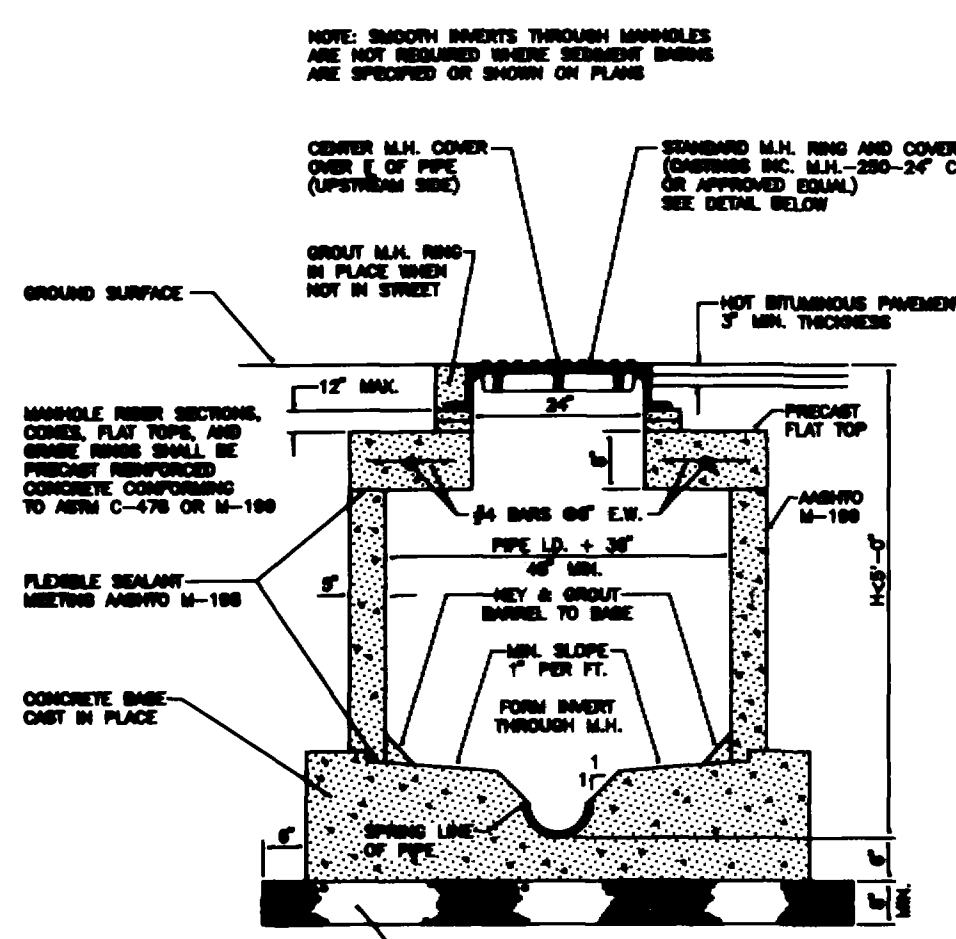
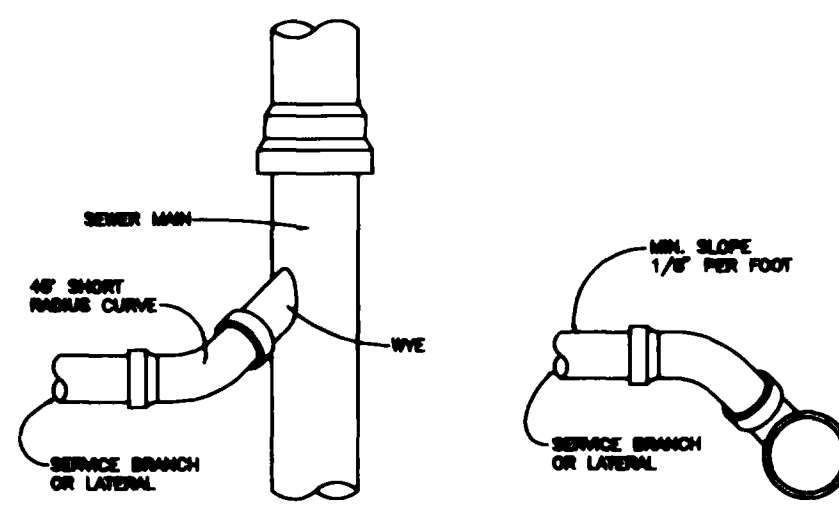


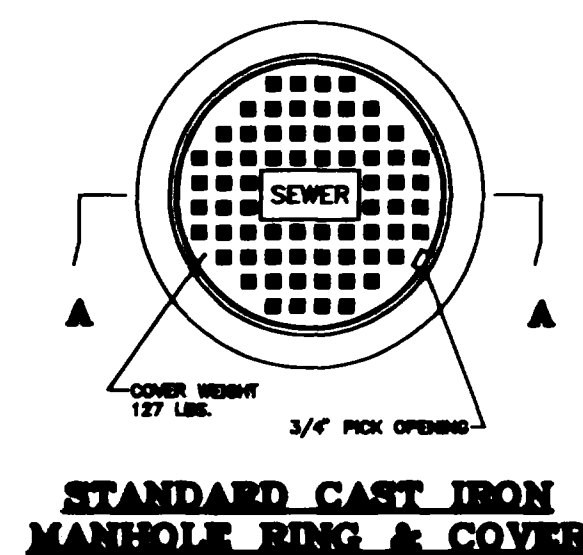
STANDARD MANHOLE



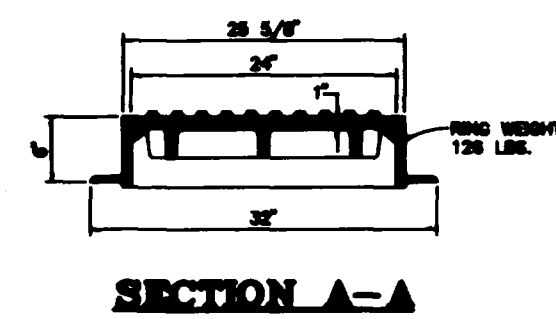
STANDARD SHALLOW MANHOLE



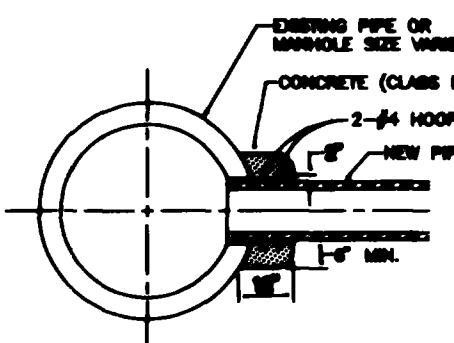
TYPICAL SERVICE "Y" CONNECTION



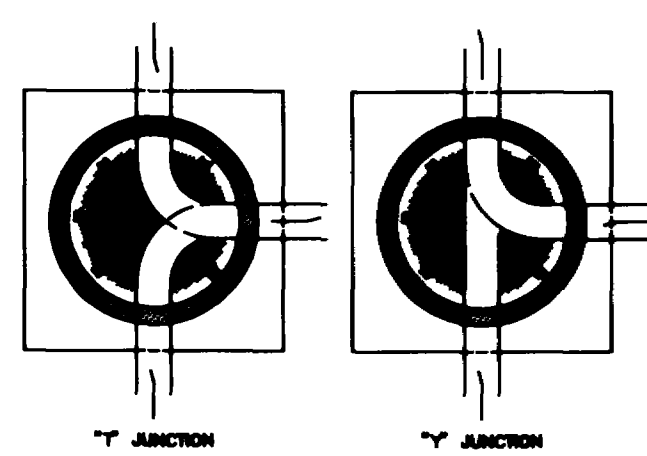
STANDARD CAST IRON MANHOLE RING & COVER



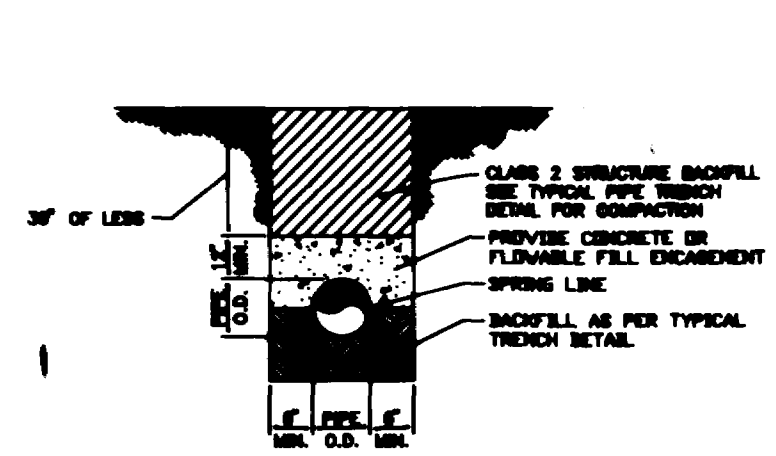
SECTION A-A



CONNECTION TO EXISTING MANHOLE OR INLET BOX

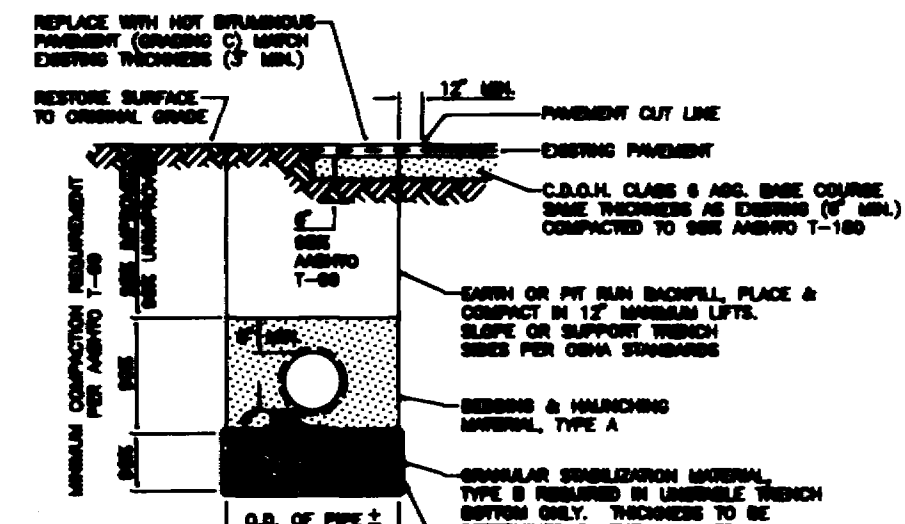


SECTION B-B



CONCRETE ENCASEMENT DETAIL

- GENERAL NOTES:**
1. CONCRETE SHALL BE COLORADO BRAND OF HERRING'S CLASS "F" (SECTION 601.02).
 2. ALL CONCRETE USED IN MANHOLE CONSTRUCTION SHALL BE PRECAST CONCRETE OR PORTLAND CEMENT WITH LESS THAN 3% TRICALCIUM ALUMINATE.
 3. MANHOLE RING SECTIONS, COVERS, FLAT TOPS, AND GROUND BENCHES SHALL BE PRECAST REINFORCED CONCRETE CONFORMING TO AWWA C-119 OR AWWA M-119.
 4. BACKFILL AROUND MANHOLES AND OTHER STRUCTURES SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SEE AWWA T-98.
 5. ALL WORK SHALL BE IN ACCORDANCE WITH APPROVED PLANS AND CITY SPECIFICATIONS.
 6. MANHOLE COVE AND FLAT TOP SECTIONS SHALL BE POSITIONED SUCH THAT THE MANHOLE RING AND COVER IS OVERLAPPED OVER THE MAIN SEWER LINE.



TYPICAL TRENCH DETAIL

PIPE SIZE	PERCENT BY WEIGHT FINISH SQUARE MESH SIZES
8 INCH	100
12 INCH	100
18 INCH	100
24 INCH	100
30 INCH	100
36 INCH	100
42 INCH	100
48 INCH	100
54 INCH	100
60 INCH	100
72 INCH	100
84 INCH	100
96 INCH	100
108 INCH	100
120 INCH	100
144 INCH	100
168 INCH	100
192 INCH	100
216 INCH	100
240 INCH	100
270 INCH	100
300 INCH	100
360 INCH	100
420 INCH	100
480 INCH	100
540 INCH	100
600 INCH	100
720 INCH	100
840 INCH	100
960 INCH	100
1080 INCH	100
1200 INCH	100

ALL BACKFILL MATERIAL SHALL BE PLACED FULL WIDTH IN 12" LIFTS AND COMPACTED TO THE MIN. RELATIVE DENSITIES SHOWN.

NOTE: FINISH MATERIAL MAY BE USED IN LIEU OF ORIGINAL DESIGN UNLESS APPROVED BY THE CITY ENGINEER AND THE FINISH MATERIAL IS IN COMPLIANCE WITH SEE REQUIREMENTS FOR TYPE "A".

NOTES

ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE CITY OF GRAND JUNCTION SPECIFICATIONS AND STANDARDS DETAILS.

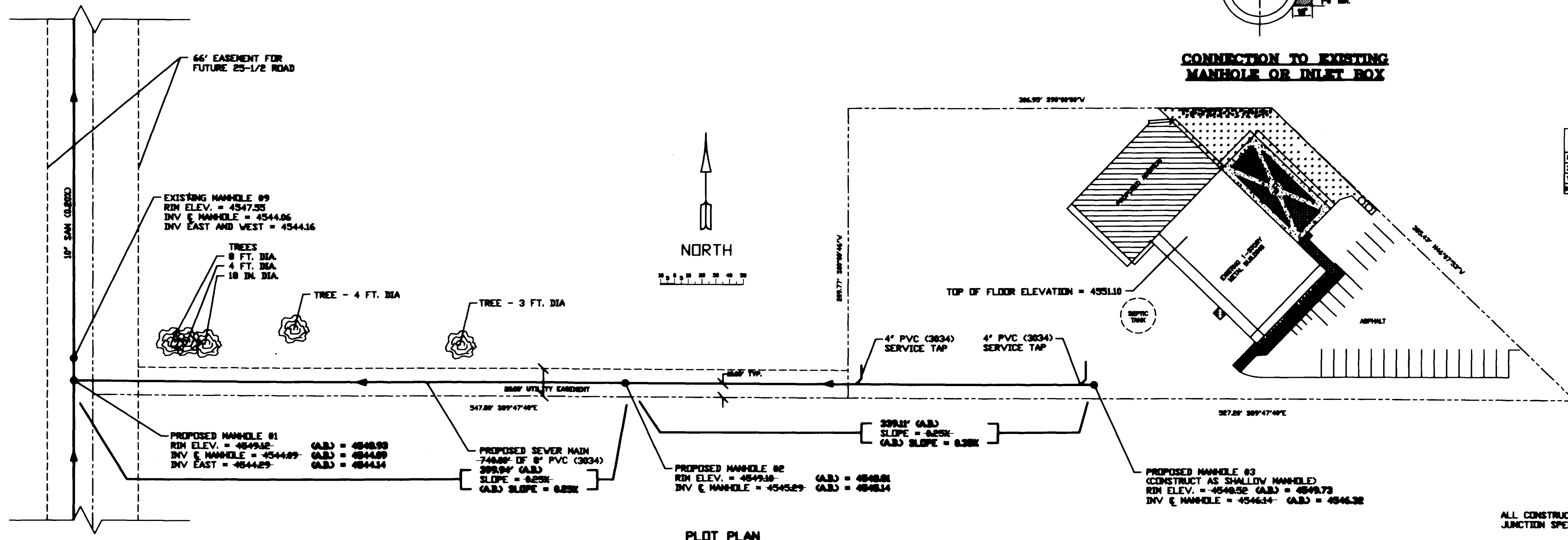
SERVICE LATERALS SHALL MAINTAIN A MINIMUM FALL OF 1/8 IN. PER FT. AND SHALL BE STUBBED OUT TO THE BACK OF THE UTILITY EASEMENT AND CAPPED FOR FUTURE CONNECTION. THE END OF THE PIPE SHALL BE PLUGGED AND MARKED WITH A 2"X4" BOARD BURIED VERTICALLY ABOVE THE END OF THE PIPE AND EXTENDING 24 INCHES ABOVE THE GROUND SURFACE. THE TOP 12 INCHES OF THE BOARD SHALL BE PAINTED WHITE. THE ENDS OF THE SERVICE LINES SHALL BE CAPPED WITH WATER-TIGHT PLUGS BRACED TO WITHSTAND TEST PRESSURES. THE ENDS OF THE SERVICE LINES SHALL BE MEASURED AND THEIR LOCATION SHOWN AND DIMENSIONED ON THE AS-BUILT DRAWINGS.

LOCATE ALL EXISTING UTILITIES BEFORE EXCAVATING SEWER LINE.

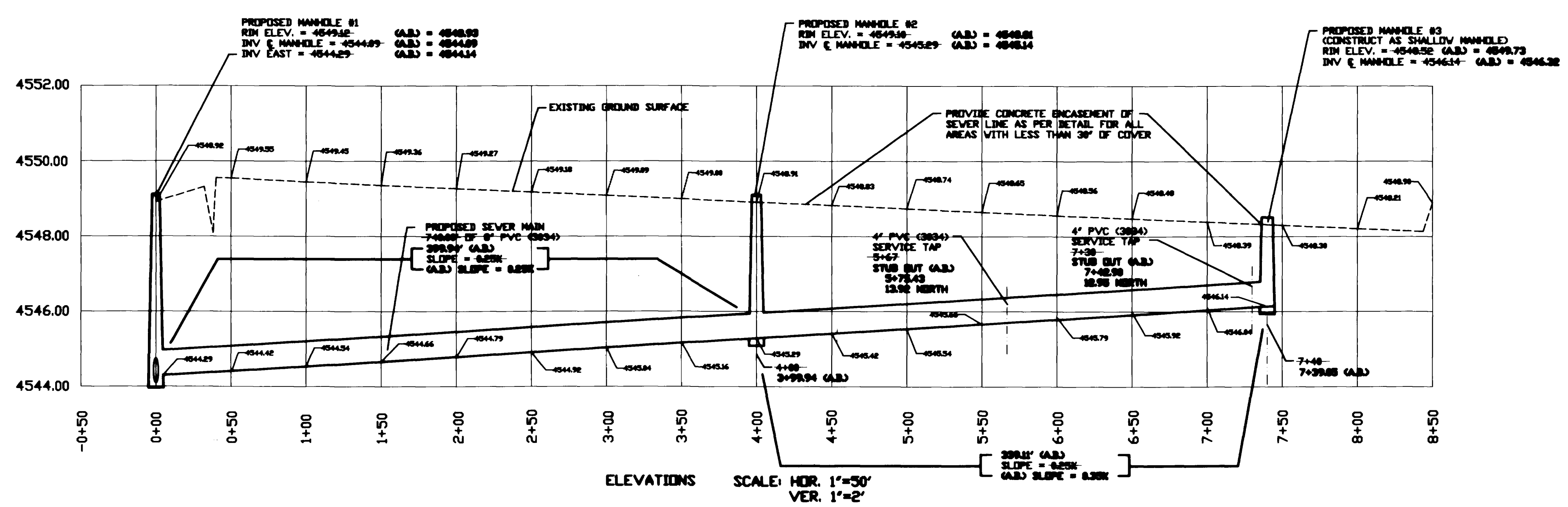
WHEN A WATER AND SEWER LINE ARE WITHIN 10 FEET HORIZONTALLY (CENTERLINE DISTANCE) OF EACH OTHER AND THE SEWER LINE IS ABOVE OR LESS THAN 10 INCHES (CLEAR DISTANCE) BELOW THE WATER LINE, THE PORTION OF THE SEWER LINE WITHIN THAT AREA SHALL BE CONSTRUCTED OF APPROVED WATERLINE PIPE AND JOINTS GULCHABLE IRON CEMENT MORTAR LINED PIPE CONFORMING TO AWWA C 151 OR PVC PIPE CONFORMING TO AWWA C-900 CLASS 150, BRIBED BE CONSTRUCTED OF SDR 35 PVC SEWER PIPE WITH ALL JOINTS WITHIN 10 FEET OF THE WATER LINE ENCASED IN A CONCRETE COLLAR THAT IS A MINIMUM OF 6 INCHES THICK AND 12 INCHES LONG, CENTERED ON THE JOINTS OR, SO, IS DESIGNED PROTECTION SYSTEM SUBJECT TO THE REVIEW AND APPROVAL OF THE CITY'S UTILITY ENGINEER. IN ALL CASES, SUITABLE BACKFILL OF OTHER STRUCTURAL PROTECTION SHALL BE PROVIDED TO 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 FEET OF EACH OTHER. CROSSINGS OF SEWER AND WATER LINES SHALL NOT BE AT AN ANGLE LESS THAN 45 DEGREES UNLESS APPROVED BY THE CITY UTILITY ENGINEER.

PROPOSED MANHOLE #2 SHALL BE CONSTRUCTED AS A SHALLOW MANHOLE IN ACCORDANCE WITH THE CITY OF GRAND JUNCTION SPECIFICATIONS AND STANDARDS DETAILS.

PROVIDE A MINIMUM OF 12 INCHES CLEAR INSTEAD OF CONCRETE ENCASEMENT COVER OVER ALL SEWER LINES WITH LESS THAN 30 INCHES OF COVER. ENCASEMENT SHALL BE POURED ABOVE THE SPRING LINE OF THE AFFECTED SEWER LINE AS SHOWN IN THE SECTION DETAIL.



PLOT PLAN



ELEVATIONS SCALE: HOR. 1"=50' VER. 1"=2'

PAGE 1 OF 1
 DRAWN TAC DATE 05/14/94
 REVISED (A,B) DATE 06/22/94
 CHECKED TAC DATE 06/22/94
 APPROVED _____ DATE _____

PROJECT: McDONALD HARLEY DAVIDSON
 REFERENCE: SEWER MAIN EXTENSION
 PROJECT LOCATION: 2517 HWY 6&50
 DATE: MAY 14, 1994
 SCALE: 1 IN. = 50 FT.
 PREPARED BY: TOM A. CRONK

CRONK CONSTRUCTION INCORPORATED
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 GRAND JUNCTION, CO 81505
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