

October 8, 2024

*Ring W. Lardner, P.E.
W. Zachary Crouch, P.E.
Michael E. Wheedleton, AIA, LEED GA
Jason P. Loar, P.E.
Jamie L. Sechler, P.E.*

Delaware Department of Natural Resources & Environmental Control
89 Kings Highway
Dover, DE 19901

RECEIVED
10-09-2024
Division of Water

Attn: Kevin Bronson
Administrative Specialist II

Re: **Vines Creek Crossing**
Initial Submission
Tax Map No.: 533-4.00-28.00, 533-4.00-28.01, 533-1.00-38.00
DBF Project Number: 1319A058.L01

Dear Mr. Bronson:

On behalf of our client, Double H. Development, LLC., we are pleased to submit Construction plans for the Vines Creek Crossing Community. The ultimate build out of the community will consist of 584 dwelling units with a mix of 264 single family homes, 97 Villas, and 223 townhouses. Phase 1 will consist of 110 dwelling units with a mix of 46 single family homes and 64 townhouses. The pump station and force main has been designed for the full build out of the community and the gravity sewer was designed for Phase 1. The project description is:

Construction of a submersible wet well pump station with two 4 horsepower pumps and approximately 2,866 linear feet of 4" PVC C-900 DR-18 force main that discharges to a gravity manhole. The gravity sewer system consists of 32 manholes, 14 linear feet of 10" ductile iron pipe, 63 linear feet of 10" PVC SDR-26 pipe, 2,334 linear feet of 8" PVC SDR-26 pipe, and 2,532 linear feet of 8" PVC SDR-35 pipe.

The following documents are enclosed:

- One PDF set of Utility Plans signed and sealed.
- Application for the Construction of Wastewater Collection and Conveyance Systems
- Check #1477, Review fee \$825.00 and Advertisement Fee of \$300.00
- Copy of Sewer Service Concept Evaluation from Sussex County
- Copy of Preliminary Subdivision approval from Town of Frankford

Letter: Mr. Kevin Bronson
October 8, 2024
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Should you have any questions regarding this submission, please contact me at (302) 424-1441 or via e-mail at skc@dbfinc.com.

Sincerely,
DAVIS, BOWEN AND FRIEDEL, INC.

A handwritten signature in blue ink, appearing to be 'Sharon Cruz', with a stylized flourish at the end.

Sharon Cruz, P.E.
Sr. Civil Engineer

Enclosures

SKC/CYJ
P:\Horse\0700C004 Vines Creek Crossing\DOCS\DNREC - WWCP\2024-10-08 Initial Submission\Westlake_DNREC WWCP_Cover-1.docx



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.
- 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 _____

PROJECT INFORMATION			
Project Name and Location/ Address			
Tax Parcel Number(s)			
County <input type="checkbox"/> Kent <input type="checkbox"/> New Castle <input type="checkbox"/> Sussex		Watershed (www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx) <input type="checkbox"/> Chesapeake Bay <input type="checkbox"/> DE Bay/Estuary <input type="checkbox"/> Inland Bays/Atl Ocean <input type="checkbox"/> Piedmont	
Sewer District or Interceptor		Wastewater Treatment/Disposal Facility Name	
Anticipated Construction Start Date		Treatment/Disposal Facility Owner and Operating Permit Number	
Please note, construction permits expire three (3) years from the date of permit issuance.			
Are you requesting plan review and comment or <u>WPCC Construction Permit issuance?</u> (circle one)			
Design Flow (gallons/day) Average		Peak	Peak Factor
			Basis of Design
Description			
OWNER/DEVELOPER			
Company Name			
Mailing Address			
City		State	Zip
Contact Name			
E-Mail Address			
Telephone	Cell		Fax

ENGINEER					
Company Name					
Mailing Address					
City		State		Zip	
Contact Name					
E-Mail Address					
Telephone		Cell		Fax	
GRAVITY SEWER INFORMATION					
Ownership <input type="checkbox"/> Public <input type="checkbox"/> Private		Type of Sewer System <input 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)
Minimum Pipe Cover (ft)	Number of Manholes	Drop manholes provided? <input type="checkbox"/> Yes <input type="checkbox"/> No		Maximum Distance Between Manholes (ft)	
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input type="checkbox"/> Yes <input type="checkbox"/> No			If not, explain provisions to prevent cross-contamination:		
Explain any special challenges (for example, stream, highway and/or railroad crossings, directional drilling, elevated sewers, etc.)					
Comments					

PUMP/LIFT STATION INFORMATION

Ownership <input type="checkbox"/> Public <input type="checkbox"/> Private		Type of Wastewater <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?		If Other, list below	
Pump Station Flows (gallons/day) Design		Average		Peak	
Basis of Design 250 GPD per EDU (589 EDUs)		Pump Type			
Will peak flows be accommodated if largest unit fails? <input type="checkbox"/> Yes <input type="checkbox"/> No		Pump calc's and pump curves attached? <input type="checkbox"/> Yes <input type="checkbox"/> No		Cycle Time (minutes)	
Check valves provided on discharge line? <input type="checkbox"/> Yes <input type="checkbox"/> No		Gate valves provided on discharge line? <input type="checkbox"/> Yes <input type="checkbox"/> No			
If not, explain alternate procedure:					
Ventilation provided in wet well? <input type="checkbox"/> Yes <input type="checkbox"/> No		Dry Well? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is an alarm system included? <input type="checkbox"/> Yes <input type="checkbox"/> No	
				Alternate source of power? <input type="checkbox"/> Yes <input type="checkbox"/> No	
What other provisions for emergency operations?					
Height of Influent Above Pump (suction head) (ft)		Height of Effluent Above Pump (discharge head) (ft)		Friction Loss (ft)	
Pump Design Point	Pump Operating Point	Static Head (ft)	Total Head (ft)	Required Motor Horsepower (hp)	

FORCE MAIN INFORMATION

Type of Pipe		Length (ft)		Diameter (in)	
Hazen-Williams "C" Design Factor		Type of Joints		Velocity Under Design Conditions (ft/sec)	
Air relief valves specified? <input type="checkbox"/> Yes <input type="checkbox"/> No		Clean-outs provided? <input type="checkbox"/> Yes <input type="checkbox"/> No		Maximum distance between clean-outs (ft)	
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input type="checkbox"/> Yes <input type="checkbox"/> No		If not, explain provisions to prevent cross-contamination:			

Comments					
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RECEIPT

	October 9th, 2024				119
<i>RCVD FROM</i>	Double H Development, LLC				\$1,125.00
	One Thousand One Hundred Twenty Five Dollars and 00/100 <i>DOLLARS</i>				
<i>FOR</i>	WPCC 3086/24 Legal notice and permit application fee - Vines Creek Crossing				
<i>ACCT</i>	\$	1,125.00		x	<i>CHECK #</i> 1477
<i>PAYMENT</i>	\$	1,125.00			<i>CASH</i>
	\$	-			<i>OTHER</i> BY <i>Kevin Bronson</i>

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