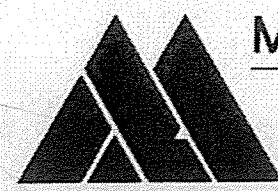
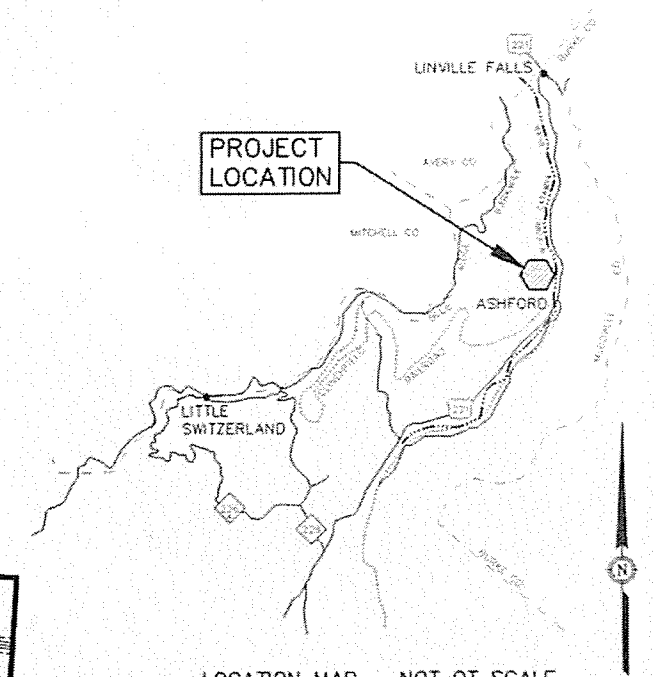
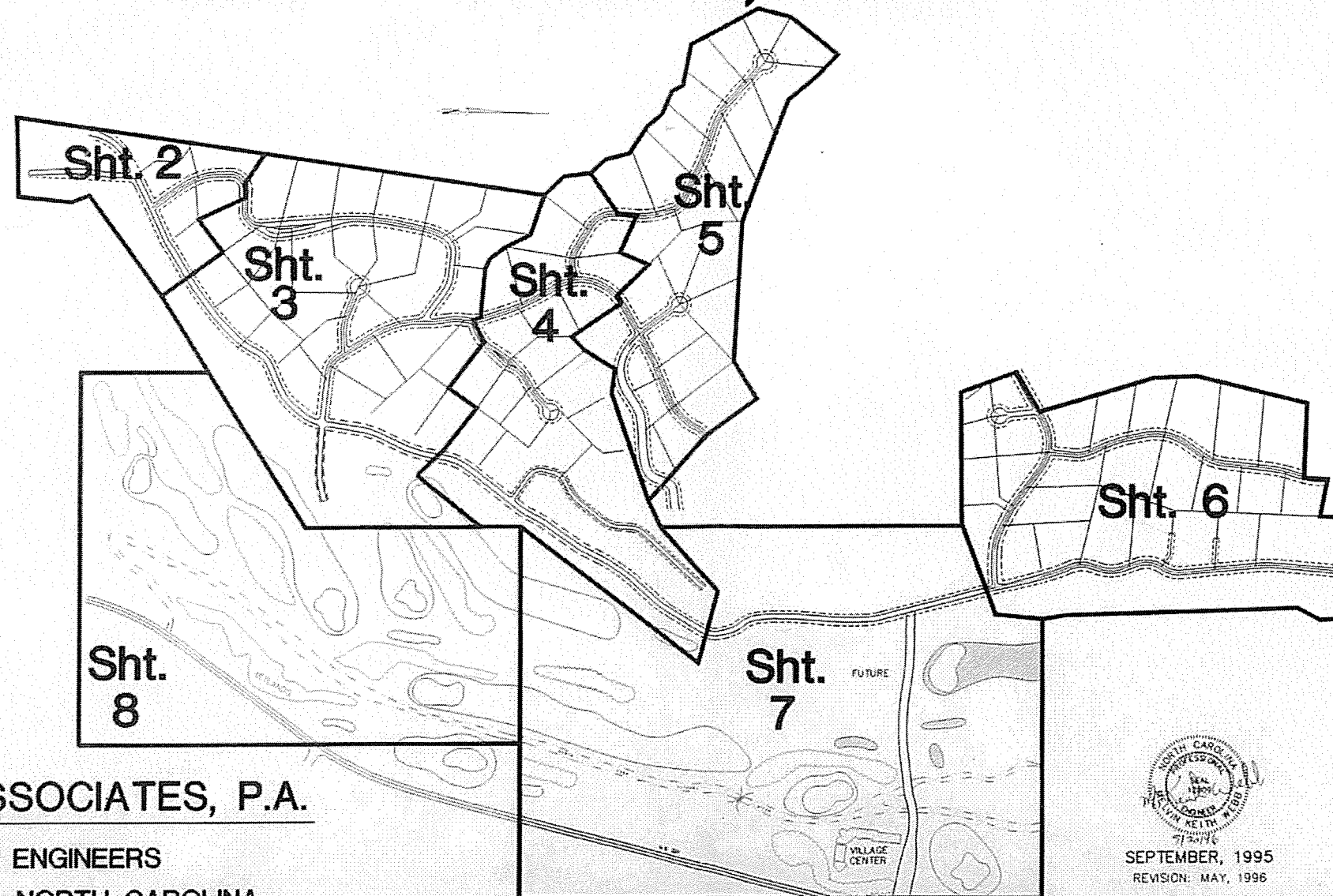


# PHASE I WASTEWATER COLLECTION SYSTEM BLUE RIDGE COUNTRY CLUB

## McDOWELL COUNTY, NORTH CAROLINA



**McGILL ASSOCIATES, P.A.**

CONSULTING ENGINEERS  
ASHEVILLE, NORTH CAROLINA

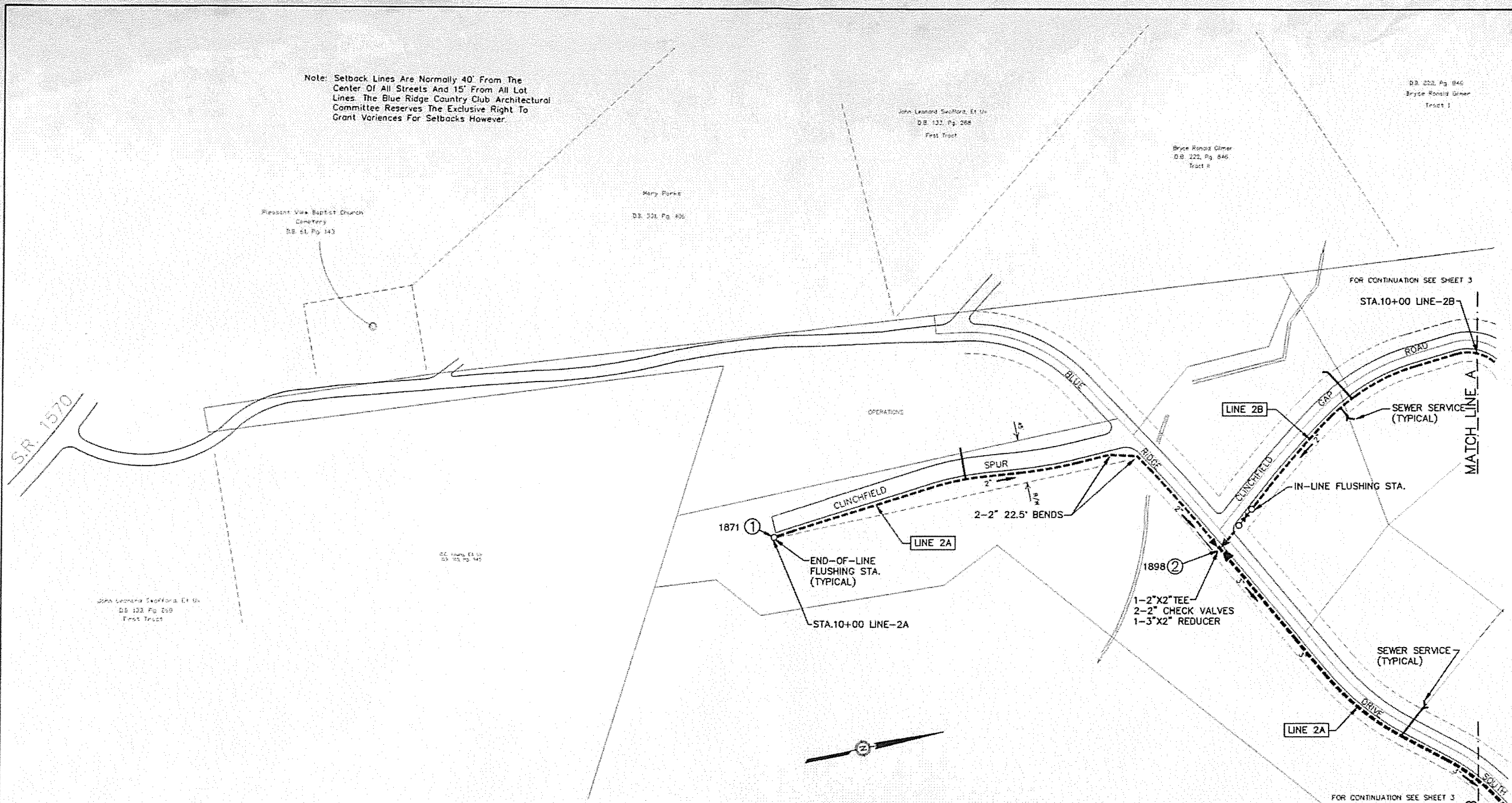


SEPTEMBER, 1995  
REVISION: MAY, 1996

### INDEX OF DRAWINGS

- 1. COVER SHEET-LOCATION MAP
- 2-8. SEWER PLAN-PROFILES
- 9. MISCELLANEOUS DETAILS
- 10. MISCELLANEOUS DETAILS

Note: Setback Lines Are Normally 40' From The Center Of All Streets And 15' From All Lot Lines. The Blue Ridge Country Club Architectural Committee Reserves The Exclusive Right To Grant Variances For Setbacks However.



**LEGEND**

IN-LINE FLUSHING STATION	○—▶—○
END-OF-LINE FLUSHING STATION	○
AIR/VACUUM RELEASE VALVE	■
GATE VALVE	▶—▶
WATER LINE	—
SEWER LINE	- - - -
CHECK VALVE	▶
REDUCER	▲
COMPUTER REFERENCE NODES	①

**PLAN**  
SCALE: 1" = 50'

**McGILL ASSOCIATES, P.A.**  
CONSULTING ENGINEERS  
ASHEVILLE, NORTH CAROLINA



PHASE I  
WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
McDOWELL COUNTY, NORTH CAROLINA

JOB NO. 94243  
DATE: SEPT., 1995  
SCALE: AS NOTED  
REVISION: MAY, 1996

**SEWER LINE PLAN**

**SHEET**

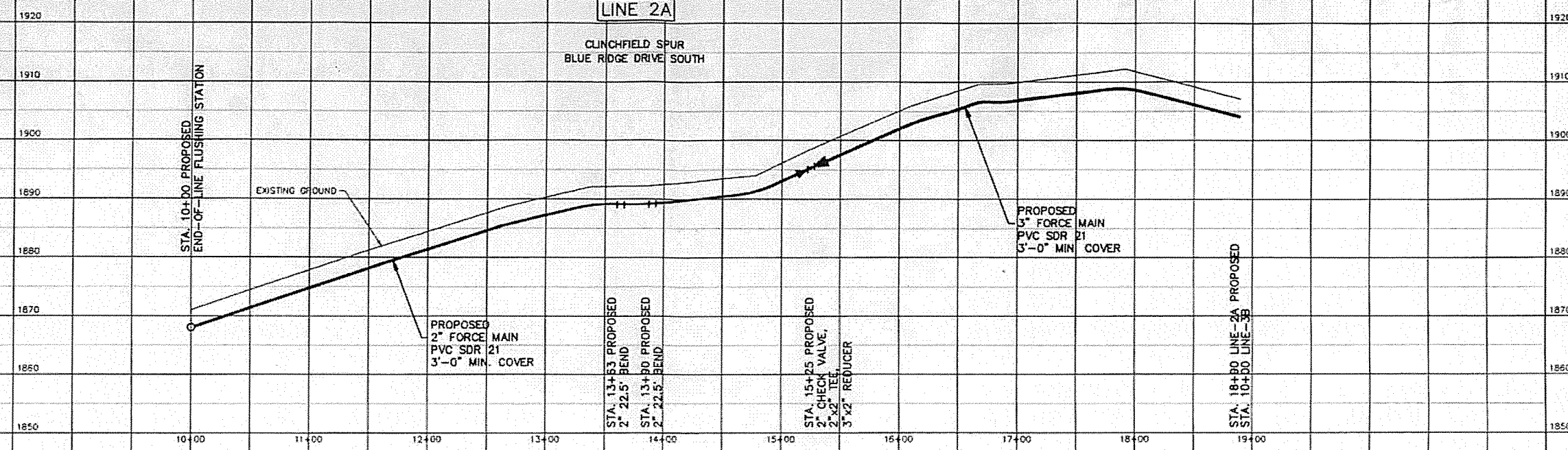
**2 OF 10**

PROFILE

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

LINE 2A

CLINCHFIELD SPUR  
BLUE RIDGE DRIVE SOUTH

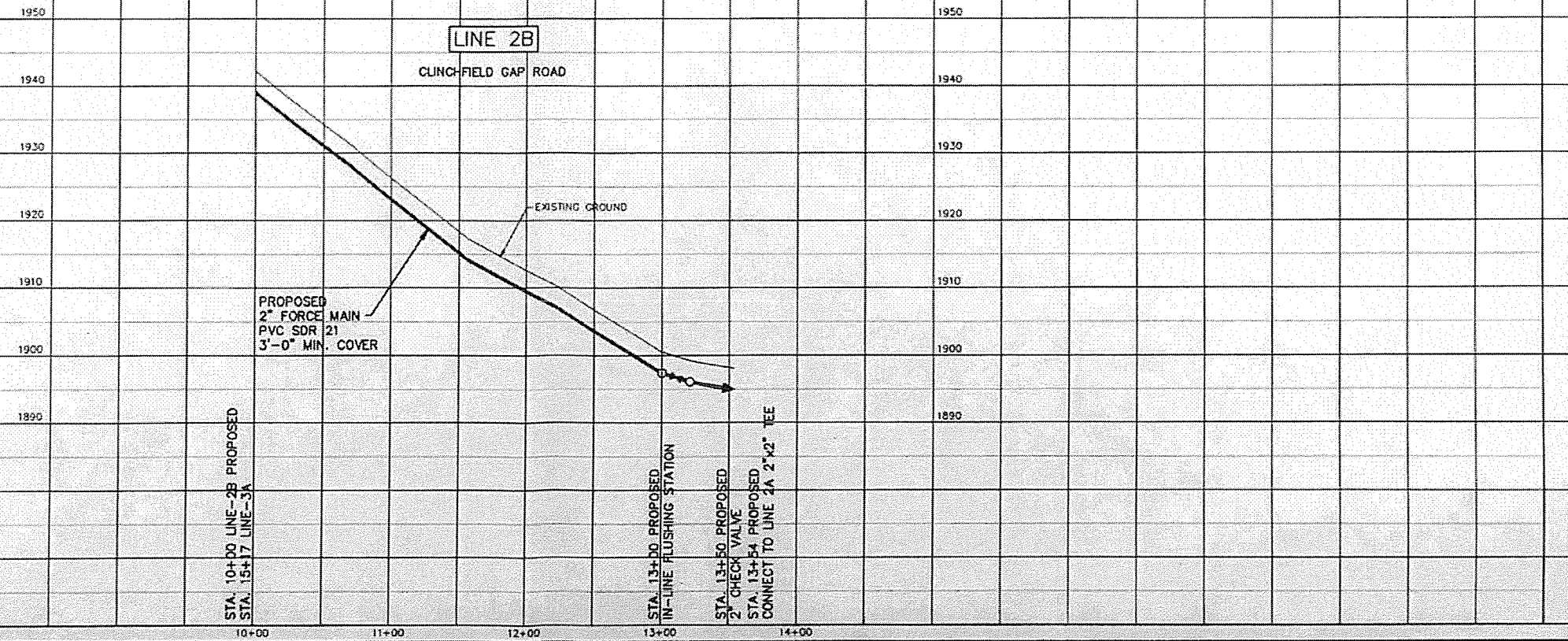


PROFILE


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

LINE 2B

CLINCHFIELD GAP ROAD



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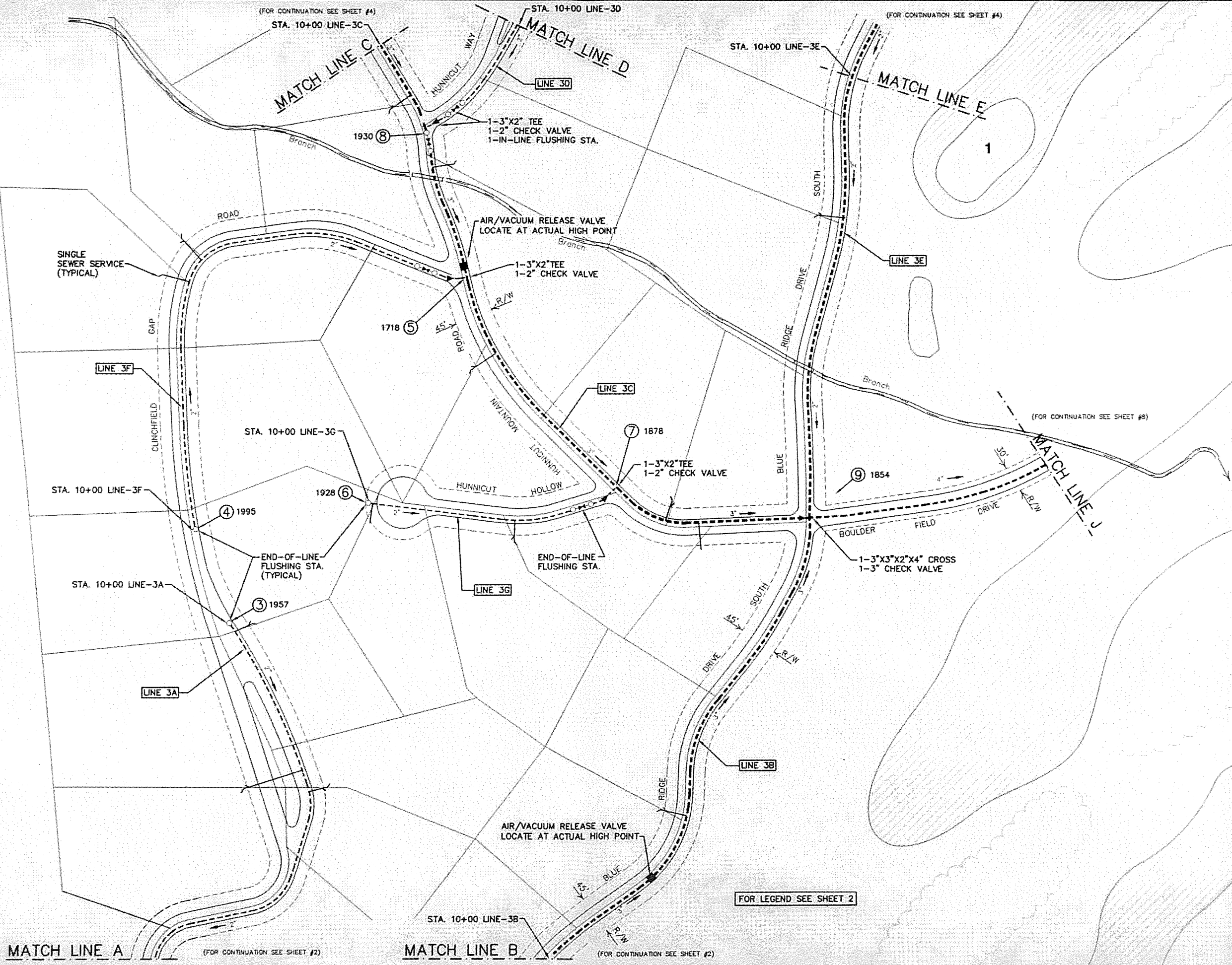
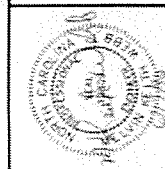

PHASE I  
WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
McDOWELL COUNTY, NORTH CAROLINA

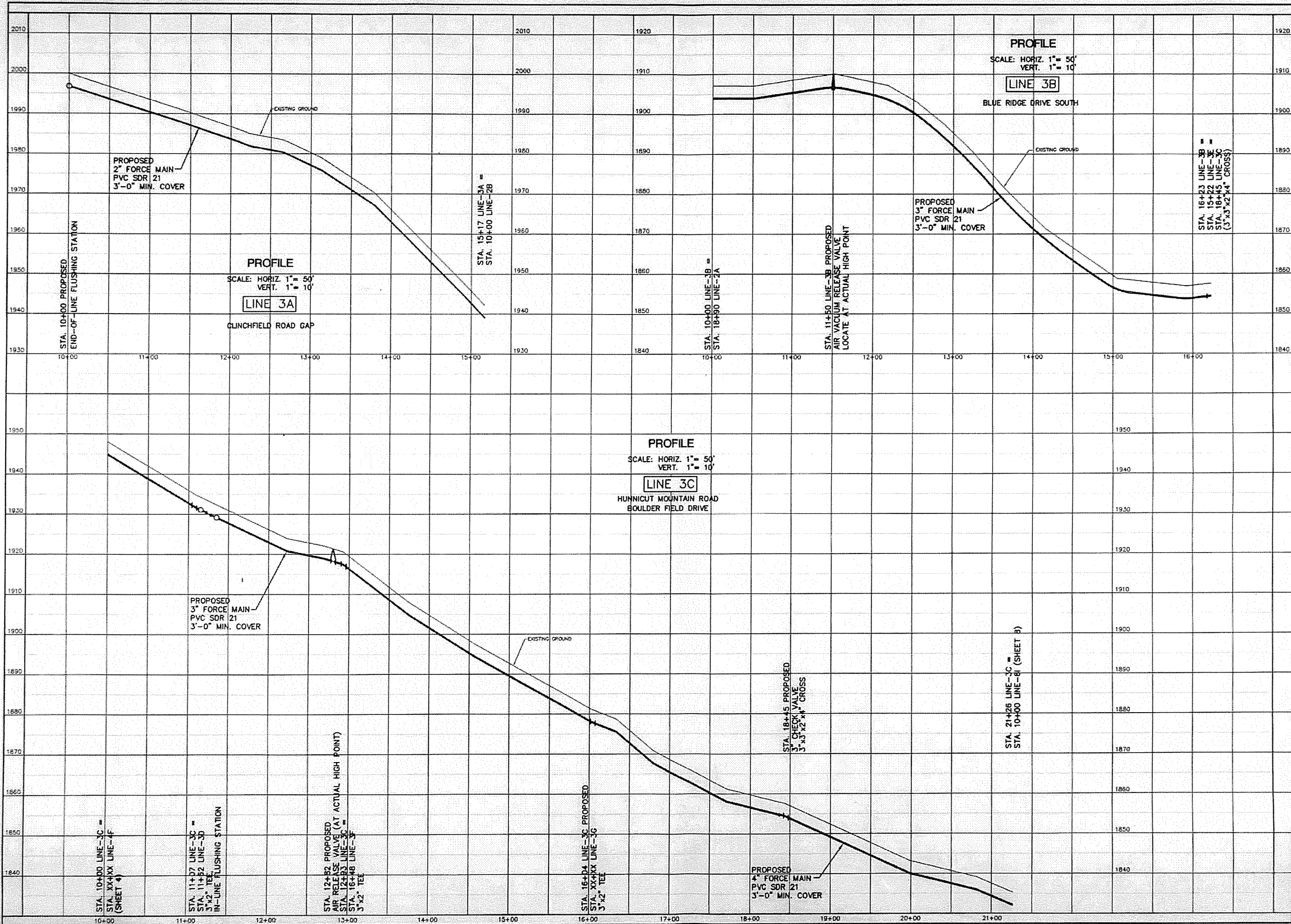
JOB NO: 94243  
DATE: MAY, 1996  
SCALE: AS NOTED  
REVISION:  
EJG/BAC/TA

SEWER LINE  
PROFILES

SHEET

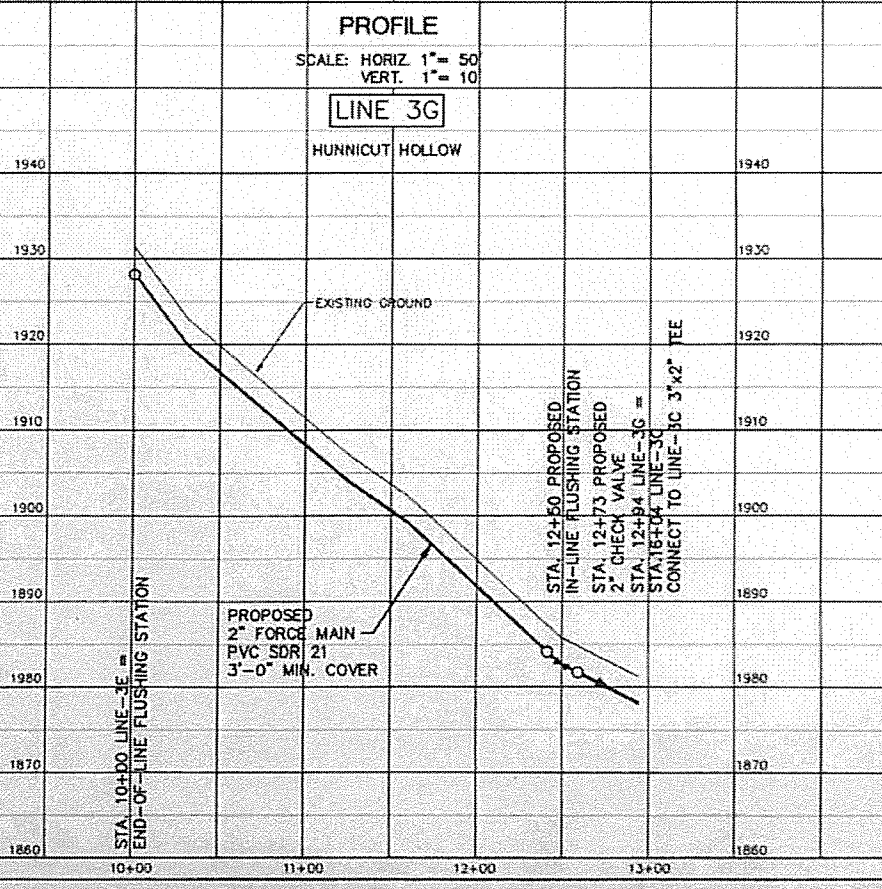
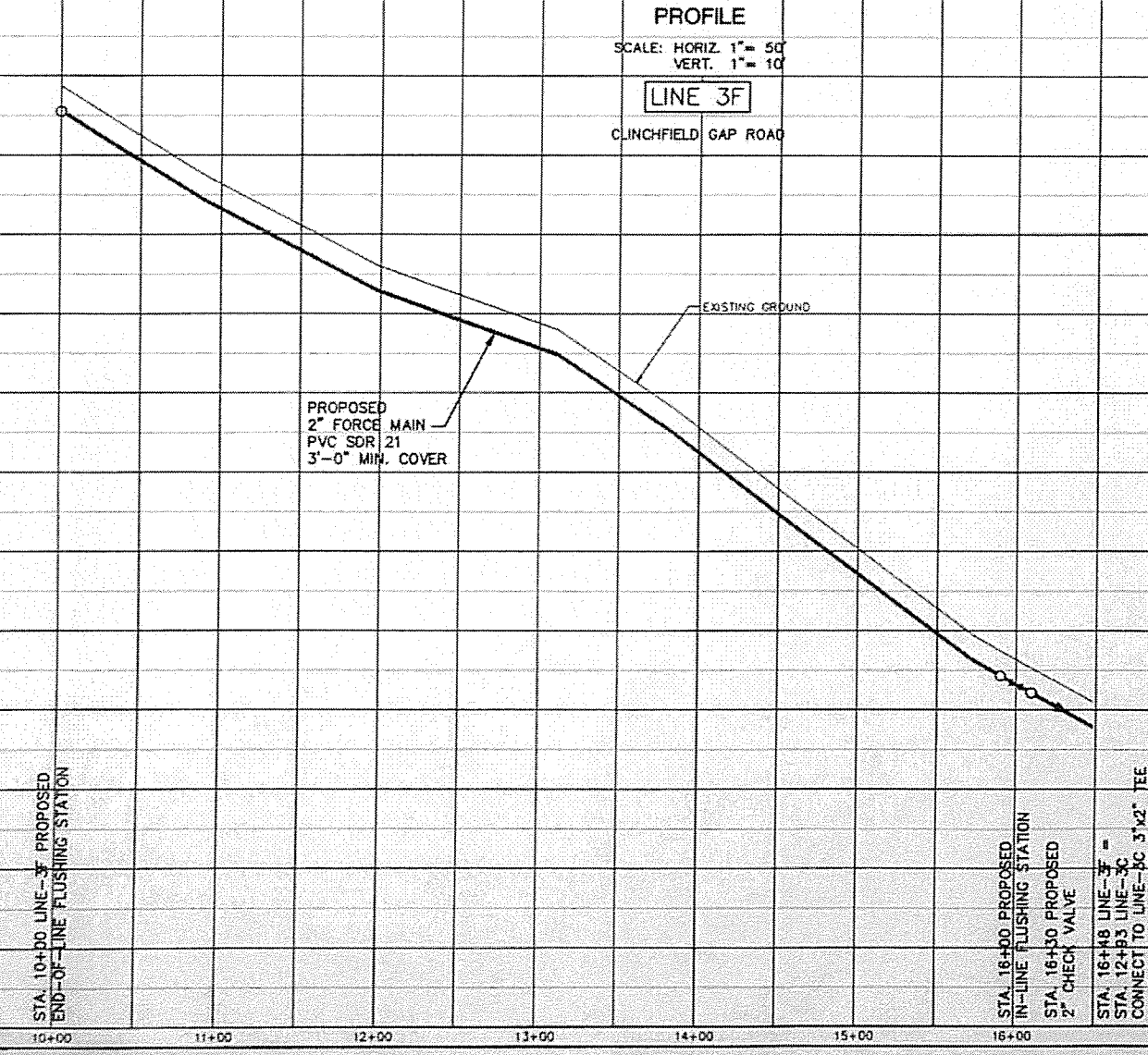
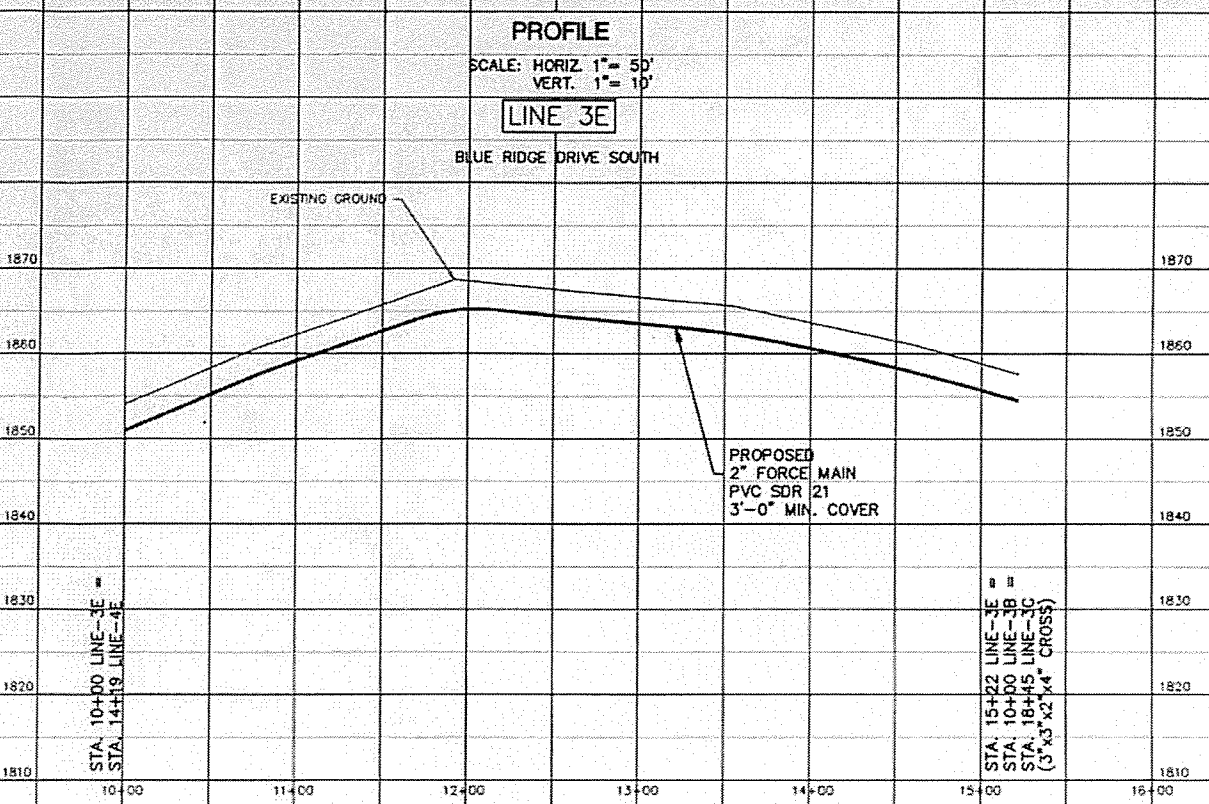
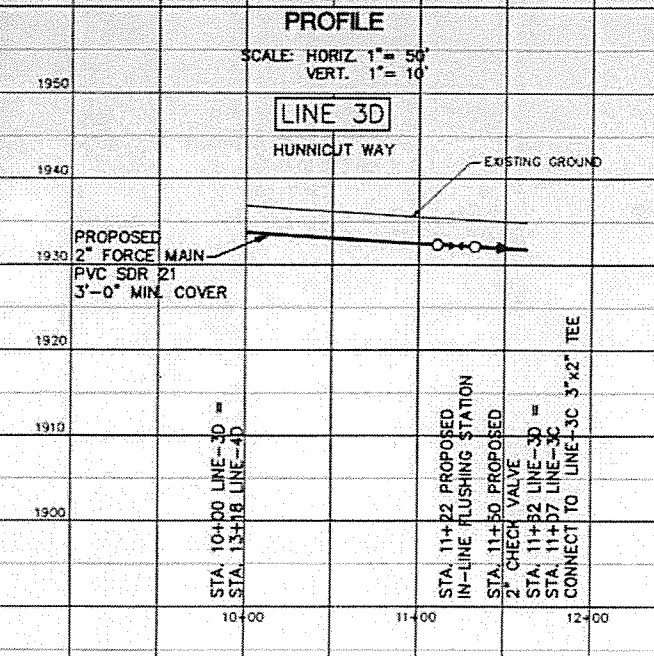
2A OF 10





JOB NO. 94243  
 DATE: MAY, 1996  
 SCALE: AS NOTED  
 REVISION:  
 FILE: BLUE-3A

**SEWER LINE PROFILES**

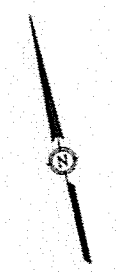


(FOR CONTINUATION SEE SHEET #7)

MATCH LINE I  
12  
1820

### LEGEND

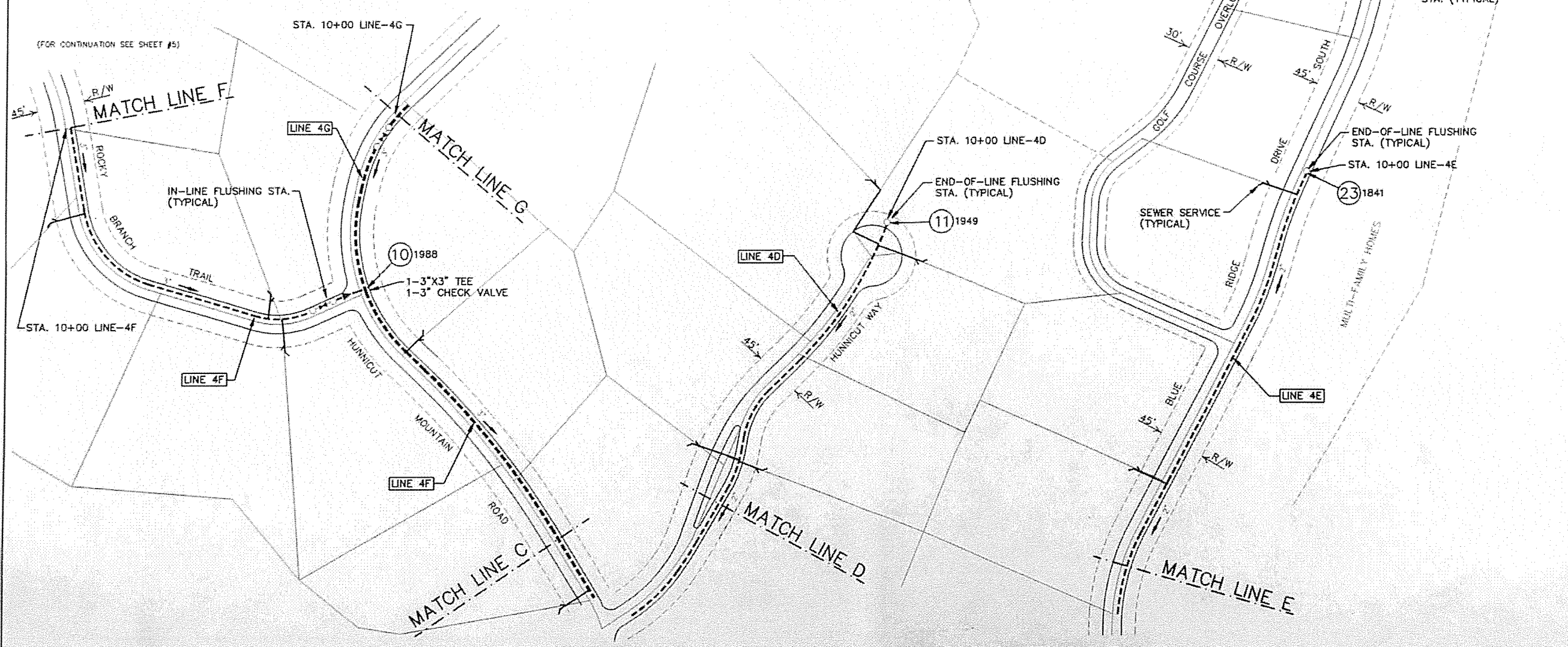
IN-LINE FLUSHING STATION	
END-OF-LINE FLUSHING STATION	
AIR/VACUUM RELEASE VALVE	
GATE VALVE	
WATER LINE	
SEWER LINE	
CHECK VALVE	
REDUCER	
COMPUTER REFERENCE NODES	



PLAN  
SCALE: 1" = 50'

(FOR CONTINUATION SEE SHEET #5)

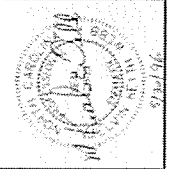
(FOR CONTINUATION SEE SHEET #5)



(FOR CONTINUATION SEE SHEET #3)

(FOR CONTINUATION SEE SHEET #3)

**McGILL ASSOCIATES, P.A.**  
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 ASHEVILLE, NORTH CAROLINA



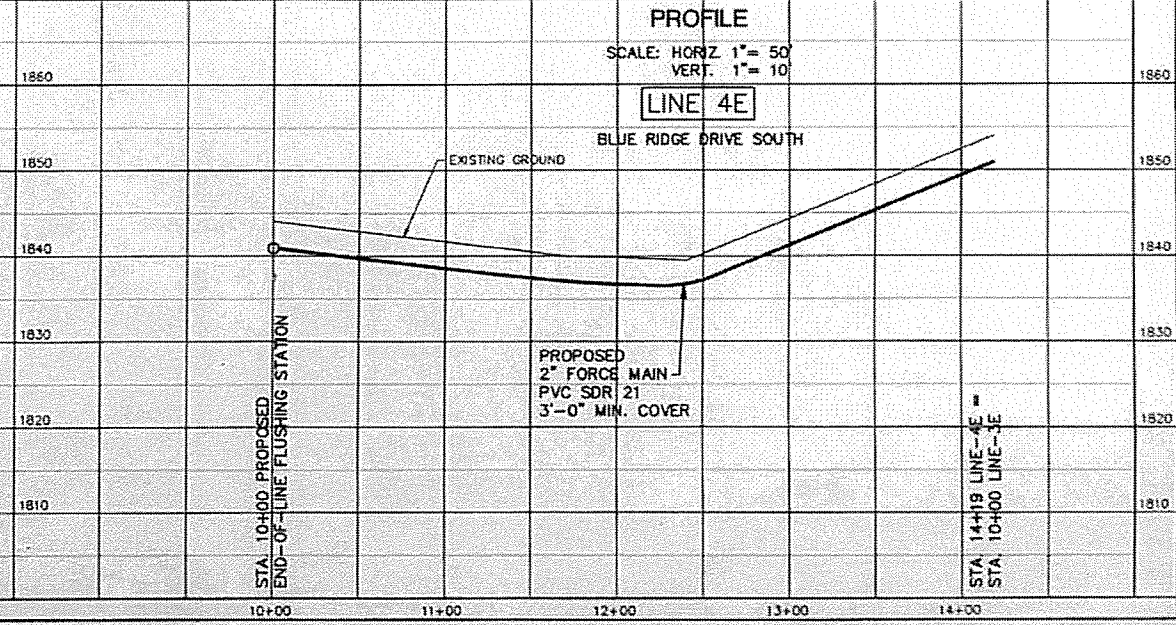
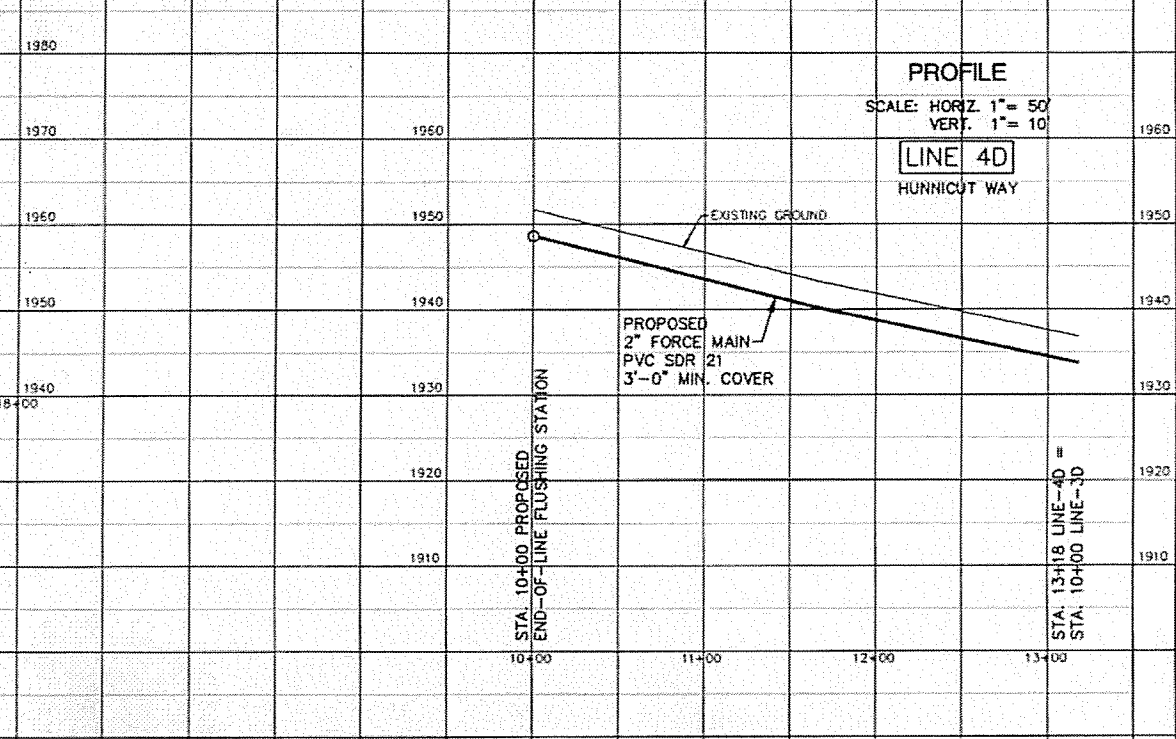
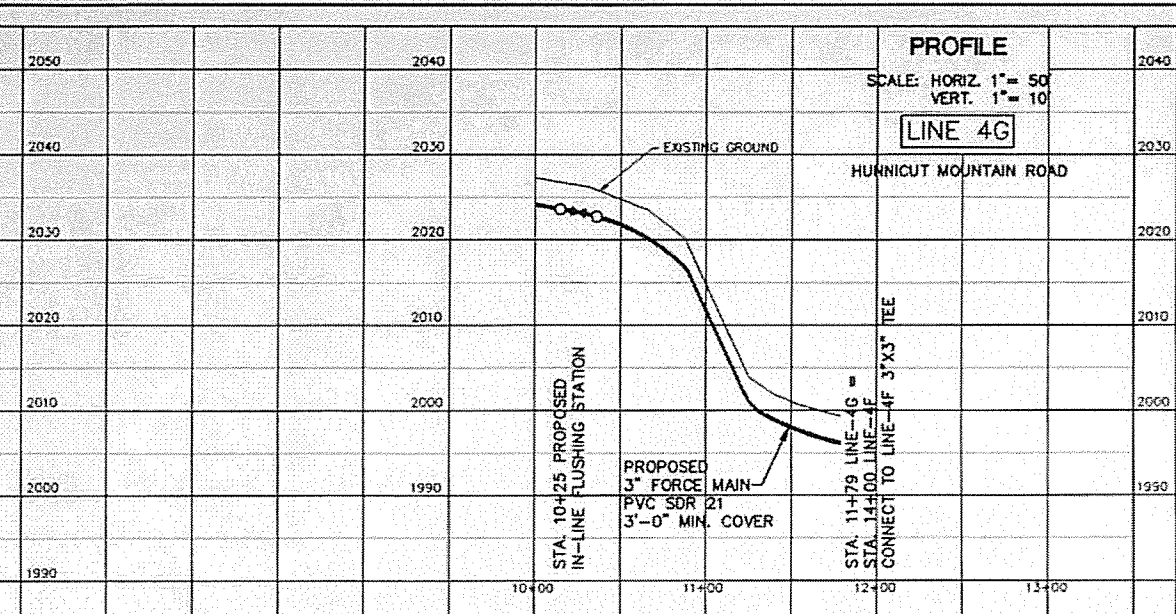
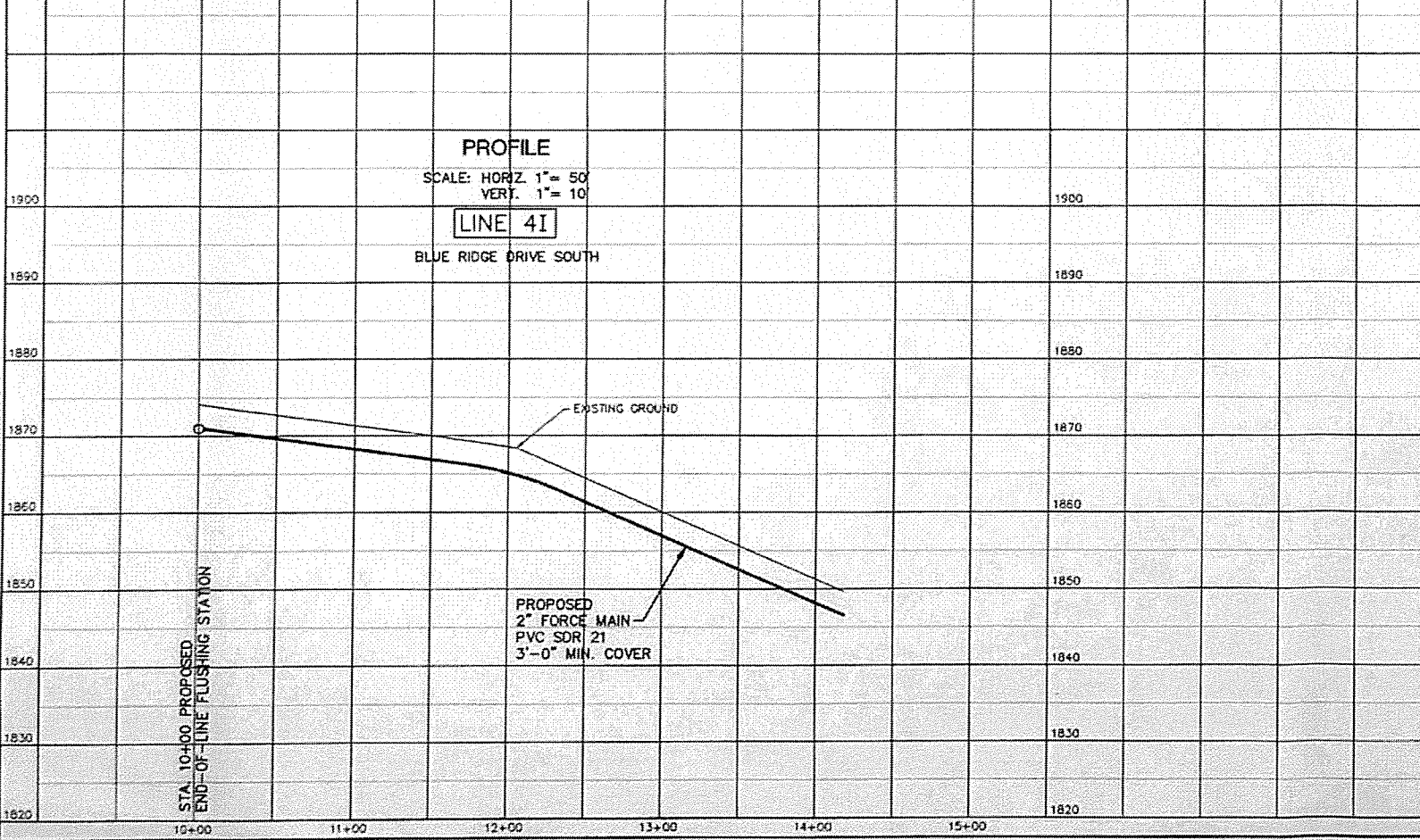
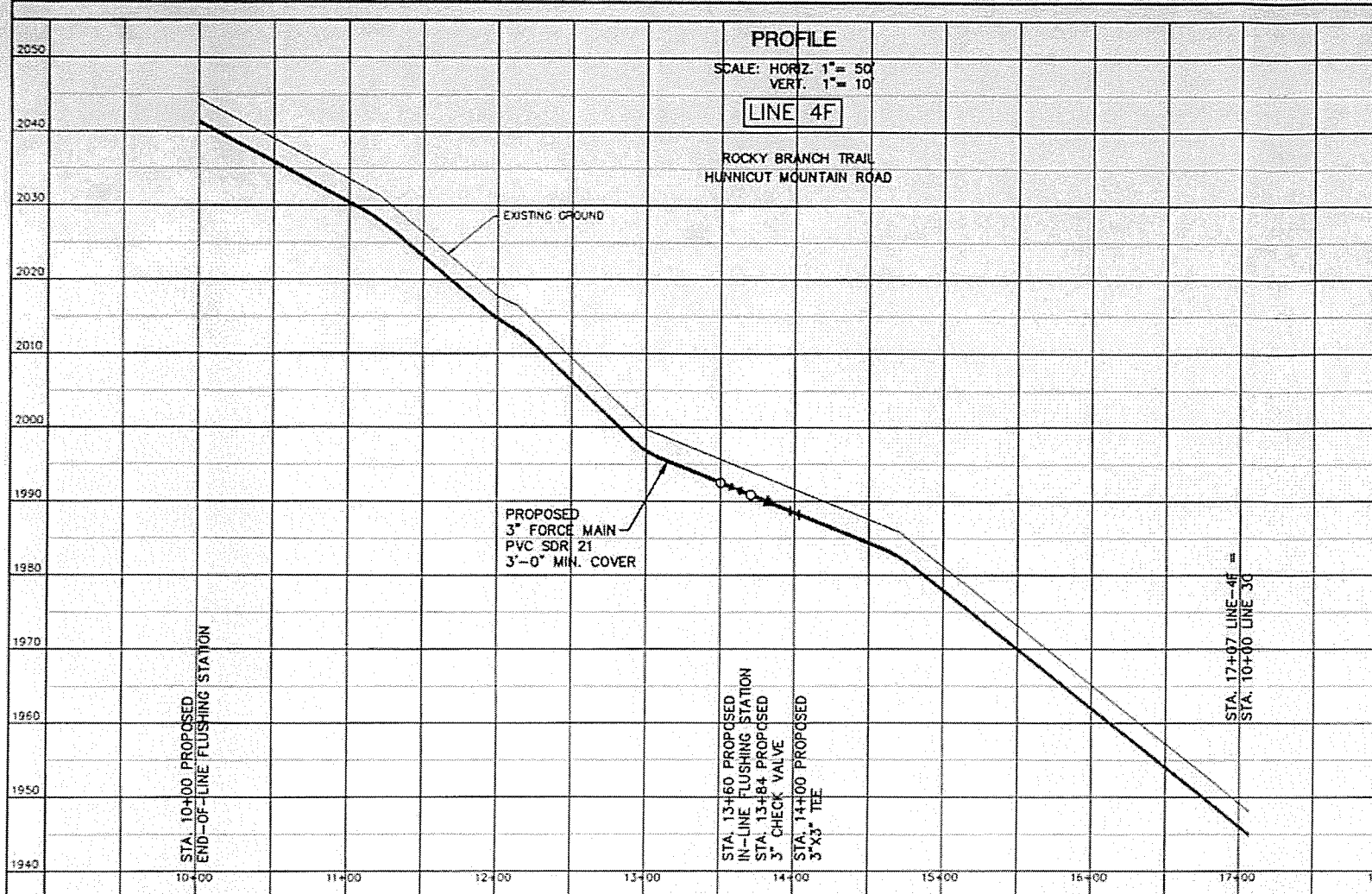
PHASE I  
 WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
 McDowell County, North Carolina

JOB NO. 94243  
 DATE: SEPT., 1995  
 SCALE: AS NOTED  
 REVISION: MAY, 1996

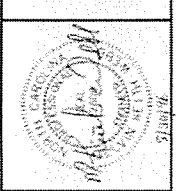
SEWER LINE  
 PLAN

SHEET

4 OF 10



**McGILL ASSOCIATES, P.A.**  
CONSULTING ENGINEERS  
ASHEVILLE, NORTH CAROLINA



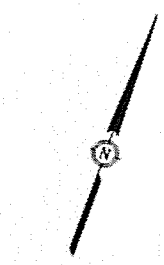
**PHASE I**  
WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
McDOWELL COUNTY, NORTH CAROLINA

JOB NO. 94243  
DATE: MAY, 1996  
SCALE: AS NOTED  
REVISION:  
FILE: BLUE-4A

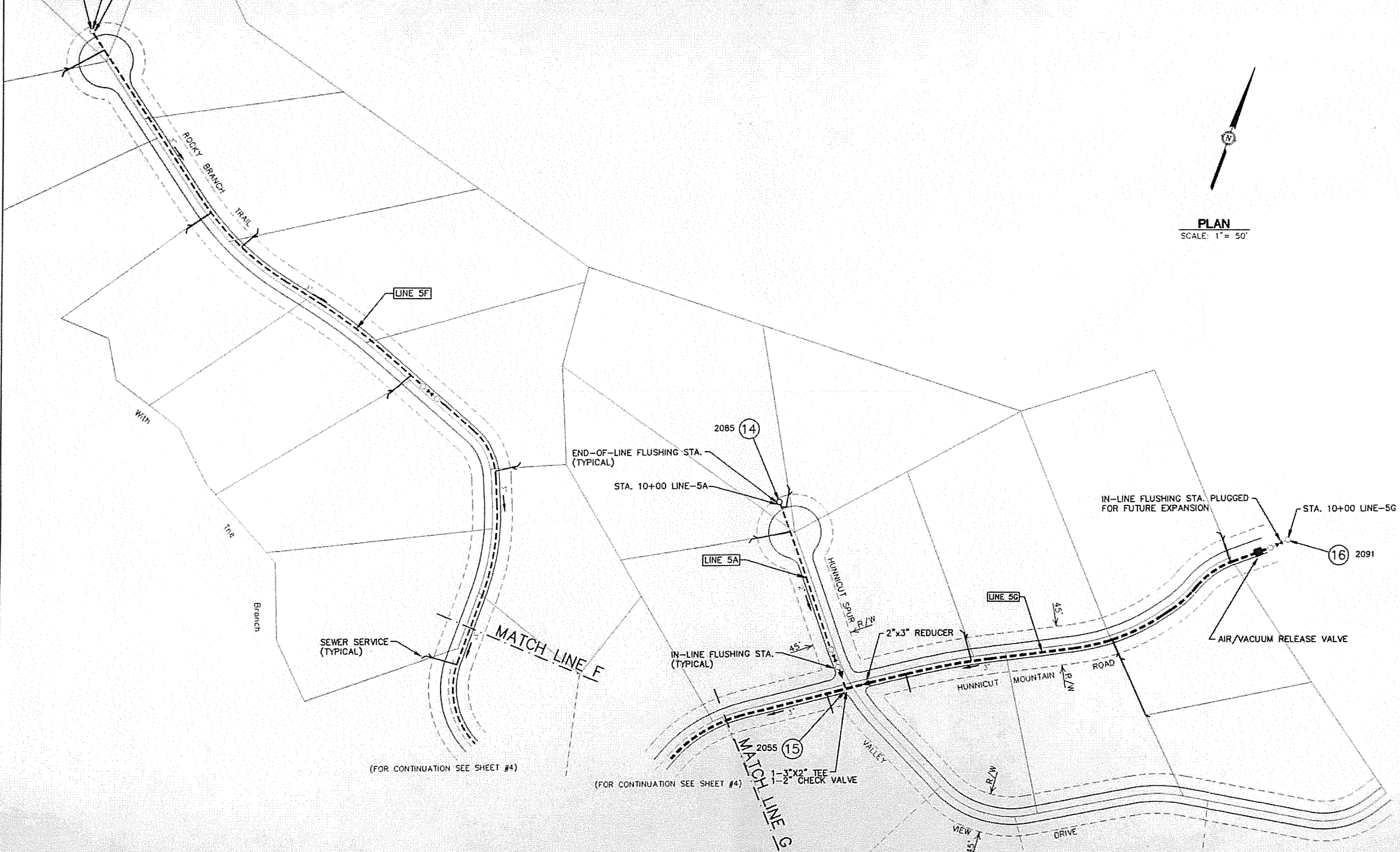
**SEWER LINE PROFILE**

**SHEET**  
**4A OF 10**

END-OF-LINE FLUSHING STA.  
(TYPICAL)  
STA. 10+00 LINE-5F  
2189 (13)



PLAN  
SCALE: 1" = 50'



(FOR CONTINUATION SEE SHEET #4)

(FOR CONTINUATION SEE SHEET #4)

**McGILL ASSOCIATES, P.A.**  
CONSULTING ENGINEERS  
ASHEVILLE, NORTH CAROLINA

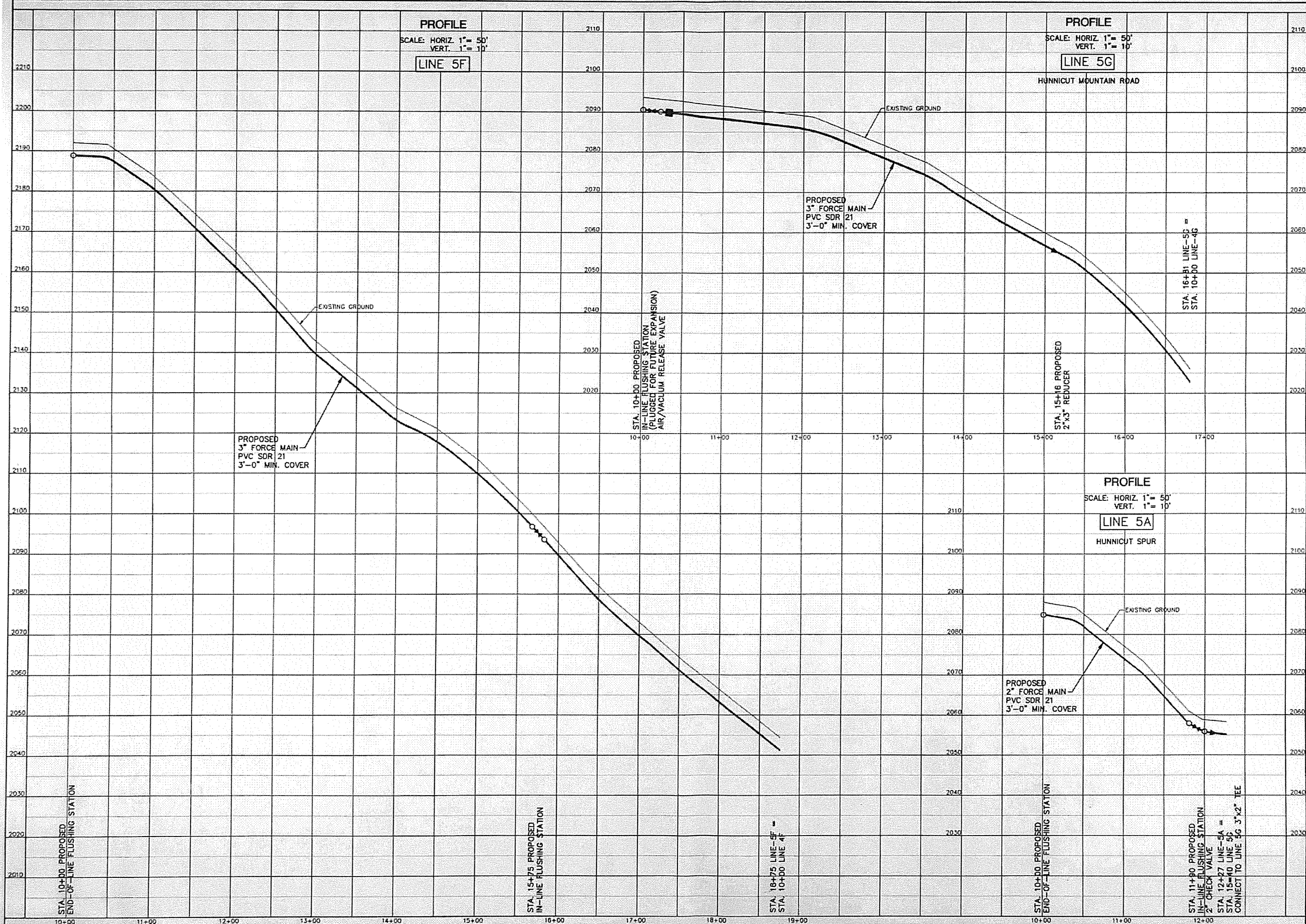


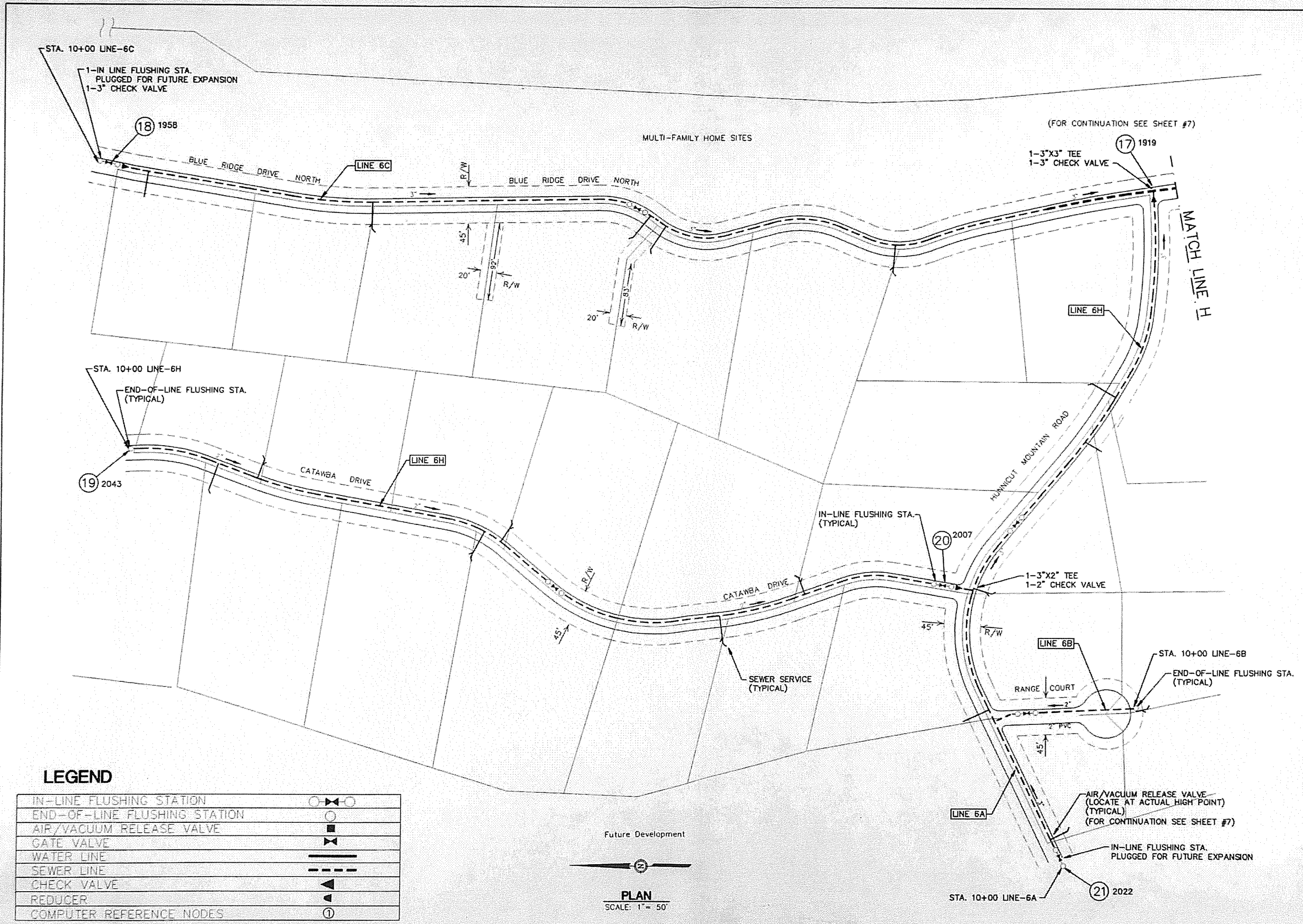
PHASE I  
WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
McDOWELL COUNTY, NORTH CAROLINA

JOB NO. 94243  
DATE: SEPT., 1995  
SCALE: AS NOTED  
REVISION:

SEWER LINE  
PLAN

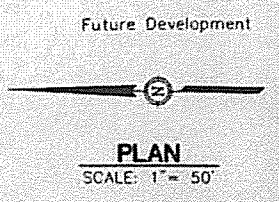
SHEET  
**5** OF **10**



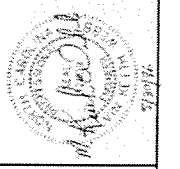


**LEGEND**

IN-LINE FLUSHING STATION	○—X—○
END-OF-LINE FLUSHING STATION	○
AIR/VACUUM RELEASE VALVE	■
GATE VALVE	X
WATER LINE	—
SEWER LINE	- - -
CHECK VALVE	▲
REDUCER	▲
COMPUTER REFERENCE NODES	①



**McGILL ASSOCIATES, P.A.**  
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ASHEVILLE, NORTH CAROLINA

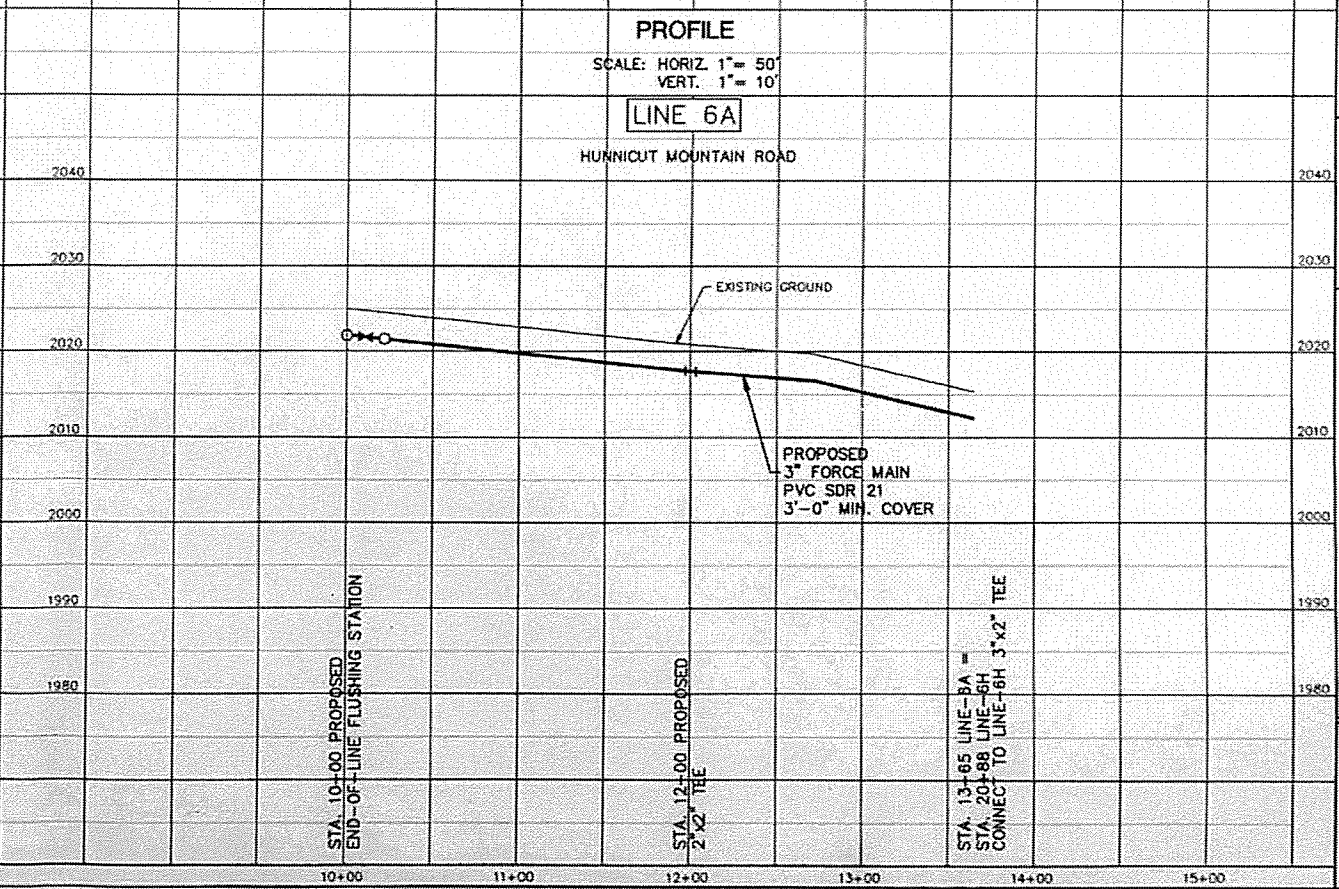
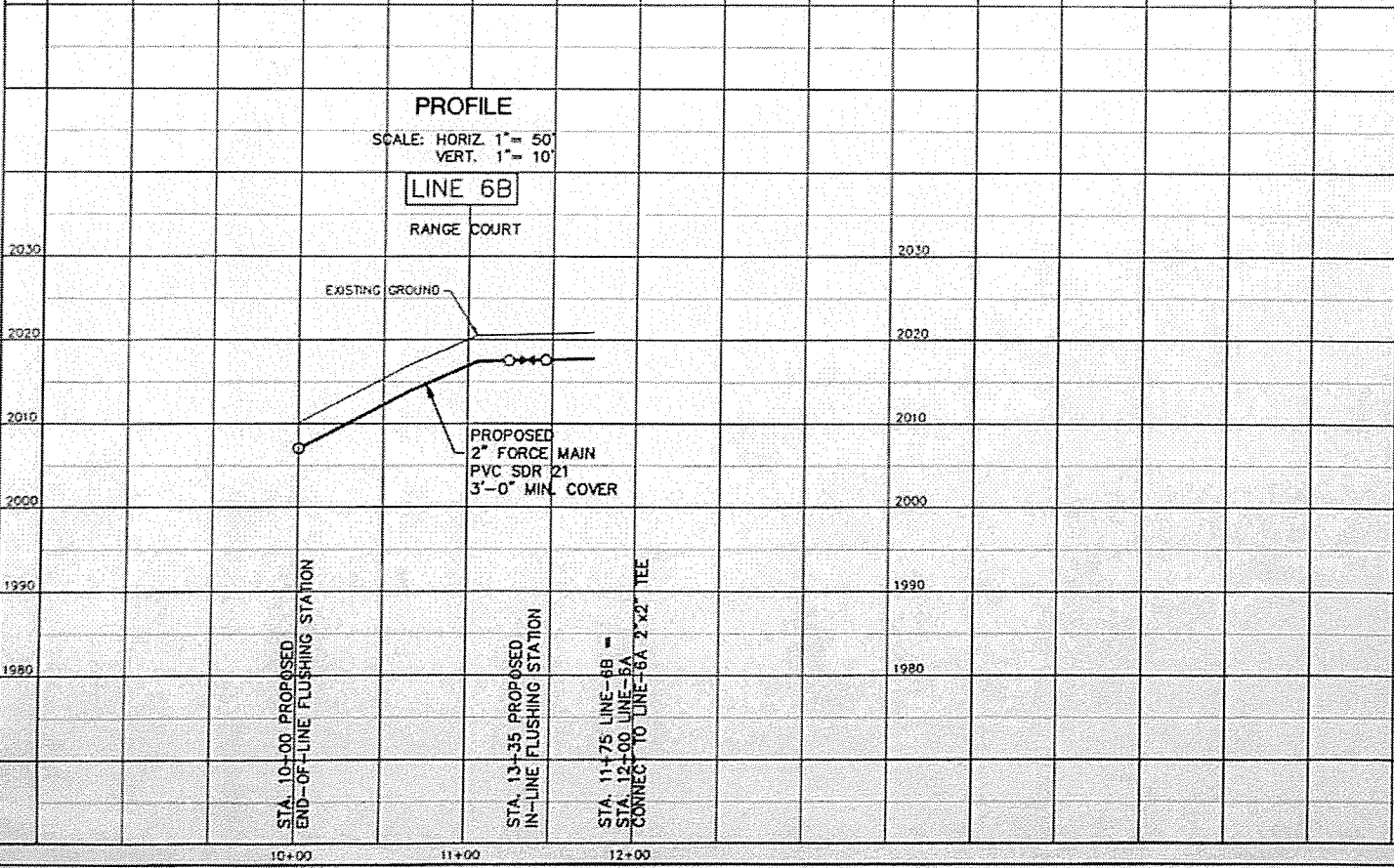
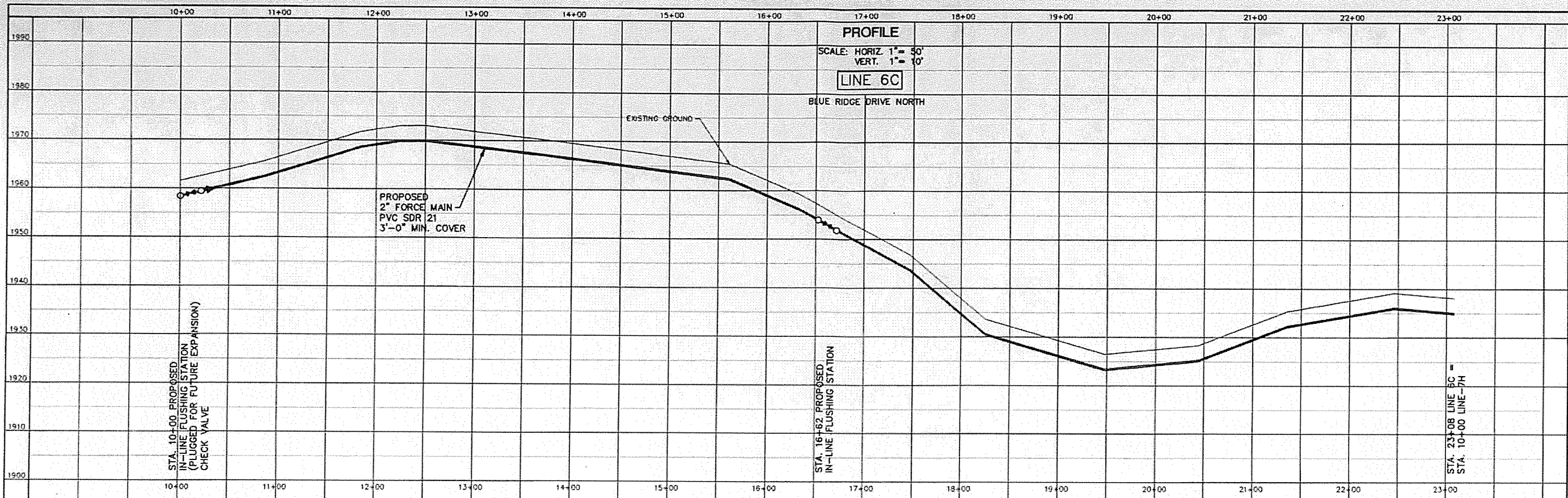


**PHASE I**  
WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
McDOWELL COUNTY, NORTH CAROLINA

JOB NO. 94243  
DATE: SEPT., 1995  
SCALE: AS NOTED  
REVISION: MAY, 1996  
PLOT: 05.14.96

**SEWER LINE PLAN**

**SHEET**  
**6 of 10**



**McGILL ASSOCIATES, P.A.**  
CONSULTING ENGINEERS  
ASHEVILLE, NORTH CAROLINA



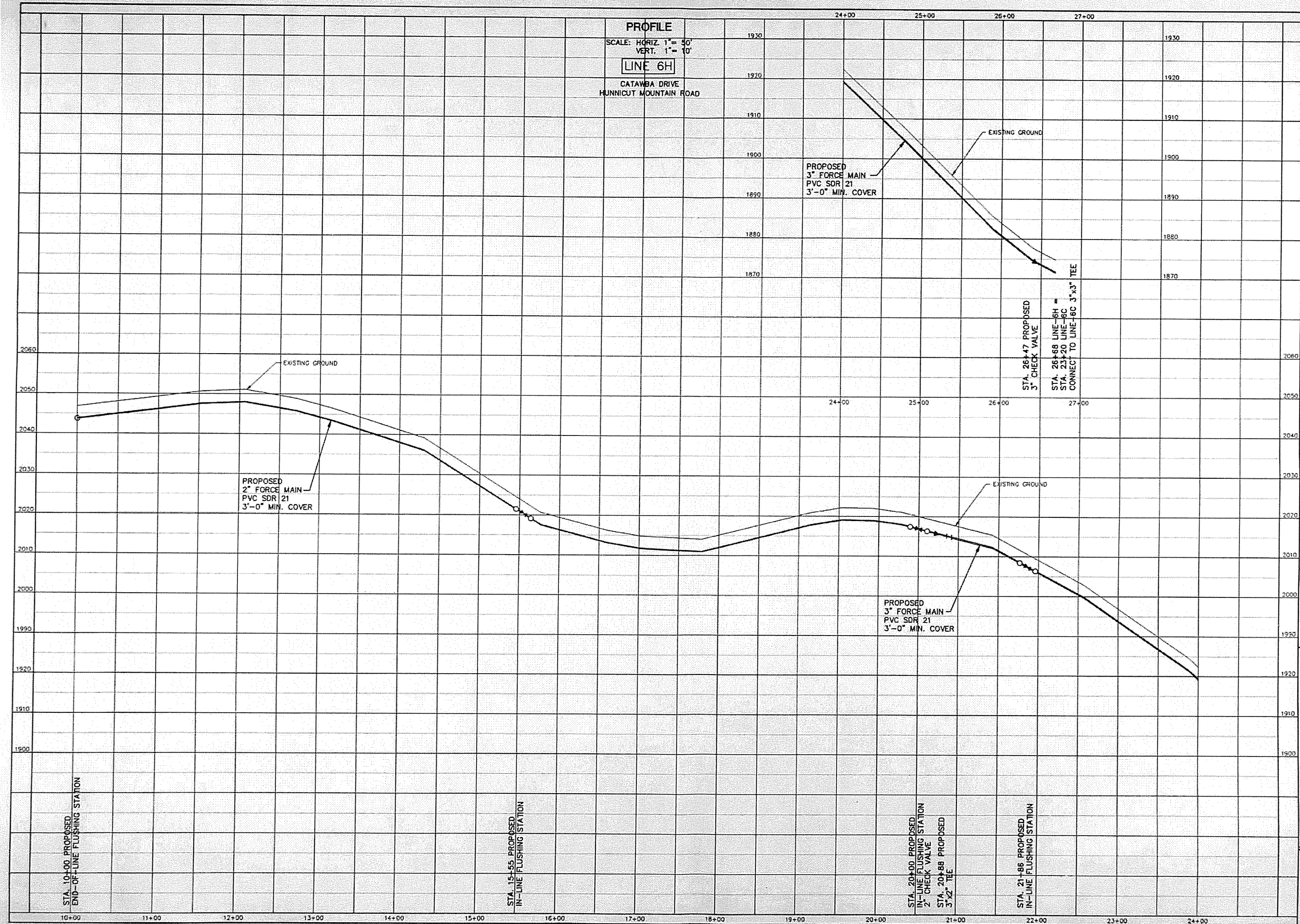
PHASE I  
WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
MCDOWELL COUNTY, NORTH CAROLINA

JOB NO. 04243  
DATE: MAY, 1986  
SCALE: AS NOTED  
REVISION  
FILE: BLUE-6A

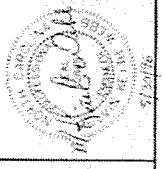
**SEWER LINE  
PROFILES**

SHEET

**6A OF 10**



**McGILL ASSOCIATES, P.A.**  
 CONSULTING ENGINEERS  
 ASHEVILLE, NORTH CAROLINA



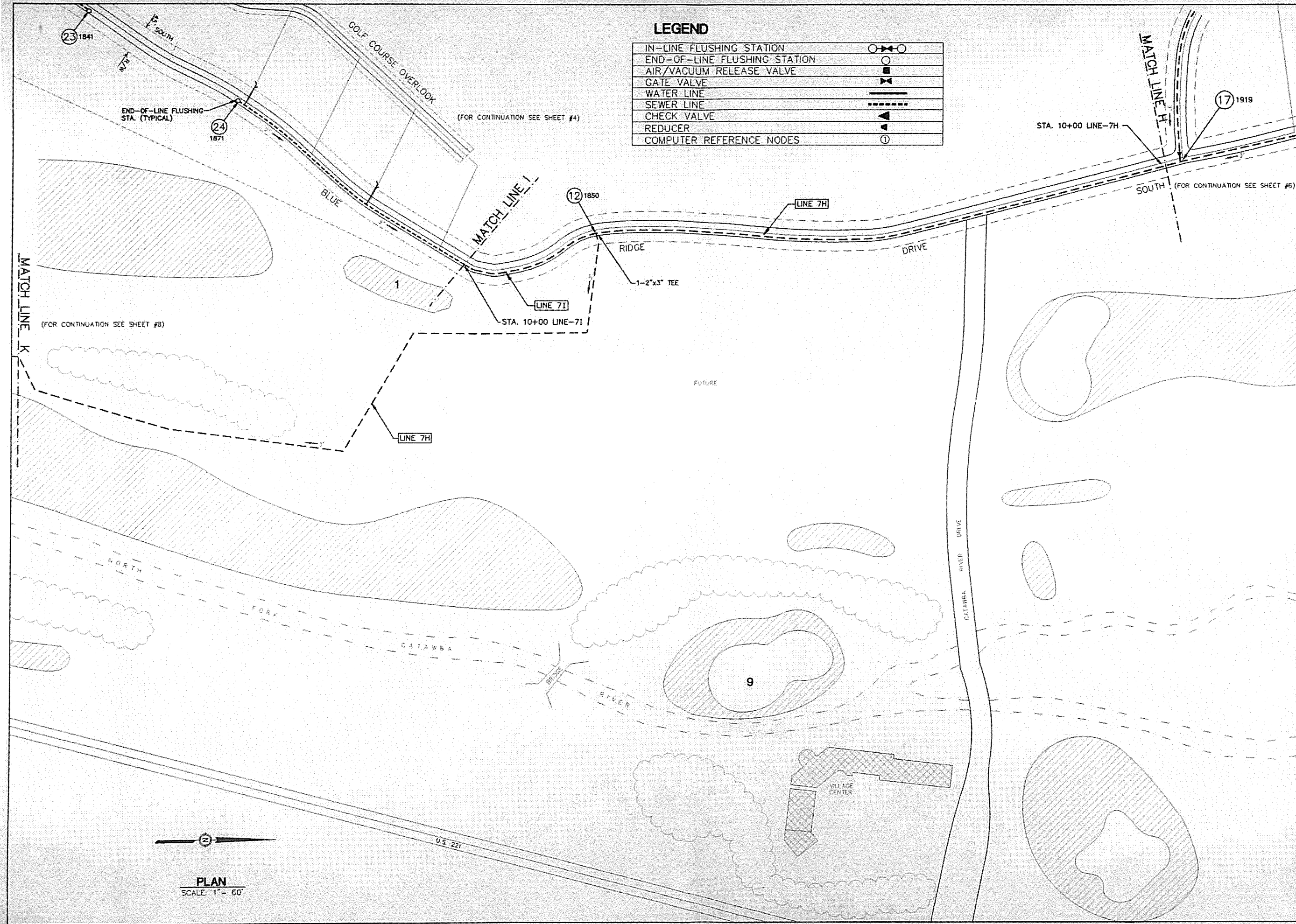
**PHASE I**  
**WASTEWATER COLLECTION SYSTEM**  
**BLUE RIDGE COUNTRY CLUB**  
 McDOWELL COUNTY, NORTH CAROLINA

JOB NO. 94243  
 DATE: MAY, 1996  
 SCALE: AS NOTED  
 REVISION:  
 FILE: BLUE-6A

**SEWER LINE**  
**PROFILES**

**SHEET**

**6B OF 10**



**LEGEND**

IN-LINE FLUSHING STATION	○—X—○
END-OF-LINE FLUSHING STATION	○
AIR/VACUUM RELEASE VALVE	⊠
GATE VALVE	⊞
WATER LINE	—
SEWER LINE	- - - - -
CHECK VALVE	▲
REDUCER	▲
COMPUTER REFERENCE NODES	①

PLAN  
SCALE: 1" = 60'

**MCGILL ASSOCIATES, P.A.**  
CONSULTING ENGINEERS  
ASHEVILLE, NORTH CAROLINA

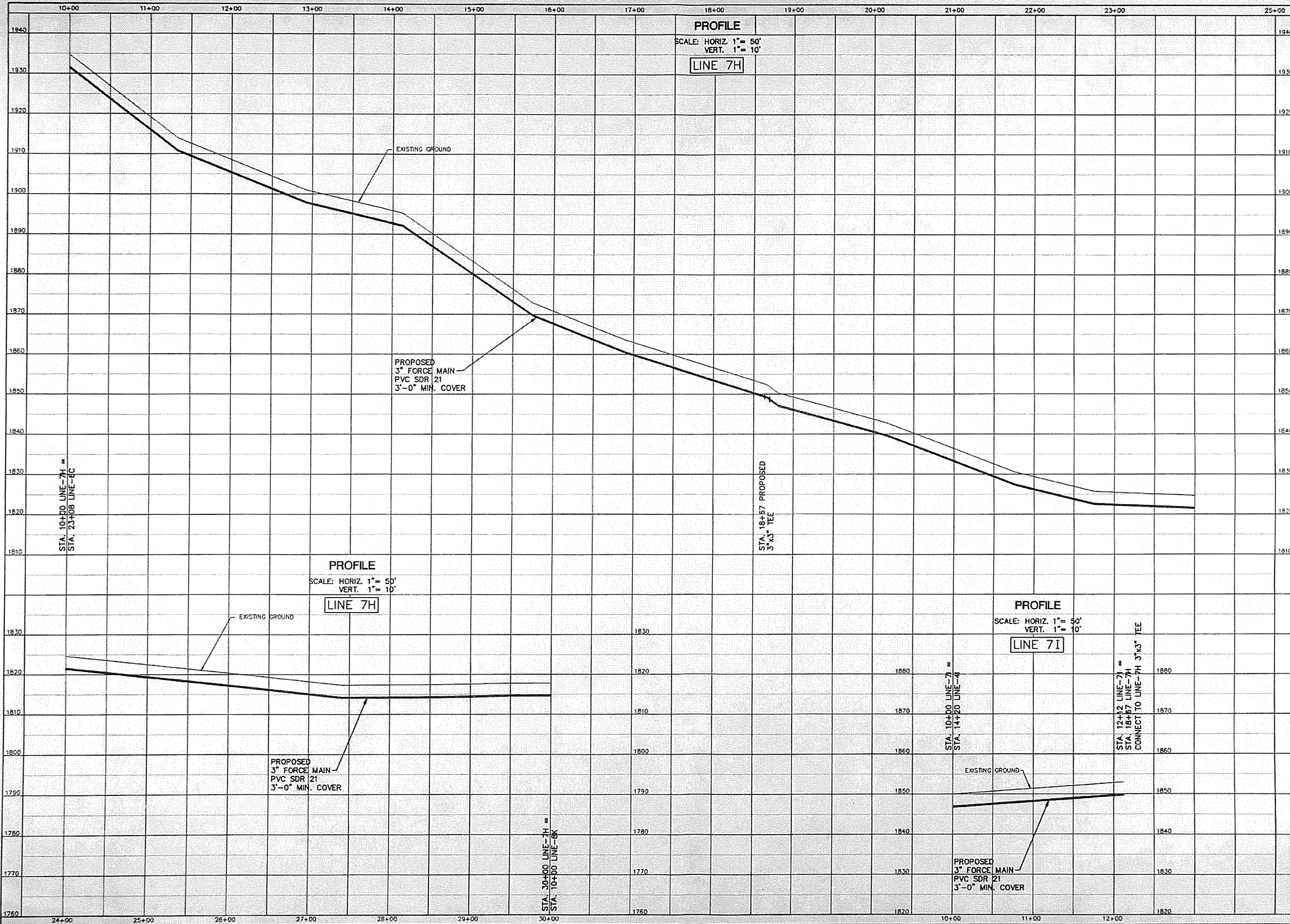


PHASE I  
WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
McDOWELL COUNTY, NORTH CAROLINA

JOB NO: 94243  
DATE: SEPT., 1995  
SCALE: AS NOTED  
REVISION: MAY, 1996

**SEWER LINE  
PLAN**

SHEET  
**7 OF 10**



PROFILE  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 10'  
**LINE 7H**

PROFILE  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 10'  
**LINE 7H**

PROFILE  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 10'  
**LINE 7I**

**McGILL ASSOCIATES, P.A.**  
CONSULTING ENGINEERS  
ASHEVILLE, NORTH CAROLINA



PHASE I  
WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
McDOWELL COUNTY, NORTH CAROLINA

JOB NO. 94243  
DATE: MAY, 1996  
SCALE: AS NOTED  
REVISION:  
FILE: BLUE-7A

**SEWER LINE  
PROFILE**

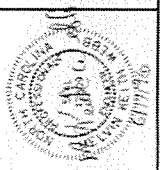
SHEET

**7A OF 10**

**LEGEND**

IN-LINE FLUSHING STATION	
END-OF-LINE FLUSHING STATION	
AIR/VACUUM RELEASE VALVE	
GATE VALVE	
WATER LINE	
SEWER LINE	
CHECK VALVE	
REDUCER	
COMPUTER REFERENCE NODES	

**McGILL ASSOCIATES, P.A.**  
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 ASHEVILLE, NORTH CAROLINA



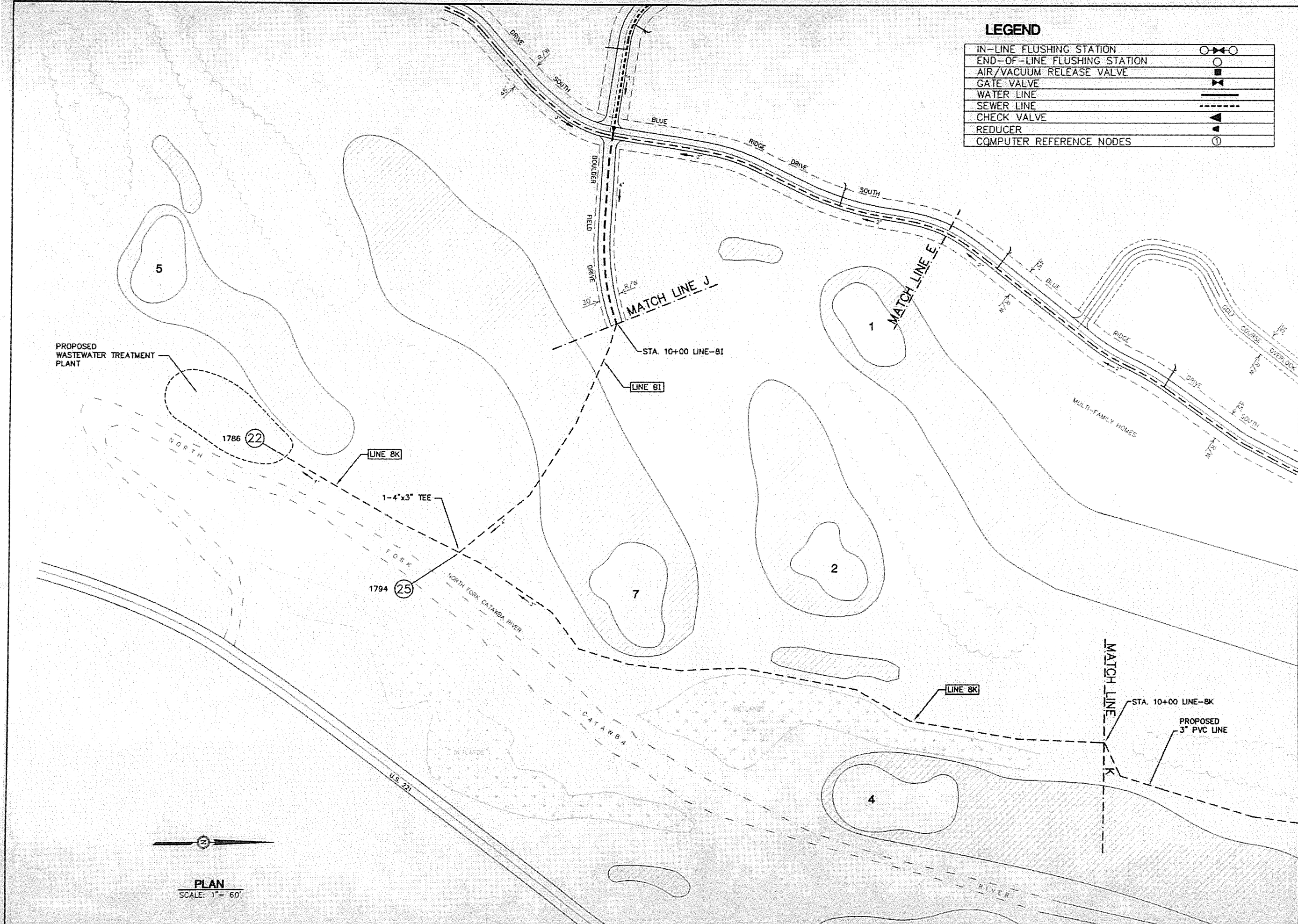
PHASE I  
 WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
 McDOWELL COUNTY, NORTH CAROLINA

JOB NO. 04243  
 DATE: SEPT., 1995  
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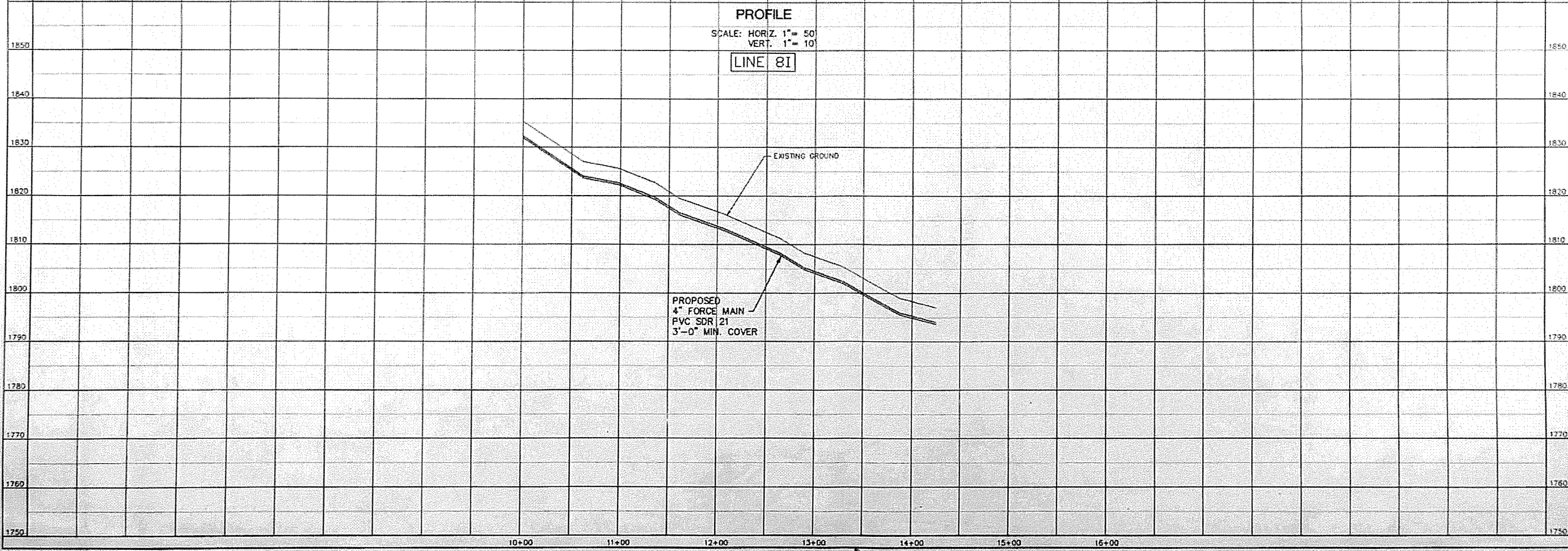
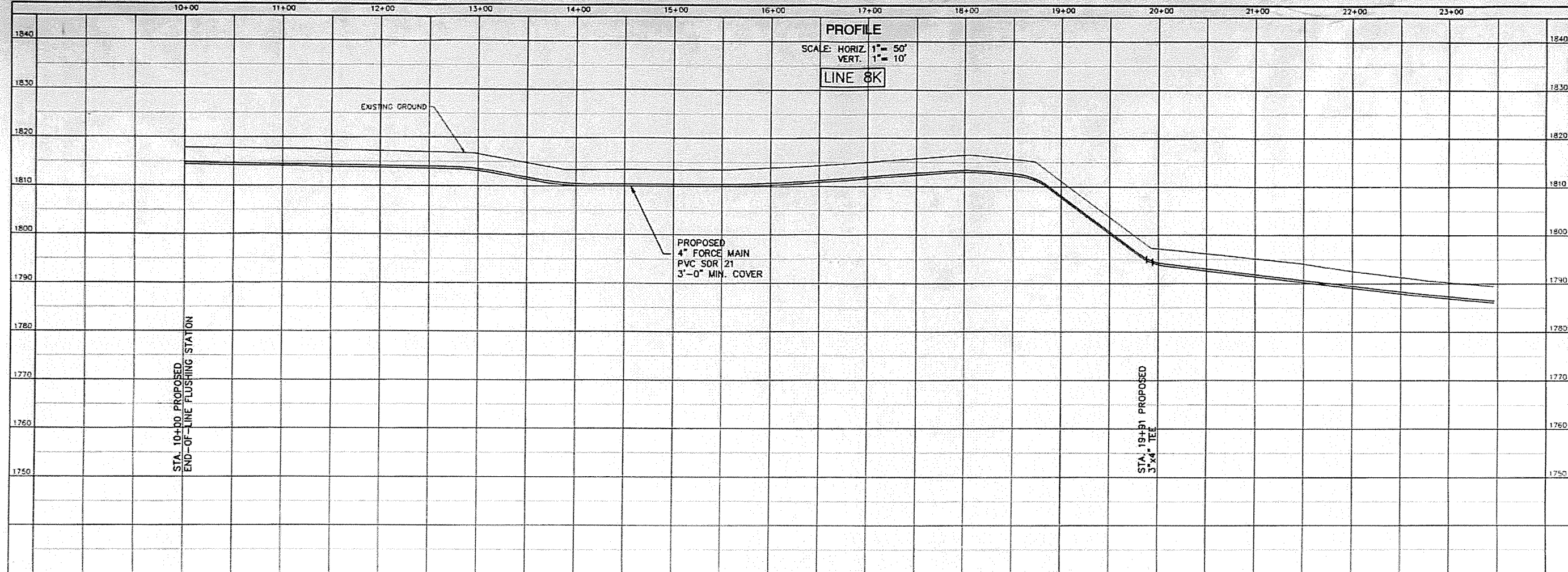
**SEWER LINE  
 PLAN**

SHEET

**8** OF **10**



**PLAN**  
 SCALE: 1" = 60'



**MCGILL ASSOCIATES, P.A.**  
 CONSULTING ENGINEERS  
 ASHEVILLE, NORTH CAROLINA

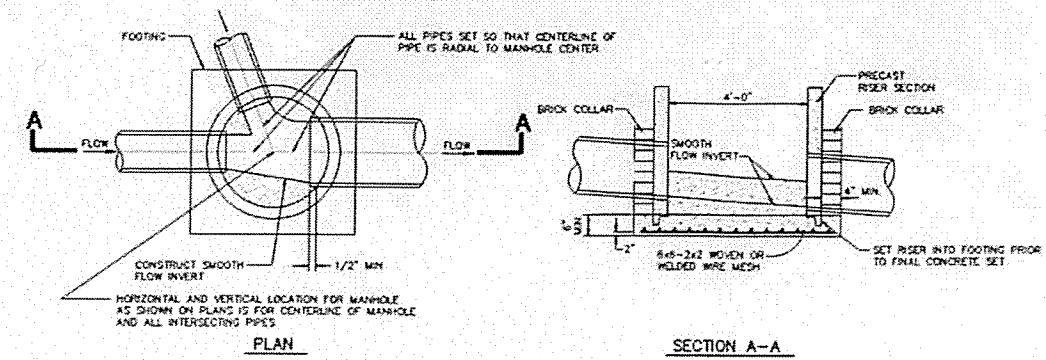
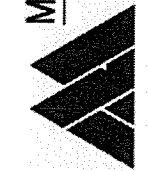


PHASE I  
 WASTEWATER COLLECTION SYSTEM  
**BLUE RIDGE COUNTRY CLUB**  
 McDowell County, North Carolina

JOB NO. 94243  
 DATE: MAY, 1996  
 SCALE: AS NOTED  
 REVISION:  
 FILE: BLUE-8A

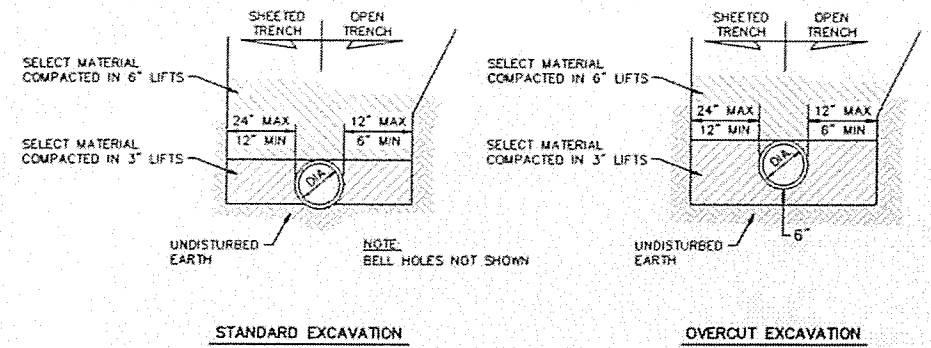
**SEWER LINE  
 PROFILES**

**SHEET  
 8A OF 10**

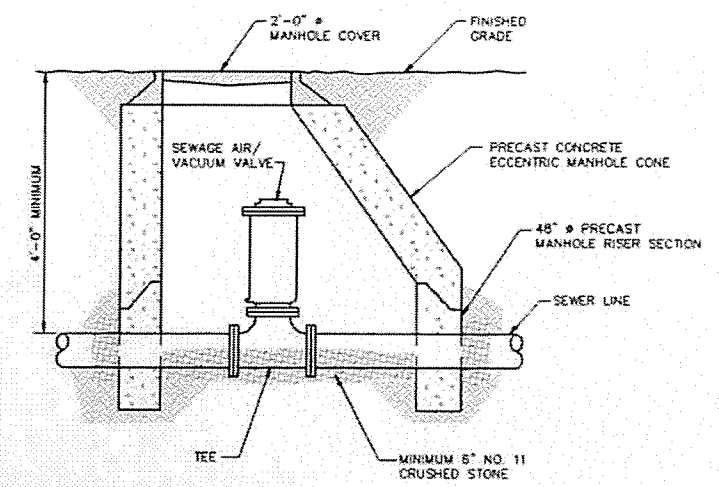


CONSTRUCTION NOTES  
**CONCRETE FOOTING**

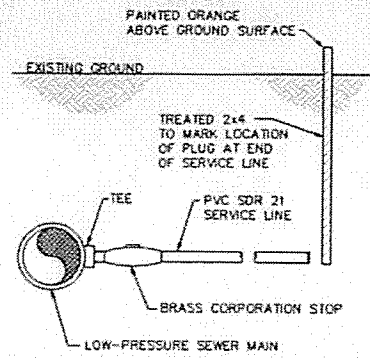
1. ALL PRECAST MANHOLE COMPONENTS SHALL MEET REQUIREMENTS OF ASTM C-478, LATEST REVISION.
2. ALL "FORMED IN PLACE" CONCRETE SHALL BE CLASS "B".
3. ALL MANHOLES SHALL BE CONSTRUCTED PLUMB.
4. ALL MANHOLE GRADES SHOWN ON THE PLANS ARE FOR THE INVERT OF MANHOLE CENTER.
5. IF MANHOLE IS SET IN LOCATION OF HIGH WATER TABLE OR UNDERGROUND WATER IS ENCOUNTERED, THE CONTRACTOR SHALL INSTALL UNDERDRAINS AND STONE AS DIRECTED IN THE FIELD BY THE ENGINEER.
6. STEPS SHALL BE INSTALLED ON STRAIGHT SIDE OF MANHOLE.



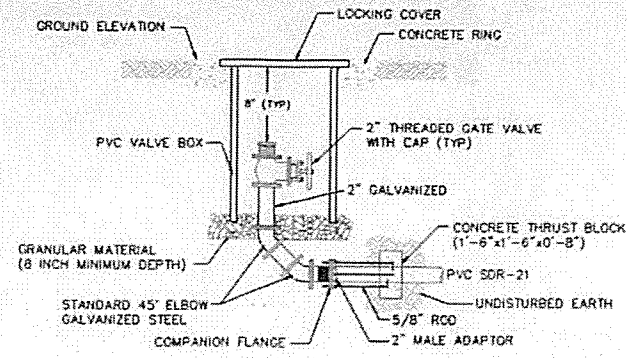
TYPICAL TRENCHING DETAILS



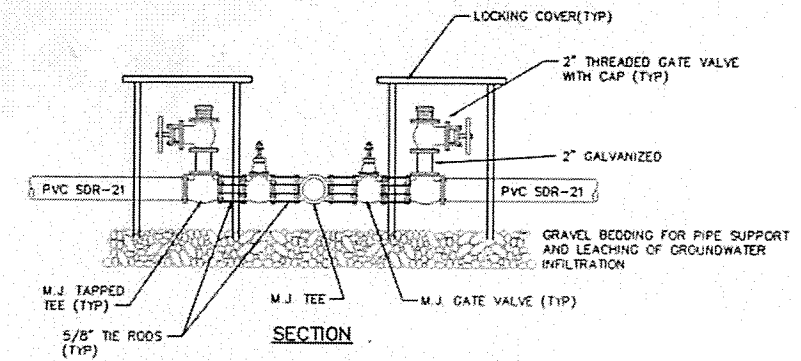
FORCE MAIN AIR/VACUUM RELEASE VALVE INSTALLATION



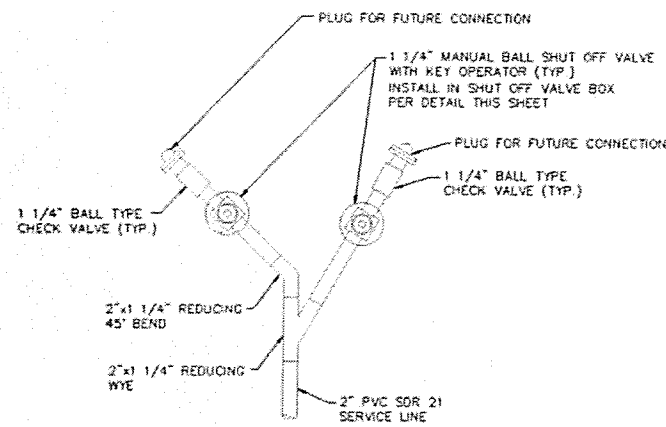
**TYPICAL SEWER SERVICE CONNECTION**



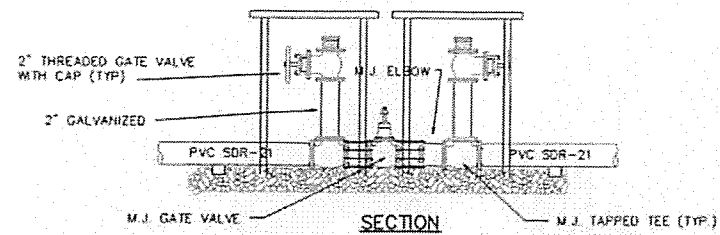
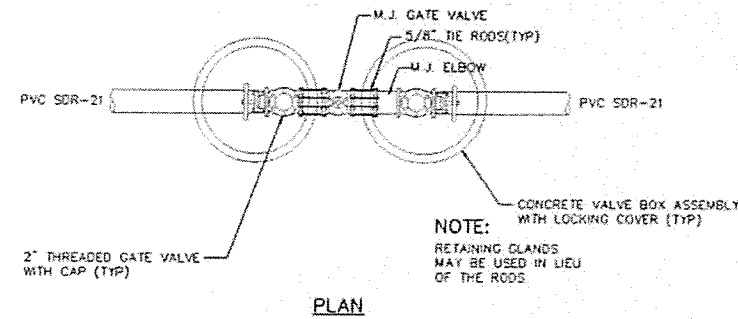
**FLUSHING STATION - END OF LINE**



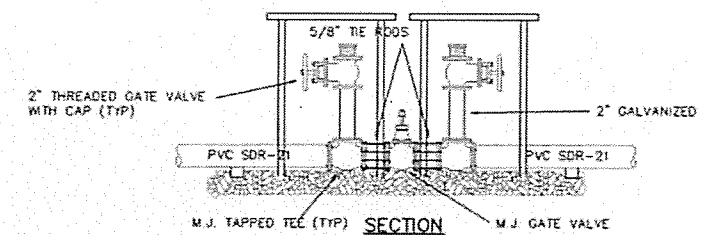
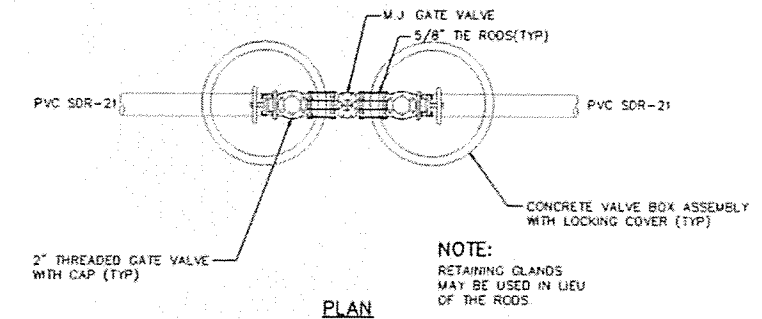
**FLUSHING STATIONS - AT TEES**



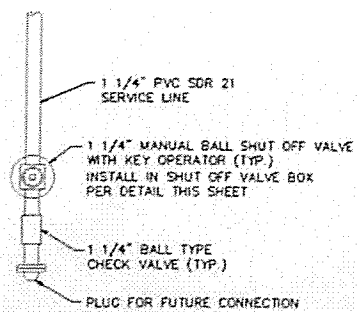
**TYPICAL DOUBLE SERVICE LINE**



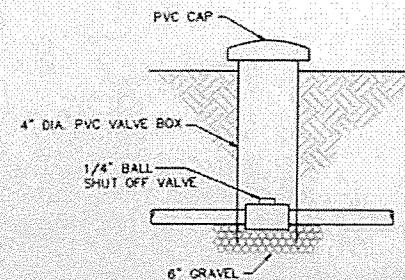
**FLUSHING STATION AT BENDS - IN LINE**



**FLUSHING STATION - IN LINE**



**TYPICAL SINGLE SERVICE LINE**



**SHUT OFF VALVE BOX DETAIL**

