DEP Code No.: 02001-22-148

SEWAGE FACILITIES PLANNING MODULE

for

CARNEGIE MELLON UNIVERSITY ROBOTICS INNOVATION CENTER Lots 33, 37, 42 of Hazelwood Green Development Pittsburgh, PA 15207

Prepared For:

Carnegie Mellon University 5000 Forbes Avenue Pittsburgh, PA 15213-3815

Prepared By:

Langan Engineering and Environmental Services, Inc. 2400 Ansys Drive, Suite 403 Canonsburg, Pennsylvania 15317



November 2022 250114006

www.langan.com

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CORRESPONDENCE



Pre-Development Meeting

Meeting Details

Date:	9/22/2022
Time, Scheduled:	1:30 pm
Meeting Location:	Microsoft Teams
Project Name:	4722 -4746 2 nd Ave
Project Location:	4722 -4746 2 nd Ave

Attendance Table								
Name	Title	Title Firm						
Jordan Treaster	Development Coordinator	PWSA	JTreaster@pgh2o.com					
Robert Herring, PE, PMP	Senior Project Manager	PWSA	RHerring@pgh2o.com					
Anthony Gallina	Associate Project Manager	PWSA	DDietrich@pgh2o.com					
Kaleb Gatz	Project Manager	Langan	Kgatz@langan.com					
Mckenzie Bonnett	Project Associate	СМИ	mbonnett@andrew.cmu.edu					
Jennifer Askey	-	Perkins Eastman	J.Askey@perkinseastman.com					
Carly Davis	Project Manager	Langan	cdavis@langan.com					
Adam Dimenno	-	СМU	adimenno@andrew.cmu.edu					
Zach Junk	-	Langan	zjunk@langan.com					
Andrew Reilly	-	СМИ	areilly@andrew.cmu.edu					
Paul Cenzoprano	-	TishmanSpeyer	PCenzopr@TishmanSpeyer.com					

Project Details

Existing Conditions

- Description:
 - The existing site is a Hazelwood green site located at the southeast corner of Mill 19.
- Existing Wastewater Flow Calculation





- Existing flows shall be limited to uses which have occurred within the last 15 years.
- If applicable, the PWSA prefers the existing flows to be calculated via peak flow estimates associated with the type of use. For additional information, please refer to the Developer's Manual on the PWSA website.
- Proposed Conditions
 - Description:
 - The proposed project will consist of a Carnegie Mellon University Robotics Institute with a mechanical and computer science school. The facility will have an indoor pool for robotics testing.
 - Project scope is to construct a shared way to Tullymet Street as well as open space for robotics testing.
 - Initial plans are to have a small café that may evolve to a public café in the future. Plan on constructing shared way as well as additional subdivisions on the site. The current plan is to submit for a planning module and begin construction in 2023.
 - Flow Estimation Methodology
 - The proposed wastewater flows shall be calculated via peak flow estimates in accordance with the use. For additional information, please refer to the Developer's Manual on the PWSA website.
- Peak Daily Wastewater Flow Calculations
 - The first step in the Development Permit Application will require the Applicant to estimate the peak daily wastewater flows for the existing and proposed conditions. The PWSA requires this information to determine whether the development will be required to obtain a Sewage Facilities Planning Module from the Pennsylvania Department of Environmental Protection. In addition, this information is required for the PWSA to authorize taps for the proposed development.
 - The peak daily wastewater flows shall be calculated via peak flow estimates in accordance with the existing and proposed uses. For additional information, please refer to the Developer's Manual on the PWSA website.
 - > Existing flows shall be limited to uses which have occurred within the last 15 years.

Water

- PWSA Water Mains
 - > 2nd Ave
 - Diameter: 12-inch, Type: Distribution, Material: Ductile Iron





- Diameter: 8-inch, Type: Distribution, Material: Ductile Iron
- ➢ 2nd Ave
 - Diameter: 24-inch, Type: Rising, Material: Ductile Iron
- Please be advised that the water main information provided by the PWSA was based on available information. The Applicant shall remain responsible to perform additional investigations to confirm the provided information.
- Water Services
 - Existing
 - N/A Developer has performed hydrant flow test
 - > Proposed
 - The development team noted that a connection can occur on the 8" or 24'. PWSA will coordinate internally to determine if a connection can occur to the 24" rising main.
 - The development team can explore options to connect to the 8" pipe to support the fire system and domestic service.
- Hydrant Flow Testing
 - The PWSA requires hydrant flow testing if the development includes either a fire suppression system or contains a water service larger than one-inch diameter.
 - If required, the PWSA will perform a preliminary hydrant selection for the Applicant to review and approve.

Sewer

- PWSA Sewers
 - > Lytle Street
 - Diameter: 18-inch, Type: Storm, Material: Reinforced Concrete
 - Diameter: 15-inch, Type: Storm, Material: Reinforced Concrete
 - Diameter: 8-inch, Type: Sanitary, Material: PVC
- Sanitary Sewer Service
 - Existing
 - N/A
 - Proposed
 - Proposed connection to privately owned sewer. PWSA would not have jurisdiction over privately owned connections.
- Storm Sewer Service





- Existing
 - N/A
- Proposed
 - PWSA has dedicated storm sewers in Lytle Street. Connections for storm sewer can be made to PWSA dedicated storm infrastructure. If a connection is proposed, CCTV will be required.
- CCTV Requirements
 - > CCTV will be required for all proposed sewer connections to PWSA infrastructure.

General Discussion and Supporting Materials

- Please refer to the PWSA website for additional information, as follows:
 - > Developer's Manual for detailed information on PWSA procedures and regulations
 - Permits for the 2022 Fee Schedule and Permit Applications (Development, Residential, Water Main Shut, Hydrant Flow Tests, Land Operations, Street Vacation, Records Requests, Water and Sewer Availability Letter)
 - > Rates for PWSA's Water, Wastewater and Stormwater Rates
 - Planning Workflow Diagram for a guide to determine if a project needs a sewage facilities planning module







11/04/2022

Zachary Junk Langan Engineering & Environmental 2400 Ansys Dr Ste 403, Canonsburg PA 1531

RE: Water and Sewer Availability

4722-4746 Irvine Street, Pittsburgh, PA 15207

Dear Zachary Junk

In response to your inquiry concerning water and sewer availability for the area referenced above, please be advised that water and sewer service will be provided in accordance with the policies and procedures of the Pittsburgh Water and Sewer Authority as described below:

Water service available: Yes

Sewer service available: Yes

8" Irvine Street

18" Irvine Street

We wish to advise you that, if it is your desire to tap our water and sewer mains for service, your plans must be approved through a development permit application in accordance with the PWSA Developer's Manual.

Please note that the Authority in no way guarantees that the available lines have the capacity or pressure adequate for your project's needs. It is the responsibility of the project developer, design consultant, and/or architects to determine, at their expense, the adequacy of the existing water system to fulfill their needs.

If you have any questions, please feel free to contact me at (412) 255-8800 x 8030. Thank you. Sincerely,

Wengy M Dean

Wendy M. Dean **Engineering Tech II**

Customer Service / Emergencies: 412.255.2423



October 19, 2022

Mr. Thomas Flanagan PA Department of Environmental Protection **Clean Water Program** 400 Waterfront Drive Pittsburgh, PA 15222

Subject: **Tap Allocation Authorization Letter**

Dear Mr. Flanagan:

Please be advised that the Pittsburgh Water and Sewer Authority (PWSA) authorizes the tap allocations associated with the following Project:

Project Name:	CMU – Robotics Innovation Center
Project Address:	4722 Irvine Street Pittsburgh, PA 15207
Net Flow, gpd:	6,000
EDU's, 400gpd/EDU:	15.0

Our review is based on information provided by others under the assumption that this information was accurate and complete. Should you have any questions, please do not hesitate to contact me directly at x5532 or RHerring@pgh2o.com.

Sincerely,

Molut Henry 2022.10.19 15:03:58 -04'00'

Robert Herring, PE, PMP Senior Project Manager

cc: CityGrows – Application Number DEV-180-1022

Customer Service / **Emergencies:** 412.255.2423

Carly Davis

From:Benjamin Grunauer, E.I.T. <BGrunauer@pgh2o.com>Sent:Wednesday, November 30, 2022 10:30 AMTo:Zachary JunkCc:Carly Davis; Robert Herring, PE, PMPSubject:[External] RE: Hazelwood Green CMU Development

Zach,

Based on the flow path, PWSA approval for SFPM is not required. The sewer flow does not enter a PWSA sewer prior to AlcoSAN's interceptor.

Thank you,



Benjamin Grunauer, E.I.T. Engineer III Ext: 5543

Pittsburgh Water and Sewer Authority Pittsburgh, PA 15222

https://pgh2o.com



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From: Zachary Junk <zjunk@langan.com>
Sent: Wednesday, November 30, 2022 10:27 AM
To: Benjamin Grunauer, E.I.T. <BGrunauer@pgh2o.com>
Cc: Carly Davis <cdavis@langan.com>
Subject: Hazelwood Green CMU Development

CAUTION: This email originated from outside the authority. Do not click links or open attachments unless you recognize the sender and know the content is safe. Good morning,

Ben please see the attached map with the flow route highlighted.

If you can review the map and send us confirmation if we will need PWSA approval and signoff that would be appreciated.

Lytle Street1







0 0.035 0.07

PGH₂O

Neither the City of Pittsburgh nor the PWSA guarantees the accuracy of any of the information hereby made a vailable, including but not limited to information concerning the location and condition of underground structures, and neither assumes any responsibility for any conclusions or interpretations made on the basis of such information. COP and PWSA assume no responsibility for any understanding or representations made by their agents or employees unless such understanding or representations are expressly set forth in a duly authorized written document, and such document expressly provides that responsibility therefore is assumed by the City or the PWSA.

Date: 5/4/2022

Thank you

Zachary Junk Senior Staff Engineer



Direct: 724.514.5178 File Sharing Link

Phone: 724.514.5100 Fax: 724.514.5101 2400 Ansys Drive, Suite 403 Canonsburg, PA 15317-9540 www.langan.com

PENNSYLVANIA NEW JERSEY NEW YORK CONNECTICUT MASSACHUSETTS WASHINGTON, DC VIRGINIA OHIO ILLINOIS FLORIDA TEXAS ARIZONA COLORADO WASHINGTON CALIFORNIA ATHENS CALGARY DUBAI LONDON PANAMA

A Carbon-Neutral Firm | Langan's goal is to be SAFE (Stay Accident Free Everyday)

Build your career with a premier firm. Join Langan.



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Michelle M. Buys, P.E. Director Environmental Compliance

Kimberly N. Kennedy, P.E. Director Engineering & Construction

Karen Fantoni, CPA, CGMA Director Finance

Michael Lichte, P.E. Director Regional Conveyance

Jeanne K. Clark Director Governmental Affairs

Joseph Vallarian

Director Communications

Julie Motley-Williams Director Administration

Phil Cole Chief Information Officer Information Technology

January 17, 2023

Ms. Carly Davis, P.E. Langan Engineering & Environmental Services, Inc. 2400 Ansys Drive, Suite 403 Canonsburg, PA 15317

Re: **Carnegie Mellon Robotics Innovation Center** City of Pittsburgh - 15th Ward **PA DEP Sewage Facilities Planning Module ALCOSAN Point of Connection M-32**

Dear Ms. Davis:

We have reviewed the Component 3 Planning Module for the referenced project to be located in City of Pittsburgh, 15th Ward. The project will generate peak flows of 6,000 gpd in the ALCOSAN Monongahela River Interceptor and Woods Run Treatment Plant.

The capacity at the ALCOSAN M-32 structure is approximately 1.60 MGD. The previously monitored peak dry weather flows are 233,000 gpd. Dry weather capacity exists for this connection. However, the ALCOSAN Monongahela River Interceptor and the Woods Run Treatment Plant do not have the capacity for the flows generated by tributary communities during wet weather periods. This limitation will be addressed as ALCOSAN implements its Clean Water Plan.

ALCOSAN requests that this letter be made part of the planning module submission. The signed Component 3 Planning Module is attached. The sewers in this project are to be designed as separated sanitary and storm sewers. If you have any questions regarding this matter, please contact me at 412-732-8053.

Sincerely,

ALLEGHENY COUNTY SANITARY AUTHORITY

MWILD

Shawn P. McWilliams, EIT **Project Engineer**

Attachment

cc.

Christina Dean (w/o attachment) Dan Thornton (w/o attachment) Michael Lichte (w/o attachment) Robert Herring/ PWSA (w/o attachment) Thomas Flanagan/ PADEP (w/o attachment) Fred Fields/ ACHD (w/o attachment)

3300 Preble Avenue • Pittsburgh, PA 15233-1092 • ph: 412.766.4810 www.alcosan.org

APPENDIX B Resolution for Plan Revision for New Land Development

Fiscal Impact Statement

Updated 1/29/2020 to satisfy City Code §219.07

Department	Law
Preparer	Cameron Crowe
Standing Committee Representative	Carly Davis, P.E. (Langan Engineering) 724-514-5126
Type of Legislation	Other

Description of Legislation

Carnegie Mellon University has proposed the development of three lots of land identified as Lots 33, 37, 42, Pittsburgh, PA 15207, Allegheny County, in the Hazelwood Green Preliminary Land Development Plan and in the Fifteenth Ward of the City of Pittsburgh, Pennsylvania, described in the attached Sewage Facilities Planning Module (the "Planning Module") for land development and proposes that project be served by use of existing connections to the City of Pittsburgh sewage systems; and

The City of Pittsburgh must adopt, and applicant must submit, the Planning Module for land development to the Department of Environmental Protection for its approval as a Plan Revision to the City of Pittsburgh's Official Sewage Facilities Plan.

Total Cost	\$ 0			
Frequency of Expenditure	□ One-Time		□ Multi-Year	
Funding Source	□ Operating	Capital	□ Grant	□ Trust Fund
Is this item budgeted?	\Box Yes		□ No	

JDE Account Information

N/A

Additional Operational Costs N/A

Impact on City Revenue N/A

If the resolution authorizes a professional services contract, complete this page:

Method of Procurement	□ Signed Waiver	□ Amendment to Existing Contract
Select one.	from OMB	Do not fill out the rest of the form.

Name of Vendor and Award Justification

List the name of the awarded vendor and its qualifications.

Other Respondents

List the other respondents. If there were none, clearly state that.

Selection Criteria

Describe the selection or scoring criteria.

Selection Committee Representation

List the department(s) or bureau(s) represented on the committee. Do not list individual names.

Waiver Justification

If a waiver was granted, explain the justification.

EORC Synopsis

Insert synopsis that was presented.

Date Presented at EORC:Insert date. Approved Not Approved

Per §219.07 of the City Code, you **must** include an electronic copy of the solicitation or your signed waiver with your submission to the Office of Management and Budget.

Attachments

• Please attach any additional documents and/or exhibits.

City of Pittsburgh

Sewer Facilities Planning Module Questionnaire

PROJECT NAME: Carnegie Mellon University Robotics Innovation Center

1) What was the previous permitted use for this property?

Site is currently vacant. Per the Hazelwood Green PLDP, the site is permitted for light industrial and production, research and development, office, commercial, residential (low, medium, high density), hospitality, community, and parking and transit uses.

2) What is the proposed use for the property?

Research and development

3) How is green stormwater mitigation being integrated into the proposed project?

Stormwater from the proposed area is conveyed to an area-wide infiltration pond located off-site of the proposed development. The infiltration pond is sized to remove 1.5" (the 95% storm) via infiltration from the proposed project and surrounding contributing area. In addition, the pond is also sized to reduce the overall rate of runoff from the Hazelwood Green development to its ultimate outfall, the Monongahela River.

4) Will the development result in a net positive or net negative change in stormwater flow?

Once the development is connected to the master infrastructure to the area-wide infiltration pond, the development will result in a net negative change in stormwater flow.

Resolution No.

CITY OF PITTSBURGH

Introduced:

Bill No:

Committee: Intergovernmental Affairs Committee Status:

Sponsored by:

Resolution adopting Plan Revision to the City of Pittsburgh's Official Sewage Facilities Plan for the Carnegie Mellon University Robotics Innovation Center project, ______, Pittsburgh, PA 15207.

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 (the "Department") adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the City of Pittsburgh to adopt an Official Sewage Facilities Plan (the "Official 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 development conforms to a comprehensive program of pollution control and water quality management; and

WHEREAS, Carnegie Mellon University has proposed the development of three lots of land identified as Lots 33, 37, 42, Pittsburgh, PA 15207, Allegheny County, in the Hazelwood Green Preliminary Land Development Plan and in the Fifteenth Ward of the City of Pittsburgh, Pennsylvania, described in the attached Sewage Facilities Planning Module (the "Planning Module") for land development and proposes that project be served by use of existing connections to the City of Pittsburgh sewage systems; and

WHEREAS, the Pittsburgh Water and Sewer Authority, the Allegheny County Sanitary Authority, the City of Pittsburgh Planning Department and the Allegheny County Health Department have reviewed the respective components of the attached Planning Module in regard to each authority/department's expertise and have approved the respective components as explained in the attached Planning Module.

WHEREAS, based upon the approval of the above authorities and departments, the City of Pittsburgh finds that the project described in the attached Planning Module for land development conforms to applicable zoning, subdivision, other municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF PITTSBURGH AS FOLLOWS:

SECTION 1. The City of Pittsburgh hereby adopts and submits to the Department of Environmental Protection for its approval as a Plan Revision to the City of Pittsburgh's Official Sewage Facilities Plan, the above-referenced Planning Module for land development, which is attached hereto as **Exhibit A**.

Said Planning Module includes the Carnegie Mellon University Robotics Innovation Center project, Pittsburgh, PA 15207, Allegheny County, at lot and block 55-J-110 in the 15th Ward of the City of Pittsburgh.

Finally, that any Ordinance or Resolution or part thereof conflicting with the provisions of this Resolution, is hereby repealed so far as the same affects this Resolution.

Effective Date: _____

Passed in Council: _____

Approved: _____

Recorded in R.B. ____ page _____ in City Clerk's Office.

APPENDIX C

Component 3, Narrative Description of Project, Supporting Documentation



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

SEWAGE FACILITIES PLANNING MODULE

Component 3. Sewage Collection and Treatment Facilities

(Return completed module package to appropriate municipality)

DEP USE ONLY							
DEP CODE #	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, convevance 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 **E**.

Α. **PROJECT INFORMATION** (See Section A of instructions)

Project Name Carnegie Mellon Robotics Innovation Center

2. Brief Project Description: The proposed project involves the development of a +/- 150,000 GSF research center, inclusive of approximately 100,000 GSF of initial buildout and 50,000 GSF of shell space for future expansion and an outdoor area, located in the Hazelwood Green development within the City of Pittsburgh, PA. The development will include associated roadways, sidewalks, and other site appurtenances. The site is located directly east of the Hazelwood Green Park and bound to the north by vacated Tullymet St, to the east by vacated 2nd Ave, and to the south by vacant land. The proposed sanitary service will be provided by a proposed 6" line that will tie into an existing manhole and 8" PVC line located on the adjacent parcel 55-J-114. Sewage is ultimately conveyed via a series of diversions and regulators, and finally through the 78" deep tunnel interceptor downstream of the Alcosan M-29 RG Regulator.

B. CLIENT (MUNICIPALITY) INFORMATION (See Section B of instructions)								
Municipality Name	County	City		Boro	Тwp			
City of Pittsburgh	Allegheny	\boxtimes						
Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title	2			
Battistone	Martina							
Additional Individual Last Name	First Name	MI	Suffix	Title				
Municipality Mailing Address Line 1		Mailing Address Line 2						
Department of City Planning		200 Ross St. Suite #4						

Address Last Line -- City

State

ZIP+4

Pittsburgh					PA	1	5219		
Area Code + Phone + Ext.	FAX (d	optional)			Ema	il (optior	nal)		
412-255-2516									
C. SITE INFORMATIO	N (See Section C of i	nstructio	ons)						
Site (Land Development or	Project) Name								40°
Carnegie Mellon Robotics Inn	ovation Center								
Site Location Line 1 Lots 33/37/42 of Hazelwood G	Breen PLDP		Site Lo	cation	Line 2				
Site Location Last Line City Pittsburgh		State PA		ZIF 15:	207		Latitud 40.417	e '033	Longitude -79.944632
Detailed Written Directions to the Allies to Bates Street. Turn at the intersection of Greenfile Description of Site The site is	Site Take Waterfront n Right on Bates Stree ed Ave and Second Av	Drive to et. Turn L re. The s t vegetat	31 st Stre .eft of Se site is loc ed unde	eet Brid econd cated of velope	dge. Take Avenue. C directly eas d lot with	PA-28 S Continue st of the minimal	S, I-579 S straight c Hazelwoo imperviou	and onto (od Gi us ar	Boulevard of Old Second Ave reen Park. eas.
Site Contact (Developer/Ow	ner)								
Last Name	First Name			МІ	Suffix	Phon	е		Ext.
DiMenno	Adam				*	Х			
Site Contact Title		5	Site Cont	act Fi	rm (if none	e, leave l	olank)		
Project Manager	Carnegie Mellon University								
FAX		E	Email						
		a	adimenn	o@an	drew.cmu.	edu			
Mailing Address Line 1		Ν	Mailing A	ddres	s Line 2				
5000 Forbes Avenue									
Mailing Address Last Line C	Sity	5	State		ZI	>+4			
Pittsburgh		F	PA		15	213-381	5		
D. PROJECT CONSU	LTANT INFORMA	TION (See Sec	tion D	of instruct	ions)			
Last Name		First Na	me				M		Suffix
Rowland		Scott							
Title		Consulti	ing Fi r m	Name	:				
Principal/Vice President	-	Langan	Enginee	ring &	Environm	ental Se	rvices, In	C.	
Mailing Address Line 1		Ν	Aailing A	ddres	s Line 2				
2400 Ansys Drive		5	Suite 403	 					
Address Last Line – City		State		ZIP+	4		Country		
Canonsburg		PA		1531	7		USA		
Email srowland@langan.com	Area Code + Phone		Ext.				Area Co	de +	FAX 1
							124-514	-510	
C. AVAILABILITY OF	DRINKING WATE	K SUP	MLY			_			
The project will be provi	ded with drinking wate	r from th	e followi	ng soi	urce: (Ch	eck appr	opriate b	ox)	

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: PWSA

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

U UL	LEGHONOTOTEM				
a.	Check appropriate box concerning collection system				
	lew collection system	Pump Station	E Force Main		
	Grinder pump(s)	Extension to existing collection system	Expansion of existing facility		
Clea	n Streams Law Permit N	lumber	_		
b.	Answer questions below on collection system				
	Number of EDU's and proposed connections to be served by collection system. EDU's <u>15</u>				
	Connections 1				
	Name of:				
	existing collection or conveyance system Private System to sanitary main (public)				
	owner Almono LP (private) and Gravity sanitary line - Alcosan (Public)				
	existing interceptor 78" Deep Tunnel Monogahela River Interceptor (Pipe ADCM29)				
	owner Allegheny County Sanitary Authority (ALCOSAN)				

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	l facility 🛛 🗌 Upgrade of existi	ng facility 🔲 Expansion of existing facility
---------------------------	----------------------------------	----------------------------------------------

Name of existing facility Allegheny County Sanitary Authority (ALCOSAN) Wastewater Treatment Facility

NPDES Permit Number for existing facility PA 0025984

Clean Streams Law Permit Number PA 0025984

Location of discharge point for a new facility. Latitude 40°28'34" Longitude 80°02'44"W

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

As an authorized representative of the permittee, I confirm that the ALCOSAN

(<u>Name from above</u>) 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 ALCOSAN

Name of Responsible Agent	SHAWN P. MCWILLIAM	NS, EIT
Agent Signature	P. W. Willin	Date 01/17/2023
(Alao and Section I. 4.)		

(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 on 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.
- I. 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 <u>www.dep.state.pa.us</u>, 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 rny 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 <u>www.naturalheritage.state.pa.us</u>, 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 permitee. The permitee 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

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 6000 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)		b. Present Flows (gpd)		c. Projected Flows in 5 years (gpd) (2 years for P.S.)	
	Average	Peak	Average	Peak	Average	Peak
Collection	68,500	239,745	5,677	19,871	14,470	50,642
Conveyance	Shipte	1,600,000	227,000	233,000	230,000	240,000
Treatment	~	250,000,000	191,500,000	250,000,000	22.8,342,000	295,000,000

3. Collection and Conveyance Facilities

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 M

а.

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 PRIVATE COLLECTION LINE - SEE SECTION O

Name of Responsible Agent _____

Agent Signature

_ Date _____

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

c. Conveyance S	ystem
-----------------	-------

Name of Agency, Authority, Municipality ALCOSAN

Name of Responsible Agent	SHAWN P. MCWILLIAMS, EIT	_
Agent Signature	P. miwilli	
Date 01/17/2023		

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 ALCOSAN

Name of Responsible Agent _	SHAWN P. MCWILLIAMS, EIT
Agent Signature	P. MWill
Date 01/17/2023	3

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.
- 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 6000 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 puchase 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.

D.	Collection System Name of Responsible OrganizationALMONO L.P.
	Name of Responsible Agent
	Agent Signature
	Date \ - い こ - と 3
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 ____

ame of Responsible Agent	_
gent 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_{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. Solution 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?

Ρ.	P. PUBLIC NOTIFICATION REQUIREMENT cont'd. (See Section P of instructions)				
	9. 🗌 🕅 10. 🗌 🕅 11. 🗌 🕅	Does the project involve the use of large volume onlot sewage disposal systems (Flow > 10,000 gpd)? Does the project require resolution of a conflict between the proposed alternative and consistency requirements contained in §71.21(a)(5)(i), (ii), (iii)? Will sewage facilities discharge into high guality 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.

Carly Davis, P.E.	Cooly Davis
Name (Print)	Signature
Senior Project Manager	November 3, 2022
Title	Date
2400 Ansys Drive, Suite 403	724-514-5126
Canonsburg, PA 15317	
Address	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 \$750 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

3800-FM-BPNPSM0353 Rev. 2/2015 Form

Deed	Volume	Book Number
Page	Number	Date Recorded
R. RE	VIEW FEE (continued)	

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.

#<u>15</u> Lots (or EDUs) X \$50.00 = \$ <u>\$750</u>

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:

#_____ Lots (or EDUs) X \$35.00 = \$_____

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)

NARRATIVE DESCRIPTION OF PROJECT

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SECTION F SEWAGE FACILITIES PLANNING MODULE COMPONENT 3

Re: Project Narrative

Carnegie Mellon University Robotics Innovation Center Lots 33,37,42 of the Hazelwood Green PLDP Overall Parcel ID: 55-J-110 City of Pittsburgh, Allegheny County, Pennsylvania Langan Project No.: 250114006

The proposed project involves the development of a +/- 150,000 GSF research center, inclusive of approximately 100,000 GSF of initial buildout and 50,000 GSF of shell space for future expansion and an outdoor area, located in the Hazelwood Green development within the City of Pittsburgh, PA. The development will include associated roadways, sidewalks, and other site appurtenances. The site is located directly east of the Hazelwood Green Park and bound to the north by vacated Tullymet St, to the east by vacated 2nd Ave, and to the south by vacant land. The project site is currently part of the larger Parcel 55-J-110 but will be subdivided through the city of Pittsburgh. A Planning Module for the entire Hazelwood Green development was approved by the DEP in 2014 (DEP Code No. 02001-13-029) for 1885 EDUs/741,765 gpd, but because the project site is being subdivided a Sewage Facilities Planning Module is required.

The project proposes a 6" PVC line and associated manholes that will tie into a private manhole located on the adjacent parcel 55-J-114. The private manhole is part of a private 12" PVC system that traverses the Hazelwood Green site from the aforementioned parcel towards the Monongahela River via a 12" main. The privately owned main crosses Lytle Street, then privately owned Parcel No. 56-E-12, then Blair Street, then privately owned Parcel 56-E-2, then ties into the Alcosan MS-32 RG diversion structure at the river's edge. Sewage is diverted south along the river then is again diverted at Alcosan MS-33 RG back east through the site. It then ties into the Alcosan M-31-JT junction in privately owned Second Ave, then north on Second Ave to the 78" deep tunnel interceptor at the Alcosan M-29 RG. It is then conveyed to the Alcosan Wastewater Treatment Facility for treatment.

The existing site is undeveloped and thus has no current contributing flow. Following the proposed development, an estimated sanitary flow is 6,000 gallons per day is anticipated.

A reference for the approximate sewage flow for the proposed development can be found within Appendix C. The proposed lateral will remain private and will not create any undue financial burdens to the City of Pittsburgh, PWSA, or ALCOSAN.

Water service will be provided by Pittsburgh Water and Sewer Authority (PWSA). Water service to this site will be via an 6-inch fire service and a 3-inch domestic service teeing off the 8-inch fire service. The 6-inch fire service will connect to an existing 8-inch water main located in Second Ave and operated by PWSA.

New Jersey • New York • Connecticut • Pennsylvania • Washington, DC • Virginia • West Virginia • Ohio • Florida • Texas • Arizona • California Abu Dhabi • Athens • Doha • Dubai • Istanbul • London • Panama The existing site is undeveloped and thus has no current contributing flow. Following the proposed development, an estimated 6,000 gallons per day water demand is anticipated. The existing municipal system is expected to adequately meet proposed demands.

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ANTICIPATED SEWAGE FLOW REFERENCE

Date:	10/14/2022
Langan Project Number:	250114006
Calc by:	ZJJ
Check by:	CAD

	CMU - Robc	tics Innovation Center	
PROPOS	ED SEWAGE FLOW	ESTIMATION (FOR DEP PERM	IITTING)
Unit Description	Number of Units	Anticipated Average Rate (GPD/Occupant) ¹	Anticipated Average Sewage Flow (GPD)
School	200	20	4,000
School (future buildout)	100	20	2,000
		Proposed GPD (Water Supply)=	6,000
		Proposed GPD (Sanitary Load) =	6,000
		Net EDUs ² (Water Supply)=	15.0
		Net EDUs ² (Sanitary Load)=	15.0

Notes:

1 – Rate is based on the flow estimate defined in Table 1 of the PWSA developers manual (equivalent to estimates defined in Appendix A of the PA

DEP Small Flow Treatment Facilities Manual)

2 – EDUs are based on 400 GPD/EDU.

PROPOSED SANITARY PIPE CALCULATIONS Lots 33, 37, 42 - CMU Development

Q _{max}	Based on Total Units Discharging
Q _{design}	3.5 * Q _{max}
Q _{full}	$1.49/n * A_{pipe} * R^{2/3} * S^{1/2}$
Q _{half}	FLOW AT HALF FULL = $0.48 * Q_{full}$
V _{max}	VELOCITY AT 80% FULL = 1.15 * Q_{full} / A_{pipe}
V _{half} , (fps)	VELOCITY OF FLOW AT HALF FULL = Q_{half} / ($A_{pipe} * 0.5$)
PIPE SIZED ACCORDINGLY	CHECKS IF Q _{design} IS LESS THAN Q _{half}

FROM BLDG TO PROPOSED SYSTEM IN LYTLE STREET

MINIMUM SLOPE WITHIN THIS ENTIRE RUN = 2.0%

MATERIAL	PVC	Q _{full} , cfs	Q _{full} , gpd	Q _{half} , cfs	Q _{half} , gpd	V _{max} , fps	V _{half} , fps
LENGTH, ft	13	0.94	607,440	0.45	291,571	5.51	4.79
DIAMETER, in	6						
SLOPE	2.00%	PIP	E SIZED ACC	ORDINGLY:	TRUE		
n	0.011	V _{max} < 10 fps: TRUE					
Q _{max} , gpd	6,000		N	V _{half} > 2 fps:	TRUE		
Q _{design} , gpd	21,000						

APPENDIX D

Alternative Sewage Facilities Analysis

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SECTION H SEWAGE FACILITIES PLANNING MODULE COMPONENT 3

Re: Alternative Sewage Facilities Analysis Carnegie Mellon University Robotics Innovation Center Lots 33,37,42 of the Hazelwood Green PLDP Overall Parcel ID: 55-J-110 City of Pittsburgh, Allegheny County, Pennsylvania Langan Project No.: 250114006

The proposed project involves the development of a +/- 150,000 GSF research center, inclusive of approximately 100,000 GSF of initial buildout and 50,000 GSF of shell space for future expansion and an outdoor area, located in the Hazelwood Green development within the City of Pittsburgh, PA. The development will include associated roadways, sidewalks, and other site appurtenances. The site is located directly east of the Hazelwood Green Park and bound to the north by vacated Tullymet St, to the east by vacated 2nd Ave, and to the south by vacant land. The project site is currently part of the larger Parcel 55-J-110 but will be subdivided through the the city of Pittsburgh.

The project proposes a 6" PVC line and associated manholes that will tie into a private manhole located on the adjacent parcel 55-J-114. The private manhole is part of a private 8" PVC system that traverses the Hazelwood Green site from the aforementioned parcel towards the Monongahela River via an 8" main. The privately owned main crosses Lytle Street, then privately owned Parcel No. 56-E-12, then Blair Street, then privately owned Parcel 56-E-2, ties into the Alcosan MS-32 RG diversion structure at the river's edge. Sewage is diverted south along the river then is again diverted at Alcosan MS-33 RG back east through the site. It then ties into the Alcosan M-31-JT junction in privately owned Second Ave, then north on Second Ave to the 78" deep tunnel interceptor at the Alcosan M-29 RG. It is then conveyed to the Alcosan Wastewater Treatment Facility for treatment. This ultimate method will provide for disposal of the net total combined daily flow of 6,000 gallons per day (15 EDUs). A reference for the approximate sewage flow for the proposed development can be found in Appendix C. The use of a proposed, private lateral will not create any undue financial burdens to the City of Pittsburgh, PWSA, or ALCOSAN.

Alternative methods of sewage disposal that could be considered include on-site subsurface disposal systems (septic systems) and an individual package wastewater treatment plant. The existing developments in the area are all currently connected to the public sewer system; therefore, an on-site septic system would not be consistent with the neighboring buildings, nor would it be a practical solution to provide adequate service for the site. The nearest discharge point from the site for a stream discharge is the Monongahela River, approximately 1,400 feet to west of the site. A package wastewater treatment plant with discharge to the Monongahela River is not feasible due to the size and cost of the site.





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SECTION P SEWAGE FACILITIES PLANNING MODULE COMPONENT 3

Re: Public Notice Carnegie Mellon University Robotics Innovation Center Lots 33,37,42 of the Hazelwood Green PLDP Overall Parcel ID: 55-J-110 City of Pittsburgh, Allegheny County, Pennsylvania Langan Project No.: 250114006

A public notification is not required for this project since no items in Section P of Component 3 (Appendix C) are applicable to this project.

APPENDIX F USGS Map and Plot Plans



Langa

2021





BASIS OF BEARINGS

MERIDIAN IS REFERENCED TO PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83, PER GPS OBSERVATIONS IN MAY, 2022.

VERTICAL DATUM IS NAVD 88 OBTAINED FROM GPS OBSERVATIONS ON 05/19/2022

BENCHMARK

BM 1 - MAG NAIL, ELEV=769.26 BM 2 - MAG NAIL, ELEV=766.49

UTILITY INFORMATION

DESIGN TICKET 20221391265–000 DIG TICKET 20221391256–000

1. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE SEARCH, THEREFORE THIS PROPERTY MAY BE SUBJECT TO ADDITIONAL EASEMENTS, RIGHTS-OF-WAY, COVENANTS, ETC. AS MAY BE DISCLOSED IN A CURRENT, COMPREHENSIVE TITLE SEARCH.

2. THIS PLAN WAS PREPARED WITH THE RESPECT TO THE FOLLOWING REFERENCES: A. HAZELWOOD GREEN PLAN NO. 1, PLAN BOOK VOL. 301 PG. 17

3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES FIELD WORK COMPLETED DURING THE MONTH OF SEPTEMBER 2022.

4. UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC) CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND LOCATIONS WHERE DATA IS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE, THE SURVEYOR CANNOT, AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED

5. ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC.) DATA MAY BE SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM

6. UNLESS SPECIFICALLY NOTED HEREON, THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.

7. PRIOR TO ANY DESIGN OR CONSTRUCTION, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.

I HEREBY CERTIFY THAT I HAVE PREPARED THIS PLAT AND SURVEY, AND THAT THE SAME IS CORRECT AND ACCURATE. THIS PLAT WAS PREPARED FROM A FIELD SURVEY, ANALYSIS OF RECORD PLATS, RECORDED DEEDS, AND CITY SURVEY RECORDS, (AS APPLICABLE). BEARINGS ARE BASED ON STATE PLANE COORDINATES PER GPS OBSERVATIONS. DISTANCES ARE GIVEN IN FEET AND DECIMAL PART THEREOF, ALL OF WHICH I

/		
MONUMENTATION FOUND	REC.	
(TIFE AS NOTED) SET \$" X 30" STEEL PIN	AC.	
WITH CAP "LANGAN"	CALC	
SET DRILL HOLE	CALC.	
HYDRANT	000. SO ET	
STAND PIPE	SQ. FT.	
ROOF DRAIN	USR. AFN	
BOLLARD		
STREET LIGHT	PN	
AREA LIGHT	VOL.	
SIGNAL POLE	PG.	
POWER POLE	LSA	
GUY WIRE	СР	
MANHOLE (TYPE AS LABELED)	CC	
WATER VALVE	EP	
GAS VALVE	<u>x</u> <u>x</u>	
UNKNOWN VALVE	• •	•
CATCH BASIN		
CLEAN OUT		
SIGN	$\sim\sim\sim\sim$	
BOLLARD		
	STST	
CAS METER	СОМВ	
WATER METER	G	
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TRAFFIC CICNAL DOLF	——— E ———	
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DOUR	\$	
DOUBLE DOOR	<i>D</i>	
GARAGE DOOR	X*	

DEED OF RECORD ACRES CALCULA TED OBSERVED SQUARE FEET CITY SURVEY RECORD AUDITOR'S FILE NUMBER PARCEL NUMBER DEED VOLUME PAGE LANDSCAPE AREA CONCRETE PAD CONCRETE CURB EDGE OF PAVEMENT FENCE (TYPE AS NOTED) SUBJECT PROPERTY LINE ADJOINING PROPERTY LINE EASEMENT LINE TREE LINE GUIDE RAIL (TYPE AS NOTED) STEAM LINE OVERHEAD WIRE COMBINED SEWER LINE GAS LINE WATER LINE ELECTRIC LINE COMMUNICATION LINE SANITARY LINE DRAINAGE LINE REFERENCE UTILITY LINE (TYPE AS NOTED) - PLOTTED FROM EXISTING MAPPING



SITE PROJECT LOCATION MAP SCALE: NOT TO SCALE <u>30URCE:</u> www.google.com/maps









UTILITY NOTES

- 1. EXISTING BOUNDARY AND TOPOGRAPHY INFORMATION IS BASED ON THE PLANS TITLED "TOPOGRAPHIC AND UTILITY SURVEY" AND NUMBERED VT101 FOR THE CARNEGIE MELLON UNIVERSITY ROBOTICS INNOVATION CENTER PROJECT SITUATED IN THE CITY OF PITTSBURGH, ALLEGHENY COUNTY, PENNSYLVANIA," PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED OCTOBER 03, 2022.
- 2. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
- THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL: MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
- . THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE RFI SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
- 5. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS/HER ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
- THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
- 7. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.
- 8. WHERE CONFLICTS ARISE BETWEEN EXISTING OR PROPOSED WATER, GAS, AND ELECTRIC LINES AND PROPOSED STORMWATER CONVEYANCE PIPES OR STRUCTURES, THE WATER, GAS, AND ELECTRIC LINES SHALL BE ADJUSTED BENEATH OR AROUND THE PROPOSED STORMWATER CONVEYANCE PIPES OR STRUCTURES AS NECESSARY IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
- 9. ONCE EXISTING UTILITIES TO REMAIN ARE LOCATED, ANY POTENTIAL CONFLICTS WITH OTHER UTILITIES, RELOCATED UTILITY POLES, ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- 10. ADJUST ALL EXISTING AND PROPOSED UTILITY FRAMES, GRATES, MANHOLE COVERS, VALVE BOXES, ETC. TO BE FLUSH WITH THE PROPOSED SURFACE ELEVATIONS WITHIN THE LIMITS OF CONSTRUCTION.
- TRENCH DEPTH REQUIREMENTS MEASURED FROM FINISHED GRADE SHALL MEET THE FOLLOWING:
 STORM SEWER: DEPTHS, ELEVATIONS, AND GRADES AS INDICATED ON DRAWINGS.
 SANITARY SEWER: DEPTHS, ELEVATIONS AND GRADES AS INDICATED ON DRAWINGS.
- WATER MAINS: 48 INCHES TO TOP OF PIPE BARREL OR 6 INCHES BELOW THE FROST LINE OR ESTABLISHED BY THE LOCAL BUILDING OFFICIAL OR WATER COMPANY, WHICHEVER IS DEEPER
 GAS MAINS AND SERVICE: 30 INCHES MINIMUM TO TOP OF PIPE, OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
- ELECTRICAL CONDUITS: 24 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY NEC 300-5 / NEC 710-36 CODES, OR THE LOCAL UTILITY COMPANY REQUIREMENTS, WHICHEVER IS DEEPER.
 TELEPHONE / TV CONDUITS: 18 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
- 0. UTILITY TESTING INCLUDING (BUT NOT LIMITED TO) WATER PRESSURE TESTING, WATER SYSTEM FLUSHING, BACTERIOLOGICAL TESTING, VIDEO CAMERA TESTING, MANDREL TESTING, OR ANY OTHER TESTING REQUIRED BY LOCAL, COUNTY, OR STATE AGENCIES PRIOR TO FINAL ACCEPTANCE OF THE PROJECT AND CERTIFICATE OF OCCUPANCIES BEING ISSUED SHALL BE COORDINATED AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE ENGINEER OF RECORD SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO CONTACT AND COORDINATE THE LOCAL AND COUNTY OFFICIALS THAT ARE REQUIRED TO BE PRESENT AT ALL INSPECTIONS. LOCAL FIRE INSPECTORS SHALL BE INVITED TO INSPECT ALL FIRE SERVICE LINES PRIOR TO BACKFILLING OF TRENCHES.
- 11. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS, LATEST REVISIONS. HYDROSTATIC TESTING FOR PVC MAINS SHALL BE 150 PSI FOR MINIMUM OF 2 HOURS AND MEET AWWA STANDARD C-605. DUCTILE IRON MAINS SHALL BE TESTED AT 150 PSI FOR 2 HOURS AND MEET AWWA STANDARD C-600. ALL NEW MAINS SHALL BE DISINFECTED PER AWWA STANDARD C-651. BACTERIOLOGICAL TESTS FOR 2 CONSECUTIVE DAYS SHALL BE APPROVED PRIOR TO PLACING SYSTEM INTO SERVICE. CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER OF RECORD WITH AWWA C906 AND NSF-61 CERTIFICATIONS.
- PVC POTABLE WATER MAINS SHALL BE SOLID BLUE IN COLOR. DUCTILE IRON WATER MAINS SHALL BE PAINTED WITH BLUE BANDS. CONTRACTORS SHALL INSTALL ALL NEW OR ALTERED WATER PIPES IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS AND / OR ACCORDANCE WITH MANUFACTURER'S RECOMMENDED PROCEDURES.
 ALL WATER LINES ARE TO BE INSPECTED BY A LICENSED PROFESSIONAL ENGINEER DURING INSTALLATION.
- 14. ALL WATER LINES SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE INSTALLED CONTINUOUSLY ALONG THE ENTIRE LENGTH. THE PROTECTION TAPE SHALL BE INSTALLED DURING THE BACKFILLING 2 FEET ABOVE PIPE AND 2 FEET BELOW FINISHED GRADE DIRECTLY OVER THE PIPE AND BE CONTINUOUSLY MARKED WITH "CAUTION WATER PIPE". THE TAPE SHALL HAVE AN EMBEDDED METALLIC DETECTABLE STRIP AND BE BLUE IN COLOR. PROTECTION TAPE SHALL BE TERRA-TAPE OR APPROVED EQUAL.
- 15. ALL SANITARY SEWER LINES SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE INSTALLED CONTINUOUSLY ALONG THE ENTIRE LENGTH. THE PROTECTION TAPE SHALL BE INSTALLED DURING BACKFILLING AT LEAST 2 FEET ABOVE THE PIPE, AT LEAST 2 FEET BELOW THE FINISHED GRADE, AND AT MOST 4 FEET BELOW THE FINISHED GRADE. THE PROTECTION TAPE SHALL BE PLACED DIRECTLY OVER THE PIPE AND BE CONTINUOUSLY MARKED WITH "SEWER". THE PROTECTION TAPE MUST BE ELECTRONICALLY LOCATABLE AND BE BRIGHTLY COLORED PLASTIC. THE SELECTION AND INSTALLATION OF THE PROTECTION TAPE MUST MEET THE REQUIREMENTS SPECIFIED WITHIN THE PWSA PROCEDURES MANUAL.
- 16. AT THE POINT WHERE THE PROPOSED SANITARY SEWER CONSTRUCTION MEETS A LIVE OR EXISTING SEWER, THE NEW SANITARY SEWER SHALL BE SECURELY PLUGGED UNTIL THE ENTIRE NEW SANITARY SEWER CONSTRUCTION IS COMPLETED AND READY FOR FINAL INSPECTION.
- 17. SANITARY SEWER CLEANOUTS SHALL BE PROVIDED WITHIN 5 FEET OF ALL BUILDING CONNECTIONS FOR ALL SEWER CONNECTIONS TO COMBINED SEWERS.
- ALL GRAVITY SANITARY SEWER PIPE SHALL BE PVC SDR26.
 GRAVITY SANITARY SEWER LINES SHALL BE TESTED FOR INFILTRATION BY MEASURING FLOW OVER A V-NOTCH OR TESTED FOR EXFILTRATION BY FILLING THE LINE WITH WATER TO 10 FEET ABOVE THE INVERT OF THE MANHOLE. THE LIMITING RATE OF INFILTRATION SHALL NOT EXCEED 200 GALLONS PER 1-INCH DIAMETER PER MILE PER 24 HOURS. AN ALTERNATE TESTING METHOD SHALL BE AIR PRESSURE TESTING AT 5 PSI FOR A DURATION OF 10 MINUTES YIELDING NO OBSERVED DROP IN PRESSURE.
- 20. ALL GAS LINES SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE INSTALLED CONTINUOUSLY ALONG THE ENTIRE LENGTH. THE PROTECTION TAPE MUST BE INSTALLED DURING THE BACKFILLING APPROXIMATELY 6 INCHES BELOW THE FINISHED GRADE. THE PROTECTION TAPE SHALL BE PLACED DIRECTLY OVER THE PIPE AND BE CONTINUOUSLY MARKED WITH "CAUTION-GAS PIPE BELOW". THE PROTECTION TAPE SHALL BE 6 INCH WIDE YELLOW PLASTIC PAIRED WITH A SOLID COPPER TRACER WIRE WITH YELLOW THERMOPLASTIC COATING OF AT LEAST #12 AWG. THE SELECTION AND INSTALLATION OF THE PROTECTION TAPE AND TRACER WIRE MUST MEET THE REQUIREMENTS SPECIFIED WITHIN THE PEOPLE'S NATURAL GAS SERVICE LINE INSTALLATION STANDARDS (INSTALLER'S GUIDE).
- 21. ANY WATER, SANITARY AND STORM UTILITY WITH 18 INCHES OR LESS VERTICAL SEPARATION BETWEEN OUTSIDE OF PIPE SHALL BE CONCRETE ENCASED.
- 22. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS AND ANY LOCAL AUTHORITIES.
- 23. STREET PAVEMENT AFFECTED BY TRENCHING OR OTHER CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL AND PROPER CONDITION. ALL WORK PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY AND ALL RESTORATION OF STREET PAVEMENTS SHALL ABIDE BY THE POLICIES SET FORTH IN THE CITY OF PITTSBURGH RIGHT-OF-WAY PROCEDURES.
- 24. ALL SEWER CONNECTIONS MUST BE APPROVED AND INSPECTED BY THE LOCAL GOVERNING AUTHORITY. CONTRACTOR TO RECEIVE APPROVAL FROM THE LOCAL AUTHORITY PRIOR TO CONSTRUCTION.
- 25. PROPOSED LIGHTING TO BE COORDINATED WITH ELECTRICAL DOCUMENTS.



Issue Date

Project Status



SCALE:

DRAWING TITLE:

PROJECT No: 92980

SEAL
KEY PLAN
PERKINS —
EASTMAN
525 William Penn Place Suite 2510 Pittsburgh, PA 15219 T. +1 412 456 0900
F. +1 412 456 0906
Owner:
Carnegie Mellon University 5000 Forbes Ave. Pittsburgh, PA 15213
Hazalwood Green Development Manager:
45 Rockefeller Plaza, 12th Fl. New York, NY 10111
Construction Manager: Mosites-Gilbane Joint Venture 400 Mosites Way, Suite 100, Pittsburgh, PA 15205
Civil / Site: Langan 2400 Ansys Drive, Suite 403, Canonsburg, PA 15317
Landscape: Klavon Design Associates 64 South 14th Street, Pittsburgh, PA 15203
Structural: Atlantic Engineering Services 650 Smithfield Street, Pittsburgh, PA 15222
MEP/FP:
1555 Coraopolis Heights Rd, Suite 4200, Moon Township, PA 15108
BrightTree Studios 301 Brush Creek Rd, Warrendale, PA 15086
Lighting Consultant: Lam Partners 3171 Babcock Boulevard, Suite 200, Pittsburgh, PA 15237
Food Service: Food Facilities Concepts, Inc. 1100 Washington Ave. Suite 102, Carnegie, PA 15106
Environmental /Geotech Engineer: GAI Consulting 385 E Waterfront Drive, Homestead, PA 15120
LEED Management Consultant: EvolveEA
Aquatics Consultant: Counsilman-Hunsaker
Acoustical Consultant: Babich Acoustics
1102 S. Braddock Ave. Suite 4, Pittsburgh, PA 15218
CMU ROBOTICS
INNOVATION CENTER
Hazelwood Green Parcels 33, 37, 42

 No.
 Description
 Date

 Image: I

APPENDIX G Cultural Resource Notice



Technical Excellence Practical Experience Client Responsiveness

SECTION G SEWAGE FACILITIES PLANNING MODULE COMPONENT 3

Re: Cultural Resources Notice (CRN) Carnegie Mellon University Robotics Innovation Center Lots 33,37,42 of the Hazelwood Green PLDP Overall Parcel ID: 55-J-110 City of Pittsburgh, Allegheny County, Pennsylvania Langan Project No.: 250114006

As the project area is less than 10 acres and does not contain any existing historical buildings, a Project Review Form – to initiate consultation for request for review by the State Historic and preservation Office (SHPO), Environmental Review Division – will not be submitted to the Pennsylvania Historical & Museum Commission (PHMC).

APPENDIX H

1. PROJECT INFORMATION

Project Name: Hazelwood Green Date of Review: 11/1/2022 01:50:05 PM Project Category: Development, New commercial/industrial development (store, gas station, factory) Project Area: 197.46 acres County(s): Allegheny Township/Municipality(s): PITTSBURGH ZIP Code: Quadrangle Name(s): PITTSBURGH EAST Watersheds HUC 8: Lower Monongahela Watersheds HUC 12: Streets Run-Monongahela River Decimal Degrees: 40.415543, -79.949663 Degrees Minutes Seconds: 40° 24' 55.9545" N, 79° 56' 58.7873" 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.

Hazelwood Green



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



Hazelwood Green

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 (<u>www.naturalheritage.state.pa.us</u>). 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: <u>RA-HeritageReview@pa.gov</u>

PA Fish and Boat Commission

Division of Environmental Services 595 E. Rolling Ridge Dr., Bellefonte, PA 16823 Email: <u>RA-FBPACENOTIFY@pa.gov</u>

U.S. Fish and Wildlife Service

Pennsylvania Field Office Endangered Species Section 110 Radnor Rd; Suite 101 State College, PA 16801 Email: <u>IR1_ESPenn@fws.gov</u> NO Faxes Please

PA Game Commission Bureau of Wildlife Management Division of Environmental Review 2001 Elmerton Avenue, Harrisburg, PA 17110-9797 Email: <u>RA-PGC_PNDI@pa.gov</u> NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Carly Davis	
Company/Business Name: Langan Engine	eering & Environmental Services, Inc.
Address: 2400 Ansys Drive	
City, State, Zip: Canonsburg, PA 15317	
Phone:(724)514-5126	_Fax:()
Email: cdavis@langan.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.

Coly Davis

applicant/project proponent signature

11/3/2022

date

APPENDIX I Component 4A



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF CLEAN WATER

INSTRUCTIONS FOR COMPLETING COMPONENT 4A MUNICIPAL PLANNING AGENCY REVIEW

Remove and recycle these instructions prior to mailing component to the approving agency.

Background

This component, Component 4, is used to obtain the comments of planning agencies and/or health departments having jurisdiction over the project area. It is used in conjunction with other planning module components appropriate to the characteristics of the project proposed.

Who Should Complete the Component?

The component should be completed by any existing municipal planning agency, county planning agency, planning agency with areawide jurisdiction, and/or health department having jurisdiction over the project site. It is divided into sections to allow for convenient use by the appropriate agencies.

The project sponsor must forward copies of this component, along with supporting components and data, to the appropriate planning agency(ies) and health department(s) (if any) having jurisdiction over the development site. These agencies are responsible for responding to the questions in their respective sections of Component 4, as well as providing whatever additional comments they may wish to provide on the project plan. After the agencies have completed their review, the component will be returned to the applicant. The agencies have 60 days in which to provide comments to the applicant. If the agencies fail to comment within this 60 day period, the applicant may proceed to the next stage of the review without the comments. The use of registered mail or certified mail (return receipt requested) by the applicant when forwarding the module package to the agencies will document a date of receipt.

After receipt of the completed Component 4 from the planning agencies, or following expiration of the 60 day period without comments, the applicant must submit the entire component package to the municipality having jurisdiction over the project area for review and action. If approved by the municipality, the proposed plan, along with the municipal action, will be forwarded to the approving agency (Department of Environmental Protection or delegated local agency). The approving agency, in turn, will either approve the proposed plan, return it as incomplete, or disapprove the plan, based upon the information provided.

Instructions for Completing Planning Agency and/or Health Department Review Component

Section A. Project Name

Enter the project name as it appears on the accompanying sewage facilities planning module component (Component 2, 2m, 3, 3s or 3m).

Section B. Review Schedule

Enter the date the package was received by the reviewing agency, and the date that the review was completed.

Section C. Agency Review

- 1. Answer the yes/no questions and provide any descriptive information necessary on the lines provided. Attach additional sheets, if necessary.
- 2. Complete the name, title, and signature block.

Section D. Additional Comments

The Agency may provide whatever additional comment(s) it deems necessary, as described in the form. Attach additional sheets, if necessary.



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF CLEAN WATER

DEP Code #: 02001-22-148

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

X

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X

X

X

Carnegie Mellon University Robotics Innovation Center

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

1. Date plan received by municipal planning agency <u>12/8/2022</u>

2. Date review completed by agency _____12/27/2022

SECTION	C.	AGEN	CY REVIE	W (See Sec	tion C of instruction	ons)				
Yes	No									
	X	1.	Is there	a municipal	comprehensive	plan	adopted	under	the	Mu

1. Is there a municipal comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101, *et seq*.)?

□ N/A		2.	Is this proposal consistent with the comprehensive plan for land use?
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- If no, describe the inconsistencies
- 3. Is this proposal consistent with the use, development, and protection of water resources?

If no, describe the inconsistencies

- 4. Is this proposal consistent with municipal land use planning relative to Prime Agricultural Land Preservation?
 - 5. Does this project propose encroachments, obstructions, or dams that will affect wetlands?If yes, describe impacts
 - 6. Will any known historical or archaeological resources be impacted by this project?

If yes, describe impacts _____

7. Will any known endangered or threatened species of plant or animal be impacted by this project?

If yes, describe impacts _____

- 8. Is there a municipal zoning ordinance?
 - 9. Is this proposal consistent with the ordinance?
 - If no, describe the inconsistencies
 - 10. Does the proposal require a change or variance to an existing comprehensive plan or zoning ordinance?
 - 11. Have all applicable zoning approvals been obtained?
 - 12. Is there a municipal subdivision and land development ordinance?

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SECTIO	ON C.	AGEN	CY REVIEW (continued)
Yes	No		
		13.	Is this proposal consistent with the ordinance?
			If no, describe the inconsistencies
X		14.	Is this plan consistent with the municipal Official Sewage Facilities Plan?
			If no, describe the inconsistencies
	\varkappa	15.	Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality?
			If yes, describe
	X	16.	Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision?
			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: Kyla Prendergast, AICP
Title: Senior Environmental Planner			
Signature: <u>Kyla Prendergast</u>			
			Date: 12/2//2022
			Name of Municipal Planning Agency: <u>Department of City Planning</u>
			Address 200 Ross Street, 4 th Floor, Pittsburgh, PA 15219
			Telephone Number: <u>412-255-2516</u>
SECTIO	ON D.	ADDIT	IONAL COMMENTS (See Section D of instructions)
This cor of the pr	nponen roposed	t does r l plan to	ot limit municipal planning agencies from making additional comments concerning the relevancy other plans or ordinances. If additional comments are needed, attach additional sheets.
The plar	nning ag	gency m	ust complete this component within 60 days.
This cor	nponen	t and ar	y additional comments are to be returned to the applicant.

APPENDIX J Component 4C

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**

DEP Code #: 02001-22-148

SEWAGE FACILITIES PLANNING MODULE COMPONENT 4C - COUNTY OR JOINT HEALTH DEPARTMENT 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 county or joint county health department for their comments.

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

Project Name

Carnegie Mellon University Robotics Innovation Center

- SECTION B. **REVIEW SCHEDULE** (See Section B of instructions)
- 1. Date plan received by county or joint county health department

Agency name

2. Date review completed by agency

SECTION C. AGENCY REVIEW (S	See Section C of instructions)
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Yes	No		
		1.	Is the proposed plan consistent with the municipality's Official Sewage Facilities Plan?
			If no, what are the inconsistencies?
		2.	Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality?
			If yes, describe
		3.	Is there any known groundwater degradation in the area of this proposal?
			If yes, describe
		4.	The county or joint county health department recommendation concerning this proposed plan is as follows:
		5.	Name, title and signature of person completing this section:
			Name: <u>Freddie Fields</u>
			Title: Environmental Health Engineer III
			Signature:
			Date:
			Name of County Health Department: Allegheny County Health Department
			Address: 3901 Penn Avenue, Building #5, Pittsburgh, PA 15224-1318
			Telephone Number: <u>412-578-8046</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.

APPENDIX K Completeness Checklist

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

Signature of Municipal Official

Date submittal determined complete