



MORRIS & RITCHIE ASSOCIATES, INC.
*Engineers, Architects, Planners,
 Surveyors and Landscape Architects*

3084/24

LETTER OF TRANSMITTAL

111 Ruthar Drive
 Newark, DE 19711
 302-326-2200 / FAX 302-326-2399

DATE:	10/1/2024	JOB NO.:	21905
ATTN:	Wenjia Fan		
RE:	Paradise Meadows		
	W&S and PS&FM submission		

TO: DNREC Division of Water
Surface Water Discharge Section
89 Kings Hwy
Dover, DE 19901

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:
 Shop drawings Prints Plans Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
1	9/24/2024	4	Application and Checklist for the Construction of Wastewater Collection and Conveyance Systems
1	9/24/2024	10	Water & Sewer plan set
1	9/24/2024	10	on-site Forcemain plan set
1	9/24/2024	1	Narrative Summary
1	10/1/2024	1828	Check in the amount of \$825
1	10/1/2024	1829	Check in the amount of \$300

RECEIVED
 OCT 02 2024
 DNREC
 Division of Water

THESE ARE TRANSMITTED as checked below:

- | | |
|--|---|
| <input checked="" type="checkbox"/> For approval | <input type="checkbox"/> Approved as submitted |
| <input type="checkbox"/> For your use | <input type="checkbox"/> Approved as noted |
| <input type="checkbox"/> As requested | <input type="checkbox"/> Returned for corrections |
| <input type="checkbox"/> For review and comment | <input type="checkbox"/> Resubmit _____ copies for approval |
| <input type="checkbox"/> FOR BIDS DUE _____ | <input type="checkbox"/> Submit _____ copies for distribution |
| | <input type="checkbox"/> Return _____ corrected prints |

Delivery Method:

- Hand deliver
- USPS / Fed Ex
- Pick up at MRA Office
- Signature Required

REMARKS _____

 Should you have any questions or comments, please contact Robert Grenon at (302) 326-2200.

COPY TO: File _____

Signed: Robert Grenon

If enclosures are not as noted, kindly notify us at once.

MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, ARCHITECTS, PLANNERS, SURVEYORS,
AND LANDSCAPE ARCHITECTS



Windward Ridge Narrative Summary

The intended purpose of this proposed facilities is to provide sanitary sewer service to 302 Dwelling Units. This is comprised of 13 Apartment Building and 2 residential lots. The proposed subdivision is on West Denneys Road – approximately 450' southwest of Carlisle Drive. The project is being developed by Jack Lingo Asset Management. Under this contract approximately 4,206 feet of 8" PVC gravity sanitary sewer, 869 feet of 6" PVC gravity sanitary sewer, and 23 Manholes will be constructed. The gravity sewer flows to a proposed onsite Pump Station that will discharge a proposed onsite 4" force main to an onsite Manhole.

The site will use 8" PVC SDR 35. The manholes are City of Dover Department of Public Utilities Manhole Type I & II standard manholes. Slopes on the gravity sewer varies, but a minimum of 0.30% was used for the 8" lines. Each lot and building is serviced by lateral and a sewer lateral chart is provided on the plans.

The plans have been reviewed and approved by the City of Dover Department of Public Utilities. We are seeking the approval of the Wastewater Construction Permit.

111 Ruthar Drive, Newark, DE 19711 (302) 326-2200 Fax: (302) 326-2399 www.mragta.com

Abingdon, MD ♦ Laurel, MD ♦ Towson, MD ♦ Georgetown, DE ♦ Newark, DE ♦ Sterling, VA
(410) 515-9000 (410) 792-9792 (410) 821-1690 (302) 855-5734 (302) 326-2200 (703) 674-0161



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) 739-2296

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 (paper copy), if applicable, signed and sealed by a Delaware-registered Professional Engineer, or a Delaware-registered Professional Land Surveyor for gravity systems only.
- 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.delaware.gov/water/commercial-government/>

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

Application must be complete, typewritten or clearly printed

Date Application Submitted 9/27/2024

PROJECT INFORMATION			
Project Name and Location/ Address Windward Ridge West Denneys Road Dover, DE			
Tax Parcel Number(s) 2-05-056.00-01-0200-0001, 2-05-056.00-01-0300-0001, & 2-05-056.00-01-0400-0001			
County <input checked="" 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 checked="" type="checkbox"/> DE Bay/Estuary <input type="checkbox"/> Inland Bays/Atl Ocean <input type="checkbox"/> Piedmont	
Sewer District or Interceptor City of Dover		Wastewater Treatment/Disposal Facility Name	
Anticipated Construction Start Date 11/1/2024		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 on <u>WPCC Construction Permit issuance</u> (circle one)			
Design Flow (gallons/day) Average 75,750		Peak 287,850	Peak Factor 3.8
Basis of Design City of Dover Standards & Specifications			
Description			
OWNER/DEVELOPER			
Company Name Jack Lingo Asset Management			
Mailing Address 246 Rehoboth Avenue			
City Rehoboth Beach		State DE	Zip 19971
Contact Name Ryan Mitchell			
E-Mail Address rmitchell@jlamre.com			
Telephone (302) 226-6645		Cell (240) 304-8191	Fax

ENGINEER

Company Name

Morris & Ritchie Assoc., Inc.

Mailing Address

111 Ruthar Drive

City

Newark

State

DE

Zip

19711

Contact Name

Robert Grenon

E-Mail Address

rgrenon@mragta.com

Telephone

302-326-2200

Cell

Fax

GRAVITY SEWER INFORMATION

Ownership

Public Private

Type of Sewer System

Residential Commercial Industrial Other?

If Other, list below

Type of Pipe

PVC

Length (ft)

4,206

Diameter (in)

8"

Joint Specification

Push-on

Min. Slope (ft/ft)

0.003

Min. Velocity (ft/sec)

2 FPS

PVC

869

6"

Push-on

0.02

2 FPS

Minimum Pipe Cover (ft)

4.21

Number of Manholes

23

Drop manholes provided?

Yes No

Maximum Distance Between Manholes (ft)

400

Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained?

Yes No

If not, explain provisions to prevent cross-contamination:

A steel casing pipe is being proposed.

Explain any special challenges (for example, stream, highway and/or railroad crossings, directional drilling, elevated sewers, etc.)

**There is a stream crossing between SMH 14B and SMH 20.
A steel casing pipe is being proposed.**

Comments

PUMP/LIFT STATION INFORMATION				
Ownership <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private		Type of Wastewater <input checked="" 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 144,000			Average 27,000	Peak 102,600
				Peak Factor 3.8
Basis of Design City of Dover Standards & Specifications			Pump Type Smith & Loveless Inc Model 4B2x*1	
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) 15	Wet Well Detention Time (minutes) 28
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? Emergency Bypass Pump connection				
Height of Influent Above Pump (suction head) (ft) N.A.		Height of Effluent Above Pump (discharge head) (ft) 2.52		Friction Loss (ft) 11
Pump Design Point 100 gpm	Pump Operating Point 100 gpm	Static Head (ft) 17.5	Total Head (ft) 30	Required Motor Horsepower (hp) 7.5
FORCE MAIN INFORMATION				
Type of Pipe 4" Class 53 DIP		Length (ft) 1400		Diameter (in) 4"
Hazen-Williams "C" Design Factor 140	Type of Joints Push-on	Velocity Under Design Conditions (ft/sec) 2.72	Minimum Pipe Cover (ft) 4	
Air relief valves specified? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Clean-outs provided? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Maximum distance between clean-outs (ft) N.A.		
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:		
Comments				

RECEIPT

	October 2nd, 2024				115	
RCVD FROM	Morris & Ritchie Associates INC					
	Eight Hundred twenty-five dollars and 00/100				DOLLARS	
FOR	Plan review fee WPCC 3084/24 Windward Ridge					
ACCT	\$	825.00		x	CHECK #	1828
PAYMENT	\$	825.00			CASH	
	\$	-			OTHER	BY Kevin Bronson

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

RECEIPT

	October 2nd, 2024				116	
RCVD FROM	Morris & Ritchie Associates INC				\$825.00	
	Three Hundred Dollars and 00/100				DOLLARS	
FOR	WPCC Legal Notice Reimbursement 3084/24					
ACCT	\$	300.00		x	CHECK #	1829
PAYMENT	\$	300.00			CASH	
	\$	-			OTHER	BY Kevin Bronson

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