

TRENCHING REQUIREMENTS

THE DEVELOPER SHALL PROVIDE TRENCHING FOR REQUIRED CONDUIT SYSTEMS AND INSTALL CONDUITS IN ACCORDANCE WITH POWER DEPARTMENT STANDARDS.

ALL TRENCHING SHALL CONFORM TO OSHA (CFR 29) REQUIREMENTS. TRENCHES SHALL BE 18" MINIMUM WIDTH, EXCEPT FOR RESIDENTIAL SERVICE TRENCH MAY BE 12" WIDTH. TRENCH DEPTH VARIES BASED ON THE CONDUIT SIZE AND QUANTITY. THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND PROJECT SAFETY COMPLIANCE.

TRENCHING FOR ELECTRICAL POWER CONDUITS SHALL BE LOCATED IN THE FRONT 2' OF THE PUBLIC UTILITY EASEMENT (PUE) PROVIDED BY THE OWNER DEVELOPER. THE PUE IS TYPICALLY 10 FEET FROM THE BACK OF WALK. THE PUE MAY BE 15 FEET IN NON-TYPICAL SITUATIONS (SEE 4.1.7 & 4.1.7 A) . CONDUITS SHALL BE PLACED, BEDDED AND MARKED WITH APPROVED RED WARNING TAPE AS SHOWN IN THE TRENCHING SECTION/DETAIL 4.2.2. CONDUIT MINIMUM DEPTH IS MEASURED FROM TOP OF CONDUIT TO FINISHED GRADE; 1 FOOT DEPTH PER 1 INCH OF NOMINAL CONDUIT DIAMETER.

IF A NEIGHBORING POWER UTILITY IS LOCATED IN THE SAME PUE OR ON THE SAME SIDE OF THE RIGHT OF WAY, THE LEHI POWER CONDUIT WILL BE PERMANENTLY LABELED FROM THE MANUFACTURE "LEHI POWER" EVERY 3'. THE LEHI POWER CONDUIT SHALL BE SEPARATED FROM THE OTHER POWER UTILITY BY AT LEAST 2 FEET.

ALL BACKFILL MATERIAL SHALL BE COMPACTED. IN AREAS OF THE TRENCH WHERE THERE IS NO EQUIPMENT, PAVING OR OTHER STRUCTURAL REQUIREMENT, THE NATIVE MATERIAL MAY BE USED AS BACK-FILL, PROVIDED IT HAS NO COBBLES, CONSTRUCTION WASTE OR OTHER REFUSE OR DELETERIOUS MATERIALS. EXCAVATED AREAS THAT SUPPORT ELECTRICAL EQUIPMENT, PAVEMENTS, WALKS, ETC. SHALL BE BACKFILLED WITH COMPACTED STRUCTURAL FILL. BACKFILL SHALL BE COMPACTED IN LIFTS NO MORE THAN 2 FEET WITH THE FIRST LIFT BEING VISUALLY INSPECTED, AND THE FINAL COMPACTION SHALL BE 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASHTO T-99.

JOINT TRENCH USE: JOINT USE OF THE TRENCH WITH OTHER UTILITIES IS TYPICALLY NOT ALLOWED. HOWEVER, JOINT USE OF THE POWER TRENCH FOR COMMUNICATIONS IS APPROVED FOR AREAS OF NEW CONSTRUCTION IF ADEQUATE VERTICAL AND HORIZONTAL CLEARANCE CAN BE ACHIEVED. A SEPARATE TRENCH IS REQUIRED FOR NON-ELECTRIC UTILITIES SUCH AS GAS (3' MIN.), SEWER (1' MIN.), AND WATER (1' MIN.).

UTAH LAW SECTION 54-8A-1 THROUGH 54-8A-11 REQUIRES THAT BLUE STAKES ONE-CALL LOCATION CENTER BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO EXCAVATION.

CONDUIT REQUIREMENTS

TRENCHING AND POWER CONDUIT PLACEMENT SHALL BE DONE AFTER THE CURB AND SIDEWALK IS IN PLACE TO ASSURE PROPER ALIGNMENT IN THE PUE AND VERTICAL LOCATION OF EQUIPMENT. IN THE EVENT THAT CONDUIT MUST BE PLACED PRIOR TO CURB AND SIDEWALK THE DEVELOPER IS RESPONSIBLE FOR CORRECT PLACEMENT. ANY CONDUIT WITH INADEQUATE COVER, OR EQUIPMENT MISPLACED IN ELEVATION OR ALIGNMENT SHALL BE REPLACED AT THE DEVELOPERS EXPENSE. LEHI POWER REQUIRES A 4-WAY x 16/13MM MICRODUCT TO ACCOMPANY ALL POWER CONDUIT RUNS.

ALL CONDUIT SHALL BE SCHEDULE 40 PVC GREY FOR ELECTRICAL USE. ELBOW (90 DEGREE) FITTINGS AND OTHER DIRECTIONAL CHANGE FITTINGS (45 OR 22.5 DEGREE) FOR CONDUITS 4" AND 6" DIAMETER SHALL BE RMC WRAPPED WITH PVC CORROSION TAPE AND SHALL HAVE A LONG SWEEP RADIUS OF 36 INCHES. VERTICAL ELBOWS 4"-6" SHALL HAVE 1/2 YARD FLOWABLE FILL THRUST BLOCK ON THE INSIDE OF THE RADIUS NOT TO OBSTRUCT JOINTS SO AS TO IMPROVE RESISTANCE TO FORCES GENERATED WHEN PULLING ELECTRICAL CABLES.

FOR CONDUITS 3", 2", AND 1" DIAMETER, PVC SCHEDULE 40 FITTINGS ARE ACCEPTABLE. ALL BENDS MUST BE LONG SWEEP--WITH MINIMUM RADIUS OF 36 INCHES FOR 3", AND WITH MINIMUM RADIUS OF 24 INCHES FOR 2" AND 1". ALL RMC CONDUITS SHALL BE TERMINATED WITH PVC BUSHINGS.

CONDUIT SHALL BE PLACED STRAIGHT AND TRUE. CONTRACTOR SHALL KEEP THE INTERIOR OF THE CONDUIT CLEAN AND FREE OF DIRT ROCKS AND DEBRIS. PLUGGED, BROKEN, OR OTHERWISE UNSUITABLE CONDUITS SHALL BE REPLACED AT THE DEVELOPERS EXPENSE. CONDUIT ENDS SHALL BE CAPPED OR TAPED. CONDUIT STUBBED SHALL BE CAPPED AND SUITABLY MARKED AT THE GROUND SURFACE.

DIRECTIONAL BORING MAY BE USED AT SUITABLE LOCATIONS WHERE EXCAVATION IS NOT POSSIBLE, PROBLEMATIC, OR ECONOMICALLY INFEASIBLE. BORING CONDUIT SHALL BE HDPE TYPE SDR-17. BORING CONDUIT SHALL BE "STRAIGHT STICK" WELDED SEAM WITH THE INSIDE SEAM REAMED TO PROVIDE A SMOOTH AND CONSISTENT INSIDE DIAMETER.

THE CONTRACTOR SHALL PERFORM MANDREL TESTING ON HPDE BORED CONDUIT WITH THE LEHI POWER INSPECTOR ON SITE. SEE DRAWING 4.2.4



REQUIREMENTS & STANDARDS ELECTRICAL TRENCH & CONDUIT NOTES RESIDENTIAL & COMMERCIAL POWER SERVICE

DWG: **4.2.1**

REV. 1.01

BY: GWK/BT

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