

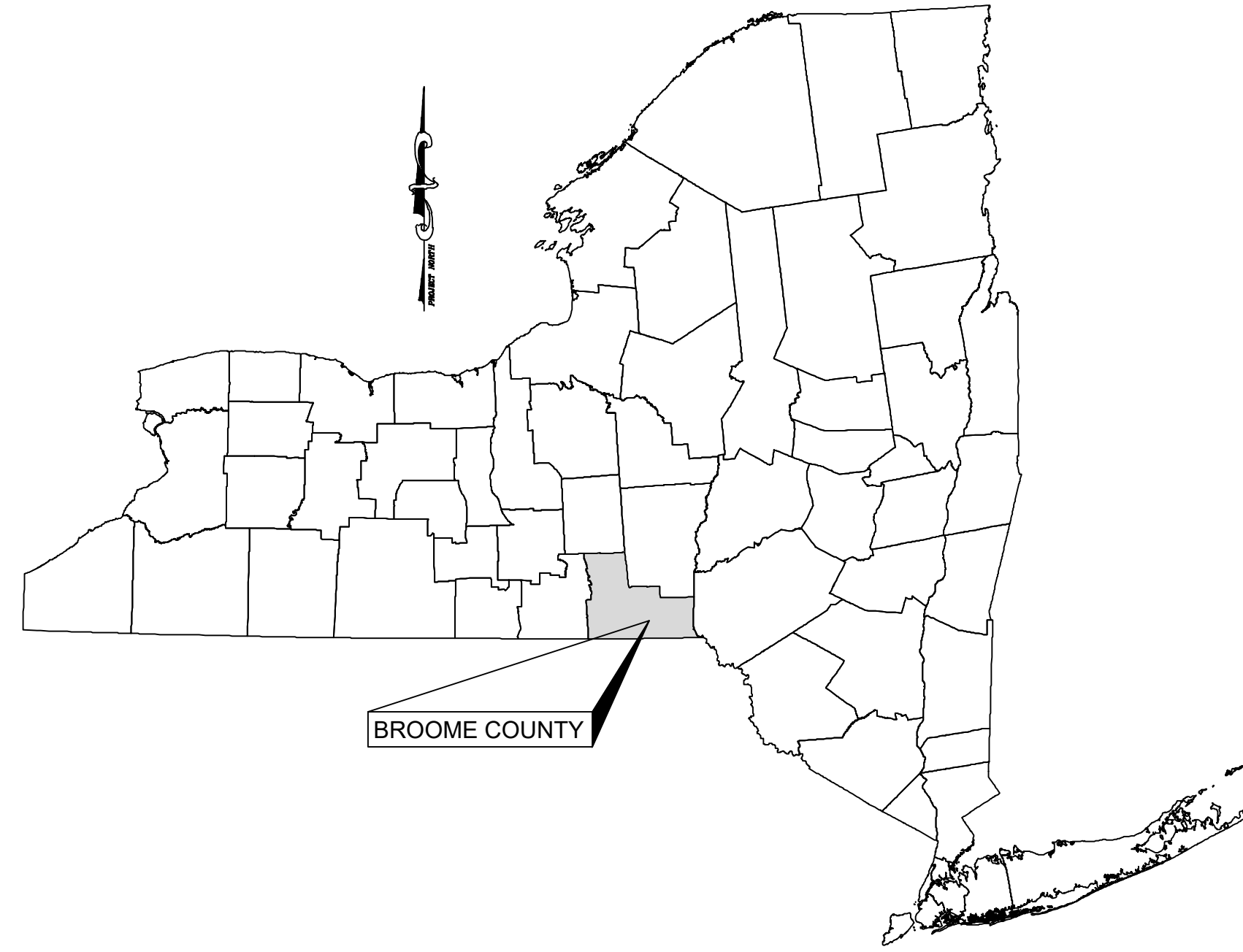
EXCERPT re SANITARY SEWER from

# WATER AND SANITARY SEWER UTILITIES THE RETREAT AT BUNN HILL BUNN HILL ROAD

TOWN OF VESTAL

COUNTY OF BROOME

STATE OF NEW YORK



**APPLICANT/DEVELOPER:**

THE RETREAT AT BUNN HILL, LLC  
315 OCONEE STREET  
ATHENS, GA 30601  
ATTN: ERIC LEATH

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94783-B-001.1	BOOSTER PUMP STATION



LOCATION MAP  
SCALE: 1"=1,000'

**DRAWINGS PREPARED BY**



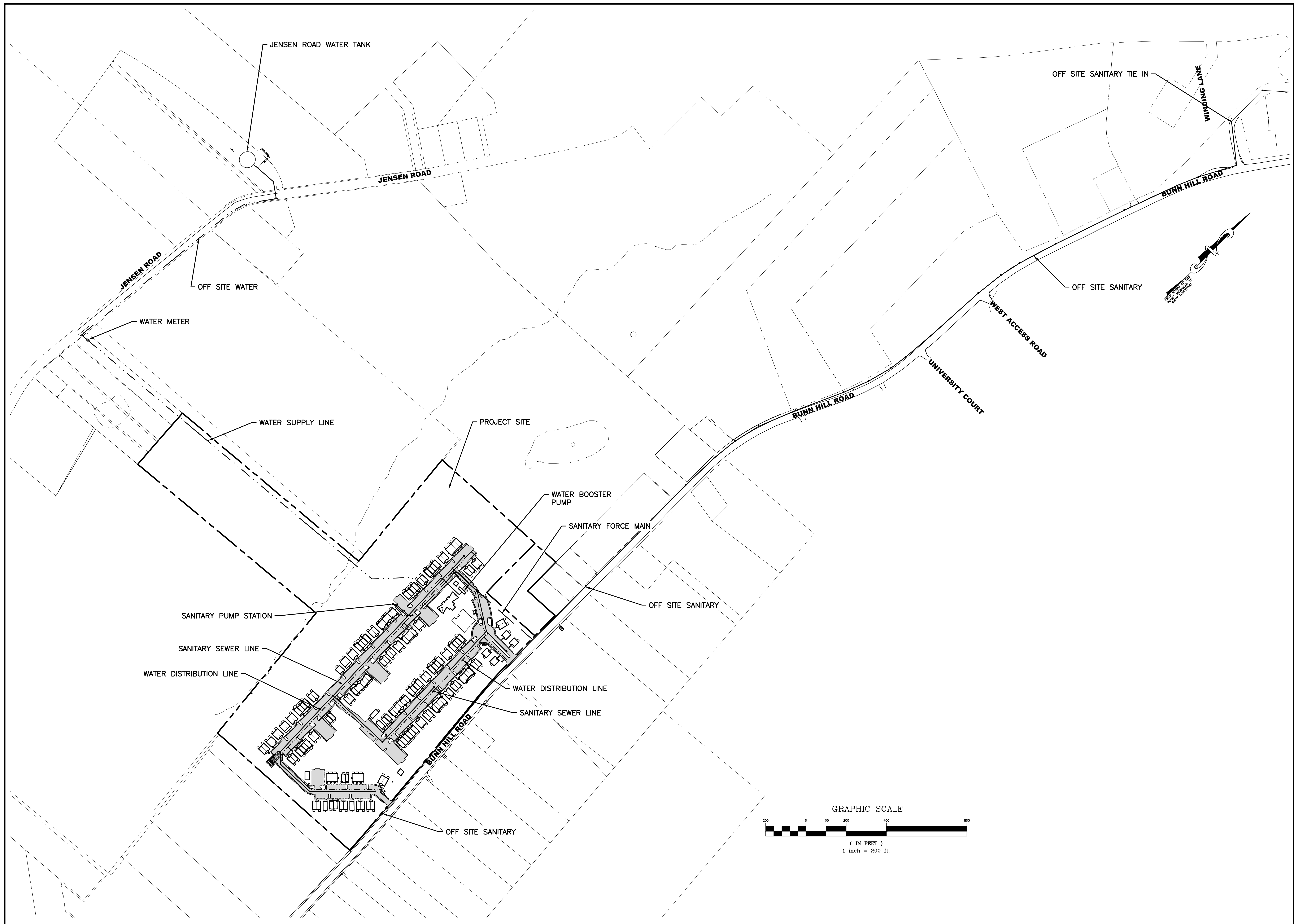
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PROJECT NO. 2983.08319

NOVEMBER 1, 2022



MARK W. PARKER, P.E. LIC. No. 093972  
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NO.	REVISIONS AND DESCRIPTIONS	DATE

**WATER AND SEWER UTILITIES  
 THE RETREAT AT BUNN HILL  
 BUNN HILL ROAD  
 BROOME COUNTY, NY**

TOWN OF VESTAL

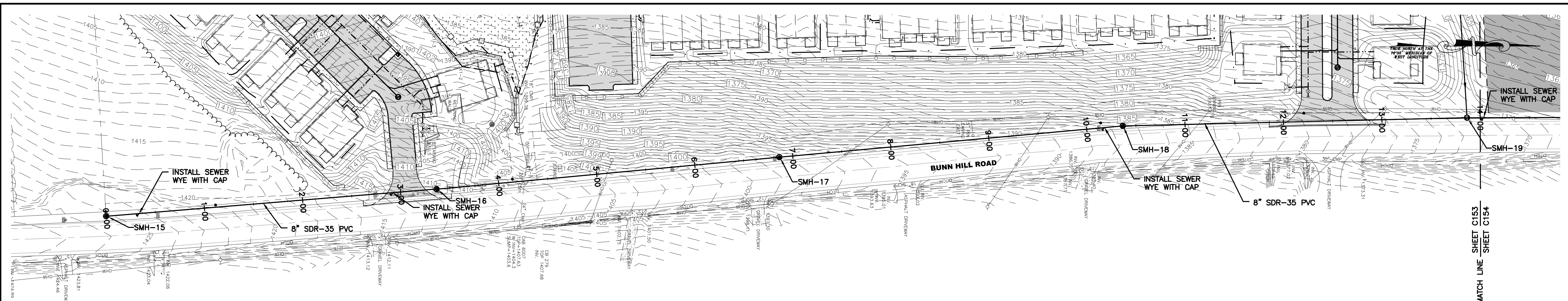
**OVERALL UTILITY LOCATIONS**

SHEET NO.  
**C050**

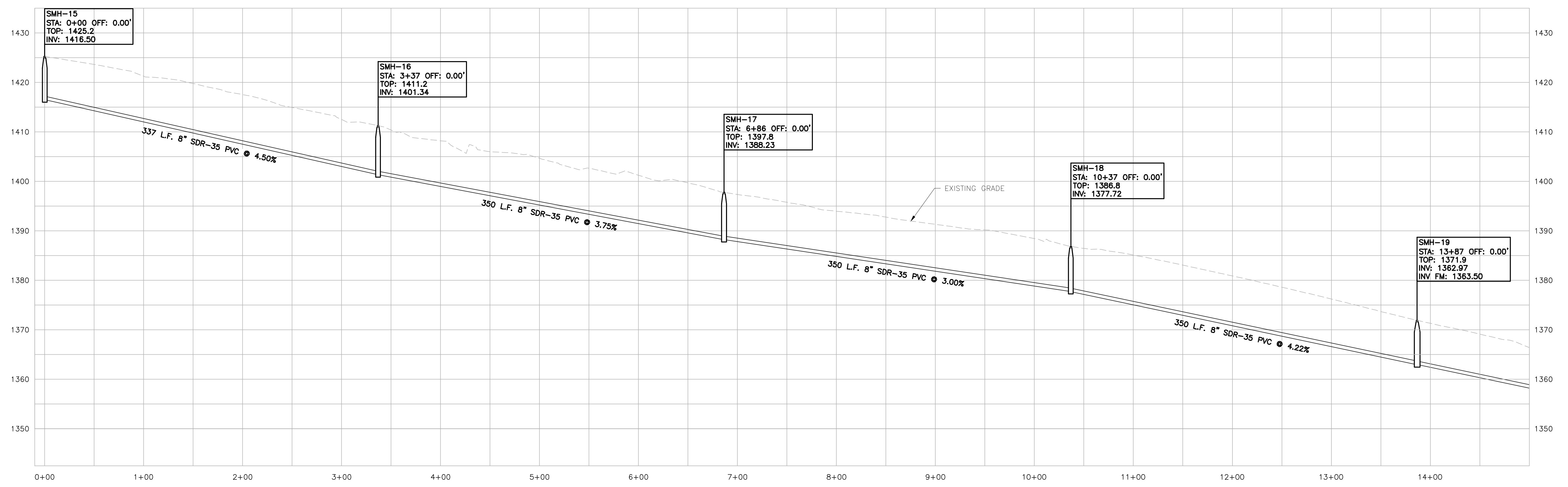
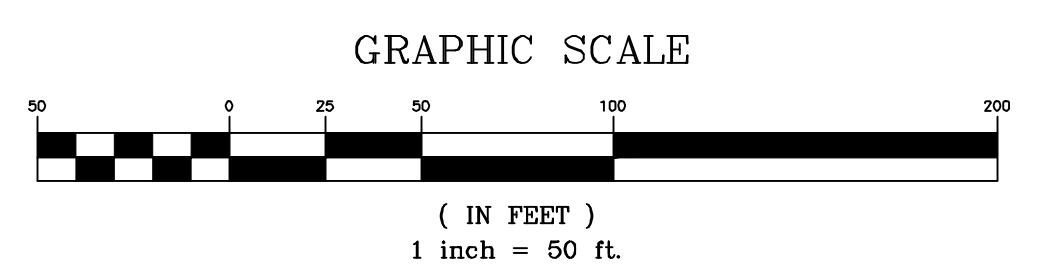
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DATE: 11/01/2022

DRAW FILE NO. 298308319-SITE



OFF-SITE SANITARY PLAN SMH-19 - SMH-24



OFF-SITE SANITARY PROFILE SMH-19 - SMH-24

SCALE: HORIZ: 1"=50'  
VERT: 1"=10'

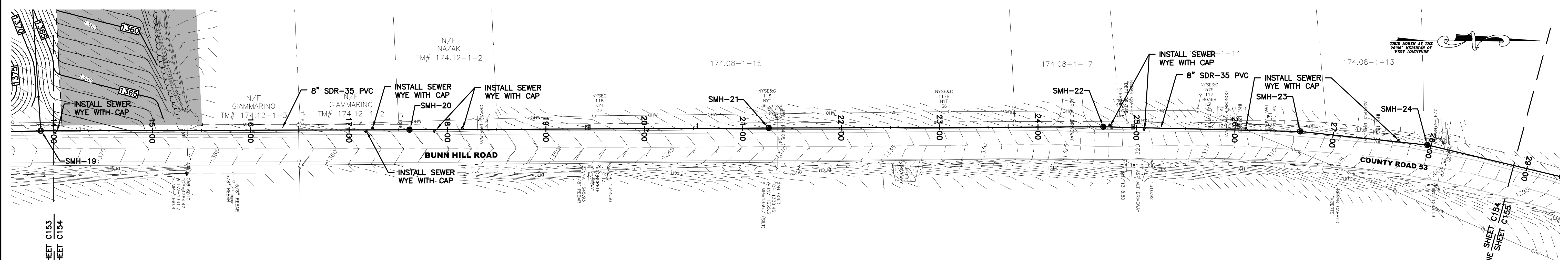
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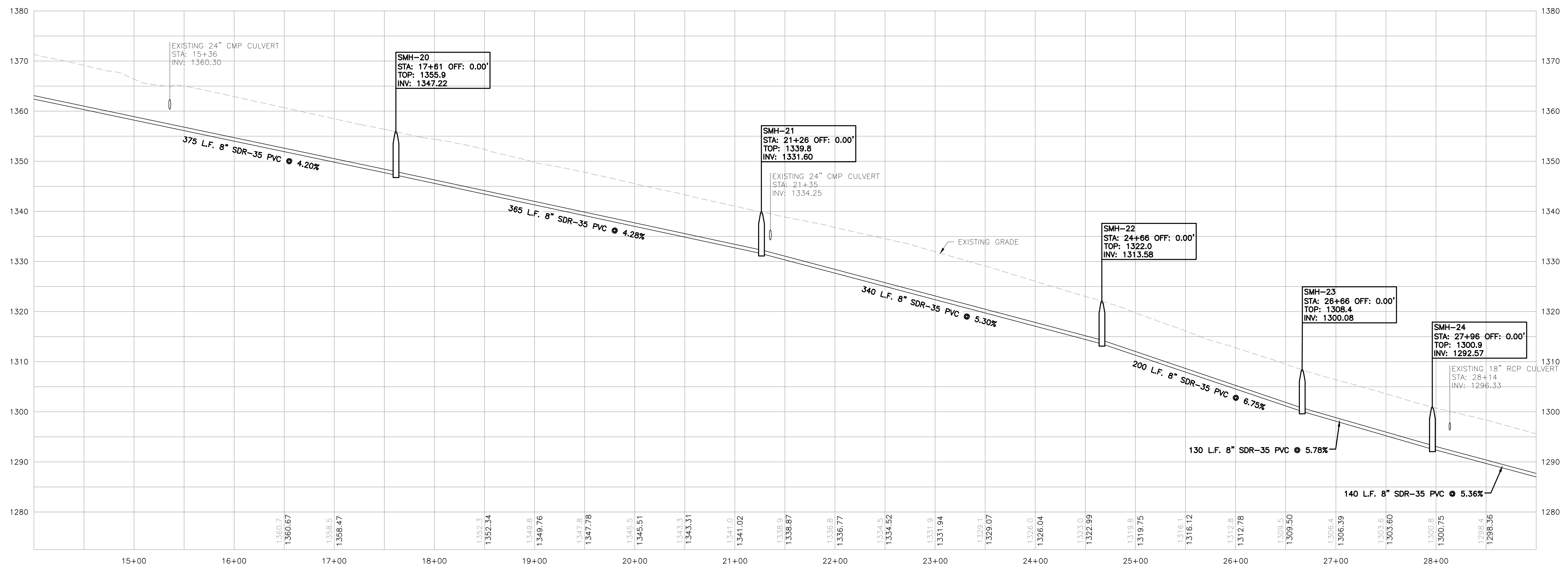
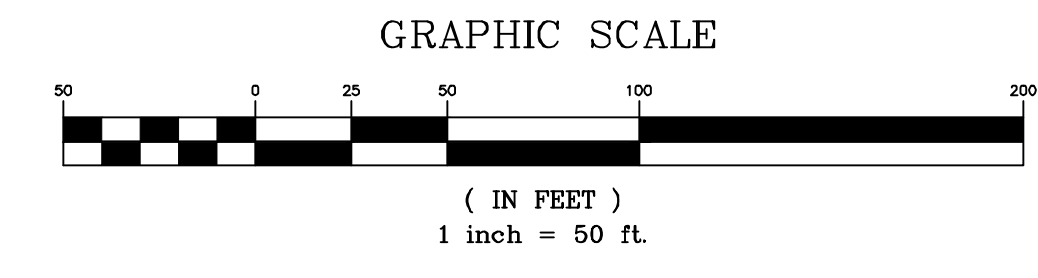
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THE RETREAT AT BUNN HILL  
BUNN HILL ROAD  
TOWN OF VESTAL BROOME COUNTY, NY  
OFF-SITE UTILITIES - SANITARY

SHEET NO.  
**C153**  
PROJECT NO.  
2983.08319  
DATE: 11/01/2022  
DAD FILE NO. 298308319-SITE



OFF-SITE SANITARY PLAN SMH-19 - SMH-24



OFF-SITE SANITARY PROFILE SMH-19 - SMH-24

SCALE: HORIZ: 1"=50'  
VERT: 1"=10'

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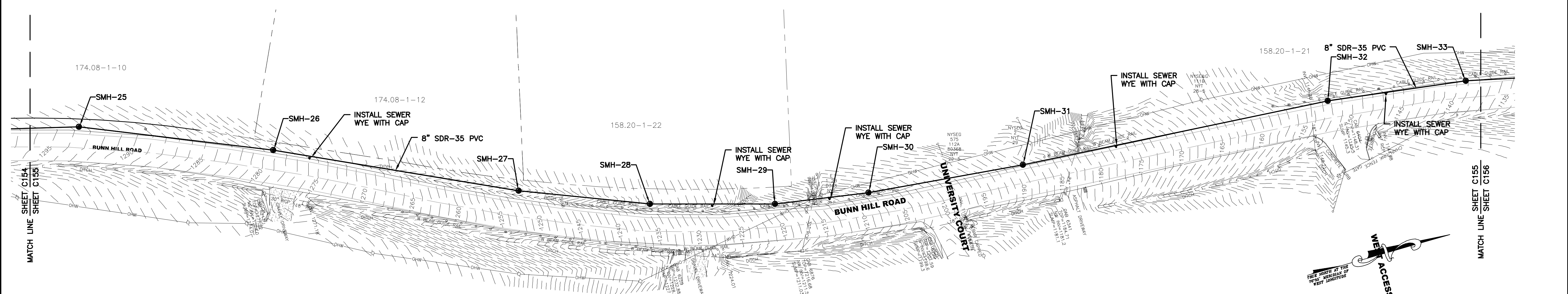


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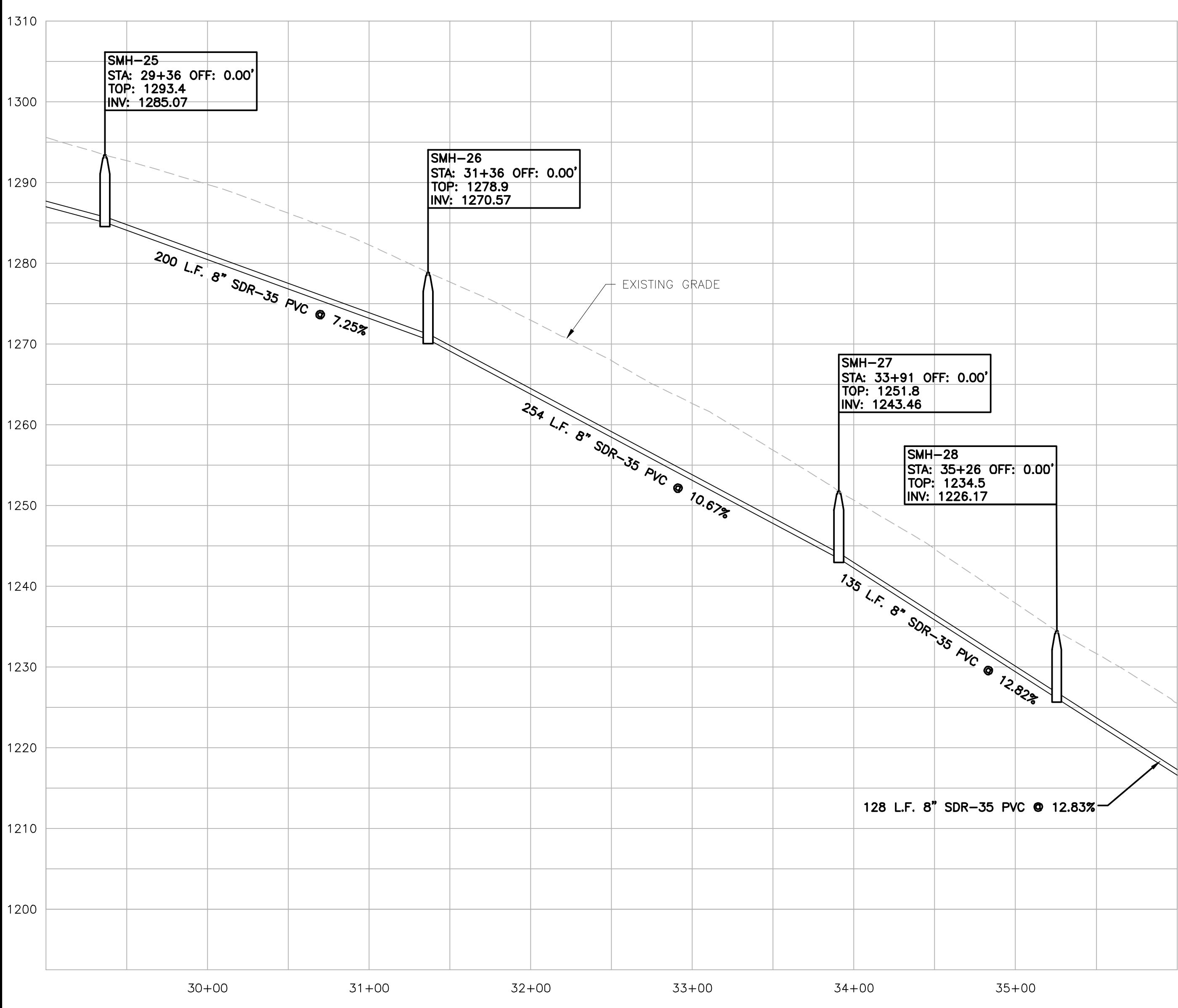
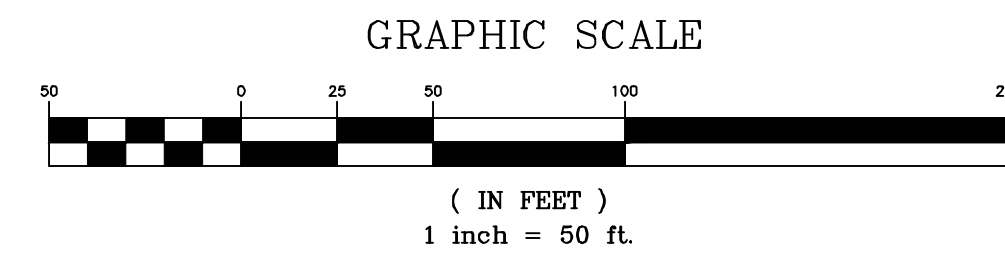
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WATER AND SNITARY SEWER UTILITIES  
THE RETREAT AT BUNN HILL  
BUNN HILL ROAD  
TOWN OF VESTAL  
BROOME COUNTY, NY  
OFF-SITE UTILITIES - SANITARY

SHEET NO.  
**C154**  
PROJECT NO.  
2983.08319  
DATE: 11/01/2022  
JOB FILE NO. 298308319-SITE

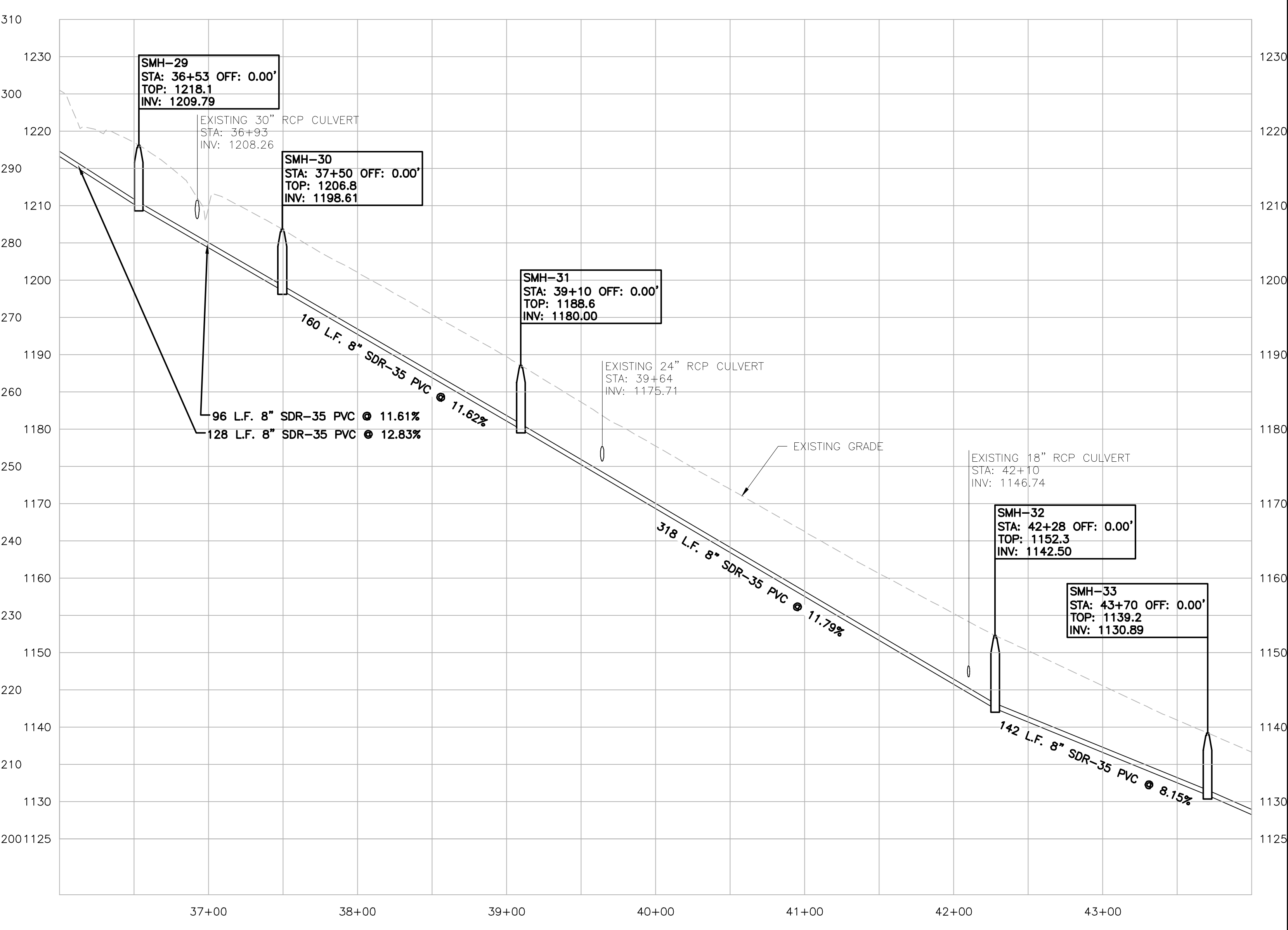


OFF-SITE SANITARY PLAN SMH-25 - SMH-33



OFF-SITE SANITARY PROFILE SMH-25 - SMH-28

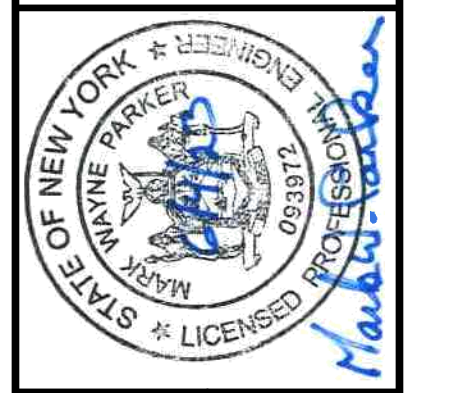
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OFF-SITE SANITARY PROFILE SMH-29 - SMH-33

SCALE: HORIZ: 1"=50'  
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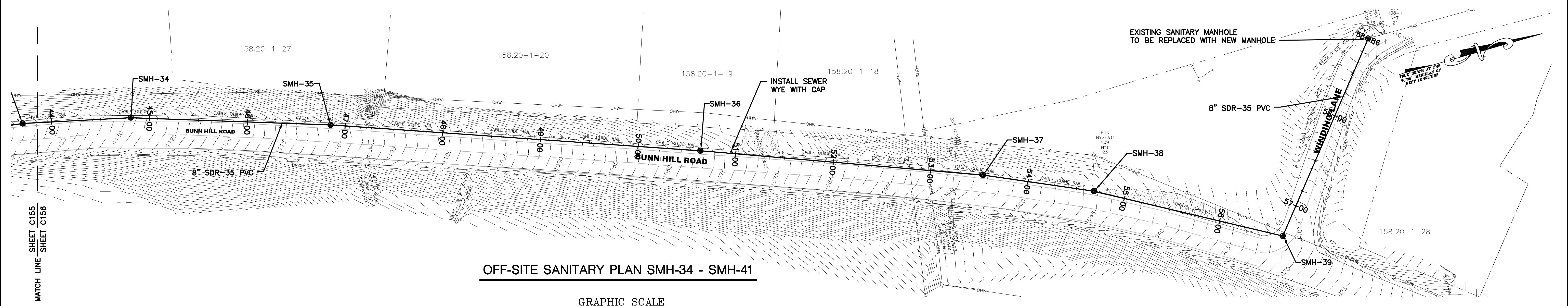
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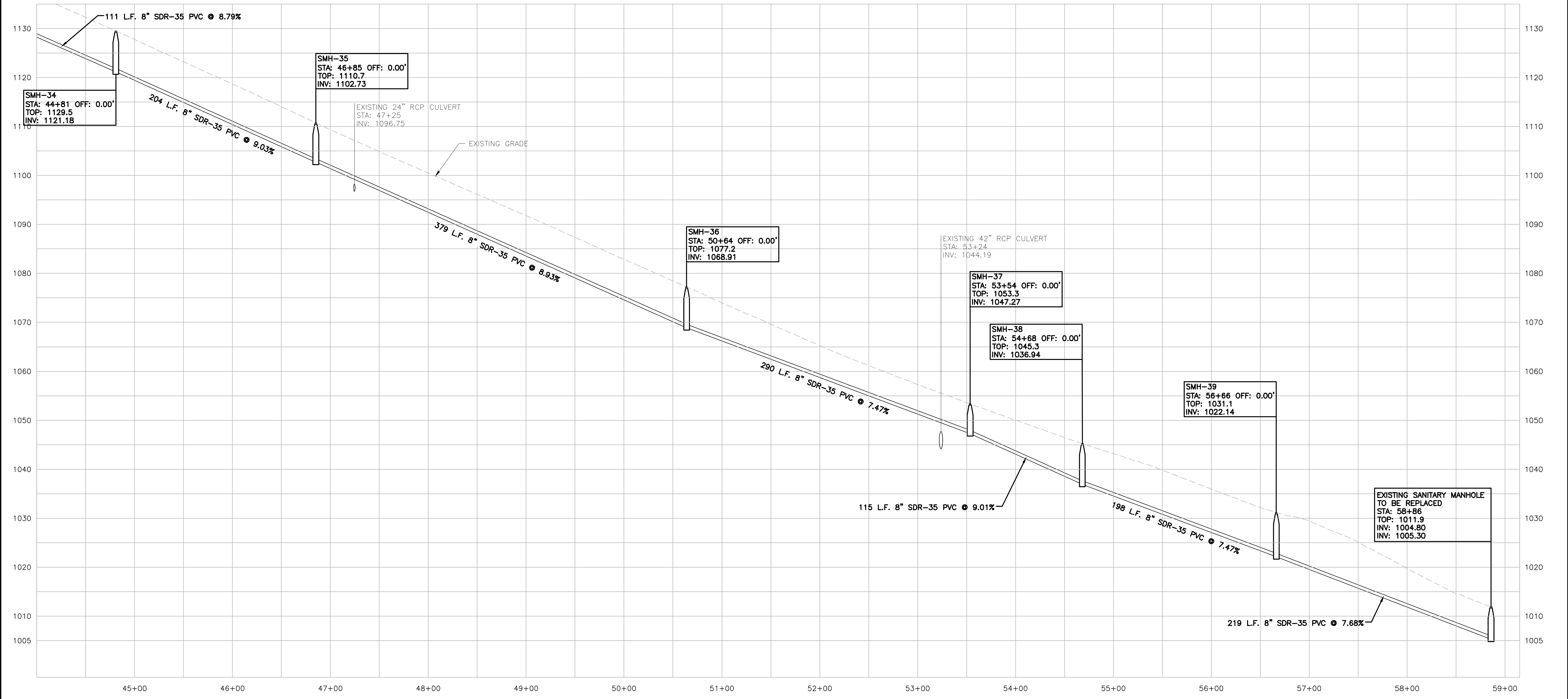
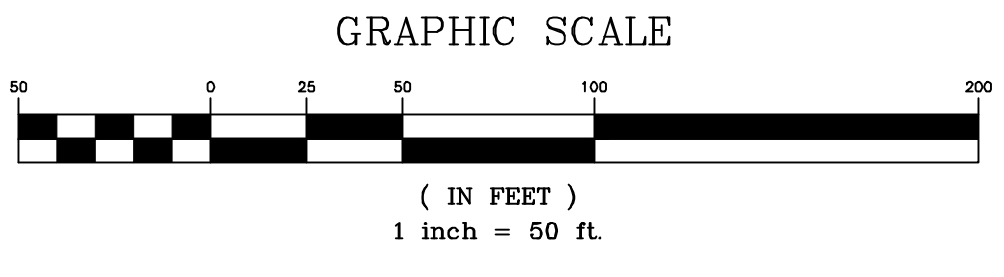
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WATER AND SANITARY SEWER UTILITIES  
THE RETREAT AT BUNN HILL  
BUNN HILL ROAD  
TOWN OF VESTAL  
BROOME COUNTY, NY  
OFF-SITE UTILITIES - SANITARY

SHEET NO.  
**C155**  
PROJECT NO.  
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298308319-SITE



OFF-SITE SANITARY PLAN SMH-34 - SMH-41



OFF-SITE SANITARY PROFILE SMH-34 - SMH-41

SCALE: HORIZ: 1"=50'  
VERT: 1"=10'

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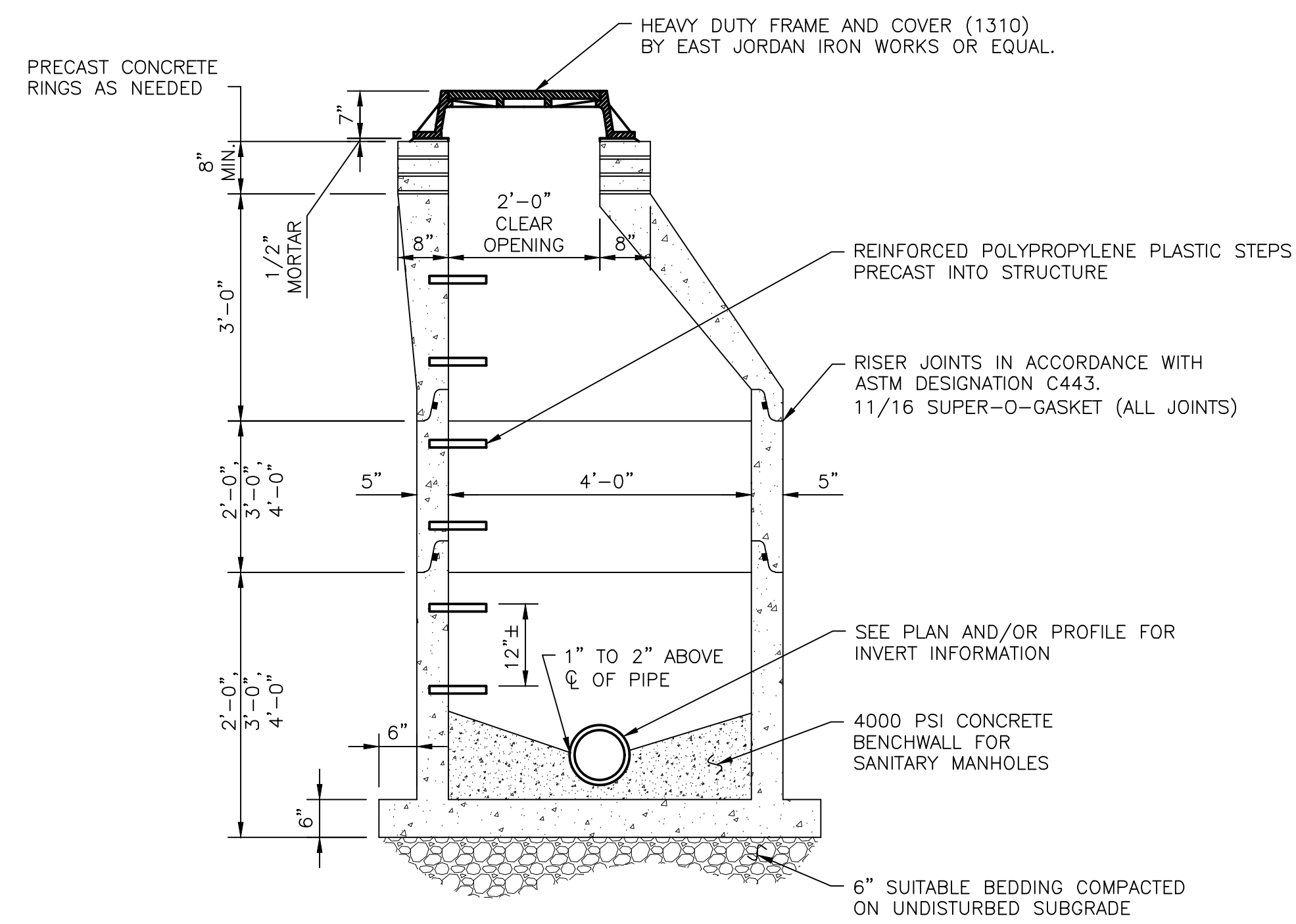


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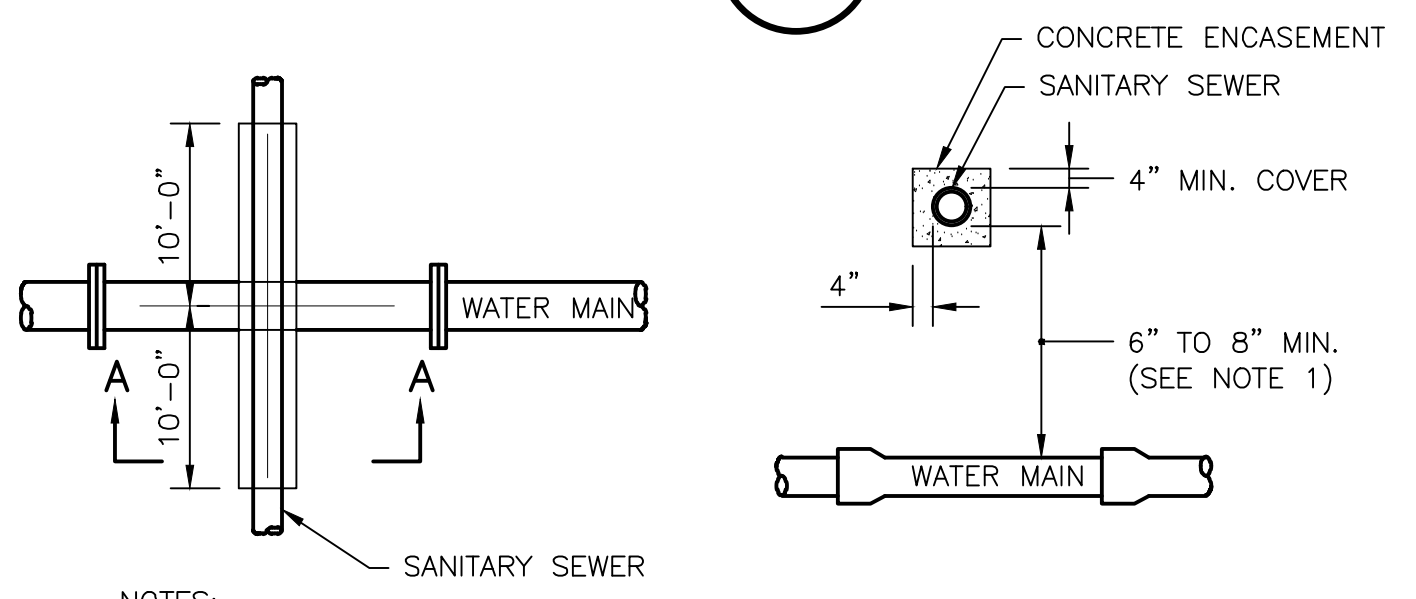
WATER AND SNITARY SEWER UTILITIES  
THE RETREAT AT BUNN HILL  
BUNN HILL ROAD  
TOWN OF VESTAL  
BROOME COUNTY, NY  
OFF-SITE UTILITIES - SANITARY

SHEET NO.  
**C156**  
PROJECT NO.  
2983.08319  
DATE: 11/01/2022  
JOB FILE NO. 298308319-SITE



- NOTE:**
- LIFTING HOLES AND PIPE CUTOUTS TO BE GROUTED WITH EXPANDING MORTAR
  - SANITARY MANHOLES SHALL HAVE "A-LOK" FLEXIBLE LEAKPROOF CONNECTIONS OR EQUAL.
  - SANITARY MANHOLES SHALL HAVE 2 COATS OF BITUMINOUS WATERPROOFING.
  - MANHOLE SECTION SHALL MEET A.S.T.M. DESIGNATION C478. THE DESIGN HIGHWAY LOADING SHALL BE AASHTO H-20.

**1 MANHOLE DETAIL**  
C203 N.T.S.

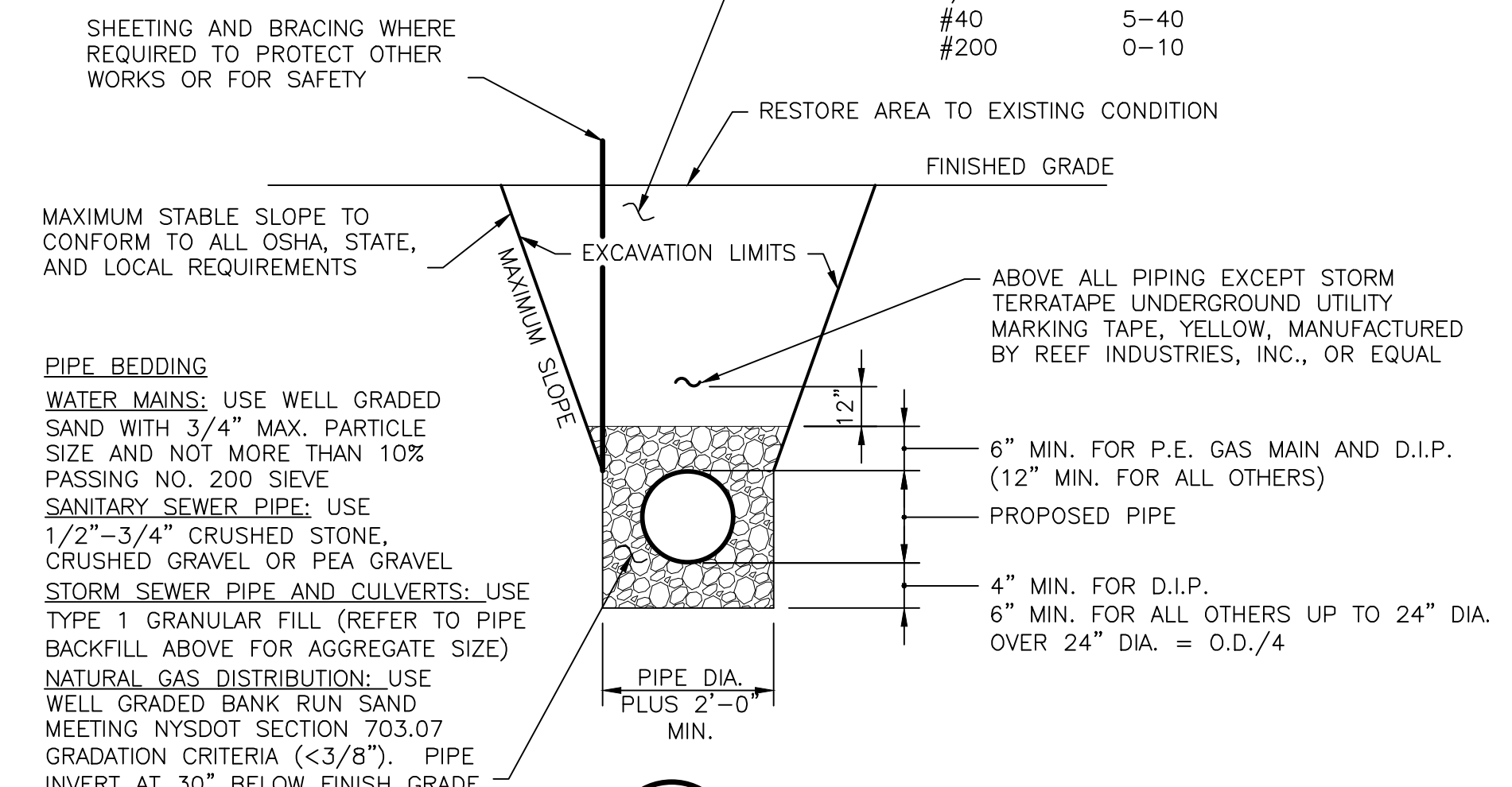


- NOTES:**
- CONCRETE ENCASEMENT NOT REQUIRED IF VERTICAL SEPARATION IS 18" OR GREATER.
  - WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER. AT CROSSINGS ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. SPECIAL STRUCTURAL SUPPORT FOR THE WATER AND SEWER PIPES MAY BE REQUIRED.

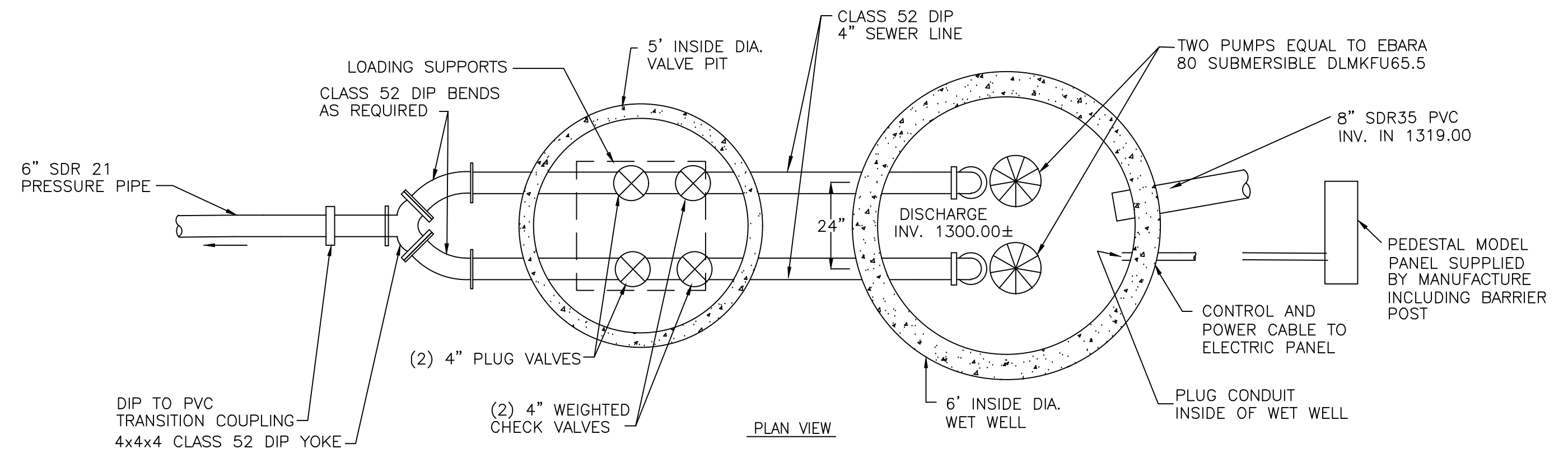
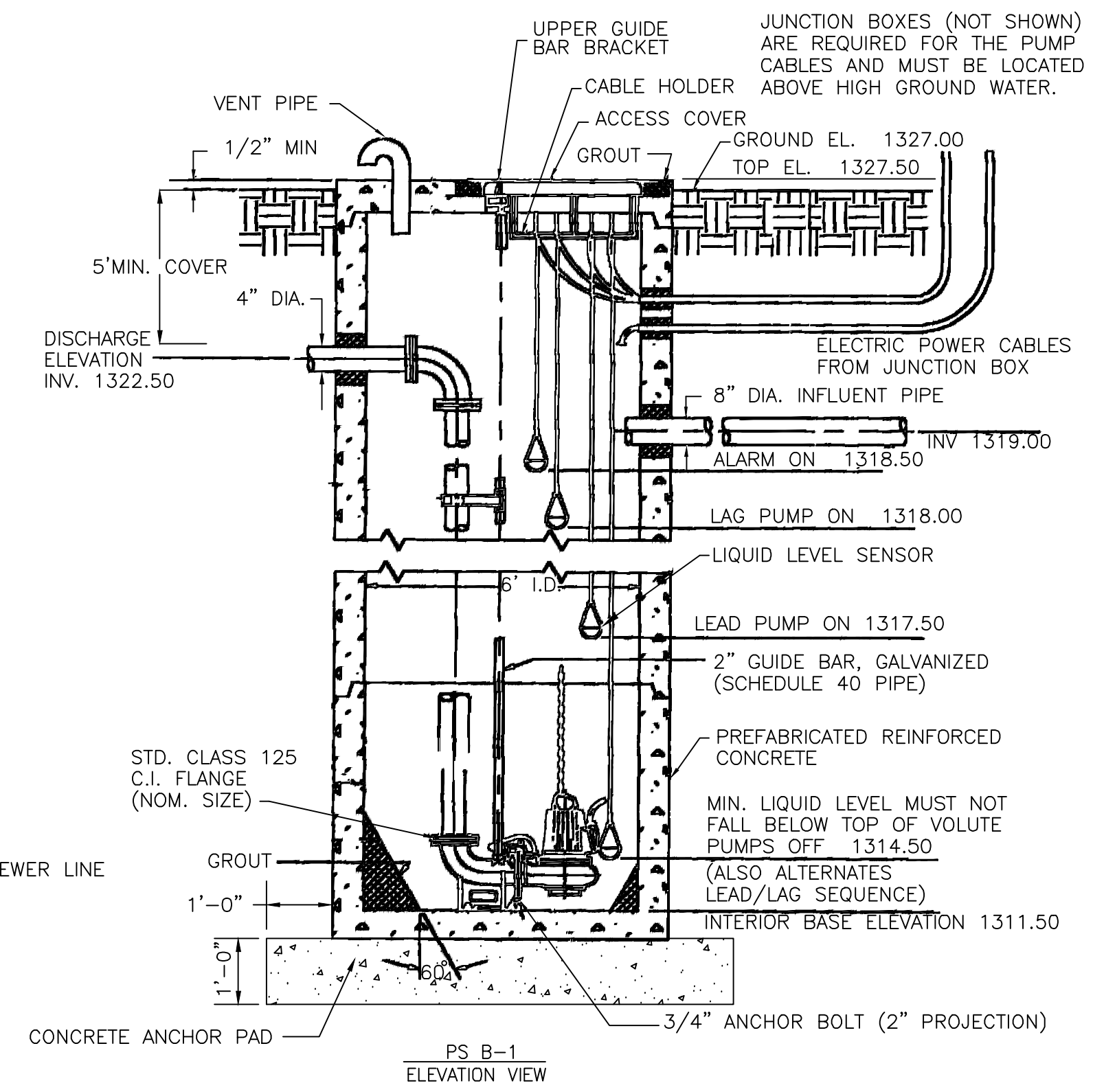
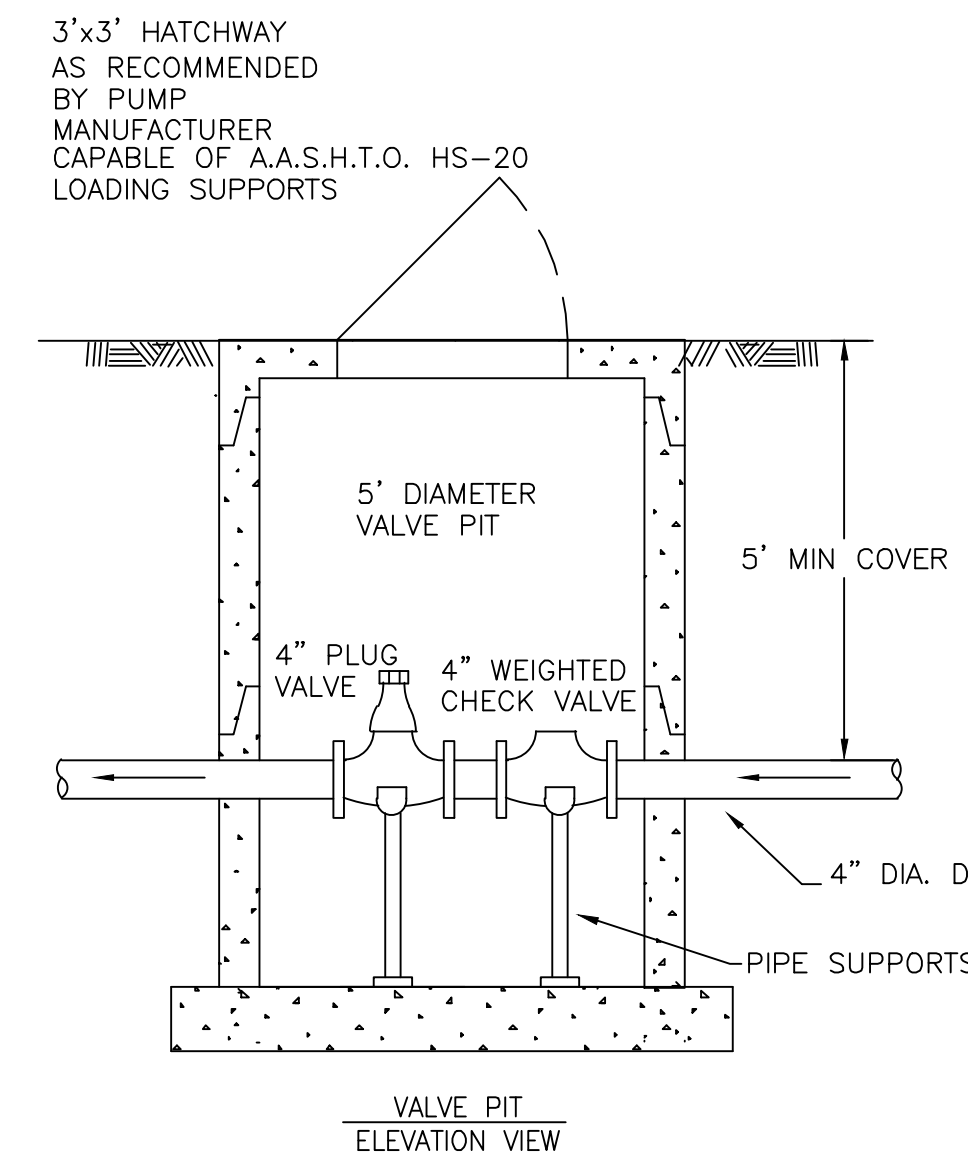
**2 SANITARY ENCASEMENT CROSSING DETAIL**  
C203 N.T.S.

**PIPE BACKFILL**  
USE SUITABLE EXCAVATED MATERIAL PLACED IN LAYERS AND COMPACTED. UNSUITABLE EXCAVATED MATERIAL AS DETERMINED BY ENGINEER WILL BE REPLACED WITH TYPE 1 FILL WITH THE FOLLOWING GRADATION REQUIREMENTS

SIEVE DESIGNATION	% BY WEIGHT PASSING SQUARE MESH SIEVES
3"	100
2"	90-100
1/4"	30-65
#40	5-40
#200	0-10

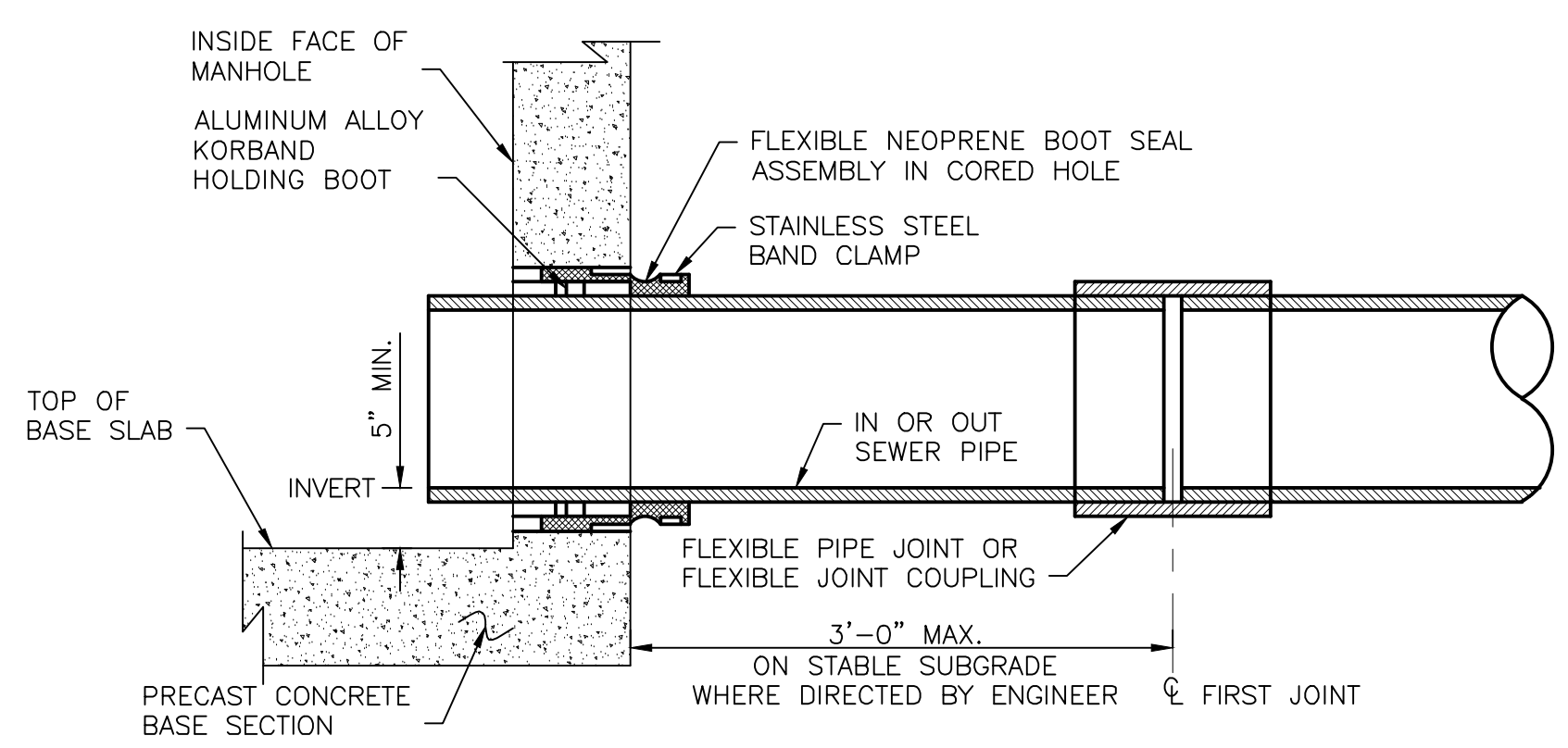


**4 PIPE TRENCH DETAIL**  
C203 N.T.S.



- NOTES:**
- PUMPS EQUAL TO EBARA 80 SUBMERSIBLE DLMKFU65.5
  - ALL SEWER OPENINGS TO BE SEALED WITH A-LOK FLEXIBLE SEALS OR EQUIVALENT
  - SEWER LINES AND POWER CABLE MAY NOT BE SHOWN IN EXACT LOCATIONS
  - ACCESS COVER SHALL BE HEAVY DUTY AND SUPPLIED BY PUMP MANUFACTURER. SIZE SHALL BE AS RECOMMENDED BY PUMP MNF. MIN. CAPABILITY A.A.S.H.T.O. HS-20 LOADING SUPPORTS
  - PEDESTAL MOUNTED CONTROL PANEL FURNISHED BY PUMP MNF. SHALL BE REQUIRED
  - CONTRACTOR SHALL CONSTRUCT 3,000 PSI, FIBERGLASS REINFORCED CONCRETE PAD 4'x4'x6" DEPTH OVER 18" GRAVEL BASE IN FRONT OF EACH CONTROL PANEL. INCLUDE COST IN PUMPING STATION PRICE ON PROPOSAL SHEET.
  - CONTRACTOR SHALL PROVIDE A COMPLETE ELECTRICAL INSTALLATION, REQUIRED FOR FURNISHING POWER AND COMMUNICATION SYSTEM REQUIRED FOR ALARMS. COST INCLUDING POLES (IF REQUIRED) CONDUIT, CABLES, CONDUCTORS, UTILITY COMPANY CHARGES, INSPECTIONS, AND ALL CHARGES OF ANY NATURE ARE CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE UNIT PRICE PROPOSAL FOR PUMPING STATIONS.
  - ALL PUMP ACCESSORIES, GUIDE BRACKETS, GUIDE BARS, FLOATS, CABLES, SEALS, VENT PIPE, CABLE HOLDER, AND OTHERS REQUIRED FOR PUMP OPERATION SHALL EITHER BE FURNISHED BY PUMP MNF. OR PUMP SUPPLIER IF AVAILABLE. ACCESSORIES NOT AVAILABLE SHALL CONFORM TO PUMP MNF. SUPPLIER RECOMMENDATIONS.

**3 SANITARY PUMP STATION DETAIL**  
C203 N.T.S.



**5 FORCEMAIN CONNECTION TO MANHOLE DETAIL**  
C203 N.T.S.

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WATER AND SNITARY SEWER UTILITIES  
THE RETREAT AT BUNN HILL  
BUNN HILL ROAD  
TOWN OF VESTAL  
BROOME COUNTY, NY

SITE SANITARY DETAILS

SHEET NO.  
**C203**

PROJECT NO.  
2983.08319

DATE: 11/01/2022

DRAWING NO. 298308319-DETAILS

