

City of La Quinta Public Works Department – Public Sewer Review Checklist

SEWER UNIT FLOW FACTORS

- Design Criteria and Flow Factors shall be in accordance with Coachella Valley Water District (CVWD)

SEWER PIPE LOCATION

- Minimum Separation from Water Main equal to 11 ft, generally Sewer Line location is offset from centerline (CL) of street in alternate direction from Water Main.
- Residential Streets - Located 6 ft laterally from CL of the street in the center of the driving lane.
- Industrial Streets - Located 6ft laterally from CL of the street in the center of the driving lane.
- Major, Primary, and Secondary Highways
 - o Located in center of driving lane nearest to the center of street
 - o Never located in Median Strip
 - o Never located in Parking Lanes
- Curved Streets
 - o Parallel with the Centerline by use of Horizontal Curves
- Horizontal and Vertical Curves
 - o Allowed on pipe sizes 8 inches and up but not encouraged
 - o Exception where necessary to maintain the required clearance from water pipelines.
 - o Minimum curve radius is dependent on Manufacturers Recommendations
 - o No reverse curves shall be allowed between manholes.
 - o No vertical curves shall be allowed.
- Minimum cover
 - o Shall be sufficient to service adjacent property by gravity
 - o Shall not be less than 7.5 ft to finish grade of street unless otherwise approved by the City.
 - o Shall have sufficient depth in subdivisions to allow water lines to be set with 4ft min cover without interference from the sewer laterals.
- Minimum 50 ft sewer clearance from Potable, Non-Potable, and Water Quality Monitoring Wells
- Provide elevations at all crossings; sewer, water and storm drains.

SEWER MAIN LINE PIPE SIZING

- 8-inch (Minimum Size), 10-inch, 12-inch , 15-inch, 18-inch, 21-inch, 24-inch and 27-inch diameter

SEWER LATERAL LINE PIPE SIZING

- 2% Minimum Slope
- Minimum 4 inch diameter lateral shall be required for single family residences.
- Minimum 6 inch diameter lateral shall be required for multi-family dwellings, commercial, and industrial uses.
- Within the City Right of Way, they shall be constructed of the same material as the main line sewer.
- House connection laterals at 2% slope, utilizing 45 degree connection at the main.

SEWER PIPELINE REQUIREMENTS PER CVWD

- Gravity Sewer –Vitrified Clay Pipe (VCP)
- Force Mains-AWWA C-900, Class 150 Polyvinyl Chloride (PVC)
- Hydraulic Analysis Dictates Pipe Size
- Minimum Velocity = 2 fps at full depths defined below
- Minimum Slopes = 0.0033 (8-inch), 0.0024 (10-inch), 0.0019 (12-inch), & 0.0014 (>12-inch)
- Pipe Size 8-inch to 24-inch, Full pipe assumed at depth of flow of ½ diameter of pipe
- Pipe Size > 24-inch, Full pipe assumed at depth of flow of 2/3 diameter of pipe
- Inflow & Infiltration (I&I) = 200 gal/day/acre (Inflow = cracks in pipes & Infiltration = manholes, inlets, etc.)
- Minimum Depth = 7 ft, Depth in excess of 15 ft requires Class B Bedding (See SSPWC 200-1.2 Table A ¾ inches).
- Minimum bedding requirements are per Green Book specifications.
- Lift Station Requirements:
 - Temporary lift station-pump in manhole not allowed.
 - Temporary lift station (<2 years of service) - moderate concrete structure, redundant pumps & SCADA capable
 - Permanent lift station (>2 years of service) - full concrete structure, redundant pumps & SCADA capable

SEWER MANHOLES

- Required at these locations
 - End of Each Line
 - Change in Grade
 - Change in Size
 - Change in Alignment
 - Intersection of 2 or more Sewer Mains
 - Laterals 8-inch or larger at POC to mainline and at the property line.
 - Monitoring manhole can be used for the manhole at the property line. See CVWD Standard.
- Maximum Spacing is 350 feet unless approved by the City (measured between manhole centerlines)
- Located near all BC's, EC's, PRC's and PCC's on curved sewers.
- Shall have 0.2 feet of elevation differential through straight and angled runs.
- Manhole Sizes:
 - 48-inch min for 18-inch or less pipe and/or at a depth of 12-feet or less - 72-inch for 30-inch pipe - 36-inch frame and cover for 72-inch manholes
 - 30-inch frame and cover for 48-inch manholes(See CVWD Standard)
 - 60-inch for 20-inch or larger and/or deeper than 12-feet - 36-inch frame and cover for 60-inch manholes
- Manhole Collars and Elevations:
 - When located outside the paved area, the frame and cover shall be 0.1ft above the finish grade with a 3 ft collar.
 - Elevations at inlet and outlet of manholes shall be shown on plans.
 - Shall not be buried except when approved by the City.
 - Shall be raised above ground level to maintain them in farmed areas and in waterways.

- When located in landscape area and in field, the frame and cover shall be installed 18-inch above the finish grade.
- Drop Manholes
 - Shall be used only upon approval by the City. Intersecting pipes in junction manholes shall have the same elevation where their projections intersect the manhole centerline unless otherwise approved by the City.
 - Vertical difference between two collection lines shall not be less than 3 ft.
 - Steep slopes from first manhole are preferred to drop manholes.

SEWER CLEANOUTS

- Residential Lots: Not permitted except on laterals at the property line.
- Commercial Site Locations: Point of Connections to Building, Easy Maintenance, and per City Engineer.

SEWER BACKFLOW VALVES

- Provided per the Uniform Plumbing Code, Latest Edition
- Located at shallowest location allowing access for inspection and maintenance.
- Installed by property owner or tract developer and maintained by property owner.

SEWER INDUSTRIAL WASTE PROVISIONS

- Developer shall provide the City with detailed information regarding project expected wastewater quality and quantity.
- Developer shall review which of the following facilities are required:
 - Building Sewer Sampler
 - Wastewater flow monitoring station
 - Gravity separator
 - Industrial waste clarifier
 - Pretreatment facilities.

SEWER GREASE TRAP

- Grease trap location and size specified on sewer plan. Cleanout hatches suitable for service without blocking traffic flow or creating ADA conflicts. Grease trap sizing calculations provided.