

**ENGINEER'S REPORT
WATER & SANITARY SEWER**

FOR

MIXED USE BUILDING
425 N. Pearl Street
City of Albany
Albany County, New York

Submitted To:

City of Albany
Albany County
New York

Project Proponent:

Redburn Development Partners
204 Lafayette Street
Schenectady, NY 12305

January 8th, 2021

Project No. 5301A

Prepared By:

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MIXED USE BUILDING
425 N. Pearl Street
City of Albany
Albany County, New York

PROJECT LOCATION

The proposed mixed-use development is located at 425 N. Pearl Street in the City of Albany, Albany County, New York (see Exhibit 1). The site is bordered on the north by Pleasant Street, and on the east by Broadway. It is generally surrounded by a mix of commercial, industrial, and residential properties.

SOIL TYPES & GROUNDWATER

According to the Albany County NRCS, the primary soil group is urban land. The existing site is fully developed and ground cover is impervious.

GENERAL SITE DEVELOPMENT

The applicant is proposing to redevelop the 1.52± acre parcel in order to construct eighty-two (82) apartments and 13,000± square feet of commercial space. The existing manufacturing buildings and warehouse will remain, and be modified to accommodate the new uses.

The water supply and sanitary sewer will utilize the existing laterals, provided that the condition is acceptable to the City of Albany Department of Water & Water Supply upon inspection. The existing water service is a 6" lateral from Broadway and a 3/4" lateral from North Pearl street (see Appendix A). The existing storm/sanitary system is combined within the building and appears to exit the property in at least 4 locations.

WATER & SEWER DEMAND, SUPPLY & USE

The City of Albany provided historic water usage data for this site dating back to 2004, for the 6” water service. No information was provided for the 3/4” service. Consumption on the 6” service varies from 4,300 ft³ per billing period up to 112,000 ft³ per billing period from 2004 to present. For the purposes of determining if there is an increased load on the system, the last five (5) years are being considered to determine average usage (see Appendix B). During this time the building was occupied by CMP Industries.

From 2004 to present, the average billing period consumption was 36,288 ft³. One cubic foot of water equates to 7.48 gallons, therefore, the average consumption per billing period is 271,440 gallons. There are an average of 123 billing days per billing period, which equates to an average usage of 2,206 GPD (gallons per day) between now and 2004. Per the City of Albany Department of Water & Water Supply, an increase of 2,500 gallons per day is permitted, which means the maximum daily consumption permitted is 4,706 GPD.

For reference, Redburn’s recent conversion of the office building located at 16 Sheridan Avenue had a projected water consumption of 55 GPD/unit. A review of the actual consumption, beginning in January 2020 when the building was fully occupied, revealed a usage of approximately 50 GPD/unit; justifying the design use of 55 GPD/unit.

Redburn has indicated that they will be using the same design criteria for the fixtures at this property. At 55 GPD/unit, the proposed 82 apartment units will generate about 4,510 GPD in consumption. The proposed 13,000± square feet of commercial space is planned to be used as a warehouse with a maximum of 10 employees; at 15 GPD/employee, this will generate an additional 150± GPD of consumption, for a grand total of 4,660± GPD for the site. This new total is below the 2,500 GPD increase permitted by the City of Albany Water department – even without factoring in any additional historical consumption from the 3/4” service.

WATER & SEWER DISTRIBUTION

The existing 6” water service will be reused for fire sprinkler and domestic water distribution. The 3/4” service from North Pearl will be disconnected and capped in the

street. All existing laterals from the combined storm/sanitary sewer system will have any internal sanitary lines disconnected, and will only carry stormwater. A new dedicated 8” sanitary lateral will be installed near the existing water service on the east side of the property, connecting to the sewer main on Broadway. This will be the sole sanitary sewer outlet for the property.

DESIGN STANDARDS

The proposed system will be designed and constructed in accordance with the requirements of the City of Albany Department of Water & Water Supply, and the Albany County Health Department. The existing water and sanitary sewer systems will remain and continue to be compliant with current standards and specifications.

OWNERSHIP

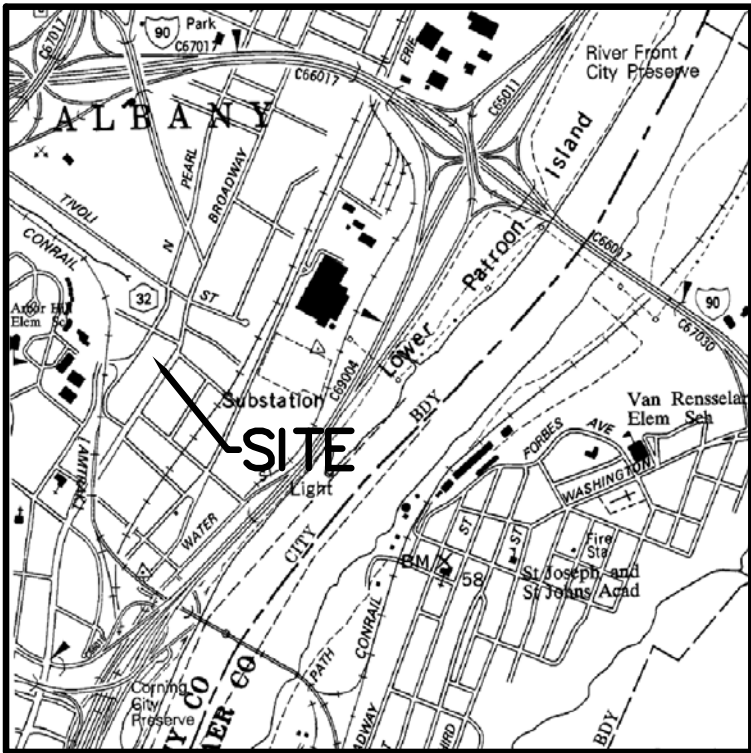
Both the existing water and sewer laterals and proposed sewer connection will be privately owned and maintained by the property owner.

SUMMARY

Based on the assessment of the existing and proposed water and sewer demand, this water and sewer improvement will not adversely impact the area water and/or sewer distribution system. In fact, the overall water and sewer demands will likely be reduced, and the existing infrastructure will easily handle the demands generated by this project.

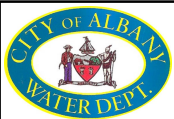


EXHIBIT 1
SITE LOCATION MAP



SITE LOCATION MAP

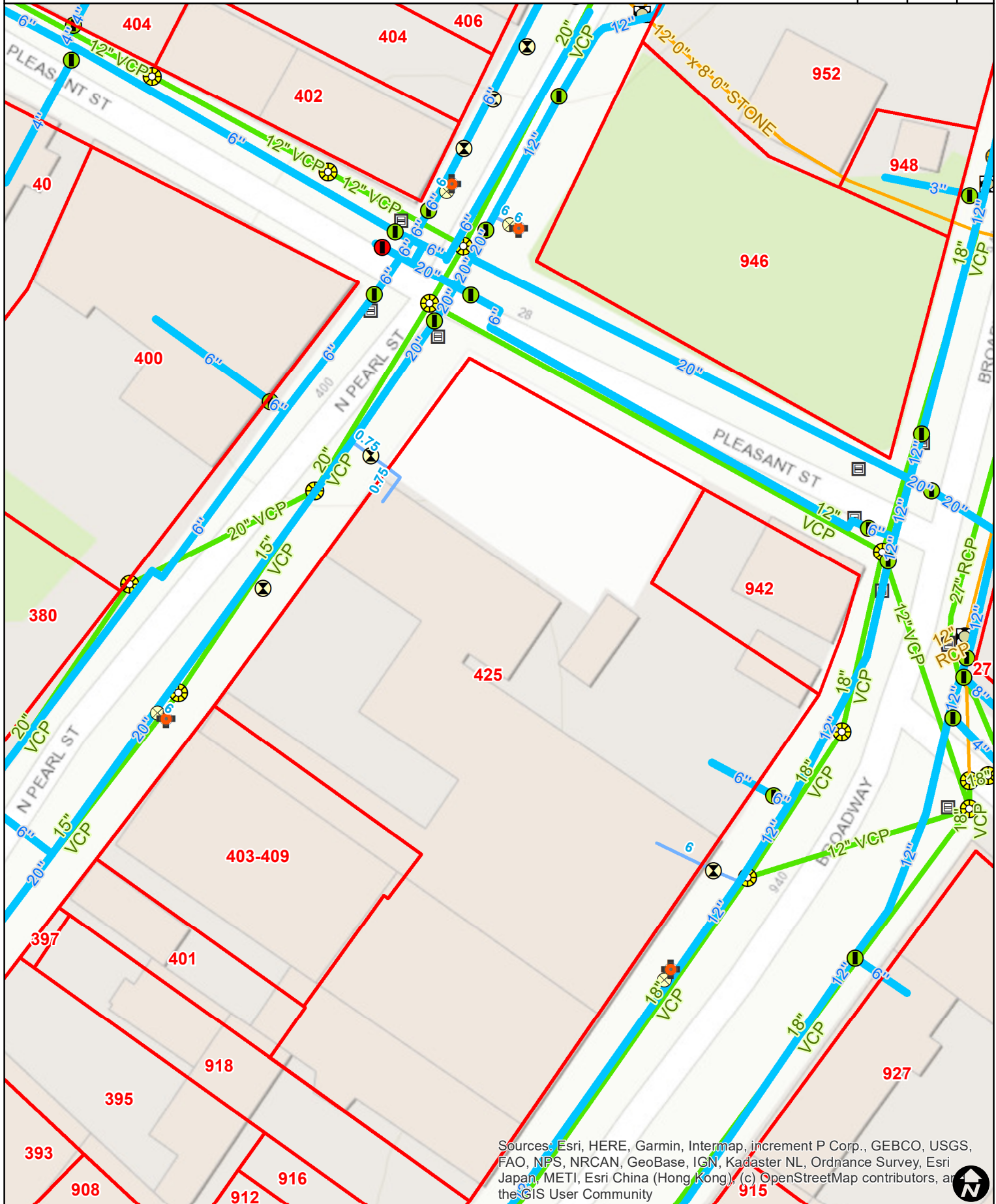
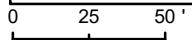
EXHIBIT 2
CITY UTILITY MAP



CITY OF ALBANY DEPARTMENT OF WATER & WATER SUPPLY

This map and data therein was compiled from recorded documents and global positioning collected data and is to be considered a work in progress and for reference only. This map was prepared only for the expressed and official use by the City of Albany Water & Water Supply Department.

Printed: 12/28/2020



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



APPENDIX A
SITE PLAN (REDUCED 11X17)

TOTAL GREEN AREA:
5,000 SF
(7.6% OF SITE AREA)



SITE LOCATION MAP

GENERAL NOTES:

1. BASE MAPPING PREPARED BY ABD ENGINEERS, LLP FROM MAP REFERENCE AND GIS DATA.
2. THE PLANS SHOW SOME KNOWN STRUCTURES, ABOVEGROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST WITHIN THE WORKING AREA. EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPE LINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE DIFFERENT FROM THAT SHOWN OR MAY NOT BE SHOWN AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. PROVIDE (48) HOURS BEFORE YOU DIG, DRILL OR BLAST, CALL U.F.P.O. (1-800-962-7962).
3. SITE IS ZONED MU-FW (MIXED-USE FORM-BASED WAREHOUSE).
4. CONSTRUCTION ACTIVITIES THAT DAMAGE THE ROADWAY, SIDEWALKS OR CURBING SHALL BE REPAIRED BY THE OWNER TO THE FULL SATISFACTION OF THE CITY ENGINEER.
5. TRAFFIC MARKINGS DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPLACED TO THE FULL SATISFACTION OF APD TRAFFIC ENGINEERING.
6. VIDEO CAMERA INSPECTION OF THE EXISTING SANITARY SEWER LATERAL MUST BE SUBMITTED TO THE CITY OF ALBANY DEPARTMENT OF WATER & WATER SUPPLY FOR REVIEW. EXISTING LATERAL WITH MAJOR CRACKS AND OR INFILTRATION OF GROUNDWATER WILL NOT BE ACCEPTABLE FOR REUSE. 48 HOURS NOTICE MUST BE GIVEN TO ALBANY DEPARTMENT OF WATER & WATER SUPPLY FOR INSPECTIONS.
7. CHAINLINK FENCE, GATES, AND BARBED WIRE TO BE REMOVED ALONG ENTIRE SITE PERIMETER.

MAP REFERENCES:

1. MAP ENTITLED "MAP SHOWING TOPOGRAPHIC INFORMATION & LOCATION OF BUILDINGS AND IMPROVEMENTS WITH REFERENCE TO PROPERTY LINES OF NO. 413 NORTH PEARL STREET CITY OF ALBANY, COUNTY OF ALBANY, STATE OF NEW YORK", PREPARED BY HERSHBERG & HERSHBERG CONSULTING ENGINEERS AND LAND SURVEYORS, DATED OCTOBER 9, 2020.

PARKING REQUIREMENTS:	
USES: MULTI-FAMILY RESIDENTIAL & COMMERCIAL	
MULTI-FAMILY, 82 UNITS	1 SPACE/UNIT [82 SPACES]
COMMERCIAL, 13,500 SF	1 SPACE/400 SF [34 SPACES]
INITIAL REQUIREMENT	116 SPACES
PROXIMITY TO TRANSIT REDUCTION	-20% [93 SPACES]
SHARED PARKING REDUCTION	+ 1.2 [78 SPACES]
AVAILABLE ON-STREET PARKING	24 SPACES
TOTAL REQUIRED ON-SITE:	54 SPACES
TOTAL PROVIDED ON-SITE:	54 SPACES

OWNER/APPLICANT:
413 NORTH PEARL ASSOC LLC
204 LAFAYETTE STREET
SCHENECTADY, NY 12305

TAX MAP #: 65.16-3-16.1
AREA= 66,193± SQ. FT.
1.92± ACRES

NO.	REVISION	BY	DATE

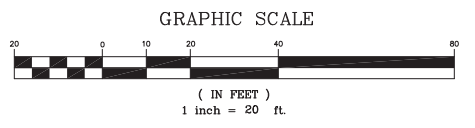
ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER IS ILLEGAL.

SITE PLAN
MIXED USE BUILDING
425 NORTH PEARL STREET

CITY OF ALBANY COUNTY OF ALBANY

STATE OF NEW YORK
ABD ENGINEERS, LLP
411 Union Street
Schenectady, NY 12305
518-377-0315 Fax 518-377-0379
www.abdeng.com

DATE: OCTOBER 16, 2020 SCALE: 1" = 20' DWG. 5301A-56 SHEET OF 1



APPENDIX B
WATER USAGE DATA

Tran Date	Tran Type	Description	Amount	WATER	SEWER	DEMAND	VACANT	MISC	PEN	GUILD	WC
05/10/2002	Payment	PAYMENT	-19.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/05/2002	Billing	BILLING	323.68	0.00	323.68	0.00	0.00	0.00	0.00	0.00	0.00
01/07/2002	Payment	PAYMENT	-7,433.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Description	Read Date	Reading	Consumption
Active			
Route-Sequence-Serial: 419-021700-15908235			
	11/2/2020	914,800.00	23,300.00
	7/1/2020	891,500.00	16,700.00
	3/3/2020	874,800.00	19,500.00
	11/1/2019	855,300.00	20,200.00
	7/2/2019	835,100.00	18,500.00
	3/1/2019	816,600.00	24,100.00
	11/5/2018	792,500.00	30,500.00
	7/1/2018	762,000.00	32,000.00
	3/1/2018	730,000.00	20,400.00
	11/2/2017	709,600.00	39,000.00
	7/3/2017	670,600.00	26,800.00
	3/1/2017	643,800.00	20,900.00
	11/2/2016	622,900.00	77,100.00
	7/1/2016	545,800.00	112,000.00
	3/1/2016	433,800.00	30,500.00
	11/2/2015	403,300.00	83,900.00
	7/1/2015	319,400.00	41,000.00
	3/2/2015	278,400.00	16,800.00
	11/3/2014	261,600.00	23,900.00
	7/1/2014	237,700.00	37,800.00
	3/1/2014	199,900.00	23,500.00
	11/1/2013	176,400.00	45,800.00
	7/1/2013	130,600.00	36,700.00
	3/1/2013	93,900.00	56,600.00
	11/1/2012	37,300.00	22,300.00
	7/2/2012	15,000.00	26,300.00
NEW ORION	3/2/2012	0.00	35,700.00
	11/2/2011	2,291,700.00	26,700.00
	7/5/2011	2,265,000.00	68,000.00
	3/2/2011	2,197,000.00	76,600.00
	11/3/2010	2,120,400.00	45,400.00
	7/7/2010	2,075,000.00	32,000.00
Corrected read	3/3/2010	2,043,000.00	34,000.00

Account Number: 009843-000

Reference Number: 1141002

Tran Date	Tran Type	Description	Amount	WATER	SEWER	DEMAND	VACANT	MISC	PEN	GUILD	WC
					11/5/2009	200,900.00	4,300.00				
					7/7/2009	196,600.00	4,800.00				
					3/5/2009	191,800.00	9,400.00				
					11/13/2008	182,400.00	10,700.00				
					7/10/2008	171,700.00	24,400.00				
					3/3/2008	147,300.00	13,400.00				
					11/30/2007	133,900.00	12,100.00				
					7/16/2007	121,800.00	9,900.00				
					4/25/2007	111,900.00	6,400.00				
		Converted Read			11/27/2006	105,500.00	4,300.00				
		Converted Read			7/14/2006	101,200.00	9,800.00				
		Converted Read			3/14/2006	91,400.00	3,800.00				
		Converted Read			11/21/2005	87,600.00	16,900.00				
		Converted Read			7/14/2005	70,700.00	9,600.00				
		Converted Read			3/16/2005	61,100.00	5,300.00				
		Converted Read			11/29/2004	55,800.00	55,800.00				
		Converted Read			7/23/2004	424,000.00	56,000.00				
		Converted Read			3/14/2004	368,000.00	38,000.00				