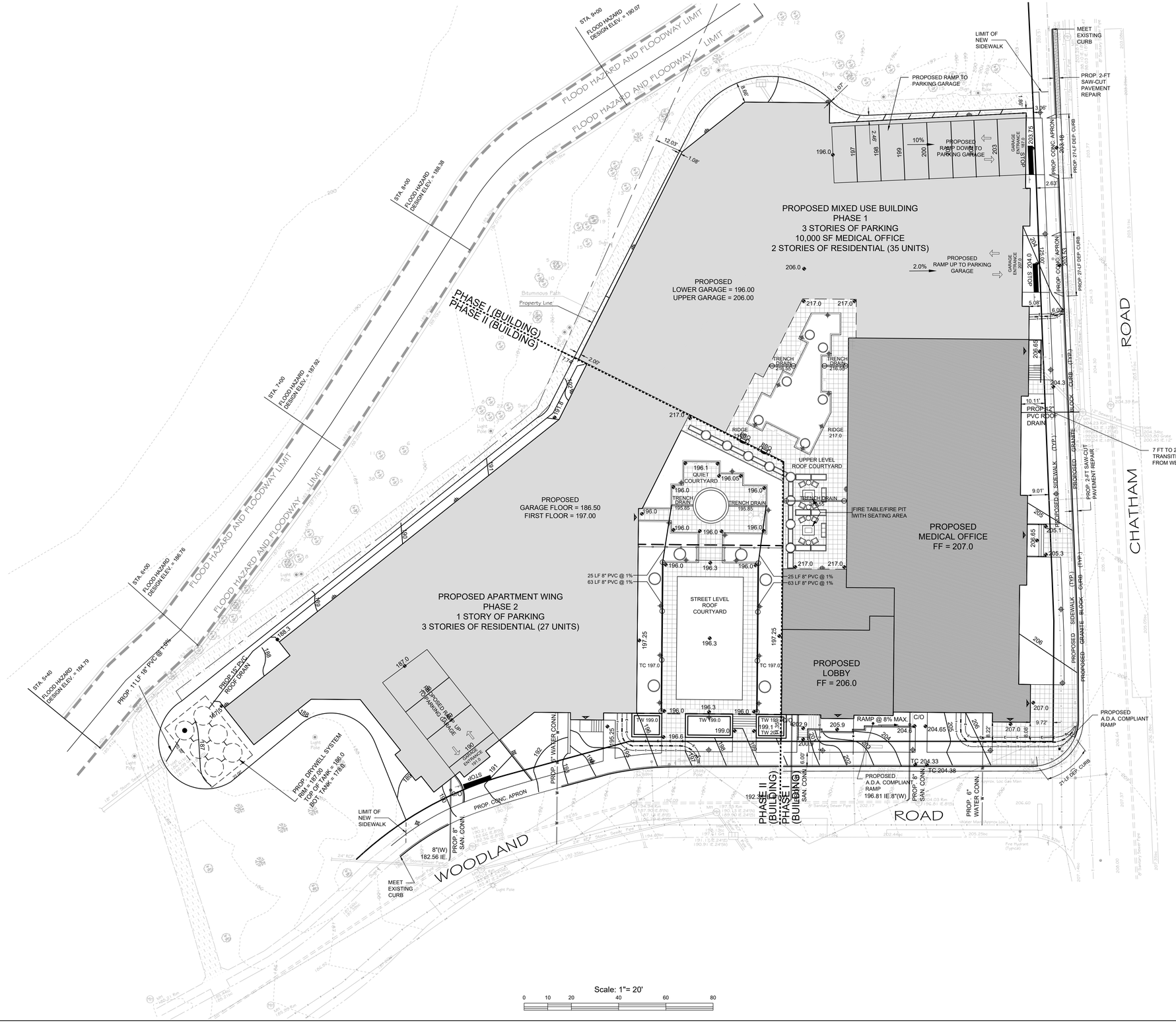
XREFS: 1161112 TOPO SURVEY
1161112 Site Plan Phase I
1161112 Site Plan Phase II



GENERAL WATER SERVICE NOTES

1. HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER MAINS ARE TO BE A MINIMUM OF TEN (10) FEET AND VERTICALLY 1.5 FEET (18 INCHES)—MEASURED FROM THE OUTSIDE OF THE RESPECTIVE PIPES. WHERE APPROPRIATE SEPARATION CANNOT BE ACHIEVED, THE SANITARY SEWER IS TO BE ENCASED IN CONCRETE AS SHOWN ON THE PLANS AND DETAILS FOR A MINIMUM DISTANCE OF TEN (10) FEET ON BOTH SIDES OF THE CROSSING POINT. AS AN ALTERNATIVE TO ENCASEMENT THE SANITARY SEWER COULD BE CONSTRUCTED OF 20 FEET OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. IN THE CASE WHERE THE WATER LINE PASSES BENEATH A SANITARY SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SANITARY SEWER CONCRETE ENCASEMENT SHALL BE PROVIDED AS PER *N.J.A.C. 7:14A-23.6(B) 4, 1.* THE GOVERNING AUTHORITIES MAY ALSO REQUIRE STRUCTURAL SUPPORT FOR STORM SEWERS CROSSING OVER WATER MAINS AND SANITARY SEWERS.
2. WATER SUPPY SYSTEM MAINS AND SERVICE LINES SHALL CONFORM TO *N.J.A.C. 7:10* (***NEW JERSEY SAFE DRINKING WATER ACT***); *N.J.A.C. 5:21* (***RESIDENTIAL SITE IMPROVEMENT STANDARDS***); AND *N.J.A.C. 5:23* (***PLUMBING SUBCODE OF THE UNIFORM CONSTRUCTION CODE***) REQUIREMENTS.
3. HYDRANTS AND VALVES ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE WATER UTILITY, FIRE MARSHAL, OR OTHER GOVERNING ENTITY.
4. UNLESS OTHERWISE SPECIFIED BY LOCAL AND/OR STATE AND FEDERAL CODES, THE MAIN SYSTEM AND APPURTENANCES SHALL CONFORM TO THE APPROPRIATE ***ANSI/AWWA*** STANDARDS.
5. PIPELINE LATERALS TO HYDRANTS ARE TO BE A MINIMUM OF SIX (6) INCHES IN DIAMETER.
6. WATER MAINS, HYDRANTS, VALVES, FITTINGS, AND OTHER APPURTENANCES ARE TO BE AS SPECIFIED BY THE LOCAL WATER DEPARTMENT, UTILITY, OR OTHER GOVERNING AGENCY. ANY PROPOSED SUBSTITUTIONS MUST MEET OR EXCEED THE REQUIREMENTS OF THESE AGENCIES; CONTRACTOR SHALL FURNISH SHOP DRAWINGS AND OTHER DOCUMENTATION TO THE GOVERNING AGENCY FOR APPROVAL.
7. WATER MAINS ARE NOT TO BE INSTALLED IN COMMON TRENCHES WITH OTHER UTILITIES. MINIMUM DEPTH OF COVER OVER WATER MAINS IS FOUR (4) FEET.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TESTING EQUIPMENT AND FOR CONDUCTING ALL REQUIRED TESTS ON THE WATER MAIN AND APPURTENANCES. IF ANY PORTION OF THE WATER MAIN SYSTEM DOES NOT PASS A TEST, THE CONTRACTOR SHALL IDENTIFY THE PROBLEM, CORRECT THE SAME, AND RE-TEST TO THE SATISFACTION OF THE GOVERNING AGENCY.
9. THE WATER MAIN AND APPURTENANCES SHALL BE DISINFECTED AS PER THE REQUIREMENTS OF ***ANSI/AWWA, THE SAFE DRINKING WATER ACT***, THE N.J. DEP, AND OTHER APPLICABLE REQUIREMENTS.
10. CONTRACTOR IS TO KEEP AN "AS-BUILT" RECORD OF THE LOCATION OF WATER MAINS, SERVICE LINES, HYDRANTS, VALVES, BENDS, PIPE CROSSINGS, MANHOLES, VAULTS, JUNCTION BOXES, OTHER APPURTENANCES, AND ANY OTHER VARIATIONS FROM THE SITE PLANS.
11. THE CONTRACTOR IS NOT TO CONNECT INTO THE EXISTING WATER SUPPLY SYSTEM UNTIL THE GOVERNING AGENCY HAS APPROVED THE NEW SYSTEM INCLUDING ALL AIR, BACTERIOLOGICAL, CHLORINE RESIDUAL, PRESSURE, AND OTHER TESTING REQUIREMENTS TO THE SATISFACTION AND APPROVAL OF THE WATER AGENCY.

TOWNSHIP NOTES

1. TOWNSHIP ENGINEER MUST BE NOTIFIED ONE WEEK PRIOR TO THE CONSTRUCTION OF ANY WATER LINES, SANITARY SEWERS, STORM SEWERS, CURBING, SIDEWALKS, PAVEMENT, GRADING, RETAINING WALLS OR OTHER UTILITIES.
2. CONSTRUCTION GRADE SHEETS (CUT SHEETS) MUST BE IN ACCORDANCE WITH THE APPROVED PLANS AND BE SUBMITTED TO THE TOWNSHIP ENGINEER'S OFFICE FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
3. AS BUILT DRAWINGS MUST BE SUBMITTED TO THE TOWNSHIP ENGINEER'S OFFICE FOR APPROVAL PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS.

UTILITY NOTES

1. ALL ELECTRIC SERVICE IS TO BE UNDERGROUND AS PER THE UTILITY PURVEYOR. LOCATION OF ANY TRANSFORMER PADS, SWITCHGEARS ETC. TO BE COORDINATED BY THE UTILITY COMPANY AND THE OWNER.
2. GAS MAINS LOCATION, SIZES AND SERVICES TO BE DETERMINED BY THE UTILITY SUPPLIER.
3. CONSTRUCTION OF WATER AND SEWER LINES TO BE SUPERVISED BY A QUALIFIED INSPECTOR. ALL BURIED PVC SANITARY PIPE TO BE SDR-35 PVC OR SCH40.
4. ALL DUCTILE IRON PIPE USED FOR SANITARY SERVICE TO BE CLASS 52 CEMENT LINED DIP.
5. CONNECTION TO EXISTING WATER MAIN TO BE PERFORMED WITH A WET TAP. THRUST BLOCKS TO BE CONSTRUCTED AS REQUIRED.
6. SEE DETAIL SHEET FOR TYPICAL UTILITY CONNECTIONS.

NOTES

1. PQ BEING LOT 72,73,74,& 75, IN BLOCK 1904, AS SHOWN ON TOWNSHIP OF MILLBURN TAX MAPS.
2. LOT AREA = 66,963.4 SF. OR 1.54 AC.
3. ELEVATIONS SHOWN HEREON ARE BASED UPON N.A.V.D. 1988 SURVEY DATUM AS DETERMINED BY RAPID STATIC GPS. TO CONVERT TO N.G.V.D. 1929 SURVEY DATUM ADD 1.02 FEET.
4. UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE BASED UPON SURFACE STRUCTURES VISIBLE ON THE DATE OF FIELD SURVEY. LOCATION OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATION SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. ALL SUBSURFACE UTILITY LOCATIONS SHOULD BE VERIFIED AND FIELD MARKED BY APPROPRIATE UTILITY AUTHORITY PRIOR TO EXCAVATION/CONSTRUCTION. ANY DEVIATION IN LOCATION OF UTILITIES SHOULD BE REPORTED TO SURVEYOR AND ENGINEER PRIOR TO CONSTRUCTION.

REVISIONS

1	Drywell System Added	09-24-20	2	Revised Per Planning Board Comments	11-20-2020

GRADING, DRAINAGE & UTILITY PLAN

CHATHAM ROAD & WOODLAND ROAD
TAX LOTS 72, 73, 74, &75, BLOCK 1904

TOWNSHIP OF MILLBURN
ESSEX COUNTY, NJ

C A S E Y &

K E L L E R
I N C O R P O R A T E D

NJ State Board of Professional Engineers & Land Surveyors Certificate of Authorization # 24GA27985400

LICENSED PROFESSIONAL
CIVIL ENGINEERS
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DATE 06-01-2020

REFERENCE	CHK. BY	DRAWN BY
MAP NO. 578	FIELD BOOK CAD	DWG.NO. 7
JOB NO. 1161112	SCALE 1"=20'	

PLOT FILE NO.

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