

21212609.dwg (2/2012)

Address: #281 Nevada Street

### Length Weighted Mean Existing Average Grade Calculation

Segment	Length Of Segment in Feet	Height of High Point of Segment	Height of Low Point of Segment	E=(C+D)/2 Average Segment Height	F=BxE
1	51.30	57.70	57.70	57.70	2960.01 Sq. Ft.
2	2.41	58.00	57.70	57.85	139.42 Sq. Ft.
3	22.58	58.30	58.00	58.15	1313.03 Sq. Ft.
4	12.30	58.30	58.20	58.25	716.48 Sq. Ft.
5	16.40	58.30	57.90	58.10	952.84 Sq. Ft.
6	9.70	58.30	58.10	58.20	564.54 Sq. Ft.
7	4.82	58.10	58.00	58.05	279.80 Sq. Ft.
8	6.58	58.00	57.90	57.95	381.31 Sq. Ft.
9	18.20	57.90	57.70	57.80	1051.98 Sq. Ft.
10	15.30	57.40	57.20	57.30	876.69 Sq. Ft.
11	9.70	57.30	57.10	57.20	554.84 Sq. Ft.
<b>Total</b>	<b>169.29</b>				<b>9790.91 Sq. Ft.</b>

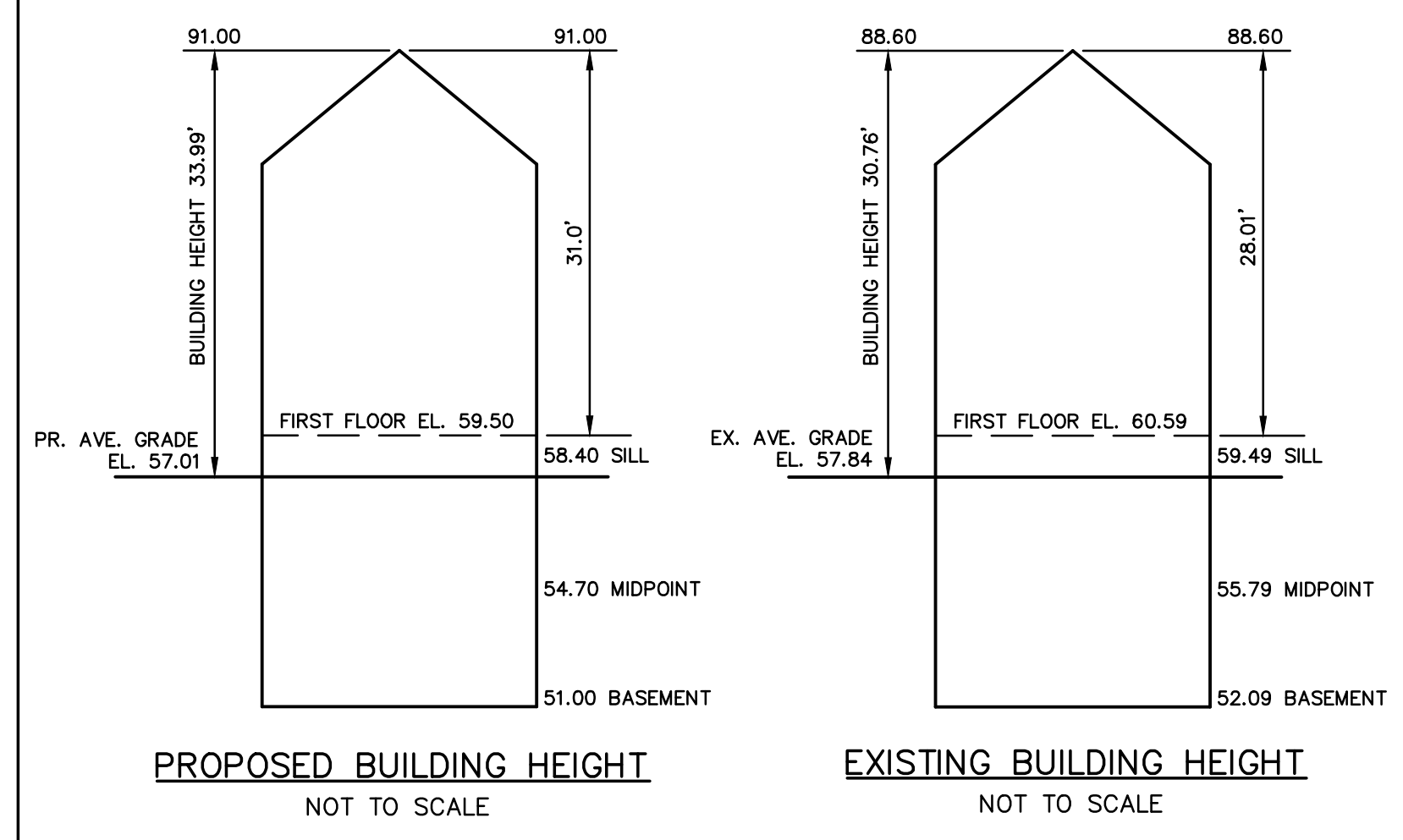
Total Column F / Total Column B = Average Grade  
**Average Grade: 57.84'**

Address: #281 Nevada Street

### Length Weighted Mean Proposed Average Grade Calculation

Segment	Length Of Segment in Feet	Height of High Point of Segment	Height of Low Point of Segment	E=(C+D)/2 Average Segment Height	F=BxE
1	30.00	57.00	57.00	57.00	1710.00 Sq. Ft.
2	21.00	57.80	57.00	57.40	1205.40 Sq. Ft.
3	30.00	57.80	57.80	57.80	1734.00 Sq. Ft.
4	24.00	57.80	57.20	57.50	1380.00 Sq. Ft.
5	13.93	57.10	57.00	57.05	794.71 Sq. Ft.
6	16.07	57.00	56.60	56.80	912.78 Sq. Ft.
7	30.00	56.60	56.10	56.35	1690.50 Sq. Ft.
8	40.00	56.80	56.20	56.50	2260.00 Sq. Ft.
<b>Total</b>	<b>205.00</b>				<b>11687.38 Sq. Ft.</b>

Total Column F / Total Column B = Average Grade  
**Average Grade: 57.01'**



### F.A.R. CALCULATION

LOT AREA: 17,999s.f.  
ZONE: MR-1  
MAX. F.A.R. = 0.45  
MAX. GROSS FLOOR AREA = 8,100s.f.

**Existing Building**  
1st Floor = 1,458.78s.f.  
2nd Floor = 1,044.78s.f.  
Detached Garage = 522.34s.f.  
Shed = 249.34s.f.  
TOTAL=3,275.24s.f.

**Proposed Building**  
1st Floor = 1,920.00s.f.  
2nd Floor = 1,920.00s.f.  
Area above 2nd floor = 1,125.00s.f.  
TOTAL=4,965.00s.f.

EXIST. F.A.R.=3,275.24s.f./17,999s.f.=**0.182**  
PROP. F.A.R.=7,468.56s.f./17,999s.f.=**0.415 (OK)**

### HALF STORY CALCULATION (Proposed Building)

7' CEILING HEIGHT < 2/3rds STORY BELOW  
AREA 7'+CEILING = 860.00s.f.  
2ND FLOOR = 1,920.00s.f.  
2/3rds OF 2ND FLOOR=1,280.00s.f.  
860.00s.f. < 1,280.00s.f. (OK)

### DIG SAFE

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

### TESTPIT LOG

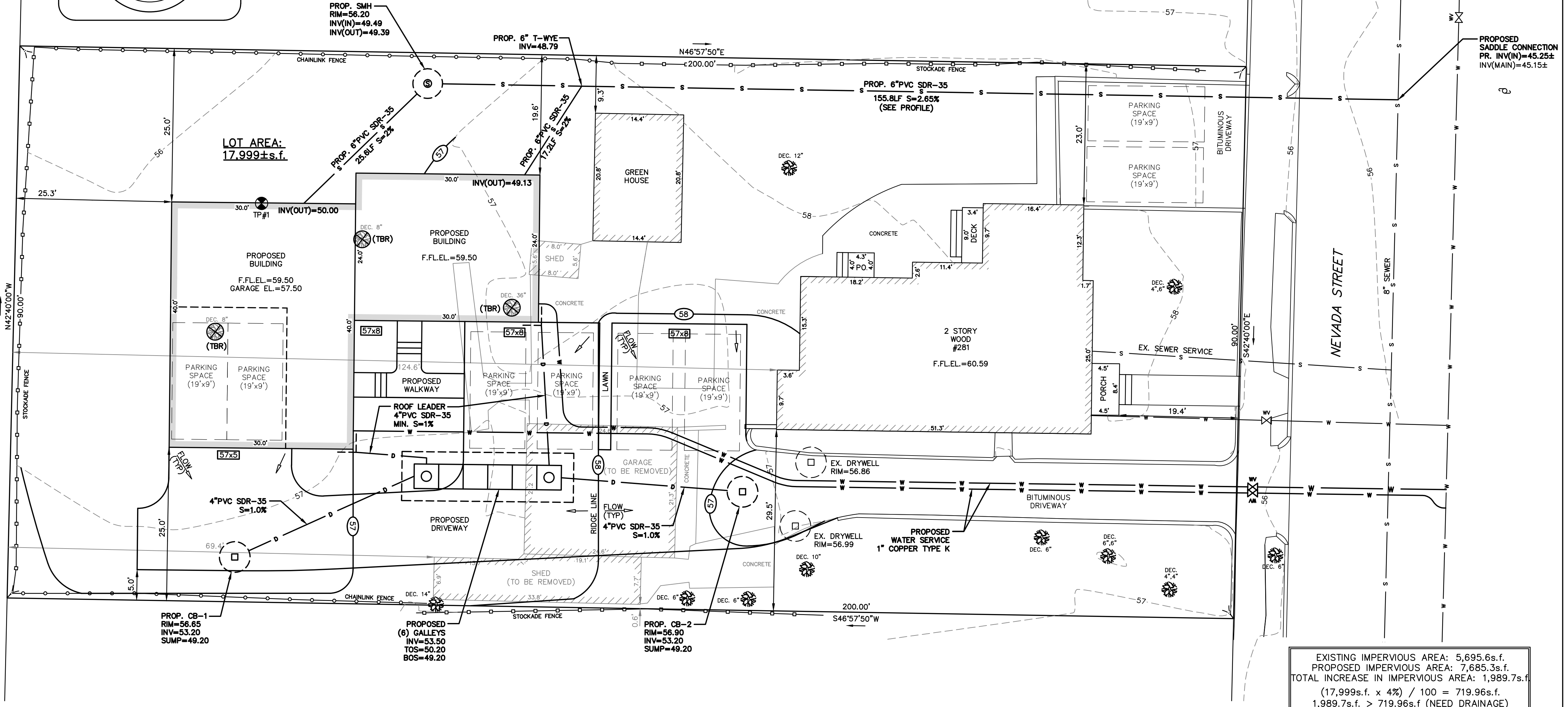
TESTPIT #1  
0-16" TOP-SOIL  
16-30" SUB-SOIL  
30-55" MEDIUM SAND WITH GRAVEL+COBBLES  
55-90" COARSE SAND WITH FEW GRAVEL

NO WATER  
NO REFUSAL  
PERC < 2 MPI

### LEGEND

BUILDING: Hatched pattern  
PROPERTY LINE W/ BEARING DISTANCE: S81°56'34"E 116.23'  
CONTOUR: -70'  
STOCKADE FENCE: [Symbol]  
CHAINLINK FENCE: [Symbol]  
PICKET FENCE: [Symbol]  
SEWER LINE: S  
DRAIN LINE: D  
WATER LINE: W  
GAS LINE: G

GAS VALVE: [Symbol]  
WATER VALVE: [Symbol]  
DRAIN MANHOLE: [Symbol]  
SEWER MANHOLE: [Symbol]  
CATCH BASIN: [Symbol]  
UTILITY POLE: [Symbol]  
DECIDUOUS TREE: DEC. 22'



EXISTING IMPERVIOUS AREA: 5,695.6s.f.  
PROPOSED IMPERVIOUS AREA: 7,685.3s.f.  
TOTAL INCREASE IN IMPERVIOUS AREA: 1,989.7s.f.  
(17,999s.f. x 4%) / 100 = 719.96s.f.  
1,989.7s.f. > 719.96s.f. (NEED DRAINAGE)

### ZONING CHART

NEWTON, MASSACHUSETTS

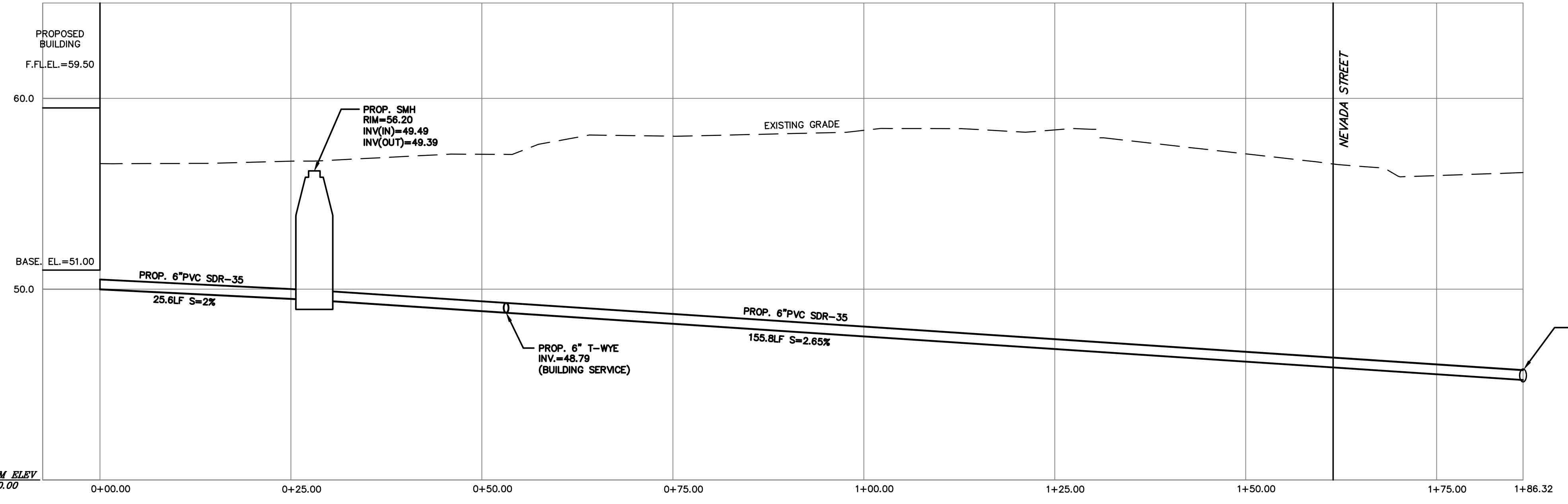
REGULATION	REQUIRED	EXISTING	PROPOSED
LOT AREA	7,000s.f.	17,999±s.f.	N/C
LOT FRONTAGE	70.0'	90.00'	N/C
FRONT SETBACK	25.0'	19.4'	N/C
SIDE SETBACK	7.5'	23.0'	19.6'
REAR SETBACK	15.0'	124.6'	25.3'
BUILDING HEIGHT	36.0'	30.76'	33.99'
AVERAGE GRADE	-	57.84	57.01
LOT COVERAGE	30.0%	14.6%	20.7%
OPEN SPACE	50.0%	76.5%	57.3%

TOPOGRAPHIC SITE PLAN  
NEWTON, MASSACHUSETTS  
SHOWING PROPOSED CONDITIONS AT  
#281 NEVADA STREET

SCALE: 1in.=10ft. DATE: DECEMBER 28, 2012  
PROJECT: 212135

**VTP ASSOCIATES INC.**

LAND SURVEYORS - CIVIL ENGINEERS. 132  
ADAMS STREET 2ND FLOOR SUITE 3  
NEWTON, MA 02458  
(617) 332-8271



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

