BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G45.145.1
Issue 1, May, 1945
AT&T Co Standard

CONCRETE AND MORTAR
READY-MIXED CONCRETE

Part **Page**

1. GENERAL

1.01 This section provides information relative to the use of ready-mixed concrete for underground construction.

1.02 In localities where ready-mixed concrete is available, the use of this material should be considered as it generally affords convenience of delivery and uniformity of quality at a reasonable cost.

2. AVAILABLE MIXES AND THEIR USES

2.01 Ready-mixed concrete is available in 8 different classes with the designations and fields of use as outlined in G45.140.1. The information of that section should be consulted in selecting the class of ready-mixed concrete to be used.

2.02 In general, the quality, consistency and other characteristics of the 8 classes of ready-mixed concrete are similar to the corresponding characteristics of the 8 classes recommended for job-mixed concrete.

2.03 Most of the 8 classes of concrete can be used for several different purposes so, for convenience, it is recommended that the variety of mixes employed for a particular job be limited as much as practicable.

3. ORDERING

3.01 Section G40.055.1 furnishes information relative to the quantities of concrete required for various sizes of manholes, conduit formations, etc. These tables should be consulted to determine the quantity of ready-mixed concrete to be ordered.

3.02 After having determined the quantity and proper mix to be used, order the concrete through the established routine as follows: "(Quantity) Cu. Yds. Class (Class designation, as 1A, 2A, etc.) Ready-Mixed Concrete" and furnish the location and time of delivery.

4. MIXING

4.01 Ready-mixed concrete sent out to the job in truck mixers shall be mixed not less than 50 nor more than 150 revolutions of the mixer after all ingredients have been added. The rate of rotation specified by the manufacturer of the mixer as proper mixing speed shall not be exceeded.

4.02 The size of the batch shall not exceed the manufacturer's maximum rated capacity as stamped in metal on a prominent place on the mixer.

4.03 The truck shall be equipped with a tank for carrying mixing water; the water shall be measured and placed in the tank at the proportioning plant unless the tank is provided with an automatic measuring device of the required accuracy and capable of being locked.

5. DELIVERY

5.01 The supplier is required to deliver the concrete to the job as near the specified time as possible. Any batch delivered more than one hour later than the agreed time may be refused.

5.02 A discharge period not to exceed one hour is allowed to the Telephone Company. If the concrete is ready for delivery before the stated time, the discharge period shall be measured from the agreed time. If delivery is made later than the stated time, the discharge period shall be measured from the time at which the supplier's equipment is ready to discharge.

5.03 Deliveries made when outdoor temperatures are lower than 40° F. shall arrive at the job at a temperature of not less than 60° F., nor greater than 100° F.

6. CONSISTENCY

6.01 The supplier is required to deliver the concrete to the job at the proper consistency measured in terms of the slump referred to in G45.140.1. The consistency can be checked at the time of discharge by making a slump test, as described in G45.210.1. A batch which has a slump less than the minimum specified may be modified by the addition of water at the direction of the supervisor or inspector, but the increase in slump so obtained should not be more than 3 inches. Very little additional water is required to increase the slump an inch or two. If it is necessary to add water in excess of 10% of the amount specified for the load in question, additional cement in the proper proportion shall be introduced into the mixer to maintain the strength requirements. If a batch of concrete having a slump in excess of the maximum specified is received, the matter shall be referred to the inspector or supervisor.

7. STRENGTH TESTS

7.01 Whenever so desired by the inspector or supervisor, the concrete shall be tested for strength by the compression strength test, as described in G45.210.1, to ensure that the concrete possesses the strength expected of it.