

WATER ENGINEER'S REPORT

25 Delaware Avenue Apartments

25 Delaware Avenue

CITY OF ALBANY
COUNTY OF ALBANY
STATE OF NEW YORK

Applicant: 25 Delaware, LLC

Prepared by:

Hershberg & Hershberg
Consulting Engineers and Land Surveyors

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May 2, 2019
January 25, 2021
March 16, 2021
May 18, 2021

INTRODUCTION:

Hershberg & Hershberg, Consulting Engineers and Land Surveyors, were retained by 25 Delaware, LLC (hereinafter the “Applicant”) with an address of 1000 University Avenue, Suite 500, Rochester, NY 14607 as site engineer for the development plan to be known as 25 Delaware Avenue Apartments. 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 site has an address of 25 Delaware Avenue with an area of 33,877 SF or 0.78 acres. The existing site contains a two-story building that is currently vacant. The current zoning is MU-CU: Mixed Use-Community Urban.



Fig. No. 1 - Aerial Photo of Site

DESCRIPTION OF INTENDED SITE DEVELOPMENT AND USE

Under the current applications the Applicant is proposing to construct a 4-story apartment consisting of 51 units above a garage floor with 30 parking spaces. The existing two-story building on site will be rehabilitated and will be available for tenant use. The site will also feature new landscaping, lighting and a stormwater management system.

POTABLE WATER USE

To determine potable water usage after construction, the *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems (March 5, 2014)*¹ is used to compute the Average Daily Flow. Based upon 110 GPD per bed and 50 GPD per toilet, 62 beds in the apartment and 4 toilets in the rehabilitated two-story building will generate an estimated 7,020 GPD or 4.88 GPM. See Fig. No.2 below. Peak water use is estimated at 400% of average flow or 19.52 GPM.

Potable Water Usage
25 Delaware Avenue

Floor/Use	Unit	Value	Water Use Per	
			Unit per day(GPD) See Note 1	Water Use (GPD)
Residential	Bedroom	62	110	6820
Residential	Toilet	4	50	200
TOTAL				7,020

1) Source: New York State Design Standards for Intermediate Sized Wastewater Treatment Works, NYSDEC, March 5, 2014
2) Sewage Generation is equivalent to potable water use

Fig. No. 2 – Potable Water Usage

¹New York State Design Standards for Intermediate Sized Wastewater Treatment Systems (March 5, 2014)

² Ibid. Page B-16

WATER SYSTEM

The total water treated in 2019 at the Feura Bush Water Filtration Plant was 6,473,227,216 gallons. The daily water production averaged 17,734,869 gallons, with maximum daily production of 22,272,288 gallons. The capacity of this treatment plant is 32,000,000 GPD. The 7,020 GPD average daily flow from this project represents an insignificant portion of (0.04%) of the average daily water production.

The Albany Water Board maintains water service to this site by way of an 8 inch main on the north side of Lark Street constructed in 1916 as shown in an excerpt from Sheet 115 of the Water Atlas which reproduced below.

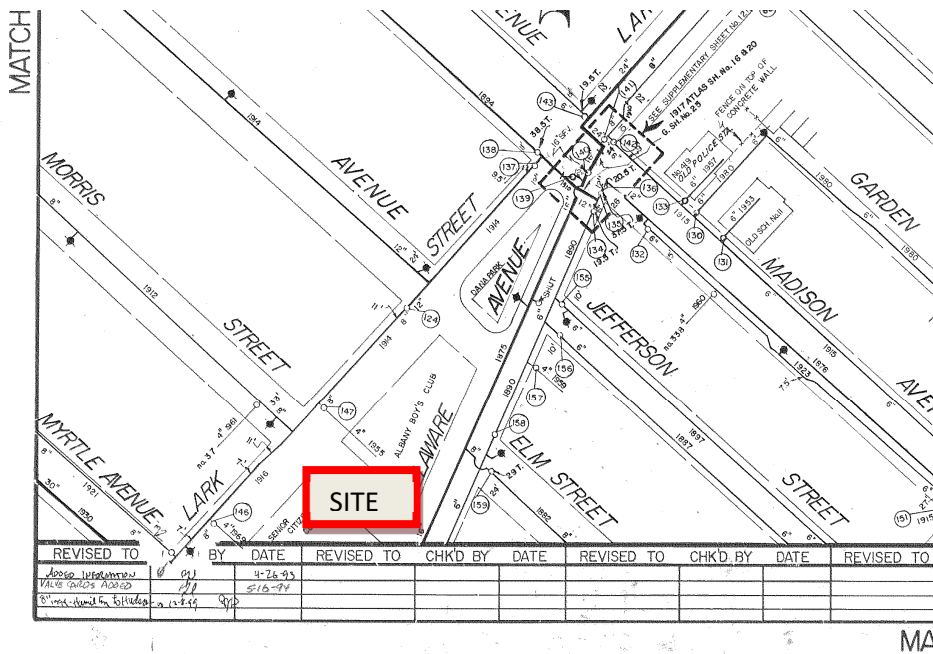


Fig. No. 3 –Excerpt from Water Atlas Sheet 115

FIRE PROTECTION

There is a hydrant located on the north side of Lark Street adjacent to the site. A fire flow test was conducted (see Appendix B) The Static Pressure was 78 PSI and the Residual Pressure was 74 PSI. Available flow at 20 PSI was 5,043 GPM which is more than adequate for fire protection. The building will be fully sprinklered and the plan will be reviewed with City officials. Location of Knox boxes and Siamese connections will be coordinated with fire officials.

POTABLE WATER SERVICE

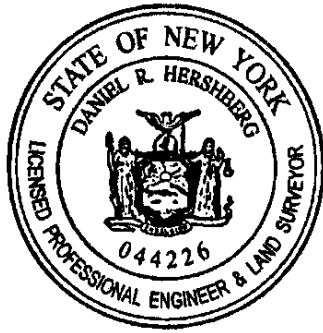
A 6" DIP CL 52 water service is proposed to connect to the 8" water main on Lark Street to serve Apartment building and a 6" DIP CL 52 water service is proposed to connect to the 30" water main on Myrtle Avenue to serve the Signal building. The Apartment Building will have a 4" Domestic and 6" fire protection service for main building. The rehabilitated Signal building will have a 1 1/2" Domestic and 6" fire protection service for Signal building. RPZ valves will be provided on both domestic water services and double check detector assemblies (DCDA) for both fire protection services. Water meter details and backflow preventer details will be provided with the plumbing plans.

APPLICABILITY OF DOH APPLICATIONS

Two DOH-347 Applications (Application for Approval of Backflow Prevention Devices) will be required. No DOH-348 (Application for Approval of Plans for Public Water Supply Improvement) will be required since no new watermain is required strictly water laterals.

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:

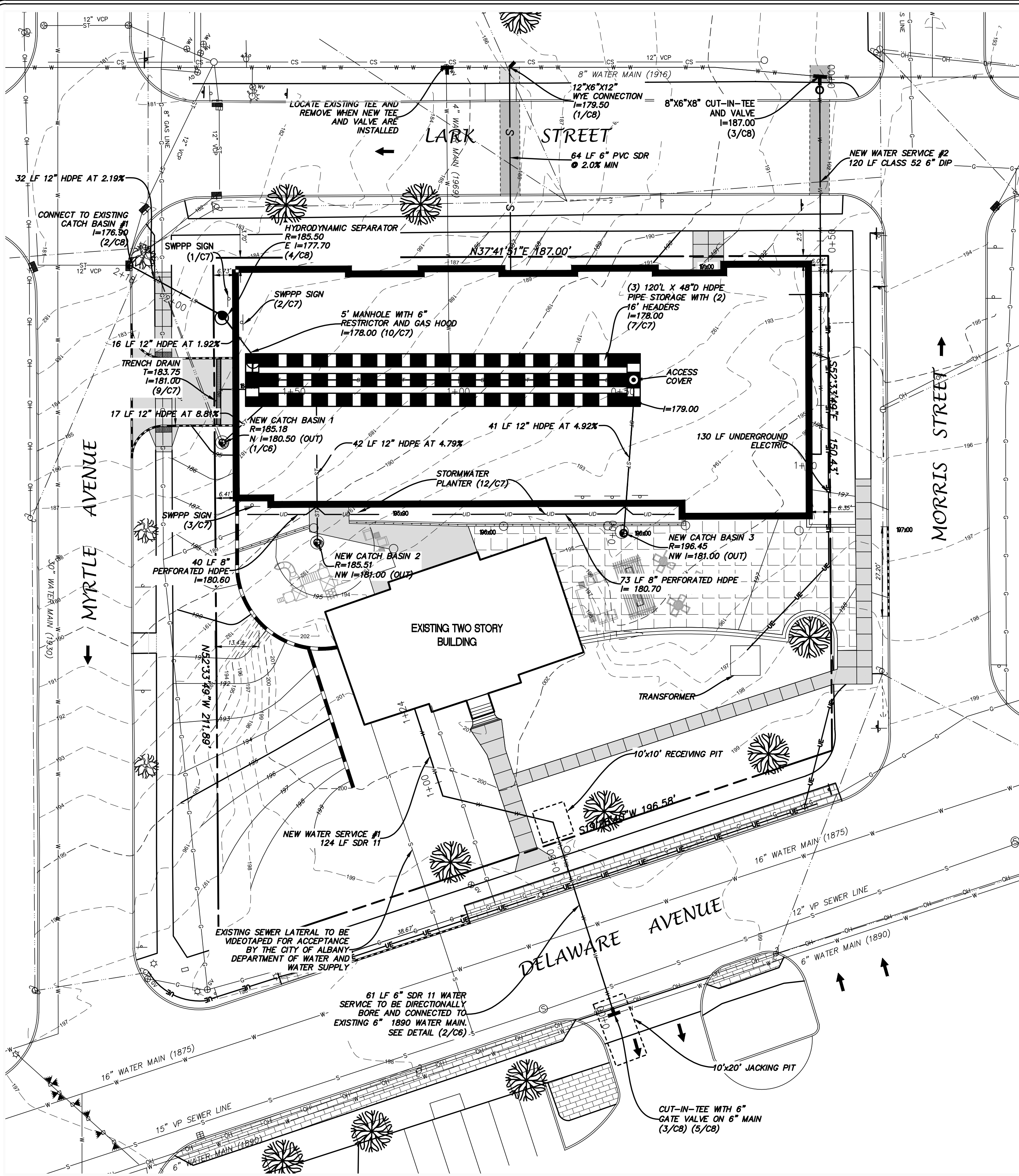
A handwritten signature in black ink, appearing to read "D. Hershberg", written over a horizontal line.

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

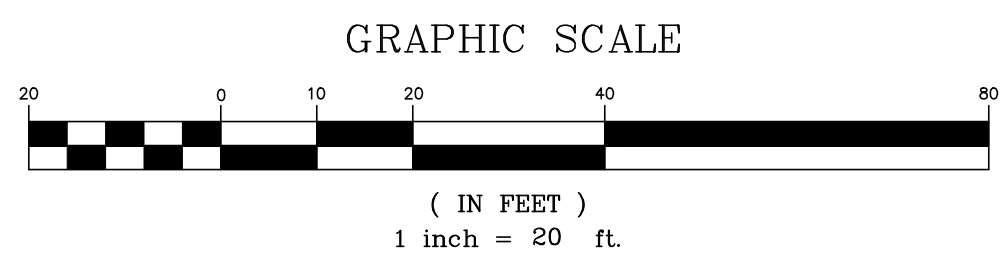
file/dan/ er20180244WATER.doc

APPENDIX A

Sheet C6- UTILITY PLAN

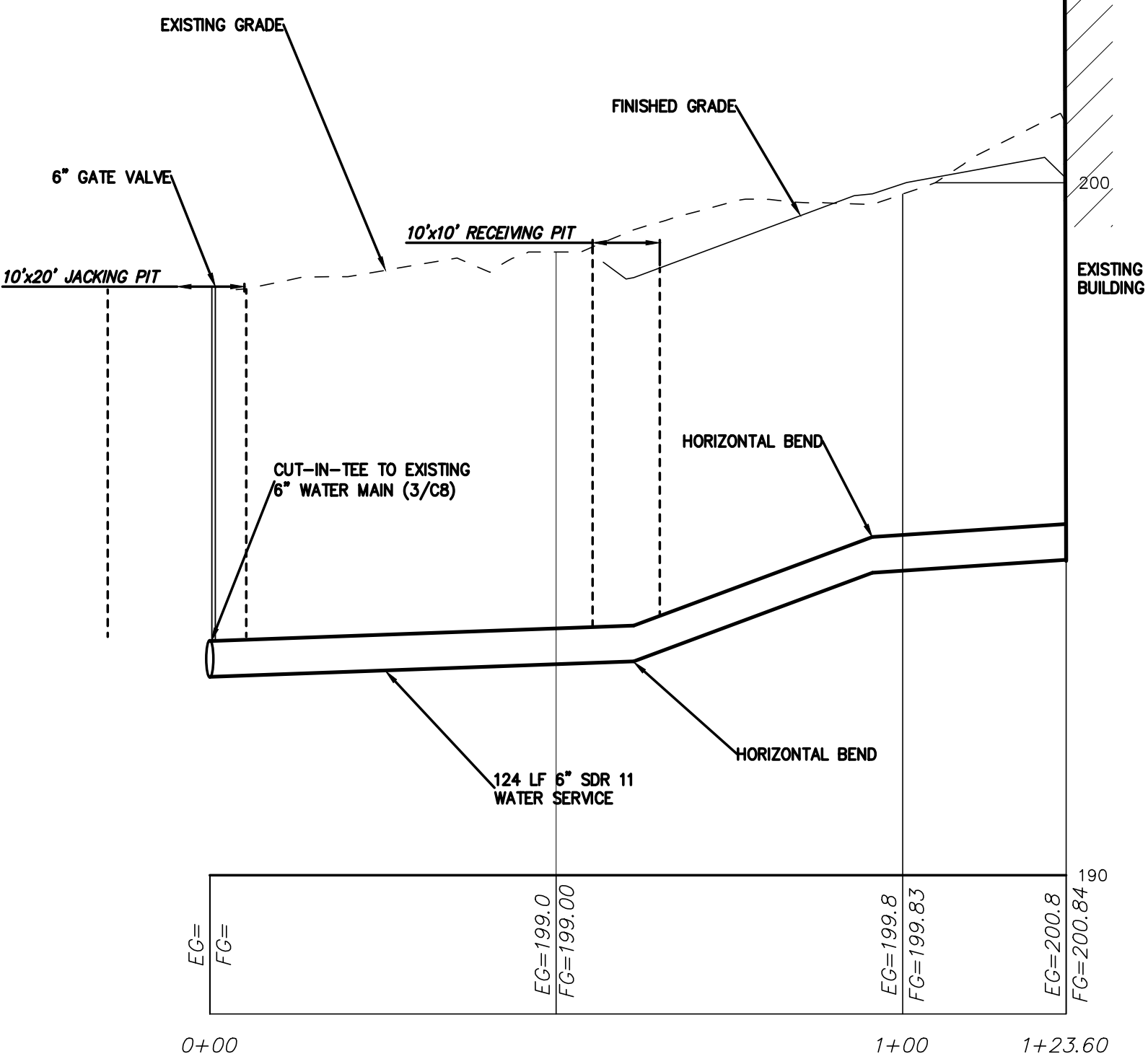


UTILITY PLAN
SCALE: 1"=20'

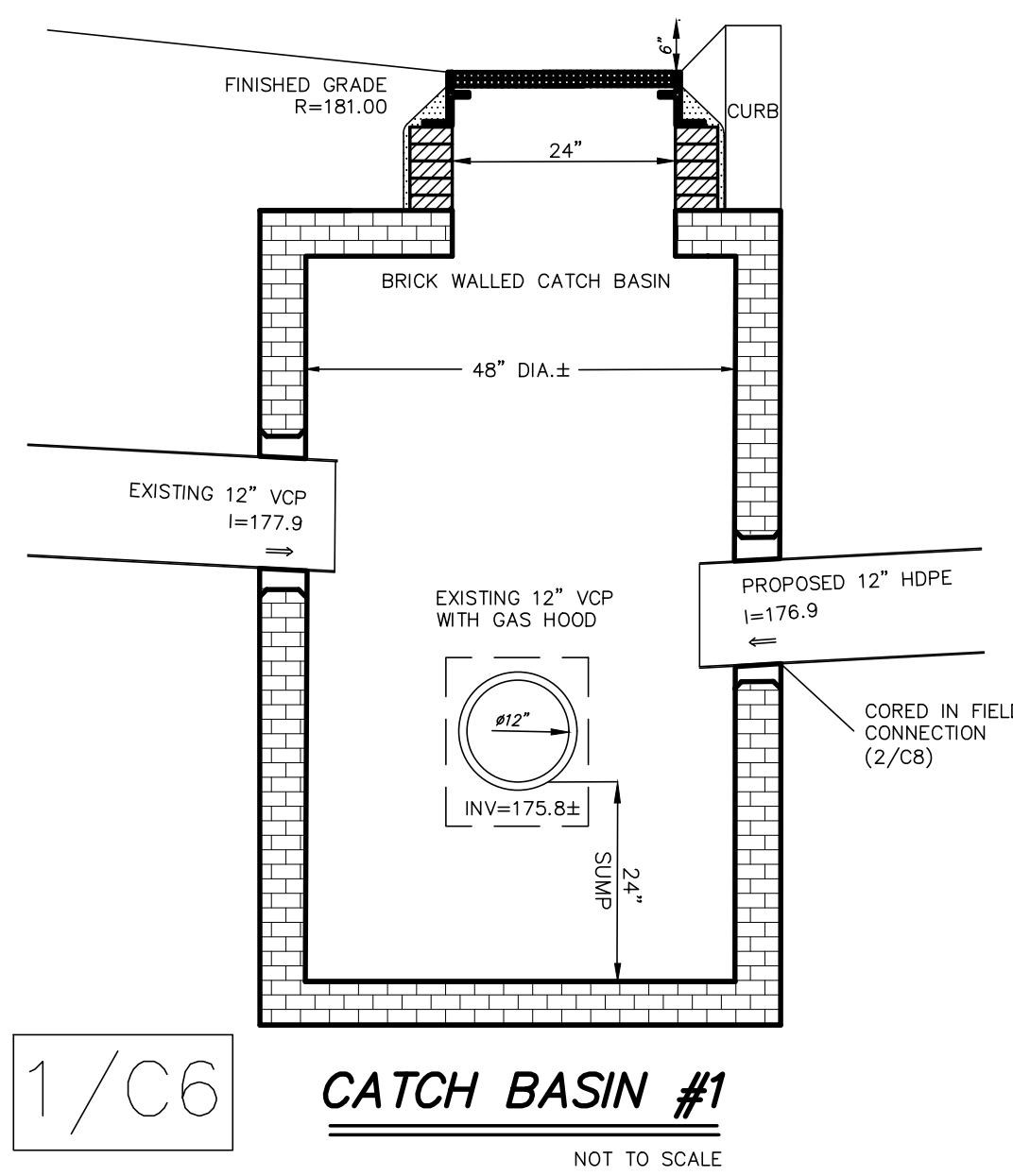


NOTES

- 48 HOURS NOTICE MUST BE GIVEN TO DEPARTMENT OF WATER FOR INSPECTIONS FOR THE SANITARY, WATER AND STORMWATER UTILITIES.
- PRESSURE AND LEAKAGE TESTING OF THE WATER MAIN SHALL BE WITNESSED BY DEPARTMENT STAFF AND ACCEPTABLE BACTERIOLOGICAL TEST MUST BE SUBMITTED AND ACCEPTED BY THE DEPARTMENT PRIOR TO FINAL OF THE NEW WATER MAIN.
- PRIOR TO USE, ALL WATER LINES MUST BE CHLORINATED AND HAVE A BACTERIOLOGICAL TEST PERFORMED IN ACCORDANCE WITH CITY OF ALBANY STANDARDS.
- A SITE ASSESSMENT THAT CERTIFIES EROSION AND SEDIMENT CONTROLS DESCRIBED IN THE SWPPP ARE IN PLACE PRIOR TO CONSTRUCTION COMMENCEMENT MUST BE COMPLETED BY A QUALIFIED PROFESSIONAL AND SUBMITTED TO THE MS4 COORDINATOR AT DEPARTMENT OF WATER WITHIN 24 HOURS OF INSPECTION COMPLETION.
- THE WATER DEPARTMENT MUST BE NOTIFIED 1 WEEK IN ADVANCE OF ANTICIPATED WATER SERVICE WORK THAT WILL REQUIRE SHUTTING DOWN THE WATER MAIN.
- TWO SEPARATE WATER METERS WILL BE REQUIRED.



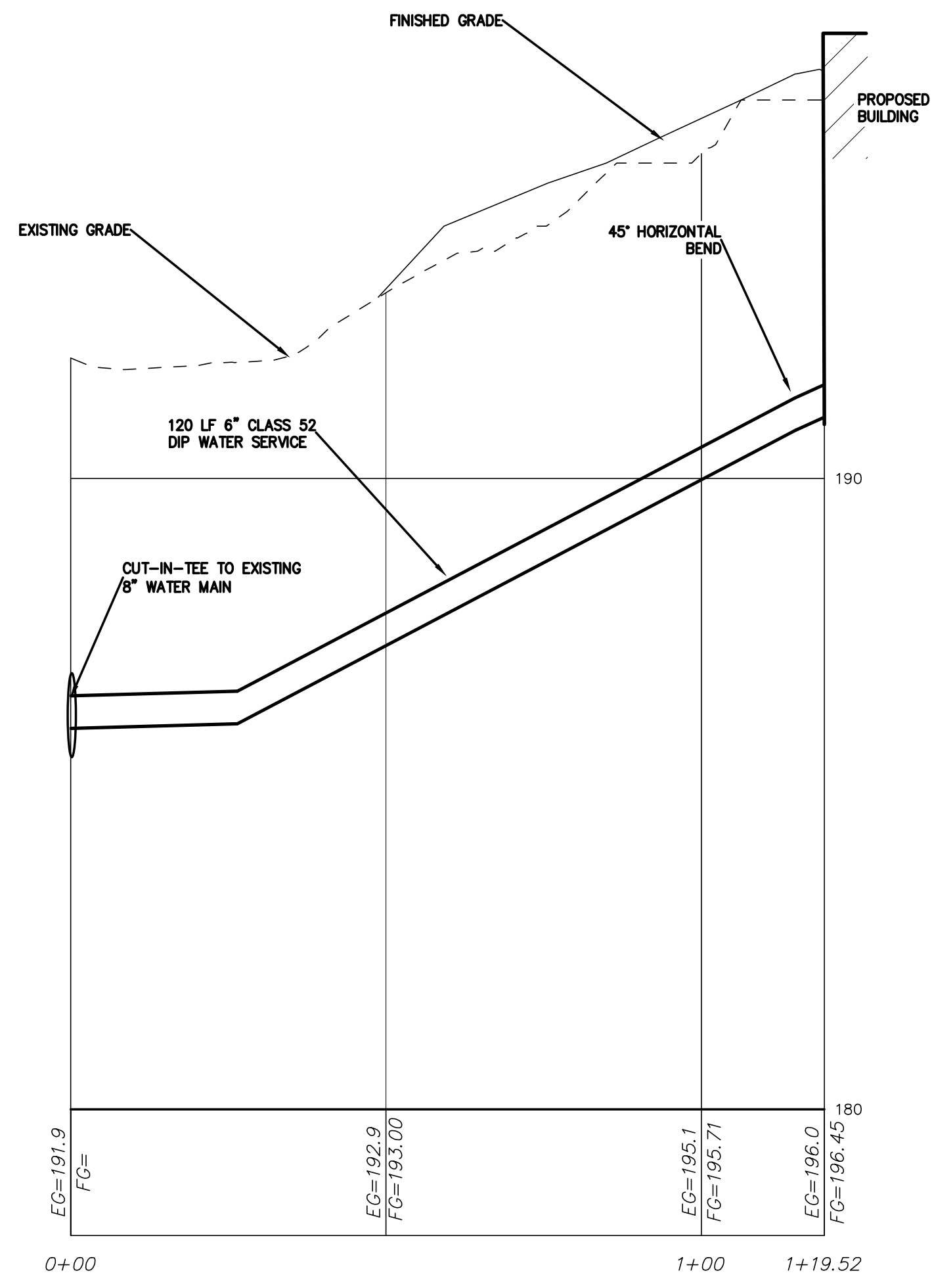
WATER SERVICE PROFILE 1
SCALE: 1"=2' (H) 1"=20' (V)



CATCH BASIN #1
NOT TO SCALE

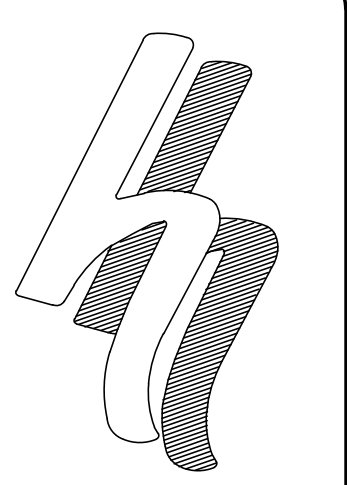


2/C6 DIRECTIONAL BORE DETAIL
NOT TO SCALE



WATER SERVICE PROFILE 2
SCALE: 1"=2' (H) 1"=20' (V)

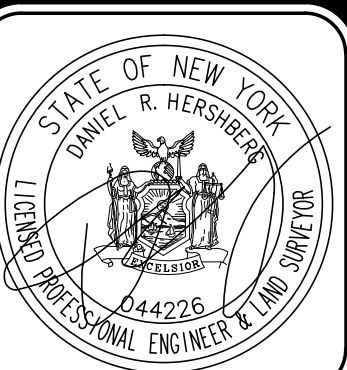
LEGEND			
R.O.W.	RIGHT OF WAY	○	MONUMENT
No.	NUMBER	○	IRON ROD
enc.	ENCROACHMENT	○	MANHOLE
P.O.B.	POINT OF BEGINNING	⊠	CATCHBASIN
S.F.	SQUARE FEET	—	SIGN
N/F	NOW OR FORMERLY	—	BOLLARD
Fl.	FEET	—	FENCE LINE
Deg.	DEGREE	—	GUARD RAIL
R	RECORD	—	OVERHEAD WIRE, UTILITY POLE & GUY WIRE
M	MEASURED	—	TRAFFIC FLOW ACCESS AREA
N	NORTH	—	WATER SHUT OFF
S	SOUTH	—	HYDRANT
E	EAST	—	WATER VALVE
W	WEST	—	GAS VALVE
tel.	TELEPHONE	—	GAS TEST
elec.	ELECTRIC	—	GAS DRIP
L	LIBER	—	STREET LIGHT
P	PAGE	—	LIGHT POLE
—	WATER LINE	—	CONCRETE
—	SEWER LINE	—	PAVEMENT
—	GAS LINE	—	TREE CONIFEROUS DIAMETER OF TREE
—	UNDERGROUND ELECTRIC	—	TREE DECIDUOUS DIAMETER OF TREE



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ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, IS ILLEGAL.



DATE	REVISIONS
02/26/21	GENERAL UPDATES
03/17/21	GENERAL UPDATES
04/27/21	TRANSFORMER ADDED
05/17/21	GENERAL UPDATES

UTILITY PLAN FOR
25 DELAWARE AVENUE
ALBANY, NY

FILE: 180244
SCALE: 1"=20'
CHK: DRH
DATE: 11/10/20
BY: TMO
PROJECT: 180244-3.DWG

APPENDIX B
FIRE FLOW TEST

ID				391
Location				
25 Delaware ave				
Date	By	Representing	Witnessed By	
3/24/2021	G Jones	AWD	P SICALIANO	
Purpose of Test		System Demand MGD		
Requested by H&H		20		
Pumps In Operation				
NA				
Pressure Regulated Zone				
<input checked="" type="checkbox"/>				
Flow Hydrant Location				
16 Morris HYD 57507				
Nozzle Size	Number of Nozzles	Pitot Pressure	Pitot Flow GPM	
2.5	1	50	1190	
Total Flow GPM				
1190				
Residual Hydrant Location				
48 Morris HYD 57506				
Static Pressure PSI	Residual Pressure PSI	Fire Flow at 20 psi		
78	74	5043		
Remarks				
HYD FED OFF OF 8" MAIN				