

Memorandum

TO: Ed Lynch – wpc.ledyard@ledyardct.com
Town of Ledyard Water Pollution Control Authority (WPCA)
741 Colonel Ledyard Highway
Ledyard, CT 06339-1511

FROM: Benesch
120 Hebron Ave, Floor 2
Glastonbury, CT 06033

SUBJECT: Water and Sanitary Sewer Will-Serve Letter, Ledyard – Habitat for Humanity Residential Development – Lots 8,9, & 11

DATE: August 29, 2024

The proposed project is located on three parcels denoted as 8, 9, & 11 Colby Drive and one town ROW for the proposed extension of Colby Drive. The subject parcels, including the town’s ROW consists of approximately 16.5 acres and is located between ‘The Salty Heffer’ 678 Colonel Ledyard Highway and the existing cul-de-sac at the current termination point of Colby Drive, near Andersen Oil Company. The existing parcel is undeveloped and is mostly comprised of densely wooded land besides a small fifty foot clearing for the proposed extension of Colby Drive. The project proposes to construct 27 single and multi-family residential buildings, the roadways as shown on the plans, and install associated site drainage and utilities.

Public sewer is currently located on Colonel Ledyard Highway in form of a sanitary force main and the town is proposing an extension of the existing sewer to the cul-de-sac on Colby Drive in the next two to three years. Public water is also located on Colonel Ledyard Highway and is stubbed on Fairway Drive but does not extend to Colby Drive (per Town of Ledyard GIS).

Sanitary flows from this site will be diverted through gravity sewer down gradient to a sanitary pump station located on the northern portion of the site (currently 11 Colby Drive) near the drainage easement. The sanitary pump station will then feed a sanitary force main that will connect into the existing sanitary force main in Colonel Ledyard Highway. All sanitary will be collected by a six-inch PVC sanitary collector pipe to the pump station at a minimum of two percent slope.

Below is the calculation work for the proposed sanitary design flow from the activity of the proposed residential development for Habitat for Humanity in Ledyard, CT.

Habitat for Humanity Residential Development Sanitary and Domestic Water Service Design Flow Calculation:

Per Section IV.A (page 23) of Connecticut Public Health Code (On-site Sewage Disposal Regulations and Technical Standards for Subsurface Sewage Disposal Systems – Jan.2023)

“Design flows for residential building shall be based on the number of bedrooms (refer to Section I). The design flow per bedroom is 150 GPD (gallons per day), except for bedrooms beyond three in a single-family home that have a design flow of 75 GPD for each additional bedroom.”

Proposed Design Flows:

Duplex (3 bedrooms per building – 2/1 split)	=	11 Buildings	=	450 GPD each
Single Family 2 bedroom	=	6 Buildings	=	300 GPD each
Single Family 3 bedroom	=	6 Buildings	=	450 GPD each
Single Family 4 Bedroom	=	4 Buildings	=	525 GPD each

Duplexes = 11 Buildings x 450 GPD = 4,950 GPD
SF 2 Bedroom = 6 Buildings x 300 GPD = 1,800 GPD
SF 3 Bedroom = 6 Buildings x 450 GPD = 2,700 GPD
SF 4 Bedroom = 4 Buildings x 525 GPD = 2,100 GPD

Total Design Flow = 4,950 GPD + 1,800 GPD + 2,700 GPD + 2,100 GPD = 11,550 GPD

Attached is the schematic utility design. If you have any questions regarding the proposed water services and sanitary sewer direct all questions to Benesch via Greg Lachcik (glachcik@benesch.com) or Will Walter (wwalter@benesch.com).

Thank you,



Will Walter, PE