

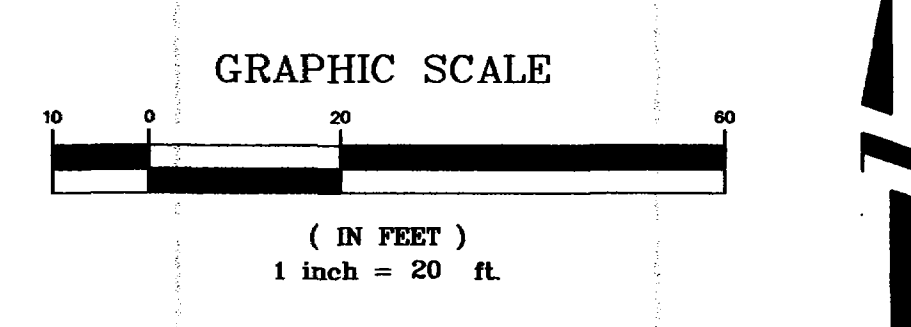
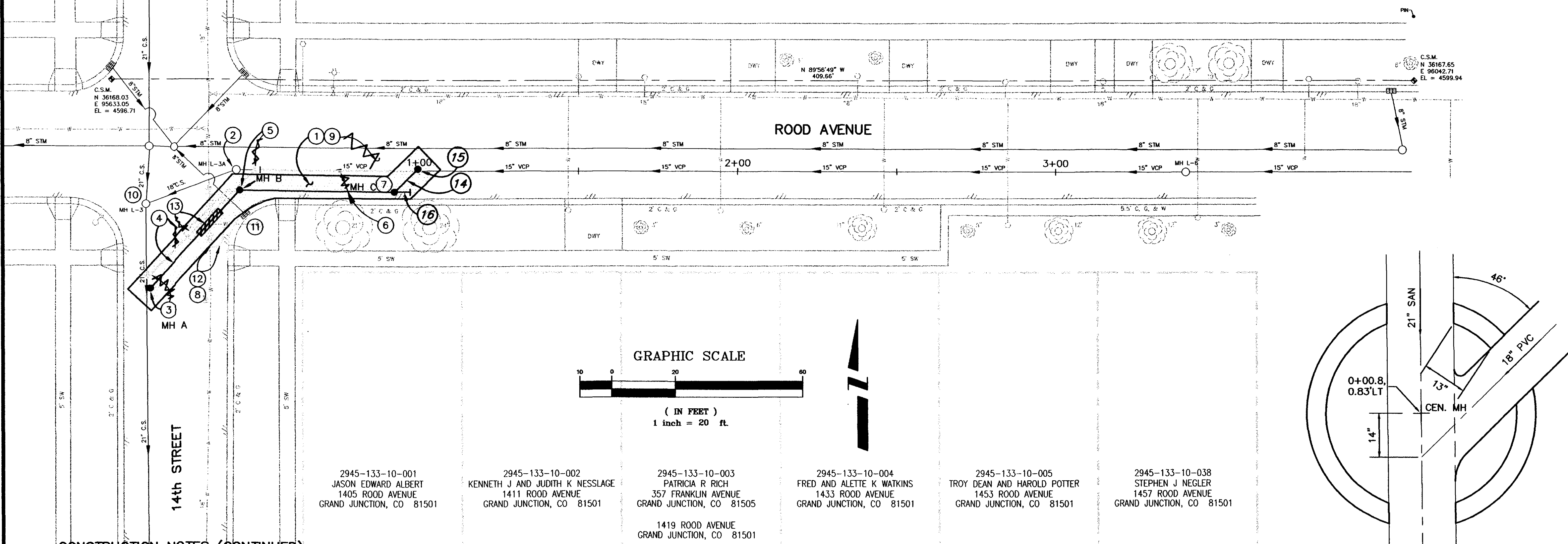
14th Street and Rood Avenue Sanitary Sewer Replacement

| Item No. | Ref. No. | Bid Item | Quantity | Units | Unit Price | Extended Price |
|-------------------|----------|--|----------|-------|------------|----------------|
| 1 | 102.11 | Standard 60" Sanitary Sewer Manhole A (poured in place base) (5' depth) Complete in Place | 1.00 | EA | | |
| 2 | 102.11 | Standard 60" Sanitary Sewer Manhole C (5' depth) Complete in Place | 1.00 | EA | | |
| 3 | 102.11 | 60" "T-LOC" Type Sanitary Sewer Manhole B (8' depth) Complete in Place | 1.00 | EA | | |
| 4 | 102.11 | Extra Depth for standard 60" Sanitary Sewer Manhole | 3.00 | LF | | |
| 5 | 102.90 | 18" PVC Pipe, SDR-35, w/Native Material Backfill Includes Clay Cut Off Wall and removal of existing 15" clay tile sewer pipe | 100.00 | LF | | |
| 6 | 202.00 | Removal of Existing Asphalt | 170.00 | SY | | |
| 7 | 202.00 | Plug Outlet pipe of Existing MH L-3A with Concrete, Fill Existing MH L-3A with Flow Fill Material, Remove and Dispose of Cone Section, Ring, and Cover | 1.00 | LS | | |
| 8 | 202.00 | Plug Inlet pipe of Existing MH L-3 with Concrete and Reshape base as needed to form a smooth invert | 1.00 | EA | | |
| 9 | 210.00 | 18" PVC Waterline Lowering and Service Line Reconnection as shown on plan set | 1.00 | LS | | |
| 10 | 304.00 | Import backfill material CI-3 | 150.00 | Ton | | |
| 11 | 304.00 | Aggregate Base Course, CI-6, 6" depth | 170.00 | SY | | |
| 12 | 401.00 | Hot Bituminous Asphalt, Gr-C, 4" depth to be placed in two 2" lifts | 170.00 | SY | | |
| 13 | 608.00 | Concrete Encasement | 20.00 | LF | | |
| 14 | 620.00 | Sanitary Facility | 1.00 | LS | | |
| 15 | 625.00 | Construction Surveying | 1.00 | LS | | |
| 16 | 626.00 | Mobilization | 1.00 | LS | | |
| 17 | 630.10 | Traffic Control | | | | |
| a | | TCS | 14.00 | Day | | |
| b | | Flagger | 20.00 | Hour | | |
| c | | Traffic Control (Complete in place) | 1.00 | LS | | |
| d | | Traffic Control Plan | 1.00 | LS | | |
| 18 | 209.05 | Dust Control (Dust Palliative) | 10.00 | Day | | |
| 19 | | Newsletter | 2.00 | WK | | |
| 20 | | Minor Contract Revisions | 1.00 | LS | \$3,000.00 | \$3,000.00 |
| Total Cost | | | | | | |

| | | | | | | | |
|-------------|------|-------------|---------|------|--------|--------|---------|
| DESCRIPTION | DATE | DRAWN BY | JCS | DATE | 7-6-00 | SCALE | |
| REVISION Δ | | DESIGNED BY | JCS/SBG | DATE | 7-6-00 | PLAN | PROFILE |
| REVISION Δ | | CHECKED BY | SBG | DATE | 2000 | HORIZ. | HORIZ. |
| REVISION Δ | | APPROVED BY | ICP | DATE | 2000 | VERT. | |

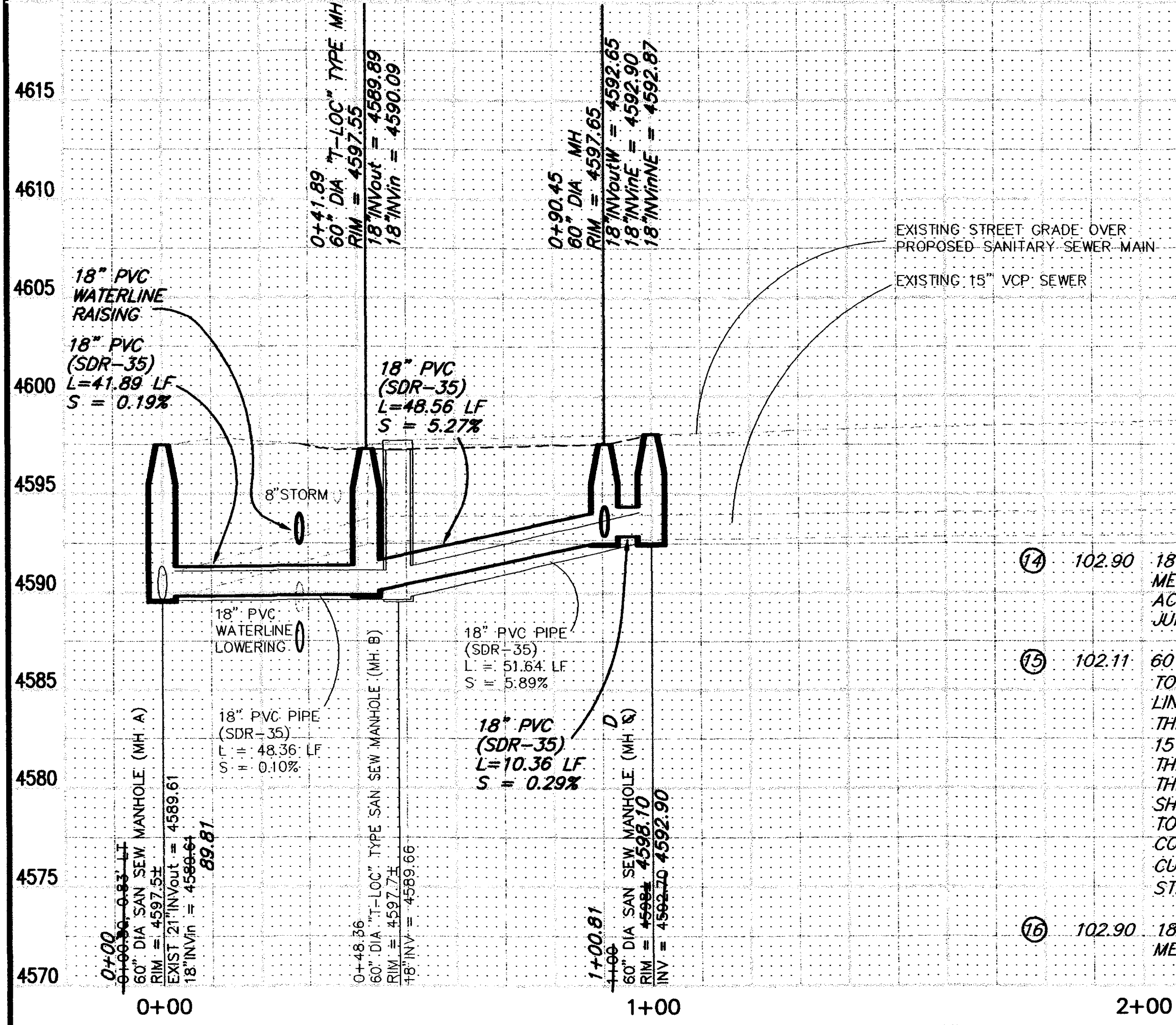
**DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING AND TECHNICAL SERVICES DIVISIONS
CITY OF GRAND JUNCTION, COLORADO**

**14th STREET AND ROOD AVENUE
SANITARY SEWER RECONSTRUCTION
SUMMARY OF APPROXIMATE QUANTITIES**

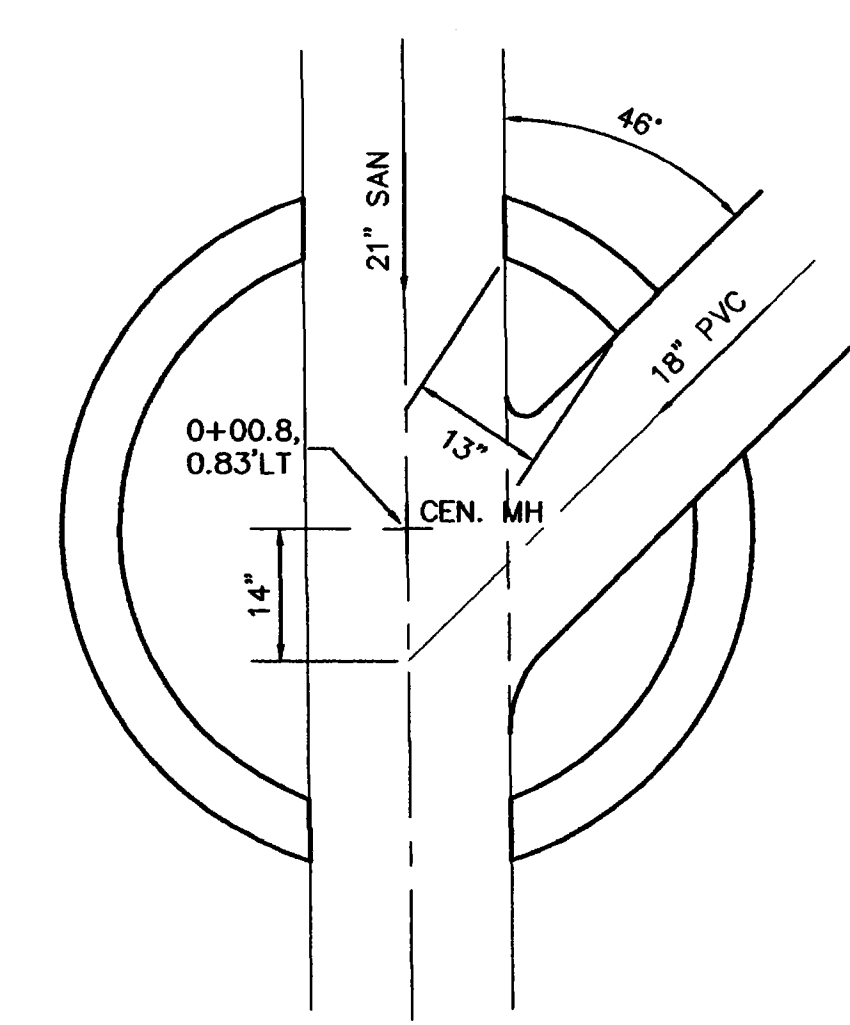


- 2945-133-10-001 JASON EDWARD ALBERT 1405 ROOD AVENUE GRAND JUNCTION, CO 81501
- 2945-133-10-002 KENNETH J AND JUDITH K NESSLAGE 1411 ROOD AVENUE GRAND JUNCTION, CO 81501
- 2945-133-10-003 PATRICIA R RICH 357 FRANKLIN AVENUE GRAND JUNCTION, CO 81505
- 2945-133-10-004 FRED AND ALETTE K WATKINS 1433 ROOD AVENUE GRAND JUNCTION, CO 81501
- 2945-133-10-005 TROY DEAN AND HAROLD POTTER 1453 ROOD AVENUE GRAND JUNCTION, CO 81501
- 2945-133-10-038 STEPHEN J NEGLER 1457 ROOD AVENUE GRAND JUNCTION, CO 81501
- 1419 ROOD AVENUE GRAND JUNCTION, CO 81501

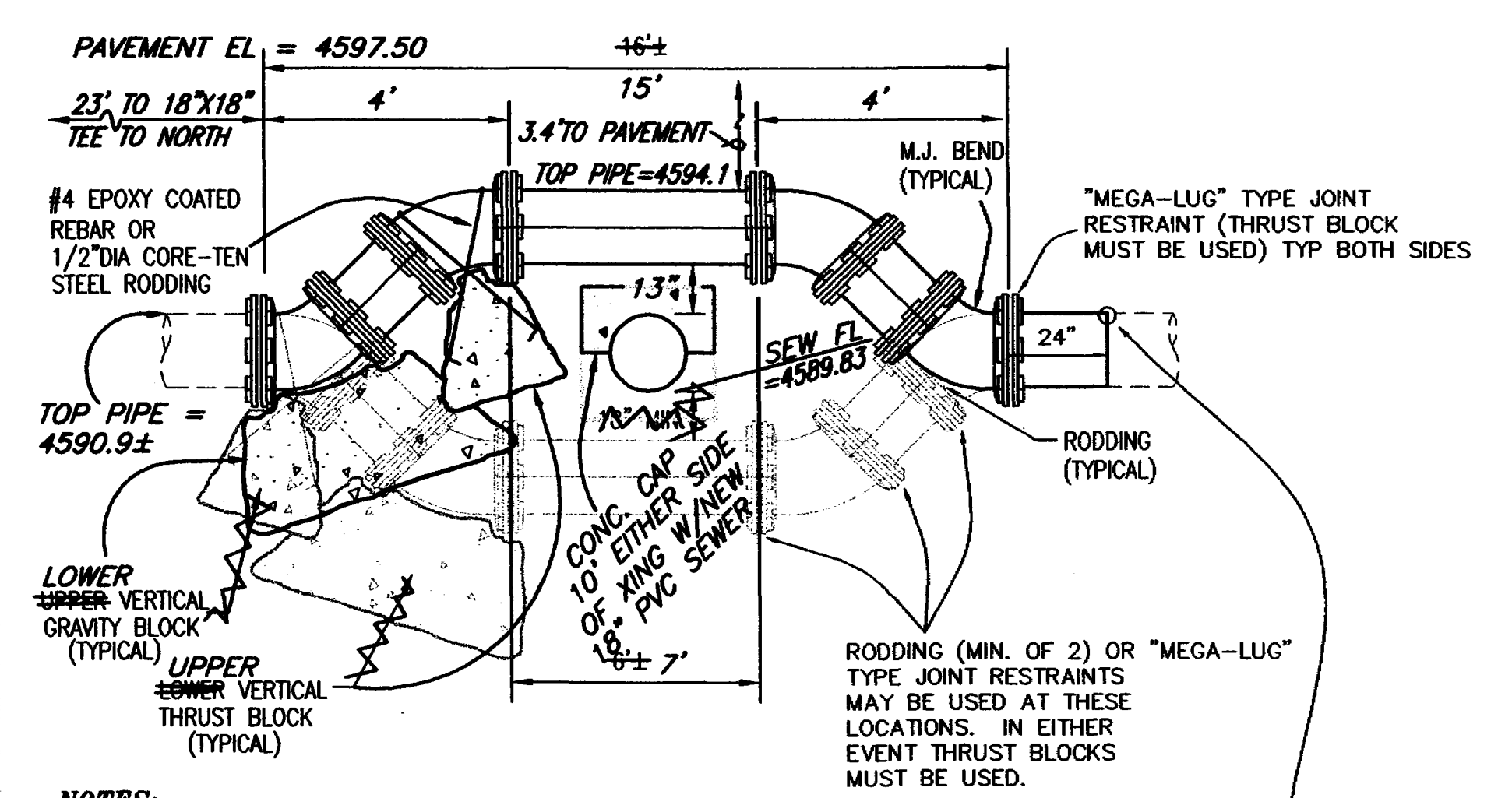
CONSTRUCTION NOTES (CONTINUED)



- 8 CONTRACTOR SHALL NOTIFY THE CITY OF GRAND JUNCTION PIPELINE MAINTENANCE SUPERVISOR, BUTCH KISSELL, AT 244-1572 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE CITY WATER LINES.
- 9 304.00 AGGREGATE BASE COURSE (CL 6) MATCH EXISTING BASE COURSE THICKNESS, BUT NOT LESS THAN 6". COMPACT BASE COURSE TO 95% AASHTO T-180. SUBGRADE SHALL BE COMPACTED TO 95% AASHTO T-99. (170 SY)
- 401.00 HOT BITUMINOUS ASPHALT PATCH (GR C) (4" DEPTH) PAVEMENT SHALL BE APPLIED IN TWO LIFTS. COMPACT ASPHALT 92%-96% OF MAXIMUM THEORETICAL DENSITY CPSI-96. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL C-27) (170 SY)
- 10 210.00 AFTER THE NEW SEWER LINE IS TESTED, APPROVED, AND IN PLACE FILL THE NORTHEAST INVERT WITH CONCRETE AND FORM A SMOOTH N/S INVERT. CARE SHALL BE TAKEN AS NOT TO LET CONCRETE OR OTHER DEBRIS FROM WORK TO ENTER THE N/S INVERT. BY-PASS PUMPING MAY BE NEEDED TO PROVIDE A SMOOTH N/S INVERT.
- 11 CONTRACTOR SHALL PROTECT EXISTING CONCRETE CURB, GUTTER, WALK, STORM DRAIN, AND STORM DRAIN INLET IN PLACE. ANY DAMAGE TO CURB, GUTTER, WALK, STORM DRAIN, OR STORM DRAIN INLET DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 12 210.00 18" PVC WATERLINE SHALL BE LOWERED AND SERVICE LINE RECONNECTED PER DETAIL THIS SHEET. ALL CONNECTIONS, PIPES, FITTINGS, TAPPING SADDLE, CORP. STOP, SERVICE COUPLING, ETC., ASSOCIATED WITH THE WATER LINE LOWERING AND SERVICE LINE RECONNECTION SHALL BE PAID FOR UNDER BID ITEM "WATERLINE LOWERING AND SERVICE LINE RECONNECTION" NO SEPARATE PAY. RAISING (SEE CITY OF GRAND JUNCTION STANDARD DETAILS W-03 FOR ADDITIONAL INFORMATION)
- 13 608.00 CONC. CAP ENGAGE SANITARY SEWER 10" EITHER SIDE OF WATERLINE CROSSING (SEE CITY OF GRAND JUNCTION STANDARD DETAIL GU-04)
- 14 102.90 18" PVC PIPE, SDR-35, L = 10.36 LF, BACKFILL TRENCH WITH NATIVE MATERIALS MEETING CITY SPECIFICATION 103.16. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS OF THE CITY OF GRAND JUNCTION AND APPROVED BEFORE PAVING OR ABANDONING EXISTING SEWER.
- 15 102.11 60" DIA SANITARY SEWER MANHOLE (MH D) 1+00.81 (N 36140.44 E 95729.35) TO CENTER OF MANHOLE. THE TOP HALF OF THE EXISTING 15" CLAY SEWER LINE SHALL BE CUT FOR ACCESS TO THE LINES THROUGH THE NEW MANHOLE. THE INVERT OF THE NEW 18" LINE WILL MATCH THE INVERT OF THE EXISTING 15" E/W LINE. BYPASS PUMPING OF SEWAGE WILL BE REQUIRED TO ALLOW THE CONTRACTOR TO FORM A SMOOTH INVERT CONFIGURATION. AT THE TIME OF THE CUT CARE SHOULD BE TAKEN SO THAT THE PIPE DOES NOT SAG AND SHOULD BE BRACED ACCORDINGLY. CARE SHOULD ALSO BE TAKEN AS NOT TO FLOAT THE EXISTING LINE WHEN THE MANHOLE BASE IS BEING POURED. CONTRACTOR TO CONTROL ALL LIVE SEWAGE AND NOT ALLOW DEBRIS FROM CUTTING OR OTHER WORK TO ENTER THE PIPE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02 FOR ADDITIONAL INFORMATION)
- 16 102.90 18" PVC PIPE STUB, SDR-35, L = 3.50 LF, BACKFILL TRENCH WITH NATIVE MATERIALS MEETING CITY SPECIFICATION 103.16.



INVERT/PIPE LAYOUT
MH A - 0+00.80, 0.83' LT.
N.T.S.



- NOTES:
- SIZING OF VERTICAL THRUST BLOCKS PER PROJECT ENGINEER.
 - WHEN RESTRAINING PIPE BY MEANS OF RODDING JOINTS, 3/4" TIE RODS, NUTS, AND WASHERS WILL BE USED AND ARE TO BE MADE OF "COR-TEN" STEEL AS PER A.S.T.M. A242.
 - ALL METALIC PIPE, FITTINGS, AND APPURTENANCES WILL BE WRAPPED IN 8 MIL POLYETHYLENE.
- NEW SERVICE LINE CONNECTION TO EXISTING MAIN. CONNECT TO EXISTING MAIN USING TAPPING SADDLE, CORP. STOP, INSULATED COUPLING, AND TYPE K COPPER SERVICE PIPE APPROXIMATELY AS SHOWN ON PLAN. (SEE CITY OF GRAND JUNCTION STANDARD W-03 FOR ADDITIONAL INFORMATION) (NO SEPARATE PAY)

WATERLINE LOWERING AND SERVICE LINE CONNECTION
RAISING N.T.S.

- 202.00 ASPHALT REMOVAL (AS INDICATED BY "DOT" HATCHING) 170 SY JACKHAMMER OR WHEELCUT AS NECESSARY.
- 202.00 AFTER THE NEW SEWER LINE IS TESTED, APPROVED, AND IN PLACE, ABANDON EXISTING SEWER BY PLUGGING OUTLET PIPE WITH CONCRETE. FILL THE MANHOLE WITH FLOW FILL MATERIAL AND REMOVE AND DISPOSE OF TOP CONE SECTION, RING, AND COVER.
- 102.11 60" DIA SANITARY SEWER MANHOLE (MH A) 0+00.80, 0.83' LT (N 36140.44 E 95729.35) TO CENTER OF MANHOLE. (SEE DETAIL THIS SHEET FOR INVERT/PIPE LAYOUT INSIDE NEW MANHOLE) THE TOP HALF OF THE EXISTING 21" CONCRETE SEWER LINE SHALL BE CUT FOR ACCESS TO THE LINES THROUGH THE NEW MANHOLE. THE INVERT OF THE NEW 18" LINE WILL MATCH THE INVERT OF THE EXISTING 21" N/S LINE. BYPASS PUMPING OF SEWAGE WILL BE REQUIRED TO ALLOW THE CONTRACTOR TO FORM A SMOOTH INVERT CONFIGURATION. AT THE TIME OF THE CUT CARE SHOULD BE TAKEN SO THAT THE PIPE DOES NOT SAG AND SHOULD BE BRACED ACCORDINGLY. CARE SHOULD ALSO BE TAKEN AS NOT TO FLOAT THE EXISTING LINE WHEN THE MANHOLE BASE IS BEING POURED. CONTRACTOR TO CONTROL ALL LIVE SEWAGE AND NOT ALLOW DEBRIS FROM CUTTING OR OTHER WORK TO ENTER THE PIPE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02 FOR ADDITIONAL INFORMATION)
- 102.11 CLAY CUT OFF WALL SHALL BE PLACED 10' UPSTREAM (NE ONLY) OF NEW MH. CUT OFF WALL SHALL EXTEND FROM 6" BELOW TO 6" ABOVE GRANULAR BACKFILL MATERIAL FOR THE FULL WIDTH OF THE TRENCH. IF NATIVE MATERIAL IN NOT SUITABLE, THE CONTRACTOR SHALL IMPORT MATERIAL APPROVED BY THE PROJECT ENGINEER.
- 102.90 18" PVC PIPE, SDR-35, L = 48.36 LF, BACKFILL TRENCH WITH NATIVE MATERIALS MEETING CITY SPECIFICATION 103.16. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS OF THE CITY OF GRAND JUNCTION AND APPROVED BEFORE PAVING OR ABANDONING EXISTING SEWER.
- 202.00 REMOVAL OF EXISTING 15" SEWER LINE (102 LF) REMOVE EXISTING SEWER LINE AS NEEDED TO INSTALL NEW MH B. (REMOVE PIPE WEST TO EXISTING MH L-3A) DURING REMOVAL OF EXISTING SEWER LINE AND INSTALLATION OF MANHOLE B IT WILL BE NECESSARY TO BYPASS PUMP SEWAGE TO A DOWNSTREAM MANHOLE.
- 102.11 60" DIA "T-LOC" TYPE SAN SEW MANHOLE (MH B) (1 EA) 0+48.36 (N 36130.97 E 95678.27) (ALL INLETS AND OUTLETS TO BE FITTED WITH PSX GASKETS) (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02)
- 102.11 CLAY CUT OFF WALL SHALL BE PLACED 10' UPSTREAM (EAST ONLY) OF NEW MH. CUT OFF WALL SHALL EXTEND FROM 6" BELOW TO 6" ABOVE GRANULAR BACKFILL MATERIAL FOR THE FULL WIDTH OF THE TRENCH. IF NATIVE MATERIAL IN NOT SUITABLE, THE CONTRACTOR SHALL IMPORT MATERIAL APPROVED BY THE PROJECT ENGINEER.
- 202.00 REMOVAL OF EXISTING 15" SEWER LINE (162 LF) REMOVE EXISTING SEWER LINE AS NEEDED TO INSTALL NEW SEWER LINE DURING EXISTING PIPE REMOVAL AND NEW PIPE INSTALLATION IT WILL BE NECESSARY TO BYPASS PUMP SEWAGE TO A DOWNSTREAM MH.
- 102.90 18" PVC PIPE, SDR-35, L = 51.64 LF, BACKFILL TRENCH WITH NATIVE MATERIALS MEETING CITY SPECIFICATION 103.16. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS OF THE CITY OF GRAND JUNCTION AND APPROVED BEFORE PAVING OR ABANDONING EXISTING SEWER.
- 102.11 60" DIA. SANITARY SEWER MANHOLE (MH C) (1 EA) 0+90.45 (N 36133.24 E 95721.89) (ALL INLETS AND OUTLETS TO BE FITTED WITH PSX GASKETS) (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02 FOR ADDITIONAL INFORMATION)
- 210.00 CUT EXISTING 16" CLAY PIPE AT STA 1+02.502 AND SLIDE NEW MH INTO PLACE ON EXISTING 15" CLAY PIPE.

| | | | |
|---|-------|----------|---------|
| DESCRIPTION | DATE | DRAWN BY | DATE |
| REVISION Δ ASBUILT PER INSPECTOR'S NOTES | 12-00 | JCS | 7-25-00 |
| DESIGNED BY | | JCS/SBG | 7-25-00 |
| CHECKED BY | | SBG | 7-25-00 |
| APPROVED BY | | TCP | 7-25-00 |

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ENGINEERING AND TECHNICAL SERVICES DIVISIONS
CITY OF GRAND JUNCTION, COLORADO

14TH STREET AND ROOD AVENUE
SANITARY SEWER RECONSTRUCTION
SANITARY SEWER PLAN AND PROFILE