18.1 POLICY ON THE PROXIMITY OF WATER AND SEWER LINES

18.1.1 Whenever possible, it is desirable to lay parallel water and sewer lines at least ten (10) feet apart horizontally, and the waterline should be at higher elevation than the sewer. In cases where it is not practical to maintain a ten (10) foot separation, ENGINEER, after consultation with the Water Authority, may allow deviation on a case by case basis. Such deviation may allow installation of the sewer line closer to the waterline, provided the waterline is in a separate trench or on an undisturbed earth shelf located on one side of the sewer at an elevation such that the bottom of the waterline is at least eighteen (18) inches from the top of the sewer.

18.1.2 When water and sewer lines cross each other, the waterline shall be at least eighteen (18) inches above the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the waterline joints.

18.1.3 When it is impractical to obtain proper horizontal and vertical separation, the sewer line should be designed and constructed of pressure rated (125 psi) green plastic pipe (C900 or C905), and should be pressure tested similar to a water line to assure water tightness. When pressure rated pipe is required for a sewer crossing, it shall be installed the entire distance between the adjacent manholes.

18.2 EXISTING BUILDING SEWER SERVICES OR WATER SERVICE CONNECTIONS, AND REPLACEMENT OF MAINS.

Where building service line connections to 18.2.1 existing sewer mains and water mains are encountered, CONTRACTOR shall ensure that the service line will not be disturbed or damaged. Should any service line connection be broken during the construction of the new line, it shall be replaced by the CONTRACTOR. In the case of a sewer service, the trench shall not be backfilled until the service line is inspected by OWNER'S Plumbing Inspector. In the case of a water service line, the trench shall not be backfilled until the service line is inspected by the Water Authority. No extra compensation will be allowed to the CONTRACTOR for this item. Unless specifically provided otherwise, OWNER assumes no liability for damage to or

replacement of building sewer and water service line connections.

18.2.2 When a new sanitary sewer main is required as a replacement for an existing line, the alignment of the new line coincides with the existing line and the grade of the new line is approximately at the same grade as the existing line or lower, then the existing line shall be removed or dealt with as ordered by ENGINEER. The cost of this Work shall be paid for under the appropriate item in the Bid Proposal. ENGINEER shall determine if it is necessary to pump sewage around the replacement work, or if it is possible to temporarily plug the sewer line during the replacement operation. In the case of by-pass pumping, it will be paid for as indicated in the Bid Proposal.

18.2.3 All work performed on privately owned sewer line and service lines must be inspected by the City of Albuquerque's Code Administration Division. In order that inspection by the Planning Department, Code Administration Division, Plumbing Section can be efficiently handled, with a minimum loss of time to CONTRACTOR, the following shall be noted:

18.2.3.1 Inspection arrangements for a sewer service line shall be made by the CONTRACTOR calling the City of Albuquerque, Code Administration Division, Plumbing Section.

18.2.3.2 Inspection requests called in between the hours of 8:00 a.m. and 12:00 noon will be inspected the same afternoon. Inspection requests called in between the hours of 1:00 p.m. and 5:00 p.m. will be inspected the following morning, except in cases of emergency.

18.3 WATER SYSTEM SHUT-OFF AND TURN-ON PROCEDURES

18.3.1 No one without written permission or direct supervision from the Water Authority Field Division Supervisor may operate any valve or fire hydrant which will cause water to flow within, into or out of the existing system. This includes new waterlines and extensions to the water system which have not been accepted but are connected to the existing water system.

18.3.2 When new waterline tie-ins to the existing water system are required, an electronic request and a street map for the water shut-off or water turn-on shall be submitted to the Water Authority. Request forms are found in the Water Authority Web Page at the following address:

http://www.abcwua.org/content/view/471/746

18.3.2.1 The request for a water shut-off or turn-on for a main designated as a Distribution Line must be submitted at least seven (7) working days before the date of the actual shut-off or turn-on. Request forms received after 8:00 a.m. will be logged in and scheduled on the following working day and the seven (7) working day requirement will commence.

18.3.2.2 The request for a water shut-off or turn-on for a main designated as a Transmission Line, Master Plan Line, Collector, or Well Collector Line must be submitted at least fourteen (14) working days before the date of the actual shut-off or turn-on. Requests received after 8:00 a.m. will be logged in and scheduled on the following working day and the fourteen (14) working day requirement will commence.

18.3.2.3 The request for a water shut-off or turn-on for a San Juan Chama designated transmission line or any other water line in the vicinity of San Juan Chama lines will be required to follow the procedures stated in the Water Authority Administrative Instruction No. 9 and must be submitted at least thirty (30) working days before the date of the actual shutoff or turn-on. Requests received after 8:00 a.m. will be logged in and scheduled on the following working day and the thirty (30) working day requirement will commence. CONTRACTOR shall complete the electronic request form, the electronic Request Form for Work Affecting San Juan Chama Transmission Lines, and submit all required design documentation.

18.3.3 - (intentionally left blank)

18.3.4 The reason for the water shut-off or turn-on shall be detailed and descriptive.

18.3.5 Water shut-offs may have to be scheduled at night or on weekends to accommodate water customers and traffic flow.

18.3.6 Water shutoffs involving Transmission, Well Collector, San Juan Chama, or other Water

Authority designated lines may not be permitted from April 1 through September 30 due to the demand on the system. Construction schedules will need to be coordinated with the Water Authority, Plant & Field Divisions when these types of waterlines are impacted. All subsurface work around San Juan Chama transmission lines require special procedures outlined in the Water Authority Administrative Instruction No. 9.

18.3.7 If the water shut-off or turn-on cannot be done on the requested date, the Field Supervisor will notify the CONTRACTOR as soon as possible. The Water Authority shall have the authority to cancel scheduled water shut-offs if the Field Supervisor determines that:

18.3.7.1 CONTRACTOR is not ready to start work and completion of the work will extend beyond the requested time;

18.3.7.2 CONTRACTOR is lacking the necessary equipment, parts, or materials on the job site;

18.3.7.3 Any existing condition giving just cause to show that the scheduled water shut-off will extend beyond the requested time.

18.3.7.4 Field operating conditions have changed which may impact the number of customers or fire hydrants in the shut-off or turn-on request.

18.3.8 EMERGENCY BREAKS:

The Water Authority Field Division shall be notified immediately so that it can perform the shut-off.

18.4 RESPONSIBILITY OF THE CONTRACTOR

18.4.1 CONTRACTOR shall be held responsible for all costs for the repair of any and all damage to the Work or to any utility (which is previously known and disclosed by the utility) as may be caused by their operations. Utilities not shown on the drawings to be relocated or altered shall be protected and maintained by CONTRACTOR. Utilities which are relocated by others in order to avoid interference with structures and which cross the Work shall be maintained in their relocated positions by CONTRACTOR. All costs for such work shall be at CONTRACTOR'S expense without change in the Contract Price.

18.4.2 CONTRACTOR shall never unnecessarily interfere with or interrupt the services of any public or private utility having property within or adjacent to the streets, alleys and easements involved in the Work and shall take all necessary precaution and effort to locate and protect all underground conduit, cables, pipes, waterlines, sewers, structures, gas lines, trees, monuments, power lines, telephone and telegraph lines, traffic control devices and other structures, both below and above ground. CONTRACTOR shall give all public and private utility companies prior written notice, in no event less than forty eight (48) hours, for any work that the CONTRACTOR contemplates, which would interfere in any way whatsoever with the service of any existing public or private utility and Water Authority or City-owned facilities. If such public or private utility does not cooperate for the protection of its services, CONTRACTOR shall notify ENGINEER. Utility lines identified on plans shall be located by CONTRACTOR far enough in advance of construction work in order that the owner of such lines may raise, lower, realign or remove lines and structures, if necessary, and in order that ENGINEER may make any line and grade changes necessary should the existing utility lines conflict with the work under construction, providing such adjustments do not materially affect the Work. In the event an unplanned conflict between an existing, but previously unidentified, utility line and new construction arises, both the owner of such line and the ENGINEER will be notified immediately by CONTRACTOR. CONTRACTOR shall immediately report any damages to public or private property to the owner of the property involved, and to the ENGINEER.

18.4.3 CONTRACTOR shall repair or restore at his own expense any damage to public, Water Authority, City-owned, or private property, for which they are directly or indirectly responsible, to a condition equal to that existing before damage. The CONTRACTOR shall promptly notify their insurance carrier of such damage. If CONTRACTOR fails to give such notice to his insurance carrier or refuses to perform such repairs or restoration upon receipt of notice, OWNER may cause such repairs or restoration and deduct the cost thereof from monies due, or which may become due, the CONTRACTOR. 18.4.4 CONTRACTOR shall not remove, realign, or adjust any official City traffic control device including stop signs, warning signs or any other traffic or parking control signs. CONTRACTOR shall give the Construction Coordinator three (3) working days prior notice of any official City traffic control devices that need to be moved. The Construction Coordinator shall take all appropriate actions as soon as practical thereafter.

18.5 LOCATION OF EXISTING UTILITIES

18.5.1 The public and private utility owners shall be responsible to locate their utilities and provide information stating the horizontal alignments of same. If field verification excavations are required, the utility owner will provide same in a timely manner. Utility locations may be obtained by calling the New Mexico One Call System, telephone (811 or 505-260-1990), two (2) working days in advance.

18.5.2 Utilities, which upon exploration are found to interfere with the permanent project work, or if for safety and/or to facilitate construction, it may be necessary to remove exposed lines from the trenching prism, will not be relocated, altered, or reconstructed without the concurrence of the utility owner involved; or ENGINEER may order changes in location, line, or grade of structures being built in order to avoid the utilities. The cost of such changes will be paid for under applicable bid items.

18.5.3 In certain cases where indicated on the drawings, CONTRACTOR shall locate utilities in advance of his construction operations in coordination with the appropriate utility owner. In these cases, CONTRACTOR shall determine the exact locations of utilities, backfill the excavations and construct either temporary or permanent resurfacing over the backfill. The temporary resurfacing shall be constructed when the exploratory excavations are made in an area located within the proposed Project excavations. Permanent resurfacing, when specified, shall be constructed when the exploratory excavations are made in an area located outside the proposed Project excavation and shall be constructed in accordance with the Excavation Ordinance which may require temporary resurfacing or plating. Said permanent resurfacing shall be of the type and thickness specified or as field conditions may otherwise require. In either case, the

excavations shall be backfilled by the methods specified and to the relative density specified.

18.5.4 This exploratory excavation work shall be performed as soon as practical, and in any event, a sufficient time in advance of construction to avoid possible delays to CONTRACTOR'S work. All costs for making such exploratory excavations (including the backfilling and the resurfacing as specified herein) shall be at CONTRACTOR'S expense without change in the Contract Price.

18.5.5 The exploratory excavation work shall be performed with a circular coring saw no greater than 12 inches in diameter.

18.5.6 Contractors are to label each bore hole with their company initials in white paint.

18.6 UNKNOWN UTILITIES DISCLOSED DURING THE CONTRACT WORK

18.6.1 In the event that a utility is disclosed subsequent to the award of the Contract, such utility not being indicated on the drawings, or in the event that an existing utility is found to be in a materially different location than shown on the drawings and thus requires additional work on the part of CONTRACTOR for its maintenance, relocation or support, the necessary alteration, relocation, proper support and protection shall be done and paid for as follows:

18.6.1.1 When said utility is found to occupy the space to be occupied by a part of the permanent works to be constructed or when this utility is, in the opinion of ENGINEER, in such close proximity to the new work as to require the relocation or alteration of said utility, CONTRACTOR shall arrange with the utility owner for such relocation or alteration as directed by ENGINEER.

18.6.1.2 When any portion of the utility is in close proximity and more or less parallel to a structure or conduit, CONTRACTOR shall advise owner thereof, and in cooperation with the utility owner, provide and place the necessary support for proper protection to ensure continuous and safe operation of the utility infrastructure. All costs for such work shall be borne by CONTRACTOR. 18.6.2 In the event the CONTRACTOR discovers an unknown line, the CONTRACTOR shall immediately notify the ENGINEER in writing and all public and private utility companies to identify ownership and status. No work shall proceed that shall affect said line until written approval from the ENGINEER is obtained.

18.7 ABANDONED UTILITIES

18.7.1 Unless otherwise specified or directed, CONTRACTOR shall remove all interfering portions of utilities which are shown on the drawings as "abandoned" or "to be abandoned in place" and which interfere with the construction of the Project. All abandoned waterlines shown on the drawings as "abandoned" or "abandoned in place" or found during construction shall be removed or capped at a minimum, unless otherwise specified. All costs involved in said removals shall be included in the prices bid for the various items of Work. All such abandoned utilities removed by CONTRACTOR shall be disposed of or recycled.

18.7.2 Where utilities are shown on the drawings as "abandoned" or "to be abandoned in place", it shall be the CONTRACTOR'S responsibility to contact the utility company involved, within forty eight (48) hours, prior to excavating around such utilities to ascertain that the abandonment of the utility has been completed.

18.8 COORDINATION FOR RELOCATION BY OTHERS

18.8.1 Where removal or relocation of facilities by others is shown on plans or found necessary through exploratory excavations, CONTRACTOR shall coordinate the work with that of the affected owner to minimize the scheduling impact on both parties.

18.8.2 Where parties other than CONTRACTOR are responsible for the relocation of utilities and a delay in CONTRACTOR'S work is caused by the failure on the part of said parties to remove or relocate such utilities in time to prevent such delay, or by any action or lack of action on the part of OWNER, it shall be understood that the CONTRACTOR shall not be entitled, as a result of such delays, to damages or additional payments over and above the Contract Price. If delays in CONTRACTOR'S work are caused by the reasons mentioned herein, CONTRACTOR shall be entitled to an extension of time. The length of such extension of time will be determined by ENGINEER with consideration as to the effect of the delay on the Project as a whole.

18.8.3 In order to minimize delays to the CONTRACTOR caused by the failure of other parties to relocate utilities which interfere with new facilities, CONTRACTOR upon request to ENGINEER may be permitted to temporarily omit the portion of the Work affected by the utility. The portion thus omitted shall be constructed by the CONTRACTOR immediately following the relocation of the utility involved.