

BUILDING HEIGHT CALCULATION

FINISHED FLOOR ELEV = 417.5
 AVERAGE GP = 415.25
 HEIGHT OF BUILDING = 46.5

417.5 - 415.25 = 2.25
 2.25 + 46.5 = **48.75 FT = BUILDING HEIGHT**

AVERAGE GRADE PLANE CALCULATION

410.4-410.5+411.1+411.4+411.9+412.3+412.7+413.1+414.4+414.5+414.3+
 414.7+415.2+415.3+415.4+415.5+415.6+415.7+415.8+415.9+416.0+416.1+
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 417.5+417.6+417.7+417.8+417.9+418.0+418.1+418.2+418.3+418.4+418.5+418.6+418.7+418.8+
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SEWER DEMAND ON SITE CALCULATIONS:

EXISTING: 5,050 SF OF RETAIL @ 0.1 GAL / SF
 505 GPD EXISTING
 PROPOSED: 4,050 SF OF COMMERCIAL @ 0.1 GAL / SF
 405 GPD
 1 BR: 1 PROPOSED @ 150 GAL = 150 GPD
 2 BR: 23 PROPOSED @ 225 GAL = 5,175 GPD
 3 BR: 9 PROPOSED @ 300 GAL = 2,700 GPD
 TOTAL: 8,430 GPD PROPOSED
 NEW SEWER DEMAND = **7,925 GPD**

EXISTING SEWER MAIN CALCULATIONS:

EXISTING SEWER MAIN -
 8" CLAY PIPE @ 6.4% SLOPE - CAPACITY = 2.7 CFS
 EXISTING CONTRIBUTING FLOW TO MAIN
 4000 SF COMMERCIAL @ 1 GALL/SE = 400 GPD
 4 SINGLE FAMILY HOMES, USE 3 BDR:
 4 @ 300 GPD = 1,200 GPD
 TOTAL FLOW TO EXISTING MAIN = 1,600 GPD
 1,600 GPD x 1/24 DAY/HR x 1/60 HR/MIN x 1/60 MIN/SEC x 17.48 GAL/CF = 0.007 CFS
 PROJECT FLOW TO MAIN
 7.925 GPD x 1/24 DAY/HR x 1/60 HR/MIN x 1/60 MIN/SEC x 17.48 GAL/CF = 0.012 CFS

TOTAL SANITARY FLOW TO BE CONVEYED BY THE EXISTING MAIN: 0.019 CFS

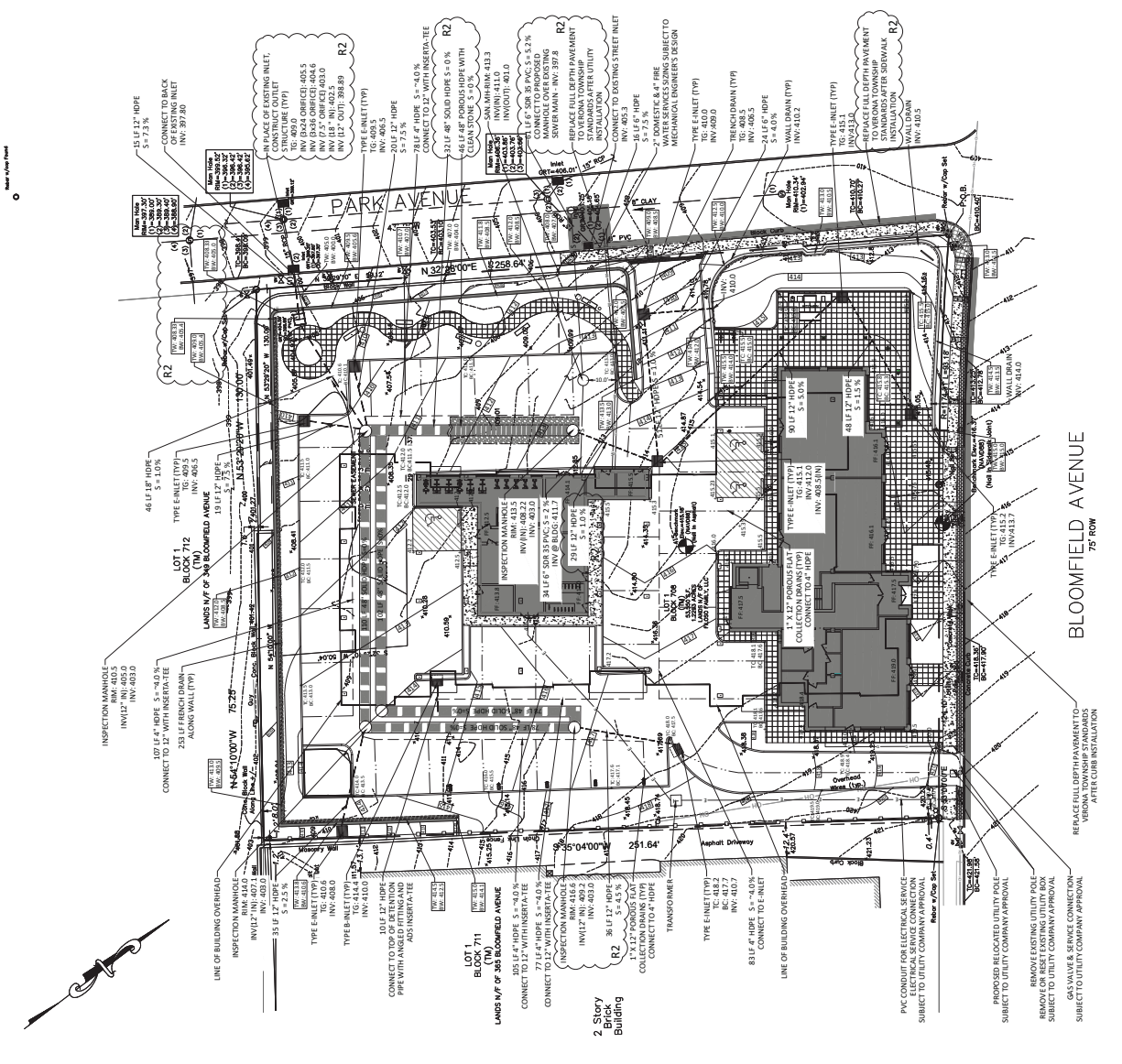
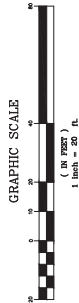
APPLY FACTOR OF SAFETY 3: 0.019 x 3 = 0.057 CFS
 CAPACITY 2.7 CFS > 0.057 CFS PROJECTED FLOW

GRADING NOTES:

1. THE APPLICANT SHALL REPAIR ANY DAMAGE FROM SURFACE WATER RUNOFF CREATED ON ADJACENT PROPERTIES.
2. THE APPLICANT SHALL REPAIR ANY DAMAGE TO SURFACES WITHIN THE RIGHT-OF-WAY DURING CONSTRUCTION. BE DESIGNED PRIOR TO CONSTRUCTION.
3. AN INSPECTION REPORT ON THE CONDITIONS OF THE UNDERGROUND DETENTION BASIN AND PERVIOUS PAVING SYSTEMS SHALL BE SUBMITTED EVERY TWO YEARS TO THE VERONA STORMWATER MANAGER AND MUST ADDRESS ANY RECOMMENDATIONS WITHIN 90 DAYS OF THE REPORT.

REFERENCES:

BOUNDARY AND FIELD SURVEY TAKEN FROM JAKELAND SURVEYING, PREPARED BY MARC JOPONE P.L.S. REVIEWED ON 10-01-2024.
 EXISTING TOPOGRAPHY IS NAVD 1988
 ARCHITECTURAL FOOTPRINT TAKEN FROM PLANS PREPARED BY GS&PC ON 12-04-2025. LAST REVISED 02-03-2026



NEW JERSEY STATE LAW REQUIRES NOTIFICATION 3 BUSINESS DAYS PRIOR TO ANY COMMENCEMENT OF CONSTRUCTION FOR ANY PROJECT THAT IS SUBJECT TO THE STATE PLANNING AND ZONING ACT. THE TIME OF THE SURVEY, ANDERSON CONSULTING SERVICES IS NOT GUARANTEED TO BE ACCURATE TO THE DATE OF THE SURVEY.

PAUL W. ANDERSON
 P.E., PROFESSIONAL ENGINEER
 N.J. REG. NO. 33A10

REV	DATE	DESCRIPTION
REV 1	4-17-25	REVISED WALL GRADE CALCOUT
REV 2	4-17-25	PER ENGINEER'S COMMENTS
REV 3	4-17-25	PER ENGINEER'S COMMENTS
REV 4	4-17-25	PER ENGINEER'S COMMENTS
REV 5	4-17-25	PER ENGINEER'S COMMENTS

APCS
 ARCHITECTURAL CONSULTING SERVICES, INC.
 40 MILLER DRIVE
 BOHANNON, NJ 07005
 WWW.PWANDERSON-CS.COM
 FAX: 973.975.0733
 CERTIFICATE OF AUTHORIZATION
 24C08182400

DATE	DESCRIPTION
09-15-25	DATE
DRWING BY	WMA
DESIGNED BY	WMA
CHECKED BY	WMA
SCALE	AS SHOWN

383 BLOOMFIELD AVENUE
 BLOCK 708, LOT 1
 TOWNSHIP OF VERONA
 ESSEX COUNTY, NEW JERSEY
GRADING & UTILITY PLAN

SP - 3
 SHEET 3 OF 8