

VALLECITOS WATER DISTRICT SEQUENCE OF WATER AND SEWER INSPECTION

I. SEWER INSPECTION

- A. Two copies of the cut sheets.
- B. Pothole survey information to be turned in prior to construction to verify line and grade.
- C. No stakes, no digging and no inspections (4 ft. cover minimum).
- D. Straight line trenches: mains and laterals.
- E. $\frac{3}{4}$ " crushed rock bedding: mains and laterals.
- F. Pipe zone backfill: minimum one foot above top of pipe. Sand on DIP $\frac{3}{4}$ " crushed rock on PVC (no mounding).
- G. Backfill: nothing back in the trench over six inches (must meet the requirements of current City of San Marcos Excavation Ordinance, or governing agencies standards).
- H. Sewer laterals staked with I.E. cut and line stake at P/L. Manholes staked (in and out) with line stakes.
- I. The sewer laterals shall be of the same material as the mainline.
- J. Provide Cal OSHA confined space permit entry program.
- K. Sewer inspections for line and grade are manhole to manhole prior to placement of backfill.
- L. Streets and easements shall be constructed to compacted subgrade prior to installation of public sewer system unless approved by District Engineer. Any existing sewer facilities must remain accessible and at grade, at all times.

II. WATER INSPECTION

- A. Submit valve information for entire project.
- B. Pothole survey information to be turned in prior to construction to verify line and grade.
- C. Two copies of the cut sheets.
- D. No stakes, no digging, no inspections (2 ft. cover minimum).
- E. Streets and easements shall be constructed to compacted subgrade prior to installation of public water system unless approved by District Engineer. Any existing water facilities must remain accessible and at grade, at all times.
- F. Ductile iron pipe: plastic wrapped in trench.
- G. Pipe zone backfill: minimum one foot above top of pipe. Sand on DIP. Crushed $\frac{3}{4}$ " rock on CML&C. Sand SE 30% or better, certification ticket required, no mounding.
- H. Backfill: nothing back in the trench over six inches (must meet the requirements of current City of San Marcos Excavation Ordinance No. 81-544 or governing agency's standards).
- I. Service runs: Ninety-degrees from the main. Cul-de-sac requires stakes at main and P/L.
- J. Service falling in sidewalks require over sizing of meter boxes.
- K. Cutting, sawing and drilling of AC pipe is not permitted.
- L. Ductile iron pipe shall be used for closures.
- M. Shutdowns: No Shutdowns will be allowed on Fridays.
- N. Shutdown request: minimum six working days' notice in writing.
- O. Inspect all waterlines exposed during installation of joint trench utilities.

III. TESTING

- A. Inspect all sewer lines exposed during installation of joint trench utilities.
- B. Sewer air test: 3 PSI for 3 minutes (no loss) after ALL joint trench utilities are installed and compacted.
- C. Vactor truck and Mandrel (5%) and flush.
- D. TV camera the entire sewer system.
- E. Sewer lateral connections, after the sewer air test (VWD to inspect property line private connection).
- F. Additional cleaning may be required after paving and manholes are brought up to grade (unless prior arrangements have been made under B and C above).
- G. Water Pressure Test: After all appurtenances are constructed (225 psi for 1 hour) or as required by Engineer.
- H. Chlorine test: After 24 hours of contact time (50 ppm).
- I. Chlorine residual: As soon as the line is flushed.
- J. Bacteria Test: State certified lab to sample and test. 48 hour HPC/ e-coli/coliform.
- K. Contractor / Developer to schedule: STATE HEALTH REQUIRES ANY PUBLIC WATER SYSTEM TAKEN OUT OF SERVICE MUST BE BACTERIA TESTED UPON REACTIVATION.
- L. Compaction Test: 1) easements, and 2) public right-of-way (as directed by Soils Engineer). Streets and easements shall be constructed to compacted subgrade prior to installation of public water and sewer system unless approved by District Engineer. Any existing water and sewer facilities must remain accessible and at grade, at all times.
- M. Water meter boxes set after curb & sidewalks are in or temporary sidewalk panels.
- N. Raise gate valves to grade after paving.
- O. All appurtenances to be painted by FSC Coatings (see approved material list FSC Coatings 800-579-8459). Paint FH with color coding per governing agency.

IV. COMPLETION OF THE JOB (LETTER OF RELEASE GIVEN AFTER COMPLETION)

- A. Account balance current
- B. Meter number / address form completed.
- C. Letter of certification for water and sewer trench compaction.
- D. Until all of the above items are complete, all meters shall be locked off.
- E. Labor material record submitted to VWD. Actual cost of the pipeline (water and sewer). Sample available.
- F. Warranty bond submitted to VWD: 25% Warranty bond submitted to VWD: 25% of the original performance bond.
- G. As-built photo mylars to VWD with electronic files (ACAD latest version).
- H. Payback documents on file with VWD (if applicable).
- I. Acceptance by the Board of Directors.
- J. Customer shall call Customer Service:
 - i. Sign up for service by completing a "Customer Reference Form".
 - ii. Schedule unlocking of meters.
 - iii. Coordinate any backflow device certifications with Meter Dept. (as necessary)

* If any work is done after normal working hours or on the weekend, job must be left open for inspection.

** Overtime inspections (other than normal working hours) must be arranged with the inspector in advance. Additional inspection deposit will be required if a contract inspector is needed for extended night time hours. Developer is responsible for all costs. Contract inspection requires a 14-day notice to schedule.