

CHAPTER 3

GENERAL CONSTRUCTION REQUIREMENTS

SECTION 3.01 GENERAL

- A. Prior to beginning construction on any improvements in a development or in the right-of-way of any streets or proposed streets of Lehi City, or with any work that will ultimately connect onto a City utility, the City Public Works Department shall be notified so that the proper inspection may be provided, and so that it might be determined that the work has been approved and the proper permits obtained. Certain types of construction shall have continuous inspection while others may have only periodic inspections.
 - 1. Continuous inspection shall be required on the following types of work:
 - a. Street grading and gravel base.
 - b. Excavations for curb and gutter and sidewalks.
 - c. Laying of street surfacing.
 - d. Placing of concrete for curb and gutter, drive approaches, sidewalks and other structures.
 - e. Laying of culinary and pressurized irrigation water pipe, valves, hydrants, drainage pipe, sewer pipe, and testing.
 - 2. Periodic inspections shall be required on the following:
 - a. Excavations for structures.
 - b. Trenches for laying pipe.
 - c. Forms for curb and gutter, sidewalks and structures.
- B. On construction requiring continuous inspection, no work shall be started except in the presence of a City Inspector. No construction requiring inspection shall be performed on City Holidays, Saturday, Sunday or non-business hours (which generally includes Friday except as specifically agreed-upon with the applicable Lehi City Inspector).
- C. It shall be unlawful to do any construction, excavation work on any street, curb, gutter, sidewalk, drive approach, sewer line, water line or other infrastructure addition or improvement in Lehi City without an approved set of drawings that has been stamped by the City as the official construction set, the plat is recorded, bonding is in place, and then a preconstruction meeting is held. (This set of plans will be valid for a period of one year only)

SECTION 3.02 REQUESTS FOR INSPECTION

- A. Requests for inspections shall be made to the City Inspector by the person responsible for the construction. Requests for inspection on work requiring continuous inspection shall be

made three (3) working days prior to the commencing of the work. Notice shall also be given one working day in advance of the starting of work requiring periodic inspection.

- B. Prior to construction the following data (5 complete copies) shall be furnished to the Inspector: "Cut Sheets" for sewer, curb and gutter work, samples of road base material to be used, projected time schedules for completion of the work and shop drawings for materials, etc., to be installed.
- C. No work which may be defective in its construction or deficient in any of the requirements of these Specifications will be accepted. Failure of any officers of the City or the Inspector to point out such defects or deficiencies during construction shall not relieve the Contractor of his responsibility to comply with the specifications, and the Contractor shall correct any imperfect work, settlement, etc., wherever discovered, before the final acceptance of the work by the City.

SECTION 3.03 EROSION AND SEDIMENTATION CONTROL PLAN

- A. An erosion and sedimentation control plan must be submitted to the Public Works Director for approval before or during the project preconstruction meeting.

SECTION 3.04 AS –BUILT FILE REQUIREMENTS

- A. Prior to acceptance, as-built surveys in electronic format shall be submitted and accepted by Lehi City. The electronic drawings shall be in .dxf file format. The deliverables for CAD submittals are AutoCad .dxf drawing files and Microsoft Excel files.
- B. All CAD files shall be registered to the North American Datum 83 (NAD83), U.S. Survey Feet, Utah State Plane Central Zone Coordinate system (grid) with ties to monument information available through the The Utah County Surveyor.
- C. **File Content and Layering.** To ensure that all electronic files will be able to be incorporated into the Lehi City Mapping it is required that all electronic files submitted be drawn and labeled in the appropriate layers as shown on Table 1 on the following page.

TABLE 1 - LAYERING

Feature	Layer	Color
Culinary Water Lateral	CLAT	Blue
Blow Off	BO	Blue
Culinary Water Line	WL	Blue
Culinary Water Meter	WM	Blue
Culinary Water Service	WS	Blue
Culinary Water Valve	WV	Blue

Retention Pond	POND	Brown
Strom Drain Catch Basin	SDI	Brown
Storm Drain Line	SDL	Brown
Storm Drain Manhole	SDM	Brown
Sanitary Sewer Laterals	SLAT	Green
Sanitary Sewer Line	SS	Green
Sanitary Sewer Manhole	SM	Green
Irrigation Lateral (Gravity)	ILAT	Magenta
Irrigation Line (Gravity)	IL	Magenta
Hydrant	FH	Purple
Hydrant Service	HS	Purple
Hydrant Valve	HV	Purple
Pressurized Irrigation Lateral	PILAT	Purple
Pressurized Irrigation Line	PIL	Purple
Pressurized Irrigation Service	PIS	Purple
Pressurized Irrigation Valve	PIV	Purple
Electrical Lateral	ELAT	Red
2" Electric Conduit	2CON	Red
3" Electric Conduit	3CON	Red
4" Electric Conduit	4CON	Red
6" Electric Conduit	6CON	Red
Electric Dome Pad	DP	Red
Street Lighting	SL	Red
Electric Switch Pad	SP	Red
Electric Transformer Pad	TP	Red
Road Centerline	CL	White
Contours	CONT	White
Dimension	DIM	White
Edge of Pavement	EOP	White
Lot	LOT	White
Lot Number	LOTNUM	White
Sidewalk	SW	White
Back of Curb	TBC	White
Section Lines	SEC	White

D. Required Information

1. All changes need to be shown from original drawings.
2. Measurements for laterals and service lines must be from property line between lots.
3. Measurements will be needed on water mains for every intersection that runs over 200 feet. This measurement will start from top back of curb. Measurements for mains must be adequate for correct illustration of their location.
4. All main and lateral sizes need to be shown.

5. All sewer and storm drain grades for mains need to be shown.
 6. Provide actual vertical Rim and flowline elevations for each manhole/box.
 7. Measurements between manholes need to be shown.
- E. All files shall be constructed in a format that is geometrically correct; meaning that all lines that intersect are snapped together at a common point (no overlapping lines or short shots). Street centerlines shall be segmented to be a continuous polyline.
- F. Storm and sanitary sewer pipes shall be drawn in the direction of flow and shall be continuous polyline from structure to structure and snapped together at the centerline of the structure. Water lines shall be segmented to be a continuous polyline from pipe intersection or at changes in pipe size. The edge of pavement or curb and gutter, sidewalks, and street centerlines shall be as shown on the design drawing unless field adjustments are made, which will require resurveying for the as-builts. Culinary waterline, storm drain lines, and power conduit lines shall be polylines representing their actual horizontal location. Where text is being placed for a polygon feature, the text justification point shall be placed within the boundary of the polygon. It is acceptable to have the text overwrite one another. **FREE HAND DRAWINGS WILL NOT BE ACCEPTED!**
- G. Detention Basin Acceptance. Prior to acceptance of detention basin construction, a Registered Professional Engineer shall provide a stamped letter and exhibit verifying that the constructed volume, side slopes, high water/spillway elevations, box/orifice plate elevations, pipe sizes and slopes, etc. have met the requirements set forth within the storm drainage report and the construction plans.

SECTION 3.05 CONSTRUCTION COMPLETION INSPECTION

- A. An inspection shall be made by the Lehi City Public Works Department after all construction work is completed. Any faulty or defective work shall be corrected by the persons responsible for the work within a period of thirty (30) days of the date of Public Works Department Inspection Report defining the faulty or defective work. Three complete sets of As-built (record) drawings shall be provided to the City.

SECTION 3.06 GUARANTEE OF WORK

- A. The improvements outlined in this document shall be guaranteed through Escrow bonds and/or Letters of Credit.

SECTION 3.07 BUILDING PERMITS

- A. The untreated gravel base must be placed and graded, sewer, drains and drain facilities, water lines and power lines completed and tested before any building permits will be issued.

SECTION 3.08 CONSTRUCTION TRAFFIC CONTROL

- A. Maintain proper and sufficient barricades, signals, or warnings as needed at every construction site to give warning of and protect against accidents. Comply with requirements of the Manual Uniform Traffic Control Devices (MUTCD) for all traffic control on public streets. The Contractor shall provide the Public Works Department with a traffic control plan. No city street shall be closed without the authorization of the Public Works Director.

SECTION 3.09 MATERIALS TESTING

- A. All costs associated with testing (compaction, concrete, etc.), from an independent testing agency (approved by the Lehi City Public Works Department), as required herein shall be the responsibility of the Developer/Contractor.