



3079/24



August 29, 2024

Mr. Greg Pope, P.E.  
Division of Water, Commercial and Government Services Section  
Dept. of Natural Resources and Environmental Control  
State of Delaware  
89 Kings Highway, Dover, Delaware 19901

**Reference: THE GROVE AT BAYBERRY**  
**Application for Construction of Wastewater Collection System Permit (PWCC)**  
**NCC Application Number 2021-0503**  
ATWELL Project Number: 2226.01

Dear Mr. Pope:

The Grove at Bayberry is a residential subdivision located on the north side of Boyds Corner Road in Middletown, Delaware. The development consists of 149 single family detached and 27 single family attached units. The project will generate an average sewer flow of 52,200 gallons per day. The proposed gravity sewer main within the development will drain to a proposed sewer pump station within the site. The force main of the pump station will cross Bayberry North Parkway and drain to a proposed manhole, located in a proposed commercial development of Bayberry Town Centre.

On behalf of Bayberry East-West LLC, we are requesting a State Wastewater Construction Permit for the Grove at Bayberry. Enclosed are the following in support of the above-referenced project:

1. Permit Application for the Construction of Wastewater Collections and Conveyance Systems.
2. NCC Approved Gravity Sewer Construction Plans.
3. NCC Approved Pump Station Construction plans.
4. NCC Approved Record Plans.
5. Pump Station Design report.
6. Narrative summary of the project contained in this correspondence, above.
7. A letter from NCC Department of Public Works regarding sewer flow capacity.
8. Application fee, \$300.00 (Check # 22022-00001088) and 825.00 (Check # 33081)

Please contact me at 302.369.2900 or [uquabili@atwell-group.com](mailto:uquabili@atwell-group.com) with any questions or comments.

Respectfully,

**ATWELL, LLC**

Newark, DE

  
Ubaidur Quabili, P.E.  
Senior Project Engineer

17 Polly Drummond Center, Suite 201, Newark, DE 19711  
[www.atwell-group.com](http://www.atwell-group.com)



Department of Natural Resources  
and Environmental Control  
89 Kings Hwy  
Dover, DE 19901  
dnrec.delaware.gov

Division of Water  
Commercial and Government Services Section

Phone: (302) 739-9946  
Fax: (302) 739-8369

## INSTRUCTIONS FOR COMPLETING THE PERMIT APPLICATION FOR THE CONSTRUCTION OF WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS

The following items must accompany the application. **Please note that incomplete application packages will be returned in their entirety and not reviewed until such time as all required information is received.**

- 1. A narrative summary of the intended purpose and design of the proposed facilities.
- 2. One (1) set of final construction plans and specifications, if applicable, signed and sealed by a Delaware-registered Professional Engineer, or a Delaware-registered Professional Land Surveyor for gravity systems only. One (1) electronic copy of final Plans.
- 3. One (1) electronic copy of final Plans.
- 4. The final plans must be drawn to scale showing slopes, inverts, pipe types and sizes, existing and proposed ground surfaces, tops of manholes, water lines, stormwater and stream crossings, encasements shown in plan and profile, and other information if pertinent or requested.
- 5. For pump/lift stations and force mains, include all calculations and pump/performance curves.
- 6. A check made payable to the State of Delaware for eight hundred twenty-five dollars (\$825.00), the non-refundable permit review fee. This fee covers the initial review and one follow-up review of any corrections or changes made to address the Division's comments. An additional eight hundred twenty-five dollars (\$825.00) non-refundable review fee must be submitted for resubmission of the plans if changes are made to the project which trigger a complete review of the permit application.
- 7. Your permit will have a public notice requirement if your system includes force mains or pump/lift stations. Include a check made payable to the State of Delaware for three hundred dollars (\$300.00) for the reimbursement of legal notices if the system has a force main connection or a pump/lift station.
- Please submit the completed application package, as outlined above, to DE DNREC, Division of Water, Commercial and Government Services Section, 89 Kings Highway, Dover, DE 19901. Please note, a new application, including the review fee, must be submitted if the Division's comments are not addressed or if requested supplemental information is not provided within one (1) year of the comment or request date.
- The following items must be submitted prior to permit issuance:
  - 8. Verification from the appropriate county or municipal planning authority that the project has the proper zoning approval. (see attached Record Plan)
  - 9. A letter from the owner/operator of the wastewater facilities to which the proposed collection and conveyance facilities connect. The letter must include confirmation that the owner/operator has approved the project, that the owner/operator will take responsibility for treating and disposing of the wastewater to be conveyed and that the downstream facilities have the capacity to manage the additional flows without causing or contributing to violations of Delaware's Environmental Protection Act (7 Del. C., Chapter 60) and the regulations promulgated thereafter. This includes, but is not limited to, unauthorized discharges such as overflows at manholes and violations of the treatment system's operating permit (for example, the National Pollutant Discharge Elimination System (NPDES) permit).

- Visit us on the web at: <https://dnrec.alpha.delaware.gov/water/surface-water/>

**APPLICATION FOR THE CONSTRUCTION OF  
WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS**

Application must be complete, typewritten or clearly printed

Date Application Submitted August 28, 2024

PROJECT INFORMATION			
Project Name and Location/ Address The Grove at Bayberry 601 N Bayberry Pky Middletown, DE 19709			
Tax Parcel Number(s) 13-013.00-067, 13-013.00-248			
County <input type="checkbox"/> Kent <input checked="" type="checkbox"/> New Castle <input type="checkbox"/> Sussex		Watershed ( <a href="http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx">www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx</a> ) <input type="checkbox"/> Chesapeake Bay <input checked="" type="checkbox"/> DE Bay/Estuary <input type="checkbox"/> Inland Bays/Atl Ocean <input type="checkbox"/> Piedmont	
Sewer District or Interceptor Central Core Sewer Basin		Wastewater Treatment/Disposal Facility Name Water Farm #1 Wastewater Treatment Facility	
Anticipated Construction Start Date 6/1/2025		Treatment/Disposal Facility Owner and Operating Permit Number Water Farm #1 Wastewater Treatment Facility DEN # 359199-03	
Please note, construction permits expire three (3) years from the date of permit issuance.			
Are you requesting plan review and comment or WPCC Construction Permit issuance? (circle one)			
Design Flow (gallons/day) Average 52,200		Peak 145 GPM	Peak Factor 4
Basis of Design 300 gpd/S.F. detached lot 250 gpd/S.F. attached lot 2.5 gpd/clubhouse member			
Description The project proposes total 176 single family units (149 detached and 27 attached lots) and 300 member clubhouse..			
OWNER/DEVELOPER			
Company Name Bayberry East-West LLC			
Mailing Address 220 Continental Drive, Suite 410			
City Newark		State Delaware	Zip 19713
Contact Name M. Shane Minner			
E-Mail Address sminner@blenheimhomes.com			
Telephone (302) 254-0100		Cell	Fax

<b>ENGINEER</b>					
Company Name <b>Karins and Associates</b>					
Mailing Address <b>17 Polly Drummond Center</b>					
City <b>Newark</b>		State <b>Delaware</b>		Zip <b>19711</b>	
Contact Name <b>Ubaidur Quabili</b>					
E-Mail Address <b>uquabili@atwell-group.com</b>					
Telephone <b>(302) 369-2900</b>		Cell		Fax <b>302-369-2975</b>	
<b>GRAVITY SEWER INFORMATION</b>					
Ownership <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	Type of Sewer System <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?			If Other, list below	
Type of Pipe	Length (ft)	Diameter (in)	Joint Specification	Min. Slope (ft/ft)	Min. Velocity (ft/sec)
<b>SDR-26 PVC</b>	<b>6,635</b>	<b>8"</b>		<b>0.0050</b>	<b>2 ft/s</b>
<b>C-900 PVC</b>	<b>3,618</b>	<b>8"</b>		<b>0.0050</b>	<b>2 ft/s</b>
Minimum Pipe Cover (ft) <b>3.5</b>	Number of Manholes <b>54</b>	Drop manholes provided? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Maximum Distance Between Manholes (ft) <b>300 ft</b>	
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			If not, explain provisions to prevent cross-contamination: <b>concrete encasements are proposed for less vertical clearance</b>		
Explain any special challenges (for example, stream, highway and/or railroad crossings, directional drilling, elevated sewers, etc.)					
Comments					

PUMP/LIFT STATION INFORMATION				
Ownership <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	Type of Wastewater <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?		If Other, list below	
Pump Station Flows (gallons/day) Design 119,797 GPD	Average 83.2 GPM	Peak 334 GPM	Peak Factor 4	
Basis of Design TH @334 gpm		Pump Type Submersible Pump		
Will peak flows be accommodated if largest unit fails? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pump calc's and pump curves attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cycle Time (minutes) 10.2	Wet Well Detention Time (minutes) 10.2	
Check valves provided on discharge line? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Gate valves provided on discharge line? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If not, explain alternate procedure:				
Ventilation provided in wet well? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Dry Well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is an alarm system included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Alternate source of power? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
What other provisions for emergency operations? Diesel Standby Generator				
Height of Influent Above Pump (suction head) (ft) 23.8	Height of Effluent Above Pump (discharge head) (ft) 1.9		Friction Loss (ft) 18.4	
Pump Design Point 334 GPM	Pump Operating Point 334 GPM	Static Head (ft) 23.8	Total Head (ft) 44.35	Required Motor Horsepower (hp) 7.4
FORCE MAIN INFORMATION				
Type of Pipe DR-18 PVC		Length (ft) 1,545	Diameter (in) 6	
Hazen-Williams "C" Design Factor 140	Type of Joints	Velocity Under Design Conditions (ft/sec) 3.92	Minimum Pipe Cover (ft) 3.5	
Air relief valves specified? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Clean-outs provided? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Maximum distance between clean-outs (ft) 300		
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If not, explain provisions to prevent cross-contamination: Concrete encasements are provided for lesser separation		
Comments				



**DEPARTMENT OF PUBLIC WORKS**  
187-A OLD CHURCHMANS ROAD  
NEW CASTLE, DE 19720  
(302) 395-5700

May 9, 2024

Bryan A. Ashby  
Program Manager  
DNREC - Surface Water Discharges Section  
89 Kings Highway  
Dover, DE 19901

RE: The Grove at Bayberry – NCC Application Number: 2021-0503 - DNREC Permit

Dear Mr. Ashby,

Enclosed for your review and approval is one (1) set of sanitary sewer construction plans for the above noted project and a check in the amount of \$825.00 for the review fee. Please issue a Wastewater Facilities Construction Permit for this project.

The proposed sanitary sewer system will be publicly owned and maintained discharging an average flow of 52,200 GPD into the Cedar Lane Sewer Basin, which ultimately discharges to the Water Farm 1 Treatment Plant. After our review of the proposed sanitary sewer flow and the downstream capacity in the County sanitary sewer system, we have concluded that sanitary sewer capacity is available for the proposed project.

The sanitary sewer construction plans were reviewed in accordance with Department of Public Works Policy 7, applicable sections of New Castle County Code and other standards of design. You may contact Robert Magnotti at (302) 395-5722 if you have any questions regarding the content of this letter.

Respectfully yours,

Harry Ryan, P.E.  
Chief of Project Management

CC: Karins and Associates  
File

**RECEIPT**

	September 19th, 2024		<b>108</b>	
RCVD FROM	Karens Engineering, Inc.		\$825.00	
	Eight Hundred twenty-five dollars and 00/100		DOLLARS	
FOR	Plan review fee WPCC 3079/24 The Grove at Bayberry			
ACCT	\$	825.00	x	CHECK # 33081
PAYMENT	\$	825.00		CASH
	\$	-		OTHER BY Kevin Bronson

DNREC, Commercial & Government Services Section, 89 Kings Hwy, Dover, DE 19901

**RECEIPT**

	September 19th, 2024		<b>109</b>	
RCVD FROM	Bayberry East-West LLC		\$300.00	
	Three Hundred Dollars and 00/100		DOLLARS	
FOR	WPCC Legal Notice Reimbursement 3079/24			
ACCT	\$	300.00	x	CHECK # 1088
PAYMENT	\$	300.00		CASH
	\$	-		OTHER BY Kevin Bronson

DNREC, Commercial & Government Services Section, 89 Kings Hwy, Dover, DE 19901