and surface parking lots. The scale of the aerial photographs limits their interpretation.

The review of aerial photographs did not identify features indicative of *recognized environmental conditions* at the Property and/or the immediate surrounding area (e.g. noticeable storage tanks, landfills, clean-up sites, etc.). Copies of historical aerial photographs for the Property are provided in Appendix D.

Historic Topographic Maps

Benesch reviewed available historical USGS Topographic Maps for the Property, including the *Allentown East, Pennsylvania Quadrangle* dated 1947, 1957, 1964 (photo-revised 1972, 1983 and 1992) and 1999, and the *Allentown, Pennsylvania Sheet*, dated 1893 for information regarding past uses of the Property. The Property is depicted as developed land located within downtown Allentown, Pennsylvania. Structures that could be interpreted as indicative of heavy industrial usage are depicted along Lehigh Creek (approximately 0.4-mile south of the Property in an estimated down-gradient location), along Jordan Creek (approximately 0.3-mile east of the Property in an estimated down-gradient location), and along the Lehigh River (approximately 0.8-mile east of the Property in an estimated down-gradient location).

The review of historical USGS Maps did not identify 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 retained Environmental Data Resources, Inc. (EDR) to search for historic city directories at the public library system in Allentown, PA. EDR subsequently provided Benesch with *The EDR City Directory Abstract*, Inquiry No. 3053190.6, dated May 11, 2011 sourced from R.L. Polk and Company, *Polk's Allentown City Directories* with published dates 1973, 1989, 1996, 2002 and 2011. Benesch selected the following addresses for EDR to search for city directories coverage within or adjoining the Property boundaries based on structural features noted during the site reconnaissance or their identification in the EDR database report (previously discussed in Section 5.1 of this ESA report) as state or federal regulated sites.

101 North 6th Street, Morning Call AST, UST, RCRA-SQG site:

- 2011 – Loame Foods, Inc.; Morning Call, Inc.; Tribune Direct.
- 2002 – Morning Call building; the Morning Call.
- 1996 – Morning Call building; the Morning Call.
- 1989 – The Morning Call.

- 1973 – Call Chronicle Building.

The Morning Call site located at 101 North 6th Street adjoining the Property is apparently a newspaper facility. As previously discussed in Section 5.1 of this ESA report, it is located in an estimated cross-gradient or down-gradient location relative to the Property and has no record of violations or leaks/spills at the site.

22 North 6th Street, Sal's Spaghetti House US, State and Tribal Brownfields site:

- 1973 – Selfon Sales and Rentals.

The city directories search provided no additional relevant information regarding the 22 North 6th Street site.

609 West Hamilton Street, Reading Butterwood LLP VCP site:

- 2011 – Office building with 36 occupants.
- 2002 – Sovereign Executive Offices building with 52 occupants.
- 1996 – Glidden Paint; Great Lakes Chemicals; Sovereign Executive Offices building with 51 occupants.
- 1989 – Sovereign building with 11 occupants.

The 1996 occupants at 609 West Hamilton Street (Glidden Paint and Great Lakes Chemicals) represent a potential environmental concern for the Property.

716 West Linden Street, US, State and Tribal Brownfields site:

- 2011 – No return.
- 1973 – Arthritis Foundation Central Division.

The city directories search provided no additional relevant information regarding the 22 North 6th Street site.

728 West Linden Street, structure has water tower located on roof, Sanborn® maps identify this parcel as the location of a garment factory:

- 2011 – All City Self Storage; U Haul Company.
- 1989 – Cata Inc.
- 1973 – Cata Inc. and Vicki Sportswear.

The parcel located at 728 West Linden Street is apparently a clothing or garment factory where items were sewed and assembled but not manufactured (spun or woven, dyed, etc.).

The review of city directories did not identify *recognized environmental conditions* at the Property and/or the immediate surrounding area. However, former occupants of the 609 West Hamilton Street Property parcel (Glidden Paint and Great Lakes Chemicals) present an environmental concern for the Property. Benesch recommends performing a title search for deed restrictions on this parcel (previously noted in Section 5.1 of this ESA report) and a file search with the Pennsylvania EPA for review of available records. A copy of *The EDR City Directory Abstract* for the Property is provided in Appendix D.

Fire Insurance Maps

Benesch obtained available Sanborn® maps for the Property and vicinity for the years 1885, 1891, 1897, 1911, 1932, 1950, 1957, 1964, 1968, 1971 and 1977. The following are descriptions and interpretations from the review of historic fire insurance maps for the Property.

FIRE INSURANCE MAP SUMMARY	
Year	Comments/Properties of Potential Environmental Significance
1977, 1971	Property: 32 North Church St. is a garment factory. 48 North 7 th Street is retail paint store.
1968, 1964	Property: 32 North Church St. is a garment factory. 48 North 7 th Street is retail paint store. Surrounding Area: 105-07 North 7 th Street is a dry cleaning facility.
1957	Property: 32 North Church St. is an underwear factory. 36, 40 & 48 North 7 th Street are one or more retail paint stores. 728 West Linden Street Charis Corp. garment factory with a water tower.
1950	1957 Sanborn® map is generally not legible.
1932	Property: Auto repair and machine shop located at 617-23 West Court Street. 36 North 7 th Street is a retail paint store. 728 West Linden Street site of clothing manufacturing.
1911	No properties of potential environmental significance are depicted.
1897	Property: Knitting factory is located at intersection of West Court and North Hall Streets.
1891	No properties of potential environmental significance are depicted.
1885	Property: Banks & Mathias chair factory, Becker Brothers bending factory, and Bittner & Hunsickner hosiery factory is located at intersection of West Court and North Hall Streets.

Some of the historical uses noted in the above table present potential environmental concerns for the Property. However, based on the history of municipally supplied potable water and sanitary sewer services in downtown Allentown, and an absence of regulatory action (reference Sections 5.1 and 5.2 of this ESA report) regarding any of the above noted addresses, these potential environmental concerns noted in the above table do not appear to represent *recognized environmental conditions* for the Property. Copies of historic Sanborn® maps for the Property are provided in Appendix D.

County Assessor Property Tax Files

Benesch obtained available parcel information for the Property via the internet website <http://lehighcounty.org>. The Lehigh County Assessor information including a parcel map with addresses, parcel identification numbers (PIN), parcel acreage, building dimensions and dates of construction, and current use for the Property parcels is provided in Appendix F. Obtaining legal descriptions for all 64 Property parcels is beyond the scope of this assessment.

Addresses Benesch obtained for the Property parcels are as follows:

- 10, 18, 24, 32, 34, 36, 38, 42, and 44 North 6th Street,
- 15 and 38 North Church Street,
- 12, 15, 22, 27, 33, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, and 48 North 7th Street,
- No parcel addresses were identified along North Hall Street or North Silk Street,
- 21, 23, 29, 31, 33, 35, 37, 39, 41 and 43 North 8th Street,
- 610, 612, 624, 716, 720 and 728 West Linden Street,

- No parcel addresses were identified along West Court Street, West Edison Street, or West Howe Street, and
- 601, 605, 615, 619, 623, 625, 627A, 627C, 701, 705, 707, 709, 711, 713, 715, 719, 721, 723, 725, 729, 733 and 739 West Hamilton Street.

Note that the above list should not be considered definitive. There may be additional parcel addresses not identified above that are located within the Property boundaries.

Land Title Records

Obtaining legal descriptions and acquiring recorded land title records for the approximately 64 parcels comprising the Allentown Arena site (the Property) was not practical within the scope of work for this ESA report. Therefore, Benesch was unable to look for evidence of environmental cleanup liens and/or Activity and Use Limitations (AULs) that might be filed against the parcels comprising the Property. Benesch recommends that land title records be reviewed for potential AULs and environmental liens that may be recorded against the Property parcels prior to their acquisition for the Allentown Arena site. Such information may significantly affect the site acquisition and cleanup costs associated with the Allentown Arena site.

Building Department Records

Obtaining Building Department records for the approximately 64 parcels comprising the Allentown Arena site (the Property) was not practical within the scope of work for this ESA report. Benesch recommends that building department records be reviewed for the Property parcels prior to their acquisition. Such information may be significant regarding asbestos containing materials (ACM) that may be present in Property structures which will affect the site cleanup and demolition costs associated with the Allentown Arena site.

Prior Reports

Benesch was not provided with any prior environmental reports for the Property to review for inclusion in this ESA report.

Zoning/Land Use Records

Benesch obtained current (dated 2010) and historical (dated 2000, 1971 and 1949) Zoning Maps for the City of Allentown, PA from the Allentown Department of Public Works for review. Benesch interpretation of municipal zoning designations for the area of the Property parcels are as follows:

- 2010: B-1/R (Limited Business/Residential) and also located within the Historic Buildings Demolition Overlay District.
- 2000: B-2 (Central Business District).
- 1971: B-2 (Central Business District).

- 1949: Business "A".

Of particular note is that the Property and vicinity has not been historically zoned for industrial use. In addition, it appears that the primary area of zoning for industrial use in Allentown is/was located along the Lehigh River approximately 0.8-mile east of the Property in an estimated down-gradient location. The review of historic zoning maps did not identify features indicative of *recognized environmental conditions* at the Property and/or the immediate surrounding area. Copies of historic City of Allentown Zoning Maps are 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 May 2-4, 2011 by Mr. Patrick Sward of Benesch. Mr. Mike Leone of Hammes Company Sports Development, Inc. accompanied Mr. Sward for portions of the site reconnaissance on May 3, 2011. During the site reconnaissance, there were no weather conditions limiting observations. Note that the proposed Allentown Arena site consists of approximately 64 parcels; the Benesch environmental professional and Mr. Leone accessed four parcels (located at 42 North 7th Street, 39 North 8th Street, 709 and 723 West Hamilton Street) during the site reconnaissance.

6.2 General Site Setting

The Property consists of approximately 64 parcels encompassing four city blocks located between West Hamilton and West Linden Streets and North 6th and North 8th Streets in downtown Allentown, Lehigh County, Pennsylvania. The Property parcels are characterized by commercial and multi-family residential uses with some vacant structures and surface parking lots. The area surrounding the Property parcels is characterized by commercial, residential and municipal uses.

6.3 Site Reconnaissance Observations

The objective of the 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.

Interior and Exterior Observations	Observed or Suspected	Not Observed
Hazardous Substances and Petroleum Products		X
Storage Tanks		X
Odors		X
Pools of Liquid		X
Drums		X
Unidentified Substance Containers		X
PCBs	X	
Stains or Corrosion		X
Waste Pits, Ponds, or Lagoons		X
Stained Soil or Pavement		X
Stressed Vegetation		X
Solid Waste		X
Waste Water		X
Wells and Septic Systems		X

Field Notes from the Site Reconnaissance

42 North 7th Street



- Accompanied by Owner Marian Estevez and Building Manager Abraham Prosper.
- Current use daycare and apartments, 1st floor and upper level, with basement.
- No ASTs, USTs, hazardous materials use/storage/spills.
- No obvious PACMs (potential asbestos containing materials e.g. thermal system insulation [known as TSI] or trowled on surfacing materials). Some 9"x9" vinyl floor tile is present at this location.
- Some water damage evident in basement.
- City water/sewer.
- Old freight elevator is present, not usable.

39 North 8th Street



- Owner Saeed Moghal.
- Current use apartments, 1st floor and upper levels, with basement.
- No ASTs, USTs, hazardous materials use/storage/spills.
- No obvious PACMs. Some 9"x9" vinyl floor tile is present at this location.
- City water/sewer.

709 West Hamilton Street



- Former restaurant 1st floor and upper level, with basement.
- No ASTs, USTs, hazardous materials use/storage/spills.
- No obvious PACMs.
- Significant water damage evident with poor roof.
- Assumed city water/sewer.

723 West Hamilton Street



- Former retail 1st floor, upper two levels former residential and commercial, with basement.
- No ASTs, USTs, hazardous materials use/storage/spills.
- No obvious PACMs except fibrous roofing materials, extensive 9"x9" vinyl floor tile.
- Access on upper floors of 723 West Hamilton Street apparently extends to the 725 and 727 structures located west of 723 Hamilton.
- Significant water damage evident with roof in poor condition.
- Assumed city water/sewer.
- Probable localized fire occurred on 2nd floor residential units.

Hazardous Substances, Petroleum Products and Storage Tanks

No evidence of hazardous substances, petroleum products and/or storage tanks (USTs/ASTs) was observed during the site reconnaissance. The area of the Property receives natural gas services from UGI Corporation but there are likely some heating oil tanks and boiler systems remaining within the Property boundaries. Refer to Sections 5.1 and 5.2 of this ESA report for additional information on regulated sites and heating oil tanks located on or near the proposed Allentown Arena site.

Polychlorinated Biphenyls (PCBs)

Numerous pad-mounted and pole mounted electrical transformers that could potentially contain PCBs are located within the Property boundaries. Specifically an apparent electrical substation with several pad-mounted electrical transformers is located along North Church Street just south of Linden Street and is depicted on the Site Diagram (Figure 2, Appendix A). Underground electrical vaults may also be present at the Property. Benesch recommends consultation and coordination with the local utility (Pennsylvania Power & Light) regarding electrical transformers during Property acquisition and Property structure demolition activities. The local electrical utility will generally be responsible for any Property electrical transformers and any potential remediation and/or disposal issues for utility owned and operated transformers that may contain PCBs. While no labels were identified on transformers or other electrical equipment specifying all equipment as “non-PCB” or other related term, there is no assurance as to what the equipment may contain absent of verification and documentation by the owner (Pennsylvania Power & Light) or other potential equipment owners.

Solid Waste

Numerous non-hazardous solid waste containers are located within the Property boundaries.

Waste Water, Private Wells and Septic Systems

The Property and surrounding area located in downtown Allentown receives potable water services from the City of Allentown and storm and sanitary sewer services from the Department of Public Works. Private water wells and septic systems in the Property vicinity have reportedly not been utilized.

The site reconnaissance revealed no specific evidence of *recognized environmental conditions* in connection with the Property. Additional photographic documentation of the site reconnaissance is provided in Appendix B.

7.0 INTERVIEWS

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

Role	Name	Title	Entity	Interview Type
User Representative	Scott Unger	Executive Director	Allentown Economic Development Corporation and Allentown Commercial & Industrial Development Authority	Email User Questionnaire
Developer Representative	Mike E. Leone	Project Manager	Hammes Company Sports Development, Inc.	In Person Email Telephone
Parcel Owner	Marian Estevez	Owner	42 North 7 th Street parcel and daycare facility	In person
Parcel Owner	Saeed Moghal	Owner	39 North 8 th Street residential parcel	In person
Local Agency Contact	Barbara M. Nemith	Zoning Supervisor	City of Allentown Bureau of Planning & Zoning	In Person
Local Agency Contact	Michael C. Hefele	Director of Planning	City of Allentown Bureau of Planning & Zoning	In Person
Local Agency Contact	Lee T. Laubach	Assistant Chief of Fire Prevention	City of Allentown Fire Department	Right-to-know request filed with office of City of Allentown Solicitor
Local Agency Contact	Garry J. Ritter	Environmental Field Services Manager	City of Allentown Environmental Health Services Department	Right-to-know request filed with office of City of Allentown Solicitor

Note that the 22 North 7th Street parcel at the Property currently occupied by a surface parking lot was the former location of the Corporate Plaza seven story office building structure which reportedly collapsed into a huge sinkhole in February 1994 and was subsequently demolished.

Relevant interview information has been incorporated into the appropriate sections of this ESA report. User Provided Information was previously discussed in Section 4.0 of this ESA report and a copy of the User Questionnaire for the Property is provided in Appendix E. Fire and Environmental Department information was previously discussed in Section 5.2 of this ESA report with copies provided in Appendix F.

8.0 FINDINGS

8.1 Findings

Site Reconnaissance

The Property consists of approximately 64 parcels encompassing two city blocks located between West Hamilton and West Linden Streets and North 6th and North 8th Streets in downtown Allentown, Lehigh County, Pennsylvania. The Property parcels are characterized by commercial and multi-family residential uses with some vacant structures and surface parking lots. The area surrounding the Property parcels is characterized by commercial, residential and municipal uses. The site reconnaissance revealed no evidence of *recognized environmental conditions* in connection with the Property.

Regulatory Records Review

The Property is not listed in the EDR Federal Agency Database Listings. One CERCLIS site, two CERCLIS-NFRAP sites and three relevant RCRA-SQG sites (adjoining properties, all of which have a current EPA regulatory status of “No Violations Found”) were identified within the relevant search radii. Based on distance, topography, estimated groundwater gradient, the apparent nature of contaminants, and/or current regulatory status, none of the sites listed in the federal agency databases appear to represent *recognized environmental conditions* for the Property at this time.

There are three parcels located within the Property boundaries (Reading Buttonwood LLP, 609 Hamilton Street; Sal’s Spaghetti House, 18-22 North 6th Street; and 716-718 Linden Street) that are noted in the EDR State Agency Database Listings. Eight LUST sites, one relevant AST/UST site (adjoining property), one Institutional Control site, 31 State and Tribal voluntary cleanup (VCP) sites (including Reading Butterwood LLP, 609 Hamilton Street), five US, State and Tribal Brownfields sites (including Sal’s Spaghetti House, 18-22 North 6th; and 716-718 Linden Street), and one FMGP site were identified within the relevant search radii.

There are deed restrictions placed on the Reading Buttonwood LLP site. The Allentown Redevelopment Authority acquired the Sal’s Spaghetti House parcel in 2006. Asbestos and lead-based paint was reportedly found and abated/removed from the 716-18 Linden parcel, which was historically utilized for town homes that were subsequently demolished in April 2009. Based on distance, topography, estimated groundwater gradient, and/or current regulatory status, none of the sites listed in the state agency databases appear to represent *recognized environmental conditions* for the Property at this time.

Based on distance, topography, estimated groundwater gradient, and/or current regulatory status, the sites listed in the Orphan Summary are not considered *recognized environmental conditions* for the Property 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. A copy of the User Questionnaire is provided in Appendix E. The interview information for the Property did not reveal evidence of *recognized environmental conditions* for the Property.

8.2 Historical Summary

The parcels comprising the Property have reportedly been for commercial and residential use since the late 1800s. Of particular note is that the Property and vicinity has not been historically zoned for industrial use. Some of the historical uses (paint stores, 1960s dry cleaner facility one block north of the Property, garment factories, 1930s auto repair facility and machine shop, Glidden Paint and Great Lakes Chemicals located at 609 West Hamilton Street) present potential environmental concerns for the Property. However, based on the history of municipally supplied potable water and sanitary sewer services in downtown Allentown, and an absence of regulatory action regarding these above noted facilities, the potential environmental concerns noted above do not appear to represent *recognized environmental conditions* for the Property at this time.

8.3 Data Gap Analysis

A data gap is a lack of or an 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 1893 (topographic map), 1885 (fire insurance map), 1939 (aerial photograph), 1949 (zoning map), and 1973 (city directory). Data gaps spanning more than five years exist and the use of the Property appears primarily unchanged during these data gaps. Therefore, in the opinion of the environmental professionals, these data gaps are not considered significant and do not affect our ability to identify *recognized environmental conditions* in connection with the Property.

9.0 OPINION

In the course of this investigation, no *recognized environmental conditions* were identified for the Property. However, Benesch makes the following recommendations:

- The 609 West Hamilton Street Property parcel (Reading Buterwood VCP site, former tenants Glidden Paint and Great Lakes Chemicals) represents a potential environmental concern for the Property. Benesch recommends performing a title search for deed restrictions on this parcel and a file search with the Pennsylvania EPA for review of available records.
- Obtaining legal descriptions and acquiring recorded land title records for the approximately 64 parcels comprising the Allentown Arena site (the Property) was not practical within the scope of work for this ESA report. Therefore, Benesch was unable to look for evidence of environmental cleanup liens and/or Activity and Use Limitations (AULs) that might be filed against the parcels comprising the Property. Benesch recommends that land title records be reviewed for potential AULs and environmental liens that may be recorded against the Property parcels as part of the acquisition process for the Allentown Arena site.
- Numerous pad-mounted and pole mounted electrical transformers that could potentially contain PCBs are located within the Property boundaries. Specifically an apparent electrical substation with several pad-mounted electrical transformers is located along North Church Street just south of Linden Street. Underground electrical vaults may also be present at the Property. Benesch recommends consultation and coordination with the local utility (Pennsylvania Power & Light [PPL]) regarding electrical transformers during Property acquisition and Property structure demolition activities. The local electrical utility will generally be responsible for any Property electrical transformers and any potential remediation and/or disposal issues for utility owned and operated transformers that may contain PCBs.
- Benesch recommends contacting UGI Corporation regarding any information they may have regarding former gas distribution lines located within the Property boundaries, if any, associated with the Allentown former manufactured gas plant (Allentown FMGP, aka Allentown Gaslight Company, Allentown-Bethlehem Gas Company).

10.0 CONCLUSIONS

Alfred Benesch & Company (Benesch) has performed a Phase I Environmental Site Assessment (ESA) on approximately 64 parcels encompassing two city blocks located between West Hamilton and West Linden Streets, and North 6th and North 8th Streets in downtown Allentown, Lehigh County, Pennsylvania (the Property). This report was prepared by Benesch at the request of and for the sole benefit and use of the "User"; the Allentown Economic Development Corporation (AEDC) in conformance with the scope and limitations of ASTM Standard Practice E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

The parcels comprising the Property have reportedly been utilized for commercial and residential purposes since the late 1800s. Some of the historical uses (paint stores, 1960s dry cleaner facility one block north of the Property, garment factories, 1930s auto repair facility and machine shop, Glidden Paint and Great Lakes Chemicals located at 609 West Hamilton Street) present potential environmental concerns for the Property. However, based on the history of municipally supplied potable water and sanitary sewer services in downtown Allentown, and an absence of regulatory action regarding these above noted facilities, the potential environmental concerns noted above do not appear to be significant at this time. Of particular note is that the Property and vicinity has not been historically zoned for industrial use.

In the course of this investigation, no *recognized environmental conditions* were identified for the Property.

11.0 DEVIATIONS

The following deviations from ASTM Standard Practice E 1527-05 were noted during the course of this assessment:

- The proposed Allentown Arena site consists of approximately 64 parcels; the Benesch environmental professional accessed four parcels (42 North 7th Street, 39 North 8th Street, and 709 and 723 West Hamilton Street) during the site reconnaissance conducted May 2-4, 2011.
- Benesch did not obtain land title records for the Property to review for evidence of environmental cleanup liens and/or Activity and Use Limitations (AULs) that might be filed against the Property.

12.0 ADDITIONAL SERVICES

No additional services beyond the scope of ASTM Standard E 1527-05 were requested by the User for this assessment.

Of specific note regarding non scope ASTM items are asbestos containing materials (ACM), lead-based paint, and indoor air quality issues including radon and mold which are likely to be encountered in numerous Property structures and should be dealt with according to local, state, and federal guidelines.

13.0 REFERENCES

ASTM International, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation E 1527-05, November 2005.

Environmental Data Resources, Inc. (EDR), *EDR-Radius Map[®] Report*; Inquiry No. 03053190.2r dated April 26, 2011.

EDR, *The EDR City Directory Abstract*; Inquiry No. 3053190.6 dated May 11, 2011; R.L. Polk and Company, *Polk's Allentown City Directories* published 1973, 1989, 1996, 2002 and 2011.

EDR, *The EDR Aerial Photo Decade Package*, dated April 28, 2011. USGS photos dated 1999, 1992, 1987, 1981, 1974, 1971, 1962, 1957, 1955 and 1939.

Langan Engineering & Environmental Services, boring logs for geotechnical exploration services performed at the Allentown Arena site on May 5-6, 2011.

Lehigh County Assessor, approximately 64 Property parcel records accessed via the internet website <http://lehighcounty.org>.

City of Allentown Bureau of Planning & Zoning, zoning maps dated 2010, 2004, 1971, and 1949.

City of Allentown Solicitor, right-to-know request to obtain Property file information from the City Of Allentown Fire Department Fire Prevention Division and the City of Allentown Environmental Health Services Department.

Sanborn[®] fire insurance maps obtained from EDR dated 1977, 1971, 1968, 1964, 1957, 1950, 1932, 1911, 1897, 1891, and 1885.

United States Geological Society (USGS), 7.5 Minute Topographic Map Series *Allentown East, Pennsylvania Quadrangle*, dated 1947, 1957, 1964 (photo-revised 1972, 1983 and 1992) and 1999.

USGS, 30 Minute Topographic Map Series *Allentown, Pennsylvania Sheet*, dated 1893.

USGS, aerial photograph dated 2009 accessed via the internet website <http://maps.yahoo.com>.

14.0 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:
Alfred Benesch & Company



Patrick L. Sward, JD
Project Scientist

Report Reviewed By:
Alfred Benesch & Company



Frank Uhlarik, CPG, CEA
Senior Project Manager

Alfred Benesch & Company
840 Hamilton Street
Allentown, PA 18101
610.439.7066

