

## **STANSBURY PARK IMPROVEMENT DISTRICT UTILITY INSTALLATION REQUIREMENTS**

SPID is in no way responsible for omissions or errors on the construction plans. SPID reserves the right to include and/or require additional improvements or adjustments to the approved plans during inspections and construction, if omissions or errors are discovered and/or to add or furnish construction improvements pertinent to the functionality, reasonable use of, or longevity of the system. SPID will notify the Developer in writing within 24 hours (excluding weekends and holidays) of any such required additions, modifications, or changes discovered. All construction and improvements remain the ownership and responsibility of the Developer until final written acceptance by SPID.

The Contractor shall conform to the latest publication of APWA Standard Specifications and Standard Plans in its entirety, unless superseded by these Utility Installation Requirements, SPID Development Requirements (most current Revision), the Construction Plans, and Stansbury Park Improvement District Standard Drawings (most current Revision).

### **SEWER**

1. If ground water is present, pumps with well points along the trench shall be required to minimize water intrusion at a level below the working area at all times.
2. Place acceptable bedding material 6" below pipe and a minimum of 12" above top of pipe.
3. All manhole section joints and boots shall be sealed on the outside with a flexible joint sealant that is recommended by the manufacturer and poly-wrapped. The manhole exterior surface shall be cleaned and inspected prior to installation, and shall have an exterior asphalt-based coating (or District approved "water proofing" equivalent). This requirement will be determined by SPID onsite, prior to actual installation.
4. Grouting of pipe penetration is required to a professional finish on the inside of manhole inlet and outlet pipe. Inside stacked section joints do not require grouting. As lids are adjusted to finish grade, and the concrete collar is poured, make sure there is nothing protruding inside the manhole and if grouting is required, it shall have a professional look with a nice smooth finish.
5. The flow of ground water is prohibited into a live or newly constructed line during construction. The contractor shall be required to install a plug when connecting into an existing live sewer line and is only to be removed with approval and in the presence of SPID.
6. Check and tighten jam nut, which is used to seal concrete and rubber boot of manhole before inserting pipe.

7. Air testing and televising are due prior to asphalt paving. Televising record is required to be delivered to SPID with manhole numbers (provided by SPID), direction of flow and footages recorded for a total length of pipe between manhole sections, including lateral location footages.
8. Wye connections to main line are required at 10:00 and 2:00 positions.
9. When connecting laterals to existing sewer main lines, use a nose-on connection. Inverts of new laterals must be made a 10:00 and 2:00 positions.
  - a. For nose-on connections to an existing 10-inch main or larger, the connection shall be made using an Inserta-Tee fitting. Connections shall be core-drilled. Rubber sleeves - ASTM F477, Bands – 301 SS, Screws – 305 SS, Housing 301 SS, and Gaskets – ASTM F477.
  - b. For nose-on connections to an existing 6-inch or 8-inch PVC main, the connection shall be made by using an Inserta-Tee according to the requirements of 9(a).
  - c. For nose-on connections to an existing 6 or 8-inch concrete or vitrified clay main, connection shall be made using an Inserta-Tee fitting.
  - d. For nose-on connections to any other type of pipe, SPID shall approve before installation.

Install  $\frac{3}{4}$ -inch rock, 6 inches below the sewer lateral on undisturbed grade (i.e., using a flat-blade bucket), or compact grade at bottom of utility trench prior to backfill and pipe installation. Loose or non-compacted subgrade at bottom of trench is prohibited. Install  $\frac{3}{4}$ -inch rock 1.0 foot minimum above the top of the lateral.
10. Any manhole barrel, cone, chimney, or other component that is damaged upon delivery, storage, or installation shall be rejected and replaced before acceptance.
11. Concrete collars are to be inspected and approved by SPID and Tooele County. Concrete collars around the ring at finish grade require an arrow to denote flow of direction. SPID personnel must be present during process.
12. At the end of the one-year warranty period the sewer line will require cleaning and televising prior to final acceptance by the District. Per Development Agreement between SPID and Developer.
13. Wire tracer is required on all laterals, secured to the top of the pipe every 10' commencing at the wye connection and continuing to the cleanout. Anti corrosion gel caps are required on the ends of all buried wire, including any wire splicing.
14. For sewer lines less than 15 inches in diameter, install 4-foot diameter manholes. For sewer lines 15 inches in diameter and greater; and for any diameter greater than 15 feet in depth, install 5-foot diameter manholes. Large diameter pipes (30 inches in diameter or greater) shall have appropriated manhole diameters as designed by the engineer and approved by the District. All three-way and four-way manholes shall be 5-foot diameter or greater regardless of line size.
15. Cleanout lids require a metal detectable lid including a concrete collar.
16. Flat frame and cover manhole lids are not allowed on sewer manholes.

17. All sanitary sewer construction shall comply with SPID sewer design standards, construction specifications, and standard drawings.
18. Sewer pipeline shall be ASTM D 3034, SDR 35 with bell-and-spigot ends with gasketed joints.
19. Extreme care should be taken when placing upstream and downstream pipe into sewer manhole trough, assure that both pipe and cement trough flow lines are matched. If flow is restricted in either direction due to the placement of the pipe, a full length of pipe at a minimum, shall be uncovered and raised or lowered to match flow lines.
20. Grade risers shall not exceed a distance of more than 12-inches. If 13 inches or more are required to adjust lids to finished grade, an additional manhole section is required. Plastic riser forms shall be used as manufactured by "Whirlygig", or as approved by SPID. Brick, block, concrete, wood, metal shims, and all other materials are prohibited for adjustment of frame and cover to final grade.
21. Pipe zone material is required for the entire length to the termination point of all sewer laterals.
22. ROMAC Industries Stainless Steel, Light Weight Repair Clamp, or approved equivalent stainless steel coupler, is required for all sewer mainline repairs.
23. Contractor Furnished Sewer CCTV Report Required.

Prior to televising, all sewer lines must be cleaned using hydro jetting systems, resulting in all debris being removed. Introduce a small stream of water into the line which is to be televised. Contractor shall coordinate and schedule the work, providing clear direction prior to the company's arrival on site. Contractor shall provide SPID 24 hours minimum notice, and SPID shall be present prior to commencing any installation and televising. CCTV personnel shall be NASSCO PACP certified. The contractor shall provide a CCTV Report, which shall include the following minimum information.

  - a. System Name: Stansbury Park Improvement District
  - b. Project Name
  - c. Paper log and Video log, including manhole numbers matching the approved construction plans, lateral distances, quadrant location, and any defects or abnormalities. Refer to SPID Standard Drawing 209: Example CCTV Report. This is provided as an example of the type of required paper log for all CCTV Inspections. Together, the paper log and the video log, both constitute the required CCTV Report.

A USB drive containing the Report shall be delivered by the contractor to SPID for review. All non-conforming and defective work shall be repaired or corrected by the contractor and approved by SPID before any asphalt is placed.

## WATER

1. All culinary water construction shall comply with SPID culinary water design standards and construction specifications.
2. Install water system appurtenances and thrust blocking according to SPID standards and such that maximum static pressure is 125 psi and such that maximum soil bearing pressure does not exceed 1,500 psf.
3. No. 14 gauge wire tracer (insulated copper) is required on all water system pipes and appurtenances. Gel caps will be used at termination points or splices. Wire on main line and laterals wires are not required to connect.
4. Unless noted otherwise; all water lines 4 inches through and including 12 inches shall be PVC AWWA C-900, DR-18 (Pressure Class 235). Water lines 14 inches through 48 inches shall be PVC AWWA C-905, DR-18 (Pressure Class 235) unless otherwise noted. Residential service lines shall be 3/4" iron pipe size poly service lines and shall not exceed 40" below finished asphalt grade, except as otherwise noted because of other utility conflicts.
5. Tees, bends, reducers, and end caps shall be Ductile Iron, Class 250 AWWA C110.
6. Valves 4 inches to 10 inches shall be resilient wedge gate valves, cast iron body, bronze mounted, non-rising stems with "O" ring seals conforming to AWWA C504, opening counterclockwise. Valves 12 inches to 48 inches shall be cast iron body butterfly valves, bronze mounted conforming to AWWA C504, and shall be high performance DEX Double Eccentric Butterfly Valves manufactured specifically by AV-TEK.
7. Water valve boxes shall be straight vertically and centered over valve nut. NO EXCEPTIONS!!! Valve boxes shall be installed with a level vertically and horizontally, and checked with a level. Broken valve box sections are prohibited. If boxes require replacement the integrity of wire tracer shall not be compromised.
8. Splice connections on water service laterals between main line and setter are prohibited.
9. Tees, bends, valves, and all other fittings shall be installed with a minimum of 3 feet of pipe separation. Fittings installed with less than 3 feet of pipe separation will be rejected.
10. Wire tracer is required on all main line and lateral lines. Anti corrosion gel caps are required on all buried wire, including splices, and at any termination point. Wire is to be secured in the center/top of the pipe every 10'. Wire tracer is to be secured to the outside of all valve boxes and terminate inside the valve box near the top through a small hole or a horizontal penetration cut into the valve box, allow no less than 2-feet of excess wire when lid is removed. Wire tracer shall also be extended from inside the meter box and up to the building either inside the building, or to a termination point at the surface wall of the foundation.
11. Contact the District for chlorine test prior to flushing. All new water main or appurtenances shall be installed, tested, flushed, and disinfected in

accordance with AWWA standard C651-05. Evidence of satisfactory disinfection shall be provided to the Utah Division of Drinking Water on all new distribution system construction. The use of culinary water for culinary purposes shall not commence until the bacteriological tests indicate the water is free from contamination.

12. FIRE HYDRANTS SHALL BE LEVEL both VERTICALLY AND HORIZONTALLY Prior to placement of curb, gutter and sidewalk. FINISH GRADE OF SURROUNDING SURFACE ELEVATION SHALL NOT EXTEND ABOVE THE BURY LINE ON THE HYDRANT BARRELL. Contractor shall exercise care to ensure that the 6" hydrant lateral line feeding the hydrant is installed level.
13. Joint restraints are required on all fire hydrant assemblies from main to hydrant including all bend fittings on water main. All bend fittings include concrete thrust blocks.
14. Lonitudinal bending of pipes and deflections at the joints should be avoided and are unacceptable as a means of eliminating bend fittings both in design and construction. Pipes shall be installed "straight" with proper horizontal and vertical bend fittings. Fine adjustments in and out of bend fittings are permitted provided that the joint is properly installed (not exceeding the maximum reference line) in a non-stressed condition, which is deemed to be 1-degree maximum deflection at the joint. Bending of pipe is not permitted. Pipe shall not be installed in bell beyond the mark on the spigot end of the pipe.
15. On all new and extensive distribution system construction, evidence of satisfactory disinfection shall be provided to the Utah division of drinking water. The District will collect a minimum of two bacteria samples separated by a 24-hour period for each set of samples. The developer will be billed at the labs rate per sample plus personnel time to deliver samples as per Development Agreement between SPID and Developer (Plan review and inspection fees). The use of water for culinary purposes shall not commence until the bacteriologic tests indicate the water to be free from contamination.
16. All types of installed pipes shall be pressure and leak tested in accordance with AWWA Standard C 600-99. Hydrostatic main line testing is required at 1.5 times the static pressure of the location with a minimum testing pressure of 200 psi for the duration of two (2) hours. District must be present to witness test and the satisfactory test results are required prior to placement of asphalt and then again after meter setters have been installed, and preferably after all street improvements have been completed including street monuments.
17. EXTREME CARE should be taken when installing water meter boxes, yoke and laterals. They shall be placed on firm and a level surface prior to installing meter box, yoke and lateral lines inside the box. The meter boxes shall be clean and the gravel or ground level shall be level to the outer edge of the inside of the box and not extend above the bottom of the yoke and lateral lines. The meter box shall be leveled vertically and horizontally.

A small doghouse is required representing pipe circumference to accommodate laterals. Water boxes are required to be maintained in a clean and non-damaged condition throughout the warranty period. Meter box lid standard is 1.5 inches above top back of curb. In no case lower, if at the end of the one-year warranty period the box has settled it will be required to be raised back to standard.  $\frac{3}{4}$ " gravel is required for setting meter box grade. (No loose dirt under boxes, yoke and lateral lines) Prior to placing meter box, ensure that the water service lateral and bottom of trench is no deeper than 40", if grade is too low, raise grade by placing 3/4-inch gravel. Use a circular hole saw for doghouse penetration. All meter boxes shall have an insulation disk installed just below the frame and cover, 4 inches thick required, and shall be of the proper diameter to provide a tight fit.

18. Contractor or Developer will purchase meter from either the District or Distributor. Residential radio read meters 3/4"X 5/8 and 1" meters are Neptune (R900i)
19. Contractor to supply Neptune meters as directed by SPID.
20. Commercial meter lid (30") requires D&L lid #1180 with recessed 2" offset hole for Neptune radio pod.
21. Damaged, smashed or partially smashed meter boxes will require replacement.
22. Residential water laterals are to be installed 40 inches below top back of curb. (At TBC location)
23. During the 1-year warranty period, if the meter box lid is left off in cold weather, or the meter freezes for any reason caused by negligence, including damage to the radio pad or wire, the Developer will be invoiced for the cost of replacement per the Development Agreement.
24. Tee posts are recommended around meter boxes for protection although not required.
25. Wire tracer shall be tested prior to asphalt placement. If a signal cannot be located, contractor shall repair wire prior to paving, and only after acceptance by SPID.
26. Contractors are prohibited from operating any and all water valves in existence prior to commencement of construction.
27. Hot taps or open line cuts require a disinfection application by swabbing the outside and inside of all pipe surfaces, including tapping tools prior to any work being conducted. SPID shall be present during all such activities.
28. A cap is required on all open-ended water lines when unattended.
29. Inspections on valve boxes prior to collaring are required and then again when pouring. The District will place an identification mark in the concrete.
30. All fittings are to be greased and wrapped, saddles included.
31. Residential minimum service lateral shall be  $\frac{3}{4}$ " IPS poly.
32. Import bedding material is required for the entire length to the termination point of all water laterals.
33. Residential water cans require a 21" diameter by 41" deep ADS box with a 21" vertical duel check meter setter. Lid is D&L # 2240-15

34. Residential water service laterals are to be  $\frac{3}{4}$  Iron pipe size poly pipe.
35. All fittings require grease, and plastic wrap.
36. Imported sand bedding, or fines is required for pipe zone (1-foot minimum above top of pipe) material shall be pre-approved by SPID prior to placement, then 3" minus import material.
37. All corporation stops shall be ball corporations.
38. (R309-550-6(1)) NSF STANDARD FOR HEALTH EFFECTS. All materials which may contact drinking water, including pipes, gaskets, lubricants, and O-Rings, shall be ANSI-certified as meeting the requirements of NSF Standard 61, Drinking Water System Components – Health Effects. To permit field – verification of this certification, all such components shall be appropriately stamped with the NSF logo.
39. (R309-550-6(3)) AWWA STANDARDS FOR MECHANICAL PROPERTIES. Pipe, joints, fittings, valves, and fire hydrants shall conform to NSF Standard 61 or Standard 14, and applicable sections of ANSI/AWWA Standards C104-A21.4-03 through C550-05 and C900-07.
40. (R309-550-8(10)) DISINFECTING WATER DISTRIBUTION SYSTEMS. All new water mains or appurtenances shall be disinfected in accordance with AWWA Standard C651-05. The specifications shall include detailed procedures for the adequate flushing, disinfection and microbiological testing of all water mains. On all new and extensive distribution system construction, evidence of satisfactory disinfection shall be provided to the Division. Samples for coliform analyses shall be collected after disinfection is complete and the system is refilled with potable water. A standard heterotrophic plate count is advisable. The use of water for culinary purposes shall not commence until the bacteriologic tests indicate the water to be free from contamination.
41. Above water crossings: The pipe shall be adequately supported and anchored, protected from damage and freezing, and accessible for repair or replacement.
42. Under water crossings: A minimum of two feet of cover or greater, as local conditions may dictate, shall be provided over the pipe. When crossing water courses greater than 15 feet in width, the following shall be provided:
  - a. The pipe shall be of especial construction, having restrained joints for any joints within the surface water course and flexible joints at both ends of the water course.
  - b. Valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair; the valves shall easily accessible, and not subject to flooding; and the valve nearest to the supply source shall be in a manhole.
  - c. Permanent taps shall be made on each side of the valve within the manhole to allow insertion of testing equipment to determine leakage and for sampling purposes.
43. Asbuilt drawings are required prior to releasing bond.

## **STORM DRAIN**

1. Storm drain requires a satisfactory air test.
2. Bell ends of pipe are prohibited in catch basins.
3. ¾" or 1-1/2" rock with a minimum of 6" under pipe and 1' above top of pipe shall be required for pipe zone material.
4. All storm drain construction shall comply with SPID storm drain design standards and construction specifications and standard drawings.
5. All storm drain pipes and fittings include RCP, ASTM C 76, with bell-and-spigot ends and gasketed joints with ASTM C 443, rubber gaskets; or double gasket HP Sanitite pipe. Pipes shall be encased with ¾" gravel for HP Sanitite Pipe, or ¾" to 1-1/2" gravel for RCP pipe, and placed a minimum of 6" below and 12" above pipe, unless specific exceptions have been noted otherwise on the plans or in writing by the District.
6. When using HP Sanitite Pipe, all connections to manholes, boxes, catch basins, vaults, and structures shall be made "watertight" according to ASTM C923, Provide Type 3 water stop gasket and stainless steel "take-up" clamp and stainless-steel screws. For all pipe connections to manholes, extend grout apron 4" minimum from the exterior face of the box around the complete exterior circumference of the pipe.
7. Provide core holes that are at least 4" larger than attaching outer pipe diameter. Cut core holes at the manufacturing plant unless the District permits field holes.
8. Center core holes to leave 2" of concrete measured horizontally from inside wall of the box to core hole. Locate core hole vertically so bottom of core hole will be at or above floor elevation with at least 5" of concrete directly above the core hole of the top of the box. In order to eliminate the need for water line loops and other utility conflicts, storm drain lines may be raised, as required by the District, and cast-in-place boxes also may be required by the engineer and/or the District accommodate raised storm drain lines. Such boxes are considered deviations and subject to item 9 below. Always conform to manufacture's recommendations for minimum pipe cover and loading specifications.
9. Deviations from core hole tolerances require shop drawings and approval by the District prior to installation. Shop drawings will identify lifting point number and location.
10. All manhole covers shall be raised or lowered to meet 3/8" below finished grade.
11. Flat frame and cover manhole lids are not allowed.
12. Grade risers shall not exceed a distance of more than 12-inches. If 13 inches or more are required to adjust lids to finished grade, an additional manhole section is required. Plastic riser forms shall be used as manufactured by "Whirlygig", or as approved by SPID. Brick, block, concrete, wood, metal shims, and all other materials are prohibited for adjustment of frame and cover to final grade.

13. Contractor shall cut pipe flush with the inside wall of the box or manhole and shall grout with non-shrink grout to a smooth and professional finish.
14. Contractor is to grout at connection of pipe to box with non-shrinking grout, including pipe voids left by cutting process, and any other voids that may exist, including but not limited to lid and void left from curb and gutter at grating, to a smooth professional finish. Any pipe that is cut should have a nice professional look complete, no sloppy work.
15. Any barrel, cone, chimney, or other component of any box that is damaged upon delivery, storage, or installation shall be rejected and replaced before acceptance.
16. When required by the District Engineer, all stormwater manufactured treatment devices (hydrodynamic separation and/or filtering) shall be capable of removing trash, sediment, total suspended solids (TSS), oil and grease materials, metals, hydrocarbons, and other pollutants from stormwater runoff, and shall be certified by NJDEP and NJCAT, and comply with the most current requirements of UDOT Special Provision Section 02631S: Stormwater Manufactured Treatment Device.

## **GENERAL**

1. Survey staking is required for installation of water, sewer and storm drain. Survey for water shall include but not limited to the following, cut for proper depth, bend fittings, tees, valves, and hydrants and include TBC grade as needed for hydrants, meter boxes and laterals.
2. The contractor shall contact the District and the District must be present prior to commencing any new activity including, but not limited to the installation of water boxes, valve boxes, water main, sewer main, storm drain and valves to tee's etc.
3. The District requires 24-hour notice for inspections. The inspector will try to be on site daily to coordinate inspections as required
4. Existing utilities have been shown on the plans using a combination of on-site surveys and as-built drawings. Contractor shall verify locations and inverts of existing utilities to which new utilities will be connected prior to beginning construction
5. All culinary water, sanitary sewer, and storm drain improvements shall conform to the latest SPID Standards for design and construction.
6. Call before you dig. It's free and it's the law. 1-800-662-4111.
7. The locations of existing underground utilities shown on this plan are diagrammatic only, and all utilities may not be shown. The Contractor shall contact the proper local authorities or respective utility companies to confirm the location of all existing utilities before commencing work. Any damage due to failure of the Contractor to contact the proper authorities shall be borne by the Contractor.
8. Contractor is responsible for obtaining the required encroachment permits from Tooele County when working within the County rights-of-way.

9. Any area outside the limit of work that is disturbed shall be restored to its original condition at no cost to the owner, SPID, or Tooele County.
10. It shall be the Contractor's responsibility to review all of the drawings and specifications before commencing construction.
11. Contractor shall maintain a minimum of one-foot vertical separation distance between all utility crossings, unless otherwise shown on the plans.
12. SPID will have full time onsite inspections as time permits during construction of utilities. Notice is required to be given by Contractor to SPID prior to any work performed.
13. Contractor is to grout at connection of pipe to manhole with non-shrinking grout, including pipe voids left by cutting process, to a smooth finish.
14. Contractor shall cut pipe flush with the inside wall of the box or manhole.
15. Contractor shall remove nails, rebar and other protrusions from the manhole or pipe inside surface, as well as all form work, plastic and cardboard etc.
16. All manhole covers shall be raised or lowered to meet 3/8" below finished grade.
17. The District must approve all pipe zone material prior to placement and shall meet pipe manufacture's recommendations. Maximum particle size shall be 3/4 inch.
18. Backfill all utility trenches above pipe zone with Granular Fill material meeting AASHTO M145 Classification A-1-A, A-1-B, A-2-4, or A-3 per ASTM D3282. Place in 8-inch maximum lifts and compact to a minimum 96% relative density per ASTM D1557, Modified Proctor. Otherwise, comply with APWA Sections 33 05 20 and 31 23 26.
19. Contractor shall stub all water and sewer laterals from the main, 10 feet minimum from the sidewalk (past the public utility easement and utilities). Provide 2X4 posts marking the stubbed locations of all water and sewer laterals, together with depth of cut on the posts from the top of marker to the invert of lateral. The bottom of the post shall be placed at the invert elevation of water and sewer laterals. Water posts shall be painted blue, and sewer posts shall be painted green. Wire tracer shall continue from the end of lateral and extend to the top of 2X4.
20. Water trucks require an air gap when using a hydrant to obtain water. The hydrant gate valve should be operated to start and stop the flow of water from the hydrant. The Main hydrant valve should remain on in full open position when hydrant meter is attached. Hydrant meter requires a \$1,200 deposit. Construction water will be billed at \$ 4.00 per thousand gallons to Developer. Developer/Contractor to provide monthly hydrant readings to SPID.
21. All water, sewer, and storm drain facilities shall be commissioned per APWA Standard Specification 33 08 00.
22. Backfill material shall not be placed over pipe bedding until District has inspected and given approval for the Contractor to do so. The District can request that a line be re-excavated to verify proper bedding and the

- contractor shall be obligated to comply with the request if a line has been covered over without prior approval from the District.
23. Site and roadway embankment shall be brought to finished subgrade elevations prior to commencing the utility trenching and installation of any water and/or storm drain lines.
  24. Tolerances for utility line grades and alignments are specified in standard drawings 208-A and 208-B, which SPID strictly enforces. SPID maintains “zero” tolerance for flat bellies and flat zones / spots in pipelines. Contractor shall correct non-conforming work, and re-televised the corrected work until the work is in compliance.

## **POST CONSTRUCTION**

1. Asbuilt Drawings shall be submitted to the District Manager.
  - a. Ensure that all data for “Asbuilt Drawings” is collected.
  - b. The Asbuilt Drawing set shall consist of the Approved Construction Drawings, including approved revisions, with all annotations and graphical representations modified to reflect the “as constructed” condition of the public improvements, private service laterals, and utility connections as determined by a field survey conducted by the Project Surveyor. Notes and redlines from the contractor (used exclusively) are insufficient and will be rejected.
  - c. All revisions, annotations, and graphical representations shall be drafted in AutoCAD.
  - d. The Asbuilt Drawings shall include: title page (stamped and signed by Engineer and marked “ASBUILT DRAWINGS”), overall site plan, overall utility plan, plan and profile sheets, landscape and irrigation plans, special detail sheets, and all other sheets pertaining to water, sewer, and storm drain systems. Sheets not included in the Asbuilt Drawing set shall be lined-out in the drawing sheet index.
  - e. Project Controls
    - i. All Asbuilt Drawings shall be submitted (both hard copy of AutoCAD formats) using the District’s survey coordinate base, including a survey control sheet indicating the District’s survey controls used. Plans submitted otherwise will be rejected.
    - ii. Provide on plans two (2) swing ties, or measured distances, to all private service lateral stub markers for each lot or building; as well as any sewer cleanouts on private lateral stubs installed as part of the project. These ties shall be from the two front property corners, a “nail-in-curb” projected from the property corner, or other surveyed points of reference that are permanent “controls” of the development and clearly labeled on the plans. Swing ties that cross over from sheet to sheet shall include a note and contain match lines on each sheet. Laterals shall not cross over from sheet to sheet.
  - f. For review, provide on the Asbuilt Drawings, the location of the installed public utility improvements within recorded easements. If revised

- easements are required by the District, a copy of revised and recorded easements shall be submitted together with the revised Asbuilt Drawings prior to approval.
- g. Provide a written certification on the Asbuilt Plans (by the Project Surveyor or Project Engineer) that a field survey of existing as-constructed utility information has been performed and has been incorporated into the Asbuilt Drawings.
  - h. A copy of the Asbuilt Drawings shall be submitted to the District Manager for review prior to scheduling a final inspection.
  - i. Any incorrect or modified information shown on the Asbuilt Drawings found during the warranty period shall be corrected by the Developer and Project Engineer, and the corrected sheets shall be resubmitted.
  - j. Submit three (3) plan sets sized 24"x36".
  - k. Submit two (2) CDs containing both PDF and AutoCAD formatted drawings.
2. Storm Water Detention / Retention Facilities - Certification
- a. A certification letter shall be stamped and signed by the Project Engineer that designed and approved storm water detention / retention improvements have been surveyed and meet the following criteria.
    - i. Volumes are equal to or greater than those designed and approved.
    - ii. Provide cross sections of surveyed conditions demonstrating dimensions, measured slopes, and elevations.
    - iii. Provide measured invert elevations of inlets and outlets, overflows, weirs, surface slopes, and other designed control features of the improvements are in compliance with the designed and approved plans.
    - iv. Provide all grading features, spot elevations, and contours representing the "as constructed" conditions have been properly and accurately shown on the Asbuilt Drawings.
    - v. Certify that landscaping and irrigation, as designed and approved, has been properly and completely constructed.
  - b. A copy of the letter shall be submitted to the District Manager prior to scheduling a final inspection.


To be signed after review at Pre-Construction Meeting  
 Acknowledgement of Revision 6-2-2026

CONTRACTOR SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

DEVELOPER SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

DISTRICT ENGINEER SIGNATURE  \_\_\_\_\_  
 Brendan Thorpe, P.E.