

### **III. STANDARD SPECIFICATION AND STANDARD DRAWINGS FOR WATER LINE CONSTRUCTION**

- A. All water improvements shown on these construction drawings shall conform to the standards described below, and in order of precedence shown.
  1. "City of North Las Vegas Municipal Water Service District Service Rules and Regulations," latest edition.
  2. "Uniform Design and Construction Standards for Water Distribution Systems, Clark County Nevada," latest edition.
  3. "Uniform Standard Specification for Public Works Construction Off-site Improvements, Clark County Area, Nevada," latest edition.
- B. Exceptions to these Standards are noted below:
  1. No water main may be shut down to make connections without prior approval of the City of North Las Vegas representative.
  2. Materials used for water distribution facilities shall be included on the "City of North Las Vegas Approved Materials List," latest revision, or specifically identified and approved on these plans.
  3. All water meters two (2) inches and smaller shall be installed by the City of North Las Vegas. Note that all locations must be clearly identified and marked at the site. The service lines, laterals, meter boxes and sidewalks or collars must all be installed and set at grade or the meter will not be set.
  4. The City of North Las Vegas' trench Backfill Policy, dated August 15, 1996, shall be adhered to for this project.
- C. Modification and clarification to these Standards are as noted below:
  1. Water Metering Requirements for New Development:
    - i. Separate domestic and fire services (where applicable) are required for each dwelling unit, public, quasi-public, commercial, and/or industrial occupancy located on a single parcel or lot.
    - ii. In the event that a building within an industrial or commercial subdivision is divided, separate domestic services are required for each unit.
    - iii. Each parcel or lot of a commercial or residential subdivision will have a minimum of one (1) metered domestic service. When a fire service is required, each parcel or lot will have a minimum of one (1) fire service. The City, at its option, may allow a communal fire service provided the property owners first establish a property management association which accepts responsibility for the payment of water bills and the maintenance and operation of the fire lines and the backflow prevention assembly.
  2. Fire and domestic water services as approved on this plan, are intended specifically for the lot and use shown, and are not intended to serve additional parcels or structures which may be created in the future. In the event that the parcels and/or lots shown on this plan are further divided to create additional parcels or lots, the owner is required to provide separate fire and domestic water services to each.
  3. Connection to public fire hydrants shall not be made for domestic and/or private fire service.
  4. All service laterals two (2) inches and smaller shall be copper tubing with approved service saddles. Corporation stops and angle meter stops shall be the same size as the service lateral. Angle meter stops and meter shall be centered in meter the box.
  5. UDACS Plates No. 1 and 3- Revise note to read "couplings are not allowed between the corporation stop and the angle meter".
  6. All meters to be installed in the City of North Las Vegas water system, including DCDA's must be compatible with the SENSUS AMR protocol (a.k.a. Invensys) and must be installed with the encoded register. Meters that are fully compatible are: Sensus/Invensys ECR/WP models (5/8" and larger), Neptune Autoread models (3" and larger) & Metron/T2 INNOV8 (All Sizes).
  7. Any parcel receiving water from the public distribution system from multiple connections is required to utilize the same meter manufacturer. For master metered multi-family residential, the meters shall be of the same manufacturer, model, and size.
  8. All meter boxes shall be equipped with traffic bearing covers and installed to finish design grade and elevation. If such is not shown on the plans, the elevation will be established by the City of North Las Vegas representative.
  9. Any block wall or other fence shall be designed and constructed around the outside of the easement(s), to allow the City direct access to vault(s) and inlet piping from the adjacent right-of-way.
  10. No utility boxes shall be located in driveway approaches, unless approved by the Utilities Division.
  11. A single pipe material shall be used throughout the project unless otherwise approved by the City of North Las Vegas representative.
  12. The on-site water lines and appurtenances are private facilities not to be operated or maintained by the City of North Las Vegas, unless otherwise specified on Civil Improvements Plans.
  13. All valves will be located outside of driveways, valley gutters, and curb gutters.
  14. A minimum of two (2) valves shall be located at every mainline tee, or three (3) valves at every mainline cross.
  15. All new fire hydrants shall have a 5-1/4 inch valve opening.
  16. Two sources of water supply are required for any development with any combination of more than three (3) fire hydrants (public or private) or fire services.
  17. Minimum separations between fire systems and domestic water mains shall be six (6)-feet horizontally from exterior pipe walls and eighteen (18)-inches vertically. Minimum separation from sewer lines shall be ten (10)-feet horizontally.

18. Pipe detector ribbon and locator balls shall be required above all water mains, service laterals that are six (6) inches and larger, and any service lateral not installed perpendicular to the main line.
  19. All water mains shall be filled, pressure tested to 200 PSI, disinfected, flushed, refilled and an acceptable water sample obtained, prior to connection by the City. Contact the City of North Las Vegas Utility Division twenty-four (24) hours in advance to schedule sampling.
  20. All backflow prevention assemblies shall be tested and certified by the City of North Las Vegas prior to placing the water system in service. No water shall be taken from a service requiring backflow prevention until the reduced pressure principle assembly has been successfully tested by the CNLV. Contact the City of North Las Vegas twenty-four (24) hours in advance to schedule testing.
  21. Limits of asphalt patches to be determined in the field by a City of North Las Vegas inspector. Patches will be a minimum of twelve (12)-feet machine replaced.
  22. Schedule Utility Inspections online at <http://cnlv-webinspection.cityofnorthlasvegas.com/>. Utility inspections must be scheduled online by 2:00 p.m. for inspections to occur the following normal working day (Monday through Friday). For after hours utility inspections, including weekends, contact Utility Customer Service at (702) 633-1277 to set up an account.
  23. Record drawings shall be prepared, signed and submitted to the City of North Las Vegas representative prior to final acceptance of any water distribution facilities to be owned, operated or maintained by the City of North Las Vegas.
- D. Shutdown requirements and information:
1. Contact the utilities Department seven (7) working days prior to any anticipated shutdown for coordination purposes. The contractor shall not open/close any valves within the City's water distribution system. The utilities department contact number is 633-1285.
  2. For commercial properties, provide written notification and verbal coordination between the Utilities Department and the commercial property owner(s) a minimum of seven (7) working days prior to anticipated shutdown. The commercial owner(s) shall have the ability to provide input in scheduling shutdowns.
  3. For residential properties, provide written notification to residential properties a minimum of 48 hours prior to anticipated shutdown.
  4. Working days are deemed to be Monday through Thursday for shutdown purposes.
  5. Shutdowns are anticipated to be night work. Final decisions shall be at the discretion of the Utilities Department.
  6. The shutdown, relocation, and/or adjustment of water lines shall be as approved by the City of North Las Vegas Utilities Department. Shutdowns cannot be guaranteed by the Department. Line stops or insert a valves may be required to complete the work, at the discretion of the Utilities Department. Contractor shall be responsible for all costs associated with the Work. Non-compensable delays may be considered at the discretion of the Construction Manager.

#### **IV. STANDARD SPECIFICATION AND STANDARD DRAWINGS FOR SEWER LINE CONSTRUCTION**

- A. All sewer lines (wastewater collection systems) shown on these construction drawings shall conform to the standards described below, and in accordance with the precedent shown:
1. "Design and Construction Standards for Wastewater Collection Systems, Southern Nevada," latest edition.
  2. "Uniform Standard Specifications for Public Works construction Off-Site Improvements, Clark County Area, Nevada," latest edition.
- B. Exceptions to these Standards are noted below:
1. Materials used for wastewater collection systems shall be included in the City of North Las Vegas approved Materials List, latest edition, or specifically identified and approved on these plans.
  2. The City of North Las Vegas Trench Backfill Policy, dated August 15, 1996 shall be adhered to for this project.
  3. The contractor shall inscribe "S", 3-inches in height, into the curb at the point where the sewer lateral enters each subdivision lot or private land parcel.
- C. Modifications and clarification to these Standards are noted below:
1. All sanitary sewer manhole bases for new pipe must be precast per Design and Construction Standards for Wastewater Collection Systems plates SD-1A & 1B.
  2. Limits of asphalt patches to be determined in the field by a City of North Las Vegas inspector. Patches will be a minimum of twelve (12)-feet, machine replaced.
  3. The on-site sewer lines and appurtenances are private facilities not to be operated or maintained by the City of North Las Vegas, unless otherwise specified on Civil Improvement Plans.
  4. Sewer services as approved on this plan, are intended specifically for the lot and use shown, and are not intended to serve additional parcels or structures which may be created in the future. In the event that the parcels and/or lots shown on this plan are further divided to create additional parcels or lots, the owner is required to provide separate sewer services to each.
  5. Schedule Utility Inspections online at <http://cnlv-webinspection.cityofnorthlasvegas.com/>. Utility inspections must be scheduled online by 2:00 p.m. for inspections to occur the following normal working day (Monday through Friday). For after hours utility inspections, including weekends, contact Utility Customer Service at (702) 633-1277 to set up an account.
  6. Record drawings shall be prepared, signed and submitted to the City of North Las Vegas prior to acceptance of any wastewater collection systems to be owned, operated, or maintained by the City of North Las Vegas.

7. Pipe detector ribbon and locator balls shall also be required above all sewer mains.

D. Adjusting Manholes

1. When adjusting manholes, the contractor shall install plywood covers in sanitary sewer manhole inverts as well as steel plate covers over manholes (after manhole rings/frames are removed) to prevent debris from entering sewer manholes and corresponding lines. Debris in the manholes shall be removed prior to plywood removal.
2. Plywood and steel covers for manholes shall be installed and removed in the presence of the Utilities Inspector. All debris dropped into the sewer manholes and corresponding lines shall be retrieved at the Contractor's expense. The Contractor shall clean (e.g., jet vac or equivalent) the debris out of the affected manholes and/or sewer lines in the presence of the Utilities Inspector and approved by the construction manager.