
DEP Code No.: 02001-20-109

SEWAGE FACILITIES PLANNING MODULE

for

**CARNEGIE MELLON UNIVERSITY SCAIFE HALL
4805 Frew Street
Pittsburgh, PA 15213**

Prepared For:

**Kieren Timberlake
841 North American Street
Philadelphia, PA 19123**

Prepared By:

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

LANGAN

**July 2020
250119101**

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Transmittal Letter and Correspondence



**TRANSMITTAL LETTER
 FOR SEWAGE FACILITIES PLANNING MODULE**

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

TO: Approving Agency (DEP or delegated local agency)
 PA DEP Southwest Regional Office
 400 Waterfront Drive
 Pittsburgh, PA 15222-4745

Date _____

Dear Sir/Madam:

Attached please find a completed sewage facilities planning module prepared by _____
(Name)
Langan Engineering and Environmental Services, Inc. for Carnegie Mellon University Scaife Hall
(Title) (Name)
 a subdivision, commercial ,or industrial facility located in the City of Plttsburgh

Allegheny _____ County.
(City, Borough, Township)

Check one

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

OR

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

Check Boxes

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

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

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

 Municipal Secretary (print)

 Signature

 Date

CORRESPONDENCE

June 8, 2020

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:	20013.39 CMU Scaife Hall
Project Address:	4805 Frew Street Pittsburgh, PA 15213
Net Flow, gpd:	15699
EDU's, 400gpd/EDU:	39.25

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 x5543 or BGrunauer@pgh2o.com.

Sincerely,

Ben Grunauer

Benjamin Grunauer, E.I.T.
Engineer II

cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Robert Herring, P.E. – PWSA (via email)
Langan Engineering, Inc. - Applicant (via email)
Regis Ryan – DEP (via email)
eBuilder – Filing System (via email)

June 8, 2020

Paul Ceriani
Langan Engineering, Inc.
2400 Ansys Drive
Canonsburg, PA 15317

Subject: Water and Sewer (W/S) Use Approval
Project Name: 20013.39 CMU Scaife Hall
PWSA Project No.: 20013.39

Dear Paul:

Pursuant to your request, we have reviewed the W/S Use Application (Application) for the aforementioned Project. This letter shall serve as confirmation that the Application has been approved. Please see below for the approved flows:

Type of Flow	Sanitary, gpd	Water, gpd	Storm, cfs
<i>Project Flow</i>	25543	24910	7.27
<i>Existing Flow</i>	9844	9844	6.15
<i>Net Flow</i>	15699	15066	

Please be advised that the need for sewage planning shall be determined by the Department of Environmental Protection (DEP). After issuance of this letter, the PWSA shall email the Preliminary Determination on the Need for Sewage Planning Letter to the DEP. Typically, the DEP will respond via email with the Final Determination on the Need for Sewage Planning. Sewage planning is likely required; we have enclosed for your use the location of the most limited capacity sewer.

Our review was based on information provided by the Applicant under the assumption that this information was accurate and complete. Should you have any questions, please do not hesitate to contact me directly at 412-255-8800 x5543 or BGrunauer@pgh2o.com.

Sincerely,

Ben Grunauer

Benjamin Grunauer, E.I.T.
Engineer II

Enclosure(s)

cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Robert Herring, P.E. – PWSA (via email)
eBuilder – Filing System (via email)

August 11, 2020

Marci Carter
Langan Engineering, Inc.
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

Subject: Sewage Facilities Planning Module (SFPM)
Approval Letter for Collection System Flows
Project Name: 20013.39 CMU Scaife Hall
PWSA Project No.: 20013.39

Dear Ms. Carter:

Pursuant to your request, we have reviewed the SFPM and determined that the Project will not create a dry-weather hydraulic overload within the next five (5) years for any collection facility owned by the Pittsburgh Water and Sewer Authority (PWSA). We have enclosed for your use the originally signed "Section J – Chapter 94 Consistency Determination". Please be advised that this approval is limited to the collection system portion of the SFPM.

Our review was 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 x5543 or BGrunauer@pgh2o.com.

Sincerely,

Ben Grunauer

Benjamin Grunauer, E.I.T.
Engineer II

Enclosures

cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Robert Herring, P.E. – PWSA (via email)
Thomas Flanagan – DEP (via email)
Michael Lichte, P.E. – ALCOSAN (via email)
Leslie Stevens – City of Pittsburgh Law Department (via email)
eBuilder – Filing System (via email)

To: Barry King, P.E. - Director of Engineering and Construction

From: Benjamin Grunauer

Date: August 7, 2020

Subject: Department of Environmental Protection (DEP) - Sewage Facilities
Planning Module (SFPM)

Chapter 94 Consistency Determination

Project Name: 20013.39 CMU Scaife Hall

Project Address: 4805 Frew Street, Pittsburgh, PA 15213

PWSA Project Number: 20013.39

Dear Barry,

The Pittsburgh Water and Sewer Authority (PWSA) received a SFPM application for the aforementioned Project. In accordance with Title 25 of the Pennsylvania Code, the PWSA is required to prepare an annual Wasteload Management Report on the collection and conveyance of wastewater relative to available capacity. Our review of the SFPM was conducted to understand how the Project will impact available dry-weather capacity and whether the proposed flows will contribute to a dry-weather hydraulic overload within the next five (5) years. Please note that a dry-weather hydraulic overload shall require both the denial of the SFPM and the submission of a Corrective Action Plan to the DEP.

We have determined that the Project will not contribute to a dry-weather hydraulic overload within the next five years. Please refer to the enclosed hydraulic calculations for additional information. Upon your approval, please sign and return the enclosed "Section J - Chapter 94 Consistency Determination" page from the SFPM.

Our review was 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.

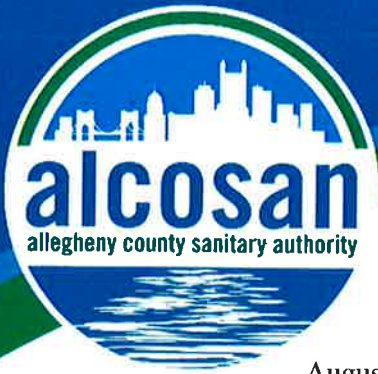
Yours truly,

Ben Grunauer

Benjamin Grunauer, E.I.T.
Engineer II

Enclosures

cc: e-Builder – Filing System



August 20, 2020

Members of the Board

Corey O'Connor
Chair Person
Rep. Harry Readshaw
Sylvia C. Wilson
Shannah Tharp-Gilliam, Ph.D.
Jack Shea
John Weinstein
Brenda L. Smith

Arletta Scott Williams
Executive Director
William H. Inks, CPA
Director
Finance & Administration
Jan M. Oliver
Director
Regional Conveyance
Douglas A. Jackson, P.E.
Director
Operations & Maintenance
Kimberly N. Kennedy, P.E.
Director
Engineering & Construction
Michelle M. Buys, P.E.
Director
Environmental Compliance
Jeanne K. Clark
Director
Governmental Affairs
Joseph Vallarian
Director
Communications

Mr. Paul Ceriani, P.E.
Langan Engineering
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

**Re: CMU Scaife Hall, 4805 Frew Street – City of Pittsburgh, 7th Ward
PA DEP Sewage Facilities Planning Module
ALCOSAN Regulator Structure M-29-00**

Dear Mr. Ceriani:

We have reviewed the Component 3 Planning Module for the referenced project to be located in the 7th Ward of the City of Pittsburgh. The project will generate an increased peak flow of 15,699 gpd in the ALCOSAN Monongahela River Interceptor and Woods Run Treatment Plant.

The capacity at the ALCOSAN M-29-00 Regulator Structure is approximately 44.9 MGD. The monitored peak dry weather flow is approximately 6.83 MGD. 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 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

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

attachment:

cc: C. Dean (w/o attachment)
D. Thornton (w/o attachment)
M. Lichte (w/o attachment)
Barry King/ PWSA (w/o attachment)
Thomas Flanagan/ PADEP (w/o attachment)
Fred Fields/ ACHD (w/o attachment)

COUNTY OF



ALLEGHENY

RICH FITZGERALD
COUNTY EXECUTIVE

September 3, 2020

Adalee Jacob
Langan Engineering and Environmental Services, Inc.
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

**RE: SEWAGE FACILITIES PLANNING MODULE; ALLEGHENY COUNTY
CMU Scaife Hall, City of Pittsburgh**

Dear Ms. Jacobs:

Enclosed is a signed copy of Component 4C, County or Joint County Health Department Review, for the above-referenced development. This Planning Module Component was received on September 2, 2020. The project proposes the following:

Project Description:	CMU Scaife Hall. Proposing to replace the existing Scaife Hall with the construction of an 85,500 square foot multi-story educational building with classrooms, research labs, facility office space, outdoor maker courtyard, impervious pedestrian walkways, service driveway, fire access lane and landscaping located at 4805 Frew Street in the City of Pittsburgh, Allegheny County.
Sewage Flow:	15,669 GPD
Conveyance:	The flow from this site will be conveyed to the Pittsburgh Water & Sewer Authority (PWSA) collection system to ALCOSAN POC M-29 to the Monongahela River interceptor and then to the ALCOSAN Treatment Plant at Woods Run.
Sewer's Owner:	PWSA (collection) and ALCOSAN (interceptor)
Name of Sewage Treatment Plant:	ALCOSAN

Please be advised that a permit must be obtained from the Allegheny County Health Department's (ACHD) Plumbing Section prior to commencing any plumbing work for the proposed project. Plumbing work for which an ACHD Plumbing Permit must be obtained includes any plumbing work done on the site and any sewers, which will not be owned and operated by a municipality or a sewer authority.



KAREN HACKER, MD, MPH, DIRECTOR
ALLEGHENY COUNTY HEALTH DEPARTMENT

WATER POLLUTION CONTROL & SOLID WASTE MANAGEMENT
3901 PENN AVENUE • BUILDING 5 • PITTSBURGH, PA 15224-1318
PHONE: 412.578.8040 • FAX: 412.578.8053 • WWW.ACHD.NET



Mr. Jack G. Murray P.E.
September 3, 2020
Page 2

In addition, it should be noted that the approval of this sewage facilities planning module does not include approval of pipe size and/or type. Approval for pipe size and/or type must be obtained by filing a specific plumbing plan with the ACHD's Plumbing Section. If you should have any questions relative to ACHD's plumbing requirements, you can contact Ivo Miller, Plumbing Program Manager at 412-578-8393.

The ACHD has no objection to the approval of this project. If you have any questions, please call me at 412-578-8046.

Sincerely,

A handwritten signature in blue ink that reads "Freddie Fields". The signature is written in a cursive style with a large, prominent "F" and "D".

Freddie Fields, M.B.A.
Environmental Health Engineer III
Water Pollution Control & Solid Waste Management

FF/cb
Enclosure

cc: Thomas Flanagan, PA Department of Environmental Protection w/attachment (electronically)
Ivo Miller, ACHD w/attachment (electronically)

APPENDIX B

Resolution for Plan Revision for New Land Development

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 Scaife Hall, 4805 Frew Street, Pittsburgh, PA 15213.

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 a certain parcel of land Carnegie Mellon University Scaife Hall, 4805 Frew Street, Pittsburgh, PA 15213, Allegheny County, at lot and block 53-B-100 in the 14th Ward of the City of Pittsburgh and described in the attached Sewage Facilities Planning Module (the "Planning Module") for land development and proposes that project be served by a sewer tap-in to the City of Pittsburgh sewage systems; and

WHEREAS, the Pittsburgh Water 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 Scaife Hall, 4805 Frew Street, Pittsburgh, PA 15213, Allegheny County, at lot and block 53-B-100 in the 14th 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.

Fiscal Impact Statement
Updated 1/29/2020 to satisfy City Code §219.07

Department	Law
Preparer	Ben Smith
Standing Committee Representative	Paul Ceriani, P.E. (Langan Engineering) 724-514-5167
Type of Legislation	Other

Description of Legislation

Carnegie Mellon University has proposed the development of a certain parcel of land identified as the Carnegie Mellon University Scaife Hall, 4805 Frew Street, Pittsburgh, PA 15213, Allegheny County, at lot and block 53-B-100, in the Fourteenth Ward of the City of Pittsburgh, Pennsylvania and 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	<input type="checkbox"/> One-Time		<input type="checkbox"/> Multi-Year	
Funding Source	<input type="checkbox"/> Operating	<input type="checkbox"/> Capital	<input type="checkbox"/> Grant	<input type="checkbox"/> Trust Fund
Is this item budgeted?	<input type="checkbox"/> Yes		<input type="checkbox"/> 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:

<i>Method of Procurement</i> <i>Select one.</i>	<input type="checkbox"/> RFP	<input type="checkbox"/> Signed Waiver from OMB	<input type="checkbox"/> Amendment to Existing Contract <i>Do not fill out the rest of the form.</i>
---	------------------------------	--	---

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.

<i>Date Presented at EORC:</i> Insert date.	<input type="checkbox"/> Approved	<input type="checkbox"/> 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 Scaife Hall

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

Educational Institution

2) What is the proposed use for the property?

Educational Institution

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

The proposed project includes proposed green infrastructure including bioretention areas and underground detention vaults. The stormwater management facilities implemented as part of this project will reduce the rate and volume of the proposed runoff and improve the quality of the proposed stormwater runoff.

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

After the implementation of the proposed stormwater management system, the development will result in a net negative change in stormwater flow.

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

Code No.

SEWAGE FACILITIES PLANNING MODULE

Component 3. Sewage Collection and Treatment Facilities

(Return completed module package to appropriate municipality)

DEP USE ONLY

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

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

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

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

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

A. PROJECT INFORMATION (See Section A of instructions)

1. Project Name Carnegie Mellon University Scaife Hall

2. Brief Project Description Carnegie Mellon University is proposing to construct an 85,500 gross square foot multi-story educational building to replace the existing Scaife Hall. The proposed building will be used for classrooms, research labs, and faculty office space as part of CMU's mechanical engineering department. The proposed site area will include an outdoor maker courtyard intended to provide ample pedestrian space and enhance connections between Scaife Hall, the adjacent CMU buildings, and the neighborhood as a whole. In addition to this courtyard, the surrounding site will include impervious pedestrian walkways, a service driveway, a fire access lane, and landscaping. The project is generally bounded by Frew Street to the South, Hamerschlag and Roberts Hall as well as Hamerschlag Drive to the North, Porter and Ansys Hall to the East, and a steep hillside connecting to Junction Hollow to the West. The proposed sanitary service will be provided by one 6-inch on-site gravity sewer lateral that connects to a private CMU owned combined sewer. This combined sewer connects to an existing 68-inch PWSA main and will ultimately be conveyed via the Mongahela Interceptor to the ALCOSAN Wastewater Treatment Facility and discharge to the Ohio River.

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

Municipality Name	County	City	Boro	Twp
City of Pittsburgh	Allegheny	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title
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	15219	
Area Code + Phone + Ext.	FAX (optional)	Email (optional)	
412-255-2516			

C. SITE INFORMATION (See Section C of instructions)

Site (Land Development or Project) Name

Carnegie Mellon University Scaife Hall

Site Location Line 1 4805 Frew Street	Site Location Line 2			
Site Location Last Line -- City	State	ZIP+4	Latitude	Longitude
Pittsburgh	PA	15213	40.441702	-79.947341

Detailed Written Directions to Site Head S on Waterfront Dr toward Three Rivers Heritage Trail. Continue straight onto 30th St Bridge. Turn right onto River Ave. Turn left onto 31st St Bridge. Turn left onto PA-28 S. Take exit 1A for I-579 S/I-376 E. Continue onto I-579 S. Take the exit toward I-376 E/Oakland/Monroeville. Continue onto Boulevard of the Allies. ~~Turn right onto Panther Hollow Road. Continue onto Frank Curto Dr/Schenley Drive. Turn right onto Frew St~~

Description of Site The site is currently composed of impervious area, paved parking lots, driveways, and Scaife Hall.

Site Contact (Developer/Owner)

Last Name	First Name	MI	Suffix	Phone	Ext.
Horgan	Ralph			412-268-2910	
Site Contact Title	Site Contact Firm (if none, leave blank)				
Associate Vice President, Campus Design and Facility Development	Carnegie Mellon University				
FAX	Email				
412-268-8976	rh44@andrew.cmu.edu				
Mailing Address Line 1	Mailing Address Line 2				
5000 Forbes Avenue					
Mailing Address Last Line -- City	State	ZIP+4			
Pittsburgh	PA	15213			

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

Last Name	First Name	MI	Suffix
Rowland	Scott		
Title	Consulting Firm Name		
Principal/Vice President	Langan Engineering & Environmental Services, Inc.		
Mailing Address Line 1	Mailing Address Line 2		
2400 Ansys Drive	Suite 403		
Address Last Line -- City	State	ZIP+4	Country
Canonsburg	PA	15317	USA
Email	Area Code + Phone	Ext.	Area Code + FAX
srowland@langan.com	724-514-5123		724-514-5101

E. AVAILABILITY OF DRINKING WATER SUPPLY

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

- Individual wells or cisterns.
- A proposed public water supply.
- An existing public water supply.

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

Name of water company: 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

a. Check appropriate box concerning collection system

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

Clean Streams Law Permit Number _____

b. Answer questions below on collection system

Number of EDU's and proposed connections to be served by collection system. EDU's 40

Connections 1

Name of:

existing collection or conveyance system S. Neville Street 68" Combined Sewer

owner Pittsburgh Water and Sewer Authority (PWSA)

existing interceptor Monongahela River

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 facility Upgrade of existing facility Expansion of existing facility

Name of existing facility ALCOSAN Woods Run WWTP

NPDES Permit Number for existing facility PA 0025984

Clean Streams Law Permit Number _____

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

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

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

Name of Permittee Agency, Authority, Municipality ALCOSAN

Name of Responsible Agent Shawn P. McWilliams, EIT

Agent Signature Shawn P. McWilliams Date 08/20/2020

(Also see Section I. 4.)

G. PROPOSED WASTEWATER DISPOSAL FACILITIES (Continued)

3. PLOT PLAN

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

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

4. WETLAND PROTECTION

YES NO

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

5. PRIME AGRICULTURAL LAND PROTECTION

YES NO

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

6. HISTORIC PRESERVATION ACT

YES NO

- Sufficient documentation is attached to confirm that this project is consistent with DEP Technical Guidance 012-0700-001 *Implementation of the PA State History Code* (available online at the DEP website at www.dep.state.pa.us, select "subject" then select "technical guidance"). As a minimum this includes copies of the completed Cultural Resources Notice (CRN), a return receipt for its submission to the PHMC and the PHMC review letter.

7. PROTECTION OF RARE, ENDANGERED OR THREATENED SPECIES

Check one:

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

Applicant or Consultant Initials _____.

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

- An alternative sewage facilities analysis has been prepared as described in Section H of the attached instructions and is attached to this component.

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

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

1. Waters designated for Special Protection

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

2. Pennsylvania Waters Designated As Impaired

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

3. Interstate and International Waters

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

4. Tributaries To The Chesapeake Bay

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

Name of Permittee Agency, Authority, Municipality _____

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 15,699 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	72,767,212	254,685,241	4,759,442	16,658,047	5,002,124	17,507,434
Conveyance	--	44.9 MGD	5.38 MGD	6.83 MGD	5.45 MGD	6.91 MGD
Treatment	209.3 MGD	250.0 MGD	209.3 MGD	250.0 MGD	219.7 MGD	295.0 MGD

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

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

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

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

b. Collection System

Name of Agency, Authority, Municipality PWSA

Name of Responsible Agent Barry King, P.E. / Director of Engineering and Construction

Agent Signature  Date August 11, 2020

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

c. Conveyance System

Name of Agency, Authority, Municipality ALCOSAN

Name of Responsible Agent Shawn P. McWilliams, EIT

Agent Signature *Shawn P. McWilliams*

Date 08/20/2020

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 ***ALCOSAN IS UNDER A CONSENT DECREE TO ADDRESS WET WEATHER OVERFLOWS.**

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 *Shawn P. McWilliams*

Date 08/20/2020

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

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

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

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

L. PERMEABILITY TESTING (See Section L of instructions)

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

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

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

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

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

O. SEWAGE MANAGEMENT (See Section O of instructions)

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

Yes No

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

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

2. Project Flows _____ gpd

Yes No

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

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

(For completion by non-municipal facility agent)

4. Collection and Conveyance Facilities

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

Yes No

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

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

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

- b. Collection System

Name of Responsible Organization _____

Name of Responsible Agent _____

Agent Signature _____

Date _____

- c. Conveyance System

Name of Responsible Organization _____

Name of Responsible Agent _____

Agent Signature _____

Date _____

5. Treatment Facility

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

Yes No

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

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

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

- b. Name of Facility _____
Name of Responsible Agent _____
Agent Signature _____
Date _____

(For completion by the municipality)

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

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

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

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

Yes No

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

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

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

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

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

Paul Ceriani, P.E.

Name (Print)

Senior Project Manager

Title

2400 Ansys Drive, Suite 403

Canonsburg, PA 15317

Address



Signature

July 7, 2020

Date

724-514-5167

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 \$2,000.00 payable to "Commonwealth of PA, DEP". Include DEP code number on check. I understand DEP will not begin review of my project unless it receives the fee and determines the fee is correct. If the fee is incorrect, DEP will return my check or money order, send me an invoice for the correct amount. I understand DEP review will NOT begin until I have submitted the correct fee.
- I request to be exempt from the DEP planning module review fee because this planning module creates **only** one new lot and is the **only** lot subdivided from a parcel of land as that land existed on December 14, 1995. I realize that subdivision of a second lot from this parcel of land shall disqualify me from this review fee exemption. I am furnishing the following deed reference information in support of my fee exemption.

County Recorder of Deeds for _____ County, Pennsylvania

Deed Volume _____ Book Number _____
Page Number _____ Date Recorded _____

R. REVIEW FEE (continued)

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.

$$\#40 \quad \text{Lots (or EDUs)} \times \$50.00 = \$ 2,000.00$$

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:

$$\# \quad \text{Lots (or EDUs)} \times \$35.00 = \$$$

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

SECTION F SEWAGE FACILITIES PLANNING MODULE COMPONENT 3

**Re: Project Narrative
Carnegie Mellon University Scaife Hall
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250119101**

The project site is located on Carnegie Mellon University's campus, northwest of the intersection of Frew Street and Hamerschlag Drive, in the EMI, Educational/Medical Institution District within the City of Pittsburgh, Allegheny County, Pennsylvania. Carnegie Mellon University (CMU) is proposing to redevelop approximately 1.56 acres composed of a portion of lot 53-B-100, to include the proposed 85,500 gross square foot multi-story educational building to replace the existing Scaife Hall, impervious pedestrian walkways, landscaped areas, an asphalt driveway, concrete ADA parking spaces, stormwater management facilities and associated site features. The proposed development will be owned and operated by Carnegie Mellon University.

The project proposes one on-site gravity sewer lateral for the proposed building that will tie into the existing 18-inch combined sewer owned by CMU, located on the hillside west of the project site. The privately owned, existing 18-inch combined sewer is connected to the existing 68-inch combined sewer located in South Neville Street. Sewage will then be conveyed and treated by Allegheny County Sanitary Authority (ALCOSAN) Wastewater Treatment Facility.

The existing site has an estimated combined sanitary sewage flow of 9,844 gallons per day. Following the proposed development, the building will have an estimated combined sanitary sewage flow of 25,543 gallons per day. The proposed increase in combined sanitary sewage flow as a result of the proposed improvements is 15,699 gallons per day (40 EDU's). 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 ultimately be provided by Pittsburgh Water and Sewer Authority (PWSA). Water service to this site will be connected to an existing, private 6-inch water main operated by CMU that will provide domestic water and fire protection.

The existing site has an estimated water demand of 9,844 gallons per day. Following the proposed development, the building will have an estimated water demand of 24,910 gallons per day. The proposed increase in water demand as a result of the proposed improvements is 15,066 gallons per day. The existing municipal system is expected to adequately meet proposed demands. A copy of the water availability letter from PWSA can be found in Appendix C.

Section J of Component 3 was completed using the calculation methodology and procedures outlined by the PWSA's Developer's Manual, revised April 24th, 2020. Method #1 for a Manhole Dip Test from the Developer's Manual was implemented to estimate the Present Peak Flow based on five flow depth measurements recorded at the most limited capacity sewer (PWSA MH028H030) during peak flow hours (6 pm - 8 pm). Results for the Manhole Dip Test can be found in Appendix C under Anticipated Flow Reference. Pipe capacity information provided by PWSA was used in conjunction with Manning's Equation to estimate the Peak Design Capacity, and a Peak Factor of 3.5 was used to estimate the Present Average Dry Flow and Average Design Capacity. The Projected Peak Flow was calculated by multiplying the sum of the Present Peak Flow and the Anticipated Flow Contribution for the project by a factor of 1.05 to estimate the projected flow in 5 years. The Projected Average Flow was calculated by once again dividing the Projected Peak Flow by the Peak Factor of 3.5. Based on these calculations, it has been determined that the anticipated flow contribution for the proposed project will not create undue stress on the existing PWSA system's capacity.

**ANTICIPATED SEWAGE
FLOW REFERENCE**

CMU Scaife Hall - PWSA Water and Sewer Use Application - Flow Calculations

Date: 05/18/2020

Scaife Hall Existing Flows					
Use	SF	Occupancy/SF	Occupancy	Flow Rate (GPD/Occupant)	Flow
Floor B					
MEP	2208	300	7.4	15	110.4
Business	6886	100	68.9	15	1032.9
Assembly	0	15	0.0	15	0
Subtotal Floor B	9094		76		1143.3
Floor 1					
MEP	0	300	0.0	15	0
Business	6647	100	66.5	15	997.05
Assembly	1762	15	117.5	15	1762
Subtotal Floor 1	8409		184		2759.05
Floor 2					
MEP	0	300	0.0	15	0
Business	3,259	100	32.6	15	488.85
Assembly	3,330	15	222.0	15	3330
Subtotal Floor 2	6589		255		3818.85
Floor 3					
MEP	0	300	0.0	15	0
Business	6,831	100	68.3	15	1024.65
Assembly	0	15	0.0	15	0
Subtotal Floor 3	6831		68		1024.65
Floor 4					
MEP	0	300	0.0	15	0
Business	6,822	100	68.2	15	1023.3
Assembly	0	15	0.0	15	0
Subtotal Floor 4	6822		68		1023
Floor 5					
MEP	1,495	300	5.0	15	74.75
Business	0	100	0.0	15	0
Assembly	0	15	0.0	15	0
Subtotal Floor 4	1495		5		75
Total	39240		656		9843.9

Scaife Hall Proposed Flows					
Use	SF	Occupancy/SF	Occupancy	Flow Rate (GPD/Occupant)	Flow
Lab and Circulation	13474	100	134.7	15	2021.1
Meeting	5744	15	382.9	15	5744
Staff and Circulation	44026	100	440.3	15	6603.9
Mech/Storage	10608	300	35.4	15	530.4
Classroom	3872	20	193.6	15	2904
Fixed Seating	2633	N/A	180.0	15	2700
Unconcentrated	4407	15	293.8	15	4407
Total	84764		1660.7		24910.4
NET	45524		1004		15066.5

Most Limited Capacity Sewer (MLCS) Spreadsheet

PROJECT NAME:	20013.39 CMU Scaife Hall
PWSA PROJECT NUMBER:	20013.39
PWSA REVIEWER:	Benjamin Grunauer E.I.T.
DATE:	June 6, 2020

LEGEND:	Output Data
	Input Data
	Questionable Data
	Hydraulically Limited Sewer

Upstream MH	Downstream MH	Upstream Invert	Downstream Invert	Length, ft	Diam., in.	Material	n	Area, sf	Wetted P, ft	Slope	Flow, gpd
BK053A001	MH053A001	799.84	794.34	303.46	68	Brick	0.016	25.22	17.802	1.81%	257,770,088
MH053A001	MH028H030	794.34	784.10	577.32	68	Brick	0.016	25.22	17.802	1.77%	255,026,828
MH028H030	BK028H003	784.10	781.86	65.71	81	Concrete	0.013	35.78	21.206	3.41%	693,403,813
BK028H003	MH028H001	781.86	780.18	95.10	81	Concrete	0.013	35.78	21.206	1.77%	499,388,155
MH028H001	JCT028H099	780.18	780.00	6.56	81	Concrete	0.013	35.78	21.206	2.74%	622,167,669
JCT028H099	MH028H015	780.00	774.62	350.38	81.5	Concrete	0.013	36.23	21.337	1.54%	473,334,992
MH028H015	JCT028H005	774.54	772.10	46.69	88	Concrete	0.013	42.24	23.038	5.22%	1,071,237,207
JCT028H005	MH028M002	772.10	765.57	579.54	88	Concrete	0.013	42.24	23.038	1.13%	497,496,022
MH028M002	MH028M010	765.57	757.45	502.68	91	Concrete	0.013	45.17	23.824	1.62%	651,373,265
MH028M010	MH028S002	757.45	751.36	397.11	91	Concrete	0.013	45.17	23.824	1.53%	634,676,929
MH028S002	MH029D036	751.36	745.72	441.92	91	Concrete	0.013	45.17	23.824	1.28%	578,981,124
MH029D036	JCT029D024	745.72	743.60	174.05	91	Concrete	0.013	45.17	23.824	1.22%	565,629,075
JCT029D024	MH029D034	743.60	740.90	202.03	91	Concrete	0.013	45.17	23.824	1.34%	592,481,530
MH029D034	BK029D002	740.90	736.10	347.73	98	Concrete	0.013	52.38	25.656	1.38%	733,707,508
BK029D002	MH029H074	736.10	729.55	579.91	98	Concrete	0.013	52.38	25.656	1.13%	663,687,033
MH029H074	MH054E003	729.55	726.07	311.74	98	Concrete	0.013	52.38	25.656	1.12%	659,811,611
MH054E003	JCT054J004	726.08	720.53	580.91	101	Concrete	0.013	55.64	26.442	0.96%	661,628,028
JCT054J004	MH054J006	720.53	720.52	17.10	101	Concrete	0.013	55.64	26.442	0.05%	146,367,229
MH054J006	MH029M021	720.52	715.96	495.35	135	Concrete	0.013	99.40	35.343	0.92%	1,407,996,717
MH029M021	JCT029M003	715.66	715.62	6.42	144	Concrete	0.013	113.10	37.699	0.59%	1,340,272,303
JCT029M003	ADC029SM29	715.62	709.66	1028.27	168	Concrete	0.013	153.94	43.982	0.58%	2,001,319,419

Manhole Dip Test

Date Conducted: Thursday, July 2, 2020

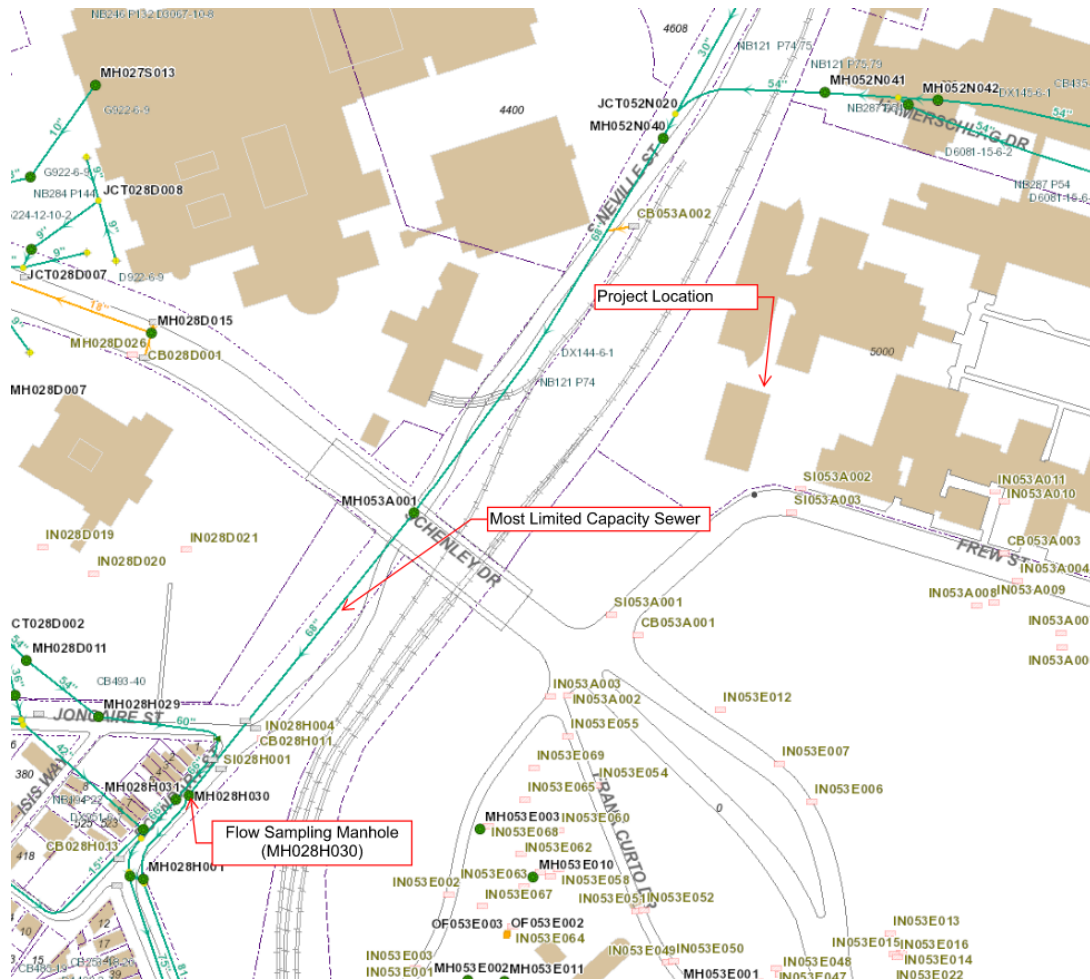
Time Conducted: 6:10PM-6:50PM

Conducted By: Robert Gehris, Adalee Jacobs

Manhole Monitored: MH028H030

Location: Boundary Street

TIME (PM)	DEPTH OF FLOW (IN)
6:10	7.5
6:20	9.5
6:30	7.5
6:40	11.8
6:50	11.5



**PROPOSED SANITARY PIPE CALCULATIONS
CMU SCAIFE HALL**

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 EXISTING 18-IN COMBO SEWER ON WEST HILLSIDE

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	102	1.49	960,446	0.71	461,014	8.71	7.57
DIAMETER, in	6						
SLOPE	5.00%			PIPE SIZED ACCORDINGLY: TRUE			
n	0.011			$V_{max} < 10$ fps: TRUE			
Q_{max} , gpd	15,699			$V_{half} > 2$ fps: TRUE			
Q_{design} , gpd	54,947						



**Existing and Proposed Sanitary Pipe Calculations
Carnegie Mellon University Scaife Hall
S Neville Street 68-IN PWSA Combined Sewer
Dry Flow Comparison Calculations**

Given Information	
Pipe Location:	S Neville Street
Pipe Type:	BR
Pipe Diameter (IN):	68
Slope:	1.8%
Depth of Flow (IN):	11.8
Manning's n Value:	0.016

Based on PWSA MLCS Spreadsheet for Carnegie Mellon University, dated June 6, 2020
Measured 7/2/2020 at 6pm

Solve for Present Peak Flow	
Radius of Pipe, r (IN):	34
Circular Segment Height, h (IN):	11.8
Central Angle, θ :	98.473
Flow Area, K (IN ²):	421.699
Wetted Perimeter (IN):	58.435
Hydraulic Radius (IN):	7.217
Hydraulic Radius (FT):	0.601
Velocity (FT/S):	8.803
Flow (CFS):	25.779
Flow (GPD):	16,658,047

Solve for Present Average Dry Flow	
Peak Factor:	3.5
Flow (GPD):	4,759,442

Solve for Peak Design Capacity (Present)	
Flow (CFS):	394.133
Flow (GPD):	254,685,241

Solve for Average Design Capacity	
Peak Factor:	3.5
Flow (GPD):	72,767,212

Solve for Projected Peak Flow in 5 Years	
PWSA 5-year Factor	1.05
Anticipated Flow Contribution (GPD) ⁽¹⁾ :	15,699
Flow (GPD):	17,507,434

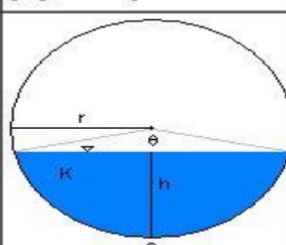
"Proposed Sewage Flow Estimation"

Solve for Average Flow in 5 years	
Flow (GPD):	5,002,124

Summary	
Anticipated Peak Flow Contribution (GPD) ⁽¹⁾ :	15,699
Present Average Flow (GPD):	4,759,442
Present Peak Flow (GPD):	16,658,047
Average Design Capacity (GPD):	72,767,212
Peak Design Capacity (GPD):	254,685,241
Average Projected Flow (GPD)	5,002,124
Peak Projected Flow (GPD)	17,507,434

$$V = \frac{k}{n} R^{2/3} S^{1/2} \quad k=1.4859 \text{ft}^{1/3}/\text{s} \quad Q = VA$$

1. Flow estimation calculated based on Occupancies provided by BuroHappold Engineering

step	solve for	if flow depth < radius
		
1	circular segment height	$h = d$
2	central angle	$\theta = 2 \arccos\left(\frac{r-h}{r}\right)$
3	circular segment area	$K = \frac{r^2(\theta - \sin \theta)}{2}$
4	arc length	$s = r \times \theta$
5	flow area	$A = K$
6	wetted perimeter	$P_w = s$
7	hydraulic radius	$R_h = \frac{A}{P_w}$



**DOCUMENTATION
FROM UTILITY COMPANIES**

June 8, 2020

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:	20013.39 CMU Scaife Hall
Project Address:	4805 Frew Street Pittsburgh, PA 15213
Net Flow, gpd:	15699
EDU's, 400gpd/EDU:	39.25

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 x5543 or BGrunauer@pgh2o.com.

Sincerely,

Ben Grunauer

Benjamin Grunauer, E.I.T.
Engineer II

cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Robert Herring, P.E. – PWSA (via email)
Langan Engineering, Inc. - Applicant (via email)
Regis Ryan – DEP (via email)
eBuilder – Filing System (via email)

June 8, 2020

Paul Ceriani
Langan Engineering, Inc.
2400 Ansys Drive
Canonsburg, PA 15317

Subject: Water and Sewer (W/S) Use Approval
Project Name: 20013.39 CMU Scaife Hall
PWSA Project No.: 20013.39

Dear Paul:

Pursuant to your request, we have reviewed the W/S Use Application (Application) for the aforementioned Project. This letter shall serve as confirmation that the Application has been approved. Please see below for the approved flows:

Type of Flow	Sanitary, gpd	Water, gpd	Storm, cfs
<i>Project Flow</i>	25543	24910	7.27
<i>Existing Flow</i>	9844	9844	6.15
<i>Net Flow</i>	15699	15066	

Please be advised that the need for sewage planning shall be determined by the Department of Environmental Protection (DEP). After issuance of this letter, the PWSA shall email the Preliminary Determination on the Need for Sewage Planning Letter to the DEP. Typically, the DEP will respond via email with the Final Determination on the Need for Sewage Planning. Sewage planning is likely required; we have enclosed for your use the location of the most limited capacity sewer.

Our review was based on information provided by the Applicant under the assumption that this information was accurate and complete. Should you have any questions, please do not hesitate to contact me directly at 412-255-8800 x5543 or BGrunauer@pgh2o.com.

Sincerely,

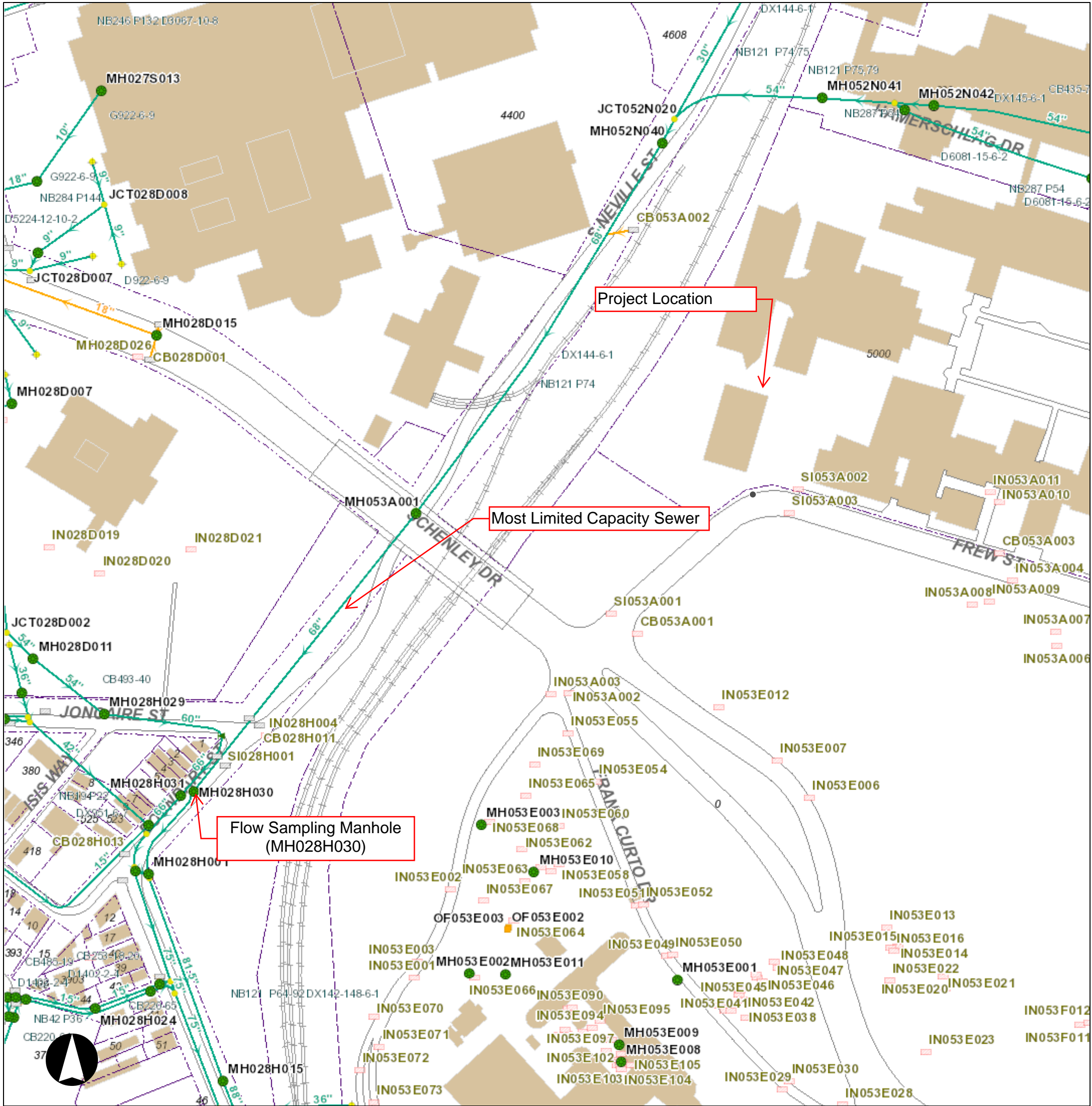
Ben Grunauer

Benjamin Grunauer, E.I.T.
Engineer II

Enclosure(s)

cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Robert Herring, P.E. – PWSA (via email)
eBuilder – Filing System (via email)

MLCS Map



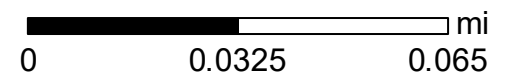
Legend

WATER

- Meter
- Curb Box
- Water System Pump
- Hydrant
- System Valve
- Dividing Pressure Valve
- Coupling
- Tee
- Cross
- Reducer
- End Cap
- Wash Out
- Water Manhole
- Rising Main
- Supply Main
- Transmission Main
- Distribution Main
- Hydrant Branch
- Private Main
- Water Service Line

SEWER

- Pressure Monitoring Station
- Private Inlet
- Outfall
- End Cap
- Sewer Pump Station
- Combined Sewer
- Sanitary Sewer
- Storm Sewer
- Regulated Combined Sewer
- Overflow Sewer
- Interceptor
- Sewer Force Main
- Private Sewer
- Undefined Sewer
- Green Infrastructure Underground Facilities
- Manhole
- Junction
- Inlet



Neither the City of Pittsburgh nor the PWSA guarantees the accuracy of any of the information hereby made available, 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: 6/5/2020

Most Limited Capacity Sewer (MLCS) Spreadsheet

PROJECT NAME:	20013.39 CMU Scaife Hall
PWSA PROJECT NUMBER:	20013.39
PWSA REVIEWER:	Benjamin Grunauer E.I.T.
DATE:	June 6, 2020

LEGEND:	Output Data
	Input Data
	Questionable Data
	Hydraulically Limited Sewer

Upstream MH	Downstream MH	Upstream Invert	Downstream Invert	Length, ft	Diam., in.	Material	n	Area, sf	Wetted P, ft	Slope	Flow, gpd
BK053A001	MH053A001	799.84	794.34	303.46	68	Brick	0.016	25.22	17.802	1.81%	257,770,088
MH053A001	MH028H030	794.34	784.10	577.32	68	Brick	0.016	25.22	17.802	1.77%	255,026,828
MH028H030	BK028H003	784.10	781.86	65.71	81	Concrete	0.013	35.78	21.206	3.41%	693,403,813
BK028H003	MH028H001	781.86	780.18	95.10	81	Concrete	0.013	35.78	21.206	1.77%	499,388,155
MH028H001	JCT028H099	780.18	780.00	6.56	81	Concrete	0.013	35.78	21.206	2.74%	622,167,669
JCT028H099	MH028H015	780.00	774.62	350.38	81.5	Concrete	0.013	36.23	21.337	1.54%	473,334,992
MH028H015	JCT028H005	774.54	772.10	46.69	88	Concrete	0.013	42.24	23.038	5.22%	1,071,237,207
JCT028H005	MH028M002	772.10	765.57	579.54	88	Concrete	0.013	42.24	23.038	1.13%	497,496,022
MH028M002	MH028M010	765.57	757.45	502.68	91	Concrete	0.013	45.17	23.824	1.62%	651,373,265
MH028M010	MH028S002	757.45	751.36	397.11	91	Concrete	0.013	45.17	23.824	1.53%	634,676,929
MH028S002	MH029D036	751.36	745.72	441.92	91	Concrete	0.013	45.17	23.824	1.28%	578,981,124
MH029D036	JCT029D024	745.72	743.60	174.05	91	Concrete	0.013	45.17	23.824	1.22%	565,629,075
JCT029D024	MH029D034	743.60	740.90	202.03	91	Concrete	0.013	45.17	23.824	1.34%	592,481,530
MH029D034	BK029D002	740.90	736.10	347.73	98	Concrete	0.013	52.38	25.656	1.38%	733,707,508
BK029D002	MH029H074	736.10	729.55	579.91	98	Concrete	0.013	52.38	25.656	1.13%	663,687,033
MH029H074	MH054E003	729.55	726.07	311.74	98	Concrete	0.013	52.38	25.656	1.12%	659,811,611
MH054E003	JCT054J004	726.08	720.53	580.91	101	Concrete	0.013	55.64	26.442	0.96%	661,628,028
JCT054J004	MH054J006	720.53	720.52	17.10	101	Concrete	0.013	55.64	26.442	0.05%	146,367,229
MH054J006	MH029M021	720.52	715.96	495.35	135	Concrete	0.013	99.40	35.343	0.92%	1,407,996,717
MH029M021	JCT029M003	715.66	715.62	6.42	144	Concrete	0.013	113.10	37.699	0.59%	1,340,272,303
JCT029M003	ADC029SM29	715.62	709.66	1028.27	168	Concrete	0.013	153.94	43.982	0.58%	2,001,319,419



Water and Sewer (W/S) Use Application Form

Instructions The complete W/S Use Application shall be uploaded via e-builder. To obtain an e-builder project folder, please make a request on our website at www.pgh2o.com/permits. In addition, please refer to the Developer’s Manual for detailed information on application requirements.

Requirements Application Fee Application Form Narrative
 Flow Calculations Site Plan Floor Plan

Project Info Project Name: Carnegie-Mellon University - Scaife Hall
Address: 4805 Frew Street
Pittsburgh PA 15213

Is the Project located on a lot created prior to May 15, 1972? YES NO
Owner/Developer Name: Carnegie-Mellon University, Michael Kelley
Address: 417 S. Craig Street
Pittsburgh PA 15213
Email: mdkelley@cmu.edu
Phone Number: 412-268-2366

Consultant Firm Name: Langan
Address: 2400 Ansys Drive
Canonsburg, PA 15317
Contact Name: Paul Ceriani
Email: pceriani@langan.com
Phone Number: 724-622-2539

Flow Data

Type of Flow	Sanitary, gpd	Water, gpd	Storm, cfs
Project Flow	25543.4	24910.4	7.27
Existing Flow	9843.9	9843.9	6.15
Net Flow	15699.5	15066.5	Not Required

Signature By signing below, I hereby certify, to the best of my knowledge, that the information provided within the Water and Sewer Use Application is true, complete and accurate.
Name, printed: Paul Ceriani
Signature:
Date: 05/18/2020

PWSA WATER AND SEWER USE APPLICATION

for

**CARNEGIE MELLON UNIVERSITY SCAIFE HALL
4805 Frew Street
Pittsburgh, PA 15213**

Prepared For:

**Kieren Timberlake
841 North American Street
Philadelphia, PA 19123**

Prepared By:

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

LANGAN

**May 2020
250119101**

Table of Contents

Introduction	2
Existing Conditions	2
Proposed Development	2
Proposed Water and Sewer Use	2
Proposed Sanitary and Water Flows	3
Proposed Stormwater Flows	3
Conclusion	3

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	NRCS Soils Map

LIST OF DRAWINGS

DRAWING	DESCRIPTION
CD101	Demo Plan
CS101	Site Plan
CU101	Utility Plan

LIST OF APPENDICES

APPENDIX	DESCRIPTION
A	Flow Comparison Calculations

PROJECT NARRATIVE

Introduction

Carnegie Mellon University (CMU) is proposing to construct an 85,500 gross square foot multi-story educational building to replace the existing Scaife Hall. The proposed building will be used for classrooms, research labs, and faculty office space as part of CMU's mechanical engineering department. The proposed site area will include an outdoor maker courtyard intended to provide ample pedestrian space and enhance connections between Scaife Hall, the adjacent CMU buildings, and the neighborhood as a whole. In addition to this courtyard, the surrounding site will include impervious pedestrian walkways, a service driveway, a fire access lane, and landscaping. The total disturbed area coinciding with the NPDES permitted area will be approximately 1.56 acres. The proposed project will not be publicly funded.

Existing Conditions

The site is within parcel 53-B-100 located in the Squirrel Hill North neighborhood of the 14th Ward of Pittsburgh and is bounded by Frew Street to the South, Hamerschlag and Roberts Hall as well as Hamerschlag Drive to the North, Porter and Ansys Hall to the East, and a steep hillside connecting to Junction Hollow to the West. The site is currently occupied by the existing Scaife Hall and has been so since 1962.

The existing building utilizes a single sewer lateral that ties into an existing on-site manhole on the west side of the building on the hillside. It appears this line is currently a combination line that ties into a PWSA combination main at the toe of the hillside. Stormwater from the building, immediate site area, and upstream areas also tie into the same existing manhole.

The Carnegie Mellon University Campus is served by a series of private water mains throughout the campus. There are existing meters located in Forbes Ave and Tech Street. The private water mains within campus are located downstreams of these meters. Scaife Hall is currently served by a lateral connection to one of the private mains.

Proposed Development

The proposed development includes the demolition of the existing Scaife Hall and the construction of an 85,500 gross square floor multi-story education building. The proposed site area will include an outdoor maker courtyard, impervious pedestrian walkways, a service driveway, a fire access lane, and landscaping.

Proposed Water and Sewer Use

Storm and sanitary facilities have been separated at the proposed building via several 6" stormwater downspouts and a 6" sanitary lateral. A new, 6" dedicated sanitary sewer line is proposed along the hillside parallel to the existing combination line. The new dedicated sewer line ties into the same combination line at the toe of the hillside.

Stormwater from the building and site remains connected to the existing line, which only collects stormwater flow in the proposed condition as the sanitary has been disconnected from this connection with the new proposed line.

All new water features will be fed from existing lines within the project site; no new taps to existing public mains are proposed.

Proposed Sanitary and Water Flows

Existing and proposed flows were calculated based on the existing and proposed building’s life safety occupancy and a “Schools, day (without cafeterias, gyms, or showers, per student and employee” per Table 2-1 of the PWSA Developer’s Manual.

Condensate is anticipated to be produced in the proposed condition. Existing and Proposed Flows, including condensate, is included in the below:

TABLE 1: EXISTING AND PROPOSED FLOWS

	Existing	Proposed	Total New	Net New
Sanitary	9843.9 gpd	24910.4 gpd	25543.4 gpd	15669.5 gpd
Condensate (Sanitary)	-	633 gpd		
Water	9843.9 gpd	24910.4 gpd	24910.4 gpd	15066.5 gpd

Proposed Stormwater Flows

Stormwater discharge rates for the proposed development are based on the Rational Method described within the PWSA Procedures Manual for Developers. Based on calculations using the Rational Method, the site has a pre-development 25-year storm discharge of 6.15 cubic feet per second, and a post-development 25-year storm discharge of 7.27 cubic feet per second. The calculations are as follows:

Pre-development Discharge = $[0.78(0.95) + 0.80(0.4)] * 5.8 = 6.15$ cfs

Post-development Discharge = $[1.13 (0.95) + 0.45(0.4)] * 5.8 = 7.27$ cfs

The stormwater management design for this site follows Section 906.07 of the City of Pittsburgh Code and Chapter 7 of the Pennsylvania Department of Transportation Publication 584, which was adopted and approved in accordance with the Pennsylvania Storm Water Management Act.

Conclusion

The net additional flow to the PWSA system from sanitary and condensate flows is calculated to be 15066.5 gpd. No new connections to any PWSA systems are proposed, and as such Tap-in Plans or approval is not required for this project.

The net additional stormwater flow based on the Rational Method and PWSA Developer’s manual is 1.12 cfs. However, based on the SCS method and City of Pittsburgh stormwater requirements, the site has been designed to have a net reduction of stormwater runoff.

APPENDIX D

Alternative Sewage Facilities Analysis

SECTION H SEWAGE FACILITIES PLANNING MODULE COMPONENT 3

**Re: Alternative Sewage Facilities Analysis
Carnegie Mellon University Scaife Hall
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250119101**

The project site is located on Carnegie Mellon University's campus, at Frew Street and Hamerschlag Drive, in the EMI, Educational/Medical Institution District within the City of Pittsburgh, Allegheny County, Pennsylvania. Carnegie Mellon University (CMU) is proposing to redevelop approximately 1.56 acres composed of lot 53-B-100, to include the proposed 85,500 GSF multi-story CMU Scaife, impervious pedestrian walkways, landscaped areas, an asphalt driveway, concrete parking lot, and associated site features. The proposed development will be owned and operated by Carnegie Mellon University.

The project site is generally bound by university buildings to the north, Hamerschlag Drive to the east, Frew Street to the south, and trees to the west. The site is currently occupied by Scaife Hall, a parking lot with landscaped areas and impervious pedestrian walkways. An existing 68-inch PWSA combined sewer is located in S. Neville Street.

The sanitary service for the project will be provided by one proposed on-site gravity sewer lateral to connect to an existing, private 18-inch combined sewer owned by CMU, located on the hillside west of the project site. The privately owned, existing 18-inch combined sewer is connected to the existing 68-inch PWSA combination sewer located in S. Neville Street to be conveyed to the Allegheny County Sanitary Authority (ALCOSAN) Wastewater Treatment Facility in Pittsburgh, PA. This ultimate method will provide for disposal of the net total combined daily flow of 15,699 gallons per day (40 EDU's). A reference for the approximate sewage flow for the proposed development can be found in Appendix C. The proposed lateral and private sanitary line will remain private and 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 1.2 miles southwest 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.

APPENDIX E

Public Notice

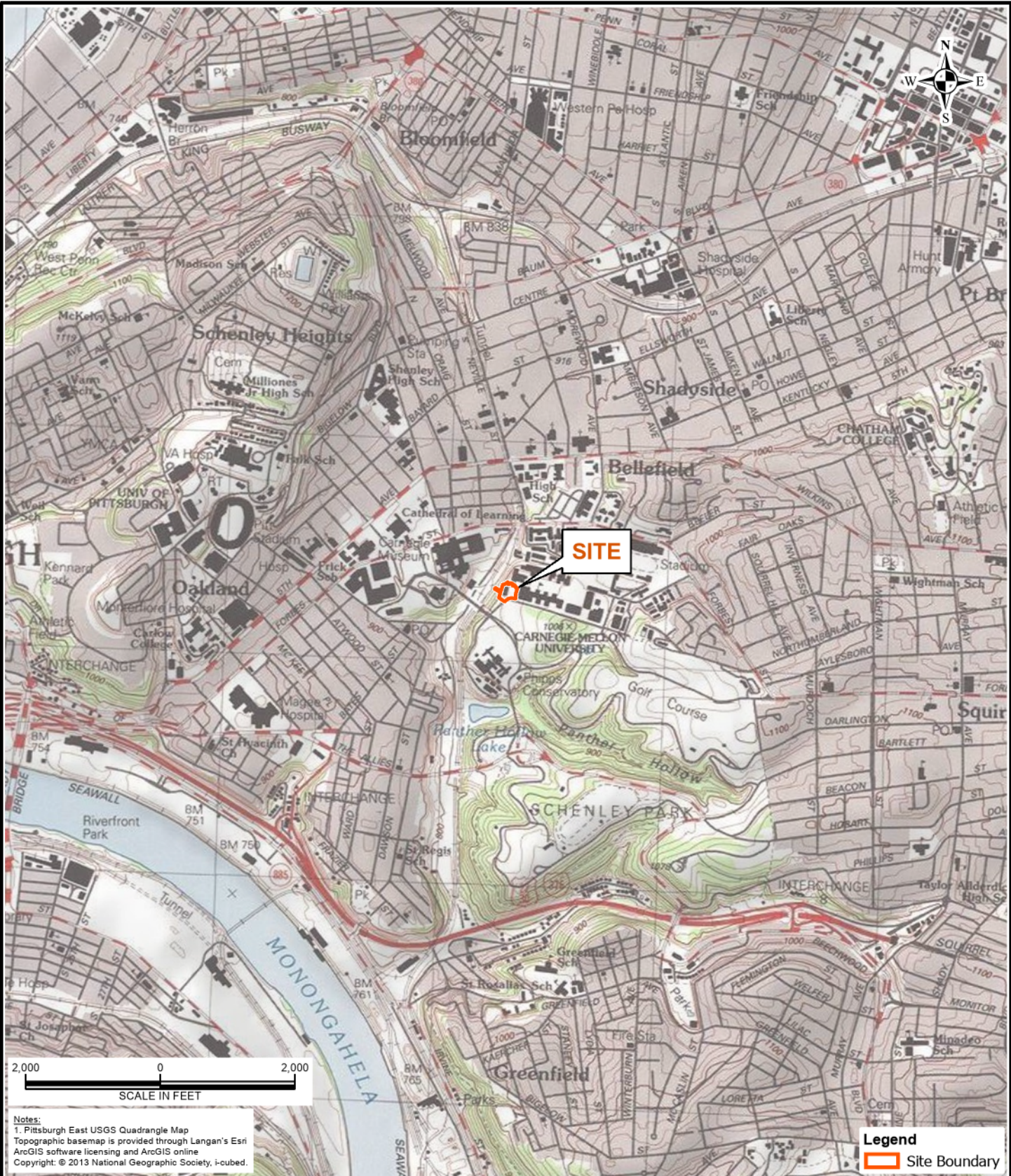
**SECTION P
SEWAGE FACILITIES PLANNING
MODULE COMPONENT 3**

**Re: Public Notice
Carnegie Mellon University Scaife Hall
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250119101**

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

APPENDIX F

USGS Map and Plot Plans



Notes:
 1. Pittsburgh East USGS Quadrangle Map
 Topographic basemap is provided through Langan's Esri
 ArcGIS software licensing and ArcGIS online
 Copyright: © 2013 National Geographic Society, i-cubed.

Legend
 Site Boundary

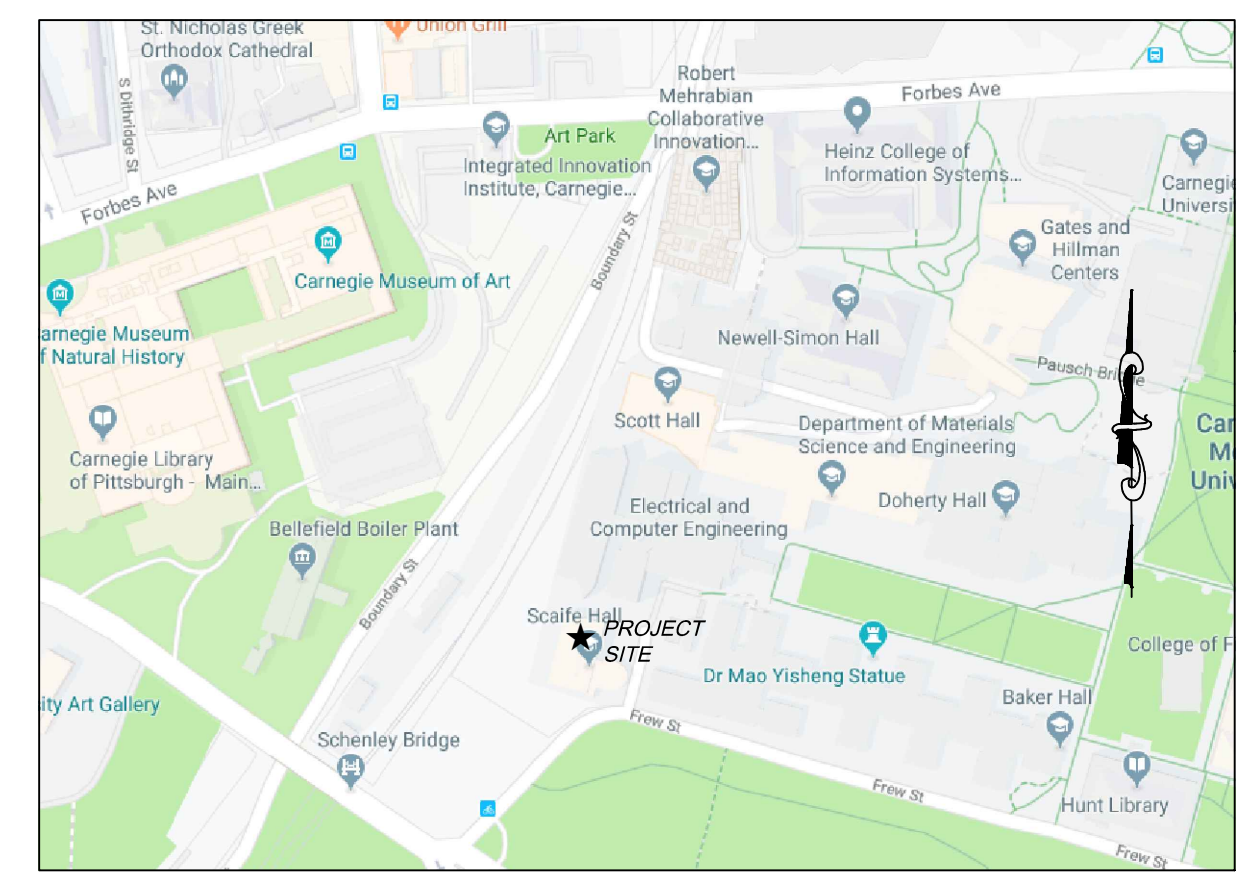
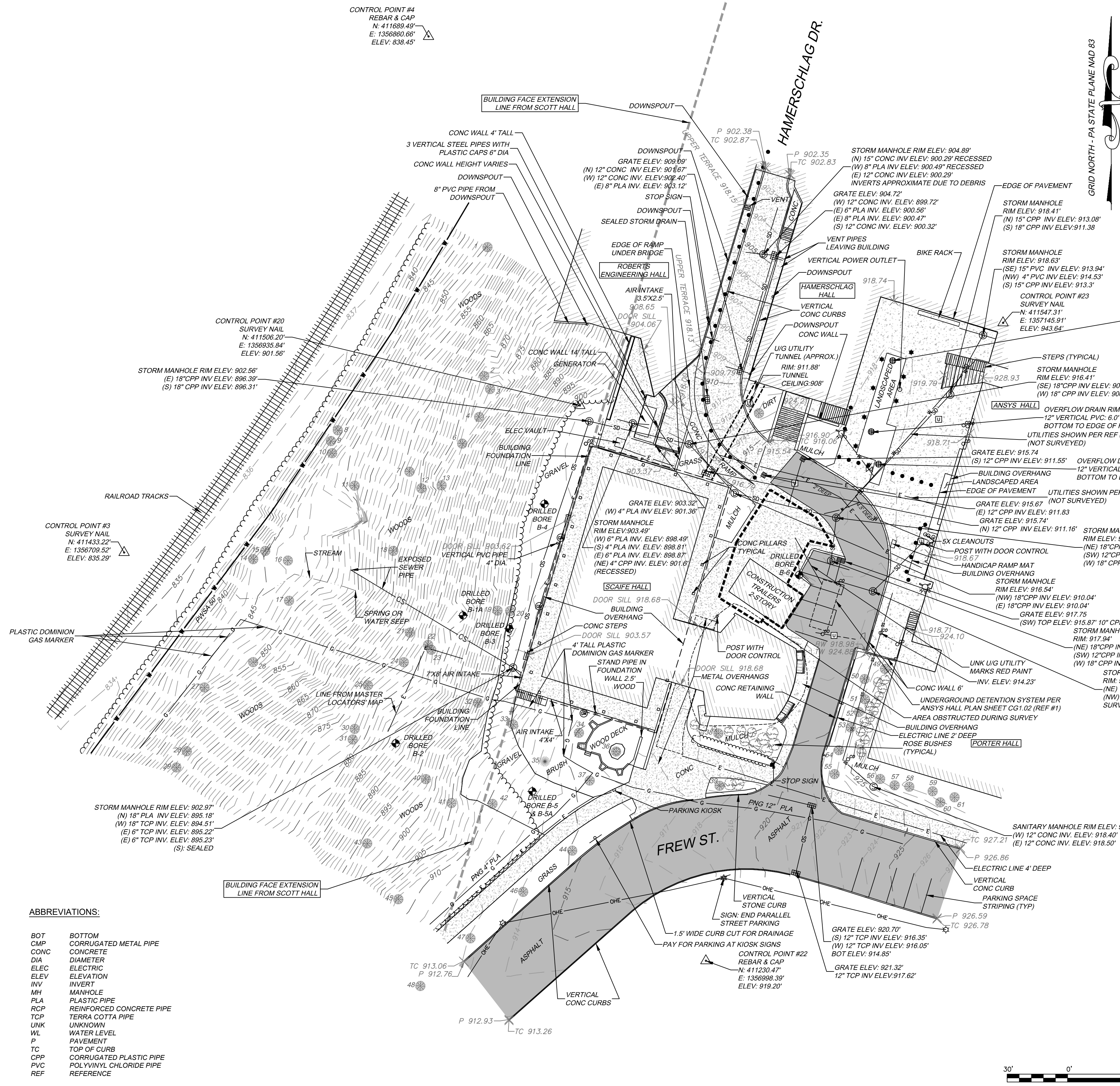
LANGAN
 Langan Engineering and
 Environmental Services, Inc.
 2400 Ansys Drive, Suite 403
 Canonsburg, PA 15317-9540
 T: 724.514.5100 F: 724.514.5101
 www.langan.com

Project
**CMU - SCAIFE
 HALL**
 PITTSBURGH
 ALLEGHENY COUNTY PA

Drawing Title
**SITE
 LOCATION
 MAP**

Project No. 250119101	Figure
Date 4/7/2020	1
Scale 1" = 2,000 feet	
Drawn By BLA	

TREE TABLE			
TREE #	TREE TYPE	TRUNK DIA. (IN)	DRIFLINE RADIUS (FT)
1	MAPLE	12	15
2	MAPLE	14	20
3	MAPLE	20	25
4	MAPLE	20	25
5	LOCUST	10	12
6	MAPLE	12	CENTER OF 3 12 INCH TRUNKS
7	MAPLE	12	20
8	ELM	15	15
9	UNK	24	20
10	ELM	16	20
11	UNK	16	20
12	ELM	12	15
13	DEAD	15	DEAD
14	ELM	15	15
15	UNK	13	15
16	UNK	20	15
17	LOCUST	22	30
18	MAPLE	18	25
19	DEAD	20	DEAD
20	MAPLE	12	8
21	UNK	14	36
22	DEAD	20	DEAD
23	UNK	16	24
24	UNK	14	14
25	UNK	18	10
26	LOCUST	16	20
27	BIRCH	13	20
28	UNK	28	20
29	UNK	15	10
30	LOCUST	13	12
31	LOCUST	14	15
32	ELM	14	24
33	DBL SYCAMORE	38	20
34	CLUMP DECID	2	7
35	PINE	18	8
36	OAK	24	30
37	CLUMP DECID	4	8
38	LOCUST	9	12
39	OAK	12	12
40	SEE PIC	15	20
41	DECID	22	20
42	MULLBERRY	19	20
43	SEE PICTURE	15	20
44	SYCAMORE	24	20
45	HACKBERRY	15	28
46	SYCAMORE	34	36
47	SYCAMORE	46	36
48	SYCAMORE	30	36
49	PINE	2	5
50	CHERRY BLOSSOM	2	5
51	CHERRY BLOSSOM	2	5
52	CHERRY BLOSSOM	2	5
53	CHERRY BLOSSOM	2	5
54	CHERRY BLOSSOM	2	5
55	CHERRY BLOSSOM	2	5
56	PINE	14	20
57	PINE	8	15
58	PINE	12	16
59	PINE	12	16
60	PINE	6	10
61	DOUBLE TRUNK PINE	6	10



LEGEND:

- PAVEMENT AREAS
- CONCRETE AREAS
- TEMPORARY BENCHMARK
- STORM DRAIN INLET
- STORM DRAIN MANHOLE
- UNKNOWN MANHOLE
- COMBINED SEWER MANHOLE
- WATER UTILITY VAULT
- UTILITY VAULT TYPE UNKNOWN
- BOLLARD
- BOLLARD LIGHT
- FIRE HYDRANT
- LIGHT POLE
- SIGN
- WATER VALVE
- GAS METER
- SEWER CLEANOUT
- TREE WITH TRUNK DIAMETER
- TREE LINE
- OVERHEAD ELECTRIC/TELEPHONE LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND GAS LINE
- UNDERGROUND WATER LINE FROM PA 1 CALL MAP
- UNDERGROUND STORM DRAIN LINE
- UNDERGROUND COMBINED SEWER LINE
- MAJOR TOPOGRAPHIC CONTOUR LINE WITH ELEVATION
- MINOR TOPOGRAPHIC CONTOUR LINE WITH ELEVATION
- TOPOGRAPHIC SPOT ELEVATION

- REFERENCES:**
- CIVIL PLANS TITLED CARNEGIE MELLON UNIVERSITY ANSYS HALL BY LANGAN, ISSUED FOR CONSTRUCTION, PLAN DATED APRIL 25, 2018.

- NOTES:**
- TOPOGRAPHIC INFORMATION SHOWN IS BASED ON A FIELD SURVEY PERFORMED BY SCI-TEK CONSULTANTS, INC. BETWEEN JULY 2019 AND MARCH 2020.
 - HORIZONTAL DATUM: PA STATE PLANE COORDINATES (SOUTH ZONE) NAD83(2011); VERTICAL DATUM: NAVD83. GRID NORTH, BEARINGS AND ELEVATIONS WERE DERIVED FROM THE KEYNET GPS VRS NETWORK. THE STATE PLANE COORDINATES HAVE BEEN SCALED TO GROUND FROM A POINT AT N. 410982.17' AND E. 1356704.62' USING A COMBINED FACTOR OF 1.0000785916.
 - ONLY TREES 12" IN DIAMETER OR LARGER ARE SHOWN
 - SURVEY MEASUREMENTS WERE MADE IN US SURVEY FEET (US FT).
 - CONTOURS SHOWN WERE PRODUCED FROM AN ACTUAL GROUND SURVEY. CONTOUR INTERVAL IS 1 FOOT.
 - THIS PLAN IS NOT VALID UNLESS IT CONTAINS THE SIGNATURE AND SEAL OF THE PROFESSIONAL LAND SURVEYOR.
 - SANITARY AND STORM SEWER INFORMATION (PIPE SIZE, MATERIAL AND INVERT ELEVATION) WAS OBTAINED FROM FIELD-LOCATED STRUCTURES, WHERE ACCESSIBLE AND/OR OBSERVABLE AND MAY NOT BE UNIFORM THROUGHOUT THE RUN CONNECTING THE STRUCTURES. THE UNDERGROUND PIPE RUNS WERE NOT SURVEYED AND MAY NOT BE STRAIGHT BETWEEN STRUCTURES AS SHOWN. SOME OF THE STRUCTURES WERE FILLED WITH DEBRIS AND/OR WATER AT THE TIME OF SURVEY AND THEREFORE PIPE CONNECTIVITY, INVERT ELEVATION, SIZE, AND MATERIAL COULD NOT BE ASCERTAINED. ALTHOUGH DUE DILIGENCE WAS EXERCISED IN LOCATING STRUCTURES, IT IS POSSIBLE THAT INTERMEDIATE STRUCTURES MAY EXIST THAT ARE NOT SHOWN DUE TO OBSCURITY DURING THE SURVEY.
 - UNDERGROUND UTILITY LOCATIONS SHOWN ARE BASED ON A COMBINATION OF SURVEYED UTILITY APPURTENANCES IN THE FIELD, SURVEYED MARKINGS ON THE GROUND AND/OR INFORMATION PROVIDED BY THE CLIENT AND/OR UTILITY COMPANIES THAT RESPONDED THROUGH THE PA ONE CALL SYSTEM. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND UTILITIES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, UTILITY LOCATION REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE. THEREFORE, SCI-TEK MAKES NO REPRESENTATION AS TO THE COMPLETENESS OR ACCURACY OF THE PROVIDED MARKINGS WITH RESPECT TO THE ACTUAL LOCATIONS OF THE UNDERGROUND UTILITIES.
 - DEPTHS ON UNDERGROUND UTILITIES WERE PROVIDED BY GPRS, LLC AND ARE APPROXIMATE. THE DEPTHS WERE DERIVED FROM ELECTROMAGNETIC SENSING EQUIPMENT AND AS SUCH ARE SUBJECT TO BEING INACCURATE.

ABBREVIATIONS:

BOT	BOTTOM CORRUGATED METAL PIPE
CMP	CONCRETE
CONC	CONCRETE
DIA	DIAMETER
ELEC	ELECTRIC
ELEV	ELEVATION
INV	INVERT
MH	MANHOLE
PLA	PLASTIC PIPE
RCP	REINFORCED CONCRETE PIPE
TCP	TERRA COTTA PIPE
UNK	UNKNOWN
WL	WATER LEVEL
P	PAVEMENT
TC	TOP OF CURB
CPP	CORRUGATED PLASTIC PIPE
PVC	POLYVINYL CHLORIDE PIPE
REF	REFERENCE

Pennsylvania One Call System, Inc.
Call 3 Business Days Before You Dig!
1-800-242-1776 or 8-1-1
POCS Serial No.: 20191710388
Date: 6/20/2019

CONTRACTORS ARE REQUIRED TO NOTIFY THE FACILITY OWNERS NOT LESS THAN THREE (3) NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO EXCAVATION OR DEMOLITION WORK WHEN USING POWERED EQUIPMENT ON PUBLIC OR PRIVATE PROPERTY ANYWHERE IN THE COMMONWEALTH. CONTRACTORS ARE RESPONSIBLE FOR PRESERVING THE FACILITY OWNER MARKINGS, TO EXERCISE DUE CARE AND EMPLOY PRUDENT TECHNIQUES WITHIN THE TOLERANCE ZONE. CONTRACTORS SHOULD KEEP EACH OPERATOR AT THE SITE INFORMED AND EVALUATE THE PREMISES IF NECESSARY. NOTIFICATION SHOULD BE MADE THROUGH THE PENNSYLVANIA ONE-CALL SYSTEM (1-800-242-1776 or 8-1-1).



I, Jeremy R. Gatten, a licensed Professional Land Surveyor in the Commonwealth of Pennsylvania, hereby certify, to the best of my knowledge, information and belief, that this plan is correct and has been surveyed and prepared by me or under my direct supervision.

Jeremy R. Gatten
Jeremy R. Gatten, PLS #SU075445
4-11-20
Date



KIERAN TIMBERLAKE
PITTSBURGH, PENNSYLVANIA
CARNEGIE MELLON UNIVERSITY
SCAIFE ENGINEERING HALL
ALLEGHENY COUNTY, PITTSBURGH PA.

TOPOGRAPHIC AND EXISTING CONDITIONS SURVEY

SCI-TEK PROJECT ID: 19-905	
SURVEYED: JRG/JDB	CHECKED: JRG
DRAFTED: JDB/JGS	DATE: 8-7-2019
DWG SCALE: AS SHOWN	
DRAWING NO.:	

PRINT DATE: 4/14/20 FILE LOCATIONS: \CUSTOMERS\2019\19-905 KIERAN TIMBERLAKE SCAIFE HALL (SU) SURVEYING DRAWINGS FILE NAME: CMU SURVEY BASE.DWG

REV	DESCRIPTION	BY	DATE

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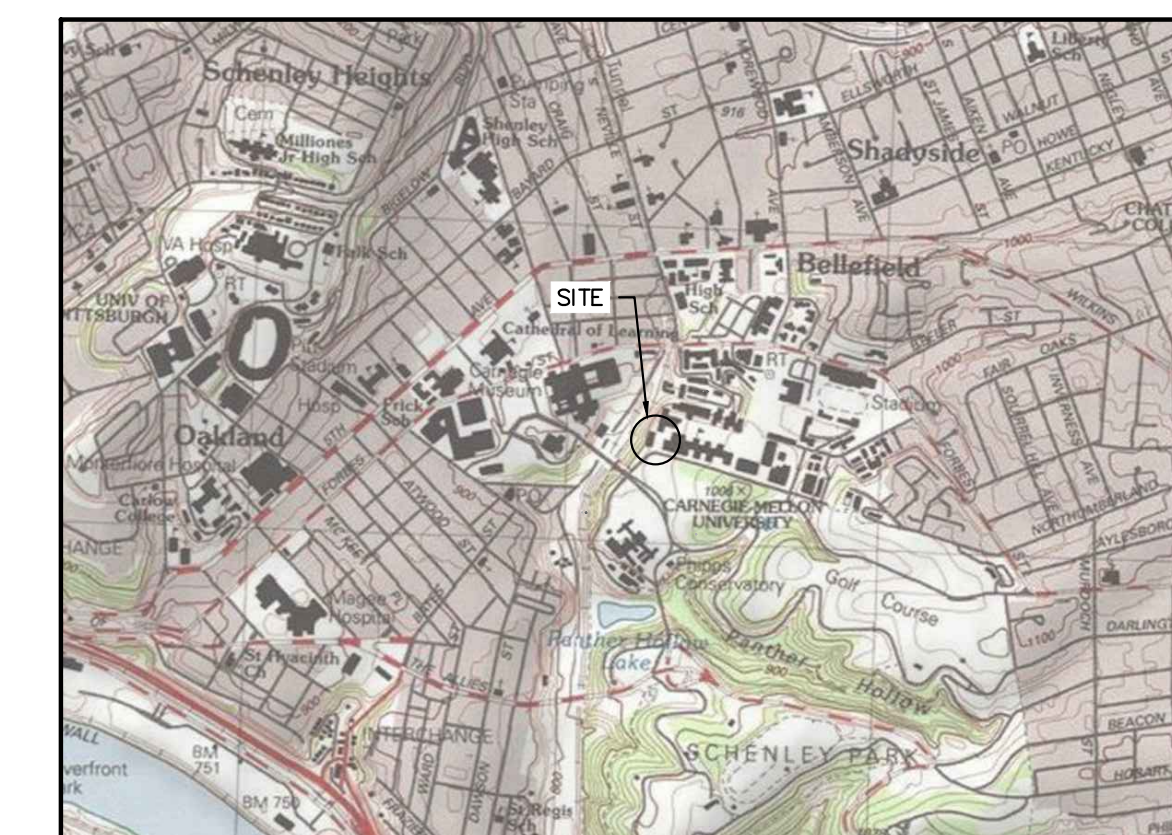
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GEOTECH ENGINEER
SCI-TEK CONSULTANTS
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SAN DIEGO, CALIFORNIA 92103-3192
V 619-294-0159
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FURNITURE / FIXTURES / EQUIPMENT DESIGN
SPACESMITH
ONE NEW YORK PLAZA, SUITE 4200
NEW YORK, NY 10004
V 212-620-5583



PROJECT LOCATION MAP
SCALE: 1" = 2000'

GENERAL SITE NOTES

- EXISTING BOUNDARY AND TOPOGRAPHY INFORMATION IS BASED ON A PLAN TITLED "TOPOGRAPHIC AND EXISTING CONDITIONS SURVEY" FOR THE "CARNEGIE MELLON UNIVERSITY SCAIFE ENGINEERING HALL" PROJECT SITUATED IN THE "CITY OF PITTSBURGH, ALLEGHENY COUNTY, PENNSYLVANIA," PREPARED BY SCI-TEK CONSULTANTS, INC., DATED AUGUST 7, 2019, AND SIGNED APRIL 14, 2020.
- THESE PLANS REPRESENT THE OVERALL SITING AND IMPROVEMENTS REQUIRED FOR PROJECT CONSTRUCTION. 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 SHALL BE 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 SITEMARK CONSTRUCTION. THE CONTRACTOR SHALL BE 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 MAKES NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY AVAILABLE INFORMATION WHICH 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 MAKE ADDITIONAL TOPOGRAPHIC SURVEYS HE 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 THEY DEEM NECESSARY, PROVIDE WRITTEN REQUESTS FOR INFORMATION (RFIS) TO THE OWNER AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEMARK ITEM. THE RFI SHALL BE IN A FORM ACCEPTABLE TO OWNER AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF TWO WORK DAYS OR ADDITIONAL REASONABLE TIME FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEMARK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
- 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 CONSTRUCTION. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO CONSTRUCTION.
- 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.
- REMOVE EXISTING CURB AS SHOWN ON THE DEMOLITION PLAN. REMOVE EXISTING PAVEMENT AS NECESSARY TO ACCOMMODATE CURB REMOVAL AND REPLACE WITH NEW CURB AS SHOWN ON THIS PLAN. REPAIR PAVEMENT AND ADJACENT CURB AS NECESSARY.
- PAVEMENT AFFECTED BY TRENCHING OR OTHER CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL AND PROPER CONDITION.
- SEE LANDSCAPE DOCUMENTS FOR MATERIALS UNLESS OTHERWISE NOTED.
- A BUILDING PERMIT IS REQUIRED FOR ALL WALLS GREATER THAN 4-FT IN HEIGHT.
- APPROXIMATE LOCATION OF CITY OF PITTSBURGH R.O.W. BASED ON GIS PARCEL DATA AS WELL AS THE LEGAL DESCRIPTION FROM CITY OF PITTSBURGH ORDINANCE NO. 135.
- CONTRACTOR TO COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY WITH THE CITY OF PITTSBURGH DEPARTMENT OF PUBLIC WORKS.

LEGEND

	EXISTING	PROPOSED
ROW BOUNDARY		
BUILDING LINE		
BUILDING OVERHANG		
BELOW GRADE BUILDING EXTENTS		
CONCRETE CURB		
DOOR		
BUILDING COLUMN		
BOLLARD		
RETAINING WALL		
CONCRETE SIDEWALK		
VEHICULAR RATED CONCRETE PAVEMENT		
ASPHALT PAVEMENT		

REVISIONS

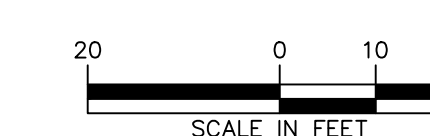
NO.	DATE	DESCRIPTION
1	6/15/2020	NPDES PERMIT RESUBMISSION

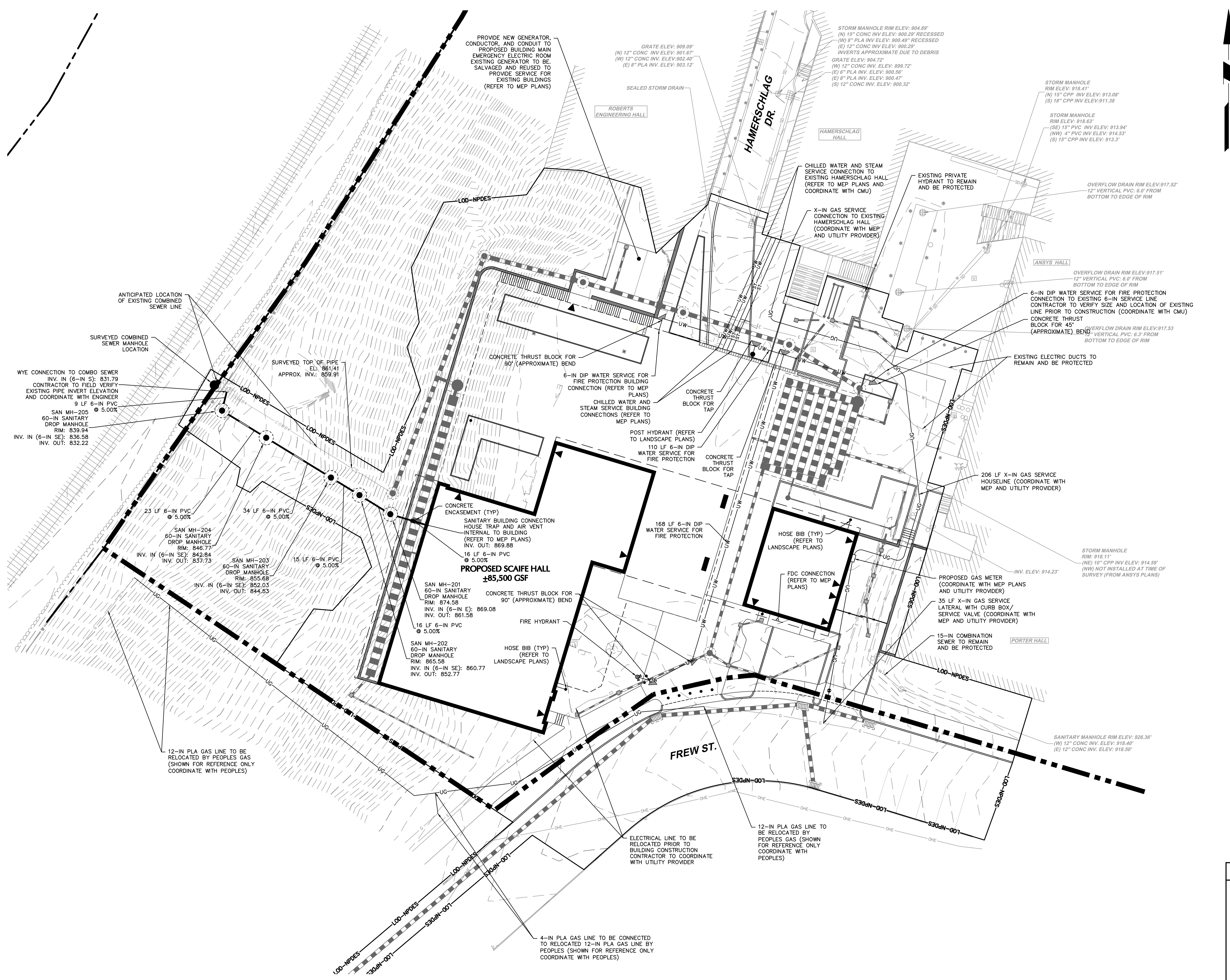
SITE PLAN

SCALE: AS NOTED
DRAWN BY: MMC
CHECKED BY: PJC
CAD FILE:
DATE: 15 MAY 2020

CS1.01

PERMIT SUBMISSION





UTILITY NOTES

- EXISTING BOUNDARY AND TOPOGRAPHY INFORMATION IS BASED ON A PLAN TITLED "TOPOGRAPHIC AND EXISTING CONDITIONS SURVEY" FOR THE "CARNEGIE MELLON UNIVERSITY SCAIFE ENGINEERING HALL" PROJECT SITUATED IN THE "CITY OF PITTSBURGH, ALLEGHENY COUNTY, PENNSYLVANIA," PREPARED BY SCI-TEK CONSULTANTS, INC., DATED AUGUST 7, 2019, AND SIGNED APRIL 14, 2020.
- THE CONTRACTOR IS RESPONSIBLE TO BECOME THOROUGHLY FAMILIAR WITH THE ENGINEERING, DRAINAGE, AND UTILITY STANDARDS OF THE LOCAL MUNICIPALITY AND COUNTY THAT THE PROJECT IS LOCATED IN. ALL LOCAL MUNICIPALITY AND COUNTY STANDARDS WILL TAKE PRECEDENCE OVER ANY STATE, FEDERAL, AND NATIONAL STANDARDS PROVIDED ON THESE DRAWINGS, UNLESS SPECIFICALLY ADDRESSED OTHERWISE BY LANGAN DURING THE PROJECT UPON REQUEST FROM THE CONTRACTOR.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATIONS (VERTICAL AND HORIZONTAL) OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL NOTIFY ONE CALL OF PENNSYLVANIA AND ALL APPROPRIATE UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAYS AT LEAST 72 HOURS BEFORE ANY EXCAVATION OR GRADING TO REQUEST EXACT FIELD LOCATION OF UTILITIES. NOTIFY ONE CALL OF PENNSYLVANIA AT 1-800-242-1776. ANY UTILITIES (WHETHER THEY ARE SHOWN OR NOT SHOWN ON THE DRAWINGS) DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AT HIS COST.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, DEPTHS AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THESE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF LANGAN ENGINEERING.
- 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.
- 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.
- 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 CONSTRUCTION. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO CONSTRUCTION.
- 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 DEPARTMENT OR WATER DEPARTMENT, 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.
- UTILITY TESTING INCLUDING (BUT NOT LIMITED TO) WATER PRESSURE TESTING, WATER SYSTEM FLUSHING, BACTERIOLOGICAL TESTING, VIDEO CAMERA TESTING, MANHOLE TESTING, OR ANY OTHER TESTING REQUIRED BY LOCAL, COUNTY, OR STATE AGENCIES, SHALL BE COORDINATED AND CERTIFIED BY THE CONTRACTOR AND OCCUPANCIES BEING ISSUED SHALL BE COORDINATED AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. RECORD DRAWINGS SHALL BE PROVIDED 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.
- 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-606. ALL NEW MAINS SHALL MEET AWWA STANDARD C-601. BACTERIOLOGICAL TESTS FOR 2 CONSECUTIVE DAYS SHALL BE PROVIDED AT PLACING SYSTEM INTO SERVICE. CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER OF RECORD WITH AWWA C606 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 IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED PROCEDURES.
- ALL WATER LINES ARE TO BE INSPECTED BY A LICENSED PROFESSIONAL ENGINEER DURING INSTALLATION.
- 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.
- 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.
- 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 INSPECTION.
- 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.
- 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 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).
- SHOULD ANY UTILITY CONFLICTS ARISE BETWEEN SANITARY SEWERS AND UNDERGROUND WATER LINES OR STORM SEWERS, WHEREIN THERE IS 18 INCHES OR LESS VERTICAL SEPARATION BETWEEN OUTSIDE OF PIPE AND OUTSIDE OF PIPE, THE SANITARY SEWER SHALL BE CONCRETE ENCASED AT AND AROUND THE POINT OF CONFLICT.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS AND ANY LOCAL AUTHORITIES.
- 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.
- ALL SEWER CONNECTIONS MUST BE APPROVED AND INSPECTED BY THE ALLEGHENY COUNTY HEALTH DEPARTMENT (ACHD). CONTRACTOR TO RECEIVE ACHD APPROVAL PRIOR TO CONSTRUCTION.

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SCAIFE HALL

Carnegie Mellon University

4805 FREW ST., PITTSBURGH, PA 15213
KT PROJECT NO. 902

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WATER
THE PITTSBURGH WATER AND SEWER AUTHORITY
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1200 PENN AVENUE
PITTSBURGH, PA 15222
PHONE: 412-255-8800
CONTACT: JULIE ASIOLLIA

SEWER
THE PITTSBURGH WATER AND SEWER AUTHORITY
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PITTSBURGH, PA 15222
PHONE: 412-255-8800
CONTACT: JULIE ASIOLLIA

GAS
PEOPLES NATURAL GAS COMPANY LLC
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PITTSBURGH, PA 15212
PHONE: 878-645-6892
CONTACT: TIM VITOLLO

ELECTRICITY
DUQUESNE LIGHT COMPANY
ADDRESS: 2825 NEW BEAVER AVENUE
PITTSBURGH, PA 15233
PHONE: 412-393-7812
CONTACT: EARL ELDER

COMMUNICATIONS
COMCAST CABLE - KEYSTONE REGION
ADDRESS: 300 CORLISS STREET
PITTSBURGH, PA 15220
PHONE: 412-875-1386
CONTACT: EUGENE LEW

COMMUNICATIONS
VERIZON OF PA
ADDRESS: 15 MONTGOMERY PLACE
PITTSBURGH, PA 15212
PHONE: 412-237-2290
CONTACT: DAN BARREN

LEGEND

	EXISTING	PROPOSED
ROW BOUNDARY	---	---
LOD BOUNDARY	---	---
SANITARY SEWER	SD	LOD
SANITARY MANHOLE	⊙	⊙
COMBINATION SEWER LINE	CS	CS
STORM SEWER	SS	SS
STORM MANHOLE/ OUTLET CONTROL STRUCTURE	⊙	⊙
INLET	⊙	⊙
TRENCH DRAIN	TD	TD
WATER LINE	WU	WU
FIRE HYDRANT	⊙	⊙
UNDERGROUND FIRE LINE	UFW	UFW
GAS LINE	UG	UG
UNDERGROUND TELEPHONE LINE	TEL	TEL
UNDERGROUND ELECTRIC LINE	ELE	ELE
ELECTRIC MANHOLE	⊙	⊙
ELECTRIC STRUCTURE	⊙	⊙

REVISIONS

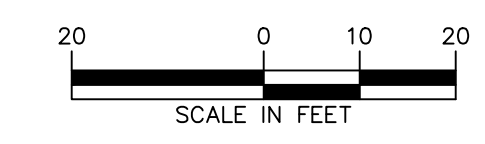
NO.	DATE	DESCRIPTION
1	6/15/2020	NPDES PERMIT RESUBMISSION

UTILITY PLAN

SCALE: AS NOTED
DRAWN BY: MMC
CHECKED BY: PJC
CAD FILE:
DATE: 15 MAY 2020

CU1.01

PERMIT SUBMISSION



APPENDIX G

Cultural Resource Notice

**SECTION G
SEWAGE FACILITIES PLANNING
MODULE COMPONENT 3**

**Re: Cultural Resources Notice (CRN)
Carnegie Mellon University
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250119101**

Per DEP Document #0120-PM-PY0003a – Section F, a Cultural Resource Notice is not required for this project because the project area is less than 10 acres, and does not contain any existing historical buildings.

APPENDIX H

PNDI

1. PROJECT INFORMATION

Project Name: **CMU - Scaife Hall**

Date of Review: **5/11/2020 11:09:27 AM**

Project Category: **Development, New public/community development (school, library, church, museum)**

Project Area: **2.48 acres**

County(s): **Allegheny**

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

ZIP Code: **15213; 15260**

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

Watersheds HUC 8: **Lower Monongahela**

Watersheds HUC 12: **Streets Run-Monongahela River**

Decimal Degrees: **40.441799, -79.947439**

Degrees Minutes Seconds: **40° 26' 30.4764" N, 79° 56' 50.7806" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
PA Department of Conservation and Natural Resources	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
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

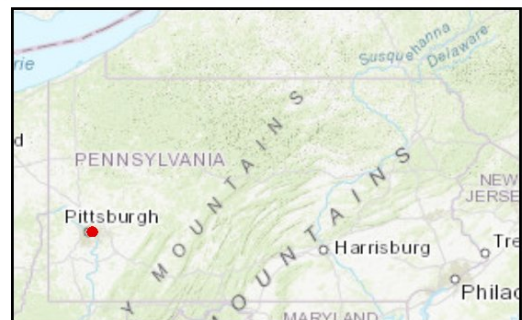
As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

CMU - Scaife Hall

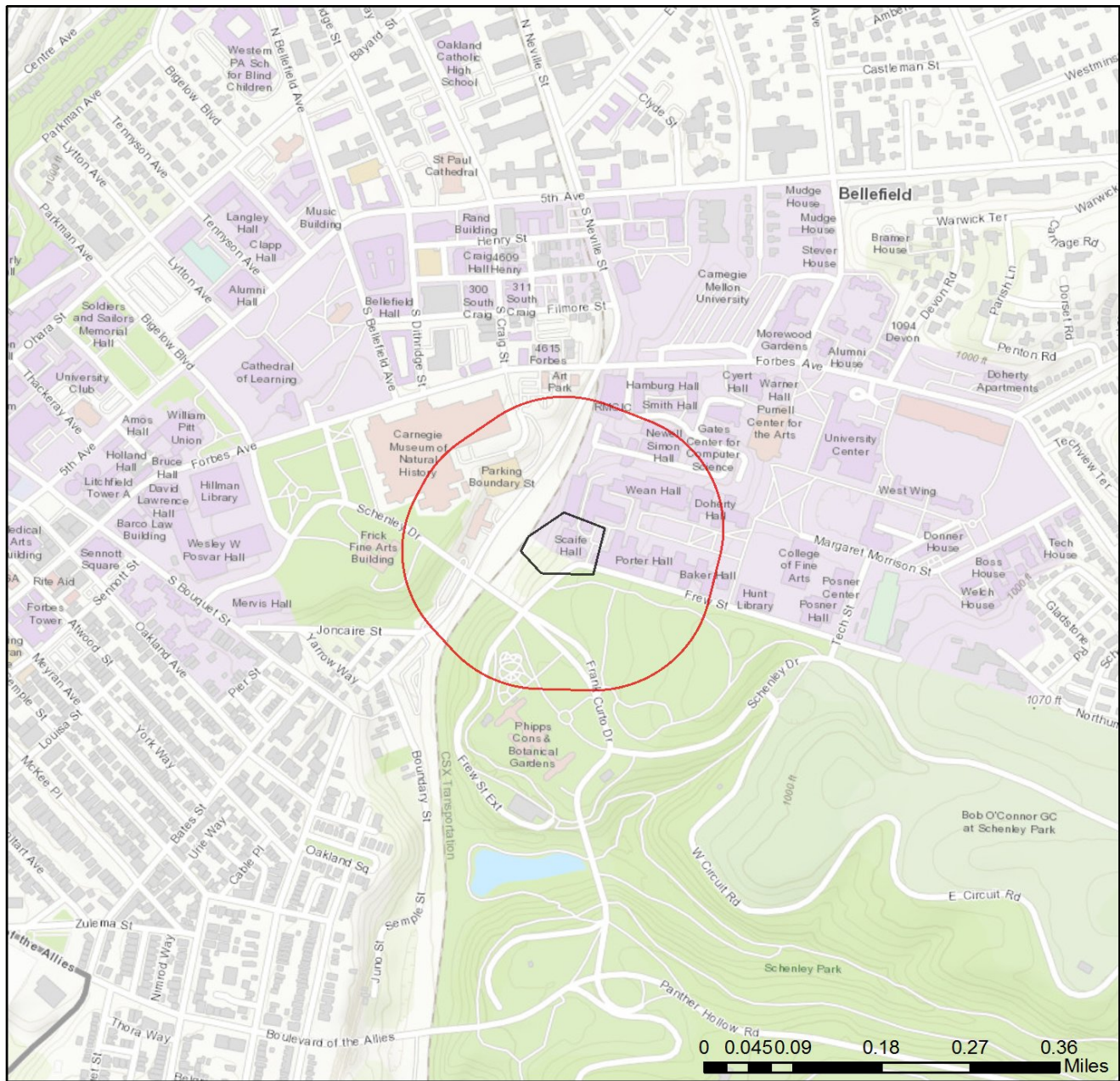


- Project Boundary
- Buffered Project Boundary

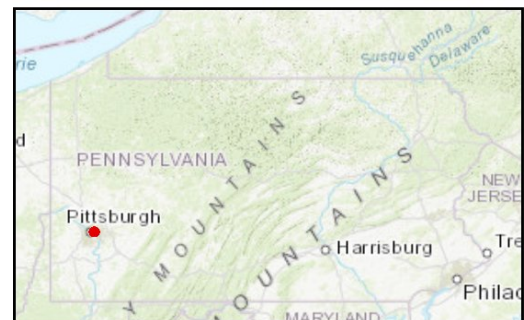
Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



CMU - Scaife Hall



- Project Boundary
- Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

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: The project will affect 1 to 39 acres of forests, woodlots and trees.

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:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PGC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Falco peregrinus	Peregrine Falcon	Threatened

PA Department of Conservation and Natural Resources

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here:

<https://conservationexplorer.dcnr.pa.gov/content/survey-protocols>)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Ptelea trifoliata	Common Hop-tree	Threatened	Threatened	Flowers late May - early June; fruits July - September

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.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

Check-list of Minimum Materials to be submitted:

___ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

___ A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

___ **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

___ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

___ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

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

5. ADDITIONAL INFORMATION

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

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

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission

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

U.S. Fish and Wildlife Service

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

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: PAUL CERIANI

Company/Business Name: Langan Engineering & Environmental Services

Address: 2400 Ansys Drive, STE 403

City, State, Zip: Canonsburg, PA 15317

Phone: (412) 514-5167

Fax: ()

Email: pceriani@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.



MAY 11, 2020

applicant/project proponent signature

date

PNDI RESPONSES



June 18, 2020

Mr. Robert Gehris
Langan Engineering & Environmental Services
2400 Ansys Drive, Suite 403
Canonsburg, Pennsylvania 15317
rgehris@langan.com

PNDI Receipt File: *project_receipt_cmu_scaife_hall_709524_FINAL_1.pdf*
Re: CMU - Scaife Hall
City of Pittsburgh, Allegheny County, Pennsylvania

Dear Mr. Gehris,

Thank you for submitting Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt *project_receipt_cmu_scaife_hall_709524_FINAL_1.pdf* for review. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

No Impact Anticipated

PNDI records indicate species or resources of concern are located within the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, the PGC has determined that no impact is likely. Therefore, no further coordination with the PGC will be necessary for this project at this time.

This response represents the most up-to-date summary of the PNDI data files and is valid for two (2) years from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for two additional years.

This finding applies to impacts to birds and mammals only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure that the U.S. Fish and Wildlife Service, the PA Department of Conservation and Natural

Resources, and/or the PA Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,



Olivia A. Braun
Environmental Planner
Division of Environmental Planning & Habitat Protection
Bureau of Wildlife Habitat Management
Phone: 717-787-4250, Extension 73128
Fax: 717-787-6957
E-mail: Olbraun@pa.gov

A PNHP Partner



OAB/oab

cc: File

BUREAU OF FORESTRY

May 11, 2020

PNDI Number: 709524
Version: Final_1; 5/11/20

Robert Gehris
Langan Engineering & Environmental Services
2400 Ansys Dr
Canonsburg, PA 15317
Email: rgehris@langan.com (hard copy will not follow)

Re: CMU – Scaife Hall
Pittsburgh, Allegheny County, PA

Dear Mr. Gehris,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number **709524 (Final_1)** for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

No Impact Anticipated

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter and a permit has not been acquired, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative, description of project changes and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Jason Ryndock, Ecological Information Specialist, by phone (717-705-2822) or via email (c-jryndock@pa.gov).

Sincerely



Greg Podnieszinski, Section Chief
Natural Heritage Section

APPENDIX I

Component 4A



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

DEP Code #:

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

Carnegie Mellon University Scaife Hall

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

1. Date plan received by municipal planning agency June 30, 20202. Date review completed by agency July 2, 2020

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

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

SECTION C. AGENCY REVIEW (continued)

- | Yes | No | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 13. Is this proposal consistent with the ordinance?
If no, describe the inconsistencies _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 14. Is this plan consistent with the municipal Official Sewage Facilities Plan?
If no, describe the inconsistencies _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 15. Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality?
If yes, describe _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 16. Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision? |
| <input type="checkbox"/> | <input type="checkbox"/> | If yes, is the proposed waiver consistent with applicable ordinances?
If no, describe the inconsistencies
_____ |

17. Name, title and signature of planning agency staff member completing this section:
 Name: Martina Battistone
 Title: Senior Environmental Planner
 Signature: *Martina Wolf Battistone*
 Date: July 2, 2020
 Name of Municipal Planning Agency: Department of City Planning
 Address 200 Ross Street, 4th Floor, Pittsburgh, PA 15219
 Telephone Number: 412-255-2516

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

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

The planning agency must complete this component within 60 days.

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

APPENDIX J

Component 4C



INSTRUCTIONS FOR COMPLETING COMPONENT 4C COUNTY OR JOINT HEALTH DEPARTMENT 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.

**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)

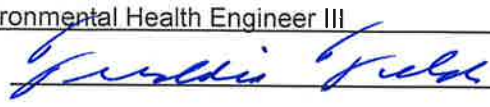
Project Name

CMU Scaife Hall

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

1. Date plan received by county or joint county health department September 2, 2020
 Agency name Allegheny County Health Department (ACHD)
2. Date review completed by agency September 3, 2020

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

- | | | |
|-------------------------------------|-------------------------------------|--|
| Yes | No | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1. Is the proposed plan consistent with the municipality's Official Sewage Facilities Plan?
If no, what are the inconsistencies? _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 2. Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality?
If yes, describe _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 3. Is there any known groundwater degradation in the area of this proposal?
If yes, describe _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. The county or joint county health department recommendation concerning this proposed plan is as follows: <u>ACHD recommends approval. See attached letter.</u> |
| | | 5. Name, title and signature of person completing this section:
Name: <u>Freddie Fields</u>
Title: <u>Environmental Health Engineer III</u>
Signature: <u></u>
Date: <u>September 3, 2020</u>
Name of County Health Department: <u>ACHD</u>
Address: <u>3901 Penn Avenue, Building #5, Pittsburgh, PA 15224-1318</u>
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

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