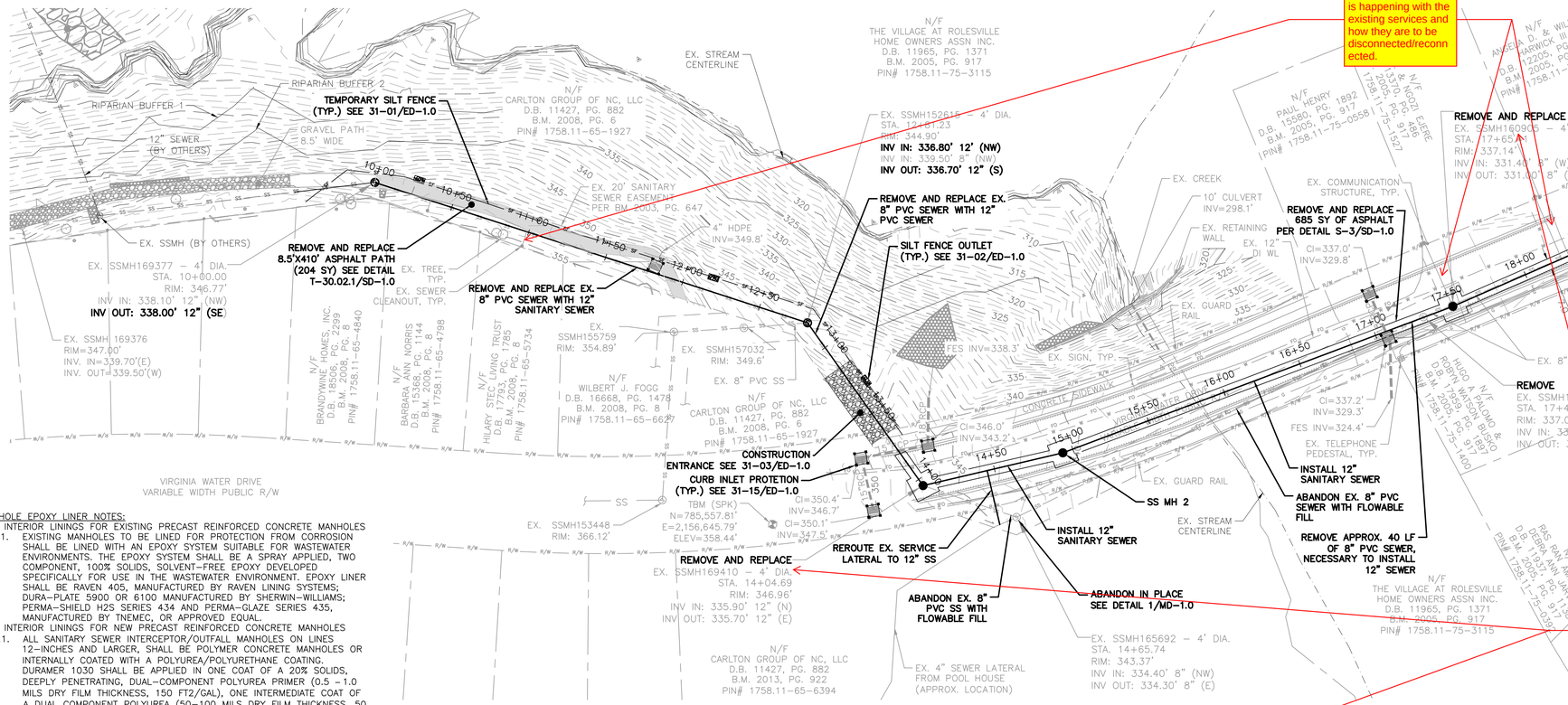


1 PLAN – STA. 10+00 TO 18+75

SCALE: 1" = 40'

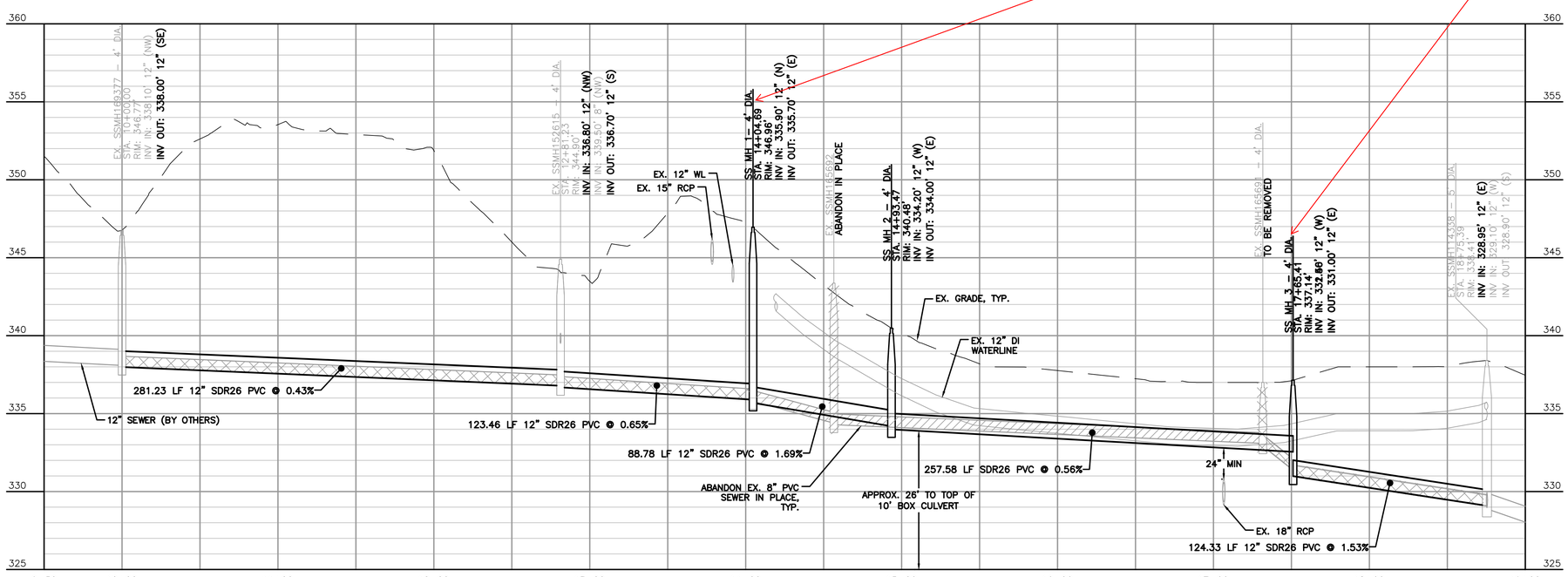
GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

MANHOLE EPOXY LINER NOTES:

1. INTERIOR LININGS FOR EXISTING PRECAST REINFORCED CONCRETE MANHOLES
   1.1. EXISTING MANHOLES TO BE LINED FOR PROTECTION FROM CORROSION SHALL BE LINED WITH AN EPOXY SYSTEM SUITABLE FOR WASTEWATER ENVIRONMENTS. THE EPOXY SYSTEM SHALL BE A SPRAY APPLIED, TWO COMPONENT, 100% SOLIDS, SOLVENT-FREE EPOXY DEVELOPED SPECIFICALLY FOR USE IN THE WASTEWATER ENVIRONMENT. EPOXY LINER SHALL BE RAVEN 405, MANUFACTURED BY RAVEN LINING SYSTEMS; DURA-PLATE 5900 OR 6100 MANUFACTURED BY SHERWIN-WILLIAMS; PERMA-SHIELD H2S SERIES 434 AND PERMA-GLAZE SERIES 435, MANUFACTURED BY TNEMEC, OR APPROVED EQUAL.
2. INTERIOR LININGS FOR NEW PRECAST REINFORCED CONCRETE MANHOLES
   2.1. ALL SANITARY SEWER INTERCEPTOR/OUTFALL MANHOLES ON LINES 12-INCHES AND LARGER, SHALL BE POLYMER CONCRETE MANHOLES OR INTERNALLY COATED WITH A POLYUREA/POLYURETHANE COATING, DURAMER 1030 SHALL BE APPLIED IN ONE COAT OF A 20% SOLIDS, DEEPLY PENETRATING, DUAL-COMPONENT POLYUREA PRIMER (0.5 – 1.0 MILS DRY FILM THICKNESS, 150 FT2/GAL), ONE INTERMEDIATE COAT OF A DUAL COMPONENT POLYUREA (50-100 MILS DRY FILM THICKNESS, 50 FT2/GAL) AND ONE TOP COAT OF A 65% SOLIDS, TWO-PART POLYUREA (7.5-10 MILS DRY FILM THICKNESS, 125 FT2/GAL). ALL COATS CAN BE APPLIED BY BRUSH, SPRAY, OR ROLLER. SHERFLEX ELASTOMERIC POLYURETHANE SHALL BE APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. POLYUREA/POLYURETHANE COATINGS SHALL BE DURAMER 1030 AS MANUFACTURED BY SEWERKOTE, SHERFLEX ELASTOMERIC POLYURETHANE AS MANUFACTURED BY SHERWIN-WILLIAMS, OR APPROVED EQUAL.



2 PROFILE – STA. 10+00 TO 18+75

SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

BENCHMARK:

1. TBM (SPK) LOCATED APPROXIMATELY 95 FT WEST OF MANHOLE 2

NOTES:

1. SEE DETAIL S-5/SD-1.0 FOR TRENCH AND BACKFILL.
2. ALL CONSTRUCTION SHALL ADHERE TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
3. CONTRACTOR SHALL CORE DRILL EXISTING MANHOLE TO ACCOMMODATE NEW LINE SIZE.
4. MODIFY EXISTING MANHOLE TROUGH FOR NEW SEWER LINE.
5. ALL EXISTING AND NEW MANHOLES TO BE EPOXY COATED, SEE MANHOLE EPOXY LINER NOTE.

Public
Sewer Collection / Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit #

Authorization to Construct _____

#1 - Please add notes to clarify what is happening with the existing services and how they are to be disconnected/reconnected.

#2 - Based on the north arrow shown, the east is existing and the west is new. Please review and revise accordingly.

#3 - Is existing manhole remaining and a connection being made? Symbol makes it appear like this is a new manhole.

#4 - Based on linework, this appears to be new sanitary, but I am inferring from notes it is existing to remain in place. Please clean up linework to clarify what is existing to remain, existing to be replaced, and new.

Please provide consistency for existing vs. new. The existing sewer on the left side of the sheet is black while this is grey.

#5 - Please use the same naming for structures between plan and profile so it is easy to follow what structure is what.

#6 - Please include information about a bypass plan or how the existing sewer is to be handled during construction.

BY	GDF	REVISION	DATE
		90% DESIGN	10/28/22

PRELIMINARY DESIGN NOT RELEASED FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL SEAL 038689 ENGINEER BRIAN J.P. OSCHWALD 10/28/22

SEAL NOT VALID UNLESS SIGNED AND DATED

HIGHFILL INFRASTRUCTURE ENGINEERING, P.C.
2703 Jones Franklin Rd, Suite 201
Cary, NC 27518
Tel 919-481-4342
Fax 919-882-9762
www.hiepc.com
Firm License No. C-2586

Engineering is our profession. Service is our passion.

WALLBROOK OFFSITE UTILITY IMPROVEMENTS
WALLBROOK LANDCO
ROLESVILLE, NC

VIRGINIA WATER DRIVE PLAN & PROFILE
STA 10+00 TO STA 18+75

PROJECT NO. CSE2201

C-1.0