WATER ENGINEER’S REPORT

90 State Street Apartment Conversion

90 State Street

CITY OF ALBANY
COUNTY OF ALBANY
STATE OF NEW YORK

Applicant: Harmony Mill South, LLC

Prepared by:

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INTRODUCTION:
Hershberg & Hershberg, Consulting Engineers and Land Surveyors, were retained by Harmony Mill South, LLC (hereinafter the “Applicant”) to review water usage of the proposed 90 State Street Apartment Conversion. This report is for the consideration of the Department of Water & Water Supply and the City of Albany Planning Board.

DESCRIPTION OF EXISTING SITE:

PARCEL AREA

The existing parcel is Tax Map Parcel #76.42-1-5 listed as No. 90 State Street with a site area of 16,976 SF or 0.39 Acres.

Fig. No. 1 - Aerial Photo of Site
DESCRIPTION OF INTENDED SITE DEVELOPMENT AND USE

Under the current application the Applicant is proposing to convert floors 4 through 12, 14 & 15 from office space to 154 apartments which would have 176 bedrooms. The existing uses on the Ground floor through the 3rd floor will remain. They include a banquet hall, fast food, retail, personal services and offices as outlined in Figure No. 2 below.

POTABLE WATER USE

To establish the water use for the site as previously occupied, water records would not be appropriate since 90 State Street has not been at full occupancy for a number of years. Instead usage from *New York State Design Standards for Intermediate Sized Wastewater Treatment Works* are computed. These figures are included in Figure No. 2 below and tend to be conservative. The estimated potable water requirement from the building at full occupancy as currently configured is 20,241 GPD. This project is estimated potable water requirement after conversion is 24,646 GPD. See Fig. No. 2 below. The residential water use is based (based upon 110 GPD per Bed in Apartment Units¹). Water service is currently provided to the property by the Albany Water Board through a 4” water service from Howard Street. Average water use prior to conversion is estimated at 14.1 GPM. Peak water use prior to conversion is estimated at 450% of average demand or 63.5 GPM. Average water use after conversion is estimated at 17.1 GPM. Peak water use after conversion is estimated at 450% of average demand or 77.0 GPM. Based upon Peak Flow, the increase in 13 GPM which is de minimis given the capacity of the system.

¹New York State Design Standards for Intermediate Sized Wastewater Treatment Works, NYSDEC. March 5, 2014
Fig. No. 2 – Potable Water Usage’

WATER SYSTEM

The total water treated in 2016 at the Feura Bush Water Filtration Plant was 6,668,938,544 gallons. The daily water production averaged 18,275,788 gallons, with maximum daily production of 24,202,080 gallons. The capacity of this treatment plant is 32,000,000 GPD. The 24,646 GPD peak flow after conversion represents an insignificant portion of 0.1% of the average daily
water production. The increase use 4,405 GPD represents an insignificant portion of 0.01% of the average daily water production.

The Albany Water Board maintains water service to this site by way of an 8 inch main in Howard Street constructed in 1988 to which the 4 inch service is connected as shown in an excerpt from Sheet 107 of the Water Atlas which reproduced below. Also available adjoining the site is a 12 inch main in South Pearl Street constructed in 1906 and an 12 inch main in State Street constructed in 1988.

Fig. No. 3 – Portion of Water Atlas Sheet 107
FIRE PROTECTION

There is a hydrant located near the front entrance of the building on State Street. Another hydrant is on the opposite side of Howard Street. The existing fire protection system has a 10,000 gallon storage tank on the roof and three standpipes fed from fire department connections at grade. One is located on State Street, one on South Pearl Street and one on Howard Street. See Plan in Appendix A. A fire protection system will be designed for the converted floors and will be reviewed with fire officials and the Department of water & Water Supply.

CONCLUSION:

It is the Engineer’s opinion that this project can be served by existing public water system with no negative impact on the existing system.

Prepared by:

HERSHBERG & HERSHBERG
Daniel R. Hershberg, P.E. &L.S.
APPENDIX A

EXISTING CONDITIONS AND SEWER CONNECTION PERMIT PLAN