

**2009 List of Changes to the
2005 City of Wyoming Standard Specifications for Construction**

7.02.05 Water Reducers – Use of a Low Range water reducer (NC400) may be used with prior approval of the Engineer.

7.04.01 Classification and Proportioning – of concrete shall be on the basis of strength requirements. The proportions of fine and coarse aggregates shall be the quantities of these materials which, with the specified quantity of mixing water and cement, will produce a plastic and workable concrete free from stone pockets, honeycombing, or segregation.

There will be four grades of concrete, designated at AA, A, B, and C. The following table shows, for each grade of concrete, the approximate proportions of cement, fine and coarse aggregate, the minimum compressive strength in pounds per square inch, the minimum number of sacks of cement per cubic yard of concrete:

<u>GRADE</u>	<u>APPROXIMATE PROPORTIONS BY VOLUME</u>	<u>MINIMUM COMPRESSIVE STRENGTH</u>	<u>ESTIMATED COMPRESSIVE STRENGTH</u>	<u>MINIMUM CEMENT Sacks/CY of Concrete</u>
		<u>Lbs./Sq.In. 28 Days</u>	<u>Lbs./Sq.In. 7 Days</u>	
AA	1 : 1.9 : 3.0	4,000	2,500	6.5
A	1 : 2.1 : 3.4	3,500	2,120	6.0
B	1 : 2.4 : 3.7	3,000	1,746	5.5
C	1 : 3.0 : 5.0	2,000	1,034	5.0

Any modifications to the proportions for the addition of admixtures (water reducers) requires prior approval of the Engineer.

7.04.04 High-Early-Strength Concrete – when required, shall be obtained by the substitution of high-early-strength cement for Portland Cement. ~~or by the use of not less than 9 sacks of Portland Cement per cubic yard of concrete, in which case the mixing time shall be doubled.~~

15.02.05 Hydrants – Hydrants for use by the Wyoming Fire Department shall be in strict conformity with the AWWA C502 Standard Specification or the latest revision thereof, and the following specifications:

- (h) The hydrants shall be painted with #913 Yellow Machinery Enamel or fusion bonded epoxy coating above grade and with two coats of asphalt varnish below grade.

(m) Approved hydrants shall be one of the following:

- East Jordan Iron Works
- US Pipe Metropolitan 250 (Model 94)
- American AVK Company, High Pressure 250 psi, Nostalgic, Dry Barrel Hydrant (Model 2780)

15.02.07 All Resilient Seated Gate Valves shall be one of the following unless approved in writing by the Engineer:

1. East Jordan Iron Works Flowmaster
2. American Flow Control Series 2500
3. American AVK Series 45 Resilient Seated Gate Valve

15.04.14 Tapping for Water Services – Taps at the main (2” or less) shall be made either by the City or the Contractor as stated on the proposal, but no taps shall be made until a permit has been issued. The tap shall be installed with the main under pressure using an approved tapping machine. Methods to minimize or eliminate corporation shavings from entering the watermain shall be implemented per tap manufacturer’s recommendations. Tapping machines with flushing mechanisms shall be open during tapping process to minimize shavings entering the main. The tap shall be installed along the horizontal axis of the pipe. The flow arrow shall point away from the main. Only those taps for which permits have been issued shall be made.

Taps made without a flushing mechanism on the tapping machine shall be done with one valve closed on the main to create a one-way flow of the main. At the end of each day of tapping, the main shall be flushed of all shavings and the valve re-opened.

All taps over two (2”) inches shall be made by the City.

Division 15 Watermains

Appendix A**PROCEDURE FOR WATERMAIN
PRESSURE TESTING AND CHLORINATION**

March 27, 2009

Procedure:

5. After the watermain has been flushed and allowed to stand full for entrained air to be removed or absorbed, the main shall be subject to hydrostatic testing at a pressure of one hundred fifty (150) pounds per square inch, two hundred (200) pounds per square inch on fire lines. Pressure tests are performed on the basis of lost pressure versus time. Without further admission of water, air, or other disturbances of conditions in the line, the pressure test shall be observed for two (2) hours. If during the two-hour period the pressure in the watermain drops below 145 (195 on a fire line) pounds per square inch, the test shall be declared a failed test. The watermain being tested shall pass pressure test prior to proceeding to step six (6), Chlorination test.

The Contractor may make [follow up](#) pressure tests [after a failing pressure test](#) on the main to [try to locate leaks in an effort to](#) expedite the Public Works Department procedures, but this test will in no way be substituted for the [initial or final acceptance](#) Public Works Department tests. [All Contractor testing is exploratory in nature, and shall be done under the supervision of the project inspector.](#) The Contractor shall not turn any valves except in an emergency.

ENGINEERING DETAIL MODIFICATIONS

I-27A	COMMERCIAL/INDUSTRIAL DRIVE APPROACH – ADA ramp note change
S-1	STANDARD ALLEY GRATE BASIN – Structural dimension change
S-2	STANDARD CATCH BASIN - Structural dimension change
S-3	STANDARD MINI CATCH BASIN - Structural dimension change
S-4	STANDARD DOUBLE CATCH BASIN - Structural dimension & casting number changes
S-5A	2' STANDARD DROP INLET – Casting number change
S-5B	4' STANDARD DROP INLET – Casting weight change & rubber adjustment rings
S-5C	STANDARD LEECHING BASIN – Casting number/weight change & rubber adjustment rings
S-6	WYOMING STANDARD MANHOLE COVER AND FLANGE BASE – Casting number change
S-7A	4' DRAINAGE STRUCTURE – Casting number change
S-7B	5' DRAINAGE STRUCTURE – Casting number change
S-7C	6' DRAINAGE STRUCTURE – Casting number change
S-7D	7' DRAINAGE STRUCTURE – Casting number change
S-7E	8' DRAINAGE STRUCTURE – Casting number change
S-8	STANDARD MANHOLE FOR LARGE DIAMETER SEWER – Casting number change
S-9	TEE MANHOLE FOR 48" TO 60" DIA SEWER – Casting number change

