



DEPARTMENT OF PUBLIC UTILITIES

DEVELOPMENT STANDARDS REQUIREMENTS FOR NOTES

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Mayor

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Director

The following notes should be added to the drawing(s), or revised to match exactly as shown below:

WATER NOTES (To Be Added To The Utility Plan)

1. Notify Sandy City Public Utilities Inspector Roy Thacker or Willis Bilbrey, 801-568-7280, at least two working days prior to beginning any construction.
2. All construction shall conform to the latest revision of the Sandy City Standard Specifications and Details for Municipal Construction and/or other requirements as set forth in the final approval letter established for the development. Specifications and details can be obtained at <http://sandy.utah.gov/government/public-works/standard-specifications.html> or from Sandy City Public Works department (568-2999).
3. Locate water line 4' off lip of gutter on the north and east side of the roadway.
4. A minimum of 48" of cover from the top of the pipe to the finish grade is required.
5. Use thickness class 52 or better Ductile Iron Pipe.
6. **Because the project is located west of the Utah Transit Authority's TRAX line and upon receiving approval from Sandy Public Utilities, PVC C-900 (DR-14) shall be used for pipe size 6" to 12" in diameter. Place 10 gauge wire on top of the pipe (per Sandy City Standards Specifications) for future relocation. No deflection in pipe joints will be allowed on PVC pipes. All mechanical joints must be mega lugged or approved equal.**
7. Use 6" compression type hydrant by Mueller Centurion or Clow Medallion. Existing hydrants required for fire protection that do not meet current standards shall be upgraded to meet current Sandy City Standards.
8. All dead ends to be plugged with a 2" washout or end with a fire hydrant.
9. All water lines shall be poly-bagged in accordance with Sandy City Specifications and Details for Municipal Construction.
10. All waterlines shall be bedded in Sand 6" under, 12" around.

STORM WATER NOTES (To Be Added To The Grading And Drainage Plan)

1. Notify Sandy City Public Utilities Inspector Roy Thacker or Willis Bilbrey and UPDES Inspector Ray Herrera, 801-568-7280, at least five working days prior to beginning any construction.
2. All materials and work done in a (UDOT) Street shall conform to UDOT standards and requirements.
3. Construction work shall be conducted in accordance with SWPPP and/or NOI requirements. Inspections shall be completed per the requirements of the SWPPP and/or NOI. All inspections shall be documented and made available via the online SWPPP management system. Regular review of the online SWPPP management system and inspections will be completed by the Public Utilities Department to confirm that construction work is being performed in accordance with SWPPP, NOI, and UGCP requirements. Review and inspection reports completed by the Sandy City Public Utilities Department will be provided to the Contractor which are to be posted to the online SWPPP management system. All identified violations are to be addressed and documented on the online SWPPP management system.
4. A pre-construction meeting is required once Final Approval has been granted. This is where the developer/owner and the contractor meet with the City's inspectors to review the approved plans. The pre-construction meeting shall be scheduled through the Planning Department.
5. All materials and work done on flood control facilities shall conform to the latest revision of the Sandy City Standard Specifications and Details for Municipal Construction. Specifications and details can be obtained at <http://sandy.utah.gov/government/public-works/standard-specifications.html> or from Sandy City Public Works department (568-2999)
6. Non-shrinking grout shall be used wherever grout is required for the storm water facilities.
7. Cut pipes off flush with the inside wall of the box or manhole and grout at connection of pipe to box to a smooth finish. Additionally, all jagged or sharp edges at pipe connections are to be removed and grouted smooth.
8. Grout between grade rings. For each inlet box that is proposed to be located next to a curb, the curb and gutter contractor is responsible to remove all protruding, jagged or sharp concrete edges and to grout between bottom of inlet lid frame and top of concrete box. Grout to create a smooth, beveled transition at all edges in clean out and inlet boxes. Grout around all edges of the restrictive orifice plate.
9. Remove snap ties, nails, rebar and other protrusions from the box or pipe inside surface, as well as all form work, plastic and cardboard.

10. Silt and debris are to be cleaned out of all inlet, clean out boxes, and pipe. The boxes and pipes are to be maintained in a cleaned condition until after the final bond release inspection.
11. Clean off all manhole lids and inlet grates of asphalt, concrete, tar or other adhesives to allow access.
12. Where a sump is required, the drainage inspector Roy Thacker, 801-568-7284 or Willis Bilbrey, 568-7292, shall be contacted prior to construction to provide an opportunity to check the volume of gravel, as well as the gravel gradation.
13. Signs are to be posted near each inlet box with the following words “WARNING THIS IS A DRINKING WATER AQUIFER RECHARGE AREA. DISPOSAL OF ANY WASTE MATERIALS IN THE STORM WATER IS STRICTLY PROHIBITED.”
14. All precast inlet, combo and junction boxes shall be set on 12” (min.) compacted 1” minus gravel.
15. Submittals are required for all sand bedding, sand backfill, pipe, precast clean out boxes and precast catch basins for all facilities. They should be submitted at least five working days before construction. Submittals should have sufficient information to show that the proposed items conform to Sandy City specifications.
16. Pipes shall be video camera to see if they need to be fixed or replaced before the 80% or 90% bond release and before final bond release.

STREETLIGHT NOTES (To Be Added To The Utility Plan)

1. Notify Sandy City Public Utilities Inspector Roy Thacker or Willis Bilbrey, 801-568-7280, at least two working days prior to beginning any construction.
2. All materials and work done on streetlights shall conform to the latest revision of the Sandy City Standard Specifications and Details for Municipal Construction. Specifications and details can be obtained at <http://sandy.utah.gov/government/public-works/standard-specifications.html> or from Sandy City Public Works department (568-2999)
3. Installations shall be located as indicated on the approved drawing for the project. Field modifications must be approved by the Sandy Public Utilities inspector.
4. Street light poles shall not be installed in a manner that will hinder the operation of fire hydrants, underground water system isolation valves, and other utilities.

5. Installations within close proximity to trees shall be avoided unless approved by Sandy Public Utilities inspector.

IRRIGATION/LANDSCAPE NOTES (To Be Added To The Irrigation/Landscape Plan)

1. **Mulch:** After completion of all planting, all irrigated non-turf areas shall be covered with a minimum layer of four (4) inches of mulch to retain water, inhibit weed growth and moderate soil temperature. Non-porous material shall not be placed under the mulch. 4" mulch in all irrigated non-turf areas. If rock mulch, minimum is 3".
2. **Landscape Water Meter:** A water meter and backflow prevention assembly that are in compliance with state code shall be installed for landscape irrigation systems, and the landscape water meter and backflow prevention assembly shall be separate from the water meter and backflow prevention assembly installed for indoor uses. The size of the meter shall be determined based on irrigation demand.
3. **Pressure Regulation:** A pressure regulating valve shall be installed and maintained by the consumer if the static service pressure exceeds 80 pounds per square inch (psi). The pressure-regulating valve shall be located between the landscape water meter and the first point of water use, or first point of division in the pipe, and shall be set at the manufacturer's recommended pressure for sprinklers.
4. **Automatic controller:** All irrigation systems shall include an electric automatic controller with multiple program and multiple repeat cycle capabilities and a flexible calendar program. All controllers shall be equipped with an automatic Rain Shut-off Device.
5. On slopes exceeding 30%, the irrigation system shall consist of Drip Emitters, Bubblers, or sprinklers with a maximum Precipitation Rate of 0.85 inches per hour and adjusted sprinkler cycle to eliminate Runoff.
6. Each valve shall irrigate a landscape with similar site, slope and soil conditions and plant materials with similar watering needs. Turf and non-turf areas shall be irrigated on separate valves.
7. Drip Emitters or a Bubbler shall be provided for each tree where practicable. Bubblers shall not exceed 1.5 gallons per minute per device. Bubblers for trees shall be on separate valve unless specifically exempted by the Sandy City Public Utilities Department due to the limited number of trees on the project site.
8. Sprinklers shall have matched Precipitation Rate with each control valve circuit.
9. Check valves shall be required where elevation differences will cause low-head drainage. Pressure compensating valves and sprinklers shall be required where a significant variation in water pressure will occur within the irrigation system due to elevation differences.

10. Drip irrigation lines shall be placed underground or otherwise permanently covered, except for Drip emitters and where approved as a temporary installation. Filters and end flush valves shall be provided as necessary.
11. Irrigation zones with overhead spray or stream sprinklers shall be designed to operate between 6:00 p.m. and 10:00 a.m. to reduce water loss from wind and evaporation. This would exclude drip or bubbler zones.
12. Program valves for multiple repeat cycles where necessary to reduce runoff, particularly slopes and soils with slow infiltration rates.
13. Following construction and prior to release of the secondary bond guarantee posted for the project, a Water Use Efficiency Review will be conducted by a Landscape Irrigation Auditor. The auditor shall be independent of the contractor, design firm, and owner/developer of the project. The water performance audit will verify that the irrigation system complies with the minimum standards required by Sandy City ordinance. The minimum efficiency required for the irrigation system is 60% for distribution efficiency for all fixed spray systems and 70% distribution efficiency for all rotor systems. The auditor shall furnish a certificate to the City, designer, installer and owner/developer certifying compliance with the minimum distribution requirements. Compliance with this provision is required before the City will release the bond for this project.
14. Plants which require different amounts of water shall be irrigated by separate valves. If one valve is used for a given area, only planters with similar water use shall be used in that area. Lawn areas and planters shall be irrigated by separate valves.
15. A separate backflow prevention device shall be installed for the irrigation system.
16. A rain sensing overriding device shall be utilized so that the irrigation system will automatically turn off in the event of rain.
17. The irrigation system shall be designed to prevent overspray and water run-off onto adjacent-property, non-irrigated areas, walks, roadways or structures.
18. An automatic irrigation system using pop-up sprinkler heads shall be required for all new landscapes. Low flow sprinkler heads shall be used wherever possible.
19. No irrigation of walkways or drive.
20. **Water audit is required prior to bond being released. Suggest the audit be done within 60 days of installing irrigation and landscape.**

If you have any questions with these requirement, please contact Chaleurn "Lennie" Chanthaphuang, P.E. at 801-568-7293.