

## DOWNERS GROVE SANITARY DISTRICT Casing & Carrier Pipe Specification

- Casing pipe shall be extra strong new steel pipe with a minimum wall thickness of 0.50 inches and minimum yield strength of 35,000 psi, conforming to ASTM A139 Grade A with continuous field-welded butt joints in accordance with AWWA C206.
- The interior and exterior of the steel casing pipe shall be epoxy coated with a minimum thickness of 8 mils.
- Voids outside the casing pipe shall be pressure grouted using clean dry concrete mix, composed of one part Portland cement and 10 parts of sand and gravel by volume, or low density cellular concrete grout with a minimum net density: 45 pcf and minimum compressive strength at 28 days of 160 psi. (Acceptable products Mearl Geofoam Liquid Concentrate) or other mix approved by the District.
- The sanitary sewer shall be installed within the casing pipe using Cascade stainless steel spacers or an approved equal. The use of wood blocking, sand and pea gravel is prohibited.
- The Cascade spacers shall be 8-inch wide and spaced at 6-foot intervals. Spacers shall also be placed within 2-feet of each end of the casing pipe.
- The carrier sanitary sewer pipe shall be Certain Teed Certa-Lok C-900/RJ restrained joint PVC piping Class 150 (DR 18).
- The Certa-Lok pipe shall extend from manhole to manhole on any section where casing is utilized.
- Cascade end seals shall be used at each end of the casing pipe to provide a barrier to debris and seepage.

### Minimum Casing Diameters:

| <u>Carrier Pipe Size (in)</u> | <u>Casing Pipe Size (in)</u> |
|-------------------------------|------------------------------|
| 8                             | 18                           |
| 10                            | 20                           |
| 12                            | 24                           |
| 14                            | 26                           |
| 16                            | 28                           |

Carrier pipe shall be installed in a restrained position following Cascade specifications.

