DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

Office of Engineering
Phone: (302) 741-8640
Fax: (302) 741-8641

August 3, 2018

CITY OF NEWARK

APPROVAL TO CONSTRUCT
PWS#DE0000630
Main Street Rehabilitation Project
Approval #18W116

Ethan Robinson, P.E.
City of Newark
220 South Main Street
Newark, DE 19711

Dear Mr. Robinson,

As provided by Section 2.11 of the *State of Delaware Regulations Governing Public Drinking Water Systems*, you are granted approval to construct the Main Street improvements as needed in accordance with the plans submitted by the City of Newark. The plans consist of:

1. Transmittal letter dated August 3, 2018.

These plans, as noted, are made a part of this approval. This approval is granted subject to the enclosed list of conditions. It is the owner's responsibility to ensure as-built drawings are maintained throughout all phases of construction.

Should you have any questions regarding this matter, please feel free to contact Bill Milliken at (302) 741-8646.

Plans reviewed by:

William J. Milliken, Jr.
Engineer III
Office of Engineering

Sincerely,

Doug Lodge, P.E.
Supervisor of Engineering
Office of Engineering

cc: Ashley Kunder, Office of Drinking Water

1. The approval is void if construction has not been started by August 3, 2019.

2. The project shall be constructed in accordance with the approved plans and all required conditions listed in this Approval to Construct. If any changes are necessary, revised plans shall be submitted and a supplemental approval issued prior to the start of construction. As-built plans including profile mark-ups must be submitted to the Office of Engineering after construction has been completed.

3. Representatives of the Division of Public Health may inspect this project at any time during the construction.

4. This approval does not cover the structural stability of any units or parts of this project.

5. The water system shall be operated in conformance with the *State of Delaware Regulations Governing Public Drinking Water Systems.*

6. All wells, pipes, tanks, and equipment which can convey or store potable water shall be disinfected in accordance with the current AWWA procedures. Plans or specifications shall outline the procedure and include the disinfectant dosage, contact time, and method of testing the results of the procedure. (Recommended Standards for Water Works 2012 Edition 2.15)

7. Water mains crossing sanitary and storm sewers should be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer, and the water main should be above the sewer. At crossings, one full length of water pipe should be located so both joints will be as far from the sewer as possible. Special structural support for the water and sewer pipes may be required. In cases where it is not practical to maintain an 18-inch separation, the Division may allow deviation on a case-by-case basis if supported by data from the design engineer.

8. Water mains should be laid 10 feet horizontally from any existing or proposed sanitary or storm sewers. The distance should be measured edge to edge. In cases where it is not practical to maintain a 10-foot separation, the Division may allow deviation on a case-by-case basis if supported by data from the design engineer.

9. All chemicals, materials, mechanical devices, and coatings in contact with potable water shall comply with National Sanitation Foundation/American National Standards Institute Standards (NSF/ANSI) 60 and 61 and shall be inert, nontoxic, and shall not import any taste, odor, or color to the water.

10. Sufficient valves should be provided so that inconvenience and sanitary hazards will be minimized during repairs. Valves should be located at not more than 500-foot intervals in commercial districts and at not more than one block or 800-foot intervals in other districts.

11. There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system.

12. Fire hydrant drains shall not be connected to or located within 10 feet of sanitary sewers, storm sewers, or storm drains.

13. Prior to usage of water from this new well, water plant, storage plant, or distribution system, approval for the water quality must be obtained from the Division of Public Health.

14. The water system should be capable of providing at least 25 psi at ground level at all times throughout the distribution system.

15. All plastic pipe utilized in this drinking water system shall be approved for potable water use (NSF-pw). If any piping is joined with solder or flux, the solder and flux shall be lead free (less than or equal to 0.2 percent lead).

16. All water lines should be buried to a depth of at least 3 feet.

17. This approval is for the distribution system only. Plans and specifications for all well plumbing, pumps, storage (including any interior coatings), and treatment must be submitted to and approved by this office prior to their installation.

18. The approval is subject to immediate revocation upon violation of any of the preceding conditions.

19. All other local (county/city/town) approvals or permits needed must be obtained prior to beginning construction.

20. Upon completion of construction and before the system is placed into operation, a "Notice of Completion" must be submitted to the Office of Engineering. Before placing the system into operation, the following must be adhered to:
    a. Submit a set of as-built plans with profile markups to the Office of Engineering.
    b. Obtain an Approval to Operate from the Office of Engineering.