

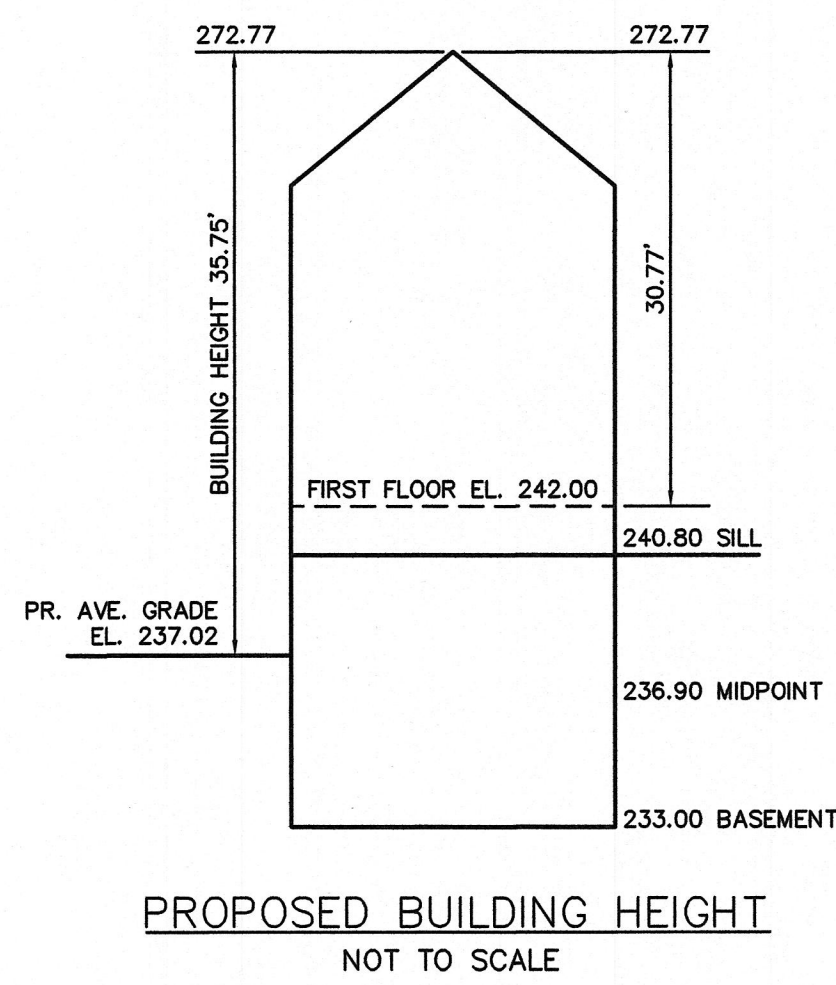
Address: #377 Langley Rd Newton, MA

### Length Weighted Mean

#### Proposed Average Grade Calculation

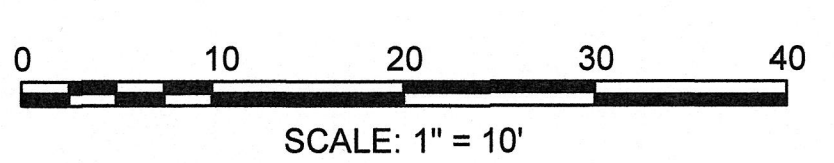
Segment	B	C	D	E	F
Segment	Length Of Segment in Feet	Height of High Point of Segment	Height of Low Point of Segment	E=(C+D)/2 Average Segment Height	F=BxE
1	16.19	234.10	234.00	234.05	3789.27 Sq. Ft.
2	1.00	236.00	236.00	236.00	236.00 Sq. Ft.
3	12.35	236.10	236.00	236.05	2915.22 Sq. Ft.
4	21.17	240.00	238.00	239.00	5059.83 Sq. Ft.
5	20.73	239.90	239.90	239.90	4973.13 Sq. Ft.
6	8.94	239.90	239.90	239.90	2144.71 Sq. Ft.
7	8.21	239.90	239.90	239.90	1969.58 Sq. Ft.
8	41.15	239.90	239.90	239.90	9871.89 Sq. Ft.
9	13.14	239.90	239.90	239.90	3152.29 Sq. Ft.
10	16.92	240.00	240.00	240.00	4060.80 Sq. Ft.
11	4.21	240.00	240.00	240.00	1010.40 Sq. Ft.
12	6.45	240.20	240.00	240.10	1548.65 Sq. Ft.
13	17.41	240.20	240.00	240.10	4180.14 Sq. Ft.
14	2.72	239.00	238.00	238.50	648.72 Sq. Ft.
15	3.29	233.50	233.00	233.25	767.39 Sq. Ft.
16	15.46	233.00	233.00	233.00	3602.18 Sq. Ft.
17	13.24	233.00	233.00	233.00	3084.92 Sq. Ft.
18	23.03	233.00	233.00	233.00	5366.99 Sq. Ft.
19	13.24	233.00	233.00	233.00	3084.92 Sq. Ft.
20	12.78	233.00	233.00	233.00	2977.74 Sq. Ft.
21	13.38	233.00	233.00	233.00	3117.54 Sq. Ft.
22	4.46	233.00	232.40	232.70	1037.84 Sq. Ft.
<b>Total</b>	<b>286.5</b>				<b>67899.93 Sq. Ft.</b>

Total Column F / Total Column B = Average Grade  
**Average Grade: 237.02'**



### 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 1-888-322-4844. MASSACHUSETTS STATE LAW REQUIRES NOTIFICATION AT LEAST THREE BUSINESS DAYS BEFORE YOU START DIGGING OPERATIONS. IN AN EMERGENCY, CALL IMMEDIATELY



### 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

### TESTPIT LOG

TESTPIT #1 (#373 Langley Rd)  
 0-10" TOPSOIL  
 10-35" SUBSOIL  
 35-94" SILTY LOAM WITH GRAVEL (GLACIAL TILL)

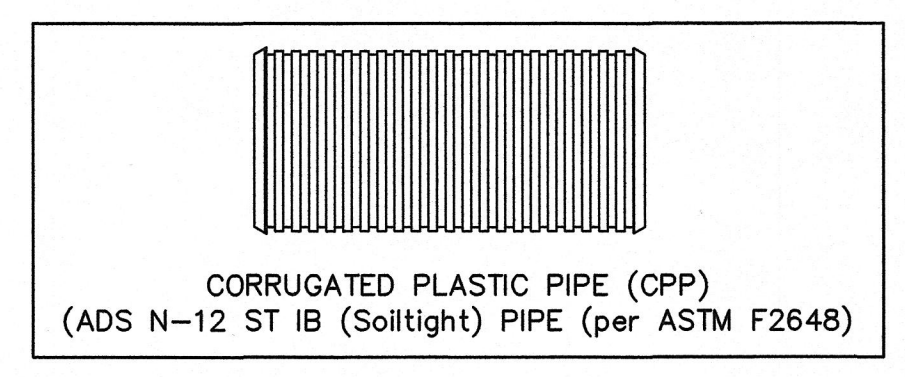
NO WATER  
 NO REFUSAL  
 PERC RATE > 20MPI

TESTPIT #2 (#377 Langley Rd)  
 0-8" TOPSOIL  
 8-24" SILTY LOAM

NO WATER  
 REFUSAL @ 24"  
 PERC RATE > 20MPI

TESTPIT #1 (#377 Langley Rd)  
 0-8" TOPSOIL  
 8-36" SUBSOIL  
 36-80" SILTY LOAM WITH GRAVEL & COBBLES

NO WATER  
 REFUSAL @ 80"  
 PERC RATE > 20MPI



### NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THIS PLAN, PRIOR TO ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BEFORE PROCEEDING WITH THE WORK.
- THE LOCATION OF ALL UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASE ON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC. AND GOVERNMENT AGENCIES.
- ALL THE PROPOSED DOWNSPOUT TO CONNECT INTO INSIDE INFILTRATION SYSTEMS.

### ZONING CHART

#377 LANGLEY RD NEWTON, MASSACHUSETTS

REGULATION	REQUIRED	EXISTING	PROPOSED
LOT AREA	12,000s.f.	23,540s.f	N/C
LOT FRONTAGE	80.0'	51.7'	N/C
FRONT SETBACK	25.0'	27.5'	25.4'
SIDE SETBACK	7.5'/25.0'	38.7'	8.0'
REAR SETBACK	23.0'/25.0'	82.7'	62.3'
BUILDING HEIGHT	36.0'	-	35.75'
AVERAGE GRADE	-	-	237.02'
LOT COVERAGE	25.0%	4.6%	20.3%
OPEN SPACE	50.0%	83.5%	57.4%

### TOPOGRAPHIC SITE PLAN NEWTON, MASSACHUSETTS

SHOWING PROPOSED CONDITIONS AT  
 #377 LANGLEY ROAD

SCALE: 1in=10ft. DATE: DECEMBER 7, 2016  
 REVISED: FEBRUARY 24, 2016; MARCH 9, 2017;  
 MARCH 22, 2017; MARCH 29, 2017

PROJECT: 216168



LAND SURVEYORS - CIVIL ENGINEERS. 132  
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