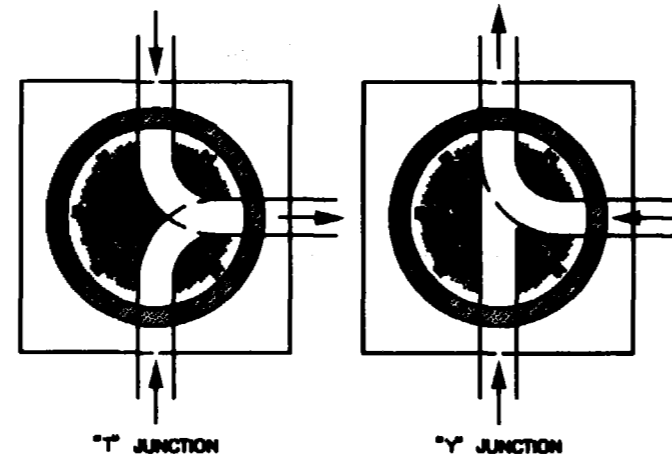
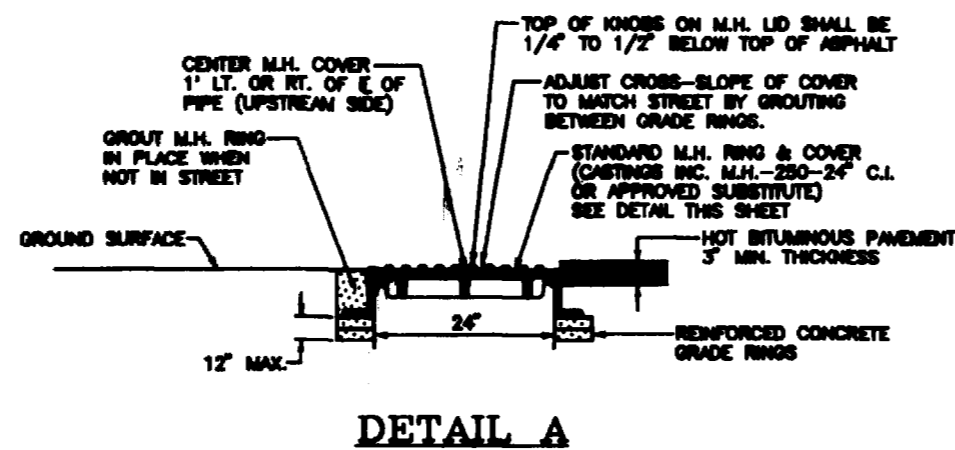


STANDARD CAST IRON MANHOLE RING & COVER

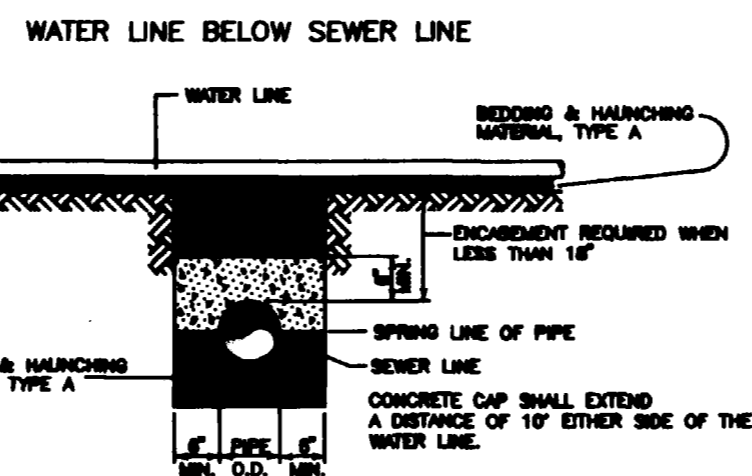
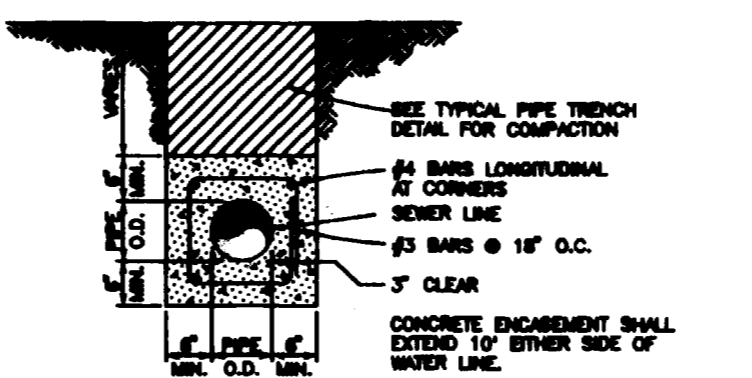
SECTION A-A



SECTION B-B

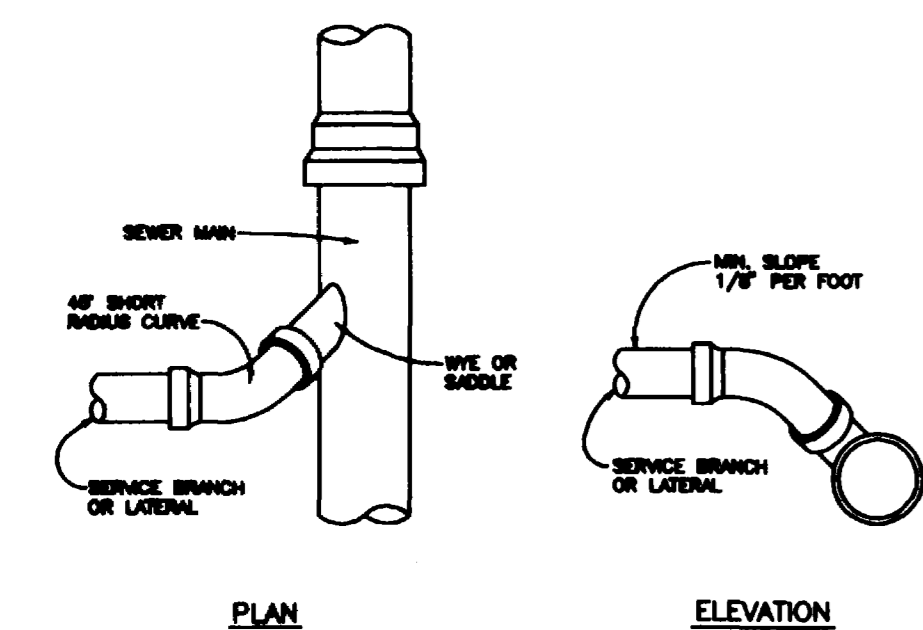


DETAIL A

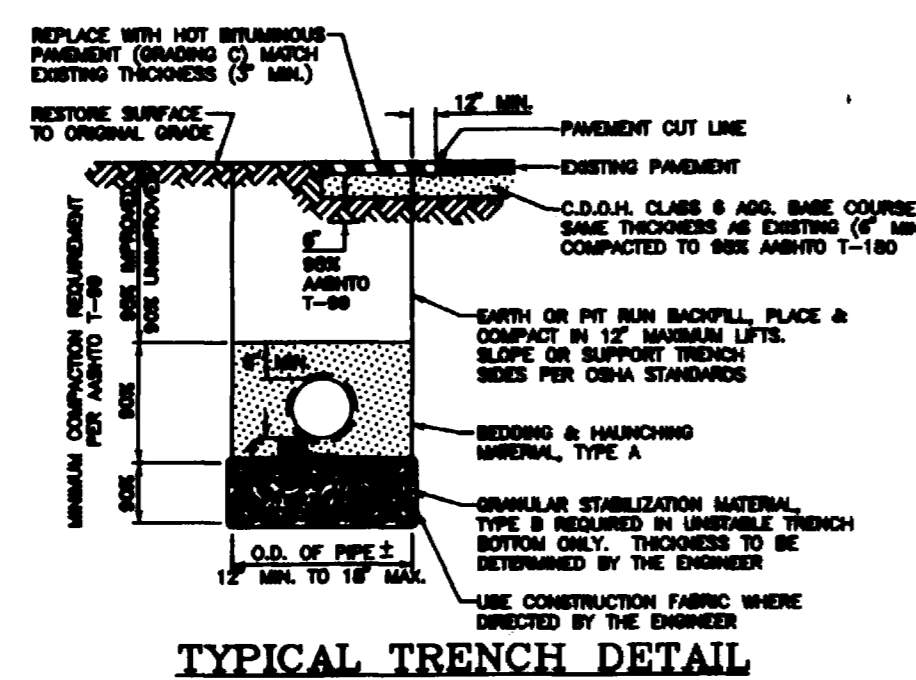


WATER LINE ABOVE SEWER LINE CONCRETE ENCASUREMENT DETAILS

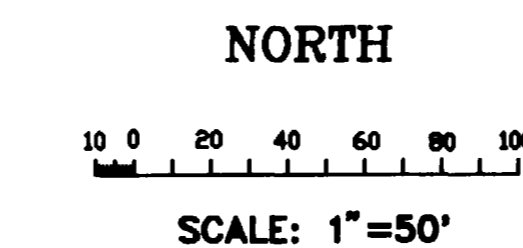
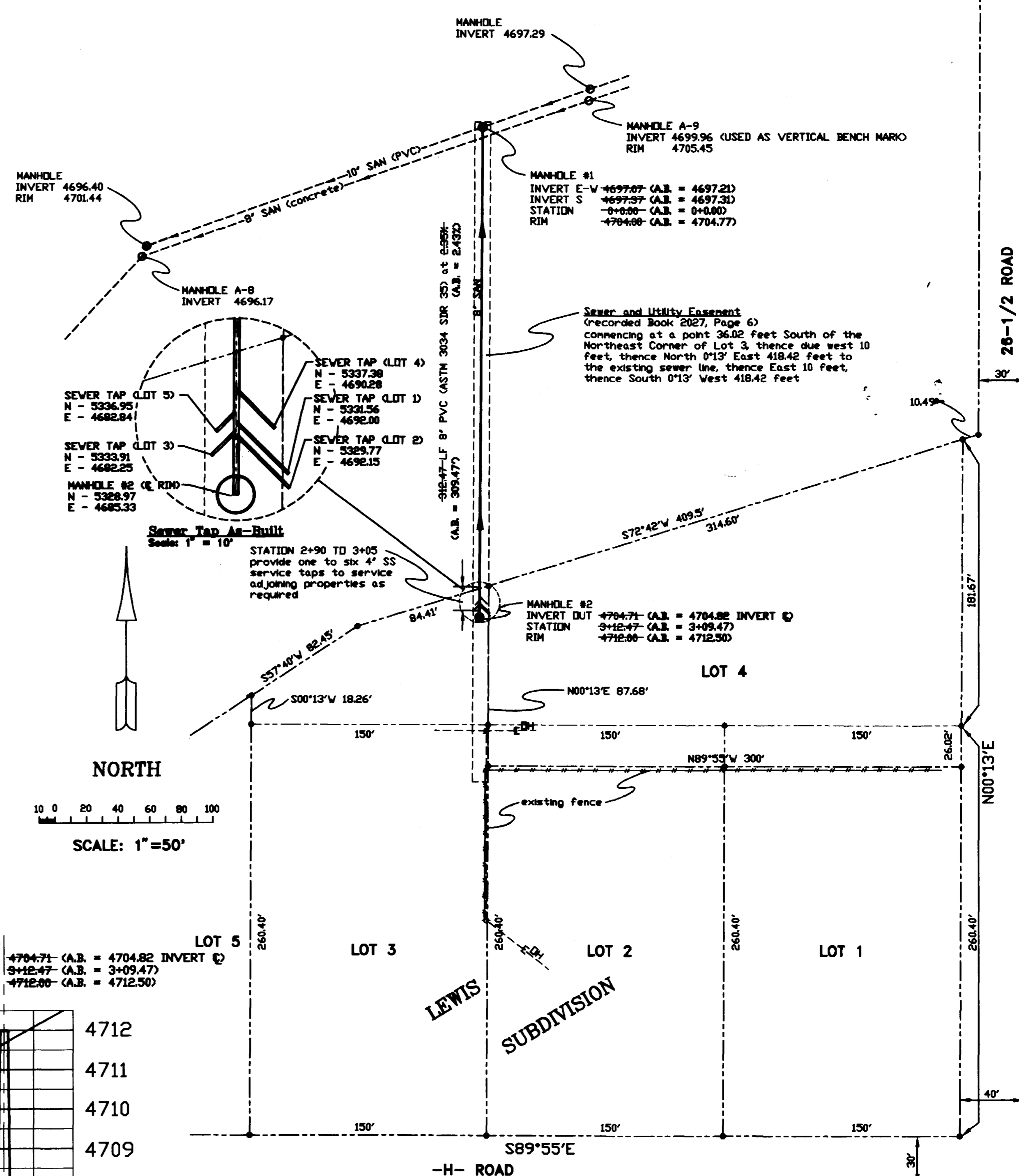
NOTE FOR IN-LINE MANHOLES WITHOUT BRASS-BREAK IN SEWER FLOWLINE THE SEWER PIPE MAY BE INSTALLED CONTINUOUS THROUGH THE MANHOLE WITH THE TOP ONE-HALF REMOVED



TYPICAL SERVICE "Y" CONNECTION



TYPICAL TRENCH DETAIL

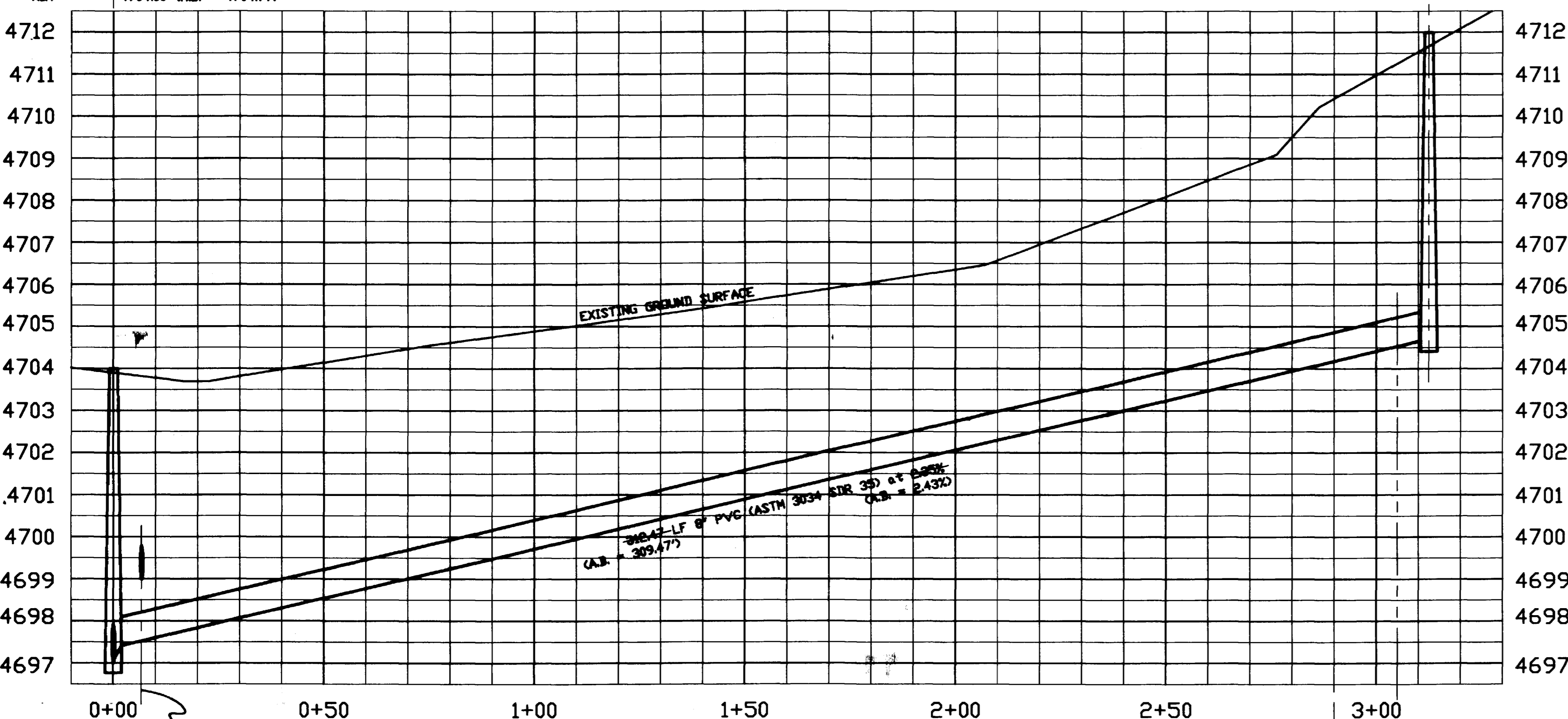


MANHOLE #1

INVERT E-W	4697.07 (A.B. = 4697.21)
INVERT S	4697.37 (A.B. = 4697.31)
STATION	0+0.00 (A.B. = 0+0.00)
RIM	4704.00 (A.B. = 4704.77)

MANHOLE #2

INVERT DUT	4704.71 (A.B. = 4704.82) INVERT @
STATION	3+12.47 (A.B. = 3+09.47)
RIM	4712.00 (A.B. = 4712.50)



Sewer Line Profile

Scale: hor. 1" = 20'
ver. 1" = 2'

STATION 2+90 TO 3+05 provide one to six 4" SS service taps to service adjoining properties as required

- NOTES:**
- ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE CITY OF GRAND JUNCTION SPECIFICATIONS AND STANDARDS.
 - THE CONTRACTOR SHALL HAVE A SIGNED COPY OF THE PLANS AND A COPY OF ALL RELEVANT SPECIFICATIONS AND STANDARDS ON THE JOB-SITE AT ALL TIMES.
 - LOCATE ALL EXISTING UTILITIES BEFORE EXCAVATING SEWER LINE.
 - SERVICE LATERALS SHALL MAINTAIN A MINIMUM FALL OF 1/8" PER FT. AND SHALL BE STUBBED OUT TO EXTEND INTO THE UTILITY EASEMENT AND CAPPER FOR FUTURE CONNECTION. THE END OF THE SERVICE LATERAL SHALL BE PLUGGED AND MARKED WITH A 2" X 4" BOARD BORED VERTICALLY ABOVE THE END OF THE PIPE AND EXTENDING 24 IN ABOVE THE GROUND SURFACE. THE TOP IS IN OF THE BOARD SHALL BE PAINTED WHITE. THE CODE OF THE SERVICE LATERAL SHALL BE CAPPED WITH WATER-TIGHT PLUG BRACKS TO WITHSTAND TEST PRESSURES. THE ENDS OF THE SERVICE LATERALS SHALL BE MEASURED AND THEIR LOCATIONS SHOWN AND LABELED ON THE AS-BUILT DRAWINGS.
 - WHEN A WATER LINE AND A SEWER LINE ARE WITHIN 10 FT. HORIZONTAL DISTANCE CENTERLINE TO CENTERLINE OF EACH OTHER AND THE SEWER LINE IS ABOVE OR LESS THAN 18 IN CLEAR DISTANCE BELOW THE WATER LINE, THE PORTION OF THE SEWER LINE WITH THAT AREA SHALL BE A BESSERED PROTECTION SYSTEM SUBJECT TO THE REVIEW AND APPROVAL OF THE UTILITY ENGINEER. IN ALL CASES, SUITABLE SANDFILL OR OTHER STRUCTURAL PROTECTION SHALL BE PROVIDED TO PROTECT THE SETTLING OR FAILURE OF BOTH PIPES. IN NO CASE, OTHER THAN A CROSSING, SHALL A SEWER LINE OR WATER LINE BE INSTALLED WITHIN 5 FT. OF EACH OTHER. CROSSINGS OF SEWER AND WATER LINES SHALL NOT BE AT AN ANGLE LESS THAN 45 DEGREES UNLESS APPROVED BY THE UTILITY ENGINEER.
- GENERAL NOTES:**
- CONCRETE SHALL BE COLORADO DIVISION OF HIGHWAYS CLASS "B" (SECTION 801.02)
 - ALL CEMENT USED IN PORTLAND CEMENT, GRADE FINISH, RUBBER SECTIONS, CONES, AND PLUG TOPS, FOR SENSITIVE SEWER MANHOLES, SHALL BE TYPE V OR MODIFIED TYPE I PORTLAND CEMENT WITH LESS THAN 5% TRICALCIUM ALUMINATE.
 - MANHOLE RUBBER SECTIONS, CONES, PLUG TOPS, AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE CONFORMING TO ASTM C-478 OR ASTM-1-198.
 - BACKFILL AROUND MANHOLES AND OTHER STRUCTURES SHALL BE PLACED IN 6" MAX. LIFTS AND COMPACTED TO 95% AM90-1-98.
 - ALL WORK SHALL BE IN ACCORDANCE WITH APPROVED PLANS AND CITY SPECIFICATION.
 - MANHOLE CONE AND PLUG TOP SECTIONS SHALL BE POSITIONED SUCH THAT THE MANHOLE RING AND COVER IS CENTERED OVER THE MAIN SEWER LINE.

PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES

SIEVE SIZE	PIPE BEDDING & MANHOLES	CONCRETE	GRAVEL	OTHER
3/4" (19)	100	100	100	100
2" (50)	100	100	100	100
4" (100)	100	100	100	100
10" (250)	100	100	100	100

NOTE: NATIVE MATERIAL MAY BE USED IN LIEU OF GRANULAR BEDDING & MANHOLES MATERIAL IF APPROVED BY THE CITY ENGINEER AND THE NATIVE MATERIAL IS IN COMPLIANCE WITH SIZE REQUIREMENTS FOR TYPE X.

PREPARED UNDER THE SUPERVISION OF
Thomas A. Cronk, P.E.
Thomas A. Cronk, P.E.
(Colo. License No. 28322)

REVISIONS

NO.	DATE	REMARKS
1	02/24/97	CITY COMMENTS TAG
2	04/11/97	AS-BUILT

CLARK SEWER MAIN
Sewer Main Plan and Profile
26-1/2 & H Roads
Grand Junction, CO 81506

WAYNE CLARK
125 Franklin Ave. #502
Grand Junction, CO 81505
970-2569059

ENGINEERING DESIGN BY
CRONK CONSTRUCTION INCORPORATED
1129 - 54 - ROAD
GRAND JUNCTION, CO 81606
970-246-0877

PROJECT
Clark sewer main

SCALE
as shown

DATE DRAWN
02/20/97

LATEST REVISION
04/11/97 (A.B.)

SHEET U1 OF U1