

6.7 ENGINEERING DEPARTMENT REQUIREMENTS FOR STANDARD NOTES

A. General Notes

1. All construction and materials are to be in accordance with the “ City of West Jordan Design and Construction Standards”; and other applicable approved standards issued by the controlling agency; the International Building Code; and all local city codes and ordinances applicable, except as noted on this sheet as “Deviations from Standards”.
2. The existence and location of any overhead or underground utility lines, pipes, or structures shown on these plans are obtained by a research of the available records. Existing utilities are located on plans only for the convenience of the Contractor. Existing utility service laterals may not be shown on the plans. The Contractor is to, at his own expense, locate all underground and overhead interference’s, which may affect his operation during construction and is to take all necessary precautions to avoid damage to it. The Contractor is to use extreme caution when working near overhead utilities so as to safely protect all personnel and equipment, and is to be responsible for all cost and liability in connection therewith.
3. The Contractor is to take all precautionary measures necessary to protect existing utility lines, structures and street improvements which are to remain in place, from damage, and all such improvements or structures damaged by the Contractor’s operations are to be repaired or replaced satisfactory to the Engineering Department and owning utility company at the expense of the Contractor.
4. All construction is to be as shown on these plans, any revisions are to have the prior written approval of the Engineering Department.
5. Type V cement is to be used in all off-site concrete work. Concrete to be 3,000 P.S.I. minimum @ 28 days. Mix designs to be approved by the City, prior to the use on the project.
6. Permits are required for any work in the public Right-of-way. The Contractor is to secure all permits and inspections required for this construction.
7. Expansion joints required, maximum every 300-feet in extruded-type curb.
8. Asphalt cement (AC) pavement to be ½-inch above lip of all gutters after compaction, except at sidewalk ramps and cross gutters.
9. Curb and gutter found to be unacceptable to the City is to be removed and replaced.
10. Sidewalk ramps are to be constructed in each quadrant of an intersection per standard drawing 235. Exact location of ramps may be adjusted in the field by a City inspector.
11. Contractor is to provide all necessary horizontal and vertical transitions between new construction and existing surfaces to provide for proper drainage and for ingress and egress to new construction. The extent of transitions to be as shown on plans.
12. All grading work is to conform to the soils report as prepared by the Soils Engineer approved by the Engineering Department, and as shown on these plans.
13. Exact location of all saw cut lines may be adjusted or determined in the field by a City of West Jordan Engineer if location on plans is not clearly shown, or existing pavement condition requires relocation.
14. The Contractor is to take all precautions necessary to protect existing permanent surveying monuments. Any monuments disturbed are to be replaced and adjusted per available records at the Salt Lake County Surveyors Office.
15. Utility company meter boxes, manhole lids, valve covers, etc., are to be located out of driveways, driveway aprons, flow lines, and cross gutters unless written approval is granted by the utility company and the Engineering Department.
16. Wall notes: (Below)
17. All walls, new or existing, are only shown on civil plans for the purpose of reviewing grading relationships; flood control and sight distance at intersections. New walls require a separate permit and inspection by the Building Department.

18. Asphalt mix design must be submitted and approved by the Engineering Department prior to the placement of Asphalt within City Right of Way.
19. Contractor is to adjust all new and existing inlets, valve boxes, manhole rims, and sewer clean outs, etc. to finish grade as applicable whether or not they are shown on the plans.

B. Traffic Notes

1. All construction signing, barricading, and traffic delineation is to conform to the “Manual on Uniform Traffic Control Devices”, latest edition.
2. The street sign Contractor is to obtain street names and block numbering from the Engineering Department prior to construction.
3. Before any work is started in the right-of-way, the Contractor is to install all advance warning signs for the construction zone. The Contractor is to install temporary stop signs at all new street encroachments into existing City streets where warranted immediately after first grading work is accomplished, and is to maintain said signs until permanent signs are installed.
4. When a designated “Safe Route To School” is encroached upon by a construction work zone and the Traffic Engineer identifies a need for students to be assisted in the safe crossing through that work zone, the Contractor is to be required to provide a qualified “crossing guard”. The guard is to be present for the full duration of time those children are likely to be present.
5. If the improvements necessitate the obliteration, temporary obstruction, temporary removal or relocation of any existing traffic pavement marking, such pavement marking is to be restored or replaced with like materials to the satisfaction of the Engineering Department.
6. The Contractor is to be responsible for providing and installing all permanent signs shown on the plans. Street name signs are to conform in their entirety to current City standards. All other signs are to be standard size unless otherwise specified on the plans. All signposts are to be installed in accordance with the current City standards.
7. When a proposed street light standard is located within 5-feet of any proposed sign shown on the plans to be mounted on a signpost, the sign is to be mounted on the street light standard and the signpost is to be eliminated.
8. All permanent traffic control devices called for hereon are to be in place and in final position prior to allowing any public traffic onto the portions of the road(s) being improved hereunder, regardless of the status of completion of paving or other off-site improvements called for by these plans.
9. Street signs and stop signs are to be installed per City standard specifications for placement of street name signs.
10. The Contractor is to provide barricades, signs, flashers, other equipment and flag persons necessary to insure the safety of workers and visitors.
11. Work in public streets as approved by City excavation permits, once begun, is to be expedited to completion so as to provide minimum inconvenience to adjust property owners and to the traveling public.
12. The Contractor is to be responsible for notifying for Utah Transit Authority (UTA) and the Jordan School District Transportation Services Department if the construction interrupts or relocates a bus stop or has an adverse effect on bus service on that street to arrange for temporary relocation of stop.

C. Streetlight Notes

1. No deviation of street light, pull box, conduits (etc.) locations are to be permitted without written approval of the Engineering Department. Any deviation from the plan location will require written notice from the Engineering Department.

2. All existing street lighting is to remain operational during construction.
3. All empty conduits are to have pull strings installed prior to final inspection.
4. Any structure such as block walls, chain link fences, retaining walls, etc., are to leave a minimum clearance of 18-inches to the face of street lighting pole on all sides when streetlight is installed behind sidewalk, and is to at no time completely enclose the street lighting pole.
5. As-built drawings are to be supplied to the Engineering Department who will provide copies to the Public Works Department prior to any pre-final inspection. The as-built drawing needs to be stamped as –built and signed by the preparer.
6. Service points are to be coordinated with Utah Power and Light, and wherever possible, be located near the center of the circuit. Service points are to be shown on the plans.
7. It is to be assumed that in the absence of an existing, workable circuit to attach to, all installations are to require a new service for operation of the circuit. In this case contact Utah Power and Light.
8. Wherever there is an overhead utility that may conflict with the installation of street lighting circuits and/or poles, these conflicts must be resolved between the developer and the utilities involved before streetlight bases are installed at no expense to the City of West Jordan and UPL.
9. The Contractor is to furnish complete service to transformers and control systems if required on plans, and is deemed necessary by UPL.

D. Grading Notes

1. In the event that any unforeseen conditions not covered by these notes are encountered during grading operations, the owner/engineer is to be immediately notified for direction.
2. It is the responsibility of the Contractor to perform all necessary cuts and fills within the limits of this project and the related off-site work, so as to generate the desired subgrade, finish grades and slopes shown.
3. Contractor is to take full responsibility for all excavation. Adequate shoring is to be designed and provided by the Contractor to prevent undermining of any adjacent features or facilities and/or caving of the excavation.
4. The Contractor is warned that an earthwork balance was not necessarily the intent of this project. Any additional material required or leftover material following earthwork operations becomes the responsibility of the Contractor.
5. The grading Contractor is responsible to coordinate with the owner to provide for the requirements of the project Storm Water Pollution Prevention Plan (SWPPP) and associated permit.
6. Contractor is to grade to the lines and elevations shown on the plans within the following horizontal and vertical tolerances and degrees of compaction, in the areas indicated:

	<u>Horizontal</u>	<u>Vertical</u>	<u>Compaction</u>
a. Pavement area subgrade	0.1'+ +0.0' to -0.1'	See soils report	
b. Engineered fill	0.5'+	+0.1' to -0.1'	See soils report

Compaction Testing will be performed by the owner or his representative.

7. All cut and fill slopes are to be protected until effective erosion control has been established.
8. The use of potable water without a special permit for building or construction purposes including consolidation of backfill or dust control is prohibited. The Contractor is to obtain all necessary permits for construction water.
9. The Contractor is to maintain the streets, sidewalks and all other public right-of-way in a clean, safe and usable condition. All spills of soil, rock or construction debris is to be

promptly removed from the publicly owned property during construction and upon completion of the project. All adjacent property, private or public is to be maintained in a clean, safe and usable condition.

10. In the event that any temporary construction items is required that is not shown on these drawings, the owner agrees to provide and install such item at his own expense and at the direction of the Engineering Department. Temporary construction includes ditches, berms, road signs and barricades, etc.

E. Fire Department Notes

1. Authorized hydrants for this project are:
 - a. Mueller a-423 Centurion
 - b. Clow Model 2546 Medallion
2. On any new home or building installation, accessible fire hydrants are to be installed before combustible construction commences and said fire hydrants are to be in good working order with an adequate water supply.
3. Contractor is to call the Public Works Department and Engineering inspector for underground inspection, pressure and flush verification of all fire hydrants and fire lines before back filling.
4. Painting of the curbs and hydrant and any work necessary for protection of hydrants from physical damage is to be completed before approval.
5. All on-site fire main materials must be U.L. listed and A.W.W.A. approved.
6. Fire Hydrant Spacing:
Residential – 500-feet unsprinklered; 1,000-feet sprinklered.
Commercial, including multi-family – 300-feet unsprinklered; 600-feet sprinklered.
7. Where new water mains are extended along streets, hydrants are to be spaced at maximum 1,000-foot spacing to provide for transportation hazards.
8. No fire hydrant is to be located within 6-feet of any curb return, driveway, power pole, street light or any other obstruction.
9. Two sources of supply are required whenever there are four or more fire hydrants installed on a single system.
10. Not more than two hydrants can be out of service due to a single main break.
11. Fire apparatus access roads are to have an unobstructed width of not less than 20-feet provided no parking is allowed, not less than 28-feet if parallel parking is allowed on one side, and not less than 36-feet if parallel parking is allowed on both sides. Vertical clearance is to not be less than 13-feet, 6-inches and is to be paved.
12. The turning radius for any fire apparatus access road and/or fire lane, public or private, is to be not less than 45-feet outside radius and 22-feet inside radius and is to be paved.
13. A fire apparatus road is to be required when any portion of an exterior wall of the first story is located more than 150-feet from Fire Department vehicle access roads and/or fire lanes, public or private, in excess of 150-feet in length is to be provided with an approved turn around area.
14. Access roads are to be marked by placing approved signs at the start of the designated fire lane, one sign at the end of the fire lane and width signs at intervals of 100-feet along all designated fire lanes. Signs to be placed on both sides of an access roadway if needed to prevent parking on either side. Signs to be installed no higher than 10-feet or less than 6-feet from roadway level. The curb along or on the pavement or cement if curb is not present, is to be painted with red weather resistant paint in addition to the signs.
15. Electrically controlled access gates are to be provided with an approved emergency vehicle detector/receiver system. Said system is to be installed in accordance with the City of West Jordan City F.D. approval. Gates are only allowed with prior approval.

F. Culinary Water Notes

1. No work is to begin until the water plans have been released for construction by the Engineering Department. Following water plan approval, 48-hour notice is to be given to the Public Works Department prior to the start of construction. Notice must be given by 2:00 P.M. the business day prior to an inspection.
2. All work is to conform to City of West Jordan City standard plates, drawing, and specifications and the Culinary Water Design and Construction Standards, latest edition.
3. All work, except as modified by these plans or by note 2, is to be done in accordance with the most current draft or edition of the Road and Bridge Design and Construction Standards for off-site improvements.
4. A single pipe material is to be used throughout the project, unless otherwise approved by the Engineering Department.
5. All service laterals 2-inches in diameter and smaller are to be copper tubing with City of West Jordan City approved service saddles.
6. All water meter boxes are to be located outside of driveway areas.
7. All valves are to be located outside of driveways, gutters, curbs and alley gutters.
8. The following requirements must be met in the event a water line and sanitary sewer or storm sewer line cross:

A minimum 18-inch vertical separation (outside to outside) must be maintained when the water line is installed over the sanitary or storm sewer line. If the vertical separation cannot be maintained or the water line must be placed under the sanitary or storm sewer line, the sanitary or storm sewer line must be constructed with one of the following or, as shown on these plans:

- a. Potable water supply quality material
- b. Encasement, with 4-inch concrete (minimum)
- c. Sleeving with potable water supply quality pipe.

Each provision must extend along the sanitary or storm sewer, on either side of the water main, a minimum 10-foot distance perpendicular to the exterior of main.

9. Warning tape is to be required over all mains, all 6-inch diameter and larger service laterals, and any service lateral not installed perpendicular to the main.
10. All water facilities are to be filled, disinfected, pressure tested, flushed, filled and an acceptance water sample obtained prior to connection to the City of West Jordan distribution system.
11. The Contractor must obtain all meters 2-inches and smaller from City of West Jordan Public Works – 48-hours prior to pick-up.
12. Construction may interrupt service, with City of West Jordan Public Works approval and proper notification, between the hours of 10:00 P.M. and 6:00 A.M. Sunday through Thursday. Circumstances that may require temporary service feed must have prior City of West Jordan Public Works approval.
13. All water facility construction materials used must be as listed on the City of West Jordan Public Works pre-approved materials and manufacturers listing for new facilities, latest revision or specifically approved on these plans.
14. Approval of these plans for the water used stubout installation will not be construed as a commitment for water service to this property.
15. Conditional approval of valved outlet (6-inch and larger)

In the event the water plans show one or more valved outlets extending out of paved areas, installations of these outlets is acceptable, however, if the outlets are incorrectly located or not used for any reason when the property is developed, the developer is to abandon the outlets at the connection to the active main in accordance with the district's standards and at the developer's expense.

16. Water Crossing Note

The following are the requirements that must be met when there is a water-sewer crossing:

When protection of the water line is considered, the minimum vertical distance 18-inches must be maintained when the water line is installed over the sewer/storm line. If this distance cannot be maintained because of physical obstructions or the water line must be placed under the sewer/storm line, the sewer/line must be constructed with any on if the following:

- a. Extra heavy cast iron or ductile iron pipe
 - b. Water supply quality
 - c. Encasement with 4-inches minimum of concrete or sleeving with water quality pipe.
- Each of these provisions must be extended for 10-feet on either sides of the water line at 90 degrees to the crossing.