

**APPENDIX A - SANITARY SEWER DRAWING REQUIREMENTS**

This checklist is intended as a general guideline only, and is subject to additional project-specific requirements.

**A. General Plan Information**

1. 1<sup>st</sup> submittal sheet size 24" x 36"
2. Vicinity Map and Location Map
3. Index to drawings
4. List of quantities
5. Contact List, including owner/developer, project engineer, agencies, surveyor, soils engineer, etc.
6. Southgate Sanitation District System Plan Notes
7. Professional Engineer, State of Colorado, seal and signature on every sheet
8. North arrow on vicinity map, location map and each plan view
9. Title block on each sheet
10. Bench mark, including U.S.G.S. datum, location, elevation and monument type
11. Street alignment and names (existing and proposed) shown on overall plan
12. Existing and Final grades shown on profile
13. Typical street cross-section(s)
14. Street addresses, lot, and block number for all lots and/or buildings indicated on plan
15. Property, easement and tract lines shown on plan
16. Existing and new improvements identified
17. Match lines and sheet references called out in plan and profile
18. Street cross-pans shown
19. Sewer main extensions, all sizes, shown in both plan and profile
20. All other utilities shown (water, storm, communications, electric, gas, etc.) in plan and profile
21. Located within a minimum of 30' ROW or Southgate dedicated easement without encroachments
22. Sewer line horizontal alignment generally 10' south and west of street centerline, 5' minimum from lip of cross pan or gutter, and 10' minimum from ROW or easement line
23. Sewer system details included
24. Note added to plans: "No connections to existing system shall be made until the new system has been tested and accepted by Southgate Sanitation District"
25. Flow development information shown, including building use, total square footage, number of residential units, and calculated average and peak flows

**B. Sanitary Sewer - Plan View Requirements**

1. Scale: 1" = 40'
2. Linear footage, pipe type, and size called out on each segment of pipe
3. Outside angles between sewer segment noted at each manhole (deflection angle)
4. Manholes numbered, stationed with northings/eastings
5. Service wyes, including location, size, manhole reach, lot or building number, northing/easting, stationing from nearest downstream manhole, right or left-side connection looking upstream, and the invert of the main at wyes and plugs shown in tabular form on the plans
6. Flow direction arrows shown
7. Service connections shown

8. Manhole markers shown for sewer lines outside of paved ROW/easement
9. Sewer lines dimensioned from street centerline or property line, from all other utilities, and from nearest flow line
10. A minimum of 10 feet workable easement margin on each side of the sewer line
11. Minimum 10 feet horizontal separation from water utilities centerline to centerline, minimum 5 feet horizontal separation from other utilities outside of pipe to outside of pipe

C. Sanitary Sewer - Profile View Requirements

1. Scale: Horizontal 1" = 40'  
Vertical 1" = 4'
2. Manholes numbered and stationed
3. Linear footage, pipe type, and size called out on each segment of pipe
4. Entering and existing pipe invert elevations, rim elevations, depths identified for each manhole
5. Minimum 6 feet of cover from finished grade to the top of pipe
6. Hydraulic calculations (Q, V, D, d/D, S, and n=0.013) shown for each segment of pipe
7. Service connection locations noted
8. Inside manhole drop between inverts of highest entering pipe and lowest existing pipe not to exceed 1-1/2 inches
9. Connections to existing system shown on profile
10. Crossings with other utilities shown on profile
11. Minimum 1-1/2 feet vertical separation from other utilities outside of pipe to outside of pipe