


WATER SYSTEM - GENERAL NOTES:

1. ALL WATER LINES, SYSTEM PLANS, AND CONSTRUCTION WILL CONFORM TO CURRENT SOUTHGATE WATER DISTRICT SYSTEM SPECIFICATIONS AND THE DENVER WATER ENGINEERING STANDARDS, AND ARE SUBJECT TO CONSTRUCTION OBSERVATION BY SOUTHGATE PERSONNEL OR A SOUTHGATE REPRESENTATIVE. A COPY OF SOUTHGATE'S SPECIFICATIONS ARE AVAILABLE AT WWW.SOUTHGATEDISTRICTS.ORG.
2. ONLY AFTER CONSTRUCTION PLANS HAVE BEEN REVIEWED AND APPROVED BY SOUTHGATE, THE OWNER, THE OWNER'S ENGINEER OR CONTRACTOR, WILL SCHEDULE A PRE-CONSTRUCTION MEETING WITH SOUTHGATE AT LEAST 2 BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTION. APPROVED CONSTRUCTION PLANS, SIGNED BY THE DISTRICT MANAGER AND DISTRICT ENGINEER, WILL BE DISTRIBUTED AT THE PRE-CONSTRUCTION MEETING.
3. CONSTRUCTION WILL NOT BE PERMITTED TO START UNTIL ALL EASEMENTS ARE SIGNED AND RECORDED AND THE PRE-CONSTRUCTION MEETING HAS BEEN HELD.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE PROCUREMENT OF ALL PERMITS FOR THE CONSTRUCTION OF MAIN AND SERVICES. ALL PERMITS MUST BE APPROVED AND FEES MUST BE PAID PRIOR TO CONSTRUCTION STARTING.
5. SOUTHGATE REQUIRES 2 BUSINESS DAYS NOTICE PRIOR TO START OF CONSTRUCTION AND NOTIFICATION OF ANY BREAK IN CONSTRUCTION (DUE TO WEATHER, SCHEDULING, ETC.) AND WHEN CONSTRUCTION WILL RESUME.
6. SOUTHGATE REQUIRES 2 BUSINESS DAYS NOTICE PRIOR TO ANY OVERTIME WORKED ON A WEEKDAY. COSTS INCURRED BY SOUTHGATE ASSOCIATED WITH CONSTRUCTION OVERTIME WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. A COPY EACH OF ALL SURVEY CUT SHEETS MUST BE SUBMITTED TO SOUTHGATE AND TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
8. THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES FOR NOTIFICATION AND LOCATES PRIOR TO CONSTRUCTION COMMENCING. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES AND COSTS THAT RESULT BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES, INCLUDING SOUTHGATE UTILITIES.
9. SOUTHGATE OR ITS REPRESENTATIVE IS NOT A GUARANTOR OF THE CONSTRUCTION CONTRACTORS' OBLIGATIONS AND PERFORMANCE OF CONTRACT.
10. OBSERVATIONS OF WORK IN PROGRESS AND ON-SITE VISITS ARE NOT TO BE CONSTRUED AS A GUARANTEE BY SOUTHGATE OR SOUTHGATE'S REPRESENTATIVE OF THE CONTRACTORS' PERFORMANCE.
11. SOUTHGATE AND SOUTHGATE'S REPRESENTATIVE IS NOT RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE PROJECT SITE, NOR FOR COMPLIANCE BY THE APPROPRIATE PARTY OF ANY REGULATIONS RELATING THERETO.
12. SOUTHGATE AND SOUTHGATE'S REPRESENTATIVE EXERCISES NO CONTROL OF THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENTS, SCAFFOLDING, FORMS, OR ANY OTHER WORK AIDS USED IN OR ABOUT THE PROJECT, OR IN THE SUPERINTENDING OF THE SAME.
13. SOUTHGATE REQUIRES 2 BUSINESS DAYS NOTICE PRIOR TO ANY WEEKEND OR NIGHT WORK. COSTS INCURRED BY SOUTHGATE ASSOCIATED WITH WEEKEND AND NIGHT WORK WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
14. A SET OF APPROVED PLANS SHALL BE MAINTAINED BY THE CONTRACTOR AND KEPT ON SITE AT ALL TIMES. THESE PLANS SHALL BE USED TO MAKE THE "AS-CONSTRUCTED" NOTES DURING THE COURSE OF CONSTRUCTION. THESE NOTES SHALL INCLUDE BUT ARE NOT LIMITED TO, ANY DEVIATIONS FROM THE APPROVED PLANS, NOTING THE TYPES AND LOCATIONS OF THE MATERIALS IN PLACE.
15. ALL REQUIRED TESTING EQUIPMENT WILL BE SUPPLIED BY THE CONTRACTOR. SOUTHGATE REQUIRES 2 BUSINESS DAYS NOTICE PRIOR TO TESTING FOR SCHEDULING PURPOSES.
16. THE CONTRACTOR SHALL SCHEDULE COMPACTION TESTING WITH THE SOILS CONSULTANT. SEVERAL COMPACTION TESTS ARE REQUIRED AT INTERSECTIONS WITH OTHER UTILITIES, SERVICE STUBS, AND AT RANDOM LOCATIONS OVER THE WATER LINE. TESTING WILL BE REQUIRED WHEN SOILS MATERIAL CHANGES. TESTING WILL BE REQUIRED FOR EVERY THIRD SERVICE INSTALLATION. THE SOILS ENGINEER IS REQUIRED TO SUBMIT COMPACTION TEST RESULTS ON A DAILY BASIS. THE OWNER/DEVELOPER IS RESPONSIBLE FOR COSTS ASSOCIATED WITH COMPACTION TESTING.
17. CONSTRUCTION WATER IS AVAILABLE BY PURCHASING A PERMIT FROM SOUTHGATE AND DENVER WATER. CURRENT DENVER WATER CERTIFICATION IS REQUIRED ON ALL WATER METERS. SOUTHGATE DOES NOT SUPPLY WATER METERS.
18. PIPELINE ACCEPTANCE AND THE START OF THE WARRANTY PERIOD OF THE NEW WATER MAINS WILL NOT BE CONSIDERED UNTIL ALL REQUIREMENTS FOR ACCEPTANCE HAVE BEEN FULFILLED, INCLUDING:
 - a. ALL TESTING IS COMPLETE WITH SATISFACTORY RESULTS.
 - b. COMPLETE SET OF SIGNED COMPACTION TEST RESULTS IS SUBMITTED TO SOUTHGATE AND THE APPLICABLE CITY/COUNTY.
 - c. ALL PUNCH LIST ITEMS ARE COMPLETED TO THE SATISFACTORY OF SOUTHGATE.
 - d. FIRST LIFT OF PAVING IS COMPLETED, AT A MINIMUM.
 - e. SURVEYED RECORD DRAWINGS HAVE BEEN SUBMITTED TO AND APPROVED BY SOUTHGATE. CONTACT THE SOUTHGATE ENGINEERING DEPARTMENT FOR REQUIREMENTS PRIOR TO SUBMITTING RECORD DRAWINGS.
 - f. RECORDED ADDRESS PLAT, IF APPLICABLE, IS SUBMITTED TO SOUTHGATE.
 - g. WARRANTY FUNDS ARE SUBMITTED TO SOUTHGATE IN THE FORM OF A LETTER OF CREDIT OR CHECK EQUAL TO TEN PERCENT (10%) OF THE TOTAL COST OF WATER IMPROVEMENTS. THE LETTER OR CHECK WILL BE EFFECTIVE FOR A MINIMUM OF FIFTEEN (15) MONTHS FROM START OF WARRANTY PERIOD.
19. THEORETICAL STATIC WATER PRESSURES ARE ESTIMATED TO RANGE FROM _____ PSI AT USGS ELEVATION _____ TO _____ PSI AT USGS ELEVATION _____ BASED UPON A HYDRAULIC GRADIENT OF USGS ELEVATION _____. SOUTHGATE HAS PROVIDED ONLY THE HYDRAULIC GRADIENT ELEVATION. THIS HYDRAULIC GRADIENT, OF WHICH WAS PROVIDED AT THE TIME OF PLAN REVIEW, MAY CHANGE IN THE FUTURE AS OVERALL WATER SYSTEM OPERATIONS WARRANT.
20. THE LINE SHALL BE CHLORINATED IN ACCORDANCE WITH THE REQUIREMENTS OF DENVER WATER ENGINEERING STANDARDS AND THE COLORADO STATE BOARD OF HEALTH. CHLORINATION SHALL OCCUR PRIOR TO HYDROSTATIC TESTING.
21. CHLORINE TESTS BY A STATE CERTIFIED LAB WILL BE TAKEN EVERY 1000 FEET OF PIPE INSTALLED. THE RESULTS MUST BE SUBMITTED TO SOUTHGATE AND DENVER WATER.
22. ALL NEW WATER LINES WILL BE HYDROSTATIC PRESSURE TESTED. THE TESTING EQUIPMENT AND/OR ANY COSTS SHALL BE PROVIDED BY THE CONTRACTOR. THE TEST WILL BE CONDUCTED AT 50 PSI ABOVE NORMAL OPERATING PRESSURE OR AT 150 PSI, WHICHEVER IS GREATER. UPON WRITTEN RECORD OF A PASSING CHLORINE TEST, AND SATISFACTORY COMPACTION TEST RESULTS, SOUTHGATE WILL WITNESS PRESSURE TESTING AT THE CONTRACTOR'S CONVENIENCE.
23. ALL NEW WATER LINES WILL REQUIRE A CLEAR WATER TEST TAKEN BY A STATE CERTIFIED LAB FOR BACTERIOLOGICAL RESULTS. THE RESULTS MUST BE SUBMITTED TO SOUTHGATE AND DENVER WATER. CLEAR WATER TESTS WILL BE TAKEN AT THE CONTRACTOR'S EXPENSE PRIOR PIPELINE ACCEPTANCE, START OF THE WARRANTY PERIOD, AND PRIOR TO THE RELEASING TAPS OR CONNECTION TO EXISTING PIPE.
24. ADDITIONAL TESTING MAY BE REQUIRED AT THE DISCRETION OF SOUTHGATE.
25. SOUTH METRO FIRE RESCUE AUTHORITY WILL ALSO INSPECT FIRELINES AND WILL OBSERVE TESTING.
26. EXISTING VALVES OWNED AND OPERATED BY SOUTHGATE MAY ONLY BE OPERATED BY SOUTHGATE PERSONNEL. VALVES INSTALLED BY THE CONTRACTOR MAY BE OPERATED UNTIL SOUTHGATE ACCEPTS THE SYSTEM. COORDINATE WITH SOUTHGATE A MINIMUM OF 2 BUSINESS DAYS BEFORE EXISTING VALVES ARE TO BE OPERATED.
27. RELEASE OF SECURITY AND WARRANTY OF FACILITIES IS DEPENDENT UPON SUCCESSFUL COMPLETION OF A MINIMUM OF ONE (1) YEAR WARRANTY PERIOD AND CONVEYANCE OF DOCUMENTS.
28. THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF THE SYSTEM FROM PIPE ACCEPTANCE TO RELEASE OF SECURITY AND WARRANTY. FAILURE TO MAINTAIN WATER LINES BY THE TERMS OF THE IMPROVEMENTS AGREEMENT MAY BE CONSIDERED GROUNDS FOR PERMANENT ABANDONMENT OF FACILITIES.
29. STUB-IN AGREEMENTS ARE AVAILABLE THRU SOUTHGATE AND DENVER WATER ONLY AFTER COMPLETED TESTING AND MAIN LINE INSTALLATION, BUT MAY BE OBTAINED PRIOR TO PIPELINE ACCEPTANCE AND START OF THE WARRANTY PERIOD.
30. WATER SERVICE TAPS WILL NOT BE SOLD UNTIL PROJECT ACCEPTANCE IS ACHIEVED.
31. ONLY THE FOLLOWING FIRE HYDRANTS ARE PERMITTED BY SOUTHGATE:
 - a. MEULLER CENTURION MODEL A-423
 - b. WATEROUS PACER MODEL WB-67 WITH BRONZE BUSHED SHOE AND SHAFT COUPLING
 - c. AVK SERIES 27
32. ONLY ONE (1) CONNECTION POINT IS PERMITTED TO EXISTING SYSTEM PRIOR TO COMPLETION OF TESTING.
33. THE CONTRACTOR SHALL VERIFY ELEVATIONS OF EXISTING LINES AND CONNECTION POINTS BY MEANS OF CERTIFIED SURVEY PRIOR TO STAKING AND INSTALLATION.
34. THE ALIGNMENT SHALL BE STAKED AND GRADED EVERY FIFTY (50) FEET. ALL FITTINGS AND VERTICAL DEPRESSIONS ARE TO BE STAKED. THE FIRE HYDRANTS WILL BE STAKED AND GRADED TO THE BOTTOM OF FLANGE FITTING. THIS GRADE WILL BE SET THREE (3) INCHES ABOVE PROPOSED GRADING FINISH ELEVATIONS. STAKE BOTH SIDES OF EASEMENTS WHERE THE WATER LINE IS NOT LOCATED IN PAVED AREAS.
35. WATER LINES SHALL HAVE A MINIMUM OF FOUR AND ONE-HALF (4.5) FEET OF COVER.
36. ALL WATER LINES SHALL BE LOCATED A MINIMUM OF TEN (10) FEET FROM SANITARY SEWER LINES, AND THREE (3) FEET FROM THE EDGE OF CONCRETE CURB AND GUTTER OR CONCRETE PAV.
37. PRIOR TO INSTALLATION OF WATER MAINS, ROAD CONSTRUCTION, AT A MINIMUM, MUST HAVE PROGRESSED TO "SUB-GRADE" STAGE. SUB-GRADE IS DEFINED AS AN ELEVATION OF NO MORE THAN SEVEN (7) INCHES BELOW THE FINISHED STREET GRADE. THE CONTRACTOR SHALL ADJUST ALL VALVE BOXES AND ALL FIRE HYDRANTS TO FINAL GRADE.
38. TRENCH COMPACTION IN STREET RIGHT-OF-WAY IS TO CONFORM TO APPLICABLE MUNICIPAL STANDARDS (COLORADO DEPARTMENT OF TRANSPORTATION, ARAPAHOE COUNTY, DOUGLAS COUNTY, CITY OF GREENWOOD VILLAGE, CITY OF CENTENNIAL, OR THE CITY OF LONE TREE.)
39. THE BEDDING WILL BE PER SOUTHGATE'S STANDARD DETAIL, I.E. 6 INCHES UNDERNEATH THE PIPE AND 12 INCHES OVER THE TOP OF THE PIPE.
40. ALL FIRE HYDRANTS ARE TO BE PAINTED RED.
41. A MINIMUM OF FOUR (4) FEET, TWO (2) FEET EITHER SIDE OF A SERVICE TAP SHALL BE EXPOSED FOR EACH CONNECTION.
42. ALL PRIVATE SERVICE LINES MUST BE INSPECTED BEFORE BACKFILL - CALL SOUTHGATE AT 303-779-0261 TO SCHEDULE YOUR INSPECTION.
43. WATER SHUT-OFFS MUST BE SCHEDULED WITH SOUTHGATE A MINIMUM OF 2 BUSINESS DAYS IN ADVANCE - CALL 303-779-0261 TO SCHEDULE. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING CUSTOMERS AFFECTED BY SHUT-OFF A MINIMUM OF 48 HOURS NOTICE.

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REVISED		 <p>Southgate WATER & SANITATION DISTRICTS</p>	SCALE
BY	DATE		NOT TO SCALE
		<p>SOUTHGATE WATER DISTRICT</p> <p>GENERAL NOTES</p>	ISSUE DATE
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