

Sanitary Sewer Plan Review Checklist

1. Title Sheet: Plan Presentation and Preparation Criteria.

- ☐ Plat Name or Project Name (if platting is not required)
- ☐ Plat Number & Case Number or Project Number (if platting is not required)
- ☐ File Number (to be assigned on first review)
- ☐ City, County, State
- ☐ Section, Township & Range
- ☐ Consultant name, address, phone number, and e-mail address
- ☐ Certification Block with Engineer's signature/seal
- ☐ Developer name, address, phone number, and e-mail address
- ☐ Developer's Bonding Statement with Developer's signature
- ☐ Index of sheets
- ☐ Legal Description
- ☐ Location Map
- ☐ "For Construction" designation on the title sheet
- ☐ Area for KC Water reviewer to apply approval stamp.
- ☐ Summary of Quantities for public improvements. Compare to Engineer's estimate. For stream buffers items should include Construction Fence (LF), Stream Buffer Signs (EA), and Preparation of As-Built Drawings (1 LS or EA).

2. General layout if needed.

- ☐ General Notes
- ☐ Summary of Quantities, and Engineer's Cost Estimate provided.
- ☐ Street layout with street names that match the Final Plat.
- ☐ Sanitary sewer layout (all structures & lines called out, easements, other utilities, streets & plan boundary information).
- ☐ Verify that lot numbers match the proposed Final Plat.

3. Plan and Profile:

- ☐ FEMA floodplain (100 yr) and floodway shown, if pertinent.
- ☐ Street Right-of-Way, property lines, and easement lines shown.
- ☐ Minimum easement widths based on the KC Water easement design matrix.
- ☐ Horizontal location of all structures provided (Station/offset or Northing/Easting) per APWA 5502.4.A.2.c
- ☐ Profiles show:
 - ☐ Design flow for each pipe section. Design flow includes all upstream drainage boundaries. (APWA 5503)
 - ☐ Pipe material based on depth (SDR-26 <22', SDR-21 <30', Ductile Iron Pipe >30') (APWA 2503.2)
 - ☐ Minimum pipe slope, based on pipe size (APWA 5504.1)

- Maximum pipe velocity = 10 feet/second
- Minimum pipe depth 6 feet under roadways, 4 feet outside roadways. (APWA 5505.1.6)
- ❑ Deflection angles provided for each manhole (APWA 5502.4.A.2.c). Show angles between each pipe into and out of the structure.
- ❑ Minimum drop across structures (APWA 5506.1.C)
 - Crown of pipes entering > crowns of pipes exiting
 - Minimum drop of 0.2' fall between inverts for deflection angles < 45 degrees
 - Minimum drop of 0.4' for deflection angles > 45 degrees
 - Maximum drop across structures is 18 inches (1.5 feet), unless outside Drop Manhole is provided.
 - KC Water does not allow inside drop manholes
- ❑ Maximum distance between Manholes = 400 ft (16" and smaller mains) and 500 ft (18" and larger mains)
- ❑ Sanitary service lines provided for all adjacent lots. Service lines extend to the Right-of-Way line, or 10 from sanitary main, whichever is greater (APWA 5505.3)
- ❑ Sanitary service line wye's to be indicated and stationed in plan view (APWA 5502.4.A.2.c.6)
- ❑ Minimum cover of 3 ft for creek crossings (APWA 5505.1.C.3). If less than 3 ft, concrete encasement provided 10ft beyond the minimum cover.
- ❑ Minimum Building Floor Elevations provided for each lot (greater than flowline + 3ft) (APWA 5505.3)