

1 UTILITY PLAN
SCALE: 1"=30'

WATER USAGE CALCULATIONS:

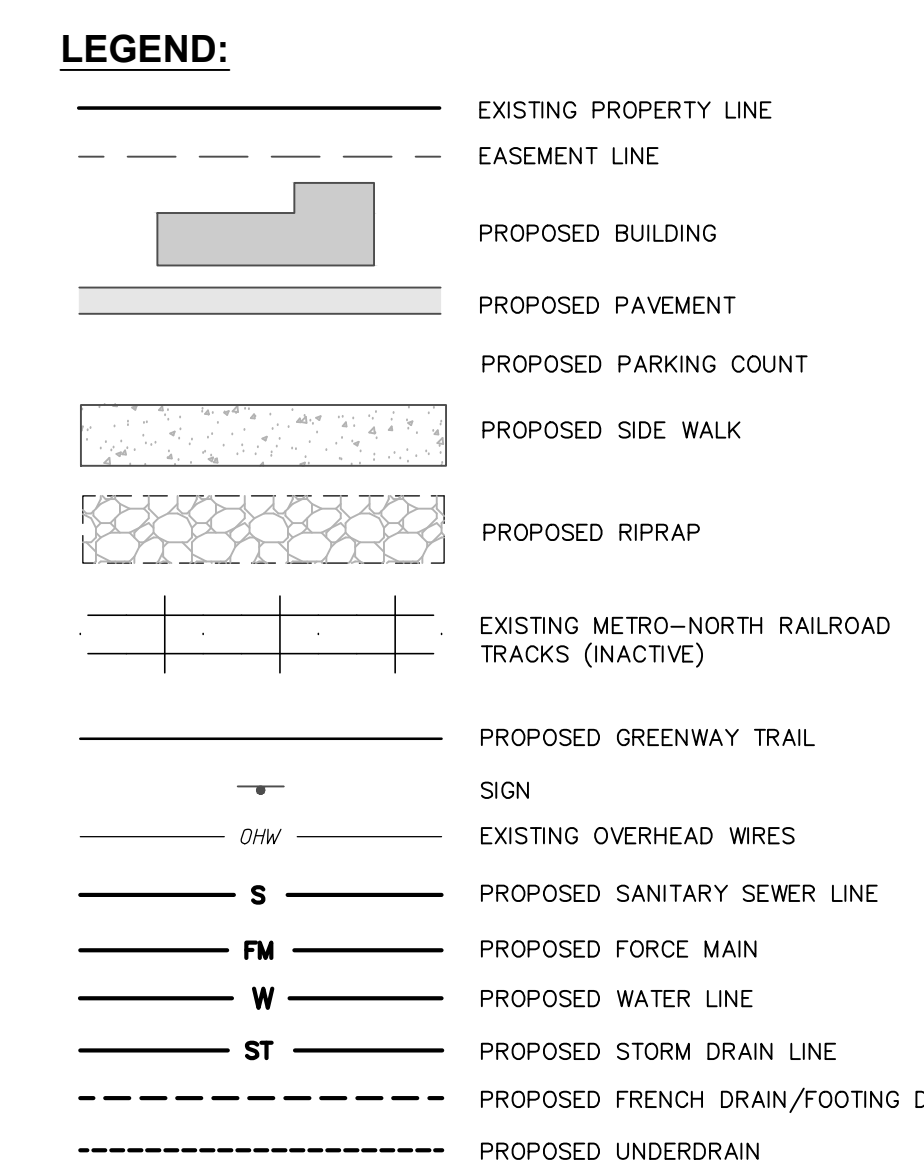
APARTMENT BUILDINGS	FLOW (GPD)
1) APARTMENT (66 BEDROOMS * 110 GPD/BEDROOM)	10560
TOTALS:	10560 GPD

COMMERCIAL BUILDING	FLOW (GPD)
1) BLDG SF * (0.1 GPD/SF) = 25,000 * 0.1	2500
2) 20% REDUCTION FOR WATER SAVING	-500
TOTALS:	2000 GPD

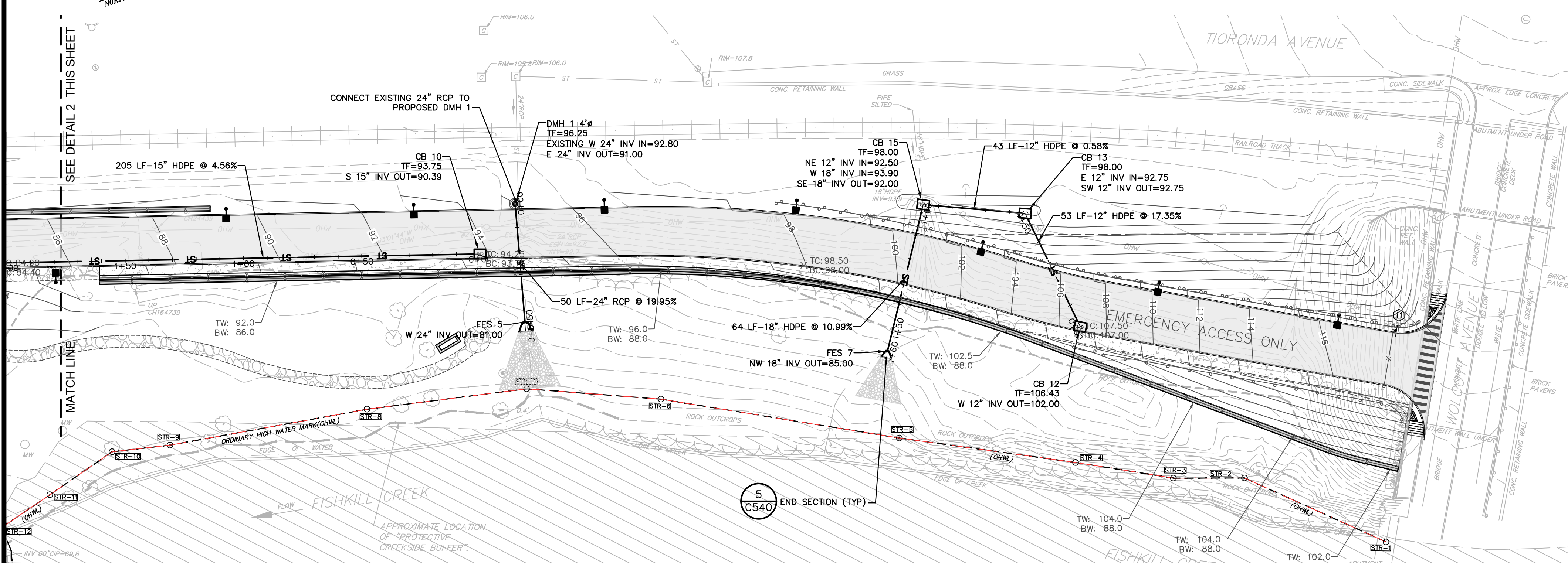
COMBINED TOTAL: 12560 GPD
OR 523 GPM
OR 8.72 GPM

MAXIMUM DAILY FLOW (USING FACTOR OF 2) = 8.72 GPM x 2 = 17.44 GPM
PEAK HOURLY FLOW (USING FACTOR OF 4) = 8.72 GPM x 4 = 34.88 GPM

REFERENCE: HYDREC DESIGN STANDARDS FOR WASTEWATER TREATMENT SYSTEMS, LATEST EDITION



- UTILITY PLAN NOTES:**
- GENERAL CONSTRUCTION:**
- ALL UNDERGROUND UTILITIES ARE SHOWN IN THEIR RELATIVE POSITION AND ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY THEIR ACTUAL LOCATION IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION TO PROCEED.
 - ANY CONDITION ENCOUNTERED IN THE FIELD DIFFERING FROM THOSE SHOWN HEREON, SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE CONSTRUCTION IS TO PROCEED.
 - SEWER MAINS IN RELATION TO WATER MAINS, WHERE POSSIBLE, SEWERS SHALL BE LAD AT LEAST 10 (TEN) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. VERTICAL SEPARATION SHALL BE MAINTAINED TO PROVIDE 18 (EIGHTEEN) INCHES BETWEEN TOP OF SEWER AND BOTTOM OF THE WATER MAIN AT UTILITY CROSSINGS. WHEN NOT POSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION, SEWER PIPE SHALL BE PRESSURE RATED AND TESTED @ 150psi/10 (TEN) FEET ON EACH SIDE OF THE WATER MAIN BEING CROSSED.
 - ALL PROPOSED UTILITIES SHALL TERMINATE 5 FEET FROM ANY PROPOSED BUILDING FACE. CONTRACTOR TO COORDINATE WITH BUILDING PLANS FOR ANY CONNECTIONS.
 - ALL STORM SEWER SHALL BE SMOOTH INTERIOR HDPE UNLESS OTHERWISE SPECIFIED.
 - ALL GRAVITY SANITARY LATERALS SHALL BE SDR 21 PVC UNLESS OTHERWISE SPECIFIED.
 - ALL WATER PIPE SHALL BE CLASS DUCTILE IRON PIPE UNLESS OTHERWISE SPECIFIED.
 - CONTRACTOR TO VERIFY STATUS OF ALL UTILITIES PRIOR TO INTERURBION.
 - EXPLORATORY EXCAVATIONS SHALL BE PERFORMED BY THE CONTRACTOR AT CONDITIONS PRIOR TO PERFORMING WORK.
 - BEFORE CONSTRUCTING LINES TO CONNECT TO EXISTING UTILITIES, VERIFY EXISTING UTILITY INVERTS AND NOTIFY THE ENGINEER IF ANY VARIATION FROM THE PLAN IS REQUIRED.
 - THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE FOR THE DURATION OF THE WORK.
 - THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS AND ASSOCIATED CONDITIONS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING UTILITY TRENCHES AND EXCAVATIONS AND FOR THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF THE WORK.
 - IF ROCK REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
 - WATER AND SEWER UTILITIES SHALL BE PRIVATELY OWNED AND OPERATED.
- EMERGENCY STANDBY GENERATOR:**
- A STANDBY EMERGENCY GENERATOR SHALL BE PROVIDED TO ENSURE CONTINUOUS OPERATION OF THE PUMP STATION DURING POWER FAILURE. THE EMERGENCY GENERATOR SHALL HAVE ADEQUATE CAPACITY TO ACCOMMODATE THE FULL ELECTRICAL LOAD OF THE PROPOSED PUMP STATION (AS WITH ALL PUMPS RUNNING (STAGGERED STARTS)). THE CONTRACTOR SHALL VERIFY AND CONFIRM THE SIZE OF THE EMERGENCY GENERATOR WITH THE MANUFACTURER PRIOR TO SHOP DRAWING SUBMITTAL BASED ON THE SELECTED PUMPS AND STATION EQUIPMENT.
 - 24Hr V4 ENGINE
 - AUTOMATIC TRANSFER SWITCH
 - SOUND ATTENUATED WEATHER PROTECTIVE ENCLOSURE
 - CONTROL PANEL WITH DISPLAY
 - RUN-OFF-AUTO SWITCH, RUNNING TIME METER, CRITICAL-GRADE EXHAUST
 - SELF-TESTING AUTOMATIC BATTERY CHARGER, GENERATOR ALARM STATUS PANEL, OIL PRESSURE GAUGE
 - 24/7 EXPOSED CLOCK THERM
 - HIGH TEMPERATURE AND LOW OIL PRESSURE SHUTDOWN
 - THE EMERGENCY GENERATOR SHALL BE A 25 KW/40HP NATURAL GAS ENGINE GENERATOR SET MODEL G2025A AS MANUFACTURED BY GENERAC OR APPROVED EQUAL. THE UNIT SHALL BE EQUIPPED WITH THE FOLLOWING APPURTENANCES AND ACCESSORIES:
 - 24Hr V4 ENGINE
 - AUTOMATIC TRANSFER SWITCH
 - SOUND ATTENUATED WEATHER PROTECTIVE ENCLOSURE
 - CONTROL PANEL WITH DISPLAY
 - RUN-OFF-AUTO SWITCH, RUNNING TIME METER, CRITICAL-GRADE EXHAUST
 - SELF-TESTING AUTOMATIC BATTERY CHARGER, GENERATOR ALARM STATUS PANEL, OIL PRESSURE GAUGE
 - 24/7 EXPOSED CLOCK THERM
 - HIGH TEMPERATURE AND LOW OIL PRESSURE SHUTDOWN
 - THE EMERGENCY GENERATOR SHALL BE INSTALLED ON A REINFORCED CONCRETE PAD OF SUFFICIENT DIMENSIONS WITHIN THE PROPOSED FENCE ENCLOSURE. GENERATOR SHALL BE SETBACK A DISTANCE FROM FENCE TO ALLOW REQUIRED MAINTENANCE ON IT IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.



2 UTILITY PLAN
SCALE: 1"=30'

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rev.	date	description
4	02/25/20	REVISED PER PLANNING BOARD COMMENTS
3	09/28/19	REVISED PER PLANNING BOARD COMMENTS
2	12/20/19	REVISED PER PLANNING BOARD COMMENTS
1	10/10/18	REVISED FOR INTERNAL REVIEW

248 TIORONDA AVE., BEACON, N.Y.

UTILITY PLAN

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

designed	checked
date	scale
09/10/18	1"=30'
PROJECT NO.	81750.00
SHEET NO.	6 of 10