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### LEGEND

BUILDING	
PROPERTY LINE W/ BEARING DISTANCE	
CONTOUR	
STOCKADE FENCE	
CHAINLINK FENCE	
PICKET FENCE	
SEWER LINE	
DRAIN LINE	
WATER LINE	
GAS LINE	
GAS VALVE	
WATER VALVE	
DRAIN MANHOLE	
SEWER MANHOLE	
CATCH BASIN	
UTILITY POLE	
LIGHT POLE	
DECIDUOUS TREE	
CONIFEROUS TREE	
FIRE HYDRANT	

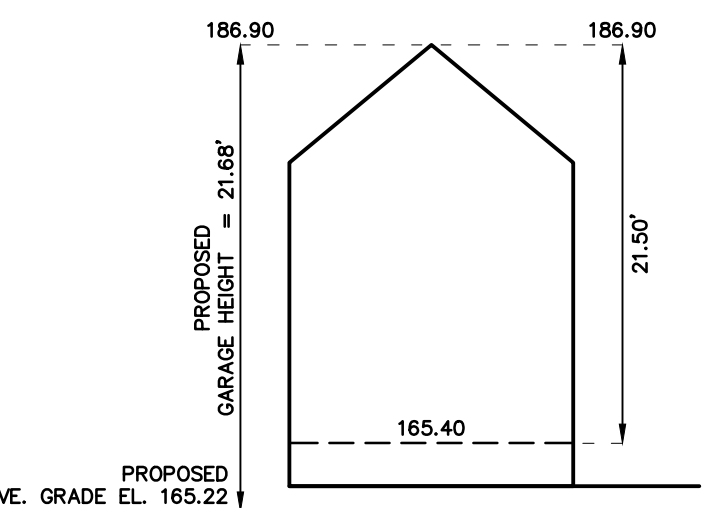
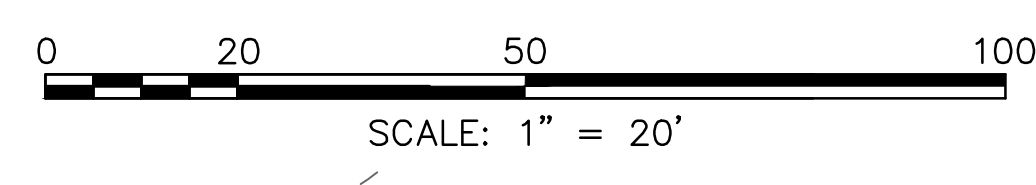
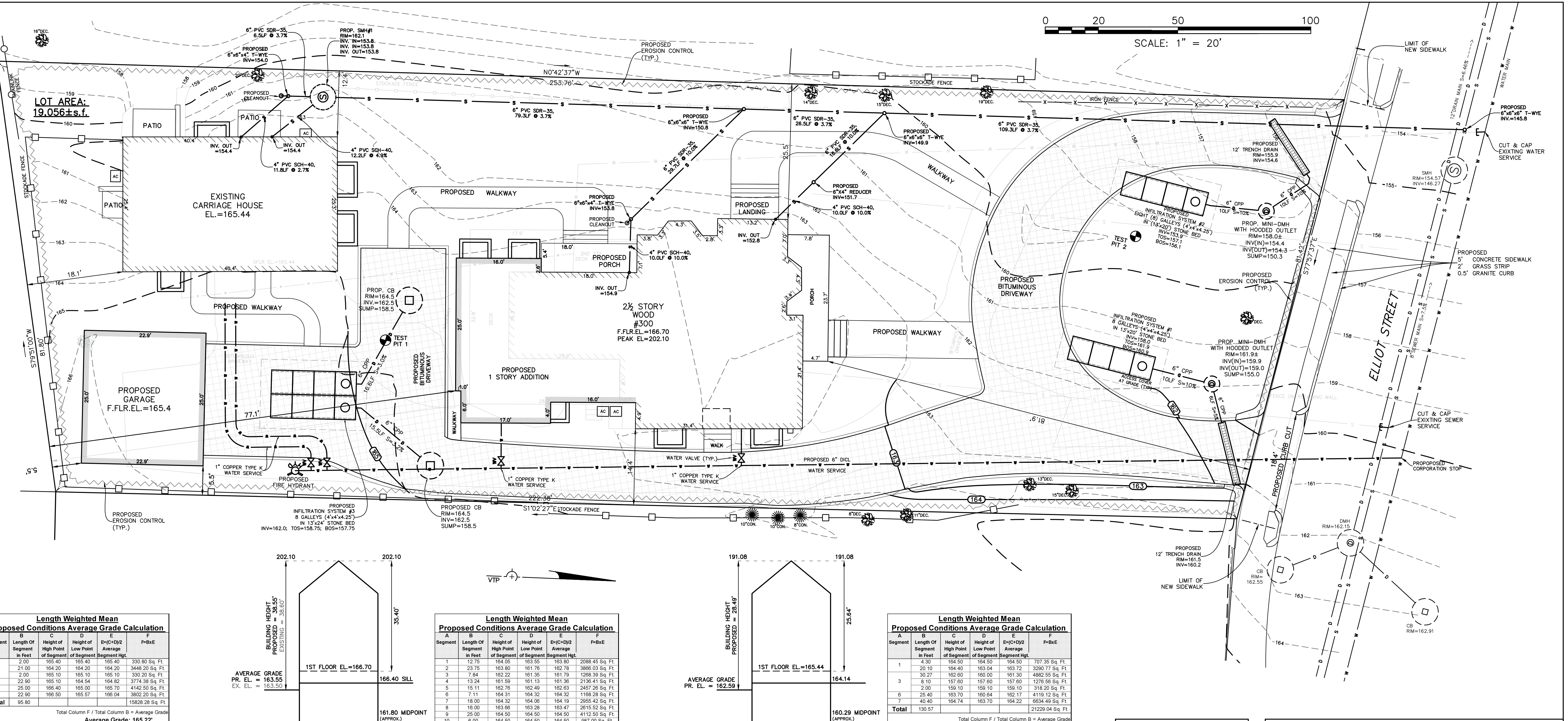
### IMPERVIOUS AREA CALCULATION

	EXISTING	PROPOSED
BUILDING	1,588.1s.f.	2,115.1s.f.
PORCH	240.0s.f.	240.0s.f.
GARAGE	1,023.2s.f.	573.0s.f.
CARRIAGE HOUSE		1,023.2s.f.
DRIVEWAY, CURB	4,087.9s.f.	4,778.2s.f.
WALKWAY, STEP	429.1s.f.	803.2s.f.
PATIOS		81.90
CONCRETE, WALLS, WELLS, ETC	84.9s.f.	164.2s.f.
<b>TOTAL</b>	<b>7,453.2s.f.</b>	<b>9,778.8s.f.</b>

INCREASE IN IMPERVIOUS AREA	2,325.6s.f.
LOT AREA	19,056.1s.f.
4% OF LOT AREA (OR 400s.f. MAX.)	762.25
USE 400s.f. MAX.	400s.f. MAX.

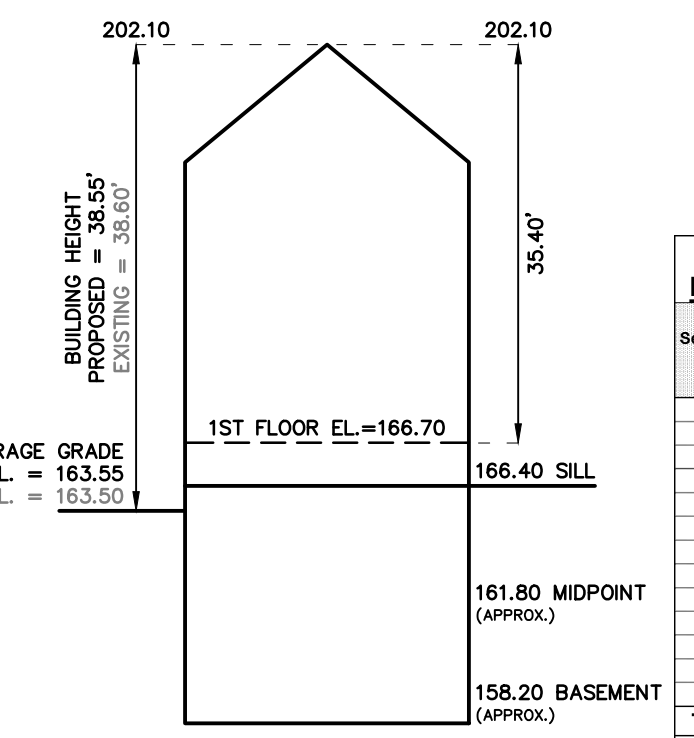
2,325.6s.f. > 400s.f. ---> DRAINAGE REQUIRED



### Length Weighted Mean Proposed Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
1	2.00	165.40	165.40	165.40	330.80	330.80 Sq. Ft.
2	21.00	164.20	164.20	164.20	3468.20	3468.20 Sq. Ft.
3	2.00	165.10	165.10	165.10	330.20	330.20 Sq. Ft.
4	22.90	165.10	164.54	164.82	3774.38	3774.38 Sq. Ft.
5	28.00	166.40	165.00	165.70	4162.80	4162.80 Sq. Ft.
6	22.90	166.50	165.57	166.04	3802.20	3802.20 Sq. Ft.
<b>Total</b>	<b>95.80</b>				<b>15828.28</b>	<b>15828.28 Sq. Ft.</b>

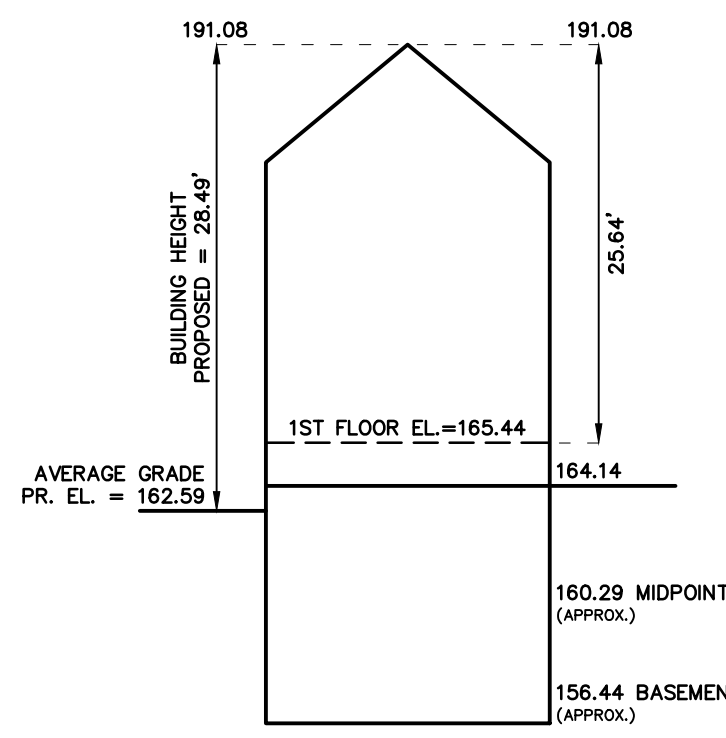
Total Column F / Total Column B = Average Grade  
**Average Grade: 165.22'**



### Length Weighted Mean Proposed Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
1	12.75	164.05	163.55	163.80	2088.45	2088.45 Sq. Ft.
2	23.75	163.80	163.75	163.78	3895.03	3895.03 Sq. Ft.
3	7.84	162.22	161.35	161.79	1288.39	1288.39 Sq. Ft.
4	13.24	161.59	161.13	161.36	2195.41	2195.41 Sq. Ft.
5	15.11	162.76	162.46	162.63	2451.26	2451.26 Sq. Ft.
6	7.11	164.31	164.32	164.32	1168.28	1168.28 Sq. Ft.
7	16.00	164.32	164.06	164.19	2695.42	2695.42 Sq. Ft.
8	38.00	163.86	163.28	163.47	2815.52	2815.52 Sq. Ft.
9	25.00	164.50	164.50	164.50	4112.50	4112.50 Sq. Ft.
10	6.00	164.50	164.50	164.50	387.00	387.00 Sq. Ft.
11	17.50	164.40	164.20	164.30	2875.25	2875.25 Sq. Ft.
12	15.40	164.51	163.93	164.22	2528.99	2528.99 Sq. Ft.
13	31.44	163.40	163.90	163.65	5145.16	5145.16 Sq. Ft.
<b>Total</b>	<b>209.14</b>				<b>34204.65</b>	<b>34204.65 Sq. Ft.</b>

Total Column F / Total Column B = Average Grade  
**Average Grade: 163.55'**



### Length Weighted Mean Proposed Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
1	4.30	164.50	164.50	164.50	707.35	707.35 Sq. Ft.
2	20.10	164.40	163.04	163.72	3290.77	3290.77 Sq. Ft.
3	30.27	162.60	160.00	161.30	4882.55	4882.55 Sq. Ft.
4	8.10	167.60	167.60	167.60	1276.56	1276.56 Sq. Ft.
5	2.00	169.10	169.10	169.10	318.20	318.20 Sq. Ft.
6	25.40	163.70	160.64	162.17	4119.12	4119.12 Sq. Ft.
7	40.40	164.74	163.70	164.22	2634.49	2634.49 Sq. Ft.
<b>Total</b>	<b>130.57</b>				<b>21229.04</b>	<b>21229.04 Sq. Ft.</b>

Total Column F / Total Column B = Average Grade  
**Average Grade: 162.59'**

PROPOSED GARAGE HEIGHT  
NOT TO SCALE

PROPOSED BUILDING HEIGHT  
NOT TO SCALE

PROPOSED CARRIAGE HOUSE HEIGHT  
NOT TO SCALE

### TESTPIT LOG (9/28/2021)

**TEST PIT 1 (EL.=164.9)**  
 0-18" TOPSOIL  
 18-42" SUBSOIL  
 42-120" SANDY LOAM WITH GRAVEL AND FEW COBBLE (GLACIAL TILL)  
 NO WATER  
 NO REFUSAL  
 "B" SOIL

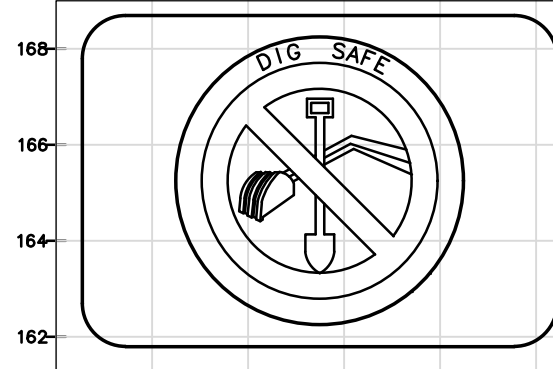
**TEST PIT 2 (EL.=159.1)**  
 0-18" TOPSOIL  
 18-46" SUBSOIL  
 46-112" SANDY LOAM WITH GRAVEL, COBBLES AND FEW STONES (GLACIAL TILL)  
 NO WATER  
 NO REFUSAL  
 "B" SOIL

### ZONING CHART

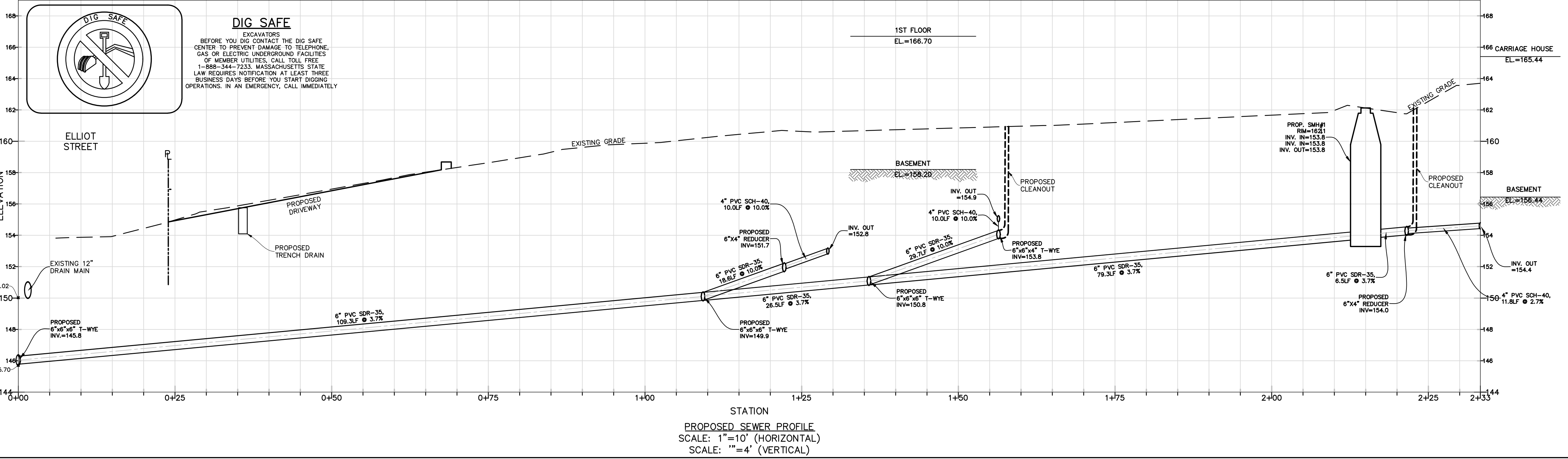
NEWTON, MASSACHUSETTS  
 ZONE: MR-1 (NEW) SUBMISSION: BLDG. PERMIT

REGULATION	REQUIRED	EXISTING	PROPOSED
LOT AREA	10,000s.f.	19,056±s.f.	N/C
LOT FRONTAGE	80.0'	81.42'	N/C
FRONT SETBACK	30.0'	81.9'	N/C
SIDE SETBACK	10.0'	14.4'	N/C
REAR SETBACK	15.0'	79.4'	77.1'
BUILDING HEIGHT	36.0'	38.58' *	38.55' *
AVERAGE GRADE	-	163.52	163.55
LOT COVERAGE	30.0%	14.9%	20.7%
OPEN SPACE	50.0%	61.0%	55.8%
GARAGE HEIGHT	22.0'	-	21.68'
AVERAGE GRADE	-	-	165.22
CARRIAGE HOUSE HGT.	36.0'	-	28.49'
AVERAGE GRADE	-	-	162.59

\* DOES NOT MEET THE REQUIREMENTS

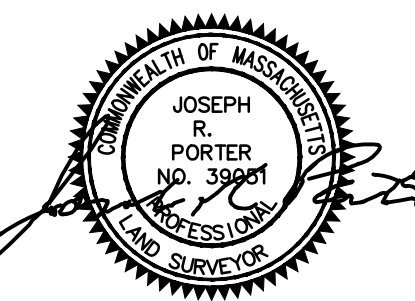


**DIG SAFE**  
 EXCAVATORS  
 BEFORE YOU DIG CONTACT THE DIG SAFE CENTER TO PREVENT DAMAGE TO TELEPHONE, GAS OR ELECTRIC UNDERGROUND FACILITIES. IF MEMBER UTILITIES, CALL TOLL FREE 1-888-344-7233. MASSACHUSETTS STATE LAW REQUIRES NOTIFICATION AT LEAST THREE BUSINESS DAYS BEFORE YOU START DIGGING OPERATIONS. IN AN EMERGENCY, CALL IMMEDIATELY



PROPOSED SEWER PROFILE  
 SCALE: 1"=10' (HORIZONTAL)  
 SCALE: 1"=4' (VERTICAL)

TOPOGRAPHIC SITE PLAN  
 NEWTON, MASSACHUSETTS  
 SHOWING PROPOSED CONDITIONS AT  
 #300 ELLIOT STREET  
 SCALE: 1in.=20ft. DATE: OCTOBER 8, 2021



PROJECT: 221176  
**VTP ASSOCIATES INC.**  
 LAND SURVEYORS - CIVIL ENGINEERS  
 132 ADAMS STREET 2ND FLOOR SUITE 3  
 NEWTON, MA 02458  
 (617) 332-8271  
 SHEET 1 OF 3