



Mr. Michael P. Hanlon  
City Clerk  
City Clerk's Office | City of Allentown  
435 Hamilton Street  
Allentown, PA 18101

January 2, 2024

Re: Allentown Metal Works Building G Sewer Planning Module  
AEDC Project: 06-026-04

Dear Mr. Hanlon:

Please find the attached four (4) copies of the full Sewer Planning Module Package for the above project. A digital version of the full Sewer Planning Module has been provided separately to Jesus Sadiua of the City's Planning Department.

The Resolution for Plan Revision for New Land Development is the remaining step necessary to complete the process. We ask that you schedule the adoption of the resolution for the next available City Council meeting. Once approved and executed, please return three (3) copies to us so that we can submit them to the Pennsylvania Department of Environmental Protection.

Should you require any additional information or if you have any questions, please don't hesitate to contact our office.

Sincerely,

R. Scott Unger  
Executive Director

Cc: Jesus Sadiua







5072 Ritter Rd  
Suite 102  
Mechanicsburg, PA 17055  
T: 717-975-6481  
F: 717-975-6480

[www.pennoni.com](http://www.pennoni.com)

January 2, 2024

AEDCX17001

Michael Hanlon  
Clerk of City Council  
Allentown City Hall  
435 Hamilton Street  
Allentown, PA 18101-1699

**RE: Planning Module DEP CODE No. 2-39001276-3  
Allentown Metal Works Project**

Dear Mr. Hanlon:

On behalf of Allentown Economic Development Corporation, Pennoni is hereby submitting a Planning Module Component 3 for the above referenced project in accordance with the checklist letter we received on April 7, 2022.

If you have any questions related to our review comments, please feel free to contact me at (717) 620-5948.

Sincerely,

**PENNONI ASSOCIATES, INC.**

James Illigash, PLA, LEED AP BD+C

U:\Accounts\AEDCX\NBTWP17001 – Allentown Metal Works Project\DOC PREP\Planning Module\2022.7.19\_Cover Letter



**CITY OF ALLENTOWN  
LEHIGH COUNTY, PENNSYLVANIA**

**SEWAGE FACILITIES PLANNING MODULE**

**COMPONENT 3**

**FOR**

**ALLENTOWN METAL WORKS PROJECT**

**Project Location  
Allentown, Pa  
606 South 10<sup>th</sup> Street  
Allentown, PA 17319**

July 19, 2022

**Prepared by:**

**PENNONI ASSOCIATES INC.  
5072 Ritter Road, Suite 102  
Mechanicsburg, PA 17055  
[www.Pennoni.com](http://www.Pennoni.com)**



**SEWAGE FACILITIES PLANNING MODULE  
COMPONENT  
ALLENTOWN, PA**

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## **1. TRANSMITTAL LETTER**

Date 4/7/2022

Name AEDC  
Address 905 HAMILTON ST.  
ALLENTOWN, PA 18103

RE: Planning Module for New Land Development

Subdivision Allentown Metal Works Building G  
Commercial 3570 GPD  
City of Allentown (Township)  
Lehigh (County)

DEP Code No: 2-3900/276-3

Dear

In response to your postcard application, enclosed are the applicable planning modules required for the proposed development. Please submit the completed planning module and supporting information to the municipality(ies) in which the project is located. The Department must receive 3 copies. Please answer all questions. Do Not answer "N/A" or "Not Applicable". If you find a question does not apply, explain all reasons to support that answer.

A copy of the letter **MUST** be attached to the planning module when resubmitted through the municipality to the Department. This letter is to be used as a completion checklist and guide to completing the planning modules and does not supersede the rules and regulations found in Chapter 71. The municipality must submit the completed module package to the Department, (see end of letter for certification statement).

Effective December 15, 1995, Act 149 required the Department to assess planning module review fees. This fee is based on the type of development and total equivalent dwelling units proposed. The applicant will be billed upon Department approval or denial of the project.

If you are applying for a planning module exemption for this project, the exemption was not granted for the following reason(s):

<u>Materials required</u>	<u>Municipal Checklist</u>		<u>DEP Completeness Review</u>
X		Department cover/Checklist letter	
X		Transmittal letter, completed and signed by the Municipal Secretary.	
X		Resolution of Adoption completed and signed by the Municipal Secretary and containing the municipal seal.	
		Component 2-Follow attached guidance.	
Y		Component 3-Follow attached guidance.	
		Component 3s-Follow attached guidance.	
X		Component 4a-Municipal Planning Agency Review	
X		Component 4b-County Planning Agency Review	
		Potential Impact(s) has occurred based on your search of the PA Natural Diversity Inventory. These issues must be resolved with each agency before the Department's review of Planning Modules can occur.	
	+	Sewage management program as per 25 Pa. Code Subsection 71.72  Hydrogeologic Study – Analysis of interbasin transfer of water between a Special Protection watershed into a Non-Special Protection watershed.	
	+	Delaware River Basin Commission Notice of Applications Received (NAR) for projects with sewage flows exceeding 10,000 GPD.	
	+	Preliminary hydrogeology	
		Permeability testing, to be determined at site testing	
		Detailed hydrogeologic study	

REQUIREMENTS      COMMENTS:

Completeness  
Review

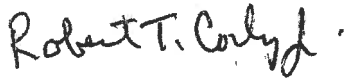
Socio-economic justification

If the project is located in a Special Protection Watershed, please submit an Antidegradation Analysis meeting the Requirement of Chapter 93.4(b), 93.4(a) and 93.4c(b)(2)

In all cases, address the immediate and long range sewage disposal needs of the proposal and comply with 25 Pa. Code, Chapter 71, Subchapter C relating to New Land Development Plan Revisions.

Please note that the Department will return the planning module package if an incomplete revision is submitted.

Sincerely



Robert T. Corby, Jr.  
Sewage Planning Specialist  
Clean Water Program

**CERTIFICATION STATEMENT**

I certify that this submittal is complete and includes all requested items. Failure to submit a complete module package will result in return of package.

Municipal Address \_\_\_\_\_

Municipal Telephone Number \_\_\_\_\_

Signed: \_\_\_\_\_

\_\_\_\_\_, Municipal Secretary

List below any individuals and address that should be copied if the planning module is returned to the municipality (if address is not provided, no copy will be sent):

\_\_\_\_\_  
\_\_\_\_\_



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

## Completeness Checklist

The individual completing the component should use the checklist below to assure that all items are included in the module package. The municipality should confirm that the required items have been included within 10 days of receipt, and if complete, sign and date the checklist.

### Sewage Collection and Treatment Facilities

- Name and Address of land development project.
- U.S.G.S. 7.5 minute topographic map with development area plotted.
- Project Narrative.
- Letter from water company (if applicable).
- Alternative Analysis Narrative.
- Details of chosen financial assurance method.
- Proof of Public Notification (if applicable).
- Name of existing collection and conveyance facilities.
- Name and NPDES number of existing treatment facility to serve proposed development.
- Plot plan of project with required information.
- Total sewage flows to facilities table.
- Signature of existing collection and/or conveyance Chapter 94 report preparer.
- Signature of existing treatment facility Chapter 94 report preparer.
- Letter granting allocation to project (if applicable).
- Signature acknowledging False Swearing Statement.
- Completed Component 4 (Planning Agency Review) for each existing planning agency and health department.
- Information on selected treatment and disposal option.
- Permeability information (if applicable).
- Preliminary hydrogeology (if applicable).
- Detailed hydrogeology (if applicable).

### Municipal Action

- Component 3 (Sewage Collection and Treatment Facilities).
- Component 4 (Planning Agency Comments and Responses).
- Proof of Public Notification.
- Long-term operation and maintenance option selection.
- Comments, and responses to comments generated by public notification.
- Transmittal Letter

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Signature of Municipal Official

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Date submittal determined complete





**TRANSMITTAL LETTER  
FOR SEWAGE FACILITIES PLANNING MODULE**

DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) USE ONLY				
DEP CODE #	CLIENT ID #	SITE ID #	APS ID #	AUTH. ID #

TO: Approving Agency (DEP or delegated local agency)  
Northeast Regional Office  
2 Public Square  
Wilkes-Barre, PA18711-0790

Date \_\_\_\_\_

Dear Sir/Madam:

Attached please find a completed sewage facilities planning module prepared by William J Rudy, P.E.  
*(Name)*  
Senior Engineer, Pennoni Associates, Inc. for Allentown Metal Works  
*(Title)* *(Name)*  
a subdivision, commercial ,or industrial facility located in City of Allentown  
*(City, Borough, Township)* \_\_\_\_\_ County.

**Check one**

(i) The planning module, as prepared and submitted by the applicant, is approved by the municipality as a proposed  revision  supplement for new land development to its Official Sewage Facilities Plan (Official Plan), and is  adopted for submission to DEP  transmitted to the delegated LA for approval in accordance with the requirements of 25 Pa. Code Chapter 71 and the *Pennsylvania Sewage Facilities Act* (35 P.S. §750),

OR

(ii) The planning module will not be approved by the municipality as a proposed revision or supplement for new land development to its Official Plan because the project described therein is unacceptable for the reason(s) checked below:

**Check Boxes**

- Additional studies are being performed by or on behalf of this municipality which may have an effect on the planning module as prepared and submitted by the applicant. Attached hereto is the scope of services to be performed and the time schedule for completion of said studies.
- The planning module as submitted by the applicant fails to meet limitations imposed by other laws or ordinances, officially adopted comprehensive plans and/or environmental plans (e.g., zoning, land use, 25 Pa. Code Chapter 71). Specific reference or applicable segments of such laws or plans are attached hereto.
- Other (attach additional sheet giving specifics).

*Municipal Secretary: Indicate below by checking appropriate boxes which components are being transmitted to the approving agency.*

- Resolution of Adoption
- Module Completeness Checklist
- 2 Individual and Community Onlot Disposal of Sewage
- 3 Sewage Collection/Treatment Facilities
- 3s Small Flow Treatment Facilities
- 4A Municipal Planning Agency Review
- 4B County Planning Agency Review
- 4C County or Joint Health Department Review

\_\_\_\_\_  
*Municipal Secretary (print)*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*





## **2. RESOLUTION FOR PLAN REVISION**

DEP Code No.

## RESOLUTION FOR PLAN REVISION FOR NEW LAND DEVELOPMENT

RESOLUTION OF THE (SUPERVISORS) (COMMISSIONERS) (COUNCILMEN) of Allentown  
(TOWNSHIP) (BOROUGH) (CITY), Lehigh COUNTY, PENNSYLVANIA (hereinafter "the municipality").

**WHEREAS** Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the *Pennsylvania Sewage Facilities Act*, as Amended, and the rules and Regulations of the Pennsylvania Department of Environmental Protection (DEP) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, require the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters of the Commonwealth and/or environmental health hazards from sewage wastes, and to revise said plan whenever it is necessary to determine whether a proposed method of sewage disposal for a new land development conforms to a comprehensive program of pollution control and water quality management, and

**WHEREAS** Allentown Economic Development Corporation has proposed the development of a parcel of land identified as \_\_\_\_\_  
land developer

Allentown Metal Works, and described in the attached Sewage Facilities Planning Module, and  
name of subdivision

proposes that such subdivision be served by: (check all that apply),  sewer tap-ins,  sewer extension,  new treatment facility,  individual onlot systems,  community onlot systems,  spray irrigation,  retaining tanks,  other, (please specify). \_\_\_\_\_

**WHEREAS**, City of Allentown finds that the subdivision described in the attached  
municipality

Sewage Facilities Planning Module conforms to applicable sewage related zoning and other sewage related municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

**NOW, THEREFORE, BE IT RESOLVED** that the (Supervisors) (Commissioners) (Councilmen) of the (Township) (Borough) (City) of Allentown hereby adopt and submit to DEP for its approval as a revision to the "Official Sewage Facilities Plan" of the municipality the above referenced Sewage Facilities Planning Module which is attached hereto.

I \_\_\_\_\_, Secretary, \_\_\_\_\_  
(Signature)

Township Board of Supervisors (Borough Council) (City Councilmen), hereby certify that the foregoing is a true copy of the Township (Borough) (City) Resolution # \_\_\_\_\_, adopted, \_\_\_\_\_, 20\_\_\_\_\_.

Municipal Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone \_\_\_\_\_

Seal of  
Governing Body



**LEHIGH COUNTY AUTHORITY** 1053 SPRUCE ROAD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
610-398-2503 \* FAX 610-398-8413 \* [www.lehighcountyauthority.org](http://www.lehighcountyauthority.org)  
email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

August 1, 2022

Mr. Robert Gates  
Planning Director  
City of Allentown  
435 Hamilton Street  
Allentown, PA 18101

SUBJECT: Land Development – 606 S 10<sup>th</sup> St – Allentown Metal Works Project  
Will Serve - Sewer Service

Dear Mr. Gates:

Lehigh County Authority (LCA) is willing to provide public sewer service in the requested amount of 3,570 GPD to the proposed Allentown Metal Works project located at 606 S 10th Street. The final GPD total will be reflected on the approved DEP sewer planning module.

LCA has capacity at this time to provide sewer service in our collection system and at the city wastewater treatment plant for this development.

Tapping fees will be based upon the City of Allentown's ordinances and LCA's schedule of rate fees.

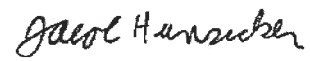
Sewer service is conditioned upon the following:

1. The developer obtaining approval of a PA-DEP Sewage Facilities Planning Module.
2. LCA approval of the site and plumbing plans.
3. Developer obtaining any road opening permits from the municipality and/or PA-DOT to construct the sewer mains and/or services.
4. Developer executing a Developer's Sewer System Agreement or a Construction Permit with LCA for construction of the sewer mains and/or services.
5. Developer installation of the sewer system in accordance with the approved plans and applicable LCA policies and regulations, including the current General Specifications for Sewer System Construction.
6. Developer compliance with the terms and conditions of LCA's Rules and Regulations for Sewer Service, including completion of an Application for Sewer Service and payment of applicable fees and charges in its Schedule of Wastewater Rates & Charges. Tapping fees shall be paid to LCA prior to building permits being provided by the City.

2.

August 1, 2022

Sincerely,

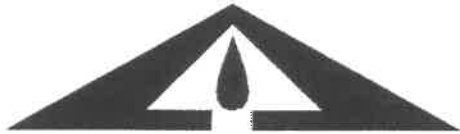
A handwritten signature in black ink that reads "Jacob Hunsicker". The signature is written in a cursive, slightly slanted style.

Jacob Hunsicker  
Capital Works Project Specialist

cc: William Rudy, PE - Pennoni

### **3. COMPONENT 3**





**Lehigh County Authority**

1053 Spruce Road \* P.O. Box 3348 \* Allentown, PA 18106-0348  
(610) 398-2503 \* FAX (610) 398-8413 \* Email: [service@lehighcountyauthority.org](mailto:service@lehighcountyauthority.org)

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## LETTER OF TRANSMITTAL

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**Date:** September 21, 2022

**To:** Brandon Jones  
City of Allentown  
435 Hamilton Street  
Allentown, PA 18101

**Re:** Allentown Metal Works – 606 South 10th Street  
Allentown, Lehigh County, PA

<u>No. of Copies</u>	<u>Date</u>	<u>Description</u>
1	9/21/22	Completed Sewer Planning Module
1	9/21/22	Plan Showing Path of Sewage to WWTP
1	9/21/22	Appendix A Cover Letter

As Requested  
 For Your Information  
 For Your Comments  
 For Action By You

Approved  
 Approved As Noted  
 Revise And Resubmit  
 For Your Files

**Comments:**

LCA has completed the Sewer Planning Module for the subject property. The hard copy will be sent to you in the mail. Please contact me if you have any questions.

**From:** Jacob Hunsicker  
**cc:** Scott Novatnak, DEP (via email)  
Robert Corby, DEP (via email)  
Craig Messinger, COA (via email)  
Mark Hartney, COA (via email)  
Jesse Sadua, COA (via email)  
Phil DePoe, LCA (via email)  
Liesel Gross, LCA (via email)  
William Rudy, Pennoni (via email)







**LEHIGH COUNTY AUTHORITY**

1053 SPRUCE ROAD \* P.O. BOX 3348 \* ALLENTOWN, PA 18106-0348  
610-398-2503 \* FAX 610-398-8413 \* www.lehighcountyauthority.org  
email: service@lehighcountyauthority.org

September 20, 2022

Brandon Jones  
Associate Planner  
City of Allentown  
435 Hamilton Street  
Allentown, PA 18101

RE: Allentown Metal Works – 606 South 10<sup>th</sup> Street, City of Allentown  
Sewer Module - Chapter 94 Consistency Determination – Appendix A

Dear Mr. Jones,

This letter and approval for the attached Sewage Facilities Planning Module is based on the current estimate of available wastewater capacity. This letter does not promise, guarantee or assure any future conveyance or treatment allocation without compliance with all applicable rules and regulations, payment of all necessary fees and availability of the respective allocation at that time.

In accordance with the Interim Act 537 Plan submitted by the Kline’s Island Sewer System (KISS) municipalities to the Pa. Department of Environmental Protection and approved on June 25, 2021, an amount equal to the property or development’s wastewater flow will be allocated from the Connection Management Plan at the time of approval of the Sewage Facilities Planning Module. This property or development’s wastewater flow need, as represented in the attached Sewage Planning Module, is 3,570 gallons per day. Therefore, the Connection Management Plan balance will be adjusted as follows:

2020 Connection Management Plan Allocation (all numbers in gallons per day)	1,500,000
2021-2025 Connection Management Plan Allocation	3,117,129
Previously allocated from prior planning module submissions (since 1/17/20)	-1,538,444
This submission	-3,570
<b>Remaining Allocation in KISS Connection Management Plan (as of 9/20/22)</b>	<b>3,075,115</b>

Please contact me if you have any questions about this information.

Sincerely,

Liesel M. Gross  
Chief Executive Officer

cc: Scott Novatnak, DEP  
Robert Corby, DEP  
Craig Messinger, COA  
Mark Hartney, COA  
Jesse Sadua, COA  
Phil DePoe, LCA  
William Rudy, Pennoni





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

Code No.  
2-39001276-3

## SEWAGE FACILITIES PLANNING MODULE

### Component 3. Sewage Collection and Treatment Facilities

(Return completed module package to appropriate municipality)

DEP USE ONLY				
DEP CODE #	CLIENT ID #	SITE ID #	APS ID #	AUTH ID #

This planning module component is used to fulfill the planning requirements of Act 537 for the following types of projects: (1) a subdivision to be served by sewage collection, conveyance or treatment facilities, (2) a tap-in to an existing collection system with flows on a lot of 2 EDU's or more, or (3) the construction of, or modification to, wastewater collection, conveyance or treatment facilities that will require DEP to issue or modify a Clean Streams Law permit. Planning for any project that will require DEP to issue or modify a permit cannot be processed by a delegated agency. Delegated agencies must send their projects to DEP for final planning approval.

This component, along with any other documents specified in the cover letter, must be completed and submitted to the municipality with jurisdiction over the project site for review and approval. All required documentation must be attached for the Sewage Facilities Planning Module to be complete. Refer to the instructions for help in completing this component.

**REVIEW FEES:** Amendments to the Sewage Facilities Act established fees to be paid by the developer for review of planning modules for land development. These fees may vary depending on the approving agency for the project (DEP or delegated local agency). Please see section R and the instructions for more information on these fees.

**NOTE:** All projects must complete Sections A through I, and Sections O through R. Complete Sections J, K, L, M and/or N if applicable or marked .

#### A. PROJECT INFORMATION (See Section A of instructions)

1. Project Name Allentown Metal Works

2. Brief Project Description Redevelopment of the property located at 606 south 10<sup>th</sup> street. Including the rehabilitation of 3 buildings and building demolition of existing building, associated parking and related site improvements

#### B. CLIENT (MUNICIPALITY) INFORMATION (See Section B of instructions)

Municipality Name	County	City	Boro	Twp
Allentown	Lehigh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title
Unger	Scott			Executive Director
Additional Individual Last Name	First Name	MI	Suffix	Title
Municipality Mailing Address Line 1	Mailing Address Line 2			
905 Harrison Street				
Address Last Line -- City	State	ZIP+4		
Allentown	PA	18103		
Area Code + Phone + Ext.	FAX (optional)	Email (optional)		
(610)435-8890		sunger@allentownedc.com		

**C. SITE INFORMATION** (See Section C of instructions)

**Site (Land Development or Project) Name**

Allentown Metal Works

Site Location Line 1

606 South 10<sup>th</sup> Street

Site Location Line 2

Site Location Last Line -- City

Allentown

State

PA

ZIP+4

18013

Latitude

40.594826

Longitude

-75.478121

Detailed Written Directions to Site

Description of Site Rehabilitation of 3 buildings on site and rehabilitating the surrounding site areas. Rehabilitation of the site will include repaving drive aisles and revegetating areas onsite that were previously impervious parking and drive aisles to a lawn condition, installing two storm sewer outfalls along the Little Lehigh Creek and installing other utilities.

**Site Contact (Developer/Owner)**

Last Name

Unger

First Name

Scott

MI Suffix

Phone

(610)462-0756

Ext.

Site Contact Title

Executive Director

Site Contact Firm (if none, leave blank)

Allentown Economic Development Corporation

FAX

Email

sunger@allentownedc.com

Mailing Address Line 1

905 Harrison Street

Mailing Address Line 2

Mailing Address Last Line -- City

Allentown

State

PA

ZIP+4

18103

**D. PROJECT CONSULTANT INFORMATION** (See Section D of instructions)

Last Name

Rudy

First Name

William

MI

J

Suffix

Title

Senior Engineer

Consulting Firm Name

Pennoni

Mailing Address Line 1

5072 Ritter Road

Mailing Address Line 2

Suite 102

Address Last Line -- City

Mechanicsburg

State

PA

ZIP+4

17055

Country

US

Email

wrudy@pennoni.com

Area Code + Phone

717-620-5948

Ext.

Area Code + FAX

**E. AVAILABILITY OF DRINKING WATER SUPPLY**

The project will be provided with drinking water from the following source: (Check appropriate box)

Individual wells or cisterns.

A proposed public water supply.

An existing public water supply.

If existing public water supply is to be used, provide the name of the water company and attach documentation from the water company stating that it will serve the project.

Name of water company: Lehigh County Authority

**F. PROJECT NARRATIVE** (See Section F of instructions)

A narrative has been prepared as described in Section F of the instructions and is attached.

The applicant may choose to include additional information beyond that required by Section F of the instructions.

**G. PROPOSED WASTEWATER DISPOSAL FACILITIES** (See Section G of instructions)

Check all boxes that apply, and provide information on collection, conveyance and treatment facilities and EDU's served. This information will be used to determine consistency with Chapter 93 (relating to wastewater treatment requirements).

**1. COLLECTION SYSTEM**

a. Check appropriate box concerning collection system

- New collection system     Pump Station     Force Main  
 Grinder pump(s)     Extension to existing collection system     Expansion of existing facility

Clean Streams Law Permit Number N/A

b. Answer questions below on collection system

Number of EDU's and proposed connections to be served by collection system. EDU's 15

Connections 1

Name of:

existing collection or conveyance system City of Allentown

owner City of Allentown, LCA - Agent

existing interceptor Little Lehigh Jordan Creek Interceptor

owner Lehigh County Authority (Allentown WWTP)

**2. WASTEWATER TREATMENT FACILITY**

Check all boxes that apply, and provide information on collection, conveyance and treatment facilities and EDU's served. This information will be used to determine consistency with Chapter(s) 91 (relating to general provisions), 92 (relating to national Pollution Discharge Elimination System permitting, monitoring and compliance) and 93 (relating to water quality standards).

a. Check appropriate box and provide requested information concerning the treatment facility

- New facility     Existing facility     Upgrade of existing facility     Expansion of existing facility

Name of existing facility Allentown WWTP

NPDES Permit Number for existing facility PA 0026000

Clean Streams Law Permit Number N/A

Location of discharge point for a new facility. Latitude 40.59602 Longitude -75.47545

b. The following certification statement must be completed and signed by the wastewater treatment facility permittee or their representative.

As an authorized representative of the permittee, I confirm that the Kline's Island WWTP (Name from above) sewage treatment facilities can accept sewage flows from this project without adversely affecting the facility's ability to achieve all applicable technology and water quality based effluent limits (see Section I) and conditions contained in the NPDES permit identified above.

Name of Permittee Agency, Authority, Municipality City of Allentown, LCA - Agent

Name of Responsible Agent Liesel M. Gross

Agent Signature [Signature] Date 9/20/2022

(Also see Section I. 4.)

**G. PROPOSED WASTEWATER DISPOSAL FACILITIES (Continued)**

**3. PLOT PLAN**

The following information is to be submitted on a plot plan of the proposed subdivision.

- a. Existing and proposed buildings.
- b. Lot lines and lot sizes.
- c. Adjacent lots.
- d. Remainder of tract.
- e. Existing and proposed sewerage facilities. Plot location of discharge point, land application field, spray field, COLDS, or LVCOLDS if a new facility is proposed.
- f. Show tap-in or extension to the point of connection to existing collection system (if applicable).
- g. Existing and proposed water supplies and surface water (wells, springs, ponds, streams, etc.)
- h. Existing and proposed rights-of-way.
- i. Existing and proposed buildings, streets, roadways, access roads, etc.
- j. Any designated recreational or open space area.
- k. Wetlands - from National Wetland Inventory Mapping and USGS Hydric Soils Mapping.
- l. Flood plains or Flood prone areas, floodways, (Federal Flood Insurance Mapping)
- m. Prime Agricultural Land.
- n. Any other facilities (pipelines, power lines, etc.)
- o. Orientation to north.
- p. Locations of all site testing activities (soil profile test pits, slope measurements, permeability test sites, background sampling, etc. (if applicable).
- q. Soils types and boundaries when a land based system is proposed.
- r. Topographic lines with elevations when a land based system is proposed

**4. WETLAND PROTECTION**

YES NO

- a.   Are there wetlands in the project area? If yes, ensure these areas appear on the plot plan as shown in the mapping or through on-site delineation.
- b.   Are there any construction activities (encroachments, or obstructions) proposed in, along, or through the wetlands? If yes, identify any proposed encroachments on wetlands and identify whether a General Permit or a full encroachment permit will be required. If a full permit is required, address time and cost impacts on the project. Note that wetland encroachments should be avoided where feasible. Also note that a feasible alternative **MUST BE SELECTED** to an identified encroachment on an exceptional value wetland as defined in Chapter 105. Identify any project impacts on streams classified as HQ or EV and address impacts of the permitting requirements of said encroachments on the project.

**5. PRIME AGRICULTURAL LAND PROTECTION**

YES NO

- Will the project involve the disturbance of prime agricultural lands?  
If yes, coordinate with local officials to resolve any conflicts with the local prime agricultural land protection program. The project must be consistent with such municipal programs before the sewage facilities planning module package may be submitted to DEP.  
If no, prime agricultural land protection is not a factor to this project.
- Have prime agricultural land protection issues been settled?

**6. HISTORIC PRESERVATION ACT**

YES NO

- Sufficient documentation is attached to confirm that this project is consistent with DEP Technical Guidance 012-0700-001 *Implementation of the PA State History Code* (available online at the DEP website at [www.dep.state.pa.us](http://www.dep.state.pa.us), select "subject" then select "technical guidance"). As a minimum this includes copies of the completed Cultural Resources Notice

(CRN), a return receipt for its submission to the PHMC and the PHMC review letter.

**7. PROTECTION OF RARE, ENDANGERED OR THREATENED SPECIES**

Check one:

- The "Pennsylvania Natural Diversity Inventory (PNDI) Project Environmental Review Receipt" resulting from my search of the PNDI database and all supporting documentation from jurisdictional agencies (when necessary) is/are attached.
- A completed "Pennsylvania Natural Diversity Inventory (PNDI) Project Planning & Environmental Review Form," (PNDI Form) available at [www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us), and all required supporting documentation is attached. I request DEP staff to complete the required PNDI search for my project. I realize that my planning module will be considered incomplete upon submission to the Department and that the DEP review will not begin, and that processing of my planning module will be delayed, until a "PNDI Project Environmental Review Receipt" and all supporting documentation from jurisdictional agencies (when necessary) is/are received by DEP.

Applicant or Consultant Initials \_\_\_\_\_

**H. ALTERNATIVE SEWAGE FACILITIES ANALYSIS** (See Section H of instructions)

- An alternative sewage facilities analysis has been prepared as described in Section H of the attached instructions and is attached to this component.  
The applicant may choose to include additional information beyond that required by Section H of the attached instructions.

**I. COMPLIANCE WITH WATER QUALITY STANDARDS AND EFFLUENT LIMITATIONS** (See Section I of instructions) (Check and complete all that apply.)

**1. Waters designated for Special Protection**

- The proposed project will result in a new or increased discharge into special protection waters as identified in Title 25, Pennsylvania Code, Chapter 93. The Social or Economic Justification (SEJ) required by Section 93.4c. is attached.

**2. Pennsylvania Waters Designated As Impaired**

- The proposed project will result in a new or increased discharge of a pollutant into waters that DEP has identified as being impaired by that pollutant. A pre-planning meeting was held with the appropriate DEP regional office staff to discuss water quality based discharge limitations.

**3. Interstate and International Waters**

- The proposed project will result in a new or increased discharge into interstate or international waters. A pre-planning meeting was held with the appropriate DEP regional office staff to discuss effluent limitations necessary to meet the requirements of the interstate or international compact.

**4. Tributaries To The Chesapeake Bay**

- The proposed project result in a new or increased discharge of sewage into a tributary to the Chesapeake Bay. This proposal for a new sewage treatment facility or new flows to an existing facility includes total nitrogen and total phosphorus in the following amounts: \_\_\_\_\_ pounds of TN per year, and \_\_\_\_\_ pounds of TP per year. Based on the process design and effluent limits, the total nitrogen treatment capacity of the wastewater treatment facility is \_\_\_\_\_ pounds per year and the total phosphorus capacity is \_\_\_\_\_ pounds per year as determined by the wastewater treatment facility permittee. The permittee has determined that the additional TN and TP to be contributed by this project (as modified by credits and/or offsets to be provided) will not cause the discharge to exceed the annual total mass limits for these parameters. Documentation of compliance with nutrient allocations is attached.

Name of Permittee Agency, Authority, Municipality Lehigh County Authority

Initials of Responsible Agent (See Section G 2.b) \_\_\_\_\_

See *Special Instructions* (Form 3800-FM-BPNPSM0353-1) for additional information on Chesapeake Bay watershed requirements.

**J. CHAPTER 94 CONSISTENCY DETERMINATION** (See Section J of instructions)

Projects that propose the use of existing municipal collection, conveyance or wastewater treatment facilities, or the construction of collection and conveyance facilities to be served by existing municipal wastewater treatment facilities must be consistent with the requirements of Title 25, Chapter 94 (relating to Municipal Wasteload Management). If not previously included in Section F, include a general map showing the path of the sewage to the treatment facility. If more than one municipality or authority will be affected by the project, please obtain the information required in this section for each. Additional sheets may be attached for this purpose.

1. Project Flows 3570 gpd
2. Total Sewage Flows to Facilities (pathway from point of origin through treatment plant)

When providing "treatment facilities" sewage flows, use Annual Average Daily Flow for "average" and Maximum Monthly Average Daily Flow for "peak" in all cases. For "peak flows" in "collection" and "conveyance" facilities, indicate whether these flows are "peak hourly flow" or "peak instantaneous flow" and how this figure was derived (i.e., metered, measured, estimated, etc.).

- a. Enter average and peak sewage flows for each proposed or existing facility as designed or permitted.
- b. Enter the average and peak sewage flows for the most restrictive sections of the existing sewage facilities.
- c. Enter the average and peak sewage flows, projected for 5 years (2 years for pump stations) through the most restrictive sections of the existing sewage facilities. Include existing, proposed (this project) and future project (other approved projects) flows.

To complete the table, refer to the instructions, Section J.

	a. Design and/or Permitted Capacity (gpd) MGD		b. Present Flows (gpd) MGD		c. Projected Flows in 5 years (gpd) MGD (2 years for P.S.)	
	Average	Peak	Average	Peak	Average	Peak
Collection	1.55	6.21	0.07	0.50	0.08	0.51
Conveyance	58	81	30	78 <sup>(1)</sup>	31	80 <sup>(1)</sup>
Treatment	40	40	32.3	40	33.4	42

3. Collection and Conveyance Facilities

<sup>a)</sup> Peak Hourly Flow - Estimated

The questions below are to be answered by the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities. These questions should be answered in coordination with the latest Chapter 94 annual report and the above table. The individual(s) signing below must be legally authorized to make representation for the organization.

YES NO

- a.  YES  NO This project proposes sewer extensions or tap-ins. Will these actions create a hydraulic overload within five years on any existing collection or conveyance facilities that are part of the system?

If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until all inconsistencies with Chapter 94 are resolved or unless there is an approved Corrective Action Plan (CAP) granting an allocation for this project. A letter granting allocations to this project under the CAP must be attached to the module package.

If no, a representative of the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with both §71.53(d)(3) and Chapter 94 requirements and that this proposal will not affect that status.

- b. Collection System

Name of Agency, Authority, Municipality City of Allentown, LCA - Agent

Name of Responsible Agent Liesel M. Gross

Agent Signature Liesel M. Gross Date 9/20/2022



**J. CHAPTER 94 CONSISTENCY DETERMINATION** (See Section J of instructions)

c. Conveyance System

Name of Agency, Authority, Municipality City of Allentown, LCA - Agent

Name of Responsible Agent Liesel M. Gross

Agent Signature *Liesel M. Gross*

Date 9/20/2022

4. Treatment Facility

The questions below are to be answered by a representative of the facility permittee in coordination with the information in the table and the latest Chapter 94 report. The individual signing below must be legally authorized to make representation for the organization.

YES NO

a.   This project proposes the use of an existing wastewater treatment plant for the disposal of sewage. Will this action create a hydraulic or organic overload within 5 years at that facility?

If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this inconsistency with Chapter 94 is resolved or unless there is an approved CAP granting an allocation for this project. A letter granting allocations to this project under the CAP must be attached to the planning module.

If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with both §71.53(d)(3) and Chapter 94 requirements and that this proposal will not impact that status.

b. Name of Agency, Authority, Municipality City of Allentown, LCA - Agent

Name of Responsible Agent Liesel M. Gross

Agent Signature *Liesel M. Gross*

Date 9/20/2022

**K. TREATMENT AND DISPOSAL OPTIONS** (See Section K of instructions)

This section is for land development projects that propose construction of wastewater treatment facilities. Please note that, since these projects require permits issued by DEP, these projects may NOT receive final planning approval from a delegated local agency. Delegated local agencies must send these projects to DEP for final planning approval.

Check the appropriate box indicating the selected treatment and disposal option.

- 1. Spray irrigation (other than individual residential spray systems (IRSIS)) or other land application is proposed, and the information requested in Section K.1. of the planning module instructions are attached.
- 2. Recycle and reuse is proposed and the information requested in Section K-2 of the planning module instructions is attached.
- 3. A discharge to a dry stream channel is proposed, and the information requested in Section K.3. of the planning module instructions are attached.
- 4. A discharge to a perennial surface water body is proposed, and the information requested in Section K.4. of the planning module instructions are attached.

**L. PERMEABILITY TESTING** (See Section L of instructions)

The information required in Section L of the instructions is attached.

**M. PRELIMINARY HYDROGEOLOGIC STUDY** (See Section M of instructions)

The information required in Section M of the instructions is attached.

**N. DETAILED HYDROGEOLOGIC STUDY** (See Section N of instructions)

The detailed hydrogeologic information required in Section N. of the instructions is attached.

**O. SEWAGE MANAGEMENT** (See Section O of instructions)

(1-3 for completion by the developer(project sponser), 4-5 for completion by the non-municipal facility agent and 6 for completion by the municipality)

Yes No

1.   Is connection to, or construction of, a DEP permitted, non-municipal sewage facility or a local agency permitted, community onlot sewage facility proposed.

If Yes, respond to the following questions, attach the supporting analysis, and an evaluation of the options available to assure long-term proper operation and maintenance of the proposed non-municipal facilities. If No, skip the remainder of Section O.

2. Project Flows \_\_\_\_\_ gpd

Yes No

3.   Is the use of nutrient credits or offsets a part of this project?

If yes, attach a letter of intent to purchase the necessary credits and describe the assurance that these credits and offsets will be available for the remaining design life of the non-municipal sewage facility;

**(For completion by non-municipal facility agent)**

4. Collection and Conveyance Facilities

The questions below are to be answered by the organization/individual responsible for the non-municipal collection and conveyance facilities. The individual(s) signing below must be legally authorized to make representation for the organization.

Yes No

- a.   If this project proposes sewer extensions or tap-ins, will these actions create a hydraulic overload on any existing collection or conveyance facilities that are part of the system?

If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until this issue is resolved.

If no, a representative of the organization responsible for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with Chapter 71 §71.53(d)(3) and that this proposal will not affect that status.

- b. Collection System

Name of Responsible Organization \_\_\_\_\_

Name of Responsible Agent \_\_\_\_\_

Agent Signature \_\_\_\_\_

Date \_\_\_\_\_

- c. Conveyance System

Name of Responsible Organization \_\_\_\_\_

Name of Responsible Agent \_\_\_\_\_

Agent Signature \_\_\_\_\_

Date \_\_\_\_\_

5. Treatment Facility

The questions below are to be answered by a representative of the facility permittee. The individual signing below must be legally authorized to make representation for the organization.

Yes No

- a.   If this project proposes the use of an existing non-municipal wastewater treatment plant for the disposal of sewage, will this action create a hydraulic or organic overload at that facility?

If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this issue is resolved.

If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with §71.53(d)(3) and that this proposal will not impact that status.

- b. Name of Facility \_\_\_\_\_  
Name of Responsible Agent \_\_\_\_\_  
Agent Signature \_\_\_\_\_  
Date \_\_\_\_\_

(For completion by the municipality)

6.  The **SELECTED OPTION** necessary to assure long-term proper operation and maintenance of the proposed non-municipal facilities is clearly identified with documentation attached in the planning module package.

**P. PUBLIC NOTIFICATION REQUIREMENT** (See Section P of instructions)

This section must be completed to determine if the applicant will be required to publish facts about the project in a newspaper of general circulation to provide a chance for the general public to comment on proposed new land development projects. This notice may be provided by the applicant or the applicant's agent, the municipality or the local agency by publication in a newspaper of general circulation within the municipality affected. Where an applicant or an applicant's agent provides the required notice for publication, the applicant or applicant's agent shall notify the municipality or local agency and the municipality and local agency will be relieved of the obligation to publish. The required content of the publication notice is found in Section P of the instructions.

To complete this section, each of the following questions must be answered with a "yes" or "no". Newspaper publication is required if any of the following are answered "yes".

Yes No

1.   Does the project propose the construction of a sewage treatment facility ?
2.   Will the project change the flow at an existing sewage treatment facility by more than 50,000 gallons per day?
3.   Will the project result in a public expenditure for the sewage facilities portion of the project in excess of \$100,000?
4.   Will the project lead to a major modification of the existing municipal administrative organizations within the municipal government?
5.   Will the project require the establishment of *new* municipal administrative organizations within the municipal government?
6.   Will the project result in a subdivision of 50 lots or more? (onlot sewage disposal only)
7.   Does the project involve a major change in established growth projections?
8.   Does the project involve a different land use pattern than that established in the municipality's Official Sewage Plan?

**P. PUBLIC NOTIFICATION REQUIREMENT cont'd.** (See Section P of instructions)

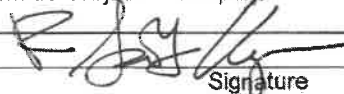
9.   Does the project involve the use of large volume onlot sewage disposal systems (Flow > 10,000 gpd)?
10.   Does the project require resolution of a conflict between the proposed alternative and consistency requirements contained in §71.21(a)(5)(i), (ii), (iii)?
11.   Will sewage facilities discharge into high quality or exceptional value waters?
- Attached is a copy of:
- the public notice,
  - all comments received as a result of the notice,
  - the municipal response to these comments.
- No comments were received. A copy of the public notice is attached.

**Q. FALSE SWEARING STATEMENT** (See Section Q of instructions)

I verify that the statements made in this component are true and correct to the best of my knowledge, information and belief. I understand that false statements in this component are made subject to the penalties of 18 PA C.S.A. §4904 relating to unsworn falsification to authorities.

Scott Unger

Name (Print)



Signature

Executive Director

Title

8-29-2023

Date

905 Harrison Street, Allentown, PA 18103  
Address

610-435-8890

Telephone Number

**R. REVIEW FEE** (See Section R of instructions)

The Sewage Facilities Act establishes a fee for the DEP planning module review. DEP will calculate the review fee for the project and invoice the project sponsor **OR** the project sponsor may attach a self-calculated fee payment to the planning module prior to submission of the planning package to DEP. (Since the fee and fee collection procedures may vary if a "delegated local agency" is conducting the review, the project sponsor should contact the "delegated local agency" to determine these details.) Check the appropriate box.

- I request DEP calculate the review fee for my project and send me an invoice for the correct amount. I understand DEP's review of my project will not begin until DEP receives the correct review fee from me for the project.
- I have calculated the review fee for my project using the formula found below and the review fee guidance in the instructions. I have attached a check or money order in the amount of \$500 payable to "Commonwealth of PA, DEP". Include DEP code number on check. I understand DEP will not begin review of my project unless it receives the fee and determines the fee is correct. If the fee is incorrect, DEP will return my check or money order, send me an invoice for the correct amount. I understand DEP review will NOT begin until I have submitted the correct fee.
- I request to be exempt from the DEP planning module review fee because this planning module creates **only** one new lot and is the **only** lot subdivided from a parcel of land as that land existed on December 14, 1995. I realize that subdivision of a second lot from this parcel of land shall disqualify me from this review fee exemption. I am furnishing the following deed reference information in support of my fee exemption.

County Recorder of Deeds for \_\_\_\_\_ County, Pennsylvania

Deed Volume \_\_\_\_\_ Book Number \_\_\_\_\_

Page Number \_\_\_\_\_ Date Recorded \_\_\_\_\_

---

**R. REVIEW FEE** (continued)

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Formula:

1. For a new collection system (with or without a Clean Streams Law Permit), a collection system extension, or individual tap-ins to an existing collection system use this formula.

$$\# \underline{\hspace{2cm}} \text{ Lots (or EDUs) X } \$50.00 = \$ \underline{\hspace{2cm}}$$

The fee is based upon:

- The number of lots created or number of EDUs whichever is higher.
  - For community sewer system projects, one EDU is equal to a sewage flow of 400 gallons per day.
2. For a surface or subsurface discharge system, use the appropriate one of these formulae.

- A. A new surface discharge greater than 2000 gpd will use a flat fee:

\$ 1,500 per submittal (non-municipal)  
\$ 500 per submittal (municipal)

- B. An increase in an existing surface discharge will use:

$$\# \underline{\hspace{2cm}} \text{ Lots (or EDUs) X } \$35.00 = \$ \underline{\hspace{2cm}}$$

to a maximum of \$ 1,500 per submittal (non-municipal) or \$ 500 per submittal (municipal)

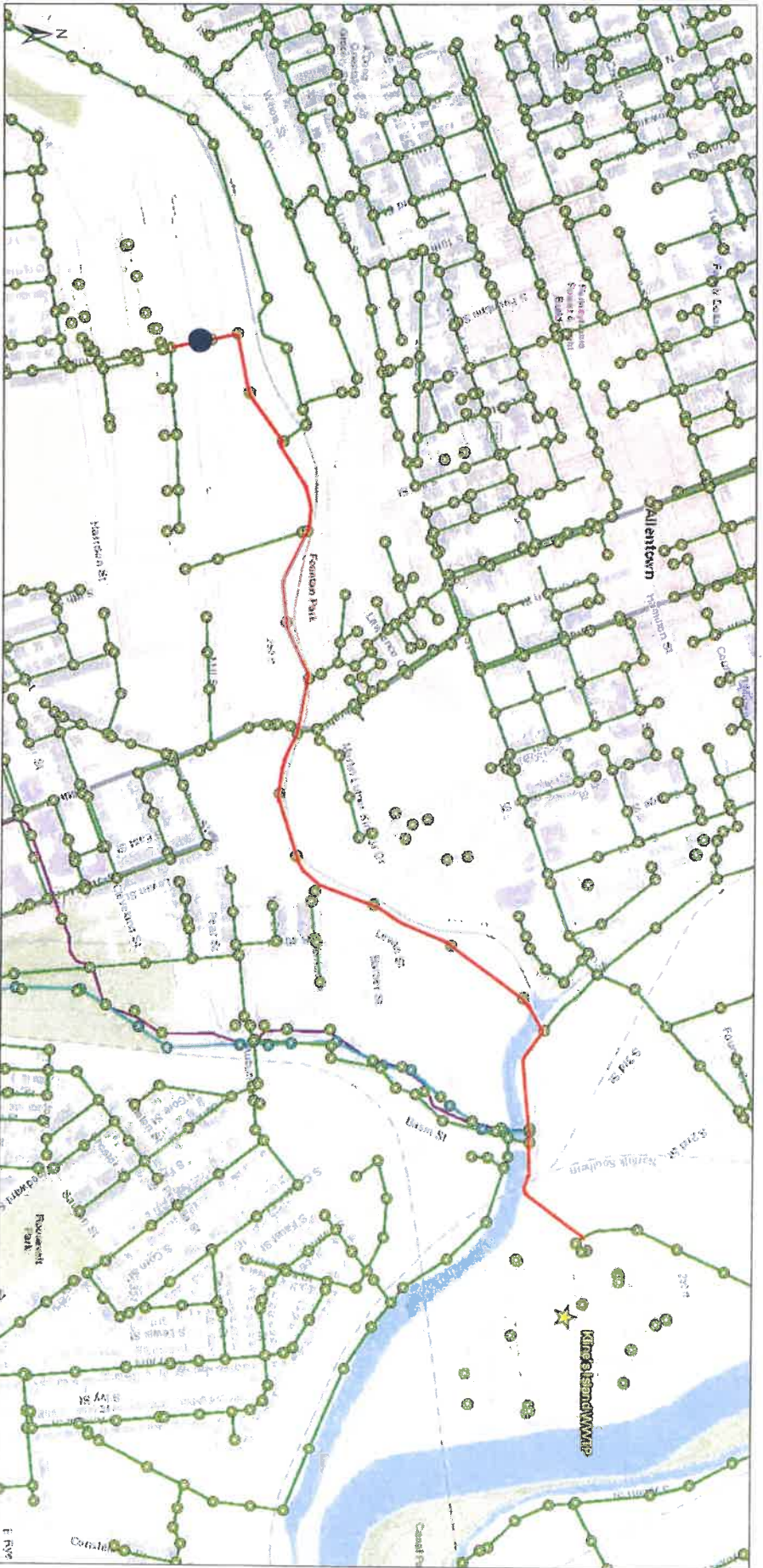
The fee is based upon:

- The number of lots created or number of EDUs whichever is higher.
  - For community sewage system projects one EDU is equal to a sewage flow of 400 gallons per day.
  - For non-single family residential projects, EDUs are calculated using projected population figures
- C. A sub-surface discharge system that requires a permit under The Clean Streams Law will use a flat fee:

\$ 1,500 per submittal (non-municipal)  
\$ 500 per submittal (municipal)



# LCA Flow Map - 606 S 10th St



9/20/2022, 11:53:02 AM

1:9,028

- Allentown
- Customer
- COA Manholes
- Salisbury Manholes
- COA Sanitary Mains
- Salisbury Sanitary Mains
- Suburban Force Mains

Butte County, PA, Lantigh County, PA, State of New Jersey, Esri, HERE, Garmin, Mapbox, Mapbox, OpenStreetMap contributors, and the GIS User Community

Sources: Esri, HERE, Garmin, Mapbox, Mapbox, OpenStreetMap contributors, and the GIS User Community







**4. OTHER REQUIREMENTS - COMPONENT 4**



#### 4A. Municipal Planning Agency Review

**SEWAGE FACILITIES PLANNING MODULE  
 COMPONENT 4A - MUNICIPAL PLANNING AGENCY REVIEW**

**Note to Project Sponsor:** To expedite the review of your proposal, one copy of your completed planning module package and one copy of this *Planning Agency Review Component* should be sent to the local municipal planning agency for their comments.

**SECTION A. PROJECT NAME** (See Section A of instructions)

Project Name  
 Allentown Metal Works - Building G (Phase 1)


**SECTION B. REVIEW SCHEDULE** (See Section B of instructions)

1. Date plan received by municipal planning agency December 14, 2023
2. Date review completed by agency December 26, 2023

**SECTION C. AGENCY REVIEW** (See Section C of instructions)

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Is there a municipal comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101, <i>et seq.</i> )?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Is this proposal consistent with the comprehensive plan for land use? If no, describe the inconsistencies _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Is this proposal consistent with the use, development, and protection of water resources? If no, describe the inconsistencies _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Is this proposal consistent with municipal land use planning relative to Prime Agricultural Land Preservation?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Does this project propose encroachments, obstructions, or dams that will affect wetlands? If yes, describe impacts <u>No wetland encroachment (see p. 5 of attached wetlands report).</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Will any known historical or archaeological resources be impacted by this project? If yes, describe impacts <u>No historical/archaeological Impact. (see MOU bet. PHMC and City)</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. Will any known endangered or threatened species of plant or animal be impacted by this project? If yes, describe impacts <u>No known impact (see PNDI findings, attached).</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. Is there a municipal zoning ordinance?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. Is this proposal consistent with the ordinance? If no, describe the inconsistencies _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. Does the proposal require a change or variance to an existing comprehensive plan or zoning ordinance?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Have all applicable zoning approvals been obtained?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Is there a municipal subdivision and land development ordinance?

**SECTION C. AGENCY REVIEW (continued)**

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. Is this proposal consistent with the ordinance? If no, describe the inconsistencies _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. Is this plan consistent with the municipal Official Sewage Facilities Plan? If no, describe the inconsistencies _____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	15. Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality? If yes, describe _____
<input type="checkbox"/>	<input type="checkbox"/>	16. Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision? <i>(not applicable)</i>
<input type="checkbox"/>	<input type="checkbox"/>	If yes, is the proposed waiver consistent with applicable ordinances? If no, describe the inconsistencies _____
17. Name, title and signature of planning agency staff member completing this section: Name: <u>Jesus Sadiua</u> Title: <u>City Planner</u> Signature: <u></u> Date: <u>December 26, 2023</u> Name of Municipal Planning Agency: <u>City of Allentown</u> Address <u>435 Hamilton Street</u> Telephone Number: <u>610-437-7613 x2865</u>		

**SECTION D. ADDITIONAL COMMENTS (See Section D of instructions)**

This component does not limit municipal planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are needed, attach additional sheets.

The planning agency must complete this component within 60 days.

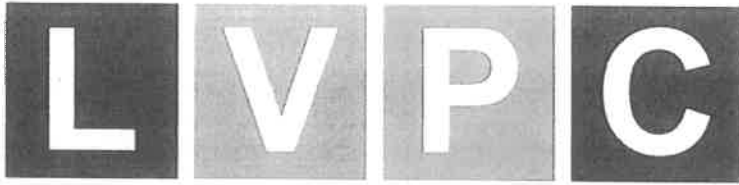
This component and any additional comments are to be returned to the applicant.



4B. County Planning Agency Review







## Lehigh Valley Planning Commission

STEVEN GLICKMAN  
Chair

CHRISTOPHER AMATO  
Vice Chair

KEVIN SCHMIDT  
Treasurer

BECKY A. BRADLEY, AICP  
Executive Director

December 14, 2023

Mr. Thomas Serpico, PE, ENV SP  
Pennoni  
81 Highland Avenue, Suite 230  
Bethlehem, PA 18017

**Re: Act 537 Review - Sewage Facilities Planning Module  
Allentown Metal Works – Building G  
City of Allentown, Lehigh County  
DEP Code No. 2-39001276-3**

Dear Mr. Serpico:

The Lehigh Valley Planning Commission (LVPC) reviewed the above-referenced planning module according to the requirements of Act 537, the Pennsylvania Sewage Facilities Act. We offer the following comments.

This sewage facilities planning module is intended for the proposed rehabilitation of Building G, an existing 51,004 square foot industrial building located at 606 South 10th Street on a 17.5-acre parcel. The development is proposed to be served by public sewage disposal by connecting to the existing sewer system located within South 10th Street, with ultimate treatment at the Kline's Island wastewater treatment plant. This proposal aligns with the *FutureLV: The Regional Plan* action to 'match development intensity with sustainable infrastructure capacity' (of Policy 1.1) and 'promote development in areas with public sewer and water capacity' (of Policy 3.2).

Enclosed please find an executed Module Component 4b. Please call me if you have any questions regarding this review.

Sincerely,

Susan L. Rockwell  
Senior Environmental Planner

Enclosure

cc: Brandon Jones, Associate Planner, City of Allentown  
Mark Hartney, Deputy Director of Community and Economic Development, City of Allentown  
Jesus Sadiua, Senior Planner, City of Allentown  
Robert Corby, PA Department of Environmental Protection  
Scott Unger, Applicant





**SEWAGE FACILITIES PLANNING MODULE  
COMPONENT 4B - COUNTY PLANNING AGENCY REVIEW**

**(or Planning Agency with Areawide Jurisdiction)**

**Note to Project Sponsor:** To expedite the review of your proposal, one copy of your completed planning package and one copy of this *Planning Agency Review Component* should be sent to the county planning agency or planning agency with areawide jurisdiction for their comments.

**SECTION A. PROJECT NAME** (See Section A of instructions)

Project Name

Allentown Metal Works - Building G

**SECTION B. REVIEW SCHEDULE** (See Section B of instructions)

1. Date plan received by county planning agency ---
2. Date plan received by planning agency with areawide jurisdiction December 12, 2023  
Agency name Lehigh Valley Planning Commission
3. Date review completed by agency December 14, 2023

**SECTION C. AGENCY REVIEW** (See Section C of instructions)

- | Yes                                 | No                                  |  |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1. Is there a county or areawide comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101 <i>et seq.</i> )?  |
| <input type="checkbox"/>            | <input type="checkbox"/>            | 2. Is this proposal consistent with the comprehensive plan for land use? <i>Area designated for Development in Future LV General Land Use Plan</i>                                     |
| <input type="checkbox"/>            | <input type="checkbox"/>            | 3. Does this proposal meet the goals and objectives of the plan?<br><i>Meets Sewage disposal goals &amp; objectives</i><br>If no, describe goals and objectives that are not met _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 4. Is this proposal consistent with the use, development, and protection of water resources?<br>If no, describe inconsistency _____  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 5. Is this proposal consistent with the county or areawide comprehensive land use planning relative to Prime Agricultural Land Preservation?<br>If no, describe inconsistencies: _____ |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 6. Does this project propose encroachments, obstructions, or dams that will affect wetlands?<br>If yes, describe impact _____  |
| <input type="checkbox"/>            | <input type="checkbox"/>            | 7. Will any known historical or archeological resources be impacted by this project? <i>PHMC determination</i><br>If yes, describe impacts ---   |
| <input type="checkbox"/>            | <input type="checkbox"/>            | 8. Will any known endangered or threatened species of plant or animal be impacted by the development project? <i>See PNDI results</i><br>If yes, describe impacts _____                |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 9. Is there a county or areawide zoning ordinance?   |
| <input type="checkbox"/>            | <input type="checkbox"/>            | 10. Does this proposal meet the zoning requirements of the ordinance? <i>N/A</i><br>If no, describe inconsistencies ---  |

**SECTION C. AGENCY REVIEW (continued)**

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	11. Have all applicable zoning approvals been obtained? <i>N/A</i>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Is there a county or areawide subdivision and land development ordinance? <i>Not applicable to the City of Allentown</i>
<input type="checkbox"/>	<input type="checkbox"/>	13. Does this proposal meet the requirements of the ordinance? <i>N/A</i> If no, describe which requirements are not met ---
<input type="checkbox"/>	<input type="checkbox"/>	14. Is this proposal consistent with the municipal Official Sewage Facilities Plan? <i>See municipal interpretation</i> If no, describe inconsistency ---
<input type="checkbox"/>	<input checked="" type="checkbox"/>	15. Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality? If yes, describe ---
<input type="checkbox"/>	<input type="checkbox"/>	16. Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision? <i>N/A</i>
<input type="checkbox"/>	<input type="checkbox"/>	If yes, is the proposed waiver consistent with applicable ordinances. If no, describe the inconsistencies ---
<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. Does the county have a stormwater management plan as required by the Stormwater Management Act?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	If yes, will this project plan require the implementation of storm water management measures?
		18. Name, Title and signature of person completing this section:
		Name: <u>Susan L. Rockwell</u>
		Title: <u>Senior Environmental Planner</u>
		Signature: <u><i>S. L. Rockwell</i></u>
		Date: <u>December 14, 2023</u>
		Name of County or Areawide Planning Agency: <u>Lehigh Valley Planning Commission</u>
		Address: <u>961 Marcon Blvd., Suite 310, Allentown, PA 18109</u>
		Telephone Number: <u>610-264-4544</u>

**SECTION D. ADDITIONAL COMMENTS (See Section D of instructions)**

This component does not limit county planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are needed, attach additional sheets.

The county planning agency must complete this component within 60 days.

This component and any additional comments are to be returned to the applicant.

**APPENDICES - (Attachments to COMPONENT 3)**



Sect. C - U.S.G.S. 7.5 minute Topographic Map



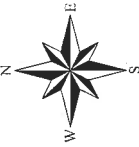


**Site Location Map**

Allentown East, PA USGS 24K Quadrangle

**Allentown Metal Works**

Allentown, Lehigh County, PA






Mapped By: Justin Clarke

Date: 1/21/2020

Scale: 1:30,000



**Legend**

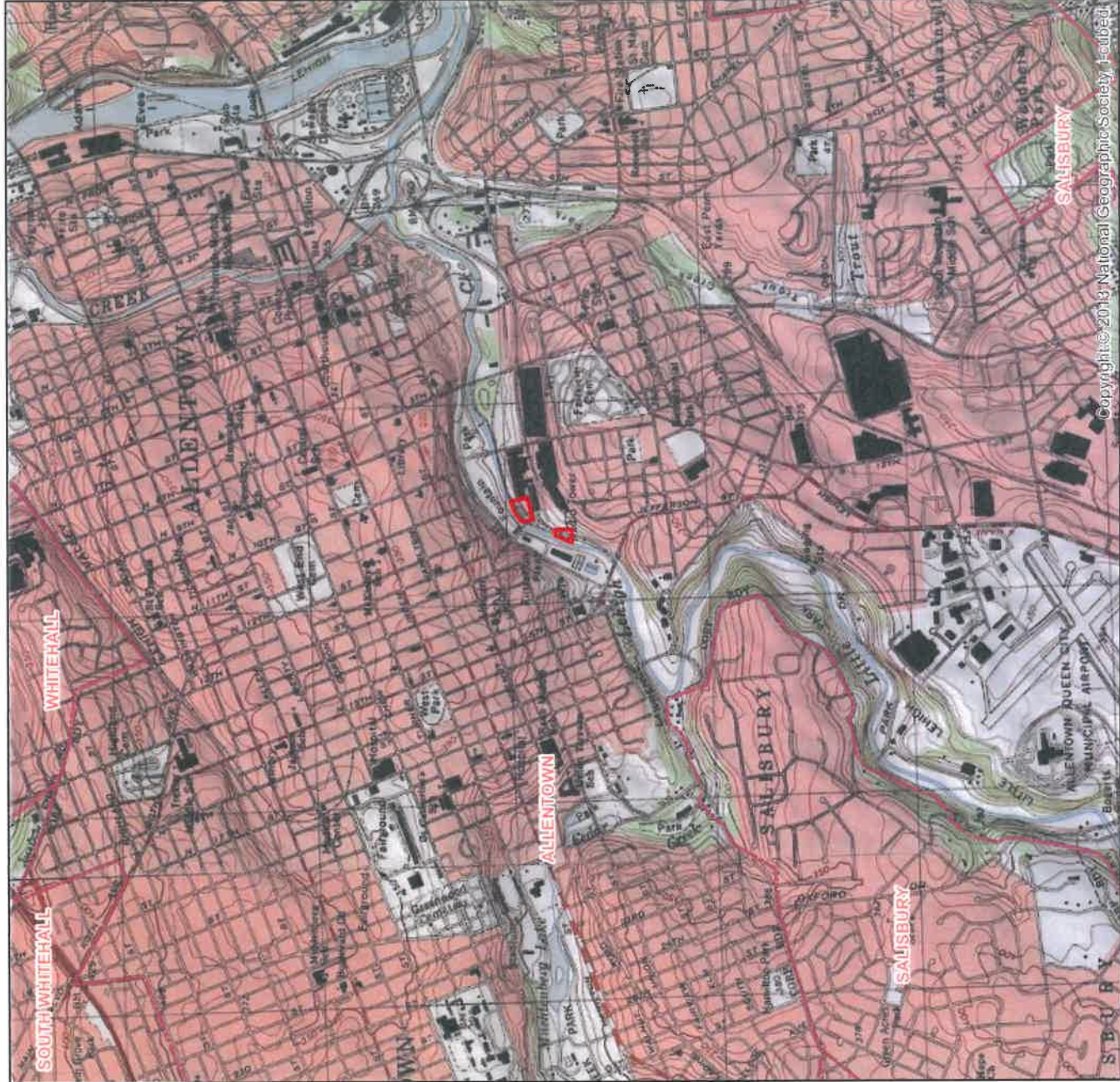
-  Study Area
-  PA Municipalities
-  PA Counties

Applicant:

**Pennoni**  
2041 Avenue C, Suite C  
Bethlehem, PA 18017

Prepared By:

**ECSI**  
1095 Mill Road  
Pen Argyl, PA 18072  
(484) 515-6806



Coordinates: 40.593367, -75.48048  
HUC12 Watershed: Little Lehigh Creek



**Sect. E - Availability of Drinking Water Supply and Sewer Services**



Sect. F - Project Narrative

## **Project Narrative**

### **Allentown Metal Works Project**

#### **1. Nature of Development Project**

The applicant, Allentown Economic Development Corporation, proposes the redevelopment of 5.14 acres of a 17.5 acre site with an industrial warehouse located on the West Side of S. 10<sup>th</sup> St, City of Allentown, Lehigh County, Pennsylvania. The industrial warehouse is planned to include three (3) buildings and two (2) parking lots with related site improvements. The site is bounded by the Little Lehigh Creek to the north and west, S.10<sup>th</sup> St. to the east, and industrial use to the south. Other proposed improvements include associated parking for both passenger cars and trailer trucks.

An 8" SDR-26 gravity main will be constructed from existing manhole located in South 10<sup>th</sup> Street near the Bridge over the Little Lehigh. The 8" gravity will extend approximately 1,262' from the existing manhole and tie into both existing Building G and Building B.

#### **2. Number of Lots or EDUs**

Commercial Connections 1 lot = 15 EDU'S or 3,570 gpd

#### **3. Proposed Sewage Collection, Conveyance and Treatment**

The sewage flows will be serviced by the Lehigh County Authority Allentown Wastewater Treatment plant the collection, conveyance, and treatment facilities. The flow from this area of the City is than directed to the Little Lehigh Interceptor.

#### **4. Projected Project Population and Sewage Flows**

15 EDU's X 238 = 3,570 Gallons Per Day. No Additional future flow is anticipated.

#### **5. Adjacent Land Uses/Future Development**

The proposed development is taking place in the General Industrial District or I-3. There is no anticipated additional area of proposed development in the future taking place in this area.

Sect. G – Proposed Wastewater Facilities Narrative



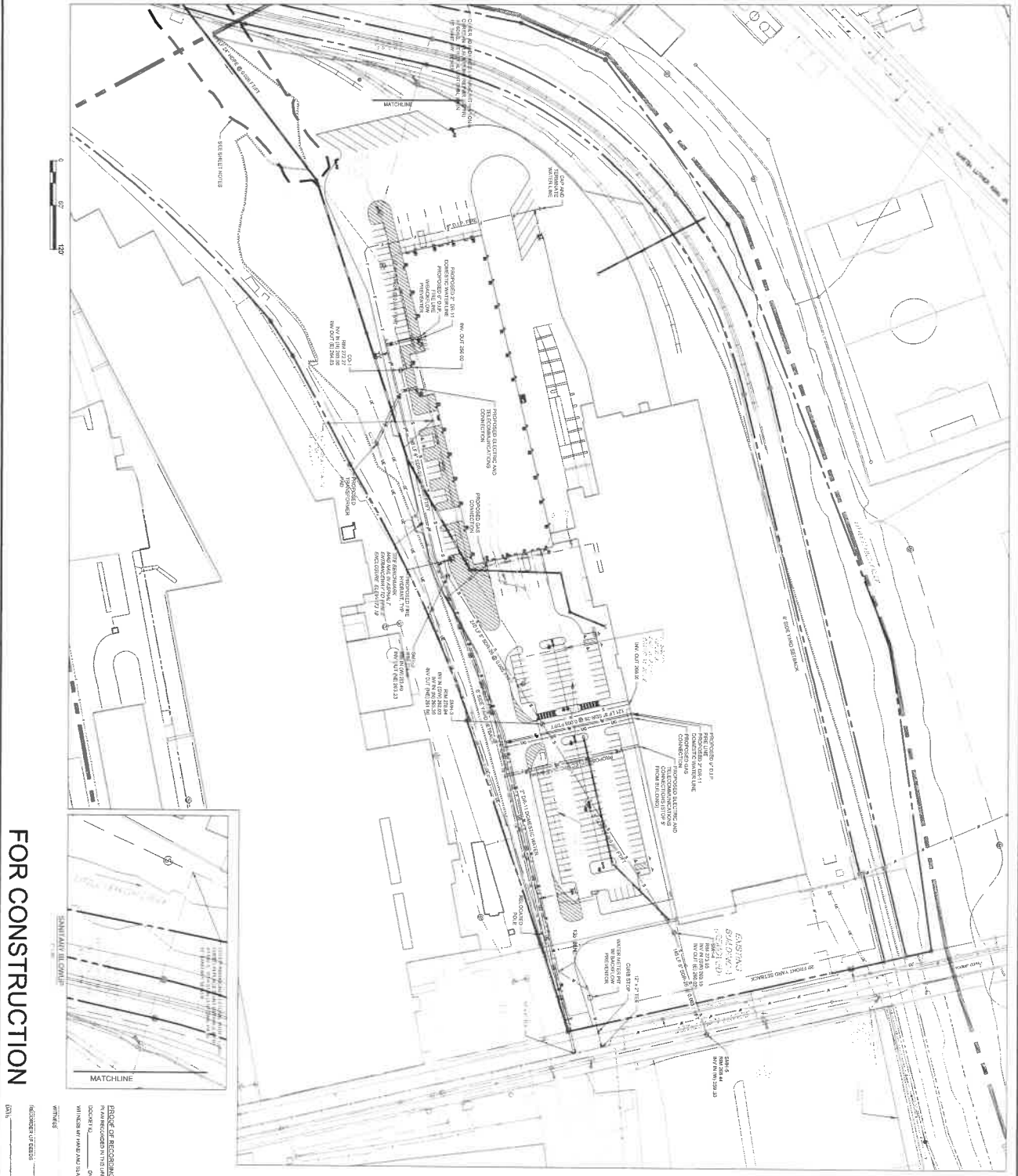
Sect. G.3 - Plot Plan



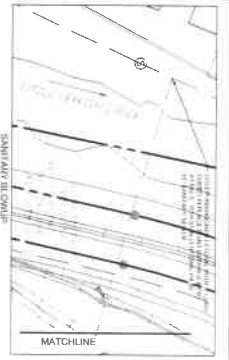








**FOR CONSTRUCTION**



**LEGEND**

PROPOSED 12" PVC CONDUIT FOR ELECTRICAL SERVICE

PROPOSED 6" PVC CONDUIT FOR GAS SERVICE

PROPOSED 4" PVC CONDUIT FOR WATER SERVICE

PROPOSED 12" RCP MANHOLE

PROPOSED 18" RCP MANHOLE

PROPOSED 24" RCP MANHOLE

PROPOSED 30" RCP MANHOLE

PROPOSED 36" RCP MANHOLE

PROPOSED 42" RCP MANHOLE

PROPOSED 48" RCP MANHOLE

PROPOSED 54" RCP MANHOLE

PROPOSED 60" RCP MANHOLE

PROPOSED 66" RCP MANHOLE

PROPOSED 72" RCP MANHOLE

PROPOSED 78" RCP MANHOLE

PROPOSED 84" RCP MANHOLE

PROPOSED 90" RCP MANHOLE

PROPOSED 96" RCP MANHOLE

PROPOSED 102" RCP MANHOLE

PROPOSED 108" RCP MANHOLE

PROPOSED 114" RCP MANHOLE

PROPOSED 120" RCP MANHOLE

PROPOSED 126" RCP MANHOLE

PROPOSED 132" RCP MANHOLE

PROPOSED 138" RCP MANHOLE

PROPOSED 144" RCP MANHOLE

PROPOSED 150" RCP MANHOLE

PROPOSED 156" RCP MANHOLE

PROPOSED 162" RCP MANHOLE

PROPOSED 168" RCP MANHOLE

PROPOSED 174" RCP MANHOLE

PROPOSED 180" RCP MANHOLE

PROPOSED 186" RCP MANHOLE

PROPOSED 192" RCP MANHOLE

PROPOSED 198" RCP MANHOLE

PROPOSED 204" RCP MANHOLE

PROPOSED 210" RCP MANHOLE

PROPOSED 216" RCP MANHOLE

PROPOSED 222" RCP MANHOLE

PROPOSED 228" RCP MANHOLE

PROPOSED 234" RCP MANHOLE

PROPOSED 240" RCP MANHOLE

PROPOSED 246" RCP MANHOLE

PROPOSED 252" RCP MANHOLE

PROPOSED 258" RCP MANHOLE

PROPOSED 264" RCP MANHOLE

PROPOSED 270" RCP MANHOLE

PROPOSED 276" RCP MANHOLE

PROPOSED 282" RCP MANHOLE

PROPOSED 288" RCP MANHOLE

PROPOSED 294" RCP MANHOLE

PROPOSED 300" RCP MANHOLE

**REVISIONS**

NO.	DATE	BY	REVISIONS
1	11/29/12	KH	PER CITY COMMENT LETTER
2	12/01/12	SBC	PER CITY COMMENTS
3	01/30/13	KDR	PER CONTRACTOR UPDATES
4	01/31/13	EHR	PER CITY COMMENTS
5	01/31/13	SSC	PER LCA COMMENTS
6	01/31/13	KDH	PER CLIENT REQUEST
7	02/01/13	JM	DATE

**CS1701**

PROPOSED ELECTRICAL SERVICE CONNECTION AND CONNECTION TO THE BUILDING

PROPOSED GAS SERVICE CONNECTION AND CONNECTION TO THE BUILDING

PROPOSED WATER SERVICE CONNECTION AND CONNECTION TO THE BUILDING

PROPOSED 12" RCP MANHOLE

PROPOSED 18" RCP MANHOLE

PROPOSED 24" RCP MANHOLE

PROPOSED 30" RCP MANHOLE

PROPOSED 36" RCP MANHOLE

PROPOSED 42" RCP MANHOLE

PROPOSED 48" RCP MANHOLE

PROPOSED 54" RCP MANHOLE

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PROPOSED 138" RCP MANHOLE

PROPOSED 144" RCP MANHOLE

PROPOSED 150" RCP MANHOLE

PROPOSED 156" RCP MANHOLE

PROPOSED 162" RCP MANHOLE

PROPOSED 168" RCP MANHOLE

PROPOSED 174" RCP MANHOLE

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PROPOSED 276" RCP MANHOLE

PROPOSED 282" RCP MANHOLE

PROPOSED 288" RCP MANHOLE

PROPOSED 294" RCP MANHOLE

PROPOSED 300" RCP MANHOLE

**ALLENTOWN METAL WORKS - FINAL PLAN**

608 S. 10TH STREET - 12TH WARD  
ALLENTOWN, PA 18103

**UTILITY PLAN**

ALLENTOWN ECONOMIC DEVELOPMENT CORPORATION  
906 HARRISON STREET  
ALLENTOWN, PA 18103

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

**Pennoni**

**PENNONI ASSOCIATES INC.**  
81 Highland Ave. - Ste 230  
Bethlehem, PA 18017  
T 610-231-0600 F 610-231-0033

**CS1701**

SHEET 7 OF 17

DATE: 12/20/12  
DRAWN BY: JMM  
CHECKED BY: JMM  
DESIGNED BY: JMM  
SCALE: AS SHOWN







Sect. G.4 – Wetlands Report





**WETLANDS AND OTHER WATERS  
DELINEATION REPORT  
FOR  
Allentown Metal Works**

Allentown, Lehigh County  
Pennsylvania

**Prepared For:**

Pennoni  
2041 Avenue C, Suite C  
Bethlehem, PA 18017

January 2020

**Prepared By:**

*Environmental Consultation Services, inc.*

1095 Mill Road  
Pen Argyl, PA 18072  
Phone: (484) 515-6806  
Email: kevinkeat@envconserv.com



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II. SITE DATA .....1  
III. REGULATORY REQUIREMENTS.....2  
IV. REFERENCE DATA.....2  
V. METHODOLOGY .....3  
VI. FIELD INVESTIGATIONS SUMMARY .....4  
VII. SUMMARY .....5

**APPENDICES**

ATTACHMENT # 1 SITE LOCATION MAP (EAST ALLENTOWN, PA  
U.S.G.S. QUADRANGLE)  
ATTACHMENT # 2 AERIAL IMAGERY WITH NATIONAL WETLAND  
INVENTORY OVERLAY  
ATTACHMENT # 3 WETLAND AND OTHER WATERS DELINEATION  
MAP WITH WEB SOIL SURVEY OVERLAY  
ATTACHMENT # 4 PHOTOGRAPHIC INDEX  
ATTACHMENT # 5 FIELD DATA SHEETS



## I. SCOPE OF SERVICES

Environmental Consultation Services, inc. (ECSi) was retained by Pennoni to: (1) Determine the character and extent of federal and state regulated wetlands and other waters on two project areas on the Allentown Metal Works property; (2) To flag in the field any wetlands and other waters encountered; and (3) To issue a preliminary report describing the delineation methods and findings. The wetlands and other waters delineations were conducted on December 12<sup>th</sup>, 2019 and January 17<sup>th</sup>, 2020.

## II. SITE DATA

### *Site Location:*

The study areas are located on the property of Allentown Metal Works within the city of Allentown, approximately 1.57-miles west of Lehigh River and 0.94-miles east of Salisbury. It is situated east of Jefferson Street and south of Martin Luther King Jr. Dr. on the Little Lehigh Creek (**Attachment 1**).

- *Geographical Location:* City of Allentown  
Lehigh County, PA
- *U.S.G.S. Quad Sheet:* East Allentown, PA
- *Soil Survey:* Soil Survey of Lehigh County, Pennsylvania
- *Project Areas:* 1.0 and 2.13-acres
- *Site Coordinates:* Latitude: 40.593367, Longitude: -75.48048

### *Project Area Description:*

The Allentown Metal Works Project consists of two project areas located along the floodplain of the Little Lehigh Creek. The study areas are 1.0 and 2.33-acre areas that are proposed outfall locations for stormwater discharge pipes. The floodplain is forested and is bordered to the west by a commercial lot and to the east by a forested tract of land. The areas are generally flat along the banks of the Little Lehigh Creek (**Attachment 2**).



### III. REGULATORY REQUIREMENTS

#### ***Regulatory Jurisdiction:***

Activities in Waters of the United States and Waters of the Commonwealth (including wetlands) are regulated by the U.S. Army Corps of Engineers (USACE), under the authority of Section 404 of the Clean Water Act and by the Pennsylvania Department of Environmental Protection (PADEP), under the authority of the Dams Safety and Encroachments Act.

#### ***Definitions:***

In Pennsylvania, the PADEP uses the USACE definition of wetlands as defined in 33 CFR Part 328.3 in administering the above regulatory requirements. In addition, the PADEP has authority to regulate Waters of this Commonwealth (as defined in 25 Pa.C.S. § 105.1). These definitions are as follows:

- *A wetland* refers to "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."
- *Regulated waters of this Commonwealth* are "Watercourses, streams or bodies of water and their floodways wholly or partly within or forming part of the boundary of this Commonwealth."

### IV. REFERENCE DATA

Available reference data was assembled and evaluated prior to conducting field investigations. This information is presented in the following appendices:

1. ***United States Geologic Service (U.S.G.S.) Map:*** The East Allentown, Pennsylvania USGS Quadrangle Map indicates the project area elevation is 250-foot above mean sea level (**Attachment 1**). The project areas are within the floodplain adjacent to the Little Lehigh Creek.
2. ***2008 Natural Color Aerial Photograph:*** A 2008 Natural Color Aerial Image (PASDA) was reviewed to assist with the evaluation of existing conditions on the project area (**Attachment 2**). The aerial imagery shows the site is predominantly a forested floodplain to the Little Lehigh Creek with a commercial area bordering the western side of the creek.





3. **National Wetlands Inventory (NWI) Map:** The NWI map prepared by the U.S. Fish and Wildlife Service (USFWS) does not identify any wetlands within the project area but does identify the Little Lehigh Creek which flows through the project area (**Attachment 2**).
4. **Soil Survey of Northampton County, Pennsylvania:** The site is located on the Soil Survey of Northampton County, Pennsylvania (**Attachment 3**). The soil survey indicates there are a total of three (3) soil series that underlie the project area. The Holly (Ho) soil series is a hydric soil and has a minor hydric component of Brinkerton. The Urban Land (UgC) series does not contain any hydric soils. The Urban Land-Duffield Complex (UmD) series contains a minor hydric component of the Thorndale series. **Table 1** lists the soils underlying the project area.

**Table 1: Project Area Soils.**

Soil Series Name	Map Unit Symbol	Slope %	Hydric
Holly silt loam	Ho	0	Yes and minor components of Brinkerton
Urban Land	UgC	8-15	No
Urban Land-Duffield Complex	UmD	8-25	Minor components of Thorndale

## V. METHODOLOGY

The USACE, U.S. Environmental Protection Agency (USEPA), and PADEP require the use of the “Corps of Engineers Wetland Delineation Manual (January 1987),” as a guide for field methodology in order to assure that all wetland boundary delineations are consistent with the federal and state wetland regulations. In addition, the “Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, Version 2.0. April 2012” has been adopted for use in this location.

Field indicators for wetland hydrology, hydric soils, and vegetation were evaluated in accordance with the field methods described in the USACE manual. The data collected was recorded and is reported on the Field Data Sheets (**Attachment 5**).

Photographs of the site are presented in **Attachment 4**.



## VI. FIELD INVESTIGATIONS SUMMARY

Six (6) data points (DP1-6) were recorded within the project areas and all were determined to be upland data points. The only watercourse identified within the project area was the Little Lehigh Creek which borders the project area **Attachment 3**.

### 1. *Wetland*

No wetlands were identified within the project area.

### 2. *Streams*

Stream 1 is the Little Lehigh Creek that flows through the project area. The stream has a High Quality-Cold Water Fishes (HQ-CWF) designation (Chapter 93) and drains into the Lehigh River (HUC12).

### 3. *Other Waters*

No other waters were found within the project area.

### 4. *Upland Areas*

The project areas are predominantly upland and comprised of deciduous broadleaf woodland characterized by Data Points 1-6 (DP1-6). These data points were all recorded in the floodplain to the Little Lehigh Creek and lacked indicators of hydrology and hydric soils. Data Points 1 and 6 were determined to contain hydrophytic vegetation but lacked indicators of hydrology and soils.

Data Point 1 (DP1) was recorded 40-feet east of the Little Lehigh Creek. The canopy that is composed of white ash (*Fraxinus americana*), box elder (*Acer negundo*), black walnut (*Juglans nigra*), tree-of-heaven (*Ailanthus altissima*). The shrub layer is comprised of tartarian honeysuckle (*Lonicera tatarica*) and the herbaceous layer is comprised of common mugwort (*Artemisia vulgaris*), Japanese stiltgrass (*Microstegium vimineum*), garlic mustard (*Alliaria petiolata*), wingstem (*Verbesina alternifolia*), and *Allium* sp.

Data Point 2 (DP2) was recorded 100-feet east of the Little Lehigh Creek. The canopy is predominantly comprised of tree-of-heaven. The shrub layer is dominated by tartarian honeysuckle and the herbaceous layer consists of Japanese stiltgrass and wingstem.

Data Point 3 (DP3) was recorded in the northeast corner of the project area. The canopy is predominantly comprised of black walnut, tree-of-heaven, and box elder. The shrub layer is dominated by tartarian honeysuckle and butterfly bush (*Buddleja davidii*). The herbaceous layer is comprised of Japanese stiltgrass, wingstem, pink



dogbane (*Apocynum cannabinum*), Japanese honeysuckle (*Lonicera japonica*), and goldenrod (*Solidago* sp.).

Data Point 4 (DP4) was recorded 26-feet north of DP3. The canopy is predominantly comprised of tree-of-heaven and the shrub layer is dominated by tartarian honeysuckle and butterfly bush. The herbaceous layer is comprised of Japanese stiltgrass, wingstem, goldenrod, and common mugwort.

Data Point 5 (DP4) was recorded 30-feet east of the Little Lehigh Creek and 95-feet north of DP1. The canopy is predominantly comprised of black walnut and tree-of-heaven. The shrub layer is dominated by tartarian honeysuckle and the herbaceous layer is comprised of Japanese stiltgrass, wingstem, and rye (*Secale* sp.).

Data Point 6 was recorded in the northern project area. The canopy is comprised of black walnut and box elder. The shrub layer is comprised black walnut saplings, box elder saplings, tartarian honeysuckle, and tree-of-heaven. The herbaceous layer is comprised of poison ivy (*Toxicodendron radiancs*), Japanese stiltgrass, Asian bittersweet (*Celastrus orbiculatus*), wingstem, and wineberry (*Rubus phoenicolasius*) while the vine layer was predominately grape (*Vitis* sp.).

All data points were located within the floodplain to the Little Lehigh Creek but none exhibited wetland indicators for soil or hydrology.

## VII. SUMMARY

No wetlands were identified within the project areas. The project areas are situated along the banks of the Little Lehigh Creek which intersects the project area boundaries. The wetland and other waters delineation provided by ECSi represents our best professional judgment regarding the boundaries of this resource and can be used for preliminary project planning; however, until a Jurisdictional Determination (JD) is issued by a regulatory agency (USACE and/or PADEP), the delineation can only be considered preliminary without any official governmental approval.



## **ATTACHMENT 1**

### **Site Location Map**

Bangor, PA USGS Quadrangle





**Site Location Map**

Allentown East, PA USGS 24K Quadrangle

**Allentown Metal Works**

Allentown, Lehigh County, PA



Mapped By: Justin Clarke  
Date: 1/21/2020  
Scale: 1:30,000



**Legend**

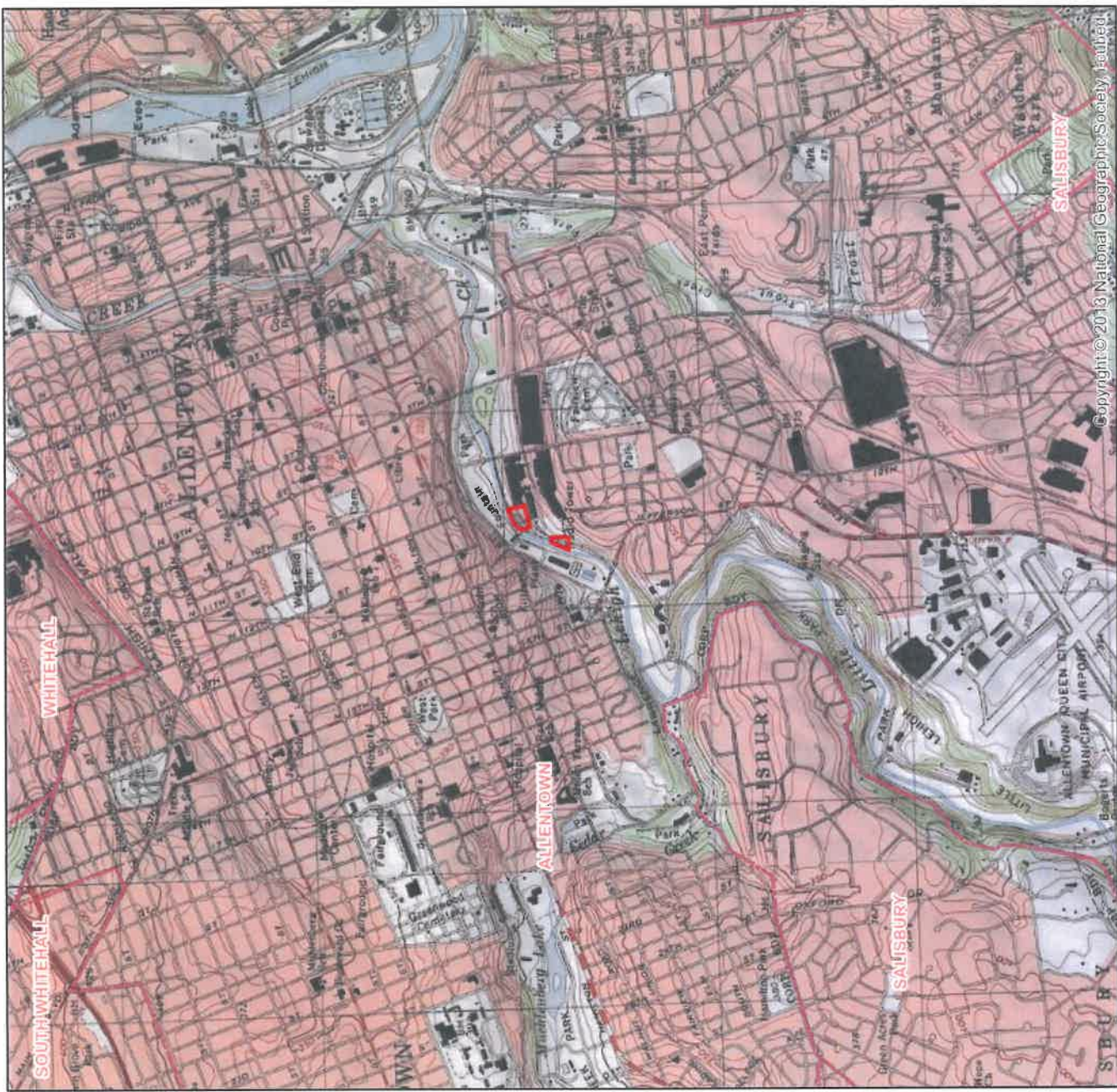
- Study Area
- PA Municipalities
- PA Counties

Applicant:

**Pennoni**  
2041 Avenue C, Suite C  
Bethlehem, PA 18072

Prepared By:

**ECSI**  
1095 Mill Road  
Pen Argyl, PA 18072  
(484) 515-6806



Copyright © 2013 National Geographic Society, Imaged

Coordinates: 40.593367, -75.48048  
HUC12 Watershed: Little Lehigh Creek



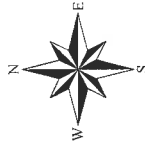
**ATTACHMENT 2**

**Aerial Imagery with  
National Wetland Inventory Overlay**



**Site Aerial with NWI Overlay**  
2008 Natural Color Orthophotograph (PA DCONR)

**Allentown Metal Works**  
Allentown, Lehigh County, PA



Mapped By: Justin Clarke  
Date: 1/21/2020  
Scale: 1:1,820



**Legend**

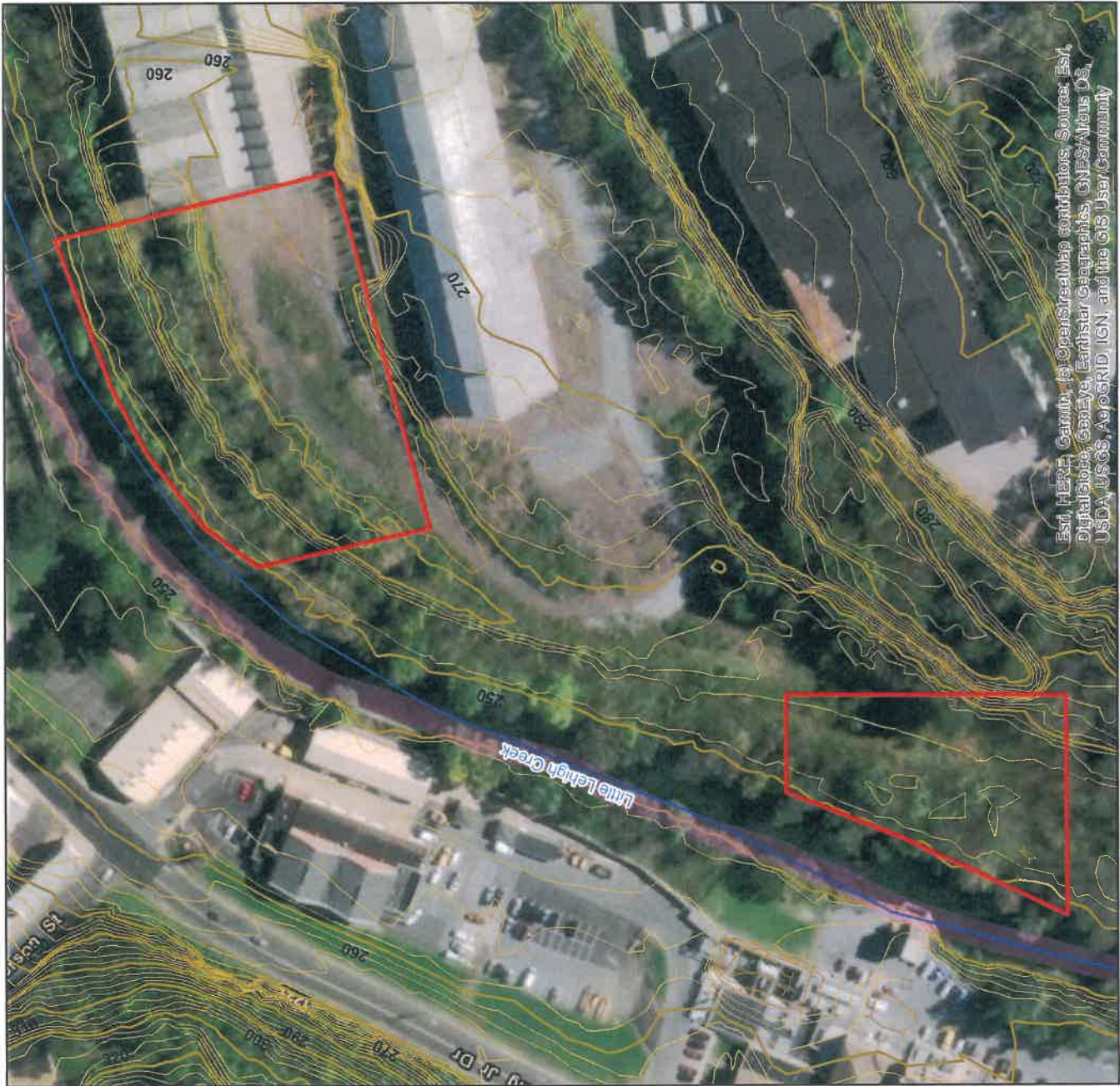
- ▭ Study Area
- PA Streams
- ▭ PA Wetlands
- ▭ Riverine
- Contour Type
- Index Contours
- Intermediate Depression Contours
- Intermediate Depression Contours

Applicant:

**Pennoni**  
2041 Avenue C, Suite C  
Bethlehem, PA 18017

Prepared By:

**ECSI**  
1095 Mill Road  
Pen Argyl, PA 18072  
(484) 515-6806



Coordinates: 40.593367, -75.48048  
HUC12 Watershed: Little Lehigh Creek

**ATTACHMENT 3**

**Wetland and Other Waters Delineation Map with  
Web Soil Survey Overlay (NRCS)**



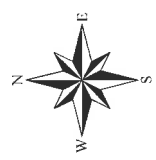


Coordinates: 40.593367,-75.48048  
 HUC12 Watershed: Little Lehigh Creek  
 Hydric Soils: Ho and minor components of UmD

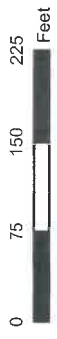


**Wetlands and Other Waters Map**  
 2008 Natural Color Orthophotograph (PA DCNR)

**Allentown Metal Works**  
 Allentown, Lehigh County, PA



Mapped By: Justin Clarke  
 Date: 1/21/2020  
 Scale: 1:1,819



**Legend**

- Stream Flagging
- Wetland Evaluation Data Points
- ECSi - Delineated Stream Edge
- Study Area
- Soil Boundary (Web Soil Survey via NRCS)

Applicant:

**Pennoni**  
 2041 Avenue C, Suite C  
 Bethlehem, PA 18017

Prepared By:

**ECSI**  
 1095 Mill Road  
 Pen Argyl, PA 18072  
 (484) 515-6806

**ATTACHMENT 4**  
**Photographic Index**





Photo 1. A view of Data Point 1, located 40-ft east of the Little Lehigh Creek in the southern project area. This area was comprised of white ash, box elder, black walnut, tree-of-heaven, tartarian honeysuckle, common mugwort, Japanese stiltgrass, garlic mustard, wingstem, and *Allium* sp. It lacked hydrology and soil indicators to be considered a wetland.



Photo 2. A view of Data Point 2, located 100-ft east of the Little Lehigh Creek in the southern project area. This area is dominated by tartarian honeysuckle, Japanese stiltgrass, and wingstem. The data point lacks all indicators to be considered a wetland.



Photo 3. A view of Data Point 3, located in the southeastern portion of the project area. This area was comprised of black walnut, tree-of-heaven, box elder, tartarian honeysuckle, butterfly bush, Japanese stiltgrass, wingstem, pink dogbane, Japanese honeysuckle, and goldenrod. It lacked all indicators to be considered a wetland.



Photo 4. A view of Data Point 4, located in the southernmost project area. This area was comprised of tree-of-heaven, tartarian honeysuckle, butterfly bush, Japanese stiltgrass, wingstem, goldenrod, and common mugwort. It lacked all indicators to be considered a wetland.





Photo 5. A view of Data Point 5, located on the edge of the Little Lehigh Creek in the southernmost project area. This area was composed of black walnut, tree-of-heaven, tartarian honeysuckle, Japanese stiltgrass, wingstem, and rye. It lacked all indicators to be considered a wetland.



Photo 6. A northerly view of the Little Lehigh in the southernmost project area.





Photo 7. A view of the Little Lehigh Creek bank in the southernmost project area.



Photo 8. A view of the Little Lehigh Creek bank in the southernmost project area.



Photo 9. A view of Data Point 6, located on the bank of the Little Lehigh Creek in the northernmost project area. This area is comprised of black walnut, box elder, tartarian honeysuckle, tree-of-heaven, poison ivy, Japanese stiltgrass, Asian bittersweet, wingstem, and wineberry. The data point lacks indicators of hydrology and soil to be considered a wetland.



Photo 10. An easterly view of the project area.





Photo 11. A northerly view of the proposed drainage pipe.



Photo 12. A view of the railroad grade and that runs through the project area.



Photo 13. A view of the railroad grade that runs through the project area.



Photo 14. A view of the northernmost project area.





Photo 15. A view of the building on the northern edge of the northernmost project area.



Photo 16. A view of the northernmost project area.



Photo 17. A southerly view of the Little Lehigh Creek in the northernmost project area.



Photo 18. A southerly view of the Little Lehigh Creek in the southernmost project area.

## **ATTACHMENT 5**

### **Field Data Sheets**

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Allentown Metal Works City/County: Allentown/Lehigh Sampling Date: 12/12/2019  
 Applicant/Owner: Pennoni State: PA Sampling Point: DP1  
 Investigator(s): David Bonomo Section, Township, Range: City of Allentown  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR or MLRA): MLRA 248 Lat: 40.593269 Long: -75.480784 Datum: NAD83  
 Soil Map Unit Name: Ho: Holly silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: While hydrophytic vegetation was present, hydric soils and wetland hydrology were absent. Therefore, this is an upland data point.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Only one secondary indicator of wetland hydrology was observed during our site visit. Because two secondary indicators are required (in the absence of any primary indicators) to establish wetland hydrology, wetland hydrology was determined to be absent from this data point location.	



**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP1

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Fraxinus americana</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
2. <u>Acer negundo</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
3. <u>Juglans nigra</u>	<u>10</u>		<u>FACU</u>
4. <u>Ailanthus altissima</u>	<u>10</u>		<u>FACU</u>
5. _____			
6. _____			
7. _____			

60 = Total Cover  
50% of total cover: 30 20% of total cover: 12

Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera tatarica</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			

20 = Total Cover  
50% of total cover: 10 20% of total cover: 4

Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Microstegium vimineum</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2. <u>Verbesina alternifolia</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
3. <u>Alliaria petiolata</u>	<u>10</u>		<u>FACU</u>
4. <u>Artemisia vulgaris</u>	<u>10</u>		<u>UPL</u>
5. <u>Allium sp.</u>	<u>5</u>		<u>FACU</u>
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			

75 = Total Cover  
50% of total cover: 37.5 20% of total cover: 15

Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			

0 = Total Cover  
50% of total cover: 0 20% of total cover: 0

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)

The percentage of dominant plant species rated OBL, FACW, or FAC is greater than 50%; therefore, the vegetation is hydrophytic.

**SOIL**

Sampling Point: DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10 YR 3/2	100					SL	
3-16	10 YR 3/4	100					SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

**Restrictive Layer (if observed):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes \_\_\_\_\_    No

Remarks:  
 The soil lacks a low-chroma matrix (i.e., chroma 1, or chroma 2 with high-chroma mottles) at 10", and no other hydric soil indicators were observed. Therefore, the soil at this data point is not hydric.

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Allentown Metal Works City/County: Allentown/Lehigh Sampling Date: 12/12/2019  
 Applicant/Owner: Pennoni State: PA Sampling Point: DP2  
 Investigator(s): David Bonomo Section, Township, Range: City of Allentown  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR or MLRA): MLRA 248 Lat: 40.593292 Long: -75.480784 Datum: NAD83  
 Soil Map Unit Name: UmD: Urban Land-Duffield Complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: There were no wetland indicators present during our visit, therefore this is an upland data point.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required: check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Only one secondary indicator of wetland hydrology was observed during our site visit. Because two secondary indicators are required (in the absence of any primary indicators) to establish wetland hydrology, wetland hydrology was determined to be absent from this data point location.	

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP2

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ailanthus altissima</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
50% of total cover: <u>10</u>	<u>20</u> = Total Cover	20% of total cover: <u>4</u>		
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>Lonicera tatarica</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
50% of total cover: <u>10</u>	<u>20</u> = Total Cover	20% of total cover: <u>4</u>		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Microstegium vimineum</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
2. <u>Verbesina alternifolia</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% of total cover: <u>20</u>	<u>40</u> = Total Cover	20% of total cover: <u>8</u>		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
50% of total cover: <u>0</u>	<u>0</u> = Total Cover	20% of total cover: <u>0</u>		

<p><b>Dominance Test worksheet:</b></p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>4</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)</p> <p><b>Prevalence Index worksheet:</b></p> <p>Total % Cover of: _____ Multiply by:</p> <p>OBL species _____ x 1 = _____</p> <p>FACW species _____ x 2 = _____</p> <p>FAC species _____ x 3 = _____</p> <p>FACU species _____ x 4 = _____</p> <p>UPL species _____ x 5 = _____</p> <p>Column Totals: _____ (A) _____ (B)</p> <p>Prevalence Index = B/A = _____</p> <p><b>Hydrophytic Vegetation Indicators:</b></p> <p><input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><input type="checkbox"/> 2 - Dominance Test is &gt;50%</p> <p><input type="checkbox"/> 3 - Prevalence Index is ≤3.0<sup>1</sup></p> <p><input type="checkbox"/> 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</p> <p><input type="checkbox"/> Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</p> <p><small><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small></p> <p><b>Definitions of Four Vegetation Strata:</b></p> <p><b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p><b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vine</b> – All woody vines greater than 3.28 ft in height.</p>	<p><b>Hydrophytic Vegetation Present?</b>      Yes _____ No <input checked="" type="checkbox"/></p>
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Remarks: (Include photo numbers here or on a separate sheet.)

The percentage of plant species rated OBL, FACW, or FAC equals 50%. Because this percentage must exceed 50% for the vegetation to be considered hydrophytic, the vegetation at this data point is not hydrophytic.

**SOIL**

Sampling Point: DP2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10 YR 2/3	100						
3-12	10 YR 4/4	60	10 YR 5/4	40	C	M	SL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136, 122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127, 147)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (MLRA 147)
- Coast Prairie Redox (A16) (MLRA 147, 148)
- Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

**Remarks:**

The soil lacks a low-chroma matrix (i.e., chroma 1, or chroma 2 with high-chroma mottles) at 10", and no other hydric soil indicators were observed. Therefore, the soil at this data point is not hydric.

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Allentown Metal Works City/County: Allentown/Lehigh Sampling Date: 12/12/2019  
 Applicant/Owner: Pennoni State: PA Sampling Point: DP3  
 Investigator(s): David Bonomo Section, Township, Range: City of Allentown  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR or MLRA): MLRA 248 Lat: 40.593686 Long: -75.480324 Datum: NAD83  
 Soil Map Unit Name: UmD: Urban Land-Duffield Complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: There were no wetland indicators present during our visit, therefore this is an upland data point.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required: check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Only one secondary indicator of wetland hydrology was observed during our site visit. Because two secondary indicators are required (in the absence of any primary indicators) to establish wetland hydrology, wetland hydrology was determined to be absent from this data point location.	

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP3

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Ailanthus altissima</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
2. <u>Acer negundo</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
3. <u>Juglans nigra</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

70 = Total Cover  
50% of total cover: 35 20% of total cover: 14

Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera tatarica</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
2. <u>Buddleja davidii</u>	<u>10</u>	_____	<u>FACU</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____

35 = Total Cover  
50% of total cover: 17.5 20% of total cover: 7

Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Microstegium vimineum</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2. <u>Apocynum cannabinum</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
3. <u>Verbesina alternifolia</u>	<u>10</u>	_____	<u>FAC</u>
4. <u>Lonicera japonica</u>	<u>5</u>	_____	<u>FACU</u>
5. <u>Solidago sp.</u>	<u>5</u>	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____

100 = Total Cover  
50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

0 = Total Cover  
50% of total cover: 0 20% of total cover: 0

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No

Remarks: (Include photo numbers here or on a separate sheet.)  
The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.

**SOIL**

Sampling Point: DP3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10 YR 3/3	100					SiL	
2-12	10 YR 3/4	100					SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (<b>LRR N</b>)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) (<b>LRR N, MLRA 147, 148</b>)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p>	<p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (<b>MLRA 147, 148</b>)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (<b>MLRA 147, 148</b>)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (<b>LRR N, MLRA 136</b>)</p> <p><input type="checkbox"/> Umbric Surface (F13) (<b>MLRA 136, 122</b>)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (<b>MLRA 148</b>)</p> <p><input type="checkbox"/> Red Parent Material (F21) (<b>MLRA 127, 147</b>)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10) (<b>MLRA 147</b>)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (<b>MLRA 147, 148</b>)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (<b>MLRA 136, 147</b>)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): 12

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

The soil lacks a low-chroma matrix (i.e., chroma 1, or chroma 2 with high-chroma mottles) at 10", and no other hydric soil indicators were observed. Therefore, the soil at this data point is not hydric.



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Allentown Metal Works City/County: Allentown/Lehigh Sampling Date: 12/12/2019  
 Applicant/Owner: Pennoni State: PA Sampling Point: DP4  
 Investigator(s): David Bonomo Section, Township, Range: City of Allentown  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR or MLRA): MLRA 248 Lat: 40.593507 Long: -75.480662 Datum: NAD83  
 Soil Map Unit Name: UmD: Urban Land-Duffield Complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: There were no wetland indicators present during our visit, therefore this is an upland data point.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Only one secondary indicator of wetland hydrology was observed during our site visit. Because two secondary indicators are required (in the absence of any primary indicators) to establish wetland hydrology, wetland hydrology was determined to be absent from this data point location.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP4

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Ailanthus altissima</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Lonicera tatarica</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACU</u>		<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Buddleja davidii</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
<u>35</u> = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.	
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Microstegium vimineum</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FAC</u>		<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
2. <u>Verbesina alternifolia</u>	<u>10</u>		<u>FAC</u>		
3. <u>Artemisia vulgaris</u>	<u>5</u>		<u>UPL</u>		
4. <u>Solidago sp.</u>	<u>5</u>		<u>FAC</u>		
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>					
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
<u>0</u> = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>					

Remarks: (Include photo numbers here or on a separate sheet.)  
 The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.



**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Allentown Metal Works City/County: Allentown/Lehigh Sampling Date: 12/12/2019  
 Applicant/Owner: Pennoni State: PA Sampling Point: DP5  
 Investigator(s): David Bonomo Section, Township, Range: City of Allentown  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR or MLRA): MLRA 248 Lat: 40.593621 Long: -75.480334 Datum: NAD83  
 Soil Map Unit Name: Ho: Holly silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: There were no wetland indicators present during our visit, therefore this is an upland data point.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Only one secondary indicator of wetland hydrology was observed during our site visit. Because two secondary indicators are required (in the absence of any primary indicators) to establish wetland hydrology, wetland hydrology was determined to be absent from this data point location.	

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP5

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Juglans nigra</i>	40	✓	FACU
2. <i>Ailanthus altissima</i>	30	✓	FACU
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
70 = Total Cover			
50% of total cover: <u>35</u> 20% of total cover: <u>14</u>			
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Lonicera tatarica</i>	20	✓	FACU
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
20 = Total Cover			
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>			
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Microstegium vimineum</i>	30	✓	FAC
2. <i>Verbesina alternifolia</i>	15	✓	FAC
3. <i>Secale sp.</i>	10		
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
55 = Total Cover			
50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u>			
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
0 = Total Cover			
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)

The percentage of plant species rated OBL, FACW, or FAC is less than 50%; therefore, the vegetation is upland dominant.

**SOIL**

Sampling Point: DP5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10 YR 2/2	100					SL	
2-10	10 YR 4/4	100					SL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <input checked="" type="checkbox"/>
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Remarks:  
 The soil lacks a low-chroma matrix (i.e., chroma 1, or chroma 2 with high-chroma mottles) at 10", and no other hydric soil indicators were observed. Therefore, the soil at this data point is not hydric.

**WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region**

Project/Site: Allentown Metal Works City/County: Allentown/Lehigh Sampling Date: 01/17/2020  
 Applicant/Owner: Pennoni State: PA Sampling Point: DP6  
 Investigator(s): David Bonomo Section, Township, Range: City of Allentown  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR or MLRA): MLRA 248 Lat: 40.595419 Long: -75.479238 Datum: NAD83  
 Soil Map Unit Name: Ho: Holly silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: There were no wetland indicators present during our visit, therefore this is an upland data point.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No indicators of wetland hydrology were observed during our site visit.	

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP6

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30'</u> )					
1. <u>Juglans nigra</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B)	
2. <u>Acer negundo</u>	<u>10</u>		<u>FAC</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
<u>40</u> = Total Cover 50% of total cover: <u>20</u> 20% of total cover: <u>8</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A)    _____ (B)  Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )					
1. <u>Lonicera tatarica</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>		
2. <u>Acer negundo</u>	<u>10</u>		<u>FAC</u>		
3. <u>Juglans nigra</u>	<u>10</u>		<u>FACU</u>		
4. <u>Ailanthus altissima</u>	<u>10</u>		<u>FACU</u>		
5. _____					
6. _____					
7. _____					
8. _____					
<u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )					
1. <u>Microstegium vimineum</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>		
2. <u>Verbesina alternifolia</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>		
3. <u>Toxicodendron radicans</u>	<u>10</u>		<u>FACU</u>		
4. <u>Celastrus orbiculatus</u>	<u>10</u>		<u>FACU</u>		
5. <u>Rubus phoenicolasius</u>	<u>10</u>		<u>FACU</u>		
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
<u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.	
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. <u>Vitis sp.</u>	<u>10</u>	<input checked="" type="checkbox"/>			
2. _____					
3. _____					
4. _____					
5. _____					
<u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____	
Remarks: (Include photo numbers here or on a separate sheet.) Vitis sp. was not identified and can be rated as FACW or FACU. However, even if vegetation is presumed to be hydrophytic, the location lacks hydrology and hydric soils.					



**SOIL**

Sampling Point: DP6

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10 YR 2/2	100					SiL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**  
 Type: Rock  
 Depth (inches): 12

**Hydric Soil Present?**    Yes     No

Remarks:  
 The soil lacks a low-chroma matrix (i.e., chroma 1, or chroma 2 with high-chroma mottles) at 10", and no other hydric soil indicators were observed. Therefore, the soil at this data point is not hydric.



Sect. G.6 – Historic Preservation Act





Commonwealth of Pennsylvania  
**Pennsylvania Historical and Museum Commission**  
**Bureau for Historic Preservation**  
Commonwealth Keystone Building, 2<sup>nd</sup> Floor  
400 North Street  
Harrisburg, PA 17120-0093  
[www.phmc.state.pa.us](http://www.phmc.state.pa.us)

26 October 2015

Mr. David Kimmerly  
Bureau of Planning & Zoning  
435 Hamilton Street  
Allentown, PA 18101-1699

RE: ER No. 2015-0609-077-C  
HUD: Allentown Metal Works Revitalization  
Allentown, Lehigh County

Dear Mr. Kimmerly:

Thank you for submitting information concerning the above referenced project. The Bureau for Historic Preservation (the State Historic Preservation Office) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 *et seq.* (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

**Archaeological Resources**

In our opinion no archaeological resources will be affected by this project.

**Above Ground Resources**

Based on the information provided and contained within our files, the proposed project has the potential to affect two historic properties. The Traylor Engineering & Manufacturing Company was determined eligible for listing in the National Register of Historic Places in 2015, under Criterion A in the area of Industry, with a period of significance of 1905 to ca. 1959. The Mack Brothers Motor Car Company was determined eligible for listing in the National Register of Historic Places in 2015, under Criterion A in the area of Industry, with a period of significance of 1904. The proposed project includes retention of a large building (identified as Building A in the submitted documentation) historically associated with the Mack Brothers Motor Car Company; no additional work is proposed elsewhere on the historic property. The project also proposes demolition of four of the six buildings historically associated with the Traylor Engineering & Manufacturing Company. Therefore, it is our opinion that this project will have an effect on historic properties. Furthermore, it is our opinion that this project will adversely affect the National Register-eligible Traylor Engineering & Manufacturing Company. To comply with the regulations of the Advisory Council on Historic Preservation, the federal agency must follow the procedures outlined in 36 CFR 800.6, when the effect is adverse. The federal agency, or those acting on their behalf, will need to notify the Advisory Council of the effect finding and continue to consult with the Bureau for Historic Preservation to seek ways to avoid, minimize, or mitigate the effects on historic properties.

While we understand that demolition of four smaller buildings is necessary to allow for the retention and re-use of the three largest buildings on the site, it is our opinion that this plan will *minimize* the effect of the undertaking on historic properties; however, measures must also be sought to *mitigate* the effect of the undertaking on historic properties. Therefore, we suggest coordinating with our office and other consulting parties to discuss potential mitigation measures further.

2015-0609-077-C

D. Kimmerly

Page 2 of 2

Lastly, this project has the potential to affect historic properties. In accordance with the regulations for Section 106 (36 CFR 800.2.a.4), federal agencies or those acting on their behalf are required to consider the effects of their undertakings on historic properties in consultation with identified historic preservation stakeholders. Consultation is defined as the process of seeking, discussing and considering the views of other participants and, where feasible, seeking agreement with them regarding matters arising in the Section 106 process. Please provide documentation of your agency's efforts to identify consulting parties with an interest in the effect of this project on historic properties.

For further information or questions concerning this review, please contact Emma Diehl at [emdiehl@pa.gov](mailto:emdiehl@pa.gov) or (717) 787-9121.

Sincerely,



Douglas C. McLearn, Chief  
Division of Archaeology and Protection

DCM/ekd



Pennsylvania State Historic Preservation Office

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

May 2, 2016

Mr. David Kimmerly  
Senior Planner, Bureau of Planning & Zoning  
435 Hamilton Street  
Allentown, PA 18101-1699

RE: 2015-0609-077-F; HUD: Allentown Metal Works Project; Allentown, Lehigh County;  
Memorandum of Agreement

Dear Mr. Kimmerly,

Thank you for submitting the Memorandum of Agreement for the above-referenced project for our review and execution. The Pennsylvania State Historic Preservation Office (SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

The PA SHPO has executed the enclosed Memorandum of Agreement (MOA) regarding the Allentown Metal Works Redevelopment Project in the City of Allentown. Please forward the MOA, along with supporting documentation, to the Advisory Council on Historic Preservation for acceptance.

For future submittals and/or notifications regarding the mitigation stipulations and/or Administrative Condition # 5 (Monitoring and Reporting), please contact Emma Diehl at [emdiehl@pa.gov](mailto:emdiehl@pa.gov) or (717) 787-9121.

Sincerely,

Ms. Andrea L. MacDonald  
Director, Pennsylvania State Historic Preservation Office





**MEMORANDUM OF AGREEMENT**  
**BETWEEN THE CITY OF ALLENTOWN, CITY, ALLENTOWN ECONOMIC DEVELOPMENT CORPORATION, AND THE PENNSYLVANIA STATE HISTORIC PRESERVATION OFFICE REGARDING THE ALLENTOWN METAL WORKS REDEVELOPMENT PROJECT IN THE CITY OF ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA**

**Whereas**, the City of Allentown is acting as the federal agency for the proposed Allentown Metal Works Redevelopment Project which intends to use funding from an Environmental Protection Agency Revolving Loan Fund grant, and U.S. Department of Housing and Urban Development (HUD) funding under various programs was used to acquire the property, thereby making the project a federal undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA), 16 USC 470f, and its implementing regulations at 36 CFR Part 800; and

**Whereas**, the owner of the Allentown Metal Works property is the Allentown Commercial and Industrial Development Authority (ACIDA) and Allentown Economic Development Corporation (AEDC) has a long term lease with ACIDA. AEDC is the developer of the property and intends to redevelop the property for industrial use and AEDC is a concurring party to this agreement, and;

**Whereas**, The City of Allentown and the Pennsylvania State Historic Preservation Office (PA SHPO) agreed on an Area of Potential Effect which includes the area outlined and as indicated on the attached map; and

**Whereas**, the proposed undertaking includes the demolition of buildings C, D, E, and F as shown on the attached map; and

**Whereas**, the City has identified that the Mack Brothers Motor Car Company Plant #2 (building A on the attached map) and the Traylor Engineering and Manufacturing Company (buildings B, C, D, E, F and G on the attached map) are historic properties, eligible for listing in the National Register of Historic Places, and within the project's Area of Potential Effect (APE). The proposed demolition will have an adverse effect on the Traylor Engineering and Manufacturing Company and the PA SHPO has agreed with these findings; and

**Whereas**, the Allentown Economic Development Corporation has agreed to retain the Mack Brothers Motor Car Company Plant #2 (building A on the attached map) and to retain the remaining buildings associated with the Traylor Engineering and Manufacturing Company (buildings B and G on the attached map), this will minimize the effect of the project on the historic properties; and

**Whereas**, in accordance with 36 CFR 800.6(1)(1) the Advisory Council for Historic Preservation (ACHP) was notified of the adverse effect to the historic property on January 7, 2016 and given the opportunity to comment and participate in the process pursuant to 36 CFR 800.6(a)(1)(iii), ACHP has chosen not to comment or participate; and

**Whereas**, the City of Allentown has consulted with the Lehigh County Historical Society, Allentown Historical Architectural Review Board, Old Allentown Preservation Association and the Allentown Preservation League who were afforded the opportunity to offer comment during a meeting held on November 19, 2015, and other informal discussions have occurred regarding the proposed demolition; and

**Whereas**, the project involves ground disturbing activities and therefore in accordance with HUD regulations 24 CFR 58 the Tribal Preservation Officer (TPO) with potential interest in the project location, specifically the Onondaga Nation of New York, was notified on December 23, 2015 and given the opportunity to comment on the project, and have chosen not to comment; and

**Now therefore**, the City of Allentown, Allentown Economic Development Corporation and the PA SHPO agree to the following mitigation measures to be carried out so as to create ways to foster the communities understanding and appreciation of the historical significance of the Mack Brothers Motor Car Company Plant #2 and the Traylor Engineering and Manufacturing Company.

**STIPULATIONS**

The City of Allentown shall ensure that the following measures are carried out:

1. **Review of Proposed Design Plans.** The Allentown Economic Development Corporation, throughout their ownership of the property, shall provide to the PA SHPO, for their review and comment, a copy of proposed design plans for the property and will notify the PA SHPO of any proposed changes to the exterior of buildings that remain on the property.
2. **Salvage of Architectural Details.** Prior to demolition of Traylor Engineering Company buildings C, D, E, and F, Allentown Economic Development Corporation shall provide Allentown Preservation League an opportunity to conduct a walk-through of the buildings to be demolished to identify any exterior or interior architectural features that may be salvaged from the buildings for reuse. If architectural salvage does occur the Allentown Preservation League shall create a list of important interior and/or exterior architectural features to be salvaged from the building. Architectural features salvaged from the building shall be donated to the Allentown Preservation League and transported to the League's warehouse at the expense of Allentown Economic Development Corporation. The date of the walk-through at the project site and list of salvaged architectural features, if any, will be included as part of the annual reporting procedures outlined in Administrative Condition 5 contained in this document.
3. **Public Interpretation.** Allentown Economic Development Corporation shall create a public historic interpretive panel documenting the history and significance of the Mack Brothers Motor Company Plant #2. The panel is to be located on or near the Mack Brothers Motor Company Plant #2 on South 6<sup>th</sup> Street. The panel shall include a website reference and/or a QR code that directs the reader to the Allentown History website and interactive map currently being developed by the City of Allentown. A draft of the interpretive panel and proposed location shall be reviewed by the PA SHPO prior to fabrication and installation. After the interpretive panel has been put in place it will remain in place for a period of at least 5 years. After 5 years it is at the option of Allentown Economic Development Corporation or the current owner of the property to retain the interpretive panel. Photographs showing the final installation of the public display will be provided to the PA SHPO for inclusion in their files and included as part of the annual reporting procedures outlined in Administrative Condition 5 contained in this document.

#### **A. Administrative Conditions**

1. **Dispute Resolution.** Should any signatory or concurring party to this agreement object to the implementation of the terms of this agreement, that party shall consult with the other signatories of the agreement to resolve objection. If the signatories cannot resolve the objection to mutual satisfaction the PA SHPO shall contact the ACHP and provide all pertinent project documentation for ACHP review. Within 30 days of the receipt of the project documentation the ACHP will respond with recommendations. If the ACHP does not respond within 30 days the City of Allentown may make a decision on the dispute and proceed accordingly. Prior to reaching such a decision the City of Allentown shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to this agreement and provide copies of the comments to the ACHP
2. **Post Review Discoveries.** If any unanticipated discoveries of historic properties or archaeological sites are encountered during the implementation of this undertaking all work in the APE will be suspended. Allentown Economic Development Corporation shall notify the PA SHPO and shall, within three days meet at the location of the discovery to determine appropriate treatment of the discovery.
3. **Amendments and Addenda.** If any signatory of this agreement believes that an amendment or an addendum to this agreement is necessary, that party shall immediately notify the other parties and request consultation to consider an amendment or addendum to the agreement. If an amendment or addendum is deemed necessary the parties of this agreement shall consult in accordance with 36 CFR Part 800.5(e)(5).
4. **Termination.** Any signatories of this agreement may terminate the agreement by providing 30 days written notice to the other signatories, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other action that would avoid termination. In the event of termination, compliance must be reached in accordance with 36 CFR Part 800.4.
5. **Monitoring and Reporting.** Twice a year following the execution of the agreement, until it expires or is terminated, the City of Allentown shall provide all parties to this agreement a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed,

any problems encountered, and any disputes and objections received in the City's efforts to carry out the terms of this agreement.

6. **Duration.** This agreement will expire if the terms are not carried out within 5 years from the date of its execution. Prior to such time the City of Allentown may consult with other signatories to reconsider the terms of this agreement and amend it in accordance with administrative condition 3 above (Amendments and Addenda).


SIGNATORIES:

City of Allentown

By:  Date 4/14/16

Printed Name/Title Ed Pawlowski, Mayor

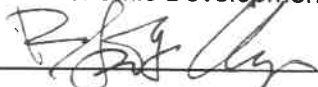
Pennsylvania State Historic Preservation Office

By:  Date 5/2/2016

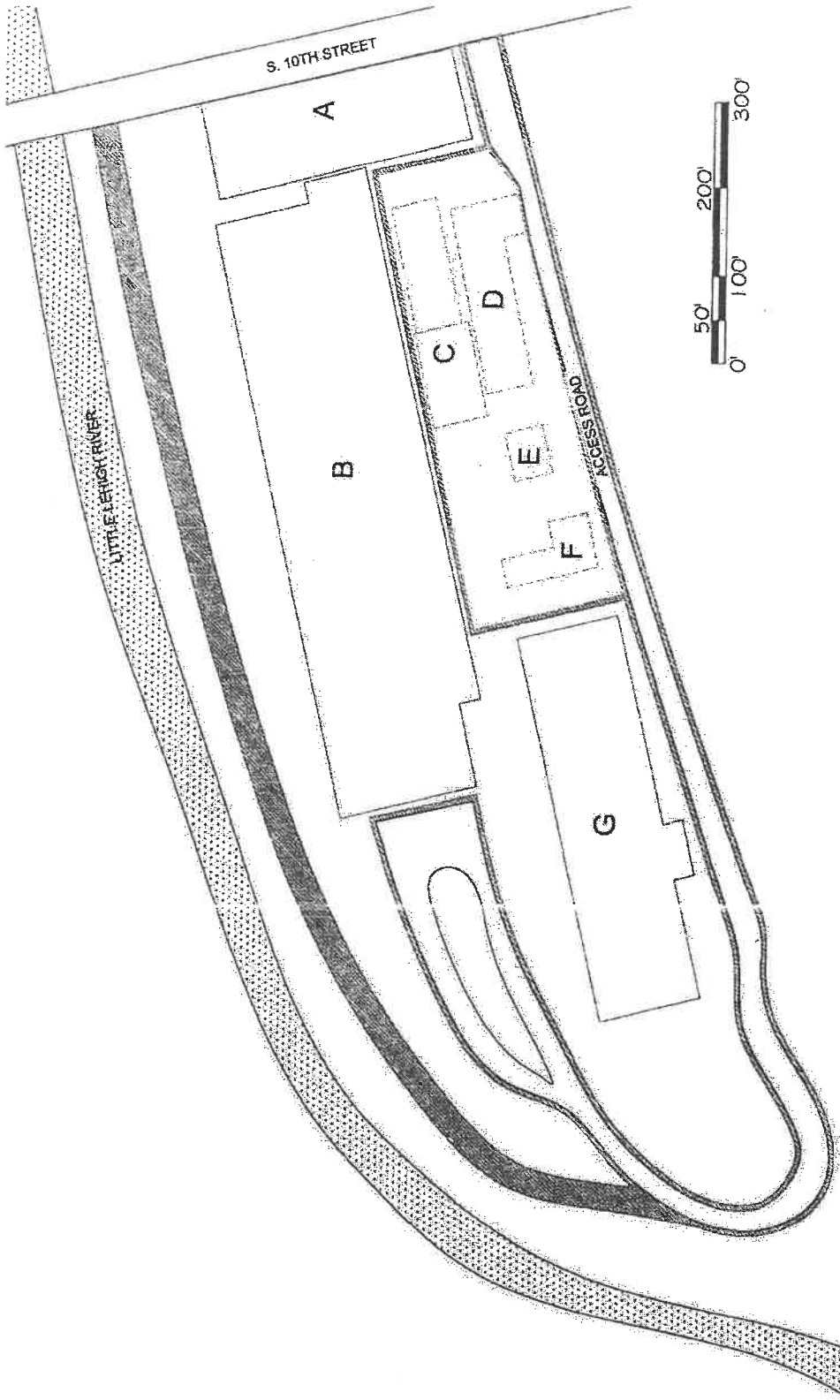
Printed Name/Title Andrea MacDonald, Deputy Historic Preservation Officer

Concurring party:

Allentown Economic Development Corporation

By:  Date 4.4.16

Printed Name/Title R. Scott Unger, Executive Director



SITE PLAN- APE



- Construction Dates:  
 Building A- c. 1900, additions c. 1900-1915  
 Building B- c. 1900, addition 1916  
 Building C- West portion, c. 1920's-30's; East portion, c. 1980's-90's  
 Building D- c. 1900, modified c. 1970's  
 Building E- c. 1920's  
 Building F- c. 1900, additions 1920's  
 Building G- c. 1900, addition c. 1920's-30's

APE ACREAGE: APPROXIMATELY 5.5 ACRES

KEY	
	STRUCTURES TO REMAIN
	STRUCTURES TO BE DEMOLISHED
	OUTLINE OF AREA OF POTENTIAL EFFECT

Sect. G.7 – PNDI



## 1. PROJECT INFORMATION

Project Name: **Allentown Metal Works**

Date of Review: **8/1/2022 04:07:10 PM**

Project Category: **Development, New commercial/industrial development (store, gas station, factory)**

Project Area: **20.72 acres**

County(s): **Lehigh**

Township/Municipality(s): **ALLENTOWN**

ZIP Code:

Quadrangle Name(s): **ALLENTOWN EAST**

Watersheds HUC 8: **Lehigh**

Watersheds HUC 12: **Little Lehigh Creek-Lehigh River**

Decimal Degrees: **40.594826, -75.478121**

Degrees Minutes Seconds: **40° 35' 41.3753" N, 75° 28' 41.2358" W**

## 2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required



As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

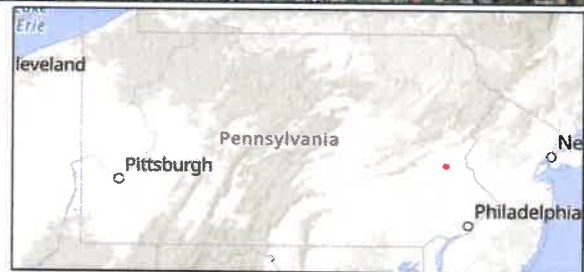




### Allentown Metal Works



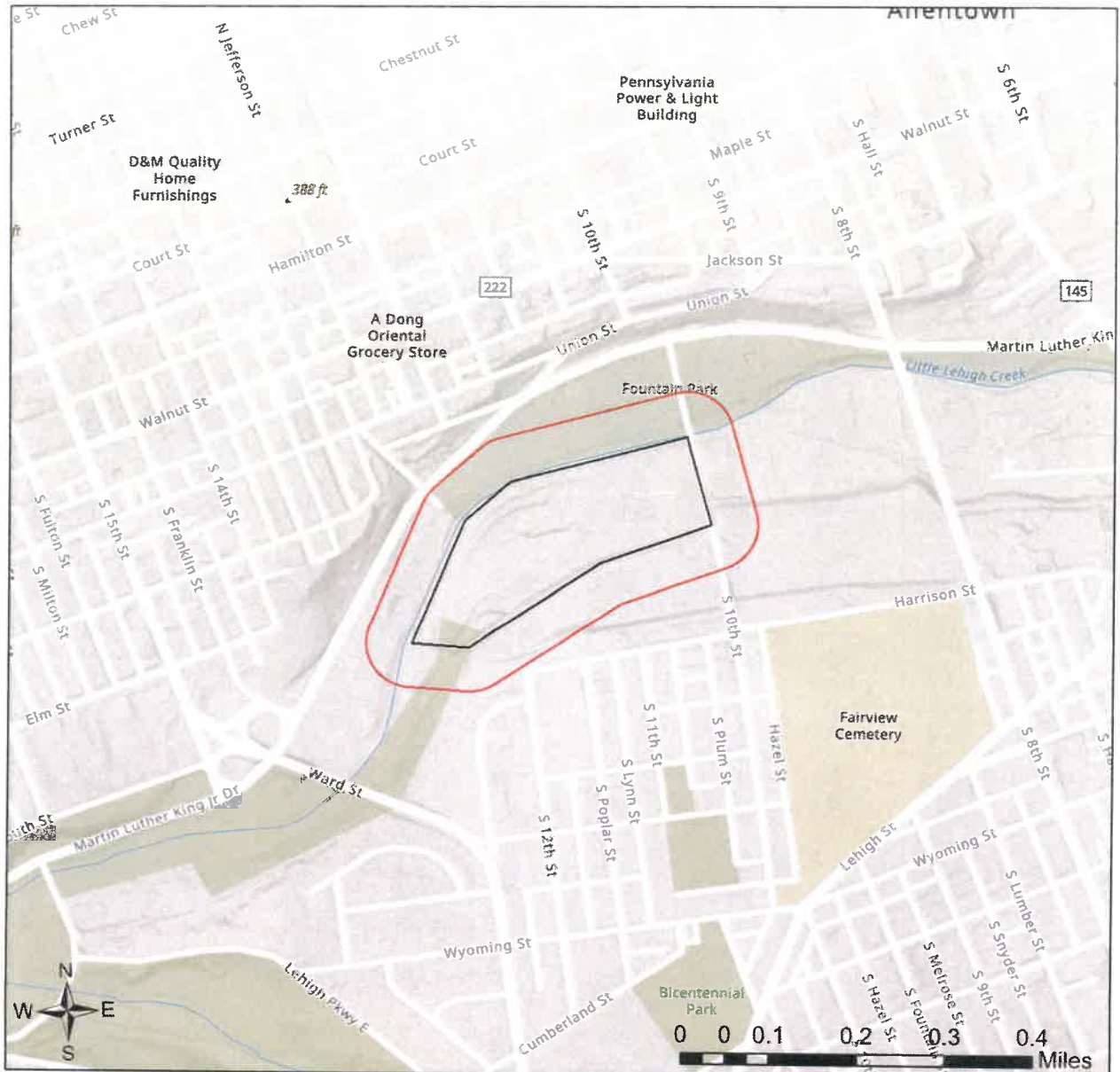
-  Buffered Project Boundary
-  Project Boundary





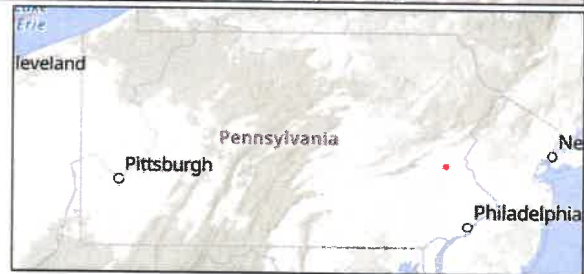
Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community



### Allentown Metal Works



-  Buffered Project Boundary
-  Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community





## RESPONSE TO QUESTION(S) ASKED

**Q1:** The proposed project is in the range of the Indiana bat. Describe how the project will affect bat habitat (forests, woodlots and trees) and indicate what measures will be taken in consideration of this. Round acreages up to the nearest acre (e.g., 0.2 acres = 1 acre).

**Your answer is:** No forests, woodlots or trees will be affected by the project.

**Q2:** Is tree removal, tree cutting or forest clearing of 40 acres or more necessary to implement all aspects of this project?

**Your answer is:** No

### 3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

#### PA Game Commission

##### RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### PA Department of Conservation and Natural Resources

##### RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### PA Fish and Boat Commission

##### RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### U.S. Fish and Wildlife Service

##### RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.



#### 4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.







### 5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page ([www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us)). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

### 6. AGENCY CONTACT INFORMATION

**PA Department of Conservation and Natural Resources**  
Bureau of Forestry, Ecological Services Section  
400 Market Street, PO Box 8552  
Harrisburg, PA 17105-8552  
Email: [RA-HeritageReview@pa.gov](mailto:RA-HeritageReview@pa.gov)

**PA Fish and Boat Commission**  
Division of Environmental Services  
595 E. Rolling Ridge Dr., Bellefonte, PA 16823  
Email: [RA-FBPACENOTIFY@pa.gov](mailto:RA-FBPACENOTIFY@pa.gov)

**U.S. Fish and Wildlife Service**  
Pennsylvania Field Office  
Endangered Species Section  
110 Radnor Rd; Suite 101  
State College, PA 16801  
Email: [IR1\\_ESPenn@fws.gov](mailto:IR1_ESPenn@fws.gov)  
NO Faxes Please

**PA Game Commission**  
Bureau of Wildlife Management  
Division of Environmental Review  
2001 Elmerton Avenue, Harrisburg, PA 17110-9797  
Email: [RA-PGC\\_PNDI@pa.gov](mailto:RA-PGC_PNDI@pa.gov)  
NO Faxes Please

### 7. PROJECT CONTACT INFORMATION

Name: Kyle Haydt  
Company/Business Name: Pennoni Associates Inc.  
Address: 2041 Avenue C, Suite 100  
City, State, Zip: Bethlehem, PA 18017  
Phone: ( 610 ) 422-2409 Fax: (          )           
Email: khaydt@pennoni.com

### 8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

  
applicant/project proponent signature

8/1/22  
date



## Sect. H – Alternative Sewage Facilities Analysis

## **Alternatives Analysis**

The fact that there are public sewers located within the street rights-of-way adjacent to the project site, the only design option considered was a connection to the existing sewers, as required by the City. It has been confirmed that the Authority will have capacity to receive the sewage flows from the proposed development, in the collection system and the treatment plant.