

**CITY OF NORTH LAS VEGAS ADDENDA FOR
DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION
SYSTEMS**

GENERAL INFORMATION

Septic tanks and leach fields are not allowed. Case by case review and prior approval required by CNLV Director of Utilities.

Under no circumstance will encasement of sewer mains and laterals with concrete be allowed.

Anytime a sewer main is placed underneath a 36" or larger diameter pipe (storm drain, water main, etc.) The sewer main must be encased in a steel sleeve per UDACS plate 23.

All contractors who perform work in the City of North Las Vegas must have a City of North Las Vegas business license.

All concrete mix designs to meet IQAC (Inter-Agency Quality Assurance Committee) standards.

Corrosion protection is required for new and existing manhole that is installed, adjusted, or modified in the field. The corrosion protection is to match the existing manufactured product. Coordinate with the City of North Las Vegas Utilities Department for the manufacturer of the existing corrosion protection system.

All sanitary sewer manhole bases for new pipe shall be precast manhole.

DESIGN STANDARDS

2.3.2. Pipe Size Requirements

$d/D=0.75$ is used for sewer capacity in the City of North Las Vegas. (PDWF)

2.3.3. Pipe Slope Requirements

2.3.3.A.7 Velocities may not exceed 10 feet per second. Energy Dissipation is not allowed.

2.3.4. Curved Sewer

Curved sewer mains are not allowed in the City of North Las Vegas.

2.3.7. Shallow Sewer Mains and Laterals:

6. Marker balls in accordance with Section 3.14, CNLV's Addenda, and the Agency's approved material list. Marker balls shall be placed along shallow sewers at uniform intervals not exceeding 10 feet.

2.3.12.B Aerial Crossings of Sanitary Sewers and Air Jumper Pipes:

Aerial Crossings are not allowed in the City of North Las Vegas.

2.3.13. Siphons:

Siphons are not allowed in the City of North Las Vegas.

2.3.15.A. Standard Manholes:

All manholes that are installed on sewer main 12” in diameter and smaller and 12’ or less in depth will use a 24” lid per SD-3 unless otherwise directed by City of North Las Vegas staff.

All sanitary sewer manhole bases for new pipe shall be precast manhole.

2.3.16. Conditions Requiring a Standard manhole

10. Minimum connection to a manhole is an 8” pipe.

2.3.17. Maximum Distance Between manholes

| <u>Pipe Size</u> | <u>Maximum Distance</u> |
|------------------|-------------------------|
| All sizes | 450 feet |

2.3.19. Manholes and Manhole Appurtenances

All sanitary sewer manhole bases for new pipe shall be precast manhole.

2.3.19.F. All manholes in the City of North Las Vegas that are installed on sewer main larger than 12” in diameter and sewer main deeper than 12’ (regardless of pipe size) will be required to use the dual cover lids (24” lid in a 36” lid per SD-2 or SD-3) All manholes that are installed on sewer main 12” in diameter and smaller and 12’ or less in depth will use a 24” lid per SD-3 unless otherwise directed by City of North Las Vegas staff.

2.3.19.H.- All new infrastructure (i.e. manhole) installed in the City of North Las Vegas shall require corrosion protection. The application of corrosion protection is to be inspected and approved by a City of North Las Vegas Utilities Department Representative. Coordinate with the City of North Las Vegas Utilities Department for approved manufacturer.

All manholes that are adjusted or modified in the City of North Las Vegas shall require that the existing corrosion protection be replaced utilizing the same manufactured product. However, the matching corrosion protection system shall be coated with a color approved by the Agency having jurisdiction. The contractual warranty shall apply to the corrosion protection system. Coordinate with the City of North Las Vegas Utilities Department for the manufacturer of existing coating.

2.3.21 Backwater Valves

Backwater Valves are not allowed to be used in the City of North Las Vegas, unless otherwise approved by the Director of Utilities.

2.4. Design Criteria For Pump Station

Pump Stations are not allowed to be used in the City of North Las Vegas, unless otherwise approved by the Director of Utilities.

2.5. Design Criteria for Force Mains

Force mains are not allowed to be used in the City of North Las Vegas, unless otherwise approved by the Director of Utilities.

CONSTRUCTION STANDARDS

3.13.4. Pipe Zone Backfill

Type II is the only acceptable material to be used in the pipe zone. Sand or crushed rock is not allowed.

3.14.7 Marker Balls:

6. Marker balls shall be placed at uniform intervals not exceeding 10 feet above shallow sewers.

3.16.8. Corrosion Protection (required by CNLV Utilities Department)

Corrosion protection is required for new and existing infrastructure that is installed, adjusted, or modified in the field. The corrosion protection is to match the existing manufactured product. Coordinate with the City of North Las Vegas Utilities Department for the manufacturer of the existing corrosion protection system. For corrosion protection on new infrastructure shall be per Section 3.16.8.

3.17.4.A & B Tapping VCP, NRCP, or ACP pipes

Tap location to be encased in CLSM.

STANDARD DRAWINGS

All drawings:

SD-6 Manhole Cover-Securing Device

Manhole Cover-Securing Device is not allowed to be used in the City of North Las Vegas, unless otherwise approved by the Director of Utilities.

SD-14 Pipe Bedding Methods

Type II is the only acceptable material to be used in the pipe zone. Sand or crushed rock is not allowed.

SD-21 Protection of Sanitary Sewer under a utility

Drawing not used. Concrete encasement of sewer not allowed in City of North Las Vegas.

SD-31 Pretreatment Sampling Manhole

This standard drawing is not used in the City of North Las Vegas. Use the City of North Las Vegas "Sand/Oil or Grease Interceptor with Sample Manhole" standard detail.

SD-32A Typical Siphon Outlet Structure

Siphons are not allowed to be used in the City of North Las Vegas.

TABLES

TABLE “D” MINIMUM REQUIRED AND MAXIMUM PERMITTED PIPE SLOPES

Public laterals shall adhere to the below Minimum Required Lateral Pipe Slopes Table.

MINIMUM REQUIRED LATERAL PIPE SLOPES

| Pipe Diameter (Inches) | Minimum Flow Rate (Cu Ft Per Sec) To Achieve a 50% Full Pipe at Min Slope | Minimum Slope (Feet per Foot) to Achieve a Velocity of 2 FPS at Pipe 50% full | Maximum Flow Rate (Cu Ft Per Sec) to Limit Depth to 75% Full Pipe at Max Slope | Maximum Slope (Feet per Foot) To Limit Velocity to 10 FPS at Pipe 75% Full |
|--|---|---|--|--|
| Laterals – Range of Pipe Slopes Permitted (flow rates and velocities not considered) | | | | |
| 4 | (Not Applicable) | 0.0200 | (Not Applicable) | (Not Applicable) |
| 6 | (Not Applicable) | 0.0100 | (Not Applicable) | (Not Applicable) |
| 8 | (Not Applicable) | 0.0100 | (Not Applicable) | (Not Applicable) |

Sewers at slopes less than the minimum slopes listed in Table “D” will not be permitted.