

**CITY OF LAS VEGAS
ADDENDA FOR
DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER
COLLECTION SYSTEMS
SOUTHERN NEVADA, 2019 4TH EDITION
ADDENDA LAST REVISED 11/9/2021**

GENERAL INFORMATION

1.2.13 Participating Agency or Agencies: City of Las Vegas
Department of Public Works
495 S. Main St.
Las Vegas, Nevada 89101
702-229-6541

1.2.16 Private Collector Sewer: Private sewers are private, even the portion in the public right-of-way, until the point of connection with the public sewer main (LVMC 14.04.120).

1.9 Guarantee: For projects outside the city limits which are constructing City of Las Vegas public sewer, a separate bond shall be posted with the City of Las Vegas for sewer improvements.

DESIGN STANDARDS

2.2.3 Right-of-Ways and Easements:

B. Easements. All private streets or easements with public sewer shall be a PUBLIC SEWER EASEMENT, TO BE PRIVATELY MAINTAINED (UDC 19.02.080.A). Easements granted for utility, roadway, or drainage purposes only or easements that expire are not be acceptable for public sewer.

For easements created by a government patent, the City of Las Vegas shall first record a Declaration of Utilization for public sewer purposes. The Engineer must submit legal descriptions of the affected area, a copy of the government patent, and a title report to the City of Las Vegas Right-of-Way section.

When sewer is proposed on an existing private street without a public sewer easement (Example: 4-lot private cul-de-sac), then the applicant must attempt to obtain the necessary public sewer easement(s) from the adjacent property owner(s). If public sewer easement(s) cannot be obtained, then the 8" sewer main must be constructed to public standards but labeled PRIVATE and will remain under the private maintenance responsibility of the property it serves. Each private sewer main can only serve one property, and no other properties will be allowed to connect to the private sewer main until the necessary public sewer easements are in place.

1. For single family development where easements cannot be placed in a common element, the easement must be separated from the rest of the property by a minimum 4' high CMU wall (see SD-26A) and the entire easement must be paved, regardless if

there are manholes in the easement or not. Bollards are required at the end of the easement on a single family lot.

2. For maps within the City of Las Vegas, follow normal City of Las Vegas procedures.

For maps outside the boundaries of City of Las Vegas but with City of Las Vegas sewer, submit a copy of the proposed Final Map or Parcel Map to the City of Las Vegas with the civil plans. When public sewer easements will be offered on a Clark County Final Map or Parcel Map, then the following statement should be a separate paragraph on its own in the owner's certificate...preferably right after the dedication statement. Do not add it in with the utility companies' statement:

FURTHER THE UNDERSIGNED OWNER HEREBY GRANTS AND CONVEYS TO THE CITY OF LAS VEGAS AND ITS SUCCESSORS PUBLIC SEWER EASEMENTS AS INDICATED AND OUTLINED HEREON FOR THE USE OF THE PUBLIC.

5. Driving surfaces in public sewer easements are only needed to access public sewer manholes within the easement (except for #1, above). Driving surfaces must be asphalt, concrete, or pavers. (Compacted gravel is not an acceptable driving surface.) Driving surfaces shall be minimum 12-ft wide. (See also Section 2.3.15 addendum)
10. If the easement is located in a common lot used as a park, then a paved pathway must be installed over the public sewer to prevent the installation of trees or amenities over the public sewer in the future.
11. A single wall, gate, or fence perpendicular to the sewer will be allowed in public sewer easements.
12. Gates or bollards are not required at entrances to easements unless required by a condition of approval or if desired by the Developer (except for #1, above). At least one entrance to the easement must be accessible without a gate or a wall (removable bollards are acceptable).

2.3.1 Calculation of Peak Wastewater Flow: Only Peak Dry Weather Flow (PDWF) is considered for sewer capacity by the City of Las Vegas. (See also Section 2.3.2 addendum)

2.3.2 Pipe Size Requirements:

A. Public Interceptors, Public Collector & Private Collector Sewers: Maximum $d/D=0.50$ is used for sewer capacity for pipe sizes 8 to 15 inches. For pipes larger than 15 inches, maximum $d/D=0.60$ is used. This ratio is for Peak Dry Weather Flow.

The City of Las Vegas' Wastewater Collection System Master Plan Update identifies corridors where larger sewer mains will be required for future upstream growth. Development projects along these corridors will be required to construct the size of pipe identified in the Master Plan.

B. Multi-Family Residential, Commercial, Industrial, or Institutional:

2. For new sewer lateral taps into a Public Sewer Main, the minimum nominal pipe diameter shall not be less than 6-inches. Multi-Family Residential, Commercial,

Industrial, or Institutional Developments may utilize existing sewer lateral connections less than 6-inches in diameter with feasibility condition assessment to be verified by The City of Las Vegas Building and Safety Department.

C. Private Collector Sewers & Laterals. Private sewers shall meet the requirements of the UPC. Private force mains are not allowed in the public right-of-way or public easement.

Private sewers serving multiple lots/parcels are prohibited except in Commercial Subdivisions (UDC 19.02.080.B). Commercial Subdivisions must have one of the following 3 statements on the Final Map (UDC 19.16.060.W):

- A. The on-site sewers with a minimum pipe diameter of eight inches, and are located within dedicated public sewer easements, are public sewers.
- B. The on-site sewer system is a common element of the commercial subdivision which is privately owned and which is maintained in accordance with the covenants, conditions and restrictions that govern the subdivision.
- C. The on-site sewer system is a common element of the commercial subdivision which is privately owned and which is maintained in accordance with a joint use agreement applicable to the subdivision.

D. Public Force Mains: New public force mains are not permitted in the City of Las Vegas.

2.3.3 Pipe Slope Requirements:

7. Where PDWF velocities greater than 10 feet per second are approved on a case by case basis, use C-900 pipe. No energy dissipation measures allowed.

2.3.4 Curved Sewers

5. A curvature radius of 575 feet is allowed with a lay length of 10 feet. Plans must indicate 10-ft pipe sections per DCSWCS 2.3.4.5.
8. Marker balls are not used by the City of Las Vegas. Refer to the City of Las Vegas Land Development General Notes #21 instead.

2.3.5 Main Sewer Stub-Outs:

2. Marker balls are not used by the City of Las Vegas. Refer to the City of Las Vegas Land Development General Notes #21 instead.
3. Marker balls are not used by the City of Las Vegas. Refer to the City of Las Vegas Land Development General Notes #21 instead.

2.3.6 Sewer Line Depths and Alignments: See Section 2.3.20 addendum.

2.3.7 Shallow Mains and Laterals:

5. Public sewer mains with less than 5 feet of cover at any point shall be C900 for the entire reach between manholes. Public sewer mains shall also be encased with reinforced concrete per SD-14 at locations with less than 3 feet of cover, in addition to C900 pipe material.

2.3.10 Lateral Connections into Collector Sewers and Manholes: Cleanouts and private manholes shall not be located within the public right-of-way or public sewer easement (UDC 19.02.090).

A. Lateral Connections General Requirements:

5. Lots at the end of cul-de-sacs may have sewer laterals which are not perpendicular to the public sewer main. Laterals shall not cross in front of an adjacent neighbor's property.
6. Laterals shall not be located under single-family residential driveways unless there is no alternative. In such case, the plans shall call out a sewer cleanout with traffic rated lid per SD-24 to be installed in the driveway, outside of the right-of-way or public easement.
10. Multiple accessory structures may share the same sewer lateral with the single family dwelling on the same lot, provided all UPC requirements are met.
- 11 & 12. Apartments and condominiums may share sewer laterals, regardless of the number of units. Townhomes must have an individual sewer lateral to each mapped lot, regardless of the number of units in the building.
14. Laterals for single family dwellings, 4-inch or 6-inch, connected to public sewers 18-inch and larger shall also have a Back Water Valve on private property to mitigate the impacts of odors.

C. Lateral Connection to Manholes: Only laterals 8-inch in diameter and larger may connect to public manholes.

2.3.12 Other Utility Crossings and Separations:

B. Aerial Crossings of Sanitary Sewers and Air Jumper Pipes. Aerial crossings and siphons are not permitted for new public sewers in the City of Las Vegas.

2.3.13 Siphons: Siphons are prohibited for new public sewers in the City of Las Vegas.

2.3.15 Manholes: All-weather, 24/7 drivable access must be minimum 12-foot wide asphalt, concrete, pavers, or artificial turf. (Compacted gravel is not acceptable.) (See also Section 2.2.3.B.5 addendum) Manholes located within a paved drainage easement near the flow line shall have their rim elevations raised at least 6-inches above the surrounding surface.

C. Deep Manholes: Internal diameter of 72-inches and dual concentric manhole covers per SD-2 are not required until the manhole is greater than 25 feet deep (unless required by another section of the DCSWCS). The City of Las Vegas does not require the engineer to provide structural details for the base. (See also Section 2.3.18 addendum)

2.3.18 Manhole Diameters:

B. Manholes (Greater than 20-feet): Internal diameter of 72-inches and dual concentric manhole covers per SD-2 are not required until the manhole is greater than 25 feet deep (unless required by another section of the DCSWCS). (See also Section 2.3.15.C addendum)

2.3.19 Manholes and Manhole Appurtenances

B. Additional Requirements for Manhole Bases: Cast-in-place manhole bases may be utilized on all new sewer mains. The City of Las Vegas does not require the engineer to provide structural details for the base.

H. Corrosion Protection: Corrosion Protection shall not be used to make a manhole water tight in the City of Las Vegas. (See also Section 3.16.2.A.2 addendum)

2.3.20 Manhole and Main Line Locations:

A. Main Line Locations: All public sewer mains shall be located 5-feet from street centerline, and remain on the same side of street centerline, whenever possible. When the use of curved streets or existing utility conflicts necessitate deviations from the preferred 5-foot street centerline offset, then the public sewer shall remain as close as possible to the City's desired alignment and shall not be closer than 8-feet from the back of curb where there is sidewalk in the public right-of-way or common element. The public sewer shall not be closer than 10-feet from the back of curb where there is no sidewalk. For street widths less than 60-feet, all distances for this section are measured from center of pipe or manhole. Street widths 60-feet or greater, the City of Las Vegas may require additional separation.

On public streets that are not paved and/or do not have curb and gutter, public sewers shall be 5-feet from street centerline and minimum 20-foot wide pavement shall be installed over the public sewer and extend at least 6-feet beyond the center of the sewer. When the public sewer main cannot be 5-feet from street centerline due to utility conflicts, then all public sewer mains and manholes shall remain as close as possible to the 5-foot street centerline alignment and shall not be closer than 18-feet from the edge of public right-of-way, and pavement shall be constructed over the sewer to extend at least 6-feet beyond the center of the sewer main or manhole. All distances for this section are measured from center of pipe or manhole.

1. Where there is an irrigated landscaped median, the sewer main shall be under pavement and 5-feet from the edge of the median island.

2. Public sewers in public sewer easements shall be minimum 10-feet from a parking space, trash enclosure, or covered parking structure.

5. Public sewers shall be minimum 10-feet from subdivision gated median curbs.

6. In areas where future trees are a possibility (such as private parks), a paved path over public sewer is required to ensure trees or amenities are not installed planted over public sewer in the future.

B. Manhole Locations:

4. The consideration of the location of the wheel path of motor vehicles is secondary to maintaining the desired sewer main location 5-feet from street centerline or roadway Median Island, but should still be considered.

2.3.21 Backwater Valves: Refer to the UPC with Southern Nevada Amendments.

2.4 DESIGN CRITERIA FOR PUMPING STATIONS. New public pumping stations are not permitted in the City of Las Vegas.

2.6.7 Minimum Drawing Guidelines: In addition to all of the items listed, please label City of Las Vegas drawing numbers for all existing or approved sewers and storm drains. Provide cross sections of all sewer easements. Show locations of sewer laterals, but do not include stationing or elevations for laterals of single-family residential development.

For projects outside of the City of Las Vegas but with City of Las Vegas sewer, add the Interlocal Agreement # and its Recorded Document # to the City Engineer signature block.

For all projects connecting to a downstream sewer that is under design or construction by another project, all sewer plan/profile sheets must have the following note:

SEWER CONNECTION NOTE

ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

CONSTRUCTION STANDARDS

3.7 CERTIFICATIONS OF INSTALLATION PROCEDURES. HDPE is not allowed in the City of Las Vegas.

3.14.6 Pipe Locator Ribbon: Pipe Locator Ribbon is not used in the City of Las Vegas. Refer to the City of Las Vegas Land Development General Notes #21 instead.

3.14.7 Marker Balls: Marker Balls are not used in the City of Las Vegas. Refer to the City of Las Vegas Land Development General Notes #21 instead.

3.16.1 Manhole Base Construction:

1. Pre-cast or cast-in-place manholes bases are both allowed for all cases in the City of Las Vegas.

3.16.2 Assembling Pre-Cast Concrete Manhole Components:

A. Pre-Cast Manhole Sections:

2. On the civil plans, the construction note for all manholes shall read “INSTALL MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-21”.

3.18 ABANDONMENT OF EXISTING FACILITIES: Where sewer mains and manholes have been installed in anticipation of future development, and that development utilizes a different route for sewer instead, the developer shall be responsible for abandoning the unused sewer mains and manholes originally intended to service the development, if required by the City of Las Vegas.

3.18.1 Main Lines and Laterals: Method “a” (Crush line in place) is not allowed in the City of Las Vegas.

3.18.2 Manholes: Method “b” (remove manhole to a depth of 4-feet below the ground surface) is not allowed in the City of Las Vegas.

CONTROL OF MATERIALS

4.2 APPROVED MATERIALS.

Exceptions from the CCWRD AML for Approved Pipes by the City of Las Vegas:

- CHDPEP is not permitted.
- City prefers C900 DR-25, but will allow DR-14 and DR-18.
- Sanitite – Poly Propylene is not permitted.
- Sanitite – HDPE is no permitted.

Exceptions from the CCWRD AML for Approved Manhole Components and Accessories by the City of Las Vegas:

- No steps in City of Las Vegas Sewer Manholes.
- Sun Coast Environmental, Poly-Triplex Liner System not permitted.

Exceptions from the CCWRD AML for Approved Manhole Coatings.

- Multiplexx Liner, by Terre Hill Composites not permitted.

Exceptions from the CCWRD AML for Misc. Products:

- Marker Balls are not utilized by the City of Las Vegas.

4.8 PIPE LOCATOR RIBBON. Pipe locator ribbon is not used by the City of Las Vegas.

STANDARD DRAWINGS

SD-1 STANDARD PRE-CAST MANHOLE: City of Las Vegas allows the use of cast-in-place manholes for the construction of new sewer systems. Refer to DCSWCS 2.3.19B.

SD-20 LATERAL CONNECTION TO SEWER MAIN 21” DIA AND SMALLER: Marker balls are not used by the City of Las Vegas. Refer to the City of Las Vegas Land Development General Notes #21 instead.

SD-21 LATERAL CONNECTIONS TO SEWER MAINS 21” DIA AND SMALLER AROUND OBSTRUCTIONS: Marker balls are not used by the City of Las Vegas. Refer to the City of Las Vegas Land Development General Notes #21 instead.

SD-23 SEWER LATERAL MARKER: Marker balls are not used by the City of Las Vegas. Refer to the City of Las Vegas Land Development General Notes #21 instead.

OTHER RELEVANT INFORMATION

ISDS (Individual Sewage Disposal System, aka septic tanks and leach fields)

ISDS – New Development, Single Family Residential

The city shall continue to enforce Nevada Administrative Code (NAC 444.786) requiring new development to connect to public sewer whenever public sewer is available within 400 feet of the nearest property line and can be reached by gravity flow. For subdivisions with five or more single family dwelling units, the city shall also continue to enforce NAC 278.460 requiring subdivisions having density of two or more dwelling units per acre to connect to public sewer when public sewer is available within the distance determined by multiplying the number of single family dwelling units by 100 feet. When new single family development does not meet these criteria, then the Southern Nevada Health District (SNHD) may consider a temporary ISDS permit until sewer becomes available within 400 feet of the property.

IMPORTANT NOTE FOR DEVELOPERS AND CUSTOMERS

See LVVWD Service Rules Chapter 4, Section 4.5 (e)

As of January 1, 2021, LVVWD put into effect a new service rule in which they will refuse potable water service to **new** development in which district-provided water will be discharged to a septic tank or an evaporative pond.