

**RESOLUTION**  
of the  
**BOROUGH OF NEW PROVIDENCE**  
Resolution No. 2017-066

Council Meeting Date: 02-15-2017

Date Adopted: 02-15-2017

TITLE: RESOLUTION AUTHORIZING THE APPLICATION FOR A TREATMENT WORKS APPROVAL PERMIT FOR REDWOOD-ERC NEW PROVIDENCE, LLC, BLOCK 320, LOTS 15 & 17

Councilperson Galluccio submitted the following resolution, which was duly seconded by Councilperson Muñoz.

WHEREAS, Bohlers Engineering., has made an application known as “Redwood-ERC New Providence, LLC” to the Board of Adjustment for Treatment Works Approval (TWA) of the property known as Block 320, Lots 15 and 17 and in connection with such approval, an application must be filed with the NJDEP for a Treatment Works Approval Permit for sewer extension; and

WHEREAS, such application requires the endorsement by the Borough which is a routine procedure.

NOW, THEREFORE BE IT RESOLVED by the Borough Council of the Borough of New Providence, County of Union and State of New Jersey that the Borough is authorized to endorse the Treatment Works Approval Application for “Redwood-ERC New Providence, LLC” date November 1, 2016.

APPROVED, this 15<sup>th</sup> day of February, 2017.

RECORD OF VOTE

	AYE	NAY	ABSENT	NOT VOTING
GALLUCCIO	X			
GENNARO	X			
KAPNER	X			
MADDEN	X			
MUÑOZ	X			
ROBINSON	X			
MORGAN			TO BREAK COUNCIL TIE VOTE	

I hereby certify that the above resolution was adopted at a meeting of the Borough Council held on the 15<sup>th</sup> day of February, 2017

Wendi B. Barry, Borough Clerk

B O R O U G H   O F  
**NEW PROVIDENCE**

SETTLED IN 1720

Allen Morgan, Mayor

Andrew R. Hipolit, Borough Engineer

Margaret Koontz, Administrative Assistant

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January 6, 2017

**VIA E-MAIL**

Margaret Koontz  
Secretary, Zoning Board of Adjustment  
Borough of New Providence  
Municipal Center  
360 Elkwood Avenue  
New Providence, NJ 07974

Re: Redwood-ERC (CCRC)  
NJDEP Treatment Works Approval (TWA) Application and Site Plan  
Block 320, Lots 15  
535 & 603 Mountain Avenue  
Our File No. NPZ-317D

Dear Ms. Koontz:

Our office is in receipt of copies of documents relative to the above-referenced application, summarized in Exhibit 1. We take no exception to the Borough signing the attached Statements of Consent Form WQM-003, Section A-1, with the following conditions:

1. The Applicant shall perform leakage testing of all proposed sanitary sewer manholes.
2. All Shop Drawings related to the sanitary sewer design shall be provided to Maser Consulting for review.
3. As a courtesy, this office has identified the following items the NJDEP will require the Applicant submit as part of a complete TWA submission:
  - a. Treatment Works Approval Checklist for Administrative Completeness
  - b. Receipts of Public Notification from the Municipal Planning Board and the Municipal Environmental Commission, if any (Refer to N.J.A.C 7:14A-22.8(a)4).

After the form has been signed and a Resolution has been approved, all original forms shall be returned to Bohler Engineering.

To: Margaret Koontz, Board Secretary  
Re: Our File No. NPZ-317D

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Thank you for your kind attention in this matter. Please contact me should you have any questions.

Very truly yours,



Michael J. O'Krepky, P.E., C.M.E.  
Project Manager

MJO/cd

Attachments

cc: Zoning Board of Adjustment (via Secretary)  
Keith Lynch, Building Official (via e-mail)  
Philip Morin, Esq., Board Attorney (via e-mail)  
Glenn S. Pantel, Drinker, Biddle & Reath (via email)  
Robert Streker, Bohler Engineering (via email)

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To: Margaret Koontz, Board Secretary  
Re: Our File No. NPZ-317D

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## **EXHIBIT 1**

# **SUMMARY OF DOCUMENTS SUBMITTED FOR REDWOOD-ERC NEW PROVIDENCE, LLC CCRC**

The following is a summary of the documents and information submitted in the matter of the Redwood-ERC New Providence, LLC, CCRC/Erickson Living TWA Application:

- a. Form WQ006, Engineer's Report for Domestic Treatment Works Approval Applications, Applicant Redwood – ERC New Providence II, LLC, dated 11/18/16, original signed and sealed;
- b. Form WQM-003, Statements of Consent, Applicant Redwood – ERC New Providence, II, LLC;
- c. Sanitary Sewer Specifications for Redwood-ERC New Providence II, LLC Prepared for Lantern Hill, Block 320, Lots 15 & 17, 603 & 535 Mountain Avenue, Borough of New Providence, Union County, New Jersey, dated November 2016
- d. Treatment Works Approval Permit Application, Applicant Redwood – ERC New Providence II, LLC, dated 11/1/2016, original signed and sealed;
- e. Sanitary Sewer Flow Calculation, prepared by Bohler Engineering, dated 11/4/2016;
- f. Opinion of Probable Construction Cost for Redwood – ERC New Providence II, LLC, Borough of New Providence, Union County, NJ, dated 11/4/2016, prepared by Bohler Engineering;
- g. Developers Agreement between Borough of New Providence and Redwood-ERC New Providence, LLC, dated October 2013;
- h. Treatment Works Approval No. 14-0208 dated 07/31/2014, Applicant Redwood-ERC New Providence, LLC;
- i. Developer's Agreement between Borough of New Providence and Redwood-ERC New Providence II, LLC, dated December 31, 2015;and
- j. Plan set entitled, "Preliminary & Final Major Site Plan for Redwood-ERC, New Providence, LLC, Proposed Continuing Care Retirement Community, 535 & 603 Mountain Avenue, Borough of New Providence, Union County, New Jersey, Block 320, Lots 15 & 17," prepared by Brian McMorrow, P.E., of Bohler Engineering, consisting of sixteen (16) sheets, dated December 3, 2014, revised through 11/15/2016;

STATE OF NEW JERSEY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Division of Water Quality

Reset Form

**STATEMENTS OF CONSENT**

*A supplement to the TWA-1 or NJPDES-1 Forms*

**General Information**

Applicant/Owner/Operator

Location of Work Site

Name of Project/Facility

Type of permit application (TWA, NJPDES/SIU)

NJPDES Permit Number (if applicable)

**A-1 Consent By Governing Body\*\***

(Consent by the municipality in which the project is located.)

As an authorized representative of the governing body, I hereby certify that the

(Name of Municipality or Municipal Authority)

consents to the submission of the above listed application to the Department of Environmental Protection for approval. I further certify that the project as proposed conforms with the requirements of all municipal ordinances.

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

Type Name and Position

\* Cite authorization to sign for the governing body

Resolution#  Dated

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the Governing Body's full resolution, consenting to the project, must be submitted with the application.)

\*\* Note

For most Treatment Works Approval (TWA) applications, this section may be omitted if a sewerage entity (for example, sewerage authority, utilities authority, municipal utilities authority, joint meeting, etc.) has responsibility for regulating the construction and operation of wastewater treatment and conveyance facilities within the municipality. In such cases, the governing body consent requirement may be satisfied by completing Section A-2. Applicants for TWAs for industrial/commercial facilities discharging pursuant to NJPDES/DSW or DGW permits must complete section A-1.

**A-2 Consent by Sewerage Authority\*\***

As an authorized representative of this agency, I hereby certify that the

(Name of Agency)

consents to the submission of the above listed application to the Department of Environmental Protection for approval. I further certify that the project as proposed conforms with the requirements of this agency.

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

Type Name and Position

\* Cite authorization to sign for the agency

Resolution#  Dated

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the Governing Body's full resolution, consenting to the project, must be submitted with the application.)

\*\* Note

For TWA applications, this section must be completed when a sewerage entity (for example, sewerage authority, utilities authority, municipal utilities authority, joint meeting, etc.) has responsibility for regulating the construction and operation of wastewater treatment and conveyance facilities within the municipality.

**A-3 Consent by Owner of Wastewater Treatment Facility\*\***

(For NJPDES/SIU applications only)

As an authorized representative of this agency, I hereby certify that the

(Name of Agency)

consents to the submission of the above listed application to the Department of Environmental Protection for approval. I further certify that the project as proposed conforms with the requirements of this agency and the agency agrees to accept wastewater from the project for treatment.

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

Type Name and Position

\* Cite authorization to sign for the agency

Resolution#  Dated

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the Agency's full resolution, consenting to the project, must be submitted with the application.)

\*\* Note

For NJPDES/SIU applications, this section must be completed when the owner of the receiving wastewater treatment plant is different that the entity listed under A-2.

**B. Certification by Wastewater Conveyance System Owner\*\***

By agreeing to accept wastewater from the project, I (we) hereby certify that to the best of my (our) knowledge the wastewater conveyance system, into which the project proposed under this application will connect, has adequate capacity in accordance with N.J.A.C. 7:14A-1.2 ("Adequate conveyance capacity"). Furthermore, I (we) am (are) not aware of inadequate conveyance capacity conditions in any portion of the downstream facilities necessary to convey the wastewater from this project to the treatment plant.

Name of Municipality or Authority

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

Type Name and Position

\* Cite authorization to sign for the governing body

Resolution#  Dated

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the governing body's full resolution, consenting to the project, must be submitted with the application.)

\*\* Note

1. For TWA applications, this section must be completed by the owner/operator of the wastewater conveyance system into which the project named herein will directly connect.

2. For NJPDES/SIU applications, this section must be completed when the owner/operator wastewater conveyance system into which the project named herein will directly connect is different that the entity listed under A-3.

**C. Certification by Wastewater Treatment Facility Owner\*\***

(For TWA applications that include a sewer connection/extension.)

I (we) hereby certify that the committed flow\*\*\* to the

(Name of Wastewater Treatment Plant)

does not exceed the presently permitted design capacity and with the additional flow proposed by this application, the permitted design capacity is not anticipated to be exceeded. I (we) further certify that the treatment plant is currently complying with its conventional and non-conventional NJPDES permit requirements (see N.J.A.C. 7:14A-22.17(b)-(d), percent removal and toxicity requirements excluded from this certification) as determined by a rolling average of the three most recent monthly discharge monitoring reports that were required to be submitted to the Department as of this date, and based upon my (our) assessment of all information pertinent to this permit request, is anticipated to continue to do so with the additional flow from this project.

Accepted for Treatment by

(Name of Treating Authority)

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

Type Name and Position

Name of project and/or location

\* Cite authorization to sign for the governing body

Resolution#  Dated

(Submit the resolution with the application. If no such resolution granting authority to sign exists, the governing body's full resolution, consenting to the project, must be submitted with the application.)

\*\* For TWA applications, this section must be completed by the owner of the wastewater treatment facility receiving the wastewater identified in this application.

\*\*\* For the purposes of this certification, committed flow means the sum of the 1) actual metered flow, 2) flow from DEP approved TWA applications (not yet operational), and 3) flow from locally approved projects that do not require DEP approval.

### **Additional Information (For TWA Applications)**

1. Approvals, permits, service contracts, or other reservations of flow capacity issued or agreed to by any participating municipality or sewerage agency do not constitute the required approval of the DEP.
2. For computation of actual flow at the receiving wastewater treatment plant, the average flow processed by the facility for the three (3) month period immediately preceding the submission of the application shall be used. Pursuant to the NJPDES regulations (N.J.A.C. 7:14A), no application shall be submitted to the DEP if the wastewater treatment facility is not meeting its discharge permit requirements.

### **Lack of Consent\***

1. The affected sewerage authority or municipality must consent to the application or submit comments to the DEP within 60 days of the applicant's request for consent. Prior to the expiration of the 60-day period to respond to a request for a written statement of consent, the municipality or sewerage authority may request a 30-day time extension.
2. Any document issued by a sewerage authority or municipality which is a tentative, preliminary, or conditional approval shall not be considered a statement of consent.
3. When the affected sewerage authority or municipality does not consent to a project, it shall state all reasons for rejection or disapproval in a resolution and send a certified copy of the resolution to the DEP.
4. When the affected sewerage authority or municipality expressly denies a request for a written statement of consent for a project, the permit application may be determined by the DEP to be incomplete for processing; or in the alternative, the DEP may review the reasons for denial. Any such reasons shall be considered by the DEP in determining whether to issue a draft permit in accordance with N.J.A.C. 7:14A-15.6, or a Treatment Works Approval or sewer connection approval in accordance with N.J.A.C. 7:14A-22.
5. When the affected sewerage authority or municipality does not issue a written statement of consent in accordance with (1) above, or a denial in accordance with (3) above, the DEP, upon receipt of proof that the applicant has delivered to the affected agency a written request for a statement of consent, shall review the reasons therefore, if known on the basis of reasonably reliable information. Any such reasons shall be considered by the DEP in determining whether to issue a draft permit in accordance with N.J.A.C. 7:14A-15.6, or a Treatment Works Approval in accordance with N.J.A.C. 7:14A-22. The DEP, may in its discretion, deem the application to be incomplete pending the expiration of the time period set forth in (1) above.

\* This section has been excerpted from the NJPDES regulations for guidance purposes only. Please refer to N.J.A.C. 7:14A-22.8(a)3 for the complete requirements concerning statements of consent.

**Notice: False statements, representations, or certifications, in any application, record, or document are subject to fines and penalties as set forth in the Water Pollution Control Act (N.J.S.A. 58:10A-10F 2 and 3.**



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY

Reset form

Treatment Works Approval Permit Application

Refer to Instructions on Page 4 and Provide All Applicable Information. Please Print or Type.

1. APPLICANT/OWNER\*

Name Redwood - ERC New Providence II, LLC Telephone ( 410 ) 402-2475
Permanent Legal Address 701 Maiden Choice Lane
City or Town Baltimore State MD Zip Code 21228 E-mail mark.hunter@erickson.com

\* Applicant/Owner should be the eventual owner of the proposed Treatment Works.

2. LOCATION OF ACTIVITY

Name of Facility/Site Proposed Continuing Care Retirement Community
Street Address/Location 535 & 603 Mountain Ave
Lot No. 15 & 17 Block No. 320
City or Town Borough of New Providence State NJ Zip Code 07974
Municipality Borough of New Providence County Union

3. NEW JERSEY LICENSED PROFESSIONAL ENGINEER

Name Robert L. Streker, P.E. N.J. License No. 32473
Name of Firm, if employee Bohler Engineering
Mailing Address 35 Technology Drive
City or Town Warren State NJ Zip Code 07974
Telephone ( 908 ) 668-8300 Fax ( 908 ) 754-4401 E-Mail rstreker@bohlereng.com

4. ESTIMATED CONSTRUCTION COST AND APPLICATION FEE

- A. Cost of treatment works proposed in this application \$ 18,570.00
B. Application Fee \$ 850.00

**5. OTHER REQUIRED PERMITS**

If any of the the following applications have been submitted for this project, provide the applicable information.

Permit Type	Application Status		Application Date (or Application No.)
	<u>Pending</u>	<u>Approved*</u>	
● Treatment Works Approval	<input type="checkbox"/>	<input checked="" type="checkbox"/>	TWA No. 14-0208
● Exemption From Sewer Ban	<input type="checkbox"/>	<input type="checkbox"/>	
● Water Quality Management Plan Amendment	<input type="checkbox"/>	<input type="checkbox"/>	
● CAFRA	<input type="checkbox"/>	<input type="checkbox"/>	
● Stream Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	
● Freshwater Wetlands	<input type="checkbox"/>	<input type="checkbox"/>	
● Tidal or Coastal Wetlands	<input type="checkbox"/>	<input type="checkbox"/>	
● Waterfront Development	<input type="checkbox"/>	<input type="checkbox"/>	
● NJPDES Permits	<input type="checkbox"/>	<input type="checkbox"/>	
● Pinelands Certificate	<input type="checkbox"/>	<input type="checkbox"/>	
● Delaware & Raritan Canal Commission	<input type="checkbox"/>	<input type="checkbox"/>	
● Hackensack/Meadowlands Commission	<input type="checkbox"/>	<input type="checkbox"/>	
● Other Related Approvals	<input type="checkbox"/>	<input type="checkbox"/>	

(\* If any of the above applications were approved, please provide a copy of the approval with this application).

**6. PROJECT DESCRIPTION (Brief Description of Proposed Treatment Works and Intended Use).**

Proposed 103 LF of 8" PVC to service the 143 independent living units on lot 15. The proposed sanitary sewer system will connect to the sanitary sewer manhole located in the northern portion of the site. In turn, it will then connect with the existing system on lot 17, which connects to an existing manhole located within South Street.

**7. APPLICANT'S AGENT (Optional)**

I, Susan L. Oliveri, as Secretary of Redwood-ERC New Providence II, LLC,  
 (Applicant/Owner's Name)  
 authorize to act as my agent/representative in all matters pertaining to my application the following person:

Name Robert L Streker, P.E. Position Senior Project Manager, Bohler Engineering  
 Address 35 Technology Drive City Warren  
 State NJ Zip Code 07059 Telephone ( 908 ) 668-8300  
[Signature] 11/18/16 [Signature] 11/1/2016  
 Signature of Agent Date Signature of Applicant/Owner Date

**8. PROPERTY OWNER'S CERTIFICATION**

I hereby certify that Redwood - ERC New Providence II, LLC  
 (Property Owner's Name)  
 owns the property identified in this application. As owner, I grant permission for the activity to be permitted under this application and authorize the Department of Environmental Protection to conduct on-site inspections, if necessary. If the construction activity will take place in an easement, I certify that with this application, I presently have or will obtain permission of the property owner(s) prior to initiation of construction of this proposed treatment works.

[Signature] 11/1/2016  
 Signature of Owner Date

Print or Type: Name and Position Susan L. Oliveri, Secretary

**9. STATEMENT OF PREPARER OF PLANS, SPECIFICATIONS AND ENGINEER'S REPORT AND/OR ABSTRACT**

I hereby certify that the engineering plans, specifications, and engineer's report and/or abstract applicable to this project comply with the current rules and regulations of the Department of Environmental Protection with the exceptions as noted.

[Signature] 11/18/16  
 Signature of Engineer Date

Print or Type: Name and Position Robert L Streker, P.E., Senior Project Manager

*PROFESSIONAL ENGINEER'S  
 EMBOSSSED SEAL*

**10. PROPER CONSTRUCTION AND OPERATION CLAUSE**

I, the Applicant/Owner, Redwood-ERC New Providence II, LLC agree that the treatment works will be properly constructed and operated in accordance with the engineering plans, specifications and conditions under which approval is granted by the Department of Environmental Protection.

Susan L. Oliveri 11/1/2016  
 Signature of Applicant/Owner Date

Print or Type: Name and Position Susan L. Oliveri, Secretary

**11. CERTIFICATION BY APPLICANT/OWNER**

I certify, under penalty of law, that the information provided in this application and the attachments is true, accurate, and complete. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment.

Susan L. Oliveri 11/1/2016  
 Signature of Applicant/Owner Date

Print or Type: Name and Position Susan L. Oliveri, Secretary

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**INSTRUCTIONS FOR COMPLETING FORM TWA - 1**

**This form should accompany all Treatment Works Approval permit applications.**

1. **General Information** - (items #1 through #4, #6) Complete the requested applicant and project information.
2. **Other Required Permits** (item # 5) - Please list all permits issued for the subject project (in addition to the permits being applied for at this time).
3. **Signatures** (items #7 through #11) - All signatures must comply with N.J.A.C. 7:14A-4.9 and N.J.A.C. 7:14A-22.8. Where indicated under items #1, #10 and #11, the applicant/owner should be the eventual owner of the proposed treatment works. Item #8 shall be completed by the owner of the property.

***Should you need assistance in completing the application, please call the appropriate phone number listed below:***

<p>◆ <b>Bureau of Construction &amp; Connection Permits</b>                  (609) 984-4429                  Municipal Treatment Works, Industrial Treatment Works, Sewer Extension, Sewer Ban Exemption, Subsurface Disposal Systems</p>	<p>◆ <b>Bureau of Nonpoint Pollution Control</b>                  (609) 633-7021                  Alternate Design Septic Systems (design flow less than 2,000 GPD)</p>
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STATE OF NEW JERSEY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Division of Water Quality

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**ENGINEER'S REPORT for DOMESTIC TREATMENT WORKS APPROVAL APPLICATIONS**

**INSTRUCTIONS**

- Complete all applicable sections and certifications.
- Justifications for any exceptions from the regulations at N.J.A.C. 7:14A - 23 et seq. must be submitted. (Additional sheets may be attached if necessary.)
- All supplemental information required to be submitted along with this engineer's report must be signed, sealed, and dated by a professional engineer, licensed to practice in the State of New Jersey.
- **For Treatment Works other than collection and/or conveyance, please attach a separate Engineer's Report in accordance with N.J.A.C. 7:14A - 23.5.**

**GENERAL INFORMATION**

Applicant: Redwood - ERC New Providence II, LLC Municipality: Borough of New Providence

Project Name: Redwood - ERC County: Union

Name of Receiving Sewage Treatment Plant: The Joint Meeting of Essex and Union Counties

NJPDES Permit Number: NJ0024741

Effluent Receiving Waters: The Arthur Kill

**Scope of Project:**

Proposed 103 LF of 8" PVC to service the 143 independent living units on lot 15. The proposed sanitary sewer system will connect to a sanitary sewer manhole

located in the northern portion of the site. In turn, it will then connect with the existing system on lot 17, which connects to an existing manhole

located within South Street.

Contributory Flow: *For assistance in completing this chart, refer to N.J.A.C. 7:14A - 23.3.*

Establishment Type	Number of Measurement Units		Gallons per Day per Unit		Projected Flow (G.P.D.)
	See Attachment	X		=	
		X		=	
		X		=	
		X		=	

Combined Projected Flow: 0.02091 M.G.D.  
 Existing Contributory Flow (if any): 0.05318 M.G.D.  
**TOTAL FLOW:** 0.07409 M.G.D.

**1. WASTEWATER CONVEYANCE SYSTEMS**

**(A) GRAVITY SEWER SYSTEMS**

Diameter (inches)	Total Length (feet)	Material Type	"n" Value	Max. MH Spacing (feet)	Min. Slope (%)	Max. Velocity (ft/sec)	Max. Capacity (M.G.D.)
8	103	PVC	0.011	50	2.08	2.27	1.46

1.	What is the minimum cover (as measured from the top of the pipe to the grade elevation) provided along the entire sewer line?	3.5	ft.
2.	What is the infiltration and/or exfiltration limit for testing purposes (gallons per inch of pipe per mile per day)?	50	
		YES	NO
3.	Are sewers within 100 feet of a public water supply well or a below-grade reservoir?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Are sewers located at least 10 feet horizontally from potable water lines and/or at least 18 inches below potable water lines and in separate trenches, including crossings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.	Are sewers crossing streams located within 10 feet of a stream embankment encased in concrete?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.	Is a drop pipe provided for sewers entering manholes above the manhole invert wherever the difference in elevation is two feet or more?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are all manholes located more than 100 feet from a public water supply well or a below-grade reservoir?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	Are watertight covers used where street elevations are less than 10 feet above the North American Vertical Datum of 1988 and/or where the top of a manhole may be flooded by street runoff or high water?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9.	Are the sanitary sewers designed to carry at least twice the estimated average projected flow when flowing half full?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10.	Have adequate provisions been made for the ventilation of manholes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11.	If siphons are part of this project, are they in conformance with N.J.A.C. 7:14A - 23.7?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12.	Are the immediate downstream sewer lines constructed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**(B) PUMPING SYSTEM:** Submit a Pump Station Design Report, which should include, at a minimum, the basis for the following: (a) pump selection; (b) sizing of force main and velocity calculations; (c) total dynamic head; (d) pump station performance curve and (e) wet well detention time.

Average daily flow:	N/A	GPD	Surface area of wet well:	N/A	ft <sup>2</sup>
Peaking factor:	N/A		Wet Well Detention Time :	N/A	minutes
Peak design flow:	N/A	GPD	TDH of pump:	N/A	ft
Number of pumps:	N/A				
Design capacity of pump station (with the largest pump out of service):	N/A			N/A	GPM

**1. WASTEWATER CONVEYANCE SYSTEMS**

**(B) PUMPING SYSTEM (continued)**

**FORCE MAINS**

Diameter (inches)	Length (feet)	Material Type	Velocity (ft/sec)

1.	What is the minimum cover (as measured from the top of the pipe to the grade elevation) provided along the entire force main?	ft		
2.	Specify the method of screening at the pumps.			
3.	Where is the ultimate location of the alarm for high water conditions, power failures, and mechanical breakdowns?			
4.	Specify the type of back-up power source provided.			
		<b>YES</b>	<b>NO</b>	<b>N/A</b>
5.	Is adequate light and ventilation provided at the pump station?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are air and/or vacuum release valves provided on the high points of the force main?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Are adequate freshwater wash-down facilities provided?	<input type="checkbox"/>	<input type="checkbox"/>	
8.	If a domestic water service connection will be utilized for wash-down purposes, is it protected by a backflow prevention device?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Are shut-off valves on suction and discharge piping and check valves on discharge lines provided?	<input type="checkbox"/>	<input type="checkbox"/>	
10.	Is the base of the pump station wet well sloped toward the pump suction?	<input type="checkbox"/>	<input type="checkbox"/>	
11.	Does the alarm system provide for competent assistance on a 24 hour basis?	<input type="checkbox"/>	<input type="checkbox"/>	
12.	Is the pump station adequately protected from flooding?	<input type="checkbox"/>	<input type="checkbox"/>	
13.	Is the dry well provided with a sump pump?	<input type="checkbox"/>	<input type="checkbox"/>	

I am a professional engineer licensed by the New Jersey Board of Professional Engineers and Land Surveyors to practice in New Jersey. I certify that the proposed treatment works, as designed, meets the requirements of N.J.A.C. 7:14A - 23 et seq., other than the exceptions as noted.

I hereby certify that the information provided in this engineer's report and attachments hereto, is true, accurate, and complete. Exceptions attached [YES , NO ]?

Signature of Engineer:

 11/18/16

**Robert L. Streker P.E.**

Professional Engineer's  
Embossed Seal

Name and Date:  
(Print or Type)

Firm Name:

**Bohler Engineering NJ, LLC**

**2. DOMESTIC WASTEWATER TREATMENT AND/OR RESIDUAL FACILITIES**

Is the following information submitted with this engineer's report?		YES	NO
1.	A complete description of the selected wastewater treatment system.	<input type="checkbox"/>	<input type="checkbox"/>
2.	For the modification of an existing system which has not previously been granted a treatment works approval (TWA), the capacities of the existing units and a brief description of the operation of each, and a statement concerning which units are existing and which are proposed at the time of the application. If there exists a previously issued TWA approval for the subject facility, submit the date of issuance and the TWA number.	<input type="checkbox"/>	<input type="checkbox"/>
3.	Hydraulic profiles of the flow of wastewater through the system.	<input type="checkbox"/>	<input type="checkbox"/>
4.	A unit by unit mass balance for all discharge parameters.	<input type="checkbox"/>	<input type="checkbox"/>
5.	The ultimate disposal location of all effluent.	<input type="checkbox"/>	<input type="checkbox"/>
6.	The basis and computations for average and peak flow requirements.	<input type="checkbox"/>	<input type="checkbox"/>
7.	The expected composition of the influent and effluent from the treatment system including the average, maximum and minimum values of the pollutant parameters specified in the facility's NJPDES permit/DAC.	<input type="checkbox"/>	<input type="checkbox"/>
8.	An evaluation of the quantity and quality of any and all residuals generated and projected to be generated, including a hydraulic profile and unit by unit mass balance for the flow of residuals through the system.	<input type="checkbox"/>	<input type="checkbox"/>
9.	Documentation of adequate storage and handling facilities for residuals.	<input type="checkbox"/>	<input type="checkbox"/>
10.	Provisions for the ultimate management of residuals.	<input type="checkbox"/>	<input type="checkbox"/>
11.	Details of flow monitoring and control, alarm systems, auxiliary power, storage facilities for treatment chemicals and wastes, and plans for bypassing units during construction or maintenance.	<input type="checkbox"/>	<input type="checkbox"/>
12.	The basis and computations for the projected wastewater flow.	<input type="checkbox"/>	<input type="checkbox"/>
13.	A fully executed Licensed Operator Grading Form.	<input type="checkbox"/>	<input type="checkbox"/>

I am a professional engineer licensed by the New Jersey Board of Professional Engineers and Land Surveyors to practice in New Jersey. I certify that the proposed treatment works, as designed, are adequate to meet all applicable final NJPDES permit limitations contained in the current NJPDES Discharge Permit No. \_\_\_\_\_ In addition, I certify that the proposed treatment works, as designed, meets the requirements of N.J.A.C. 7:14A - 23 et seq., other than the exceptions as noted.

I hereby certify that the information provided in this engineer's report and attachments hereto is true, accurate, and complete. Exceptions attached [YES , NO ]?

Signature of Engineer\* \_\_\_\_\_

*Professional Engineer's  
Embossed Seal*

Name and Date: \_\_\_\_\_  
(Print or Type)

Firm Name: \_\_\_\_\_

\* This certification may not be completed until the effective date of the associated final NJPDES Discharge Permit.



# BOHLER ENGINEERING

35 Technology Drive, Warren, NJ 07059  
(908) 668-8300

11/4/2016  
New Providence, NJ  
J100690.03  
JWH  
RLS

## SANITARY SEWER FLOW CALCULATION

	TYPE	Units	Number of Units	GPD/Unit	Total GPD
Proposed Flow (Lot 15)	1 Bedroom	Per Dwelling	65	110 GPD	7,150 GPD
	2 Bedroom	Per Dwelling	78	170 GPD	13,260 GPD
	Healthcare	Per Bed	4	125 GPD	500 GPD
	<b>Totals</b>				<b>20,910 GPD</b>
Existing Flow (Approved-Lot 17)	1 Bedroom	Per Dwelling	94	110 GPD	10,340 GPD
	2 Bedroom	Per Dwelling	181	170 GPD	30,770 GPD
	Amenity-Independent Living	Per SF	27,760	0.1 GPD	2,776 GPD
	Pool	Per Occupant	80	15 GPD	1,200 GPD
	Skilled Nursing	Per Bed	40	75 GPD	3,000 GPD
	Memory Care	Per Bed	28	100 GPD	2,800 GPD
	Assisted Living	Per Bed	17	100 GPD	1,700 GPD
	Amenity-Healthcare	Per SF	5,912	0.1 GPD	591 GPD
<b>Totals</b>		<b>5,912</b>		<b>53,177 GPD</b>	
<b>Total Flow</b>					<b>74,087 GPD</b> <b>0.07409 MGD</b>

Note:

1. Flow rates per NJAC 7:14a-23.3(a).