

217133.ec2.dwg (Z:2015)

LEGEND

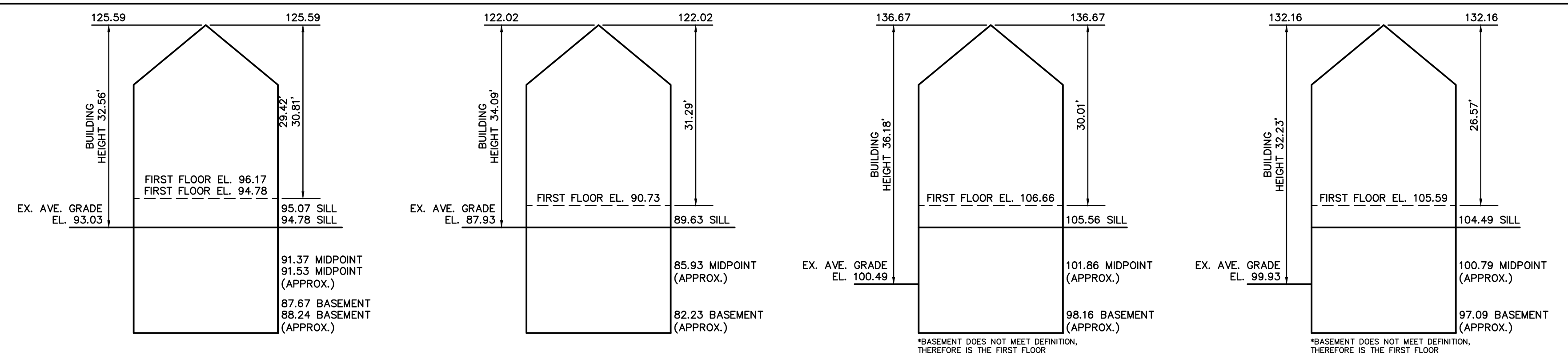
BUILDING	
PROPERTY LINE W/ BEARING DISTANCE	
CONTOUR	
STOCKADE FENCE	
CHAINLINK FENCE	
PICKET FENCE	
WIRE FENCE	
STONE WALL	
CONCRETE WALL	
SEWER LINE	
DRAIN LINE	
WATER LINE	
GAS LINE	
GAS VALVE	
WATER VALVE	
DRAIN MANHOLE	
SEWER MANHOLE	
CATCH BASIN	
UTILITY POLE	
LIGHT POLE	
DECIDUOUS TREE	
CONIFEROUS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

ZONING CHART
NEWTON, MASSACHUSETTS

SUBMISSION: EXISTING	#392-396 ZONE: MR-2		#400 ZONE: MR-2		#402-404 ZONE: BU-1	
	REQUIRED	EXISTING	REQUIRED	EXISTING	REQUIRED	EXISTING
LOT AREA	10,000s.f.	55,242s.f.	10,000s.f.	7,348±s.f.	10,000s.f.	17,285s.f.
LOT FRONTAGE	80'	80.00'	80'	70.00' *	-'	72.55'
FRONT SETBACK	25'	121.7'	25'	5.5' *	AVERAGE	52.9'
SIDE SETBACK	10'	15.8'	10'	4.7' *	(1)	0.02' *
REAR SETBACK	15'	186.5'	15'	31.1'	(2)	16.7'
BUILDING HEIGHT	36'	32.56' 34.09'	36'	36.18' *	36'	32.23'
AVERAGE GRADE	-	93.03 87.93	-	100.49	-	99.93
LOT COVERAGE	30%	17.3%	30%	28.0%	-	47.7%
OPEN SPACE	50%	45.6% *	50%	34.3% *	-%	39.1%

* DOES NOT MEET REQUIREMENTS

NOTES:
(1) 1/2 bldg ht or equal to abutting side yard setback/abutting residential district: greater of 1/2 bldg ht or 15'
(2) Abutting residential or Public Use district: Greater of 1/2 bldg ht or 15'



EXISTING BUILDING HEIGHTS
NOT TO SCALE

Address: #392-394 Langley Road

Length Weighted Mean Existing Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
Length of Segment in Feet	Length of Segment in Feet	Height of Segment	Height of Segment	Height of Segment	Height of Segment	Segment Height
1	59.00	84.39	92.81	93.60	5522.40 Sq. Ft.	
2	45.10	95.07	94.31	94.69	4270.52 Sq. Ft.	
3	43.80	95.26	95.23	95.25	4143.86 Sq. Ft.	
4	51.10	95.30	94.94	95.12	4860.63 Sq. Ft.	
5	8.20	94.84	94.82	94.88	778.02 Sq. Ft.	
6	15.20	94.92	94.34	94.63	1438.38 Sq. Ft.	
7	45.90	96.54	92.81	93.58	4257.66 Sq. Ft.	
8	79.10	92.81	88.90	90.86	7188.63 Sq. Ft.	
9	46.70	89.52	87.75	88.64	4139.25 Sq. Ft.	
Total	393.40				36596.65 Sq. Ft.	

Total Column F / Total Column B = Average Grade
Average Grade: 93.03'

Address: #396 Langley Road

Length Weighted Mean Existing Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
Length of Segment in Feet	Length of Segment in Feet	Height of Segment	Height of Segment	Height of Segment	Height of Segment	Segment Height
1	6.00	90.21	86.90	88.90	573.54 Sq. Ft.	
2	5.20	90.21	86.90	88.56	460.49 Sq. Ft.	
3	30.90	90.21	88.74	89.98	2771.23 Sq. Ft.	
4	79.20	89.43	86.40	87.92	6962.87 Sq. Ft.	
5	46.90	86.27	86.05	86.16	4040.90 Sq. Ft.	
6	34.70	88.05	86.44	87.25	3027.40 Sq. Ft.	
7	10.20	88.23	87.90	88.07	868.28 Sq. Ft.	
8	36.60	89.96	88.47	89.22	3265.27 Sq. Ft.	
Total	250.20				21999.96 Sq. Ft.	

Total Column F / Total Column B = Average Grade
Average Grade: 87.93'

Address: #400 Langley Road

Length Weighted Mean Existing Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
Length of Segment in Feet	Length of Segment in Feet	Height of Segment	Height of Segment	Height of Segment	Height of Segment	Segment Height
1	15.60	102.42	101.53	101.98	1590.81 Sq. Ft.	
2	6.00	104.83	104.55	104.69	628.14 Sq. Ft.	
3	38.10	104.66	103.75	104.21	3970.21 Sq. Ft.	
4	24.10	103.68	97.13	100.41	2419.78 Sq. Ft.	
5	39.90	96.82	96.18	96.55	3852.35 Sq. Ft.	
6	22.20	96.49	96.49	96.49	2142.98 Sq. Ft.	
7	11.90	100.70	101.69	101.20	1163.74 Sq. Ft.	
8	9.20	101.32	101.17	101.25	931.45 Sq. Ft.	
9	6.20	101.23	101.74	101.49	629.21 Sq. Ft.	
10	16.50	101.08	100.93	101.01	1666.58 Sq. Ft.	
11	10.20	102.40	101.28	101.83	1038.67 Sq. Ft.	
12	12.10	101.05	101.47	101.71	1230.69 Sq. Ft.	
Total	211.80				21263.69 Sq. Ft.	

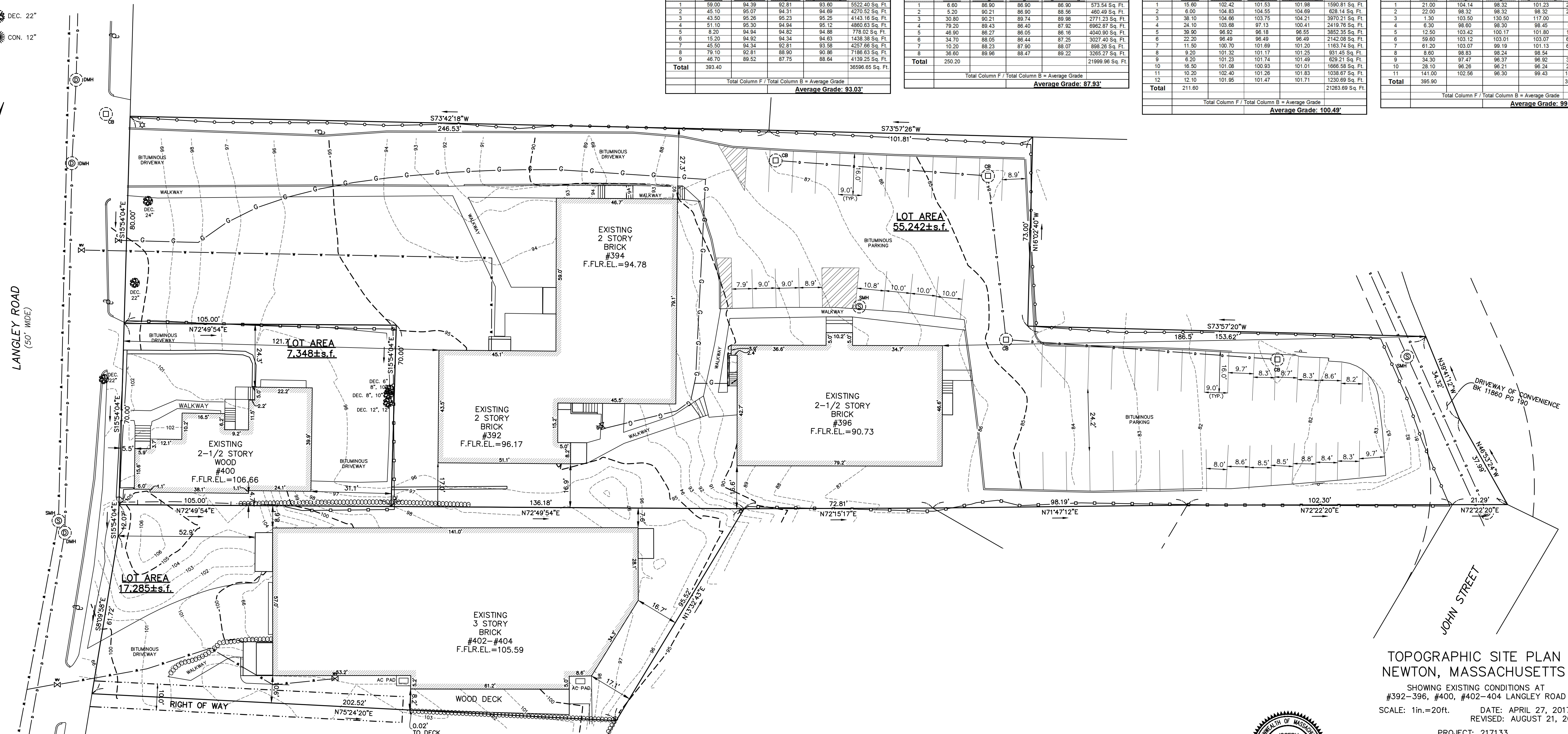
Total Column F / Total Column B = Average Grade
Average Grade: 100.49'

Address: #402-404 Langley Road

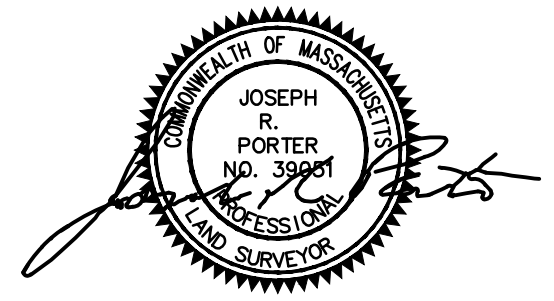
Length Weighted Mean Existing Conditions Average Grade Calculation

Segment	A	B	C	D	E	F
Length of Segment in Feet	Length of Segment in Feet	Height of Segment	Height of Segment	Height of Segment	Height of Segment	Segment Height
1	21.00	104.14	98.32	101.23	2125.83 Sq. Ft.	
2	22.00	98.32	98.32	98.32	2163.04 Sq. Ft.	
3	1.30	103.50	103.50	103.50	137.00 Sq. Ft.	
4	6.30	98.60	98.60	98.60	620.24 Sq. Ft.	
5	12.50	103.42	100.17	101.80	1274.44 Sq. Ft.	
6	59.60	103.12	103.01	103.07	6142.67 Sq. Ft.	
7	61.20	103.07	98.19	101.13	6189.18 Sq. Ft.	
8	8.60	98.83	98.24	98.54	847.40 Sq. Ft.	
9	34.30	97.47	96.37	96.92	3324.36 Sq. Ft.	
10	23.10	96.26	96.21	96.24	2204.20 Sq. Ft.	
11	141.00	102.56	96.30	99.43	14019.63 Sq. Ft.	
Total	395.90				39561.06 Sq. Ft.	

Total Column F / Total Column B = Average Grade
Average Grade: 99.93'

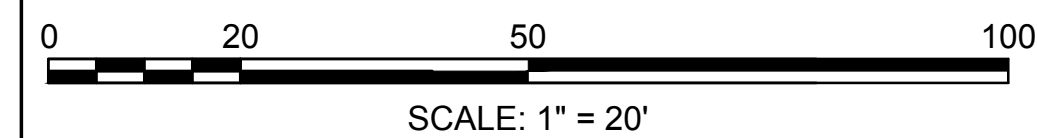


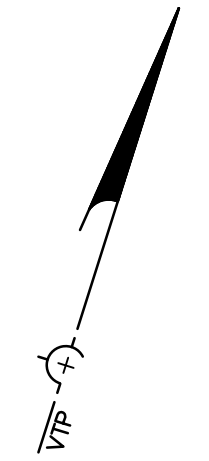
TOPOGRAPHIC SITE PLAN
NEWTON, MASSACHUSETTS
SHOWING EXISTING CONDITIONS AT
#392-396, #400, #402-404 LANGLEY ROAD
SCALE: 1in.=20ft. DATE: APRIL 27, 2017
REVISED: AUGUST 21, 2017



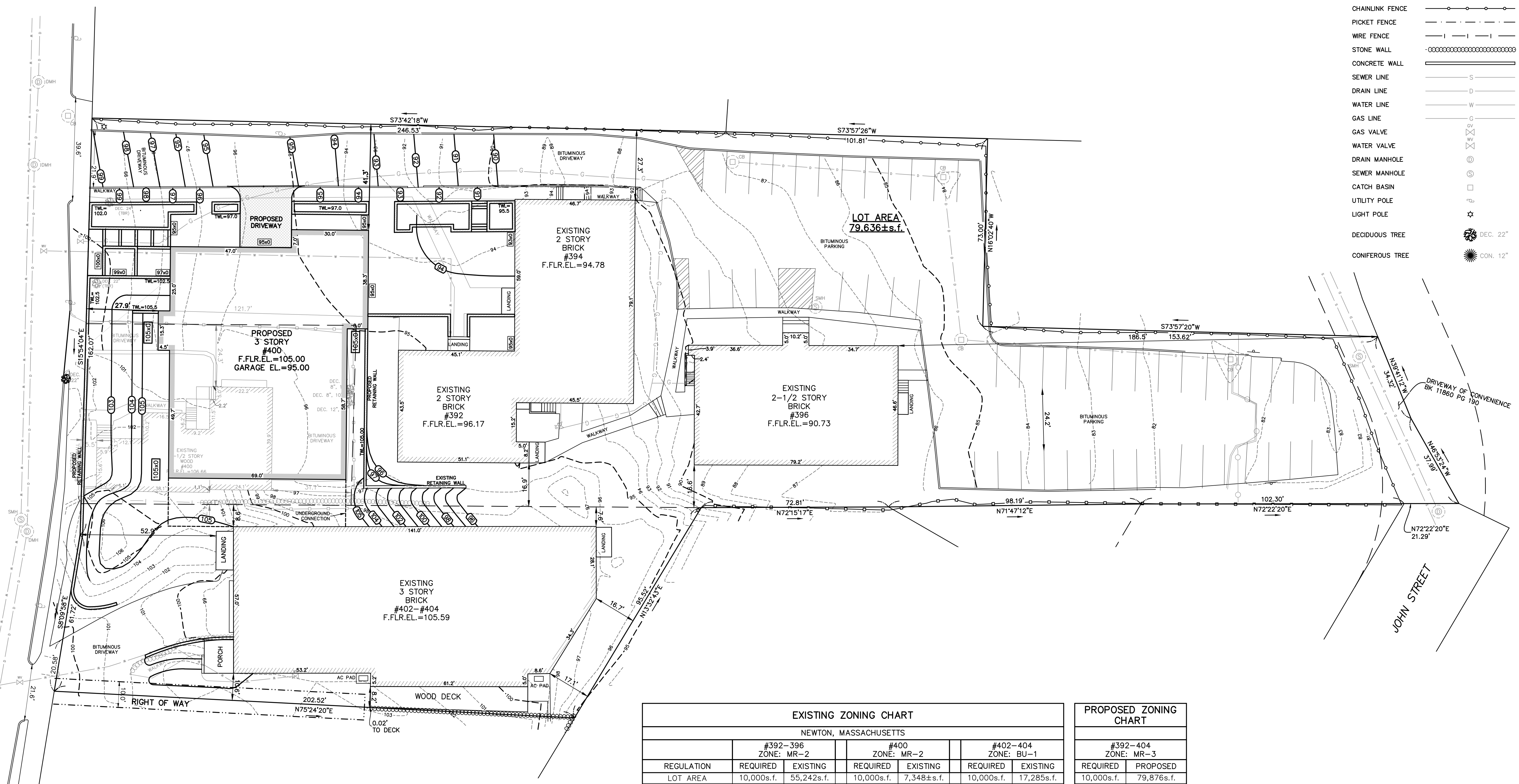
PROJECT: 217133
VTP
ASSOCIATES
INC.

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



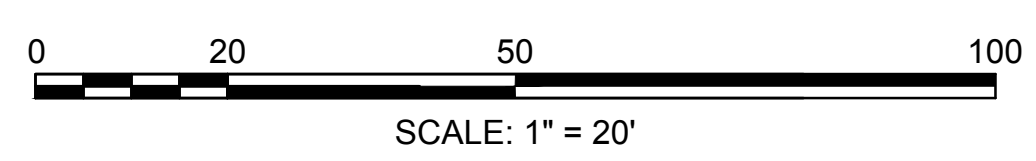


LANGLEY ROAD
(50' WIDE)



LEGEND

BUILDING	
PROPERTY LINE W/ BEARING DISTANCE	S81°56'34"E 116.23'
CONTOUR	- - - - - 70 - - - - -
STOCKADE FENCE	
CHAINLINK FENCE	
PICKET FENCE	
WIRE FENCE	
STONE WALL	
CONCRETE WALL	
SEWER LINE	
DRAIN LINE	
WATER LINE	
GAS LINE	
GAS VALVE	
WATER VALVE	
DRAIN MANHOLE	
SEWER MANHOLE	
CATCH BASIN	
UTILITY POLE	
LIGHT POLE	
DECIDUOUS TREE	DEC. 22"
CONIFEROUS TREE	CON. 12"



EXISTING ZONING CHART

NEWTON, MASSACHUSETTS

REGULATION	#392-396 ZONE: MR-2		#400 ZONE: MR-2		#402-404 ZONE: BU-1	
	REQUIRED	EXISTING	REQUIRED	EXISTING	REQUIRED	EXISTING
LOT AREA	10,000s.f.	55,242s.f.	10,000s.f.	7,348±s.f.	10,000s.f.	17,285s.f.
LOT AREA PER UNIT	3,000s.f.	-	3,000s.f.	-	3,000s.f.	-
FRONT SETBACK	80'	80.00'	80'	70.00' *	-	72.55'
FRONT SETBACK	25'	121.7'	25'	5.5' *	AVERAGE	52.9'
SIDE SETBACK	10'	15.8'	10'	4.7' *	(1)	0.02' *
REAR SETBACK	15'	186.5'	15'	31.1'	(2)	16.7'
BUILDING HEIGHT	36'	32.56' 87.93'	36'	36.18' *	36'	32.23'
AVERAGE GRADE	-	93.03 87.93	-	100.49	-	99.93
LOT COVERAGE	30%	17.3%	30%	28.0%	-	47.7%
OPEN SPACE	50%	45.6% *	50%	34.3% *	-	39.1%

* DOES NOT MEET REQUIREMENTS
** NEW PROPOSED BUILDING HEIGHT

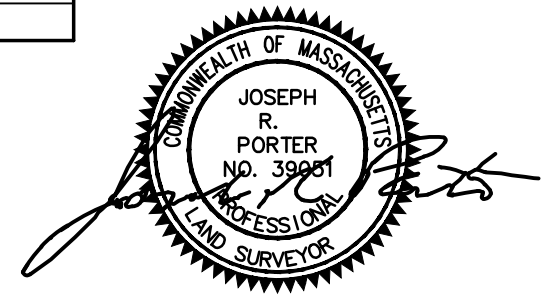
NOTES:
(1) 1/2 bldg ht or equal to abutting side yard setback; abutting residential district: greater of 1/2 bldg ht or 15'
(2) Abutting residential or Public Use district: Greater of 1/2 bldg ht or 15'

PROPOSED ZONING CHART

#392-404 ZONE: MR-3	
REQUIRED	PROPOSED
10,000s.f.	79,876s.f.
1,200s.f.	1,210s.f.
80'	222.55'
15'	27.9'
1/2 Bldg. Ht.	0.02' *
1/2 Bldg. Ht.	186.5'
36'	34.41' **
-	101.09
45%	30.6%
30%	40.2%

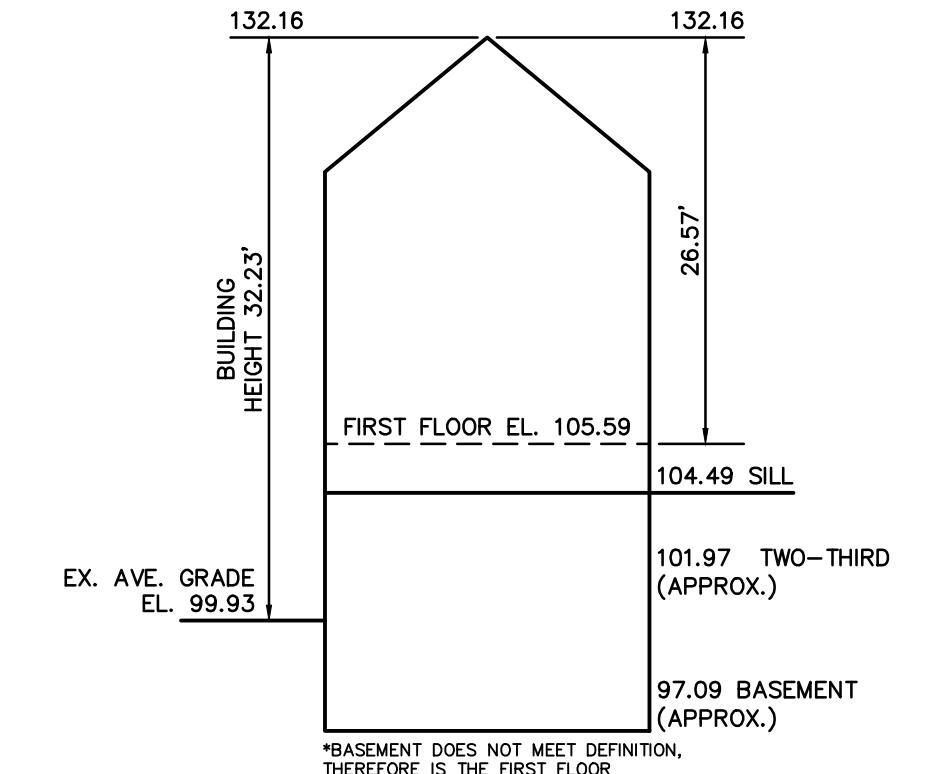
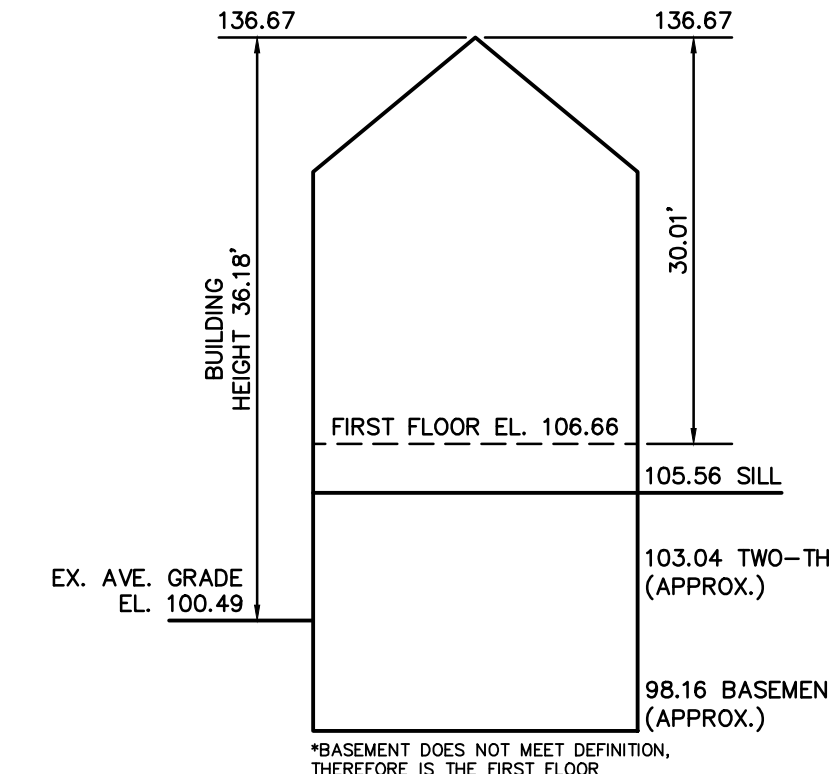
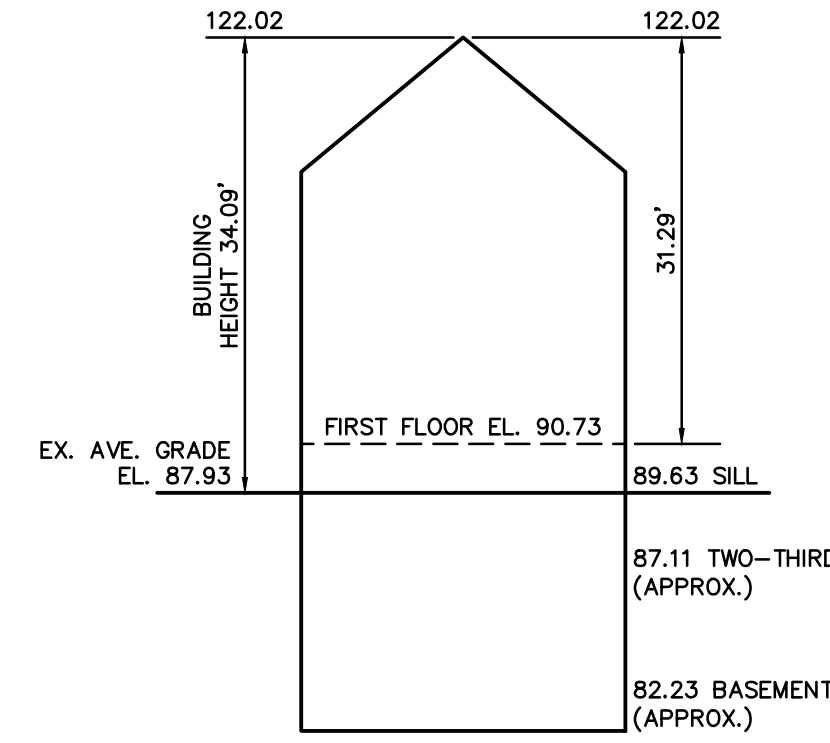
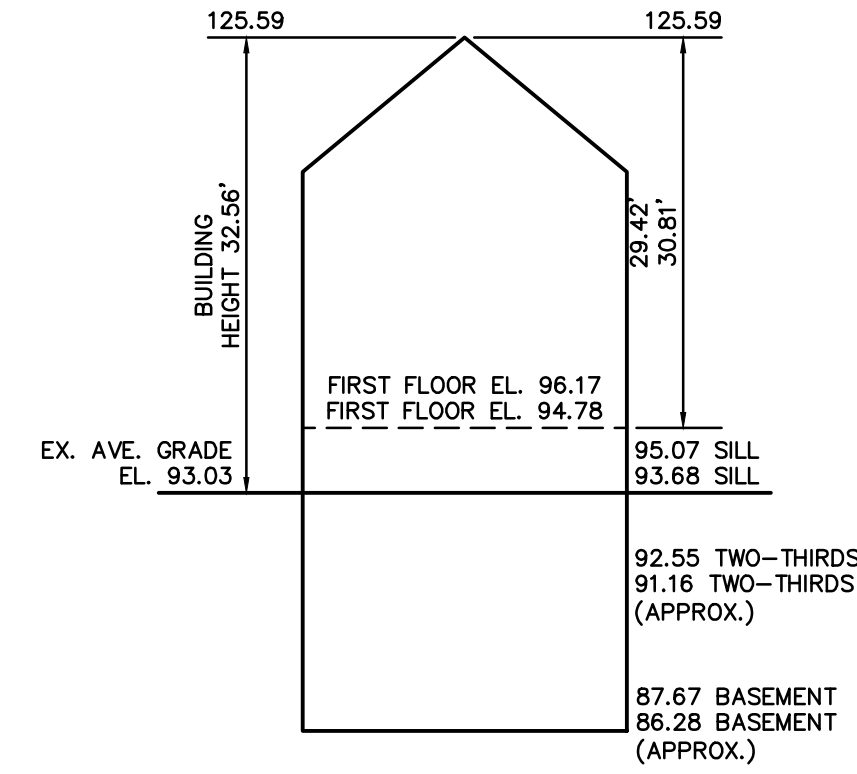
ZONING PLAN
NEWTON, MASSACHUSETTS

SHOWING PROPOSED CONDITIONS AT
#392-396, #400, #402-404 LANGLEY ROAD
SCALE: 1in.=20ft. DATE: JUNE 6, 2017
REVISED: JUNE 28, 2017; JULY 20, 2017;
AUGUST 21, 2017



PROJECT: 217133
VTP
ASSOCIATES
INC.

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



EXISTING BUILDING HEIGHTS
NOT TO SCALE

Address: #382-394 Langley Road

Length Weighted Mean Existing Conditions Average Grade Calculation					
A	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	59.00	94.39	92.81	93.60	5522.40 Sq. Ft.
2	45.10	95.07	94.31	94.69	4270.52 Sq. Ft.
3	43.50	95.28	95.23	95.25	4143.16 Sq. Ft.
4	51.10	95.30	94.94	95.12	4860.63 Sq. Ft.
5	8.20	94.94	94.92	94.98	778.02 Sq. Ft.
6	15.20	94.92	94.34	94.63	1438.38 Sq. Ft.
7	45.50	94.34	92.81	93.58	4257.66 Sq. Ft.
8	79.10	92.81	88.90	90.86	7186.63 Sq. Ft.
9	48.70	89.52	87.75	88.64	4139.25 Sq. Ft.
Total	393.40				38586.65 Sq. Ft.
Total Column F / Total Column B = Average Grade					Average Grade: 93.03'

Address: #396 Langley Road

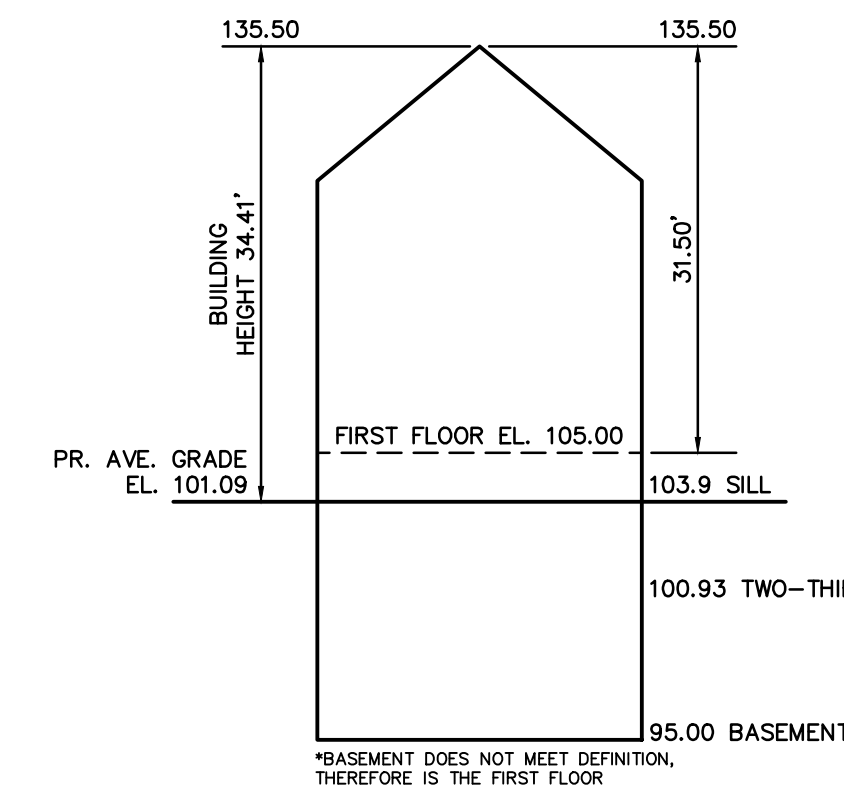
Length Weighted Mean Existing Conditions Average Grade Calculation					
A	B	C	D	E	F
Segment	Length of Segment in Feet	Height of High Point of Segment	Height of Low Point of Segment	E=(C+D)/2 Average Segment Height	F=BxE
1	6.60	86.90	86.90	86.90	573.54 Sq. Ft.
2	5.20	90.21	89.90	89.56	469.49 Sq. Ft.
3	30.80	90.21	89.74	89.98	2771.23 Sq. Ft.
4	79.20	89.43	86.40	87.92	6962.87 Sq. Ft.
5	48.90	86.27	86.05	86.16	4204.80 Sq. Ft.
6	34.70	88.05	89.44	87.25	3027.40 Sq. Ft.
7	10.20	88.23	87.90	88.07	898.26 Sq. Ft.
8	36.60	89.98	88.47	89.22	3265.27 Sq. Ft.
Total	250.20				21999.96 Sq. Ft.
Total Column F / Total Column B = Average Grade					Average Grade: 87.93'

Address: #400 Langley Road

Length Weighted Mean Existing Conditions Average Grade Calculation					
A	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	15.60	102.42	101.53	101.98	1590.81 Sq. Ft.
2	6.00	104.83	104.65	104.69	628.14 Sq. Ft.
3	38.10	104.66	103.75	104.21	3970.21 Sq. Ft.
4	24.10	103.68	97.13	100.41	2419.76 Sq. Ft.
5	39.90	96.92	96.18	96.55	3852.35 Sq. Ft.
6	22.20	96.49	96.49	96.49	2142.08 Sq. Ft.
7	11.50	100.70	101.69	101.20	1163.74 Sq. Ft.
8	9.20	101.32	101.17	101.25	801.45 Sq. Ft.
9	6.20	101.23	101.74	101.49	629.21 Sq. Ft.
10	16.50	101.08	100.83	101.01	1666.58 Sq. Ft.
11	10.20	102.40	101.28	101.83	1038.87 Sq. Ft.
12	12.10	101.96	101.47	101.71	1230.69 Sq. Ft.
Total	211.60				21283.89 Sq. Ft.
Total Column F / Total Column B = Average Grade					Average Grade: 100.48'

Address: #402-404 Langley Road

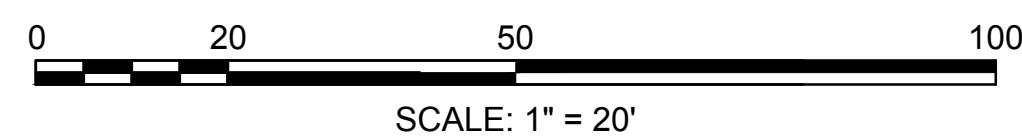
Length Weighted Mean Existing Conditions Average Grade Calculation					
A	B	C	D	E	F
Segment	Length of Segment in Feet	Height of High Point of Segment	Height of Low Point of Segment	E=(C+D)/2 Average Segment Height	F=BxE
1	21.00	104.14	98.32	101.23	2125.83 Sq. Ft.
2	22.00	98.32	98.32	98.32	2163.04 Sq. Ft.
3	1.30	103.50	103.50	103.50	134.55 Sq. Ft.
4	6.30	98.60	98.30	98.45	620.24 Sq. Ft.
5	12.50	103.42	100.17	101.80	1272.44 Sq. Ft.
6	59.60	103.12	103.01	103.07	6142.67 Sq. Ft.
7	61.20	103.07	99.19	101.13	6189.18 Sq. Ft.
8	8.60	98.83	98.24	98.54	847.40 Sq. Ft.
9	34.50	97.47	96.37	96.92	3324.36 Sq. Ft.
10	28.10	96.26	96.21	96.24	2704.20 Sq. Ft.
11	141.00	102.56	96.30	99.43	14019.63 Sq. Ft.
Total	395.90				39561.06 Sq. Ft.
Total Column F / Total Column B = Average Grade					Average Grade: 99.93'



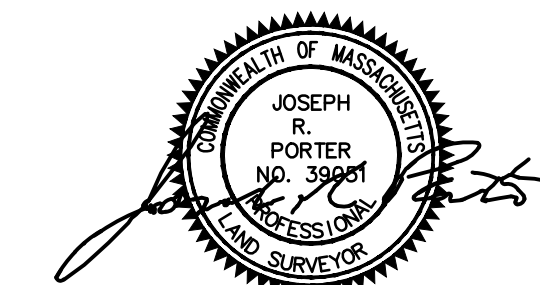
Address: #400 Langley Road

Length Weighted Mean Proposed Conditions Average Grade Calculation					
A	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	69.00	105.00	104.70	104.85	7234.65 Sq. Ft.
2	58.70	105.00	105.00	105.00	6163.50 Sq. Ft.
3	8.00	105.00	105.00	105.00	840.00 Sq. Ft.
4	38.30	94.91	94.80	94.86	3612.65 Sq. Ft.
5	30.00	95.00	95.00	95.00	2850.00 Sq. Ft.
6	7.00	95.00	95.00	95.00	665.00 Sq. Ft.
7	47.00	95.00	95.00	95.00	4465.00 Sq. Ft.
8	11.50	97.00	97.00	97.00	1115.50 Sq. Ft.
9	7.50	102.50	103.00	102.75	770.63 Sq. Ft.
10	6.00	103.00	103.00	103.00	618.00 Sq. Ft.
11	1.00	105.00	105.00	105.00	105.00 Sq. Ft.
12	14.33	105.00	105.00	105.00	1504.65 Sq. Ft.
13	48.67	105.00	105.00	105.00	5215.35 Sq. Ft.
Total	348.00				35180.72 Sq. Ft.
Total Column F / Total Column B = Average Grade					Average Grade: 101.09'

PROPOSED BUILDING HEIGHT
NOT TO SCALE



ZONING PLAN
NEWTON, MASSACHUSETTS
SHOWING PROPOSED CONDITIONS AT
#392-396, #400, #402-404 LANGLEY ROAD
SCALE: 1in.=20ft. DATE: JUNE 6, 2017
REVISED: JUNE 28, 2017;
AUGUST 21, 2017



PROJECT: 217133
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