



Spruhan Engineering, P.C.

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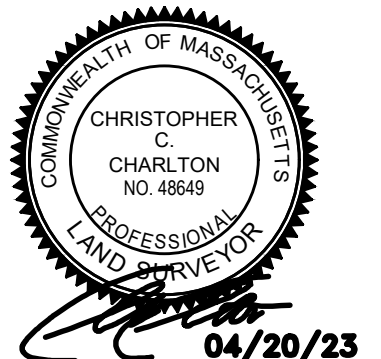
130 NONANTUM RD
NEWTON
MASSACHUSETTS

SURVEY PLAN

REVISION BLOCK

DESCRIPTION	DATE

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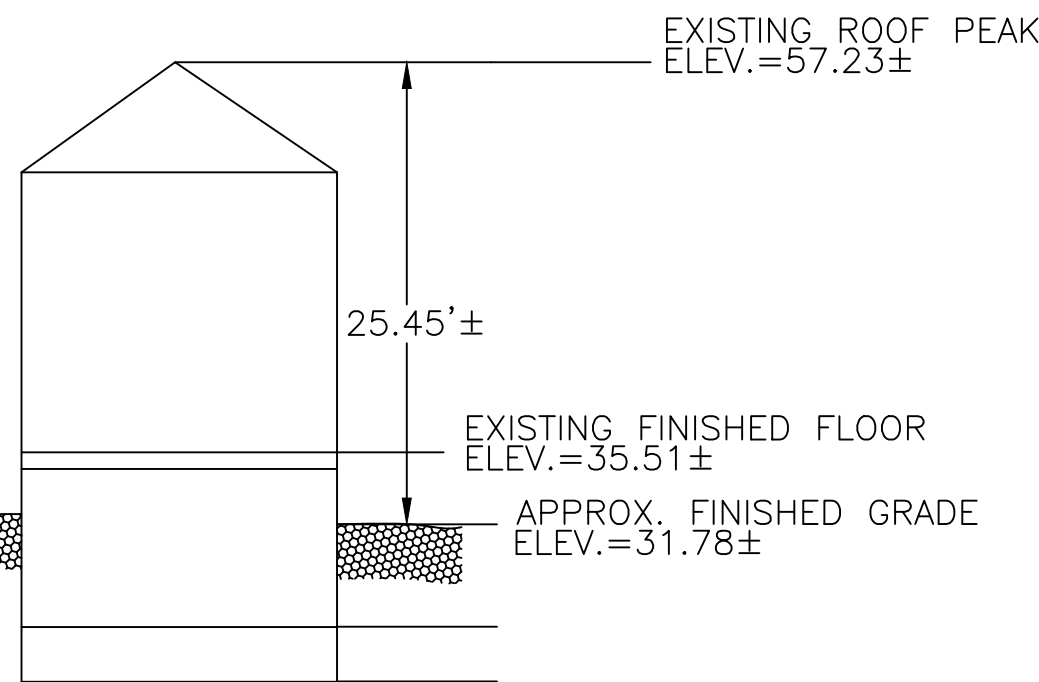


DATE: 04/20/2023
DRAWN BY: M.G.
CHECKED BY: C.C.
APPROVED BY: F.S.

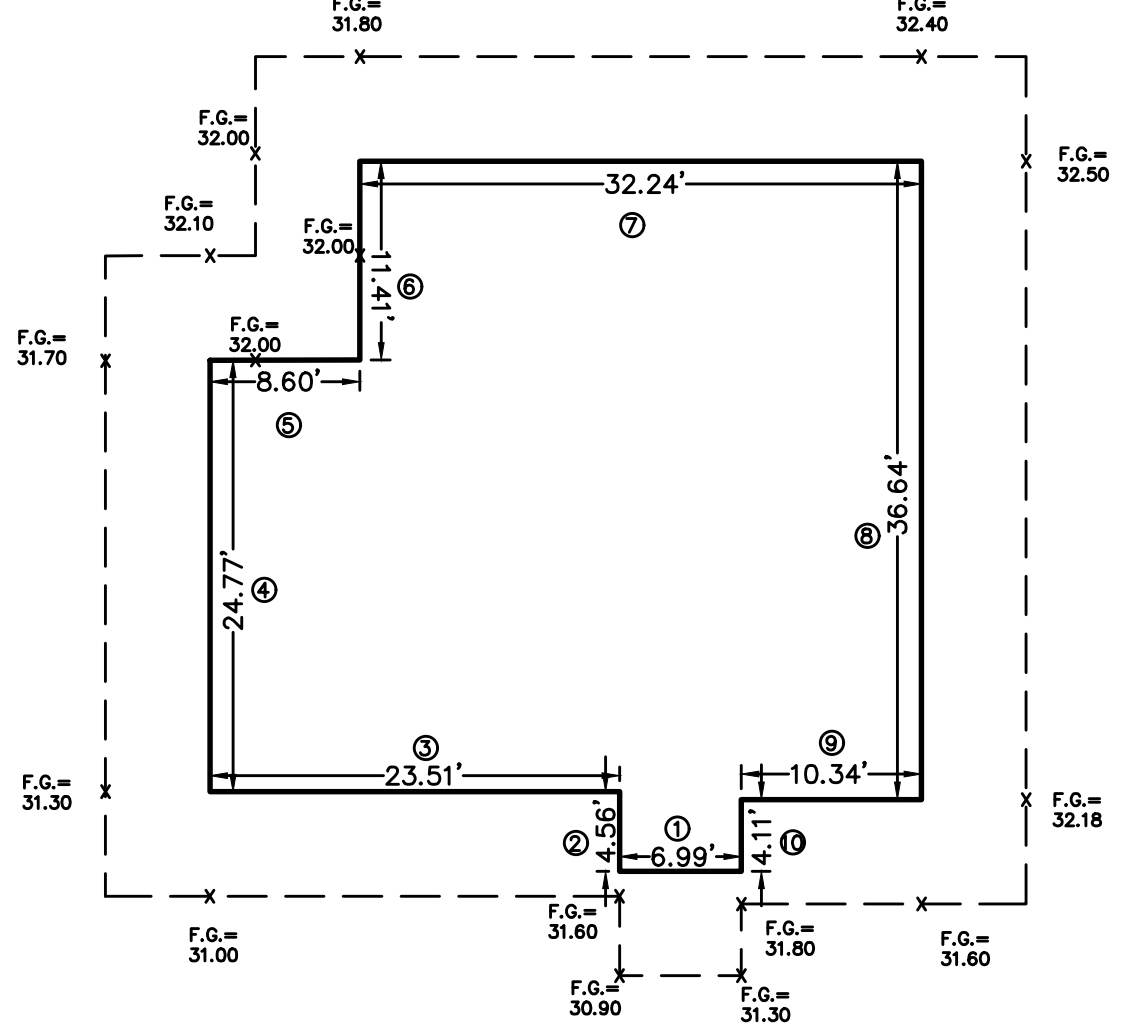
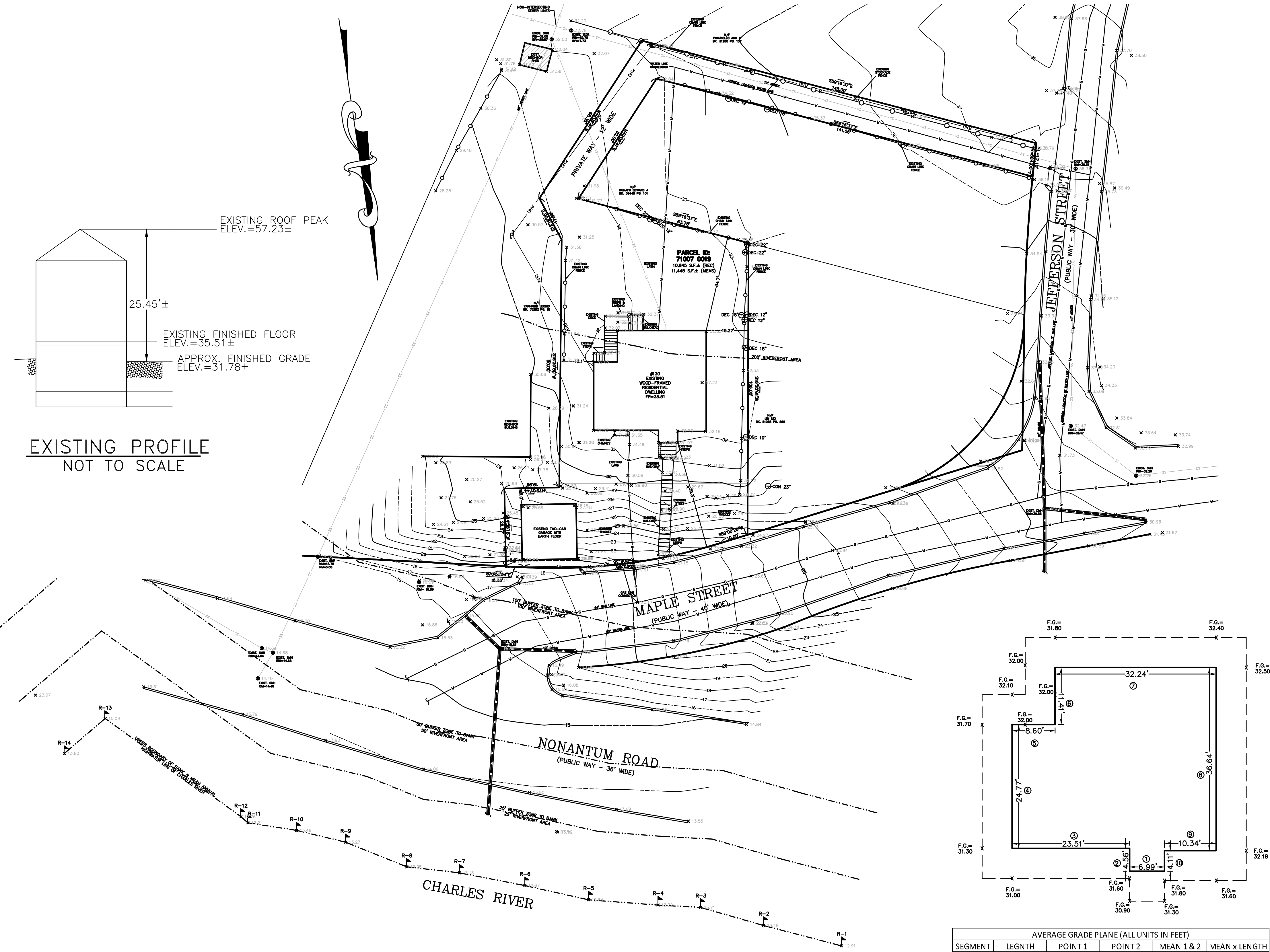
EXISTING CONDITIONS

SHEET 1 OF 1

- NOTES:
1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY SPRUHAN ENGINEERING, P.C. AS OF 07/27/2022.
 2. DEED REFERENCE: BOOK 28031, PAGE 81
PLAN REFERENCE 1: PLAN BOOK 10368, PLAN 236
MIDDLESEX COUNTY SOUTH DISTRICT REGISTRY OF DEEDS
 3. THIS PLAN IS NOT INTENDED TO BE RECORDED.
 4. I CERTIFY THAT THE DWELLING SHOWN IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN OTHER AREAS, ZONE X, ON FLOOD HAZARD BOUNDARY MAP NUMBER 25017C0556E, IN COMMUNITY NUMBER: 250208, DATED 06/04/2010.
 5. TOGETHER WITH A RIGHT TO USE IN COMMON WITH OTHERS ENTITLED THERETO A PRIVATE WAY OF TWELVE AND 13/100 (12.13) FEET WIDE, EXTENDING NORTHEASTERLY FROM THE END OF THE FIRST CITED PRIVATE WAY.
 6. FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.
 7. NO RESPONSIBILITY IS TAKEN FOR ZONING TABLE AS SPRUHAN ENGINEERING, P.C. ARE NOT ZONING EXPERTS. TABLE IS TAKEN FROM TABLE PROVIDED BY LOCAL ZONING ORDINANCE. CLIENT AND/OR ARCHITECT TO VERIFY THE ACCURACY OF ZONING ANALYSIS.
 8. THE ELEVATIONS SHOWN ARE ON A CITY OF NEWTON DATUM.
 9. ZONING DISTRICT: MR2. NEW LOT.

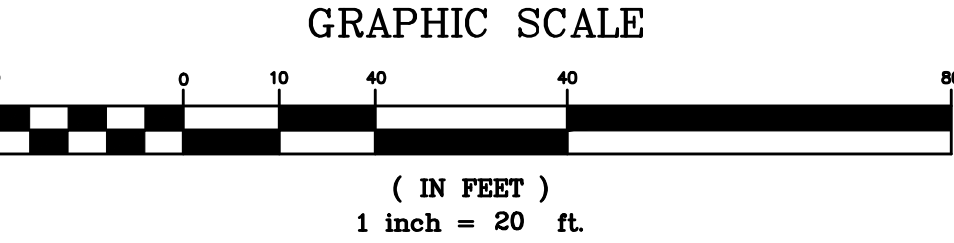


EXISTING PROFILE NOT TO SCALE



AVERAGE GRADE PLANE (ALL UNITS IN FEET)					
SEGMENT	LEGTH	POINT 1	POINT 2	MEAN 1 & 2	MEAN x LENGTH
1	6.99	31.30	30.90	31.10	217.39
2	4.56	30.90	31.60	31.25	142.50
3	23.51	31.60	31.00	31.30	735.86
4	54.77	31.30	31.70	31.50	1,725.26
5	8.60	32.10	32.00	32.05	275.63
6	11.41	32.00	32.00	32.00	365.12
7	32.24	31.80	32.40	32.10	1,034.90
8	36.64	32.50	32.18	32.34	1,184.94
9	10.34	31.60	31.80	31.70	327.78
10	4.11	31.80	31.30	31.55	129.67
SUM =	193.17				6,139.05
SUM OF MEAN x LENGTH/ SUM OF LENGTHS = AVERAGE GRADE PLANE =					31.78

LEGEND	
[Symbol]	BOUND
[Symbol]	IRON PIN/PIPE
[Symbol]	STONE POST
[Symbol]	TREE
[Symbol]	TREE STUMP
[Symbol]	SHRUBS/FLOWERS
[Symbol]	SIGN
[Symbol]	BOLLARD
[Symbol]	SEWER MANHOLE
[Symbol]	DRAIN MANHOLE
[Symbol]	CATCH BASIN
[Symbol]	WATER MANHOLE
[Symbol]	WATER VALVE
[Symbol]	HYDRANT
[Symbol]	GAS VALVE
[Symbol]	ELECTRIC MANHOLE
[Symbol]	ELECTRIC HANDHOLE
[Symbol]	UTILITY POLE
[Symbol]	LIGHT POLE
[Symbol]	MANHOLE
[Symbol]	SPOT GRADE
[Symbol]	TOP OF WALL
[Symbol]	BOTTOM OF WALL
[Symbol]	EXISTING BUILDING
[Symbol]	RETAINING WALL
[Symbol]	STONE WALL
[Symbol]	FENCE
[Symbol]	TREE LINE
[Symbol]	SEWER LINE
[Symbol]	DRAIN LINE
[Symbol]	WATER LINE
[Symbol]	GAS LINE
[Symbol]	UNDERGROUND ELECTRIC LINE
[Symbol]	OVERHEAD WIRES
[Symbol]	CONTOUR LINE (MJR)
[Symbol]	CONTOUR LINE (MNR)

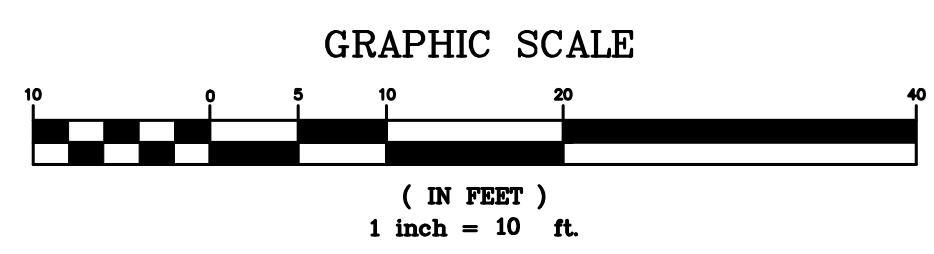
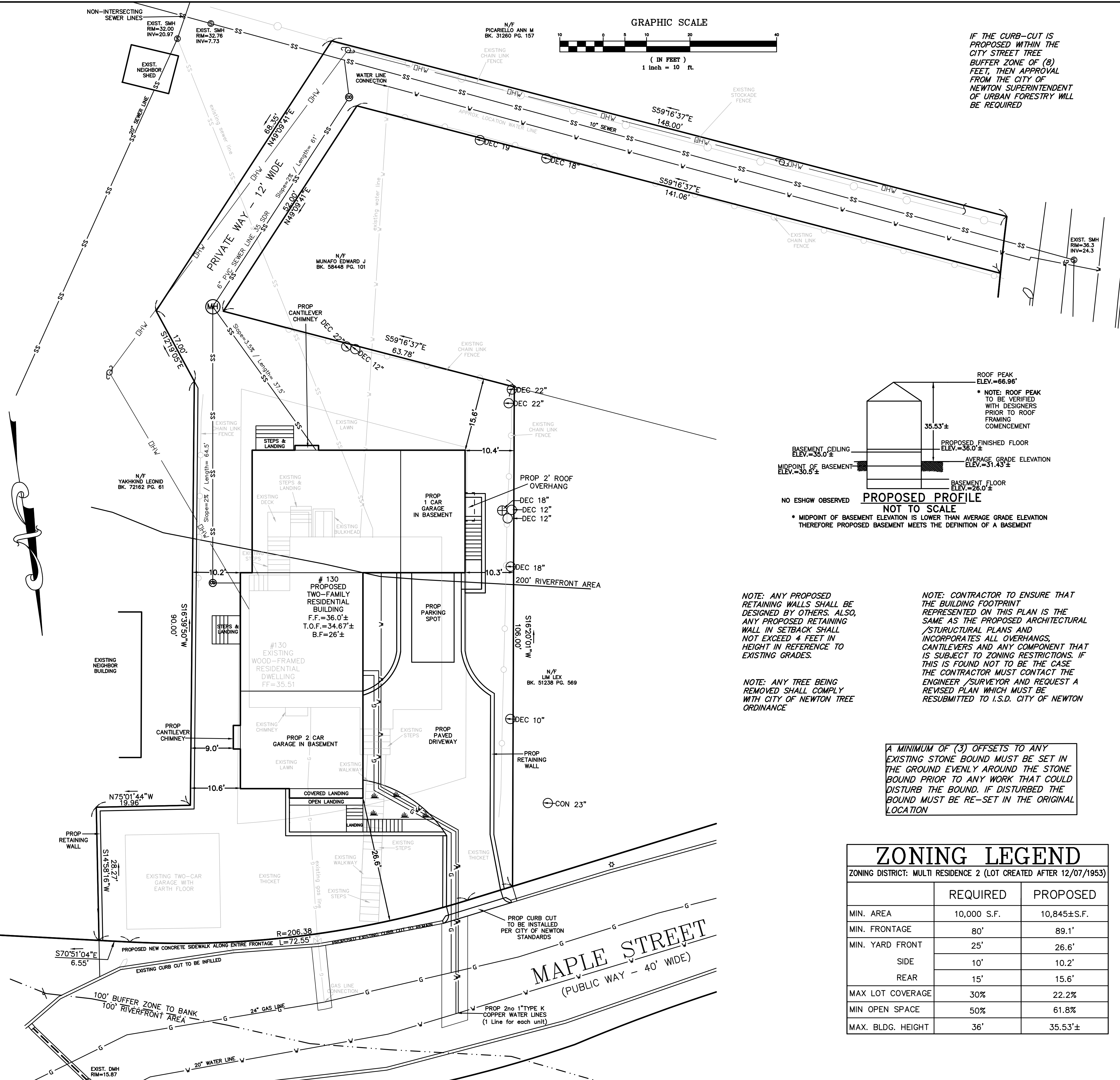


NOTES:

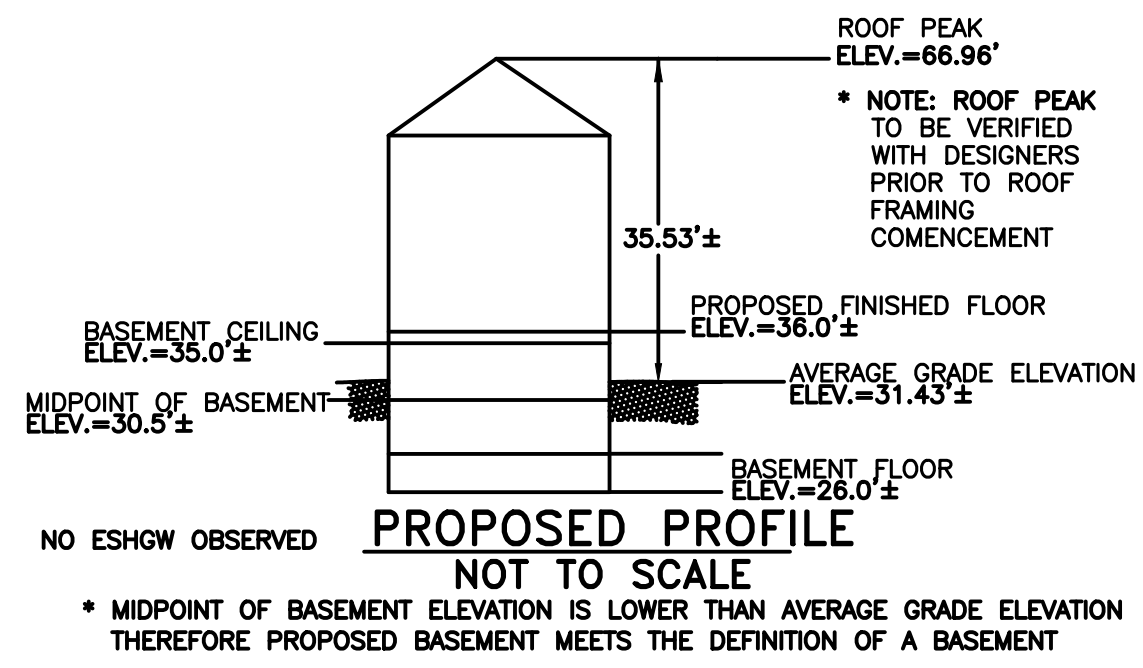
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6. FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.
7. NO RESPONSIBILITY IS TAKEN FOR ZONING TABLE AS SPRUHAN ENGINEERING, P.C. ARE NOT ZONING EXPERTS. TABLE IS TAKEN FROM TABLE PROVIDED BY LOCAL ZONING ORDINANCE. CLIENT AND/OR ARCHITECT TO VERIFY THE ACCURACY OF ZONING ANALYSIS.
8. THE ELEVATIONS SHOWN ARE ON A CITY OF NEWTON DATUM.
9. ZONING DISTRICT: MR2. NEW LOT.

LEGEND

- BOUND
TREE
SHRUBS/FLOWERS
BOLLARD
SEWER MANHOLE
DRAIN MANHOLE
CATCH BASIN
WATER MANHOLE
WATER VALVE
GAS VALVE
UTILITY POLE
MANHOLE
SPOT GRADE
FENCE
TREE LINE
SEWER LINE
DRAIN LINE
WATER LINE
GAS LINE
UNDERGROUND ELECTRIC LINE
CONTOUR LINE (MJR)
CONTOUR LINE (MNR)
PROP CONTOUR LINE
PROPOSED DOWNSPOUT
TEST PIT #X
INSPECTION CLEAOUTS
FIRST FLOOR ELEV.
TOP OF FOUNDATION ELEV.
GARAGE FLOOR ELEV.
BASEMENT FLOOR ELEV.
OVERHANG



IF THE CURB-CUT IS PROPOSED WITHIN THE CITY STREET TREE BUFFER ZONE OF (8) FEET, THEN APPROVAL FROM THE CITY OF NEWTON SUPERINTENDENT OF URBAN FORESTRY WILL BE REQUIRED



NOTE: ANY PROPOSED RETAINING WALLS SHALL BE DESIGNED BY OTHERS. ALSO, ANY PROPOSED RETAINING WALL IN SETBACK SHALL NOT EXCEED 4 FEET IN HEIGHT IN REFERENCE TO EXISTING GRADES.

NOTE: CONTRACTOR TO ENSURE THAT THE BUILDING FOOTPRINT REPRESENTED ON THIS PLAN IS THE SAME AS THE PROPOSED ARCHITECTURAL /STRUCTURAL PLANS AND INCORPORATES ALL OVERHANGS, CANTILEVERS AND ANY COMPONENT THAT IS SUBJECT TO ZONING RESTRICTIONS. IF THIS IS FOUND NOT TO BE THE CASE THE CONTRACTOR MUST CONTACT THE ENGINEER /SURVEYOR AND REQUEST A REVISED PLAN WHICH MUST BE RESUBMITTED TO I.S.D. CITY OF NEWTON

NOTE: ANY TREE BEING REMOVED SHALL COMPLY WITH CITY OF NEWTON TREE ORDINANCE

A MINIMUM OF (3) OFFSETS TO ANY EXISTING STONE BOUND MUST BE SET IN THE GROUND EVENLY AROUND THE STONE BOUND PRIOR TO ANY WORK THAT COULD DISTURB THE BOUND. IF DISTURBED THE BOUND MUST BE RE-SET IN THE ORIGINAL LOCATION

ZONING LEGEND table with columns: ZONING DISTRICT (MULTI RESIDENCE 2), REQUIRED, and PROPOSED. Rows include MIN. AREA, MIN. FRONTAGE, MIN. YARD FRONT, SIDE, REAR, MAX LOT COVERAGE, MIN OPEN SPACE, and MAX. BLDG. HEIGHT.



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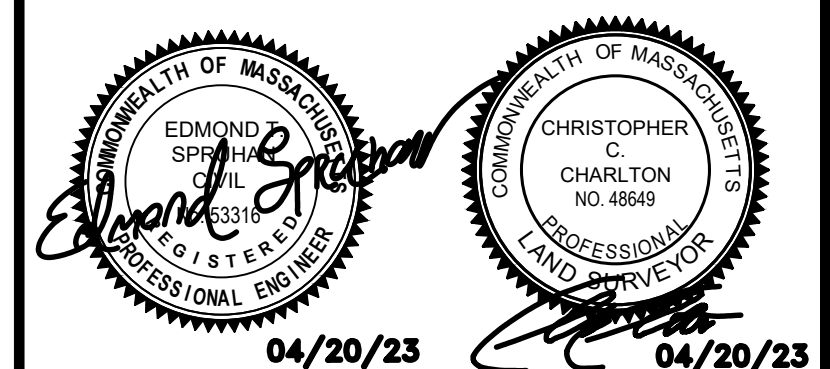
130 NONANTUM RD, NEWTON MASSACHUSETTS

CIVIL PLAN

REVISION BLOCK

REVISION BLOCK table with columns: DESCRIPTION and DATE. Multiple empty rows for revisions.

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Metadata table with fields: DATE (04/20/2023), DRAWN BY (SEAN SPRUHAN), CHECKED BY (EDMOND SPRUHAN), APPROVED BY (EDMOND SPRUHAN).

ZONING & MATERIALS PLAN

NOTES:

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NOTE: SPRUHAN ENGINEERING, P.C., ACCEPTS NO LIABILITY FOR GROUND WATER OR OTHER SURFACE WATER IN BASEMENT

NOTE: ANY TREE BEING REMOVED SHALL COMPLY WITH CITY OF NEWTON TREE ORDINANCE

NOTE: CONTRACTOR TO CONFIRM LOCATION OF DOWN SPOUTS PRIOR TO CARRYING OUT ANY DRAINAGE WORKS

ZONING LEGEND		
ZONING DISTRICT: MULTI RESIDENCE 2 (LOT CREATED AFTER 12/07/1953)		
	REQUIRED	PROPOSED
MIN. AREA	10,000 S.F.	10,845±S.F.
MIN. FRONTAGE	80'	89.1'
MIN. YARD FRONT	25'	26.6'
SIDE	10'	10.2'
REAR	15'	15.6'
MAX LOT COVERAGE	30%	22.2%
MIN OPEN SPACE	50%	61.8%
MAX. BLDG. HEIGHT	36'	35.53'±

- LEGEND**
- BOUND
 - TREE
 - SHRUBS/FLOWERS
 - BOLLARD
 - SEWER MANHOLE
 - DRAIN MANHOLE
 - CATCH BASIN
 - WATER MANHOLE
 - WATER VALVE
 - GAS VALVE
 - UTILITY POLE
 - MANHOLE
 - SPOT GRADE
 - FENCE
 - TREE LINE
 - SEWER LINE
 - DRAIN LINE
 - WATER LINE
 - GAS LINE
 - UNDERGROUND ELECTRIC LINE
 - CONTOUR LINE (MJR)
 - CONTOUR LINE (MNR)
 - PROP CONTOUR LINE
 - PROPOSED DOWNSPOUT
 - TEST PIT #X
 - INSPECTION CLEAOUTS
 - FF FIRST FLOOR ELEV.
 - TF TOP OF FOUNDATION ELEV.
 - GF GARAGE FLOOR ELEV.
 - BF BASEMENT FLOOR ELEV.
 - OH OVERHANG

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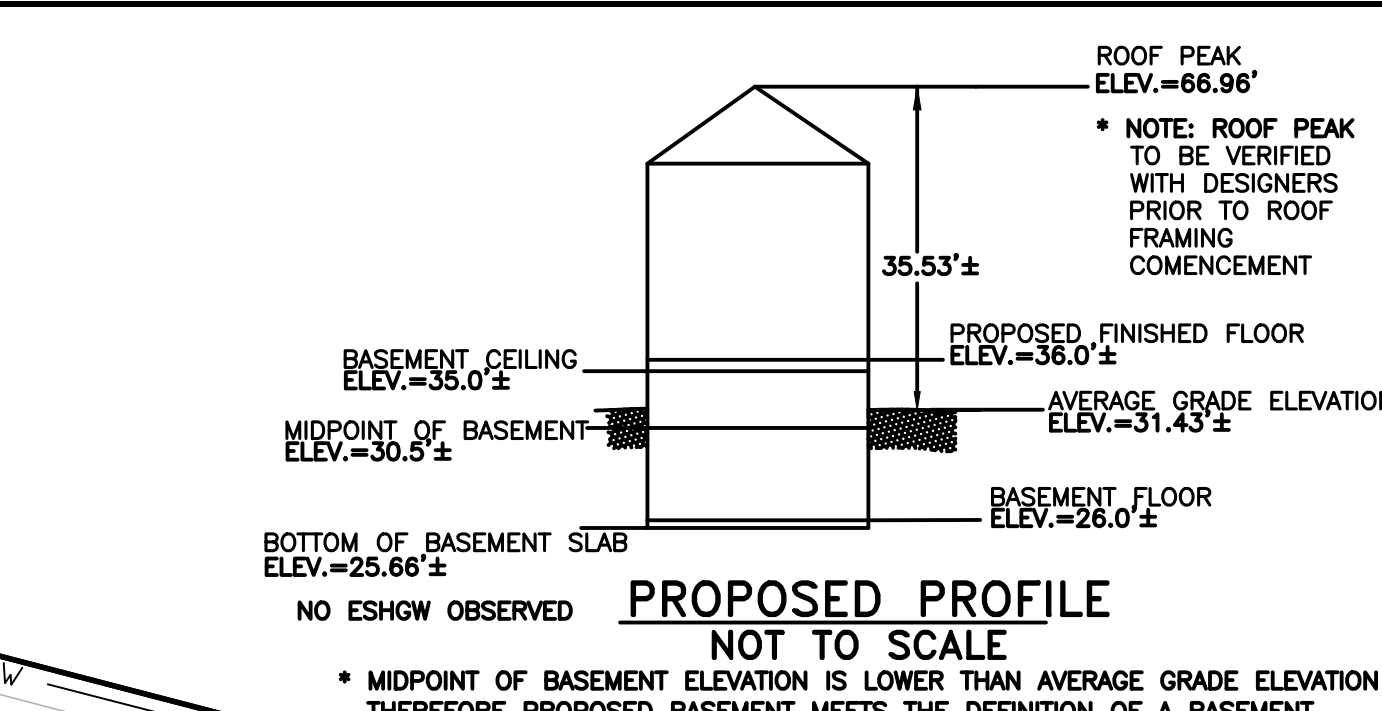
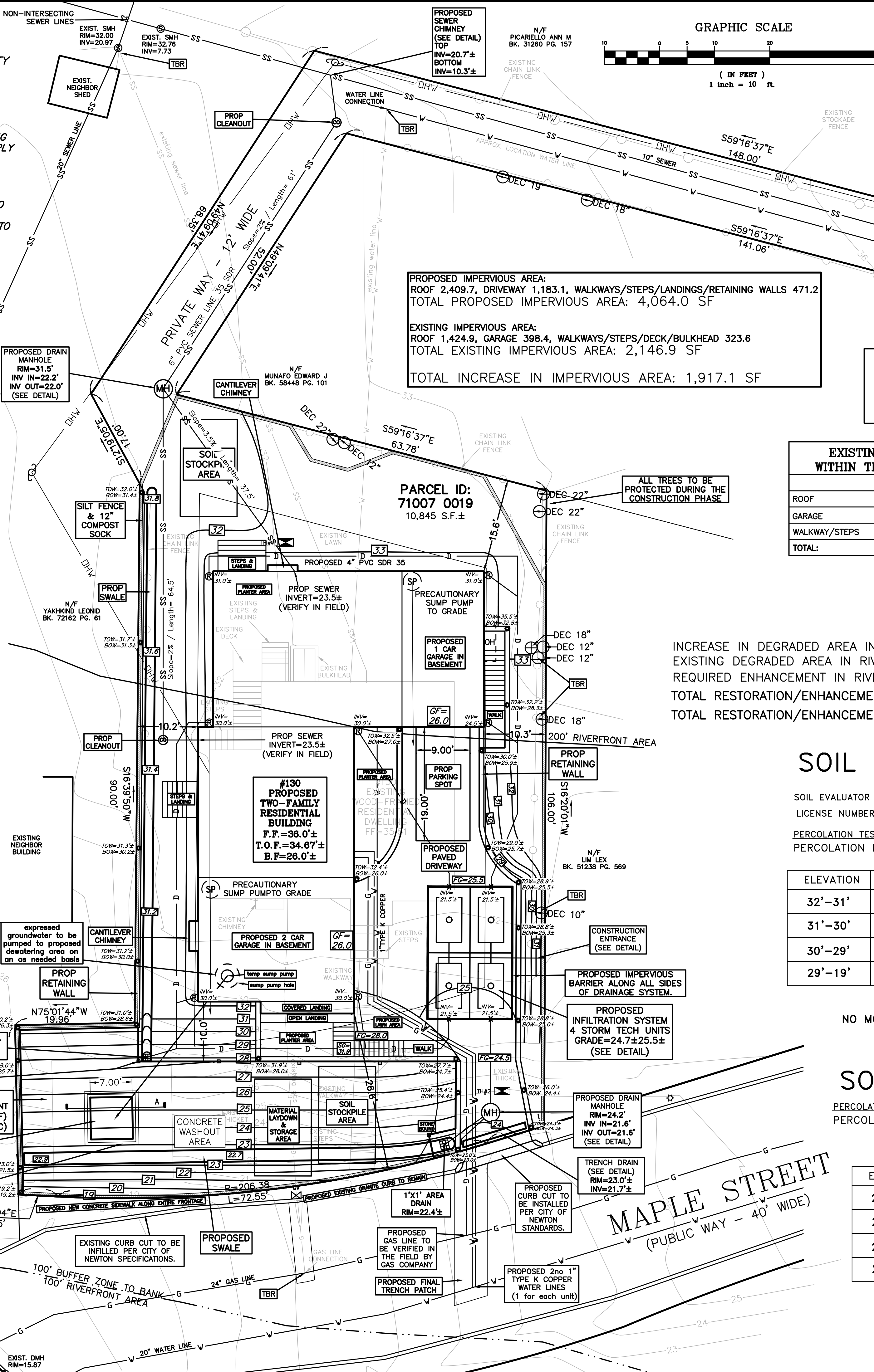
NOTE: CONTRACTOR TO REGULARLY INSPECT AND MAINTAIN THE EROSION AND SEDIMENT CONTROLS MEASURES.

PROPOSED RESTORATION/ENHANCEMENT PLANTING AREA (1,600 SF) (SEE PLANTING SCHEMATIC)

TEMPORARY DEWATERING AREA (SEE SECTION)

SILT FENCE & STRAW BALES AROUND DE-WATERING AREA (SEE SECTION)

EXISTING CURB CUT TO BE INFILLED PER CITY OF NEWTON SPECIFICATIONS.



PROPOSED IMPERVIOUS AREA:	
ROOF	2,409.7
DRIVEWAY	1,183.1
WALKWAYS/STEPS/LANDINGS/RETAINING WALLS	471.2
TOTAL PROPOSED IMPERVIOUS AREA:	4,064.0 SF
EXISTING IMPERVIOUS AREA:	
ROOF	1,424.9
GARAGE	398.4
WALKWAYS/STEPS/DECK/BULKHEAD	323.6
TOTAL EXISTING IMPERVIOUS AREA:	2,146.9 SF
TOTAL INCREASE IN IMPERVIOUS AREA:	1,917.1 SF

PHOSPHORUS LOAD TABLE

EXISTING LOAD	= 0.11 lbs./year
PROPOSED LOAD	= 0.21 lbs./year
BMP LOAD (Reduction)	= 0.19 lbs./year

EXISTING DEGRADED AREA WITHIN THE RIVERFRONT AREA

	EXISTING
ROOF	1,188.3 S.F
GARAGE	398.4 S.F
WALKWAYS/STEPS	223.9 S.F
TOTAL:	1,810.6 S.F

PROPOSED DEGRADED AREA WITHIN THE RIVERFRONT AREA

	PROPOSED
ROOF	1,288.9 S.F
DRIVEWAY	1,169.3 S.F
WALKWAYS/STEPS/LANDINGS	124.0 S.F
RETAINING WALLS	190.1 S.F
TOTAL:	2,772.3 S.F

INCREASE IN DEGRADED AREA IN RIVERFRONT AREA: 2,772.3 - 1,810.6 = 961.7 SF
 EXISTING DEGRADED AREA IN RIVERFRONT AREA TO BE RESTORED (GARAGE & FRONT WALKWAY): 471.3 SF
 REQUIRED ENHANCEMENT IN RIVERFRONT AREA = 961.7 - 471.3 = 490.4 SF x 2 = 980.8 SF
 TOTAL RESTORATION/ENHANCEMENT PLANTING AREA REQUIRED = 980.8 + 471.3 = 1,452.1 SF
 TOTAL RESTORATION/ENHANCEMENT PLANTING AREA PROVIDED = 1,600 SF

SOIL LOG - 1

SOIL EVALUATOR: MATTHEW MUI
 LICENSE NUMBER: SE14259
 PERCOLATION TEST HOLE PT - 1
 PERCOLATION RATE 8.27 MIN/INCH (RAWLS RATE) GRASS AND TREES.

DEEP OBSERVATION HOLE LOG
 (REAR LEFT HAND SIDE)
 GENERAL SOIL CONDITIONS FOR THE AREA PERFORMED AT 130 NONANTUM ROAD, NEWTON BY SPRUHAN ENGINEERING, P.C.
 HOLE NUMBER: TP - 1
 GENERAL SITE CONDITIONS:
 DATED: 07/16/22

ELEVATION	DEPTH	HORIZON	TEXTURE	COLOR	MOTTLING	OTHER
32'-31'	0" - 12"	FILL	SANDY LOAM	5 YR 5/4	NO	
31'-30'	12" - 24"	FILL	SANDY LOAM	7.5 YR 5/2	NO	
30'-29'	24" - 36"	FILL	STRATIFIED GRAVEL	10 YR 5/2	NO	LOAMY SAND
29'-19'	36" - 156"	FILL	STRATIFIED GRAVEL	10 YR 6/1	NO	GRAVELLY SAND

GROUND ELEVATION @ 32'
 NO MOTTLING, WEEPING OR STANDING WATER WAS OBSERVED
 BOTTOM OF TEST HOLE @ ELEVATION 19.0'±

SOIL LOG - 2

PERCOLATION TEST HOLE PT - 2
 PERCOLATION RATE 8.27 MIN/INCH (RAWLS RATE)

HOLE NUMBER: TP - 2 DATED: 03/20/23
 (FRONT RIGHT HAND SIDE)

ELEVATION	DEPTH	HORIZON	TEXTURE	COLOR	MOTTLING	OTHER
26'-25'	0" - 12"	FILL	SANDY LOAM	5 YR 5/4	NO	
25'-24'	12" - 24"	FILL	SANDY LOAM	7.5 YR 5/2	NO	
24'-23'	24" - 36"	FILL	STRATIFIED GRAVEL	10 YR 5/2	NO	LOAMY SAND
23'-15.5'	36" - 126"	FILL	STRATIFIED GRAVEL	10 YR 6/1	NO	GRAVELLY SAND

GROUND ELEVATION @ 26'
 NO MOTTLING, WEEPING OR STANDING WATER WAS OBSERVED
 BOTTOM OF TEST HOLE @ ELEVATION 15.5'±



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CIVIL PLAN

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Professional Engineer Seal: EDMOND SPRUHAN, REG. NO. 25838, PROFESSIONAL ENGINEER, 04/20/23

Professional Land Surveyor Seal: CHRISTOPHER C. CHARLTON, REG. NO. 6869, PROFESSIONAL LAND SURVEYOR, 04/20/23

DATE:	04/20/2023
DRAWN BY:	SEAN SPRUHAN
CHECKED BY:	EDMOND SPRUHAN
APPROVED BY:	EDMOND SPRUHAN

CIVIL PLAN

