

NOTE TO SPECIFIERS: This alternate subparagraph c. will be used in lieu of subparagraph c., Conc. 7, "Coarse Aggregate," when concrete canal laterals or drain lining may be placed with a lining machine.

c. Separation. - The coarse aggregate shall be separated into nominal sizes during production of the aggregate. Just prior to batching, the coarse aggregate shall be rewashed by pressure spray and finish screened on multideck vibrating screens capable of simultaneously removing undersized and oversized aggregate from each of the nominal aggregate sizes. If variations in the water content of the aggregates entering the batcher occur during intermittent batching, then a dewatering screen will be required after the finish screens to remove the excess free moisture. Finish screens shall be mounted over the batching plant or on the ground adjacent to the batching plant. Finish screens shall be so mounted that the vibration of the screens will not be transmitted to the batching bins or scales and will not affect the accuracy of the weighing equipment in any other manner.

The method and rate of feed for finish screening shall be such that the screens will not be overloaded and will result in a finished product which meets the grading requirements of these specifications. Coarse aggregate shall be fed to the finish screens in a combination or alternation of nominal sizes which will not cause noticeable accumulation of poorly graded coarse aggregate in any batching bin. The finish-screened aggregates shall pass directly to the individual batching bins in such a manner as to minimize breakage. Minus 3/16inch material passing through the finish screens shall be wasted unless it is routed back through a sand classifier in a manner which causes uniform blending with the natural sand being processed. Water from finish screening shall be drained in such a manner as to prevent aggregate wash water from entering the batching bins and weighing hoppers. Washing and finish-screening equipment shall be subject to approval by the Contracting Officer.

<sup>1</sup>(When provided adequate substantiation by the Contractor that coarse aggregate, as batched, will consistently meet specified grading requirements without final washing or finish screening, the Contracting Officer may waive final washing requirements or finish-screening requirements or both. if such requirements are waived and grading requirements are not consistently met, the Contractor shall implement, within 14 days after notification by the Contracting Officer, final washing and finish screening as herein specified.)

Coarse aggregate for concrete in <sup>2</sup>(canal, lateral, and drain lining) to be placed with a lining machine shall be separated into 3/8-, 3/4-, and 1-1/2-inch nominal maximum sizes. Separation of the coarse aggregate into the specified sizes, after finish screening, shall be such that when tested in accordance with ANSI/ASTM C 117 and ASTM designation: C 136, coarse aggregate shall meet the grading requirements in table \_\_\_\_\_ (Grading requirements for coarse aggregate for concrete in machine-placed concrete lining).

Table \_\_\_\_.- Grading requirements for coarse aggregate for concrete in machine-placed concrete lining

<b>Nominal Size</b>	<b>3/8 inch</b>	<b>3/4 inch</b>	<b>1-1/2 inches</b>
Nominal size range	3/16 to 3/8 inch	3/8 to 3/4 inch	3/4 inch to 1-1/2 inches
Maximum percent retained on (indicated) oversize test sieve	0% (7/16 inch)	0% (7/8 inch)	0% (1-3/4 inches)
Percent retained on (indicated) test sieve	Not applicable	50 to 75% (1/2 inch)	25 to 50% (1-1/4 inches)
Maximum percent passing (indicated) undersize test sieve	2% (No. 5)	2% (5/16 inch)	2% (5/8 inch)
Maximum percent passing the No. 200 sieve	1.0%	0.5%	0.2%

Coarse aggregate for concrete in structures and in <sup>2</sup>(canal, lateral, and drain lining) not to be placed with a lining machine may be separated as previously herein specified or may be separated into 3/4 and 1-1/2-inch nominal maximum sizes. Separation of the coarse aggregate into the two sizes shall be such that when tested in accordance with ANSI/ASTM C 117 and ASTM designation: C 136, coarse aggregate shall meet the grading requirements in table \_\_\_\_\_ (Grading requirements for coarse aggregate for concrete in structures and nonmachine placed lining).

Table \_\_\_\_.- Grading requirements for coarse aggregate for concrete in structures and nonmachine placed lining

<b>Nominal maximum size</b>	<b>3/4 inch</b>	<b>1-1/2 inches</b>
Nominal size range	3/16 to 3/4 inch	3/4 to 1-1/2 inches
Maximum percent retained on (indicated) oversize test sieve	0% (7/8 inch)	0% (1-3/4 inches)
Percent retained on (indicated) test sieve	50 to 75% 3/8 inch	25 to 50% (1-1/4 inches)

<b>Nominal maximum size</b>	<b>3/4 inch</b>	<b>1-1/2 inches</b>
Maximum percent passing (indicated) undersize test sieve	2% (No. 5)	2% (5/8 inch)
Maximum percent passing the No. 200 sieve	0.5%	0.2%

<sup>1</sup>Delete when more than 10,000 cubic yards of concrete are required for construction.

<sup>2</sup>Modify to conform to type of lining involved in the work.

7-21-83 Revisions: Revised throughout.