DEP Code No.

SEWAGE FACILITIES PLANNING MODULE

for

CARNEGIE MELLON UNIVERSITY FORBES AND BEELER RESIDENCE HALL
5087 Forbes Avenue,
Pittsburgh,
Allegheny County, PA

Prepared For:

Goody Clancy
420 Boylston Street
Boston, MA 02116

Prepared By:

Langan Engineering and Environmental Services, Inc.

2400 Ansys Drive, Suite 403
Canonsburg, Pennsylvania 15317

LANGAN

October 2019
250072801

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APPENDIX A

Transmittal Letter and Correspondence

3850-FM-BCW0355 Rev. 5/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

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 10/10/2019

Dear Sir/Madam:

Attached please find a completed sewage facilities planning module prepared by Scott Levit, P.E. *(Name)*

Langan Engineering and Environmental Services *(Title)* for CMU Forbes and Beeler Residence Hall *(Name)*

a subdivision, commercial ,or industrial facility located in City of Pittsburgh

Allegheny *(City, Borough, Township)* County.

Check one

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

OR

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

Check Boxes

☐ Additional studies are being performed by or on behalf of this municipality which may have an effect on the planning module as prepared and submitted by the applicant. Attached hereto is the scope of services to be performed and the time schedule for completion of said studies.

☐ The planning module as submitted by the applicant fails to meet limitations imposed by other laws or ordinances, officially adopted comprehensive plans and/or environmental plans (e.g., zoning, land use, 25 *Pa. Code* Chapter 71). Specific reference or applicable segments of such laws or plans are attached hereto.

☐ Other (attach additional sheet giving specifics).

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

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

Municipal Secretary (print) *Signature* *Date*

CORRESPONDENCE

alcosan
allegheny county sanitary authority

May 19, 2020

Mr. Scott Levit, P.E.
Langan
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

Re: CMU Forbes and Beeler Residence Hall– City of Pittsburgh
PA DEP Sewage Facilities Planning Module
ALCOSAN Regulator Structure M-29-00

Dear Mr. Levit:

We have reviewed the Planning Module Component 3 for the referenced project to be located in the City of Pittsburgh. The project will generate an estimated flow of 14,000 GPD in the ALCOSAN Monongahela Interceptor and Woods Run Treatment Plant.

The capacity at the M-29 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 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 wet weather facilities 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 412-732-8004.

Sincerely,

ALLEGHENY COUNTY SANITARY AUTHORITY

Michael Lichte, P.E.
Manager of Planning

Attachment

cc: Tina Dean (w/o attachment)
Dan Thornton (w/o attachment)
Shawn McWilliams (w/o attachment)
Barry King, PWSA (w/o attachment)
Tom Flanagan, PaDEP (w/o attachment)
Fred Fields, ACHD (w/o attachment)

PGH2O Pittsburgh Water & Sewer Authority

MEMO

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

From: Benjamin Grunauer, E.I.T.

Date: April 14, 2020

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

Chapter 94 Consistency Determination

Project Name: CMU Beeler Street Residence Hall

Project Address: 5000 Forbes Avenue, Pittsburgh, PA 15213

PWSA Project Number: 19013.51

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

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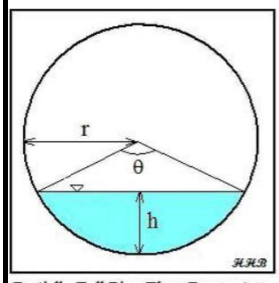
Sewage Facilities Planning Module
Chapter 94 Consistency Determination
Hydraulic Calculations Spreadsheet for Flow Monitoring Measurements

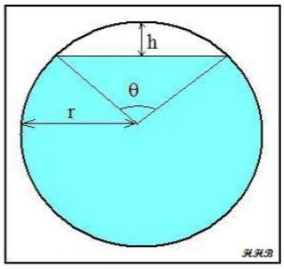
PROJECT NAME:	CMU Forbes and Beeler Residence Hall
PWSA PROJECT NUMBER:	19013.51
PWSA REVIEWER:	Benjamin Grunauer, E.I.T.
DATE:	April 14, 2020

LEGEND: Input Data | Output Data

Section A: Manning Equation for Partially Filled Pipes



Partially Full Pipe Flow Parameters
(Less Than Half Full)



Partially Full Pipe Flow Parameters
(More Than Half Full)

Variable	*Units*	*Description*
Q	ft^3	Volumetric flowrate
n	Unitless	Manning Roughness Coeff.
A	ft^2	Cross-Sectional Area of Flow
R	ft	Hydraulic Radius
S	ft/ft	Slope of Hydraulic Grade Line
P	ft	Wetted Perimeter of "A"
r	ft	Radius
h	ft	Depth of Flow or Headspace
Θ	radians	Central Angle

$$Q = \left(\frac{1.49}{n}\right) \times A \times R^{2/3} \times S^{1/2} \qquad R = \frac{A}{P} \qquad \Theta = 2 \times \cos^{-1}\left(\frac{r-h}{r}\right)$$

$$A_{<50\%\ Full} = \frac{r^2(\Theta - \sin\Theta)}{2} \qquad P_{<50\%\ Full} = r \times \Theta$$

OR

$$A_{>50\%\ Full} = \pi \times r^2 \times \frac{r^2(\Theta - \sin\Theta)}{2} \qquad P_{>50\%\ Full} = (2 \times \pi \times r) - (r \times \Theta)$$

Section B: Data for Calculations

Peaking Factor, P.F.	
Sanitary Sewers	3
Combined Sewers	3.5

Proposed Project Flows		
Variable	Value	Units
Q_p	14,000	gpd

Variable	*Value*	*Units*
Material	Brick	
n	0.016	unitless
S	0.018	ft/ft
h	0.321	ft
D	5.67	ft
P.F.	3.5	unitless

Section C: Calculations for Design and/or Permitted Capacities

Variable	Description	Definition
$Q_{d, avg}$	Design Capacity, Average	= full pipe flow conditions / peaking factor
$Q_{d, peak}$	Design Capacity, Peak	full pipe flow conditions

Design Capacity, Average		
Variable	Value	Unit
$Q_{d, avg}$	73,395,651	gpd

Design Capacity, Peak		
Variable	Value	Unit
D	5.667	ft
r	2.833	ft
A	25.220	ft^2
P	17.802	ft
R	1.417	ft
$Q_{d, peak}$	397	cfs
$Q_{d, peak}$	256,884,778	gpd

Section D: Calculations for Present Flows

Variable	Description	Definition
$Q_{ex, avg}$	Present Flows, Average	determined via flow monitoring data
$Q_{ex, peak}$	Present Flows, Peak	determined via flow monitoring data

Present Flows, Average		
Variable	Value	Unit
$Q_{ex, avg}$	1,379,000	gpd

Present Flows, Peak		
Variable	Value	Unit
$Q_{ex, peak}$	1,489,000	gpd

Section E: Calculations for Projected Flows in Five (5) Years

Variable	Description	Definition
$Q_{proj, avg}$	Projected Flows in Five (5) Years, Average	= $Q_{proj, peak}$ ÷ P.F.
$Q_{proj, peak}$	Projected Flows in Five (5) Years, Peak	= ($Q_{ex, peak}$ + Q_p) x 1.05

Projected Flow Calculations		
Variable	Value	Unit
$Q_{proj, avg}$	450,900	gpd
$Q_{proj, peak}$	1,578,150	gpd

Section F: Compare Results with Applicant's Submission

Variable	PWSA, gpd	Applicant, gpd	Difference, gpd	Difference, %
$Q_{d, avg}$	73,395,651	72,767,212	628,439	1%
$Q_{d, peak}$	256,884,778	254,685,241	2,199,537	1%
$Q_{ex, avg}$	1,379,000	1,379,000	0	0%
$Q_{ex, peak}$	1,489,000	1,489,000	0	0%
$Q_{proj, avg}$	450,900	450,900	0	0%
$Q_{proj, peak}$	1,578,150	1,578,150	0	0%

☒ 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 14,000 gpd
2. Total Sewage Flows to Facilities (pathway from point of origin through treatment plant)

When providing "treatment facilties" 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	1,379,000	1,489,000	450,900	1,578,150
Conveyance						
Treatment						

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. ☐ ☒ 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 April 14, 2020

Pittsburgh Water & Sewer Authority

October 23, 2019

Mr. Scott Levitt, P.E.
Langan
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

Subject: Water and Sewer (W/S) Use Approval Letter
CMU Forbes and Beeler Residence Hall

Dear Mr. Levitt:

Pursuant to your request, we have reviewed the Water and Sewer Use Application for the CMU Forbes and Beeler Residence Hall (Project) located at the intersection of Forbes Avenue and Beeler Street. We agree that the Project will result in the following flows:

Total Water Consumption, gpd:	14,000
Total Sanitary Flows, gpd:	14,000
Total Storm Flows, cfs:	13.55

Please be advised that this W/S Use Approval Letter is intended for PWSA purposes only. The Pennsylvania Department of Environmental Protection (PaDEP) is the governing body that makes the final determination on whether sewage facilities planning is required. The PWSA shall send a separate letter to the PaDEP for final review/approval.

Please be advised that the Project is located within a distressed sewershed. In the event that sewage facilities planning are required, we have enclosed for your use the location of the most limited capacity sewer (MLCS). The MLCS shall be flow monitored for a period of 30 days, unless otherwise directed by the PWSA.

Our review was based on information provided by your firm 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 x5532 or RHerring@pgh2o.com.

Sincerely,

Robert Herring, P.E.
Engineering Consultant

Enclosures
cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Julie Asciolla – PWSA (via email)
Thomas Flanagan – DEP (via email)
eBuilder File (via email)

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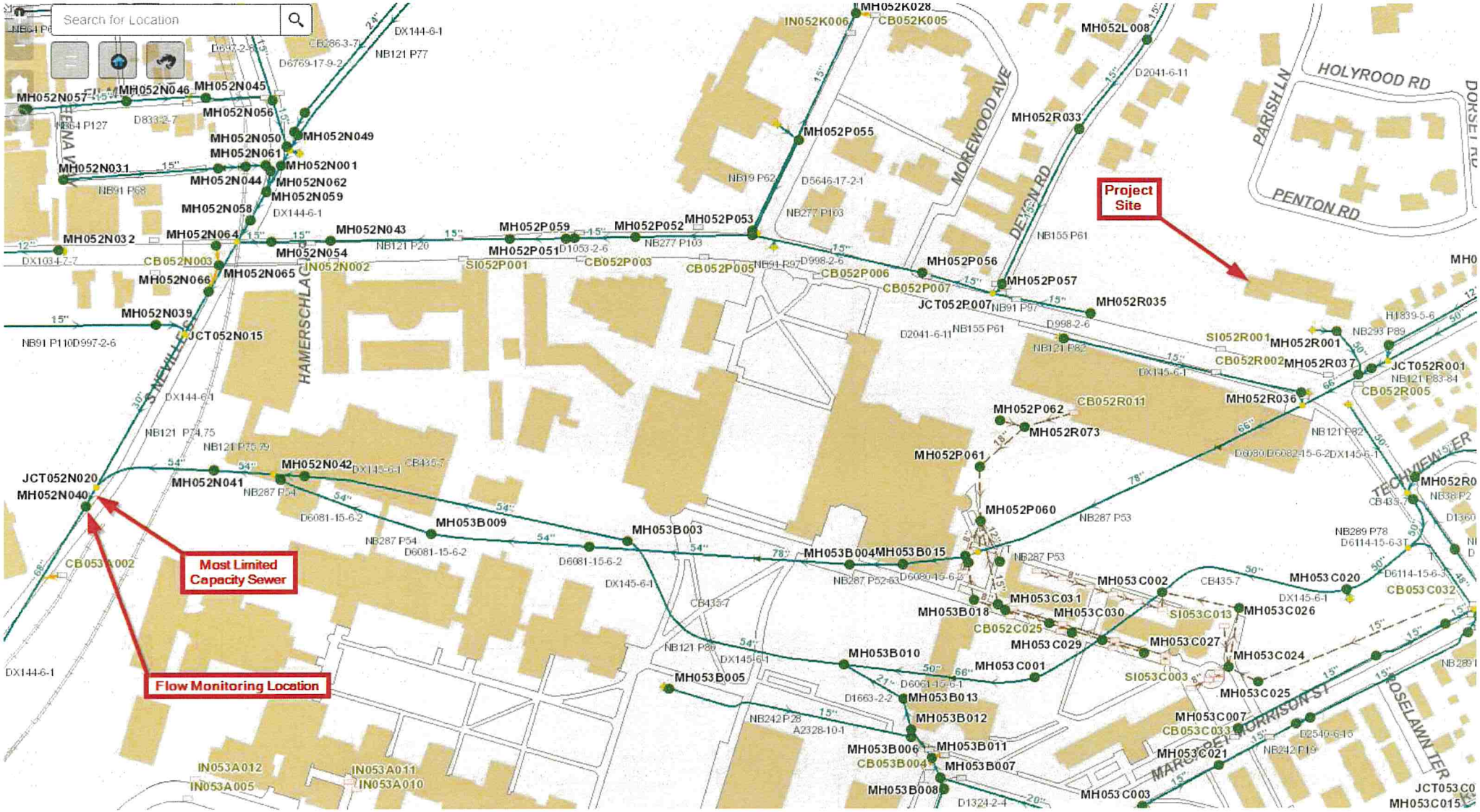
Search for Location
Project Site
Most Limited Capacity Sewer
Flow Monitoring Location
MH052N057
MH052N046
MH052N045
MH052N056
MH052N050
MH052N049
MH052N061
MH052N001
MH052N031
MH052N044
MH052N062
MH052N059
MH052N058
MH052N032
MH052N064
MH052N043
MH052N054
MH052N066
MH052N065
MH052N039
JCT052N015
JCT052N020
MH052N040
MH052N041
MH052N042
MH052P059
MH052P051
MH052P052
MH052P053
MH052P055
MH052P056
MH052P057
MH052K028
MH052L008
MH052R033
MH052R035
MH052R001
MH052R037
JCT052R001
MH052R036
MH052P062
MH052R073
MH052P061
MH052P060
MH053B009
MH053B003
MH053B004
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MH053C002
MH053C031
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MH053C029
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MH053C024
MH053C025
MH053C007
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MH053C003
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MH053B012
MH053B006
MH053B011
MH053B007
MH053B008
MH053C020
MH053C026
IN052K006
CB052K005
CB052N003
IN052N002
SI052P001
CB052P003
CB052P005
CB052P006
CB052P007
CB052R002
CB052R005
CB052R011
CB052C025
CB053C033
CB053B004
IN053A012
IN053A005
IN053A011
IN053A010
SI053C013
SI053C003
HOLYROOD RD
PENTON RD
PARISH LN
MOREWOOD AVE
DEVON RD
HAMERSCHLAG
S NEVILLE ST
TECHVIEW TER
MARGARET MORRISON ST
ROSELAWN TER

DEP Sewage Facilities Planning Module
Chapter 94 Consistency Determination
Hydraulically Limited Sewer Calculation Spreadsheet

LEGEND:	Output Data
	Input Data
	Questionable Data
	Hydraulically Limited Sewer
PROJECT NAME:	CMU Forbes and Beeler Residence Hall
PROJECT LOCATION:	5000 Forbes Avenue, Pittsburgh, PA 15213
ALCOSAN INTERCEPTOR:	Monongahela
PWSA REVIEWER:	Robert Herring, P.E.
DATE:	October 8, 2019

Upstream MH	Downstream MH	Upstream Invert	Downstream Invert	Length, ft	Diam., in.	Material	n	Area, sf	Wetted P, ft	Slope	Flow, gpm
EC052R001	MH052R001	0.00	0.00	49.73	12			0.79	3.142	0.00%	#DIV/0!
MH052R001	MH052R037	0.00	0.00	105.59	50			13.64	13.090	0.00%	#DIV/0!
MH052R037	JCT052R004	935.00	0.00	3.22	54	BR	0.016	15.90	14.137	29002.36%	17,633,763,441
JCT052R004	JCT052R002	933.49	931.09	131.06	66	RCP	0.013	23.76	17.279	1.83%	294,497,244
JCT052R002	JCT052R013	931.09	926.11	191.68	66	RCP	0.013	23.76	17.279	2.60%	350,778,975
JCT052R013	MH053B014	926.11	919.30	558.46	78	RCP	0.013	33.18	20.420	1.22%	375,217,639
MH053B014	MH053B015	919.30	917.74	128.18	78	RCP	0.013	33.18	20.420	1.22%	375,303,966
MH053B015	MH053B004	917.74	916.41	108.65	78	RCP	0.013	33.18	20.420	1.22%	375,200,113
MH053B004	JCT053B007	916.41	905.25	187.45	78	RCP	0.013	33.18	20.420	5.95%	829,011,764
RD053B002	MH053B002	903.22	880.27	342.39	54	RCP	0.013	15.90	14.137	6.70%	329,940,475
MH053B002	MH053B009	880.30	865.50	321.27	54	RCP	0.013	15.90	14.137	4.61%	273,488,693
MH053B009	MH052N053	865.23	865.49	120.32	54	RCP	0.013	15.90	14.137	-0.21%	#NUM!
MH053B009	MH052N053	865.49	823.39	174.41	54	RCP	0.013	15.90	14.137	24.14%	626,125,068
MH053B009	MH052N053	823.39	819.69	28.86	54	RCP	0.013	15.90	14.137	12.82%	456,283,143
MH052N053	JCT052N001	819.69	818.99	19.54	54	BR	0.016	15.90	14.137	3.58%	196,006,553
JCT052N001	MH052N041	825.70	821.75	119.07	54	BR	0.016	15.90	14.137	3.32%	188,686,692
MH052N041	JCT052N020	821.75	810.10	250.58	54	BR	0.016	15.90	14.137	4.65%	223,224,309
JCT052N020	MH052N040	810.10	809.94	43.75	68	BR	0.016	25.22	17.802	0.37%	115,787,111
MH052N040	MH053A001	809.94	799.84	173.32	68	BR-SN	0.016	25.22	17.802	5.83%	462,202,571
MH052N040	MH053A001	809.94	799.84	245.89	68	BR-SN	0.016	25.22	17.802	4.11%	388,054,430
MH052N040	MH053A001	799.84	794.34	303.46	68	BR-SN	0.016	25.22	17.802	1.81%	257,770,088
MH053A001	MH028H030	794.34	784.10	577.32	68	BR	0.016	25.22	17.802	1.77%	255,026,828
MH028H030	BK028H003	784.10	781.86	65.71	81	RCP	0.013	35.78	21.206	3.41%	693,403,813
MH028H030	MH028H001	781.86	780.18	95.10	81	RCP	0.013	35.78	21.206	1.77%	499,388,155
MH028H001	JCT028H099	780.18	780.00	6.56	81	RCP	0.013	35.78	21.206	2.74%	622,167,669
JCT028H099	MH028H015	780.00	774.62	350.38	81.5	RCP	0.013	36.23	21.337	1.54%	473,334,992
MH028H015	MH028M002	774.54	772.10	46.69	88	RCP	0.013	42.24	23.038	5.22%	1,071,237,207
MH028H015	MH028M002	772.10	765.57	579.54	88	RCP	0.013	42.24	23.038	1.13%	497,496,022
MH028M002	MH028M010	765.57	757.45	502.68	91	RCP	0.013	45.17	23.824	1.62%	651,373,265
MH028M010	MH028S002	757.45	751.36	397.11	91	RCP	0.013	45.17	23.824	1.53%	634,676,929
MH028S002	MH029D036	751.36	745.72	441.92	91	RCP	0.013	45.17	23.824	1.28%	578,981,124
MH029D036	JCT029D024	745.72	743.60	174.05	91	RCP	0.013	45.17	23.824	1.22%	565,629,075
JCT029D024	MH029D034	743.60	740.90	202.03	91	RCP	0.013	45.17	23.824	1.34%	592,481,530
MH029D034	MH029H074	740.90	736.10	347.73	98	RCP	0.013	52.38	25.656	1.38%	733,707,508
MH029D034	MH029H074	736.10	729.55	579.91	98	RCP	0.013	52.38	25.656	1.13%	663,687,033
MH029H074	MH054E003	729.55	726.07	311.74	97.5	RCP	0.013	51.85	25.525	1.12%	650,872,706
MH054E003	JCT054J004	726.08	720.53	580.91	101	RCP	0.013	55.64	26.442	0.96%	661,628,028
JCT054J004	MH054J006	720.53	720.52	17.10	101	RCP	0.013	55.64	26.442	0.05%	146,367,229
MH054J006	MH029M021	720.52	715.96	495.35	135	RCP	0.013	99.40	35.343	0.92%	1,407,996,717
MH029M021	JCT029M003	715.66	715.62	6.42	144	RCP	0.013	113.10	37.699	0.59%	1,340,272,303
JCT029M003	ADC029SM29	715.62	709.66	1028.27	168	RCP	0.013	153.94	43.982	0.58%	2,001,319,419

Project No.
(PWSA USE ONLY)

THE PITTSBURGH WATER AND SEWER AUTHORITY
ENGINEERING AND CONSTRUCTION DIVISION

WATER AND SEWER USE APPLICATION FORM

(Return completed submittal package to The Pittsburgh Water and Sewer Authority (PWSA), Engineering and Construction Division

This application is used for commercial or residential projects that propose connecting to the PWSA water or sewer system or propose changing the amount of PWSA water consumed and/or flows discharged to the PWSA sewer system.

A. GENERAL INFORMATION

1. Name of Land Development Project CMU Forbes and Beeler Residence Hall
   Location of land development project. *Use landmark or address, if available (e.g., north side of Liberty Ave 75 ft. east of intersection of Liberty Ave and 6th St.)* North side of the intersection of Forbes Avenue and Beeler Street

2. Nature of Development. Check appropriate box and provide total flows.

		Total Water Consumption (gpd)	Total Sanitary Flows (gpd)	Total Storm Flows (cfs)
☐	Residential			
☒	Commercial	14,000	14,000	13.55

3. Acreage of development 3.34 acres

4. Allegheny County Block & Lot Nos. 52-R-60

5. Ownership of Land Development

Name	Address
Carnegie Mellon University	5000 Forbes Avenue
	Pittsburgh, PA 15213

6. Applicant (Subdivider, Developer, or Responsible Project Agent)
   Name Scott Levit Firm/Agency Name Langan Engineering and Environmental Services
   Address 2400 Ansys Drive, Suite 403
   Telephone 724-514-5128 Cell Email slevit@langan.com

B. WASTEWATER AND STORMWATER FACILITIES

Provide information on collection and treatment facilities.

1. **COLLECTION SYSTEM**
   a. Number of proposed connections (sanitary and/or storm) 2
   b. Name of existing collection or conveyance system PWSA Collection System
   c. Name of interceptor Monongahela
   d. Name of treatment facility ALCOSAN

2. **SITE PLAN (24" x 36" maximum size accepted)**
   The following information is to be submitted on a site plan of the proposed subdivision.
   a. Existing building.
   b. Lot lines and lot sizes.
   c. Remainder of tract.
   d. Orientation to North.
   e. Show proposed sewer line to the point of connection to existing collection system. Including all components (collection & conveyance lines, pumps, etc.)
   f. Existing and proposed right(s)-of-way.
   g. Existing and proposed street, roadway, etc.
   h. Water bodies and wetland areas.

Scott L
Applicant Signature

8/20/2019
Date

Project No.
(PWSA USE ONLY)

C. FALSE SWEARING STATEMENT (To be completed by individual completing the form)

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

CMU Forbes and Beeler Residence Hall
Name of Land Development Project (Same as on Page 1, Section A.1)

Scott Levit
Name (Print)

Project Manager
Title

Scott L
Signature

2400 Ansys Drive, Suite 403, Canonsburg
Address

724-514-5128
Telephone Number

08/20/2019
Date

D. CHAPTER 94 CONSISTENCY (See PA Department of Environmental Protection Current Regulations)

The following certification is to be completed by the Pittsburgh Water and Sewer Authority agent and agency responsible for completing the (DEP) Chapter 94 report for the collection, conveyance, and treatment facilities.

The need for planning shall be determined by the PaDEP.

I/we certify that the sewerage facilities proposed to serve the new land development described in this Planning Module are in compliance with the provisions of DEP Chapter 94, Municipal Wasteload Management and have adequate capacity to serve the sewage flows to be generated by this development, without creation of an overload or projected overload.

Collection System

Signature of Responsible Agent — Date: 10/23/2019
Pittsburgh Water and Sewer Authority

Conveyance and Treatment

Signature of Responsible Agent — Date
ALCOSAN

E. PLANNING AGENCY REVIEW

City of Pittsburgh Municipal Planning Agency

This development/project has been reviewed and:

☐ is consistent
☐ is not consistent (objections attached)

with programs of planning for the area of the proposed development administered by this planning agency under the municipalities Planning Code (53 P.S. § 10101-11202).

City of Pittsburgh
Department of City Planning — Zoning Administrator — Date

Stormwater Management

This development/project has been reviewed and:

☐ is consistent
☐ is not consistent (objections attached)

With programs of planning for the area of the proposed development administered by this planning agency under the current City of Pittsburgh storm water management regulations.

City of Pittsburgh
Department of City Planning — Environmental Planner — Date

County or Joint County Health Department

This development/project has been reviewed and:

☐ approval is recommended
☐ approval is not recommended (objections attached)

Allegheny County Health
Department — Signature of Responsible Agent — Date

Pittsburgh Water & Sewer Authority

October 23, 2019

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

Dear Mr. Flanagan:

The Pittsburgh Water and Sewer Authority has reviewed the W&S Use Application for the CMU Forbes and Beeler Residence Hall (Project) located at the intersection of Forbes Avenue and Beeler Street. We believe the Project contains the following flows:

Type of Sanitary Flow	Definition	Flow, gpd
Historical Flow	Peak flow within the past five years	14,400
Present Flow	Historical Flow to remain in use after Project completion	0
Proposed Flow	New flow associated with the Project	28,400
Total Flow	= Proposed Flow + Present Flow	28,400
Project Flow	= Total Flow – Historical Flow	14,000

Based on the foregoing, we believe that the Project shall require sewage facilities planning through the PaDEP. Our determination was based on PaDEP guidelines, as follows:

☒ Any development with a Project Flow greater than 799 gpd

☐ Any development on a lot created after May 15, 1972 which has never received a planning module approval

☐ Any development with a Historical Flow less than or equal to 799 gpd and a Total Flow greater than 799 gpd

☐ Any development with a Present Flow greater than 799 gpd and a Project Flow greater than 399 gpd

Please provide a written determination regarding your decision regarding our opinion. 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 412-255-8800 x5532 or RHerring@pgh2o.com.

Sincerely,

Robert Herring, P.E.
Engineering Consultant

Enclosure(s)
cc: Barry King, P.E. – PWSA (via email)
Kate Mechler, P.E. – PWSA (via email)
Julie Asciolla – PWSA (via email)
Langan – Applicant (via email)
eBuilder File (via email)

Penn Liberty Plaza I
1200 Penn Avenue
Pittsburgh PA 15222

info@pgh2o.com
T 412.255.2423
F 412.255.2475

www.pgh2o.com
@pgh2o

Customer Service / Emergencies:
412.255.2423

PROJECT NARRATIVE

Existing Conditions

The project site is located on the north side of the intersection of Forbes Avenue and Beeler Street, on Carnegie Mellon University's campus, in the Squirrel Hill neighborhood of the City of Pittsburgh. The site is generally bound by residential properties to the north, Forbes Avenue to the south, Beeler Street/a residential property (owned by CMU) to the east, and Devon Road to the west (refer to figure 1). The site is currently occupied by the existing Doherty Apartments, surface parking lots, and landscape/hardscape areas.

Proposed Development

Carnegie Mellon University (CMU) is proposing to construct the Forbes and Beeler Residence Hall to provide additional on-campus housing for students. The proposed multi-story building will consist of approximately 119,065 gross square feet with impervious pedestrian walkways, landscaped areas, and associated site features. The proposed residence hall will also provide a market to the Squirrel Hill neighborhood and CMU residents.

Proposed Water and Sewer Use

The proposed project includes an 8-inch sanitary sewer connection from the proposed building to the existing combined 66-inch PWSA combination sewer line in Beeler Street, southwest of existing PWSA Manhole #052R038, via a proposed wye connection. See Table 1 for proposed sanitary sewage flow estimation computations. The proposed sanitary demand is anticipated to be 14,000 gallons per day, or 47 EDUs.

The proposed water facilities for the Forbes and Beeler Residence Hall will consist of one 8-inch tap into the 12-inch water main located on the north side of Forbes Avenue. A proposed 6-inch domestic service line and a proposed 8-inch fire service line will "tee" off of one proposed 8-inch service lateral. The 6-inch domestic service line and the 8-inch fire service line will enter a proposed meter vault within the property limits following the tee connection, per PWSA detail WS-C1V. From the meter vault, a 6-inch domestic service line and an 8-inch fire service line will emerge to service the proposed project. The proposed water demand is anticipated to be 14,000 gallons per day, or 47 EDUs.

The proposed storm facilities for the development include on-site gravity storm system, including inlets, underground storm sewer pipes, an underground detention/infiltration system, and compost amended soils. Stormwater from the proposed site will be directed to the proposed BMPs, to be detained and released at an allowable rate determined from the existing conditions model and as outlined in Section 1303.04 of the City of Pittsburgh Code. Stormwater will discharge from the proposed underground detention/infiltration system and the other site outfall into the existing 66-inch PWSA combined sewer in Beeler Street.

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 13.11 cubic feet

per second, and a post-development 25-year storm discharge of 13.55 cubic feet per second. The calculations are as follows:

Pre-development Discharge = [1.68(0.95) + 1.66(0.4)]*5.8 = 13.11 cfs

Post-development Discharge = [1.82(0.95) + 1.52(0.4)]*5.8 = 13.55 cfs

Based on calculations using the SCS Method described later in this narrative, the site has a storm flow of 12.07 cubic feet per second for the pre-development 25-year storm, and a flow of 12.80 cubic feet per second for the post-development 25-year storm, without the use of stormwater management controls. The use of stormwater best management practices (BMPs) will be implemented to ensure the post-development storm flow does not exceed the pre-development storm flow. Refer to Table 3, Table 4, Table 5, Appendix A, Appendix B and Appendix C for detailed calculations using the SCS Method.

At this time, the project will not receive public funding; therefore, it is not subject to Section 1303.03.a.3 and 1303.b.3 of the City of Pittsburgh Code. Stormwater runoff generated on-site will be passed through water quality devices or will infiltrate through the infiltration vault. Since the project area to be disturbed is greater than one acre, a General NPDES Permit will be obtained.

The existing municipal system is expected to meet the proposed demands for water, sanitary sewer, and storm sewer services for the development.

Proposed Best Management Practices

To meet the water quality requirements of the City of Pittsburgh and the Pennsylvania Department of Environmental Protection, the stormwater runoff from the proposed building will be directed to various water quality management devices/features, which will remove the required stormwater pollutants associated with runoff (i.e., TSS, oil, and grease).

FLOW CALCULATION SHEETS

Proposed Water Consumption and Sanitary Flows

The calculations of the total anticipated sanitary flows are based on the flow estimates found in Table 2-1: Sanitary Flow Estimates in the PWSA Procedures Manual for Developers. As shown in Table 1, the anticipated average sewage flow for the proposed development is 14,000 gallons per day, or 47 EDUs. The proposed net water consumption is expected to be the same as the proposed sanitary flows for the office building (14,000 gallons per day).

TABLE 1: PROPOSED SANITARY SEWAGE FLOW ESTIMATION

Type of Establishment	Unit	Size	Anticipated Average Rate (GPD/Unit)[1]	Anticipated Average Sewage Flow (GPD)
Existing Doherty Apartments	Per Resident	144	100	-14,400
Proposed Residents	Per Resident	266	100	26,600
Café Area	Toilet Sink	3 3	400 200	1,800
			Required GPD =	**14,000**
			Required EDUs[2] =	**47**
			Requested TOTAL GPD =	**14,100**

1 – Rate is based on the flow estimate defined in Table 2-1 of the PWSA Procedures Manual for Developers.
2 – EDUs are based on 300 GPD/EDU.

Proposed Stormwater Flows

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.

TR-55 SCS Method

This study was prepared using methods contained in the USDA Soil Conservation Service Publication TR-55 "Urban Hydrology for Small Watersheds". TR-55 outlines procedures for calculating peak rates of runoff resulting from precipitation events and for developing runoff hydrographs. The storm flow estimates discussed in this narrative reflect the TR-55 results.

The TR-55 procedure simulates a watershed as a series of overland flows, channel flows, and inflow and outflow structures for its contribution to runoff. Values for area, curve number (CN), and time of concentration (Tc) were calculated for each watershed.

The CN is a land sensitive coefficient that dictates the relationship between total rainfall depth and direct storm runoff. Based on the coverage of soil groups and land use in the area, an average CN was determined for each watershed for existing and proposed conditions. The CN calculations for existing and proposed conditions can be found in the Appendix A.

Using the Soil Conservation Service Soil Survey for Allegheny County the soils within the watershed were divided into hydrologic soil groups (A, B, C, and D). The SCS classification

system evaluates the runoff potential of a soil according to its infiltration and transmission rates. "A" soils have the lowest runoff potential and "D" soils have the greatest runoff potential.

The Tc is defined as the time for runoff to travel from the hydraulically most distant point of the watershed to a point of interest. Due to short flow paths, values of the time of concentration for existing and proposed conditions are equal to the minimum of five (5) minutes.

The design storm used for this study is the 24-hour SCS, Type II cumulative rainfall distribution. The following rainfall totals were used in the design:

TABLE 2: SCS 24-HOUR RAINFALL DISTRIBUTION

Storm Frequency*	Rainfall Intensity
1 year	1.97 inches
2 year	2.34 inches
5 year	2.86 inches
10 year	3.29 inches
25 year	3.89 inches
50 year	4.38 inches
100 year	4.89 inches
*Values from National Oceanic and Atmospheric Administration data source	

Rainfall hydrographs developed from TR-55 methods were then routed through the proposed connections to the existing combined sewer system. Based off of the results summarized in the following tables below, stormwater BMPs will be designed so that the post-development discharge rates do not exceed the pre-development discharge rates. More detailed calculations can be found in the appendices.

TABLE 3: SUMMARY OF EXISTING PEAK DISCHARGES

EXISTING DISCHARGE RATE (CFS)*							
	1-YEAR	**2-YEAR**	**5-YEAR**	**10-YEAR**	**25-YEAR**	**50-YEAR**	**100-YEAR**
EXISTING	2.72	4.27	6.70	8.87	12.07	14.83	17.82
*Values include a minimum 20 percent meadow cover for existing conditions per §1303.04.b.2 of the City of Pittsburgh Zoning Code							

TABLE 4: SUMMARY OF PROPOSED PEAK DISCHARGES (WITHOUT BMP)

PROPOSED DISCHARGE RATE (CFS)							
	1-YEAR	**2-YEAR**	**5-YEAR**	**10-YEAR**	**25-YEAR**	**50-YEAR**	**100-YEAR**
PROPOSED	4.23	5.75	8.05	10.00	12.80	15.1	17.53

TABLE 5: SUMMARY OF PROPOSED PEAK DISCHARGES (WITH BMP)

PROPOSED DISCHARGE RATE (CFS)							
	1-YEAR	**2-YEAR**	**5-YEAR**	**10-YEAR**	**25-YEAR**	**50-YEAR**	**100-YEAR**
PROPOSED	1.03	1.98	5.08	7.76	10.93	13.23	15.39

\\langan.com\data\pit\data9\250064901\project data_discipline\site civil\permit apps\pwsa\water and sewer use application\01 cmu - 5th and clyde project narrative.docx

COUNTY OF ALLEGHENY

RICH FITZGERALD
COUNTY EXECUTIVE

November 8, 2019

Nathaniel King
Langan Engineering & Environmental Services, Inc.
2400 Ansys Drive, Suite 403
Canonsburg, PA 15317

RE: SEWAGE FACILITIES PLANNING MODULE
CMU Forbes and Beeler Residence Hall
City of Pittsburgh, ALLEGHENY COUNTY

Dear Mr. King:

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 November 7, 2019. The project proposes the following:

Project Description:	CMU Forbes and Beeler Residence Hall. Proposing to redevelop the current site (3-story Doherty Apartments, surface parking, and associated improvements) to a 119,000 SF residence hall, surface parking, impervious walkways, landscaping, and associated features (owned and operated by Carnegie Mellon University) located at the intersection of Forbes Avenue and Beeler Street in the City of Pittsburgh, Allegheny County.
Sewage Flow:	14,000 GPD
Conveyance:	The flow from this site will be conveyed to the Pittsburgh Water & Sewer Authority (PWSA) collection system in Beeler Street to ALCOSAN POC M-29 to the Monongahela 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. 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, 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,

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

FF/ge
Enclosure

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

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

3850-FM-BCW0362C 6/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

DEP Code #:

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 Forbes and Beeler Residence Hall

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

1. Date plan received by county or joint county health department November 7, 2019

   Agency name Allegheny County Health Department (ACHD)

2. Date review completed by agency November 8, 2019

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

Yes	No		
☒	☐	1.	Is the proposed plan consistent with the municipality's Official Sewage Facilities Plan?
			If no, what are the inconsistencies?
☐	☒	2.	Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality?
			If yes, describe
☐	☒	3.	Is there any known groundwater degradation in the area of this proposal?
			If yes, describe
☒	☐	4.	The county or joint county health department recommendation concerning this proposed plan is as follows: ACHD recommends approval. See attached letter.
		5.	Name, title and signature of person completing this section:

Name: Freddie Fields

Title: Environmental Health Engineer III

Signature: Freddie Fields

Date: November 8, 2019

Name of County Health Department: ACHD

Address: 3901 Penn Avenue, Building #5, Pittsburgh, PA 15224-1318

Telephone Number: 412-578-8046

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 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 CMU Forbes and Beeler Residence Hall, 5087 Forbes Avenue, 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, the CMU Forbes and Beeler Residence Hall has proposed the development of a certain parcel of land 5087 Forbes Avenue, Pittsburgh, PA 15213, Allegheny County, at lot and block 52-R-60 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 proposed CMU Forbes and Beeler Residence Hall, 5087 Forbes Avenue, Pittsburgh, PA 15213, Allegheny County, at lot and block 52-R-60 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	Scott Levit (LANGAN) 724-514-5128
Type of Legislation	Other

Description of Legislation

The CMU Forbes and Beeler Residence Hall has proposed the development of a certain parcel of land 5087 Forbes Avenue, Pittsburgh, PA 15213, Allegheny County, at lot and block 52-R-60, 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 use of existing connections to the City of Pittsburgh sewage systems; and

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

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

JDE Account Information

N/A

Additional Operational Costs

N/A

Impact on City Revenue

N/A

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

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

Name of Vendor and Award Justification
List the name of the awarded vendor and its qualifications.

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

Selection Criteria
Describe the selection or scoring criteria.

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

Waiver Justification
If a waiver was granted, explain the justification.

EORC Synopsis
Insert synopsis that was presented.

Date Presented at EORC: Insert date.	☐ Approved	☐ Not Approved

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

Attachments

- *Please attach any additional documents and/or exhibits.*

Summary of Proposed Legislation

Bill # / Title	Sewage Facilities Planning Module – Carnegie Mellon University Forbes and Beeler Residence Hall
Department:	Law Department
Contact Person:	Leslie Stephens – (412) 255-2005

Ordinance	*Contract Authorization*	*Capital Budget Amendment*	*Capital Encumbrance*	*Proclamation*	*Other*
					X

DESCRIPTION/PURPOSE:

Carnegie Mellon University (CMU) has proposed the development of a certain parcel of land the CMU Forbes and Beeler Residence Hall, 5087 Forbes Avenue, Pittsburgh, PA 15213, Allegheny County, at lot and block 52-R-60 in the Fourteenth 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

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

HISTORY:

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.

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 Planning Module in regard to each authority/department's expertise and have approved the respective components as explained in the Planning Module.

Based upon the approval of the above authorities and departments, the 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.

BUDGETARY IMPACT:

N/A

ATTACHMENTS AND/OR EXHIBITS:

Attach additional information such as maps, pictures, spreadsheets, studies, correspondence or any other supporting documents for this legislation.

Seven Priorities of the Joint Council-Mayor Proclamation

1. *Identify operational efficiencies through shared or consolidated services.*

2. *Reduce the legacy costs associated with Pittsburgh's city government for future generations.*

3. *Guarantee excellence in service and equity of provision through performance measures and standards.*

4. *Increase access to, pride of and confidence in all city services by ensuring equity in the provision of those services to all Pittsburghers.*

5. *Improve the quality of life for future generations by identifying current land use opportunities and challenges facing the City of Pittsburgh.*

6. *Reduce the impact on the environment of Pittsburgh city government's operations and services.*

7. *Ensure the ethical operation of the offices of the Mayor and City Council.*

City of Pittsburgh

Sewer Facilities Planning Module Questionnaire

PROJECT NAME: Carnegie Mellon University Forbes and Beeler Residence Hall

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

Doherty Apartment Building and Surface Parking Lot

2) What is the proposed use for the property?

Residence Hall – CMU Forbes and Beeler Residence Hall

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

The proposed stormwater management system includes green infrastructure practices such as managed release concepts, amended soils, and detention vaults

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

3800-FM-BPNPSM0353 Rev. 2/2015
Form

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Code No.

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

SEWAGE FACILITIES PLANNING MODULE

Component 3. Sewage Collection and Treatment Facilities

(Return completed module package to appropriate municipality)

DEP USE ONLY				
DEP CODE #	**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 CMU Forbes and Beeler Residence Hall

2. Brief Project Description Carnegie Mellon University is proposing to construct an approximately 120,000 GSF residence hall. The proposed improvements will also include an 20 space parkint lot, a café, outdoor seating and amenity spaces, and site landscaping. The proposed site is bound by Forbes Avenue to the south, wooded/residential areas to the north, Beeler Street and residential properties to the east, and Devon Street to the west.

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

Municipality Name	County	City	Boro	Twp
City of Pittsburgh	Allegheny	☒	☐	☐

Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title
Battistone	Martina			Senior Environmental Planner

Additional Individual Last Name	First Name	MI	Suffix	Title

Municipality Mailing Address Line 1	Mailing Address Line 2
200 Ross Street	Suite 400

Address Last Line -- City	State	ZIP+4
Pittsburgh	PA	15219

Area Code + Phone + Ext.	FAX (optional)	Email (optional)

412-255-8800 (2663) msmuts@pgh20.com

C. SITE INFORMATION (See Section C of instructions)

Site (Land Development or Project) Name

CMU Forbes and Beeler Residence Hall

Site Location Line 1	Site Location Line 2
5075 Forbes Avenue	

Site Location Last Line -- City	State	ZIP+4	Latitude	Longitude
Pittsburgh	PA	15219	40.444389	79.939075

Detailed Written Directions to Site: From Interstate 376 exit at Forbes Avenue exit. Proceed east until arriving at site at the intersection of Forbes Avenue and Beeler Street

Description of Site The site is currently occupied by the Doherty Apartment building which is owned by Carnegie Mellon University. the site is approximately 3.5 acres and consists of a two tiered surface parking lot and landscaping.

Site Contact (Developer/Owner)

Last Name	First Name	MI	Suffix	Phone	Ext.
Held	Janice				

Site Contact Title	Site Contact Firm (if none, leave blank)
Senior Project Manager	Carnegie Mellon University
FAX	Email
	jheld@cmu.edu

Mailing Address Line 1	Mailing Address Line 2
417 S. Craig Street, 3rd Floor	

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
Levit	Scott		

Title	Consulting Firm Name
Project Manager	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
slevit@langan.com	724-514-5128		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 35

Connections 2 (1 Storm; 1 Sanitary)

Name of:
existing collection or conveyance system 66-inch combination sewer in Beeler Street.
owner PWSA
existing interceptor Monongahela Interceptor
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 Allegheny County Sanitary Authority (ALCOSAN) Wastewater Treatment Facility

NPDES Permit Number for existing facility 25984

Clean Streams Law Permit Number PA 0025984

Location of discharge point for a new facility. Latitude _____ Longitude _____

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

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

Agent Signature _____ Date _____

(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 permitee. The permitee has determined that the additional TN and TP to be contributed by this project (as modified by credits and/or offsets to be provided) will not cause the discharge to exceed the annual total mass limits for these parameters. Documentation of compliance with nutrient allocations is attached.

Name of Permittee Agency, Authority, Municipality_____

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

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

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

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

1. Project Flows 14,000 gpd
2. Total Sewage Flows to Facilities (pathway from point of origin through treatment plant)

When providing "treatment facilties" 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	1,379,000	1,489,000	450,900	1,578,150
Conveyance						
Treatment						

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. ☐ ☒ 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 April 14, 2020

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

c. Conveyance System

Name of Agency, Authority, Municipality ALCOSAN

Name of Responsible Agent

Agent Signature

Date

4. Treatment Facility

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

YES NO

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

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

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

b. Name of Agency, Authority, Municipality ALCOSAN

Name of Responsible Agent

Agent Signature

Date

☐ 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 14,000 gpd

Yes No

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

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

(For completion by non-municipal facility agent)

4. Collection and Conveyance Facilities

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

Yes No

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

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

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

b. Collection System
Name of Responsible Organization _____
Name of Responsible Agent _____
Agent Signature _____
Date _____

c. Conveyance System
Name of Responsible Organization _____
Name of Responsible Agent _____
Agent Signature _____
Date _____

5. Treatment Facility

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

	Yes	No	
a.	☐	☐	If this project proposes the use of an existing non-municipal wastewater treatment plant for the disposal of sewage, will this action create a hydraulic or organic overload at that facility?

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

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

b. Name of Facility_____

Name of Responsible Agent_____

Agent Signature _____

Date_____

(For completion by the municipality)

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

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

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

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

	Yes	**No**	
1.	☐	☒	Does the project propose the construction of a sewage treatment facility ?
2.	☐	☒	Will the project change the flow at an existing sewage treatment facility by more than 50,000 gallons per day?
3.	☐	☒	Will the project result in a public expenditure for the sewage facilities portion of the project in excess of $100,000?
4.	☐	☒	Will the project lead to a major modification of the existing municipal administrative organizations within the municipal government?
5.	☐	☒	Will the project require the establishment of *new* municipal administrative organizations within the municipal government?
6.	☐	☒	Will the project result in a subdivision of 50 lots or more? (onlot sewage disposal only)
7.	☐	☒	Does the project involve a major change in established growth projections?
8.	☐	☒	Does the project involve a different land use pattern than that established in the municipality's Official Sewage Plan?

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

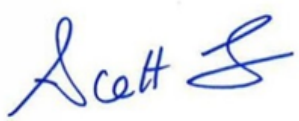
9. ☐ ☒ Does the project involve the use of large volume onlot sewage disposal systems (Flow > 10,000 gpd)?
10. ☐ ☒ Does the project require resolution of a conflict between the proposed alternative and consistency requirements contained in §71.21(a)(5)(i), (ii), (iii)?
11. ☐ ☒ Will sewage facilities discharge into high quality or exceptional value waters?

☐ Attached is a copy of:
- ☐ the public notice,
- ☐ all comments received as a result of the notice,
- ☐ the municipal response to these comments.

☐ No comments were received. A copy of the public notice is attached.

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

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

Scott Levit	
Name (Print)	Signature
Project Manager	10/10/2018
Title	Date
2400 Ansys Drive, Suite 403 Canonsburg, PA 15317	724-514-5128
Address	Telephone Number

R. REVIEW FEE (See Section R of instructions)

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

☐ I request DEP calculate the review fee for my project and send me an invoice for the correct amount. I understand DEP's review of my project will not begin until DEP receives the correct review fee from me for the project.

☒ I have calculated the review fee for my project using the formula found below and the review fee guidance in the instructions. I have attached a check or money order in the amount of $ 1,750.00 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.

   # 35 Lots (or EDUs) X $50.00 = $ 1,750.00

   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:

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

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

   The fee is based upon:

   - The number of lots created or number of EDUs whichever is higher.
   - For community sewage system projects one EDU is equal to a sewage flow of 400 gallons per day.
   - For non-single family residential projects, EDUs are calculated using projected population figures

   C. A sub-surface discharge system that requires a permit under The Clean Streams Law will use a flat fee:

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

NARRATIVE DESCRIPTION OF PROJECT

SECTION F
SEWAGE FACILITIES PLANNING
MODULE COMPONENT 3

Re: Project Narrative
CMU Forbes and Beeler Residence Hall
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250072801

The project site is located at 5075 Forbes Ave within the City of Pittsburgh, Allegheny County, Pennsylvania. The current site consists of the 3-Story Doherty Apartments, surface parking, and associated improvements. CMU is proposing to redevelop approximately 3.34 acres of the site to a 119,000 SF residence hall, surface parking, impervious walkways, landscaping, and associated site features. The proposed development will be owned and operated by Carnegie Mellon University.

The sanitary service for the project will be provided by three proposed on-site gravity sewer laterals that combine via a series of manholes on site to one proposed 12-inch line, and then ties into the existing 66-inch combined sewer at the intersection of Forbes Ave and Beeler Street. Sewage is ultimately conveyed to the Allegheny County Sanitary Authority (ALCOSAN) Wastewater Treatment Facility in Pittsburgh, PA. This ultimate method (to serve the development in the long term, five years or more) will provide for disposal of the total combined daily flow of 14,000 gallons per day (35 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.

Water service will be provided by the Pittsburgh Water and Sewer Authority (PWSA) via two taps of the existing 12" main in Forbes Ave. One 6" tap for potable service and one 8" tap for fire service are proposed. The total proposed water demand is 14,000 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.

ANTICIPATED SEWAGE FLOW REFERENCE

CMU - Forbes and Beeler Residence Hall
Neville Street - 68 Inch Combined Sewer
Dry Flow Comparison Calculations

Given Information	
Pipe Location:	Neville Street
Pipe Type [1]:	BRICK
Pipe Diameter (IN):	68
Slope[2]:	1.8%
Depth of Flow (IN)[3]:	3.85
Manning's n Value:	0.016

Solve for Dry Flow	
Flow (GPD):	1,379,000

Solve for Full Flow	
Flow (CFS):	394.133
Flow (GPD):	254,685,241

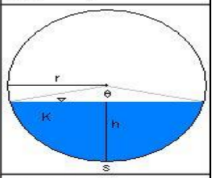
Solve for Present Peak Flow	
Peak Factor:	3.5
Flow (GPD):	1,489,000

Solve for Average Design/Permitted Capacity	
Flow (GPD):	72,767,212

Summary	
Anticipated Flow Contribution (GPD)[4]:	14,000
Present Average Flow (GPD):	1,379,000
Present Peak Flow (GPD):	1,489,000
Design/Permitted Average Capacity (GPD):	72,767,212
Design/Permitted Peak Capacity (GPD):	254,685,241
Average Projected Flow (GPD)[5]	450,900
Peak Projected Flow (GPD)	1,578,150

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

1. Material of existing 68-IN PWSA sewer assumed to be BRICK based on survey data.
2. Slope of existing 68-IN PWSA sewer estimated - survey data for downstream structure is unavailable.
3. Depth of flow in existing 68-IN PWSA sewer is assumed to be 5% of pipe diameter.
4. Dry Flow Data derived from Flow Monitoring Results
5. Information estimated using Table 2-1 of the PWSA Procedures Manual of Developers

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	$R_h = \frac{A}{P_W}$

PROPOSED SANITARY PIPE CALCULATIONS
CMU Forbes and Beeler

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 BLDG1 TO PROPOSED MANHOLE S-102

MINIMUM SLOPE WITHIN THIS ENTIRE RUN = 2.00%

		Q_{full}, cfs	Q_{full}, gpd	Q_{half}, cfs	Q_{half}, gpd	V_{max}, fps	V_{half}, fps
MATERIAL	**PVC**						
LENGTH, ft	**254**	0.94	607,440	0.45	291,571	5.51	4.79
DIAMETER, in	**6**						
SLOPE	**2.00%**	PIPE SIZED ACCORDINGLY: TRUE					
n	**0.011**	V_{max} < 10 fps: TRUE					
Q_{max}, gpd	**4,667**	V_{half} > 2 fps: TRUE					
Q_{design}, gpd	**16,333**						

FROM BLDG2 CONNECTION TO PROPOSED MANHOLE S-102

MINIMUM SLOPE WITHIN THIS ENTIRE RUN = 2.00%

		Q_{full}, cfs	Q_{full}, gpd	Q_{half}, cfs	Q_{half}, gpd	V_{max}, fps	V_{half}, fps
MATERIAL	**PVC**						
LENGTH, ft	**107**	0.94	607,440	0.45	291,571	5.51	4.79
DIAMETER, in	**6**						
SLOPE	**2.00%**	PIPE SIZED ACCORDINGLY: TRUE					
n	**0.011**	V_{max} < 10 fps: TRUE					
Q_{max}, gpd	**4,667**	V_{half} > 2 fps: TRUE					
Q_{design}, gpd	**16,333**						

FROM BLDG3 CONNECTION TO PROPOSED MANHOLE S-102

MINIMUM SLOPE WITHIN THIS ENTIRE RUN = 2.00%

		Q_{full}, cfs	Q_{full}, gpd	Q_{half}, cfs	Q_{half}, gpd	V_{max}, fps	V_{half}, fps
MATERIAL	**PVC**						
LENGTH, ft	**37**	0.94	607,440	0.45	291,571	5.51	4.79
DIAMETER, in	**6**						
SLOPE	**2.00%**	PIPE SIZED ACCORDINGLY: TRUE					
n	**0.011**	V_{max} < 10 fps: TRUE					
Q_{max}, gpd	**4,667**	V_{half} > 2 fps: TRUE					
Q_{design}, gpd	**16,333**						

NOTE: ASSUME EQUAL DISTRIBUTION OF FLOW BETWEEN 3 SANITARY CONNECTIONS

FROM S-102 TO S-101

MINIMUM SLOPE WITHIN THIS ENTIRE RUN = 2.36%

MATERIAL	**PVC**	Q_{full}, cfs	Q_{full}, gpd	Q_{half}, cfs	Q_{half}, gpd	V_{max}, fps	V_{half}, fps
LENGTH, ft	**85**	1.02	659,848	0.49	316,727	5.98	5.20
DIAMETER, in	**6**						
SLOPE	**2.36%**	PIPE SIZED ACCORDINGLY: TRUE					
n	**0.011**	V_{max} < 10 fps: TRUE					
Q_{max}, gpd	**14,000**	V_{half} > 2 fps: TRUE					
Q_{design}, gpd	**49,000**						

NOTE: COMBINED FLOW FROM 2 BUILDING CONNECTIONS

FROM S-101 TO PWSA CONNECTION

MINIMUM SLOPE WITHIN THIS ENTIRE RUN = 7.17%

MATERIAL	**PVC**	Q_{full}, cfs	Q_{full}, gpd	Q_{half}, cfs	Q_{half}, gpd	V_{max}, fps	V_{half}, fps
LENGTH, ft	**42**	1.78	1,150,132	0.85	552,063	10.43	9.07
DIAMETER, in	**6**						
SLOPE	**7.17%**	PIPE SIZED ACCORDINGLY: TRUE					
n	**0.011**	V_{max} < 10 fps: FALSE					
Q_{max}, gpd	**14,000**	V_{half} > 2 fps: TRUE					
Q_{design}, gpd	**49,000**						

NOTE: COMBINED FLOW FROM ALL BUILDING CONNECTIONS

APPENDIX D

Alternative Sewage Facilities Analysis

SECTION H
SEWAGE FACILITIES PLANNING
MODULE COMPONENT 3

Re: Alternative Sewage Facilities Analysis
CMU Forbes and Beeler Residence Hall
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250072801

The project site is located at 5075 Forbes Ave within the City of Pittsburgh, Allegheny County, Pennsylvania. The current site consists of the 3-Story Doherty Apartments, surface parking, and associated improvements. CMU is proposing to redevelop approximately 3.34 acres of the site to a 119,000 SF residence hall, surface parking, impervious walkways, landscaping, and associated site features. The proposed development will be owned and operated by Carnegie Mellon University.

The project site is bound by existing heavy vegetation to the North, Forbes Ave to the South, Beeler Street to the East, and Devon Road to the West. The site is composed of lot 52-R-60. An existing 66-inch combination sewer is located within the Beeler Street right-of-way to the southeast of the site.

The sanitary service for the project will be provided by three proposed on-site gravity sewer laterals that combine via a series of manholes on site to one proposed 12-inch line, and then ties into the existing 66-inch combined sewer at the intersection of Forbes Ave and Beeler Street. Sewage is ultimately conveyed to the Allegheny County Sanitary Authority (ALCOSAN) Wastewater Treatment Facility in Pittsburgh, PA. This ultimate method will provide for disposal of the total combined daily flow of 14,000 gallons per day. 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 Panther Hollow Stream in Schenley Park, approximately 0.5 miles southwest of the site. The distance, topography, and improvements between the site and stream discharge point make this option not feasible. A package wastewater treatment plant with discharge to the Panther Hollow Stream is not feasible due to the size and cost of the system relative to the project size.

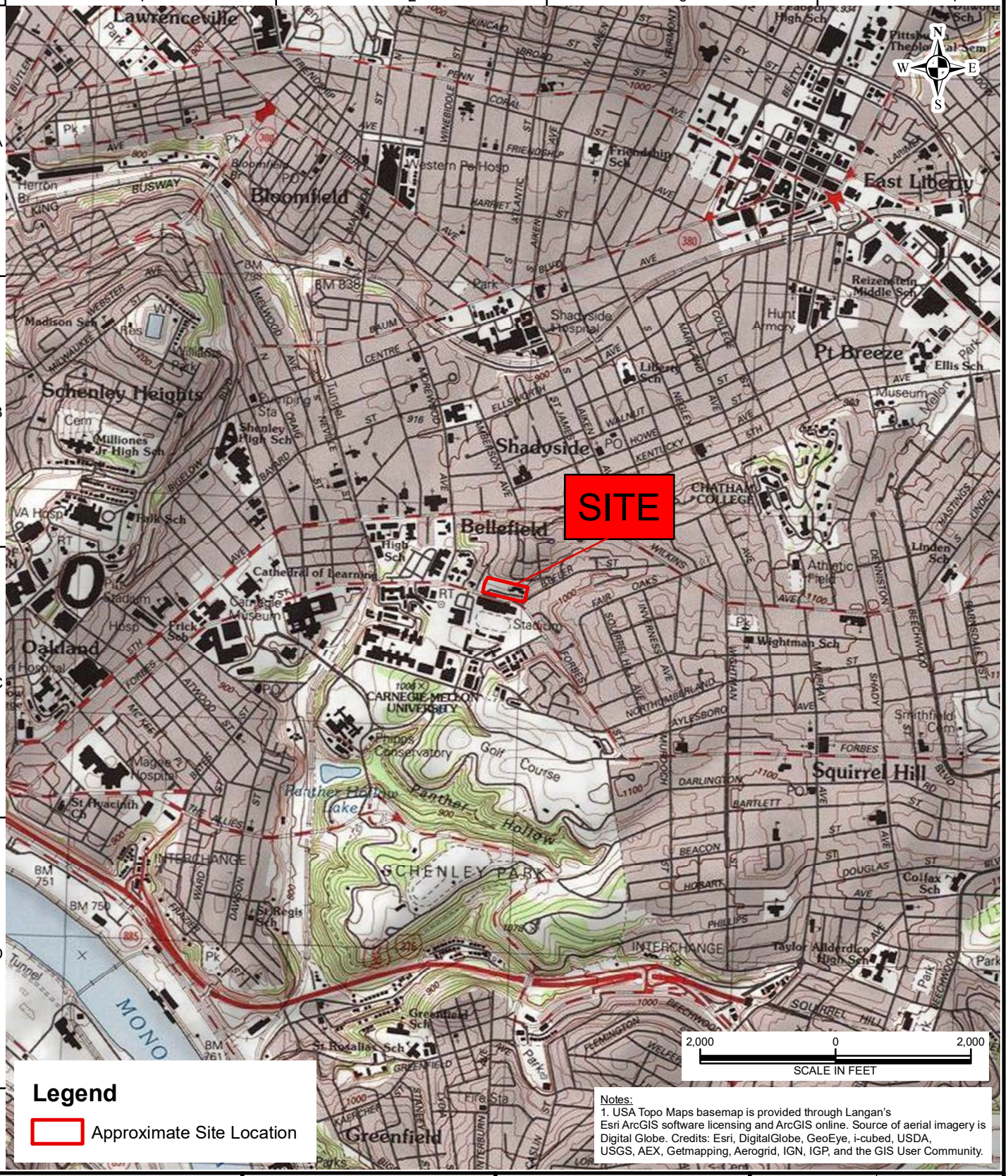
APPENDIX E
Public Notice

SECTION P
SEWAGE FACILITIES PLANNING
MODULE COMPONENT 3

Re: Public Notice
CMU Forbes and Beeler Residence Hall
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250072801

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



LANGAN
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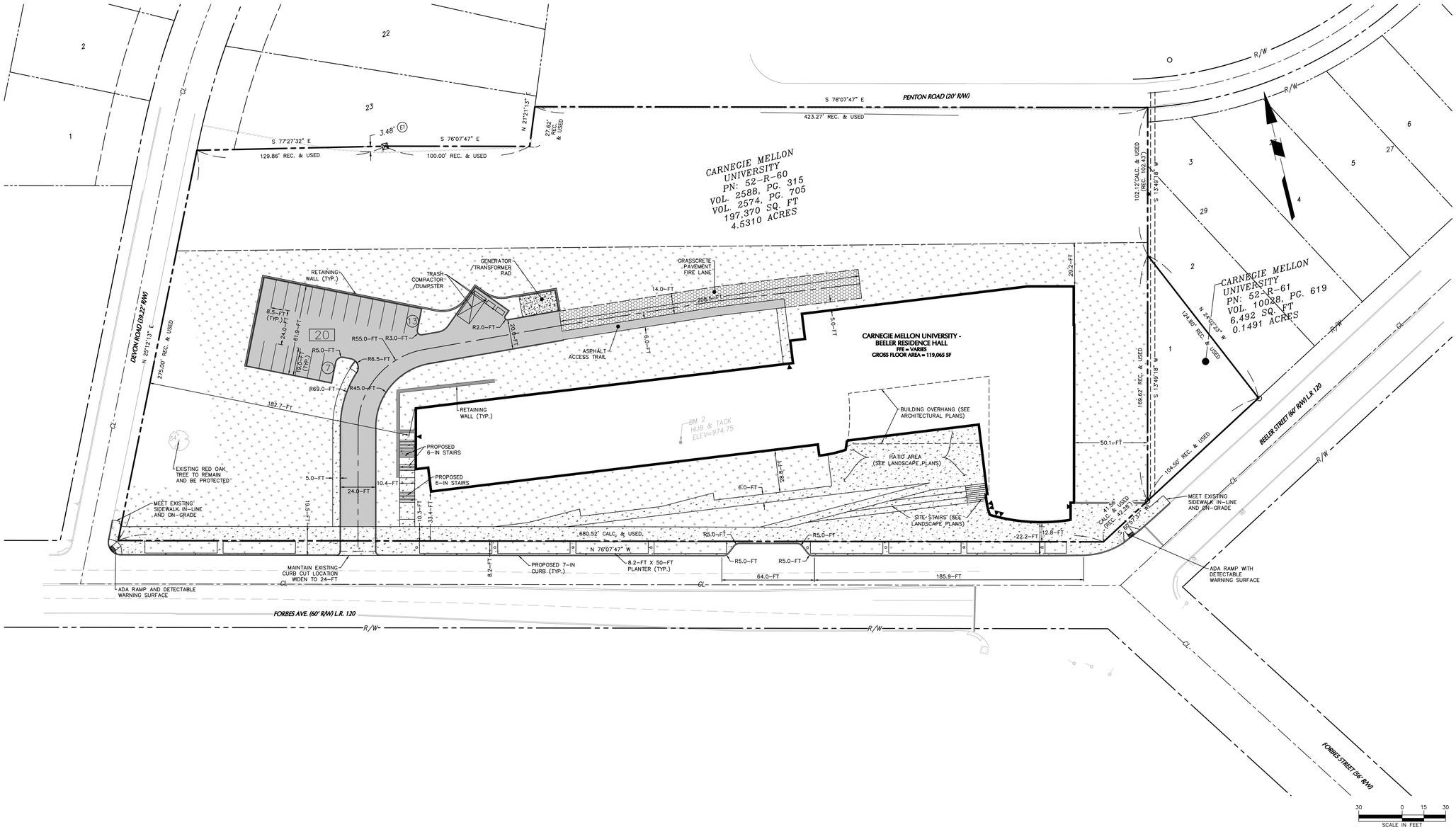
Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
CMU FORBES AND BEELER
52-R-60
PITTSBURGH
ALLEGHENY COUNTY PENNSYLVANIA

Drawing Title
SITE LOCATION MAP

Project No.	250072801
Date	8/13/2019
Scale	1 " = 2,000 '
Drawn By	KMB
Figure	1

Path: \\langan.com\data\PIT\data8\250072801\Project Data\ArcGIS\MXD\Civil_Figures\Location Map.mxd Date: 8/13/2019 User: kbancone Time: 4:31:37 PM



GENERAL NOTES

1. THESE PLANS ARE COMPLETED WITH EXISTING BOUNDARY AND TOPOGRAPHY INFORMATION BASED ON A PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" FOR THE "DOHERTY APARTMENTS 5075 FORBES AVE." PROJECT PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED MAY 2, 2019 AND UPDATED MAY 9, 2019.
2. THESE PLANS REPRESENT THE OVERALL SITEWORK 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 SITEWORK 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.
3. 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.
4. 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 SITEWORK 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 SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
5. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO 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.
6. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
7. 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.
8. PAVEMENT AFFECTED BY TRENCHING OR OTHER CONSTRUCTION ACTIVITIES SHALL BE RESTORES TO ITS ORIGINAL AND PROPER CONDITION.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY, AS A PART OF THE BID, TO PERFORM AN EARTHWORK CUT/FILL ANALYSIS.
10. SITE PLAN SHOWN FOR REFERENCE. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
11. THESE PLANS ARE SUBJECT TO CHANGE PENDING THE FOLLOWING REGULATORY AGENCY REVIEW AND APPROVAL.
    - –PENNSYLVANIA DEP
    - –ALLEGHENY COUNTY HEALTH DEPARTMENT
    - –ALLEGHENY COUNTY CONSERVATION DISTRICT
    - –CITY OF PITTSBURGH
    - –PITTSBURGH WATER AND SEWER AUTHORITY

LEGEND

	EXISTING	PROPOSED
ROW BOUNDARY		
BUILDING LINE		
ROOF LINE		
CONCRETE CURB		
DOOR		
CONCRETE PAVEMENT		
LANDSCAPED AREA		
ASPHALT PAVEMENT		
GRASSCRETE FIRE LANE		

FORBES & BEELER RESIDENCE HALL

Carnegie Mellon University

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REGISTRATION

KEY PLAN

SCHEMATIC DESIGN

ISSUED: 07/12/2019

REVISIONS

ISSUE

(NOT FOR CONSTRUCTION)

Site Plan

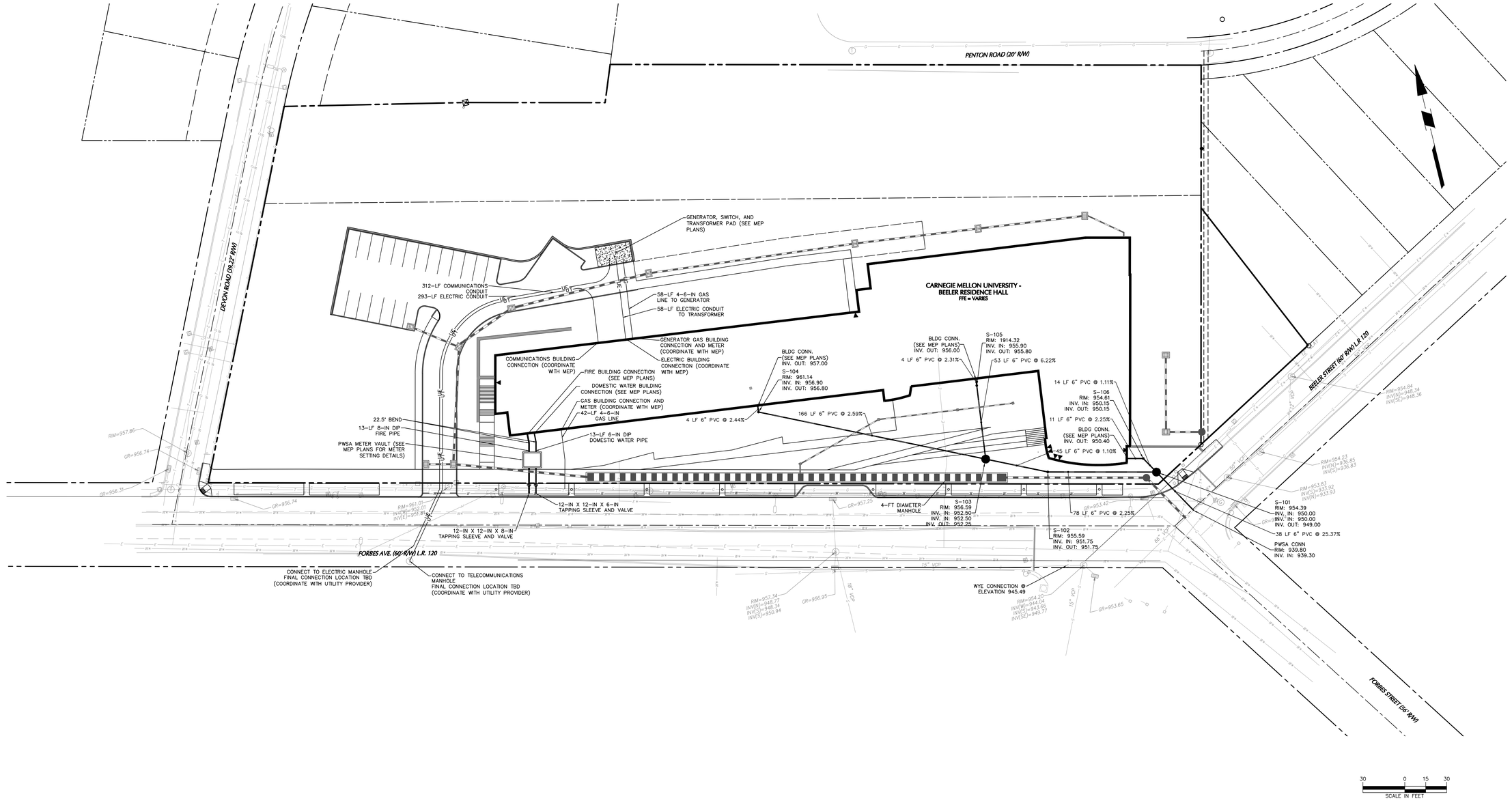
GOODY CLANCY PROJECT NUMBER: 07420

SHEET SIZE : 30" x 42"

DRAWN:	MMC	DATE: 07/12/19
CHECKED:	SML	SCALE: AS INDICATED

DRAWING NO.:

CS101



30 0 15 30
SCALE IN FEET

UTILITY NOTES

1. THESE PLANS ARE COMPLETED WITH EXISTING BOUNDARY AND TOPOGRAPHY INFORMATION BASED ON A PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" FOR THE "DOHERTY APARTMENTS 5075 FORBES AVE." PROJECT PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED MAY 2, 2019 AND UPDATED MAY 9, 2019.

2. 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 THE DETAILS, SPECIFICATIONS, AND NOTES PROVIDED ON THESE DRAWINGS, UNLESS SPECIFICALLY ADDRESSED OTHERWISE BY LANGAN DURING THE PROJECT UPON REQUEST FROM THE CONTRACTOR.

3. THE CONTRACTOR SHALL NOTIFY ONE CALL OF PENNSYLVANIA, AND ANY OTHER UTILITY COMPANIES NOT REPRESENTED BY ONE CALL OF PENNSYLVANIA, 72 HOURS PRIOR TO CONSTRUCTION FOR LOCATION OF EXISTING UTILITIES. NOTIFY ONE CALL OF PENNSYLVANIA AT 1-800-242-1776.

4. TRENCH DEPTH REQUIREMENTS MEASURED FROM FINISHED GRADE SHALL MEET THE FOLLOWING:
   - STORM SEWER: DEPTHS, ELEVATIONS, AND GRADES AS INDICATED ON DRAWINGS.
   - SANITARY SEWER: DEPTHS, ELEVATIONS AND GRADES AS INDICATED ON DRAWINGS.
   - WATER MAINS: 48 INCHES TO TOP OF PIPE BARREL OR 6 INCHES BELOW THE FROST LINE OR ESTABLISHED BY THE LOCAL BUILDING OFFICIAL OR WATER COMPANY, WHICHEVER IS DEEPER.

5. UTILITY TESTING INCLUDING (BUT NOT LIMITED TO) WATER PRESSURE TESTING, WATER SYSTEM FLUSHING, BACTERIOLOGICAL TESTING, VIDEO CAMERA TESTING, MANDREL TESTING, OR ANY OTHER TESTING REQUIRED BY LOCAL, COUNTY, OR STATE AGENCIES PRIOR TO FINAL ACCEPTANCE OF THE PROJECT AND CERTIFICATE OF OCCUPANCIES BEING ISSUED SHALL BE COORDINATED AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE ENGINEER OF RECORD SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO CONTACT AND COORDINATE THE LOCAL AND COUNTY OFFICIALS THAT ARE REQUIRED TO BE PRESENT AT ALL INSPECTIONS. LOCAL FIRE INSPECTORS SHALL BE INVITED TO INSPECT ALL FIRE SERVICE LINES PRIOR TO BACKFILLING OF TRENCHES.

6. THE LOCATIONS (VERTICAL AND HORIZONTAL) OF ALL EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF THE UTILITIES PRIOR TO CONSTRUCTION. ANY UTILITIES (WHETHER THEY ARE SHOWN OR NOT SHOWN ON THE DRAWINGS) DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S COST.

7. WHERE CONFLICTS ARISE BETWEEN EXISTING OR PROPOSED WATER LINES AND OTHER UTILITIES, STORMWATER CONVEYANCE SYSTEMS OR STRUCTURES, THE WATER LINES SHALL BE ADJUSTED BENEATH OR AROUND THE CONFLICT AS NECESSARY IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.

8. DUCTILE IRON WATER MAINS SHALL BE PAINTED WITH BLUE BANDS. CONTRACTORS SHALL INSTALL ALL NEW OR ALTERED WATER PIPES IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS AND / OR ACCORDANCE WITH MANUFACTURER'S RECOMMENDED PROCEDURES.

9. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS, LATEST REVISIONS. DUCTILE IRON MAINS SHALL BE TESTED AT 150 PSI FOR 2 HOURS AND MEET AWWA STANDARD C-600. ALL NEW MAINS SHALL BE DISINFECTED PER AWWA STANDARD C-651. BACTERIOLOGICAL TESTS FOR 2 CONSECUTIVE DAYS SHALL BE APPROVED PRIOR TO PLACING SYSTEM INTO SERVICE. CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER OF RECORD WITH AWWA C906 AND NSF-61 CERTIFICATIONS.

10. 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 NOT LESS THAN TWO FEET ABOVE PIPE AND NOT LESS THAN TWO 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.

11. 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 TWO FEET ABOVE THE PIPE, AT LEAST TWO FEET BELOW THE FINISHED GRADE, AND AT MOST FOUR 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.

12. ALL GRAVITY SANITARY SEWER PIPE SHALL BE PVC SDR26 WHEN CONNECTING TO A COMBINED SEWER MAIN.

13. AT THE POINT WHERE THE PROPOSED SANITARY SEWER CONSTRUCTION MEETS A LIVE OR EXISTING SEWER, THE NEW SANITARY SEWER SHALL BE SECURELY PLUGGED UNTIL THE ENTIRE NEW SANITARY SEWER CONSTRUCTION IS COMPLETED AND READY FOR FINAL INSPECTION.

14. SANITARY SEWER CLEANOUTS SHALL BE PROVIDED WITHIN FIVE FEET OF ALL BUILDING CONNECTIONS FOR ALL SEWER CONNECTIONS TO COMBINED SEWERS.

15. 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.

16. ANY UTILITY CONFLICTS WITH 18 INCHES OR LESS VERTICAL SEPARATION BETWEEN OUTSIDE OF PIPE AND OUTSIDE OF PIPE SHALL BE CONCRETE ENCASED.

17. 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.

18. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS 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 MUST CALL ALL THE 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. 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. CALL PENNSYLVANIA ONE CALL SYSTEM- 1-800-242-1776.

19. 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.

20. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS AND ANY LOCAL AUTHORITIES.

21. 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.

22. 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 MANUAL.

23. CONTRACTOR TO RECEIVE ALLEGHENY COUNTY HEALTH DEPARTMENT APPROVAL PRIOR TO START OF CONSTRUCTION.

24. REFER TO OTHER CONTRACT DOCUMENTS FOR GAS UTILITY INFORMATION.

25. THESE PLANS ARE SUBJECT TO CHANGE PENDING THE FOLLOWING REGULATORY AGENCY REVIEW AND APPROVAL.
   - PENNSYLVANIA DEP
   - ALLEGHENY COUNTY HEALTH DEPARTMENT
   - ALLEGHENY COUNTY CONSERVATION DISTRICT
   - CITY OF PITTSBURGH
   - PITTSBURGH WATER AND SEWER AUTHORITY
   - CITY OF PITTSBURGH DEPARTMENT OF PUBLIC WORKS

26. CONTRACTOR TO CONFIRM TIE LOCATIONS AND ELEVATIONS OF SANITARY AND STORM SEWERS PRIOR TO INSTALLATION. CONTRACTOR TO NOTIFY ENGINEER OF THE LOCATION AND ELEVATION OF THE EXISTING SEWER PRIOR TO INSTALLATION.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
SANITARY SEWER	S	
SANITARY CLEANOUT		
SANITARY MANHOLE	S	
STORM SEWER	D	
CATCH BASIN/INLET		
STORM MANHOLE		
WATER LINE		UW
FIRE LINE		UFW
WATER HYDRANT		
WATER VALVE		
GAS LINE	G	UG
GAS VALVE	GV	
UTILITY POLE		
ELECTRIC LINE	E	UE
COMMUNICATIONS LINE	T	UT
STREET LIGHT		

CARNEGIE MELLON UNIVERSITY
PITTSBURGH PENNSYLVANIA 1900

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617.262.2760 fax 617.262.9512
arch@goodyclancy.com
www.goodyclancy.com

ikm
Eleven Stanwix Street
Pittsburgh, Pennsylvania 15222
412.281.1337
media@ikminc.com
ikminc.com

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

REGISTRATION

FORBES & BEELER RESIDENCE HALL
Carnegie Mellon University

KEY PLAN

SCHEMATIC DESIGN
ISSUED: 07/12/2019

REVISIONS

ISSUE

(NOT FOR CONSTRUCTION)

Utility Plan

GOODY CLANCY PROJECT NUMBER: 07420
SHEET SIZE : 30" x 42"
DRAWN: MMC DATE: 07/12/19
CHECKED: SML SCALE: AS INDICATED
DRAWING NO.:

CU101

APPENDIX G
Cultural Resource Notice

SECTION G
SEWAGE FACILITIES PLANNING
MODULE COMPONENT 3

Re: Cultural Resources Notice (CRN)
CMU Forbes and Beeler Residence Hall
City of Pittsburgh, Allegheny County, Pennsylvania
Langan Project No.: 250072801

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

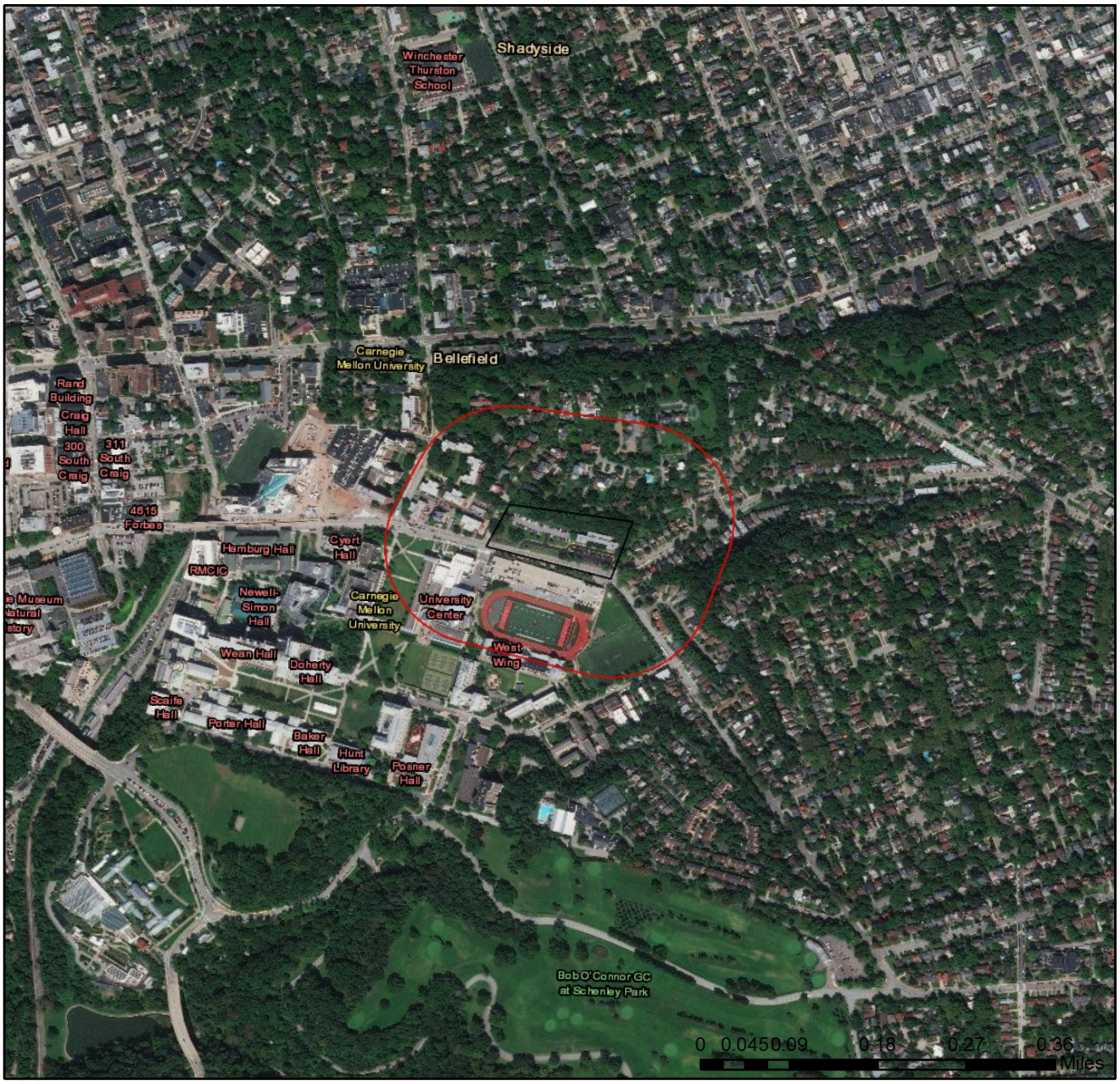
Project Name: **CMU Residence Hall**
Date of Review: **7/23/2019 02:07:43 PM**
Project Category: **Development, New public/community development (school, library, church, museum)**
Project Area: **4.56 acres**
County(s): **Allegheny**
Township/Municipality(s): **PITTSBURGH**
ZIP Code: **15213**
Quadrangle Name(s): **PITTSBURGH EAST**
Watersheds HUC 8: **Lower Monongahela**
Watersheds HUC 12: **Streets Run-Monongahela River**
Decimal Degrees: **40.444508, -79.939764**
Degrees Minutes Seconds: **40° 26' 40.2293" N, 79° 56' 23.1517" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
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 Residence Hall

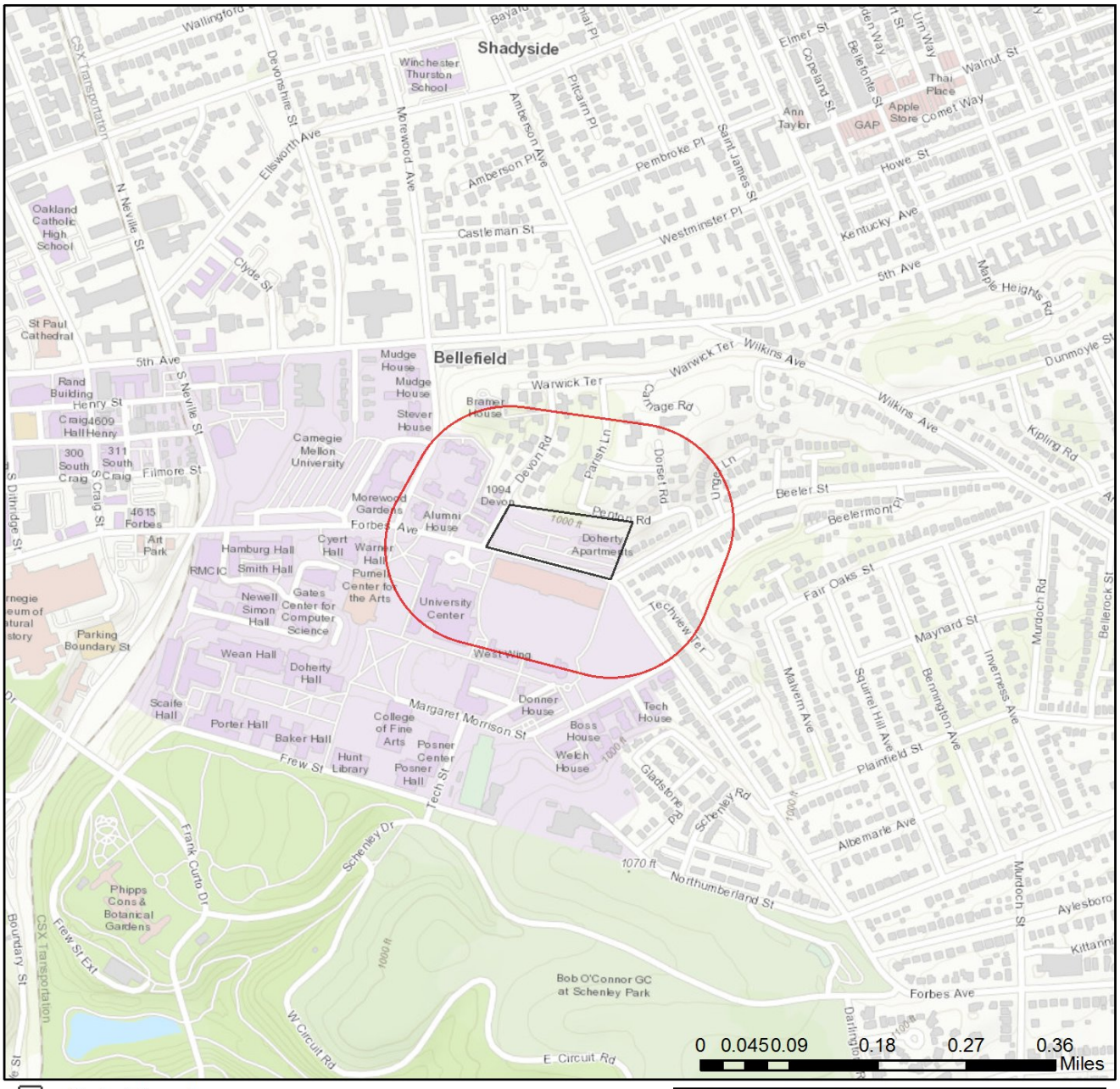


Project Boundary

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

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).
***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

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

U.S. Fish and Wildlife Service
Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

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

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: Marci Carter
Company/Business Name: Langan Engineering and Environmental Services, Inc.
Address: 2400 Ansys Drive, Suite 403
City, State, Zip: Canonsburg, PA, 15317
Phone: (724) 514-5182 Fax: (724) 514-5101
Email: mcarter@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.

Marci Carter — applicant/project proponent signature

7/23/2019 — date

pennsylvania
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES

BUREAU OF FORESTRY

July 24, 2019

PNDI Number: 689156
Version: Final_1; 7/23/19

Marci Carter
Langan Engineering & Environmental Services, Inc.
2400 Ansys Drive
Suite 403
Canonsburg, PA 15317
Email: mcarter@langan.com (hard copy will not follow)

Re: CMU Residence Hall
City of Pittsburgh, Allegheny County, PA

Dear Marci Carter,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number **689156**. 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 this 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 Megan Pulver, Ecological Information Specialist, by phone (717-705-2819) or via email (c-mpulver@pa.gov).

Sincerely

Greg Podniesinski

Greg Podniesinski, Section Chief
Natural Heritage Section

APPENDIX I

Component 4A

3850-FM-BCW0362A 6/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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
CMU Beeler Residence Hall

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

1. Date plan received by municipal planning agency 11-12-19
2. Date review completed by agency 11-12-19

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

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

SECTION C. AGENCY REVIEW (continued)

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

17. Name, title and signature of planning agency staff member completing this section:

Name: martina Battistone
Title: Senior Environmental Planner
Signature: MBattistone
Date: 11-12-19
Name of Municipal Planning Agency: Dept. City Planning, Pittsburgh
Address 200 Ross St. 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

3850-FM-BCW0362C 6/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

DEP Code #:

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 Forbes and Beeler Residence Hall

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

1. Date plan received by county or joint county health department November 7, 2019

   Agency name Allegheny County Health Department (ACHD)

2. Date review completed by agency November 8, 2019

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

Yes	No		
☒	☐	1.	Is the proposed plan consistent with the municipality's Official Sewage Facilities Plan?
			If no, what are the inconsistencies?
☐	☒	2.	Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality?
			If yes, describe
☐	☒	3.	Is there any known groundwater degradation in the area of this proposal?
			If yes, describe
☒	☐	4.	The county or joint county health department recommendation concerning this proposed plan is as follows: ACHD recommends approval. See attached letter.
		5.	Name, title and signature of person completing this section:

Name: Freddie Fields

Title: Environmental Health Engineer III

Signature: Freddie Fields

Date: November 8, 2019

Name of County Health Department: ACHD

Address: 3901 Penn Avenue, Building #5, Pittsburgh, PA 15224-1318

Telephone Number: 412-578-8046

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

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

Average Hourly Dry Flow November 8, 2019 through December 7, 2019

2019	11/08	11/09	11/10	11/11	11/12	11/13	11/14	11/15	11/16	11/17	11/18	11/19	11/20	11/21	11/22	11/23	11/24	11/25	11/26	11/27	11/28	11/29	11/30	12/01	12/02	12/03	12/04	12/05	12/06	12/07	Average
12:00 AM		1.331	1.396						1.391	1.224	1.360	1.285	1.272	1.292							1.193	1.167	1.168								1.280
01:00 AM		1.282	1.304						1.276	1.202	1.246	1.187	1.189	1.238							1.156	1.075	1.153								1.210
02:00 AM		1.232	1.238				1.250	1.216	1.227	1.139	1.146	1.046	1.081	1.063					1.247		1.085	1.065	1.127								1.154
03:00 AM		1.137	1.148					1.090	1.125	1.112	1.119	1.060	0.932	0.965					1.051		1.084	1.028	1.103								1.073
04:00 AM		1.074	1.120					1.038	1.106	1.096	1.060	0.932	0.894	0.925					0.626		1.053	1.031	1.093								1.004
05:00 AM		1.068	1.096					1.048	1.088	1.085	0.966	0.901	0.885	0.904					1.065		1.050	1.050									1.017
06:00 AM		1.074	1.134					1.096	1.114	1.107	1.075	0.950	0.963	0.966							1.041	1.098	1.105								1.060
07:00 AM		1.116	1.161					1.363	1.179	1.152	1.370	1.264	1.303								1.088	1.132	1.145								1.207
08:00 AM		1.329	1.299						1.368	1.221			1.620								1.191	1.185	1.243								1.307
09:00 AM		1.513	1.538						1.705	1.436				1.714							1.283	1.307	1.345								1.480
10:00 AM		1.693	1.701							1.660		1.777	1.842	1.751							1.330	1.410	1.382								1.616
11:00 AM		1.809	1.838							1.740		1.698	1.795	1.768							1.377	1.404	1.469								1.655
12:00 PM		1.796								1.702	1.867	1.700	1.845	1.704							1.429	1.457	1.476								1.664
01:00 PM		1.758	1.822						1.831	1.666	1.776	1.682	1.741	1.630							1.405	1.382	1.414								1.646
02:00 PM		1.698	1.687							1.652	1.585	1.490	1.613	1.488							1.373	1.357	1.496								1.544
03:00 PM			1.633						1.731	1.648	1.600	1.519	1.672	1.578					1.693		1.376	1.384	1.396								1.566
04:00 PM			1.605						1.663	1.638	1.535	1.518	1.636	1.457							1.330	1.349	1.346								1.508
05:00 PM			1.658						1.647	1.664	1.484	1.480	1.567	1.419					1.570		1.279	1.320	1.341								1.494
06:00 PM	1.593		1.625							1.627	1.536	1.482	1.548	1.441					1.494		1.178	1.299	1.383								1.473
07:00 PM			1.589						1.519	1.539	1.480	1.469	1.534	1.464					1.552		1.241	1.287	1.406								1.462
08:00 PM	1.529	1.580	1.546					1.581	1.416	1.554	1.526	1.440	1.584	1.365					1.536		1.261	1.258	1.356								1.467
09:00 PM	1.500	1.513	1.545						1.343	1.515	1.436	1.423	1.537	1.434					1.493		1.255	1.250	1.327								1.429
10:00 PM	1.451	1.520						1.509	1.342	1.526	1.432	1.391	1.503	1.312					1.541		1.258	1.246	1.307								1.411
11:00 PM	1.373	1.469						1.428	1.390	1.479	1.366	1.380	1.406	1.323					1.467		1.233	1.216	1.280								1.370
AVG.	1.489	1.421	1.461				1.250	1.263	1.393	1.433	1.398	1.367	1.433	1.373					1.361		1.231	1.240	1.298								**1.379**
Precip. :	0.00	0.00	0.00	0.06	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.65	0.11	0.00	0.00	0.11	0.00	0.00	0.00	0.54	0.01	0.02	0.02	0.00	0.00	0.00	

Present Peak Flow

Present Average Flow