

HOW TO USE THE FIELD TESTED MATERIALS ACCEPTANCE GUIDE

This guide summarizes the testing requirements for various materials used in the construction of ODOT projects. It indicates what tests must be performed, who must perform them, and how frequently they must be performed. It includes materials which are sampled and tested in the field and materials which are field sampled but sent elsewhere for testing. When a contract requires Quality Control (QC) by the Contractor, samples that must be sent elsewhere for testing are delivered to the Project Manager along with the Sample Data Sheet (Form 734-4000). Examples of this and other test report forms are in Section 3 of this manual.

Materials in this guide are listed in the numerical order of the Standard Specifications and the project special provisions. To find the testing requirements for a particular material, first determine what it will be used for and then refer to the appropriate Specifications Section for that product. For example, to look up testing requirements for aggregate to be used in asphalt concrete paving, refer to Section 00745.

Definitions

SOURCE REVIEW/PRODUCT COMPLIANCE TESTING – Refer to Section 4(A) for additional explanation. Certain QC tests on aggregates fall into this category. They are identified in this section by the words “Product Compliance.”

SAMPLE SIZES – Refer to Section 4(C) for guidance on material sample sizes, containers, and labeling. Although designed for the ODOT Central Materials Laboratory (ODOT-CML), it is a good guide for samples being sent to any laboratory.

ASPHALT CONCRETE MIX DESIGNS – If the ODOT-CML is preparing the AC mix design, submit samples of the materials shown in Section 4(C) of this manual.

TYPES OF TESTS

The following types of tests will be performed by the Contractor or Engineer on materials and products required for contract work:

1. **Source Review** – This test type is addressed in Section 4(A) of this Manual.

The Engineer will test unprocessed material from an aggregate source, if requested by the Contractor, to provide information about the quality of material. Tests will involve degradation, soundness, and abrasion, but may involve other tests. Favorable test results do not imply that processed material from the source will comply with specifications after it is processed as required for the project.

2. **Product Compliance** – This test type is addressed in Section 4(A) of this Manual. The Engineer will test processed material if process control testing indicates that the processed material meets the contract quality requirements. Tests will involve degradation, soundness, abrasion, and lightweight pieces, but may involve other tests. The material shall not be incorporated into the project unless Product Compliance tests show favorable results.

3. **Quality Control** – The Contractor will perform quality control testing as described in Section 2 and specified in 4(D) of this Manual or as modified by the Special Provisions or Supplemental Standard Specifications.

4. **Verification** – The Engineer will perform Verification testing as described in Section 2 and specified in Section 4(D) of this Manual. **Note: The required 1 per 10 subplot testing of Quality Control by the Region QA is considered a minimum frequency and testing may be increased when deemed necessary by the engineer.** These tests provide the basis for the Engineer's decision on acceptance of materials and products. If Independent Assurance is to be done on a material, a split of the Verification sample will be given to the Contractor for testing.

5. **Independent Assurance** – Where Independent Assurance involves testing, the Engineer will evaluate test results from split samples to assure that Contractor test results meet required parameters.

6. **Visual** – Visual Inspection: Examination and assessment of construction materials, by **OBSERVATION**, to determine if the materials appear to meet the contract requirements and are acceptable for incorporation into ODOT construction projects. Visual inspection, when stated in the contract, is a method generally used by the Project Inspector in lieu of normal sampling and testing of field tested materials as defined in section 00165.00 of the Standard Specifications to document quality. Supporting documentation for visual acceptance is, at a minimum, a field inspection report. Consult the construction contract for other acceptance document requirements.

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE					
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory		
SECTION 00330 - EARTHWORK											
Establishing Maximum Density (for Compaction)	Density Curve			T 99	3468						
	Bulk Specific Gravity			T 85	3468	1/Soil type			1/Project		
	Family of Curves			R 75	3468FC						
	Deflection Testing	TM 158			1793S	1 test per 3 ft. in depth					1 test per 10 QC Tests per Table 00330-1
	Nuclear Gauge Coarse Particle Correction			T 310	1793S	See Table 00330-1 Below					
Compaction	Deflection Testing	TM 158			1793S						
TABLE 00330-1 Frequency of Quality Control Testing (English)											
Individual Areas											
Under 3500 yd² or yd³											
Existing Ground Surface											
1 test per 1000 yd ²											
Embankments											
1 test per 500 yd ³											
Excavations and Finished Subgrade											
1 test per 1000 yd ²											
Over 3500 yd² or yd³											
1 test per 3000 yd ²											
1 test per 3000 yd ³											
1 test per 3000 yd ²											
Stone Embankment Material (See Sec. 330.16(a))	Gradation							Visual			
	Deflection Testing	TM 158			1793S	1 per Layer		See Section 00330.16(b)			
Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.											
Imported Topsoil (See Section 01040.14(b))	Compliance										
					4000	See Section 4C 1/Source & 1/Type of Soil		Submit to Lab			

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		ODOT	WAQTC	AASHTO			Project Manager	Region Quality Assurance	Materials Laboratory			
SECTION 00331 - SUBGRADE STABILIZATION Aggregate backfill	Material must meet the requirements of Section 00331.10											
						Visual						
Water	Material must meet the requirements of Section 00340											
Compaction	Material must meet the requirements of Section 00331											
SECTION 00332 - SURFACING STABILIZATION Aggregate Base	Material must meet the requirements of Section 00332.10											
Compaction	Material must meet the requirements of Section 00332											
SECTION 00333 - AGGREGATE DITCH LINING Aggregate	Sampling Reducing Sieve Analysis			R 90 R 76 T 27/T 11								

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		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00344 - TREATED SUBGRADE								
Granular Quicklime	Sieve Analysis			T 27	4000	Submit to Lab		1/Project or 1/Source
	Calcium Hydroxide Content in lime			T 219	4000			
Hydrated Lime Calcium Chloride Sodium Chloride	Materials must meet the requirements of Section 00344. 10 and Test Results Certificate provided according to Section 00165.35(a)							
	Portland Cement Water	Material must meet the requirements of Section 02010 Material must meet the requirements of Section 00340						
Establishing Maximum Density (for Compaction)	Density Curve			T 99	3468	See Table 00344-1 Below for Testing Frequency		1/Project and 1 Test per 10 QC tests per Table 00344-1
	Maximum Specific Gravity							
Compaction	Deflection Testing			TM 158	1793S			
	Deflection Testing Nuclear Gauge			TM 158				
	Coarse Particle Correction			T 310 T 99	1793S			
TABLE 00344-1 Frequency of Quality Control Testing								
Individual Areas				Under 3500 yd²		Over 3500 yd²		
Finished Subgrade				1 test per 1000 yd ²		1 test per 3000 yd ²		

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		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory
SECTION 00360 - Drainage Blankets									
Granular Drainage Blanket	Sampling Reducing Sieve Analysis			R 90 R 76 T 27/T 11	1792	1/sublot minimum 1/Source per Project	A sublot equals 1000 Tons		
				R 90 R 76 T 27/T 11	1792				
Sand Drainage Blanket	Sampling Reducing Sieve Analysis			T 99 T 85	3468 3468	1/Source and Type		1/Project	
					1793S				1 Test per 10 QC Tests per Table 00360-1
Establishing Maximum Density (for Compaction)	Density Curve Bulk Specific Gravity								
Compaction	Deflection Testing Nuclear Gauge Coarse Particle Correction	TM 158			1793S	1 test per 3 ft. in depth			
		TM 158			1793S	See Table 00360-1 Below			
TABLE 00360-1 Frequency of Quality Control Testing									
Individual Areas					Under 3500 yd²				Over 3500 yd²
Existing Ground Surface					1 test per 1000 yd ²				1 test per 3000 yd ²
Finished Surfaces					1 test per 1000 yd ²				1 test per 3000 yd ²

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SECTION 00390 - RIPRAP PROTECTION											
Fill Material & Riprap	Gradation See 00390.11(c-1)						Visual				
	Degradation Soundness Apparent Specific Gravity & Absorption	TM 208		T 104 T 85	4000 1825	See Section 4(A)	Submit to Lab			See Section 4(A)	
Filter Blanket	Gradation See 00390.13						Visual				
Grouted Riprap Sand	Sampling Reducing Sieve Analysis			R 90 R 76 T 27/T 11		1/Project					
				T 104 T 113	4000	See Section 4(A)	Submit to Lab			See Section 4(A)	
Portland Cement	Material must meet the requirements of Section 02010										

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-734-	QUALITY ASSURANCE				
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory	
SECTION 00396 - SHOTCRETE SLOPE STABILIZATION										
Aggregate Production and Mixture										
(1) QAE may waive after 5 sublots/shifts	Sampling Reducing			R 90 R 76		1/3 Sublot & Start of Production	Submit to Central Lab	1 per 10 Sublots	See Section 4(A)	
	(2)(3) Sieve Analysis			T 27/T 11 T 27/T 11						
	(3) Fineness Modulus			T 176						
(2) Coarse Aggregate (See Section 02690.20)	(1)(2) Wood Particles	TM 225				See Section 4A	Submit to Central Lab	1 per 10 Sublots	See Section 4(A)	
	(3) Sand Equivalent									
(3) Fine Aggregate (See Section 02690.30)	Soundness			T 104 T 96	4000	See Section 4A	Submit to Central Lab	1 per 10 Sublots	See Section 4(A)	
	Abrasion			T 113 T 21						
Portland Cement Admixtures	Degradation	TM 208			1825 1825C	Start of production and when changes in aggregate occurs	Submit to Central Lab	1 per 10 Sublots	See Section 4(A)	
	Lightweight Pieces				1825					
	Organics									
Mixing Water	(2) Dry Rodded Unit Weight			T 19		Material must meet the requirements of Section 02010	Submit to Central Lab	1 per 10 Sublots	See Section 4(A)	
	(2)(3) Bulk Specific Gravity & Absorption			T 84 & T 85						
Production Testing (See Section 00396.14)						Material must meet the requirements of Section 02040	Submit to Central Lab	1 per 10 Sublots	See Section 4(A)	
(S) 3 Cores minimum per Panel						Material must meet the requirements of Section 02020	Submit to Central Lab	1 per 10 Sublots	See Section 4(A)	
Compression Test Cores	(S) Test Panel					Two Test Panels per Mix Design & Two Panels per days Production See Section 00396.14(a)2	Submit to Central Lab	1 per 10 Sublots	See Section 4(A)	
	Strength			T 22	4000C					

FIELD TESTED MATERIALS ACCEPTANCE GUIDE

(Revised November 2018)

Same Frequency for all Tests (Minimums)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL								
TRENCH FOUNDATION - Excavation below grade only								
Selected general backfill							Visual	
Selected granular backfill							Visual	
Selected stone backfill							Visual	
Other approved material							Visual	
Establishing Maximum Density	Density Curve			T 99	3468		1/Soil Type or Aggregate Gradation	
	Bulk Specific Gravity			T 85	3468			
	Family of Curves			R 75	3468FC			
	Nuclear Gauge Coarse Particle Correction			T 310 T 99	1793S		1 test per 300 ft. of Trench	

Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.

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(Revised November 2018)

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		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL (CONTINUED)								
Bedding								
3/8" - 0 PCC fine aggregate (See Section 02690.30(h))	Sampling Reducing Sieve Analysis			R 90 R 76 T 27/T 11		1/Source or Aggregate Gradation		
Commercial 3/4" - 0 Aggregate							Visual	
No. 10 - 0 Sand drainage blanket material (See Section 00360.10)	Sampling Reducing Sieve Analysis			R 90 R 76 T 27/T 11		1/Source or Aggregate Gradation		
Reasonably well graded sand, maximum 3/8" to dust							Visual	
Commercial available 3/8"-0 or No.10 - 0 sand							Visual	
Continuous cradle of Commercial Grade Concrete							Visual	
<i>Material must meet the requirements of Section 00440</i>								

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-734-	QUALITY ASSURANCE				
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory	
SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL (CONTINUED)										
Pipe Zone Material										
Flexible Pipe	Use the Listed Material requirements under Bedding									
Rigid Pipe: Aggregate Base 1" - 0 or 3/4" - 0 Aggregate (See Section 02630.10)	Sampling Reducing Sieve Analysis				R 90					
					R 76					
					T 27					
Rigid Pipe: Commercial 1" - 0 or 3/4" - 0 Aggregate					1792					
Establishing Maximum Density (¹) Method "A" & ODOT TM 223 for Dense Graded Base Aggregate	Density Curve									
	Bulk Specific Gravity				(¹) T 99					
	Coarse Particle Correction				T 85					
					T 99					Visual
Compaction	Nuclear Gauge									
					T 310					
										1 test per 300 ft. of Trench and every 1.5 ft. of Fill
<p style="text-align: center;">Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.</p>										

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		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory
SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL (CONTINUED)									
Trench Backfill									
Class A Backfill - Native or common Material		<i>Material must meet the requirements of Section 00330.43</i>							
Class B Backfill - 1"-0 or 3/4"-0 Granular Material		<i>Material must meet the requirements of Section 00641</i>							
Class C Backfill - Clean sand with 100% minus 1/4" material							Visual		
Class D Backfill - Pit run or bar run material with 3" maximum dimension and well graded from coarse to fine							Visual		
Class E Backfill - Controlled Low Strength Material (CLSM)		<i>Material must meet the requirements of Section 00442</i>							
Establishing Maximum Density	Density Curve			(1) T 99	3468				
				T 85	3468			1/Soil Type or Aggregate Gradation	
				R 75	3468FC				
Compaction	Nuclear Gauge Coarse Particle Correction			T 310 or T 99	1793S or 1793B			(C) 1 test per 300 ft. of Trench and every 1.5 ft. of Fill	
<p>(C) Density testing is based on cumulative lineal feet of pipe placement.</p> <p>Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.</p>									

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		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory
SECTION 00430 - SUBSURFACE DRAINS									
Granular Drain Backfill Material	Sampling Reducing Sieve Analysis			R 90	1792		A Sublot equals 1000 Tons		
				R 76					
				T 27					
	Abrasion Degradation			T 96					See Section 4A
Special Filter Material See Section 00430.46(a)	Compaction	TM 208			4000			Submit To Lab	
SECTION 00440 - COMMERCIAL GRADE CONCRETE									
Mixture	Sampling	TM 2		T 152 T 121 T 121 T 119 T 309	3573WS or 4000 C				See Section 4A
	Air Content								
	Density (Unit Weight)								
	Yield								
Slump							(S) 1 per each set of cylinders		
Concrete Temperature									
Modifiers	Material must meet the requirements of Section 02030								
Admixtures	Material must meet the requirements of Section 02040								
Portland Cement	Material must meet the requirements of Section 02010								
Structural Items	Strength			T 22 & T 23	4000C			(M)(S) 1 Set / Day Minimum	
	Strength			T 22 & T 23	4000C			(M) (S) 1 Set/20 yd ³ Cumulative (Maximum 1 Set/day)	
(S) 1 Set Represents a minimum of 3 Cylinders									
(M) Per Mix Design & Source									

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-734-	Contractor Quality Control	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO			Independent Assurance/Verification	Project Manager	Region Quality Assurance
SECTION 00442 - CONTROLLED LOW STRENGTH MATERIALS (CLSM)									
CLSM Mixture	Mix Proportions Trial Batch Strength				4000C	1/Project or Source			
				T 22 & T 23					
		Material must meet the requirements of Section 02030							
		Material must meet the requirements of Section 02040							
Modifiers		Material must meet the requirements of Section 02030							
Admixtures		Material must meet the requirements of Section 02040							
Portland Cement		Material must meet the requirements of Section 02010							
SECTION 00445 - SANITARY, STORM, CULVERT, SIPHON, AND IRRIGATION PIPE - INCLUDED WITH SECTION 00405									
Trench Work									
Excavation, bedding, pipe zone and trench backfill		See Section 00405 for pipes less than 72"							
		See Section 00510 for pipes greater than 72"							
Concrete Blocks		Material must meet the requirements of Section 00440							

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		ODOT	WAQTC		AASHTO	Contractor Quality Control
SECTION 00450 - STRUCTURAL PLATE SHAPED STRUCTURES						
Commercial Grade Concrete in appurtenances		<i>Material must meet the requirements of Section 00440</i>				
Trench Work						
Excavation and Backfill		<i>Operations must meet the requirements of Section 00510</i>				
Trenches in Unstable Areas						
Granular Structural Backfill		<i>Material must meet the requirements of Section 00510</i>				
Establishing Maximum Density (¹) Method "A"	Density Curve			(¹) T 99	3468 B	1/Aggregate Gradation and Source
	Bulk Specific Gravity Coarse Particle Correction	TM 223		T 85		
Compaction	Nuclear Gauge			T 310	1793 B	1 Test per 100 ft. and 1 ft. of fill
Structure Backfill (Section 00450.46)		<i>Material and Operation must meet the requirements of Section 00510.48(d)</i>				
SECTION 00459 - CAST IN PLACE CONCRETE PIPE						
Concrete		<i>Material must meet the requirements of Section 00540, with acceptance in accordance with Section 00540.17</i>				
Backfill Material		<i>Material must meet the requirements of Section 00405.14 and be incorporated into the project in accordance with Section 00405.46</i>				

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		ODOT	WAQTC	AASHTO			Project Manager	Region Quality Assurance	Materials Laboratory
SECTION 00460 - PAVED CULVERT END SLOPES									
Commercial Grade Concrete		<i>Material must meet the requirements of Section 00440</i>							
SECTION 00470 - MANHOLES, CATCH BASINS AND INLETS									
Commercial Grade Concrete		<i>Material must meet the requirements of Section 00440</i>							
Base Drain Backfill		<i>Material must meet the requirements of Section 00470.17</i>							
Excavation, Backfill and Foundation Stabilization		<i>Material must meet the requirements of Section 00405</i>							
SECTION 00480 - DRAINAGE CURBS									
Commercial Grade Concrete		<i>Material must meet the requirements of Section 00440</i>							
Dense Graded HMAC Mixture Level 2, (1/2")		<i>Material must meet the requirements of Section 00744</i>							

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SECTION 00490 - WORK ON EXISTING SEWERS AND STRUCTURES									
Commercial Grade Concrete		Material must meet the requirements of Section 00440							
High Early Strength Concrete		Material must meet the requirements of Section 00440, but cement contents adjusted according to 00490.11							
Backfill Operations		Backfill Excavations according to section 405							
Filling Abandoned Pipes, Manholes and Catch Basins (See section 00490.44)									
Backfill Operations (Roadway)		Material must meet the requirements of Section 2630							
Establishing Maximum Density (¹) Method "A"	Density Curve				(¹) T 99				
	Bulk Specific Gravity Coarse Particle Correction	TM 223			T 85			1/Aggregate Gradation and Source	
Compaction	Nuclear Gauge				T 310			1 Test per 100 ft. and every 1.5' of Fill	
Backfill Operations Landscaped or Unimproved Roadways		Material must meet the requirements of Section 00330.13							
Top 1.0' of Backfill Region		Material must meet the requirements of Section 00330.11							
SECTION 00495 - TRENCH RESURFACING									
Resurfacing Materials		See Section 00495.40 for Material Requirements							

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SECTION 00510 - STRUCTURE EXCAVATION AND BACKFILL								
Soils, Soil/Aggregate Mixtures and Graded Aggregates								
Granular Structure Backfill (See Section 02630.10)	Sampling Reducing			R 90 R 76				
	(¹) Sieve Analysis Fracture (Method 1) Sand Equivalent			T 27 T 335 T 176	1792	1/Sublot (Minimum 1/Project)		
Product Compliance	Abrasion Degradation	TM 208		T 96	4000	See Section 4C 1/Source	Submit to Lab	Minimum 1/Project or 1/Source
Establishing Maximum Density	Density Curve			(²) T 99	3468	1/Soil type or Aggregate Gradation		
⁽²⁾ Method "A" & ODOT TM 223 for Dense Graded Base Aggregate	Bulk Specific Gravity			T 85	3468			
	Coarse Particle Correction			T 99				
Compaction	Nuclear Gauge			T 310	1793B	1/100 yd ³ minimum 1/project		
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		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00510 - STRUCTURE EXCAVATION AND BACKFILL (CONTINUED)								
Soils, Soil/Aggregate Mixtures and Graded Aggregates								
Granular Wall Backfill (See Section 02630.11)	Sampling Reducing (1) Sieve Analysis Fracture (Method 2)	TM 208	R 90 R 76 T 27 T 335	1/Sublot (Minimum 1/Project)	4000	Submit to Lab	1/Sublot (Minimum 1/Project)	Minimum 1/Project or 1/Source
Product Compliance	Abrasion Degradation	TM 158	T 96	See Section 4C 1/Source	1792			
(2) Compaction	(2) Deflection Testing				1793B			
Note: Compaction must meet the requirements of section 00330.43c								
Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.								

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SECTION 00512 - DRILLED SHAFTS									
Aggregate Production	Sampling Reducing			R 90 R 76					
(1) QAE may waive after 5 sublots/shifts	(2)/(3)/(4) Sieve Analysis			T 27/T 11 T 27/T 11	1792	1/Sublot & Start of Production	1 per 10 Sublots		
(2) Perform a minimum of 3 tests, QL's required	(4) Fineness Modulus	TM 225		T 176	1792				
(3) Coarse Aggregate (See Section 02690.20)	(1)/(3) Wood Particles			T 104 T 96	4000				See Section 4(A)
(4) Fine Aggregate (See Section 02690.30)	(4) Sand Equivalent	TM 208		T 113 T 21	4000	See Section 4A	Submit to Lab		
Portland Cement Modifiers Admixtures	Soundness Abrasion Degradation Lightweight Pieces Organics			T 19 T 84 & T 85	1825 1825C 1825	Start of production and when changes in aggregate occurs			
Drilling Slurry	(3) Dry Rodded Unit Weight								
	(3)/(4) Bulk Specific Gravity & Absorption								
	Materials must meet the requirements of Section 02001.10								
	Slurry material must meet the requirements of Section 00512.14 & 00512.43(g)								
Grout	Material must meet the requirements of Section 02080								
Mixing Water	Material must meet the requirements of Section 02020								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE

(Revised November 2018)

Same Frequency for all Tests (Minimums)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-734-	QUALITY ASSURANCE										
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory							
SECTION 00512 - DRILLED SHAFTS (CONTINUED)																
Portland Cement Concrete	Sampling Slump Concrete Temperature Density (Unit Weight) Yield Water/Cement Ratio Strength	TM 2					QA Testing									
									(M) (S) 1 per Shaft and Test at minimum frequencies according to table 00512-1. Review specs.	Projects under 100 yd³ all classes 1/Project representing all classes of PCC						
											Projects over 100 yd³ all classes 1/500 yd ³ per class minimum 1/class					
<p>(S) 1 Set Represents a minimum of 3 Cylinders</p> <p>(M) Per Mix Design & Source</p>																
<p>TABLE 00512-1 Frequency of Quality Control Testing</p> <p><i>Minimum frequencies per Class of concrete based on daily production records.</i></p> <table border="1"> <thead> <tr> <th>Production</th> <th>Frequencies</th> </tr> </thead> <tbody> <tr> <td>0 to 100 yd³ on a single day</td> <td>1 Set each day</td> </tr> <tr> <td>Quantity Over 100 yd³ 100 to 600 yd³ on a single day</td> <td>1 Set per each 100 yd³ or portion thereof</td> </tr> <tr> <td>over 600 yd³ on a single day</td> <td>1 Set per each 200 yd³ or portion thereof after reaching 600 yd³</td> </tr> </tbody> </table>									Production	Frequencies	0 to 100 yd ³ on a single day	1 Set each day	Quantity Over 100 yd³ 100 to 600 yd ³ on a single day	1 Set per each 100 yd ³ or portion thereof	over 600 yd ³ on a single day	1 Set per each 200 yd ³ or portion thereof after reaching 600 yd ³
Production	Frequencies															
0 to 100 yd ³ on a single day	1 Set each day															
Quantity Over 100 yd³ 100 to 600 yd ³ on a single day	1 Set per each 100 yd ³ or portion thereof															
over 600 yd ³ on a single day	1 Set per each 200 yd ³ or portion thereof after reaching 600 yd ³															

FIELD TESTED MATERIALS ACCEPTANCE GUIDE

(Revised November 2018)

Same Frequency for all Tests (Minimums)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE		
		ODOT	ASTM	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00535 - RESIN BONDED ANCHOR SYSTEMS								
Anchor Systems								
Anchor Bolts, reinforcing steel and resin (Polyester, vinyl ester or epoxy)						A Sublot equals 50 Anchors		
Anchor Installation								
Demonstration Testing (See Section 00535.45(a))	Strength of Anchors in Concrete Elements	E 488			5189		One demonstration Test includes 3 anchors (Resin shall be from same lot)	Visual
Production Testing (See Section 00535.45(b))	Strength of Anchors in Concrete Elements	E 488			5189		(A) 1 Anchor/Sublot or portion thereof (Minimum 1/Shift)	Visual per Sublot
(A) Anchor testing is required per critical element identified in the Special Provisions or Plan Drawings.								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)			Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE			Materials Laboratory	
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance		
SECTION 00540 - STRUCTURAL CONCRETE										
Aggregate Production	Sampling Reducing			R 90 R 76						
(1) QAE may waive after 5 sublots/shifts	(2)(3)(4) Sieve Analysis			T 27/T 11 T 27/T 11	1792	1/Sublot & Start of Production	1 per 10 Sublots			
(2) Perform a minimum of 3 tests, QL's required	(4) Fineness Modulus	TM 225		T 176	1792					
(3) Coarse Aggregate (See Section 02690.20)	(1)(3) Wood Particles			T 104 T 96	4000					
(4) Fine Aggregate (See Section 02690.30)	(4) Sand Equivalent	TM 208		T 113 T 21	4000	See Section 4A	Submit To Lab			See Section 4A
	Soundness Abrasion			T 19	1825 1825C					
	Degradation Lightweight Pieces Organics			T 84 & T 85	1825	Start of production and when changes in aggregate occurs				
Portland Cement Modifiers Admixtures	(3) Dry Rodded Unit Weight	Materials must meet the requirements of Section 02001.10								
	(3)(4) Bulk Specific Gravity & Absorption	Materials must meet the requirements of Section 02020								
Mixing Water		Material must meet the requirements of Section 02020								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)										
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-734-	QUALITY ASSURANCE										
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory							
SECTION 00540 - STRUCTURAL CONCRETE (CONTINUED)																
Portland Cement Concrete	Sampling Air Content Slump Concrete Temperature Density (Unit Weight) Yield Water/Cement Ratio Strength	TM 2	T 152 T 119 T 309 T 121 T 121 T 121	3573WS or 4000C	4000C			QA Testing								
<p><i>(S)</i> 1 Set Represents a minimum of 3 Cylinders</p> <p><i>(M)</i> Per Mix Design & Source</p>																
<p>TABLE 00540-1 Frequency of Quality Control Testing</p> <p>Minimum frequencies per Class of concrete based on daily production records.</p> <table border="1"> <thead> <tr> <th><u>Production</u></th> <th><u>Frequencies</u></th> </tr> </thead> <tbody> <tr> <td>0 to 100 yd³ on a single day</td> <td>1 Set each day</td> </tr> <tr> <td><u>Quantity Over 100 yd³</u> 100 to 600 yd³ on a single day</td> <td>1 Set per each 100 yd³ or portion thereof</td> </tr> <tr> <td>over 600 yd³ on a single day</td> <td>1 Set per each 200 yd³ or portion thereof after reaching 600 yd³</td> </tr> </tbody> </table>									<u>Production</u>	<u>Frequencies</u>	0 to 100 yd ³ on a single day	1 Set each day	<u>Quantity Over 100 yd³</u> 100 to 600 yd ³ on a single day	1 Set per each 100 yd ³ or portion thereof	over 600 yd ³ on a single day	1 Set per each 200 yd ³ or portion thereof after reaching 600 yd ³
<u>Production</u>	<u>Frequencies</u>															
0 to 100 yd ³ on a single day	1 Set each day															
<u>Quantity Over 100 yd³</u> 100 to 600 yd ³ on a single day	1 Set per each 100 yd ³ or portion thereof															
over 600 yd ³ on a single day	1 Set per each 200 yd ³ or portion thereof after reaching 600 yd ³															

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)			Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Contractor Quality Control	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO			Project Manager	Region Quality Assurance	Materials Laboratory
SECTION 00556 - MULTI-LAYER POLYMER CONCRETE OVERLAY									
Aggregate Production	Moisture Content			T 255/265	1792	At time of mixing the polymer resin. See 00556.10-b			
Polymer Resin	Material must meet the requirements of section 00556.10								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00559 - SILICA FUME AND LATEX MODIFIED CONCRETE OVERLAYS								
Aggregate Production								
⁽¹⁾ QAE may waive after 5 sublots/shifts	Sampling Reducing			R 90 R 76				
	⁽²⁾ / ⁽³⁾ / ⁽⁴⁾ Sieve Analysis			T 27/T 11	1792			
⁽²⁾ Perform a minimum of 3 tests, QL's required	⁽⁴⁾ Fineness Modulus			T 27/T 11	1792			
	⁽⁴⁾ Sand Equivalent			T 176				
⁽³⁾ Coarse Aggregate (See Section 02690.20 & 00559.10)	⁽¹⁾ / ⁽³⁾ Elongated Pieces	TM 229			1792			
	⁽¹⁾ / ⁽³⁾ Wood Particles	TM 225						
⁽⁴⁾ Fine Aggregate (See Section 02690.30 & 00559.10)	Abrasion			T 96	4000			
	Degradation Soundness Lightweight Pieces Organics	TM 208		T 104 T 113 T 21	4000			
Portland Cement Modifiers Admixtures	⁽³⁾ Dry Rodded Unit Weight			T 19	1825 1825C			
	⁽³⁾ / ⁽⁴⁾ Bulk Specific Gravity & Absorption			T 84 & T 85	1825			
Mixing Water								
Materials must meet the requirements of Section 02001.10								
Material must meet the requirements of Section 02020								
A Sublot equals 500 Tons. A minimum one per shift, whichever results in the greatest sampling frequency. (For preproduced aggregates, 1 shift shall mean 500 Tons.)								
1/Sublot & Start of Production							1 per 10 Sublots	
1/5 Sublots & Start of Production								See Section 4(A)
Submit to Central Lab								See Section 4(A)
Start of production and when changes in aggregate occurs								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00559 - SILICA FUME AND LATEX MODIFIED CONCRETE OVERLAYS (CONTINUED)								
SFC AND LMC	Sampling Air Content Slump Concrete Temperature Density (Unit Weight) Yield W/C Ratio	TM 2	T 152 T 119 T 309 T 121 T121 T 121	3573WS or 4000 C	A sublot equals 1 set of tests per 50 yd3			1 per 10 Sublots
Latex Modified Concrete	Fine Aggregate Moisture		T 255/T 265	1792	See Section 00559.10			
	Mixer Calibration				See Section 00559.22			
(M) Per Mix Design & Source	Strength		T 22 & T 23	4000C	(M) (S) 1 Set Cylinders per 50yd ³ Minimum 1 set/shift			1 Set per 500 yd ³
SFC and LMC								
(S) 1 Set Represents a minimum of 3 Cylinders								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)													
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE			Materials Laboratory										
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance											
SECTION 00596A - MECHANICALLY STABILIZED EARTH RETAINING WALLS																			
Aggregate Production																			
Gravel Leveling Pads Backfill (See Section 02630.10)	Abrasion Degradation	TM 208	T96	4000	See Section 4A	Submit to Lab	See Section 4A	See Section 4A	See Section 4A										
										A Sublot equals 1,000 Tons Minimum 1/Project									
										Sampling Reducing Sieve Analysis Sand Equivalent Fracture (Method 1)	R 90 R 76 T 27 T 176 T 335	1792	1/Sublot	1792	1/5 Sublots	Testing Frequency for Product Compliance per Source 1/5,000 Tons Minimum 1/Project	See Section 4C & 02690	Submit To Lab	See Section 4C
⁽³⁾ Modular Block Core and Drainage Backfill (Product Compliance)	Soundness Abrasion Degradation Lightweight Pieces	TM 208	T 104 T 96 T 113	4000	See Section 4C & 02690	Submit To Lab	See Section 4C	See Section 4C	See Section 4C										
										⁽³⁾ (See Section 2690.20(a) thru 2690.20(e) & 2690.20(g))	A Sublot equals 1,000 Tons	1792	1/Sublot	1792	See Section 4C	Submit To Lab	See Section 4C		
																		A Sublot equals 1,000 Tons	
⁽³⁾ Modular Block Core and Drainage Backfill ⁽¹⁾ QAE may waive after 5 sublots/shifts ⁽²⁾ Perform a minimum of 3 tests, QL's required Pipe Drain Backfill (Product Compliance) (See Section 00430.11)	Sampling Reducing ⁽²⁾ Sieve Analysis ⁽¹⁾ Wood Particles Fracture (Method 2) Elongated Pieces	TM 225 TM 229	R 90 R 76 T 27/T 11 T 335	1792	1/Sublot	See Section 4C	Submit To Lab	See Section 4C	See Section 4C										
										Abrasion Degradation Sieve Analysis	TM 208	T 96	4000	See Section 4C	Submit To Lab	See Section 4C			
																	A Sublot equals 1,000 Tons		
A Sublot equals 1,000 Tons																			

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)				Same Frequency for all Tests (Minimums)					
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE							
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory				
SECTION 00596A - MECHANICALLY STABILIZED EARTH RETAINING WALLS													
Aggregate Production													
Gabion Basket Fill (Product Compliance) (See Section 00390.11(b))	Degradation Soundness Apparent Specific Gravity & Absorption Gradation	TM 208	T 104 T 85	4000 1825	See Section 4C	Submit to Lab	Visual	Testing Frequency for Product Compliance per Source 1/5,000 Tons Minimum 1/Project			See Section 4C		

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)								
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE								
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Independent Assurance/Verification	Project Manager	Region Quality Assurance	Materials Laboratory				
SECTION 00596A - MSE RETAINING WALLS														
Aggregate Production														
MSE Granular Wall Backfill (Product Compliance) (Also reference 02630.10)	Abrasion Degradation Sieve Analysis Plasticity Index pH Resistivity Organic Content	TM 208	T 96 T 11 T 90 T 289 T 288 T 267	4000	Testing Frequency for Product Compliance per Source 1/5,000 Tons Minimum 1/Project	See Section 4C	Submit to Central Lab			See Section 4C				
A Sublot Equals 2,000 Tons														
MSE Granular Wall Backfill (¹) Perform a minimum of 3 tests, QL's required	Sampling Reducing (¹) Sieve Analysis Sand Equivalent Fracture (Method 1)		R 90 R 76 T 27 T 176 T 335	1792	1/Sublot									
Placement Establishing Maximum Density (¹) Method A	Density Curve Bulk Specific Gravity Coarse Particle Correction Nuclear Gauge	TM 223	(1) T 99 T 85 T 310	3468	1/Aggregate Gradation/Per Source									
Compaction	Deflection Testing	TM 158		1793B	1/ 100 yd3 (Minimum 1/day)					Visual See section 00596A.47(c-5)				
				1793B	1 per layer									
Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.														

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)			Same Frequency for all Tests (Minimums)															
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE																
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory													
SECTION 00596B - PREFABRICATED MODULAR RETAINING WALLS																						
Aggregate Production																						
Gravel Leveling Pads Backfill (See Section 02630.10)	Abrasion Degradation	TM 208	T96		4000	See Section 4A	Submit to Lab			See Section 4A												
											Sampling Reducing Sieve Analysis Sand Equivalent	R 90 R 76 T 27 T 176	1/Sublot			See Section 4A						
																	Fracture (Method 1)	T 335	1/5 Sublots			See Section 4A
Testing Frequency for Product Compliance per Source 1/5,000 Tons Minimum 1/Project																						
⁽³⁾ Modular Block Core and Drainage Backfill (Product Compliance)	Soundness Abrasion Degradation Lightweight Pieces	TM 208	T 104 T 96 T 113		4000	See Section 4C & 02690	Submit To Lab			See Section 4C												
											⁽³⁾ (See Section 2690.20(a) thru 2690.20(e) & 2690.20(g))						See Section 4C					
																		A Sublot equals 1,000 Tons				
⁽³⁾ Modular Block Core and Drainage Drainage Backfill ⁽¹⁾ QAE may waive after 5 sublots/shifts	Sampling Reducing ⁽²⁾ Sieve Analysis ⁽¹⁾ Wood Particles Fracture (Method 2) Elongated Pieces	TM 225 TM 229	R 90 R 76 T 27/T 11 T 335		1792 1792	1/Sublot				See Section 4C												
											⁽²⁾ Perform a minimum of 3 tests, QL's required						See Section 4C					
																		A Sublot equals 1,000 Tons				
Pipe Drain Backfill (Product Compliance) (See Section 00430.11)	Abrasion Degradation Sieve Analysis	TM 208	T 96 T 27		4000 4000	See Section 4C	Submit To Lab			See Section 4C												
																	See Section 4C					
																		A Sublot equals 1,000 Tons				

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00596B - PREFABRICATED MODULAR RETAINING WALLS								
Aggregate Production								
Gabion Basket Fill (Product Compliance) (See Section 00390.11(b))	Degradation Soundness Apparent Specific Gravity & Absorption	TM 208		T 104 T 85	4000 1825	See Section 4C	Submit to Lab	See Section 4C
	Gradation							
Testing Frequency for Product Compliance per Source 1/5,000 Tons Minimum 1/Project								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE				
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory	
SECTION 00596B - PREFABRICATED MODULAR RETAINING WALLS										
Aggregate Production										
Retaining Wall Granular Backfill (Product Compliance) (Also reference 02630.10)	Abrasion Degradation Sieve Analysis Plasticity Index	TM 208		T96 T 11 T 90	4000	See Section 4C	Submit to Central Lab			See Section 4C
					4000					
A Sublot Equals 2,000 Tons										
Retaining Wall Granular Backfill (¹) Perform a minimum of 3 tests, QL's required	Sampling Reducing (¹) Sieve Analysis Sand Equivalent Fracture (Method 1)			R 90 R 76 T 27 T 176 T 335		1/Sublot	1/5 Sublots			
					1792					
Placement Establishing Maximum Density (¹) Method A	Density Curve Bulk Specific Gravity			(1) T 99 T 85	3468	1/Aggregate Gradation/Per Source				
Compaction	Coarse Particle Correction Nuclear Gauge Deflection Testing	TM 223 TM 158		T 310	3468	1/100 yd3 (Minimum 1/day)				
					1793B					
					1793B					
Visual See section 00596B.47(b-6)										
Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.										

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)			Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE			Materials Laboratory		
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance			
SECTION 00596C - CAST-IN-PLACE CONCRETE RETAINING WALLS											
Aggregate Production											
Pipe Drain Backfill (Product Compliance) (See Section 00430.11)	Abrasion Degradation Sampling Reducing Sieve Analysis	TM 208		T 96	4000	See Section 4C	Submit To Lab		See Section 4C		
					4000						1/Sublot
					Testing Frequency for Product Compliance per Source 1/5,000 Tons Minimum 1/Project						
Retaining Wall Granular Backfill	Abrasion Degradation Sieve Analysis Plasticity Index	TM 208		T 96 T 11 T 90	4000	See Section 4C	Submit to Central Lab		See Section 4C		
					4000						
					A Sublot Equals 2,000 Tons						
Retaining Wall Granular Backfill (¹) Perform a minimum of 3 tests, QL's required	Sampling Reducing (¹) Sieve Analysis Fracture (Method 1)			R 90 R 76 T 27 T 335		1/Sublot					
					1792						
					1792						1/5 Sublots

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)			Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Contractor Quality Control	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO			Project Manager	Region Quality Assurance	Materials Laboratory
SECTION 00596C - CAST-IN-PLACE CONCRETE RETAINING WALLS									
Placement									
Retaining Wall Granular Backfill Establishing Maximum Density (¹) Method A Compaction	Density Curve			(¹) T 99	3468	1/Aggregate Gradation/Per Source			
	Bulk Specific Gravity			T 85	3468				
	Coarse Particle Correction	TM 223				1/ 100 yd3 (Minimum 1/day)			
	Nuclear Gauge			T 310	1793B	1 per layer			
	Deflection Testing	TM 158			1793B	Visual See section 00596C.42(f)			
Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE					
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory		
SECTION 00635 - GRID-ROLLED AGGREGATE SUBBASE											
Aggregate Subbase Grading (See 00635.10)	Abrasion			T 96	4000	A Sublot equals 1000 Tons		See Section 4(A)			
						1/Source	Submit To Central Lab				
	Sampling Reducing Sieve Analysis Sand Equivalent			R 90 R 76 T 27 T 176		1/Sublot & Start of Production					
					1792						

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE			
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS								
Aggregate Production	Abrasion			T 96	4000	See Sec. 4A	Submit To Central Lab	See Section 4(A)
Aggregate Subbase Grading (See 00641.10(b))	Sampling Reducing Sieve Analysis Sand Equivalent			R 90 R 76 T 27 T 176	1792	1/Project or 1/Source	Visual	
Aggregate Base and Shoulders	Abrasion Degradation	TM 208		T96	4000	See Section 4A	Submit to Lab	See Section 4A
Grading					A Sublot equals 2000 Tons			
Aggregate Base (See 02630)	Sampling Reducing			R 90 R 76 T 27 T 176		1/Sublot & Start of Production		
Aggregate Shoulder (See 02640)					1792			1 per 10 Sublots
Open Graded Aggregate Base (See 02630.11)	(1) Sieve Analysis (2) Sand Equivalent							
	(1) Perform at least 3 tests (2) May be waived by QAE			T 335	1792	1/5 Sublots & Start of Production		
Fracture (Method 1)								
Placement								
Aggregate Base					A Sublot equals 2000 Tons			
Plant Mix Applications Only								
Aggregate (Mixture)	Sampling Reducing Moisture			R 90 R 76 T 255 & T 265		1/Sublot or minimum 1/Day		1 per 10 Sublots
					1792			
Establishing Maximum Density & Optimum Moisture (Mix Design)	Density Curve Coarse Particle Correction Bulk Specific Gravity	TM 223		(3) T 99 T 85	3468 B 3468 B	Each Size per Source		1/Project
Compaction								
	(3) Method A				1793B	1 per Sublot		
(D) (Individual tests must meet Specification)	Deflection Testing Nuclear Gauge	TM 158		T310	1793B	(D) 5 Tests Per Sublot		(D) 1 (5 Tests) per 10 Sublots

FIELD TESTED MATERIALS ACCEPTANCE GUIDE					(Revised November 2018)			Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Contractor Quality Control	QUALITY ASSURANCE			
		ODOT	WAQTC	AASHTO			Independent Assurance/Verification	Region Quality Assurance	Materials Laboratory	
SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS (Continued)										
Placement										
Aggregate Subbase										
Compaction	Deflection Testing	TM 158			1793 B	1 per Layer	Visual			

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE					
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory		
SECTION 00680 - STOCKPILED AGGREGATES											
Aggregate Base and Shoulders (See Section 00641)											
(1) Perform at least 3 tests, QL's required (2) May be waived by QAE	Abrasion Degradation	TM 208		T 96	4000	See Section 4A	Submit to Lab				See Section 4A
	Sampling Reducing (1) Sieve Analysis (2) Sand Equivalent			R 90 R 76 T 27 T 176	1792	1/Sublot & Start of Production				1 per 10 Sublots	
	Fracture (Method 1)			T 335	1792	1/5 Sublots & Start of Production					
Aggregate (Sanding Aggregate)											
(1) May be waived by QAE	Sampling Reducing Sieve Analysis (1) Cleanness Value	TM 227		R 90 R 76 T 27	1792	1/Sublot & Start of Production				1 per 10 Sublots	
	Abrasion Degradation Lightweight Pieces	TM 208		T 96 T 113	4000	See Section 4A	Submit to Lab				See Section 4A
	Fracture (Method 1) Elongated Pieces Wood Particles	TM 229 TM 225		T 335	4000	1/5 Sublots & Start of Production				1 per 10 Sublots	

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)													
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE											
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory								
SECTION 00680 - STOCKPILED AGGREGATES (CONTINUED)																	
Emulsified AC Aggregate Aggregate Production (See Sections 00705, 00706, 00710, 00711, 00712 and 00715) (1) QAE may waive after 5 sublots/shifts (2) Perform at least 3 tests (QL's required), QAE may waive wet sieve after 5 sublots/shifts if a correlation to dry sieve can be demonstrated (3) May be waived by QAE (4) Not required for Dry Key Material (5) 1/5 Sublots & Start of Production	Abrasion Degradation Soundness Lightweight Pieces Dry Rodded Unit Weight Sampling Reducing (5) Fracture (Method 1) (1) Wood Particles (1)(4) Elongated Pieces (2) Sieve Analysis (3) Cleaness Value Dry Rodded Unit Weight	TM 208 TM 225 TM 229 TM 227	T 96 T 104 T 113 T 19 R 90 R 76 T 335 T27/T 11 T 19	4000 4000 1792 1792 1825 1825C	A sublot equals 500 Tons. A minimum 1 per shift, whichever results in the greatest sampling frequency	See Section 4A Submit to Lab 1/Sublot & Start of Production Start of production and when changes in aggregate occurs	1 per 10 Sublots	See Section 4A									
									Aggregate (Other)								
									Use sampling and testing frequencies required for proposed end product use								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE				
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory	
SECTION 00705 - EMULSIFIED ASPHALT PRIME COAT and EMULSIFIED ASPHALT FOG COAT										
Aggregate Cover Material										
Aggregate Production	Sampling Reducing Sieve Analysis			R 90 R 76 T 27	1792	1/Sublot & Start of Production	1 per 10 Sublots			
Asphalt Prime and Fog Coat	Compliance			R 66	4000	See Section 4C 1/50 Tons (Submit All)	Submit to Central Lab			1/5 QC Samples (Random)
SECTION 00706 - EMULSIFIED ASPHALT SLURRY SEAL SURFACING										
Aggregate Production										
⁽¹⁾ Perform at least 3 tests, QL's required	Sampling Reducing Sieve Analysis			R 90 R 76 T 27/T 11	1792	1/Sublot & Start of Production				
	Compliance				4000	See Section 4C 1/50 Tons (Submit All)	Submit to Central Lab			1/5 QC Samples (Random)
Emulsified Asphalt Cement Emulsified Asphalt Polymer Modified Emulsion										
Additives Mineral Filler										
Material must meet the requirements of Section 00706.13										
Mixture										
Material must meet the requirements of Section 00706.16										

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				FORM 734- (Revised November 2018)		Same Frequency for all Tests (Minimums)															
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE															
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory												
SECTION 00710 - SINGLE APPLICATION EMULSIFIED ASPHALT SURFACE TREATMENT																					
Aggregate Production																					
(1) QAE may waive after 5 sublots/shifts (2) Perform at least 3 tests (QL's required), QAE may waive wet sieve after 5 sublots/shifts if a correlation to dry sieve can be demonstrated (3) May be waived by QAE	Abrasion Degradation Soundness Lightweight Pieces Dry Rodded Unit Weight Sampling Reducing (5) Fracture (Method 1) (1) Wood Particles (1)(4) Elongated Pieces (2) Sieve Analysis (3) Cleanness Value Dry Rodded Unit Weight	TM 208 TM 225 TM 229 TM 227	T 96 T 104 T 113 T 19 R 90 R 76 T 335 T27/T 11 T 19	4000 4000 1792 1792 1825 1825C 4000	A sublot equals 500 Tons. A minimum 1 per shift, whichever results in the greatest sampling frequency			See Section 4A Submit to Central Lab 1 per 10 Sublots Start of production and when changes in aggregate occurs 1/50 Tons Submit All Submit to Lab	See Section 4A 1/5 QC Samples (Random)												
					(4) Not required for Dry Key Material (5) 1/5 Sublots & Start of Production Asphalt Cement (Emulsion)	Compliance				R 66	4000	Preproduced Aggregate			1/5 QC Samples (Random)						
												Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:									
												1. Continuing production records meeting the above requirements of Section 00710.10 and 710.15, Aggregate Production.									
												2. Furnish records of testing for the entire stockpile according to Section 00710.10 and 710.15 Aggregate Production except change the sampling frequency to the following:									
a. One Per 5 sublots means "One Set of Tests Per 2500 Tons". b. One Per sublot means "One Set of Tests Per 500 Tons" with a minimum of 3 sets of Sieve Analysis tests per project. c. Provide one stockpile sample for each set of tests required above.																					

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)										
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE									
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory					
SECTION 00711 - PRE-COATED AGGREGATE ASPHALT SURFACE TREATMENT														
Aggregate Production														
<p>(1) QAE may waive after 5 sublots/shifts</p> <p>(2) Perform at least 3 tests (QL's required), QAE may waive wet sieve after 5 sublots/shifts if a correlation to dry sieve can be demonstrated</p> <p>(3) May be waived by QAE</p> <p>(4) Not required for Dry Key Material</p> <p>(5) 1/5 Sublots & Start of Production</p> <p>Asphalt Cement</p>	<p>Abrasion Degradation Soundness Lightweight Pieces Dry Rodded Unit Weight</p> <p>Sampling Reducing</p> <p>(5) Fracture (Method 1)</p> <p>(1) Wood Particles (1)(4) Elongated Pieces (2) Sieve Analysis (3) Cleaness Value</p> <p>Dry Rodded Unit Weight</p> <p>Compliance</p>	<p>TM 208</p> <p>TM 225</p> <p>TM 229</p> <p>TM 227</p>	<p>T 96</p> <p>T 104</p> <p>T 113</p> <p>T 19</p> <p>R 90</p> <p>R 76</p> <p>T 335</p> <p>T 27/T 11</p> <p>T 19</p> <p>R 66</p>	<p>4000</p> <p>4000</p> <p>1792</p> <p>1792</p> <p>1825</p> <p>1825C</p> <p>4000</p>	<p>A subplot equals 500 Tons. A minimum 1 per shift whichever results in the greatest sampling frequency</p> <p>See Section 4A</p> <p>Submit to Central Lab</p> <p>1/Sublot & Start of Production</p> <p>Start of production and when changes in aggregate occurs</p> <p>1/50 Tons Submit All</p> <p>Submit to Lab</p>	<p>See Section 4A</p> <p>1 per 10 Sublots</p> <p>1/5 QC Samples (Random)</p>								
							Preproduced Aggregate							
							Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:							
							1. Continuing production records meeting the above requirements of Section 00711.10 and 711.15, Aggregate Production.							
							2. Furnish records of testing for the entire stockpile according to Section 00711.10 and 711.15 Aggregate Production except change the sampling frequency to the following:							
							a. One Per 5 sublots means "One Set of Tests Per 2500 Tons".							
							b. One Per subplot means "One Set of Tests Per 500 Tons" with a minimum of 3 sets of Sieve Analysis tests per project.							
							c. Provide one stockpile sample for each set of tests required above.							

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-734-	QUALITY ASSURANCE		
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager
SECTION 00711 - PRE-COATED AGGREGATE ASPHALT SURFACE TREATMENT (CONTINUED)							
Mixture Acceptance							
Meter Method	Readings backed by Tank Measure & Production Records Daily	TM 321 (1) TM 322			2277	1/Sublot or Min. 1/Day	
(1) Required at start of production and if meters fail to meet specification	Cold Feed Moisture		T 255/265		2043 and 2401	Daily Production	
Plant Discharge Moisture	Asphalt Mix Moist.		T 329		2277	1/Sublot or Min. 1/Day	
Asphalt Cement	Compliance		R 66		4000	1/50 Tons Submit All	1/5 QC Samples (Random)
A sublot equals 500 Tons. A minimum 1 per shift, whichever results in the greatest sampling frequency							

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE			
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00712 - DRY KEY EMULSIFIED ASPHALT SURFACE TREATMENT								
Aggregate Production								
<p>Abrasion Degradation Soundness Lightweight Pieces Dry Rodded Unit Weight</p> <p>Sampling Reducing⁽⁵⁾ Fracture (Method 1)⁽¹⁾ Wood Particles⁽¹⁾/⁽⁴⁾ Elongated Pieces⁽¹⁾ TM 229</p> <p>Sieve Analysis⁽²⁾ Cleaness Value⁽³⁾</p> <p>Dry Rodded Unit Weight</p> <p>Compliance</p>	TM 208		T 96	4000	See Section 4A	Submit to Central Lab	See Section 4A	
			T 104					
			T 113					
			T 19		4000			
			R 90					
			R 76					
			T 335		1792	1/Sublot & Start of Production	1 per 10 Sublots	
			T27/T 11		1792			
			T 19		1825	Start of production and when changes in aggregate occurs		
					1825C			
Asphalt Cement (Emulsion)			R 66	4000	1/50 Tons Submit All	Submit to Lab	1/5 QC Samples (Random)	
Preproduced Aggregate								
<p>Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:</p> <ol style="list-style-type: none"> Continuing production records meeting the above requirements of Section 00712.10 and 712.15, Aggregate Production. Furnish records of testing for the entire stockpile according to Section 00712.10 and 712.15 Aggregate Production except change the sampling frequency to the following: <ul style="list-style-type: none"> One Per 5 sublots means "One Set of Tests Per 2500 Tons". One Per sublot means "One Set of Tests Per 500 Tons" with a minimum of 3 sets of Sieve Analysis tests per project. Provide one stockpile sample for each set of tests required above. 								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager
SECTION 00715 - MULTIPLE APPLICATION EMULSIFIED ASPHALT SURFACE TREATMENT							
Aggregate Production							
<p>(1) QAE may waive after 5 sublots/shifts</p> <p>(2) Perform at least 3 tests (QL's required), QAE may waive wet sieve after 5 sublots/shifts if a correlation to dry sieve can be demonstrated</p> <p>(3) May be waived by QAE</p> <p>(4) Not required for Dry Key Material</p> <p>(5) 1/5 Sublots & Start of Production</p> <p>Asphalt Cement (Emulsion)</p>	Abrasion	TM 208	T 96	4000	See Section 4A	Submit to Central Lab	See Section 4A
	Degradation		T 104				
	Soundness		T 113				
	Lightweight Pieces		T 19				
	Dry Rodded Unit Weight		R 90				
	Sampling		R 76				
	Reducing		T 335				
	(5) Fracture (Method 1)		T27/T 11	1792	1/5 Sublot & Start of Production	1 per 10 Sublots	
	(1) Wood Particles	TM 225		1792			
	(1)(4) Elongated Pieces	TM 229					
(2) Sieve Analysis							
(3) Cleaness Value	TM 227						
Dry Rodded Unit Weight		T 19		Start of production and when changes in aggregate occurs			
Compliance		R 66		1/50 Tons Submit All	Submit to Lab		1/5 QC Samples (Random)
Preproduced Aggregate							
<p>Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:</p> <ol style="list-style-type: none"> Continuing production records meeting the above requirements of Section 00715.10 and 715.15, Aggregate Production. Furnish records of testing for the entire stockpile according to Section 00715.10 and 715.15 Aggregate Production except change the sampling frequency to the following: <ol style="list-style-type: none"> One Per 5 sublots means "One Set of Tests Per 2500 Tons". One Per sublot means "One Set of Tests Per 500 Tons" with a minimum of 3 sets of Sieve Analysis tests per project. Provide one stockpile sample for each set of tests required above. 							

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)			Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE				
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory	
SECTION 00720 - COLD IN-PLACE RECYCLED ASPHALT CONCRETE PAVEMENT (CIR)										
SECTION 00721 - COLD RECYCLED EMULSIFIED ASPHALT CONCRETE PAVEMENT (CRP)										
Asphalt Cement (Emulsified Recycling Agent)	Compliance			R 66	4000	See Section 4C 1/50 Tons (Submit All)	Submit to Central Lab			1/5 QC Samples (Random)
Water	Compliance				4000	See Sec.00340.10				
Aggregate Production Choke Aggregate (See 00705)	Sampling Reducing Sieve Analysis			R 90 R 76 T 27	1792	1/Sublot & Start of Production		Minimum 1/Project		
SECTION 00725 - HOT IN-PLACE RECYCLED (HIR) ASPHALT CONCRETE PAVEMENT										
<i>The type of recycling agent will be listed in the Special Provisions</i>										
Recycling Agent (See 00745.11)	Compliance			R 66	4000	See Section 4C	Submit to Lab			1/5 QC Samples (Random)
Recycling Agent	Compliance			R 66	4000	1/50 Tons	Submit to Lab			
Asphalt Concrete Mixture	New Asphalt Concrete mixture will meet the requirements of Section 00744									
SECTION 00730 - ASPHALT TACK COAT										
Tack	Compliance			R 66	4000	See Section 4C 1/50 Tons	Submit to Lab			1/50 Tons or All QC Samples

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)					
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE					
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory		
SECTION 00735 - EMULSIFIED ASPHALT CONCRETE PAVEMENT											
Aggregate production											
(1) Perform at least 3 tests, QL's required	Abrasion Degradation Soundness Lightweight Pieces	TM 208			T 96						
					T 104						
					T 113						
(2) May be waived by QAE	Sampling Reducing (1) Sieve Analysis (2) Cleaness Value Fracture (Method 1 & 2)	TM 227			R 90						
					R 76						
					T 27/T 11						
(3) QAE may waive after 5 sublots/shifts	(3) Elongated Pieces (3) Wood Particles	TM 229 TM 225			T 335						
Choke Aggregate											
	Sieve Analysis				T 27						
A Sublot equals 1000 Tons. A minimum one per shift, whichever results in the greatest sampling frequency. (For preproduced aggregates, 1 shift shall mean 1000 Tons)						1/Sublot	1/Project				
						1792	1/Sublot & Start of Production	1 per 10 Sublots			
						4000	See Section 4A	Submit to Lab			
						4000	See Section 4A		See Section 4A		

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00743 - POROUS ASPHALT CONCRETE (PAC)								
Aggregate Production								
(1) QAE may waive after 5 sublots/shifts (2) Not required for ATPB Mix (3) Coarse Agg (+ No. 4) (4) Fine Agg (- No. 4)	Soundness	TM 208			4000	See Section 4A	Submit to Lab	See Section 4A
	Abrasion							
	Degradation							
	Lightweight Pieces Plasticity Index							
	Sampling				1792	A Sublot equals 1000 Tons. A minimum one per shift whichever results in the greatest sampling frequency		
	Reducing							
	(3)/(4) Sieve Analysis							
	(1)/(4) Sand Equivalent							
	(1)/(2)/(3) Elongated Pieces TM 229				1792	1/5 Sublots & Start of Production		
	(3)/(4) Fracture (Method 2)							
	(1)/(2)/(3) Wood Particles TM 225							
Preproduced Aggregate								
Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:								
1. Continuing production records meeting the above requirements of Section 00743.10 Aggregate Production.								
2. Furnish records of testing for the entire stockpile according to Section 00743.10 Aggregate Production except change the sampling frequency to the following:								
a. One Per 5 sublots means "One Set of Tests Per 5000 Tons".								
b. One Per sublot means "One Set of Tests Per 1000 Tons" with a minimum of 3 sets of Sieve Analysis tests per project.								
c. Provide one stockpile sample for each set of tests required above.								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager
SECTION 00743 - POROUS ASPHALT CONCRETE (PAC) (CONTINUED)							
Mixture Acceptance - PAC with RAP							
Gradation							
Ignition method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.	
Ignition method	Sampling Reducing		T 168 R 47			1/Sublot or Min. 1/Day	
(Residual aggregate from AASHTO T 308)	Sieve analysis		T 30		2277	1/Sublot or Min. 1/day	
Asphalt Content							
Ignition Method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.	
Ignition Method	Sampling Reducing		T 168 R 47			1/Sublot or Min. 1/day	
Meter Method	Asphalt Content		T 308		2277		
(²) Required at start of production and if meters fail to meet specification	Readings backed by Tank measure & Production Records Daily	TM 321 (²) TM 322			2277	1/Sublot or Min. 1/day	
<u>Meter Method is required for PAC even when acceptance is by Ignition Method</u>					2043 and 2401	Daily Production	

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)		Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE				
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory	
SECTION 00743 - POROUS ASPHALT CONCRETE (PAC) (CONTINUED)										
Mixture Acceptance - PAC without RAP										
Gradation										
Cold Feed Method	Sampling Reducing Sieve Analysis		R 90 R 76 T 27/T 11		2277	A Sublot equals 1000 Tons				
						1/Sublot or Min. 1/Day				
Ignition method	Calibrate Incinerator	(1) TM 323			2327IC	1/JMF & Each Calendar Year.				
Ignition method	Sampling Reducing		T 168 R 47			1/Sublot or Min. 1/Day				
(1) Not required if Asphalt Content Accepted by Meter Method										
(Residual aggregate from AASHTO T 308)	Sieve analysis		T 30		2277	1/Sublot or Min. 1/day				
Asphalt Content										
Ignition Method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.				
Ignition Method	Sampling Reducing		T 168 R 47			1/Sublot or Min. 1/day				
(2) Required at start of production and if meters fail to meet specification	Asphalt Content		T 308		2277					
Meter Method	Readings backed by Tank measure & Production Records Daily	TM 321 (2) TM 322			2277	1/Sublot or Min. 1/day				
<u>Meter Method is required for PAC even when acceptance is by Ignition Method</u>					2043 and 2401	Daily Production				

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00743 - POROUS ASPHALT CONCRETE (PAC) (CONTINUED)								
Mixture Acceptance - PAC with and without RAP								
Mix Design Verification Testing								
	Cold Feed Moisture			T255/T265	2277	1/Sublot or Min. 1/Day		
Plant Discharge Moisture	Asphalt Mix Moist.			T 329	2277	1/Sublot or Min. 1/Day		
⁽¹⁾ If applicable	⁽¹⁾ RAP Moisture			T 329	2277	1/Sublot or Min. 1/Day		
	Readings backed by Tank measure & Production Records Daily	TM321 ⁽²⁾ TM 322			2401 & 2043	Daily Production		
Asphalt Cement	Compliance			R 66	4000	1/Sublot - See section 4C	Submit to Lab	1/5 QC Samples (Random)
⁽²⁾ Required at start of production and if meters fail to meet specification								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance
SECTION 00744 - ASPHALT CONCRETE PAVEMENT								
Aggregate Production								
Mixture Acceptance								
Gradation								
See Specifications when Aggregate Testing is Required by the Agency								
A Sublot equals 1000 Tons								
Ignition method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.		
Ignition method	Sampling Reducing		T 168 R 47			1/Sublot or Min. 1/Day		
(Residual aggregate from AASHTO T 308)	Sieve analysis		T 30		2277	1/Sublot or Min. 1/Day		
A Sublot equals 1000 Tons								
Asphalt Content								
Ignition Method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.		
Ignition Method	Sampling Reducing		T 168 R 47			1/Sublot or Min. 1/day		
	Asphalt Content		T 308		2277			
A Sublot equals 1000 Tons								
Mix Design Verification Testing								
Plant Discharge Moisture	Asphalt Mix Moist.		T 329		2277	1/Sublot		
Maximum Density Test G_{mm}	Max. Specific Gravity MAMD	TM 305	T 209		2050	1st Sublot Daily or Min. 1/Day		

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE					
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory		
SECTION 00744 - ASPHALT CONCRETE PAVEMENT (CONTINUED)											
Compaction	Nuclear Density			T 355	1793A						
											(D) Average 10 tests per Sublot or Min. 10/Day, See Section 00744.49

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE					
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory		
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)											
Mixture Acceptance - ACP Without RAP											
A Sublot equals 1000 Tons											
Gradation											
Ignition method	Calibrate Incinerator TM 323				2327IC	1/JMF & Each Calendar Year.			1/JMF & Each Calendar Year.		
Ignition method	Sampling Reducing		T 168 R 47			1/Sublot			1 per 10 Sublots		
(Residual aggregate from AASHTO T 308)	Sieve analysis		T 30		2277	1/Sublot			1 per 10 Sublots		
A Sublot equals 1000 Tons											
Asphalt Content											
Ignition Method	Calibrate Incinerator TM 323				2327IC	1/JMF & Each Calendar Year.			1/JMF & Each Calendar Year.		
Ignition Method	Sampling Reducing Asphalt Content		T 168 R 47 T 308			1/Sublot or Min. 1/day			1 per 10 Sublots		

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)							
Mixture Acceptance - ACP Without RAP							
Mix Design Verification Testing							
Fabrication	Gyratory Specimen	TM 326					
Maximum Density Test	Max. Specific Gravity		T 209	2050GV 2050 *5068 *2560 *5069	1/Sublot & according to Section 00745.16 (b)-1-d		1 per 10 Sublots
Determination of G_{mb}	Bulk Specific Gravity		T 166				
Stripping Susceptibility	Tensile Strength Ratio		T 283	2050tsr	1/JMF See Section 00745.16 (b)-1-f		
*Cat-II complete & submit as required, See Section 745.16(b)							
Plant Discharge Moisture	Asphalt Mix Moist.		T 329	2277	1/Sublot		
Maximum Density Test G_{mm}	Max. Specific Gravity MAMD	TM 305	T 209	2050	1st Sublot Daily or Min. 1/Day		
Performing Control Strip	Control Strip	TM 306		2084 *5069 1793A	Develop Rolling Pattern See Specs.		(D) 1 per 10 Sublots
Compaction	Nuclear Density		T 355		(D) Average 5 tests per Sublot or Min. 1/Day, See Section 00745.49 (b)-2		
Asphalt Cement	Compliance		R 66	4000	1/Sublot See Section 4C	Submit to Lab	1 per 10 Sublots
(D) See T 355 Yellow Sheet for Density Test Locations							1/5 QC Samples (Random)

A Sublot equals 1000 Tons

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)							
Mixture Acceptance - ACP Without RAP							
Mix Design Verification Testing	Meter Method				A Sublot equals 1000 Tons		
⁽²⁾ Required at start of production and if meters fail to meet specification	Readings backed by Tank Measure & Production Records Daily	TM 321			2277	1/Sublot or Min. 1/Day	1 per 10 Sublots
		⁽²⁾ TM 322			2043 and 2401	Daily Production	
Lime	Cold Feed Moisture			T 255/265	2277	1/Sublot or Min. 1/Day	1 per 10 sublots
Latex							
Lime or Latex Treatment of Aggregate (Stockpile OR Mixture Production)	Readings backed by Tank Measure & Production Records Daily	TM 321			2277	1/Sublot	1 per 10 Sublots
		⁽²⁾ TM 322			2277		
⁽³⁾ See JMF for Details					2043 and 2401	Daily Production	
Smoothness							
Certification of Profiler Equipment Determining Profile Index Determining International Roughness Index		TM 769 TM 770 TM 772				See Special Provisions	
Meter Method is required for ACP even when acceptance is by Ignition Method							

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)							
Mixture Acceptance - ACP With RAP							
Gradation							
Ignition method	Calibrate Incinerator	TM 323		2327IC	1/JMF & Each Calendar Year.	1/JMF & Each Calendar Year.	
Ignition method (Residual aggregate from AASHTO T 308)	Sampling Reducing Sieve analysis		T 168 R 47 T 30	2277	1/Sublot	1 per 10 Sublots	
Asphalt Content							
Ignition Method	Calibrate Incinerator	TM 323		2327IC	1/JMF & Each Calendar Year.	1/JMF & Each Calendar Year.	
Ignition Method	Sampling Reducing		T 168 R 47		1/Sublot or Min. 1/day	1 per 10 Sublots	
	Asphalt Content		T 308	2277			
RAP Percentage	Meter Method	TM 321 (1) TM 322		2277	1/Sublot or Minimum 1/Day	1 per 10 Sublots	
(1) Required at start of production and if meters fail to meet specification	RAP Moisture Cold Feed Moisture		T 329 T255/T265	2277			
<u>Meter Method is required for ACP even when acceptance is by Ignition Method</u>	Readings backed by Tank measure & Production Records Daily	TM 321 (1) TM 322		2401 & 2043	Daily Production		

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)							
Mixture Acceptance - ACP With RAP							
Mix Design Verification Testing							
Fabrication	Gyratory Specimen	TM 326					
Maximum Density Test	Max. Specific Gravity		T 209	2050GV 2050 *5068 *2560 *5069	1/Sublot & according to Section 00745.16 (b)-1-d		1 per 10 Sublots
Determination of G_{mb}	Bulk Specific Gravity		T 166				
Stripping Susceptibility	Tensile Strength Ratio		T 283	2050tsr	1/JMF See Section 00745.16 (b)-1-f		
*Cat-II complete & submit as required, See Section 745.16(b)							
Plant Discharge Moisture	Asphalt Mix Moist.		T 329	2277	1/Sublot		
Maximum Density Test G_{mm}	Max. Specific Gravity MAMD	TM 305	T 209	2050	1st Sublot Daily or Min. 1/Day		
Performing Control Strip	Control Strip	TM 306		2084 *5069	Develop Rolling Pattern See Specs.		
Compaction	Nuclear Density		T 355	1793A	(D) Average 5 tests per Sublot or Min. 1/Day, See Section 00745.49 (b)-2		(D) 1 per 10 Sublots
Asphalt Cement	Compliance		R 66	4000	1/Sublot See Section 4C	Submit to Lab	1 per 10 Sublots
(D) See T 355 YellowSheet for Density Test Locations							1/5 QC Samples (Random)

A Sublot equals 1000 Tons

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE		
		ODOT	WAQTC		AASHTO	Contractor Quality Control	Project Manager
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)							
Mixture Acceptance - ACP With RAP							
Mix Design Verification Testing							
Lime							A Sublot equals 1000 Tons
Latex							
Lime or Latex Treatment of Aggregate (Stockpile OR Mixture Production)							
⁽²⁾ Required at start of production and if meters fail to meet specification	Readings backed by Tank Measure & Production Records Daily	TM 321			2277	1/Sublot	1 per 10 Sublots
		⁽²⁾ TM 322			2277		
⁽³⁾ See JMF for Details					2401 and 2043	Daily Production	
Smoothness							
Certification of Profiler Equipment Determining Profile Index Determining International Roughness Index		TM 769 TM 770 TM 772				See Special Provisions	

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)			Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE			
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory
SECTION 00754 - PLAIN CONCRETE PAVEMENT REPAIR									
SECTION 00755 - CONTINUOUSLY REINFORCED CONCRETE PAVEMENT									
SECTION 00756 - PLAIN CONCRETE PAVEMENT									
SECTION 00758 - CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR									
Aggregate Production									
(1) QAE may waive after 5 sublots/shifts	Sampling Reducing (2)(3)(4) Sieve Analysis (4) Fineness Modulus (4) Sand Equivalent	R 90 R 76 T 27/T 11	1792	1792	1792	1792	1 per 10 Sublots	Submit to Central Lab	See Section 4A
(2) Perform a minimum of 3 tests, QL's required	(1)(3) Wood Particles (3) Fracture (Method 2) (1)(3) Elongated Pieces	TM 225 TM 229	1792	1792	1792	1792	1 per 10 Sublots	Submit to Central Lab	See Section 4A
(4) Fine Aggregate (See Section 02690.30)	Abrasion Degradation Soundness Lightweight Pieces Organics	TM 208	4000	4000	4000	4000	1 per 10 Sublots	Submit to Central Lab	See Section 4A
(3) Coarse Aggregate (See Section 02690.20)	(3) Dry Rodded Unit Weight (3)(4) Bulk Specific Gravity & Absorption	TM 208	1825	1825C	1825	1825	1 per 10 Sublots	Submit to Central Lab	See Section 4A
(4) Fine Aggregate (See Section 02690.30)	Abrasion Degradation Soundness Lightweight Pieces Organics	TM 208	4000	4000	4000	4000	1 per 10 Sublots	Submit to Central Lab	See Section 4A
(3) Coarse Aggregate (See Section 02690.20)	(3) Dry Rodded Unit Weight (3)(4) Bulk Specific Gravity & Absorption	TM 208	1825	1825C	1825	1825	1 per 10 Sublots	Submit to Central Lab	See Section 4A

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)				Same Frequency for all Tests (Minimums)				
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE						
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory			
SECTION 00754 - PLAIN CONCRETE PAVEMENT REPAIR SECTION 00755 - CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SECTION 00756 - PLAIN CONCRETE PAVEMENT SECTION 00758 - CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR (CONTINUED)												
Mixture										A Sublot equals 1000 lane feet of slip formed pavement or 100 yd ³ of non-slip formed PCC		
Portland Cement Modifiers Admixtures		Materials must meet the requirements of Section 02001.10										
Curing Compounds		Material must meet the requirements of Section 02050										
Mixing Water		Material must meet the requirements of Section 02020										
Mixture	Sampling Air Content Slump Density (Unit Weight) Yield Concrete Temperature Water/Cement Ratio Batching Strength	TM 2	T 152 T 119 T 121 T 121 T 309 T 121	3573WS or 4000C		1/ sublot or Minimum 1 per Day					1 per 10 Sublots	
(^S) 1 Set Represents a minimum of 3 Cylinders												
(^M) Per Mix Design & Source												
Smoothness Certification of Profiler Equipment Determining Profile Index		TM 769 TM 770				(^M) (^S) 1 Set of Cylinders per Sublot or Minimum 1 set per Day						
						See Special Provisions						
Thickness of Pavement	Sticking Measure	TM 775				See Specs						

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2018)				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	QUALITY ASSURANCE					
		ODOT	WAQTC	AASHTO		Contractor Quality Control	Project Manager	Region Quality Assurance	Materials Laboratory		
SECTION 00850 - COMMON PROVISIONS FOR PAVEMENT MARKINGS											
Placement Evaluation "Retroreflectivity"											
In-Place <i>Procedure evaluates Durable and High Performance Pavement Markings</i>	<i>Evaluation of Retroreflectivity Using Hand-Operated Instrument</i>	TM 777			4101 thru 4105			See Special Provisions and Test Procedure for Testing Frequency			

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				Same Frequency for all Tests (Minimums)										
(Revised November 2018)				QUALITY ASSURANCE										
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Contractor Quality Control	Independent Assurance/Verification							
		ODOT	WAQTC	AASHTO			Project Manager	Region Quality Assurance	Materials Laboratory					
SECTION 00921 - MAJOR SIGN SUPPORT DRILLED SHAFTS														
Aggregate Production								A Sublot equals 1,000 Tons						
(1) QAE may waive after 5 sublots/shifts (2) Perform a minimum of 3 tests, QL's required (3) Coarse Aggregate (See Section 02690.20) (4) Fine Aggregate (See Section 02690.30)	Sampling Reducing													
	(2)/(3)/(4) Sieve Analysis			R 90 R 76	1792	1/Sublot & Start of Production		1 per 10 Sublots						
	(4) Fineness Modulus			T 27/T 11 T 27/T 11	1792									
	(1)/(3) Wood Particles			T 176										
	(4) Sand Equivalent	TM 225												
Soundness Abrasion Degradation Lightweight Pieces Organics				T 104 T 96	4000	See Section 4A	Submit to Lab		See Section 4(A)					
		TM 208		T 113 T 21	4000									
	(3) Dry Rodded Unit Weight			T 19	1825 1825C	Start of production and when changes in aggregate occurs								
Portland Cement Modifiers Admixtures Drilling Slurry														
										Materials must meet the requirements of Section 02001.10	1825			
											1825C			
											1825			
Grout														
										Slurry material must meet the requirements of Section 00921.14 & 00921.43(g)				
										Material must meet the requirements of Section 02080				
Mixing Water														
										Material must meet the requirements of Section 02020				

FIELD TESTED MATERIALS ACCEPTANCE GUIDE

(Revised November 2018)

Same Frequency for all Tests (Minimums)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD				FORM 734-	QUALITY ASSURANCE											
		ODOT	WAQTC	AASHTO	Contractor Quality Control		Project Manager	Region Quality Assurance	Independent Assurance/Verification									
									Materials	Laboratory								
SECTION 00921 - MAJOR SIGN SUPPORT DRILLED SHAFTS																		
Portland Cement Concrete	Sampling Slump Concrete Temperature Density (Unit Weight) Yield Water/Cement Ratio Strength	TM 2	T 119 T 309 T 121 T 121 T 121	3573WS or 4000C	4000C	QA Testing	QA Testing											
							<i>(M)</i> ^(S) 1 per Shaft and Test at minimum frequencies according to table 00512-1. Review specs.											
							Projects under 100 yd³ all classes 1/Project representing all classes of PCC											
							Projects over 100 yd³ all classes 1/500 yd ³ per class minimum 1/class											
<p><i>(S)</i> 1 Set Represents a minimum of 3 Cylinders</p> <p><i>(M)</i> Per Mix Design & Source</p>																		
<p>TABLE 00512-1 Frequency of Quality Control Testing</p> <p>Minimum frequencies per Class of concrete based on daily production records.</p> <table border="1"> <thead> <tr> <th>Production</th> <th>Frequencies</th> </tr> </thead> <tbody> <tr> <td>0 to 100 yd³ on a single day</td> <td>1 Set each day</td> </tr> <tr> <td>Quantity Over 100 yd³ 100 to 600 yd³ on a single day</td> <td>1 Set per each 100 yd³ or portion thereof</td> </tr> <tr> <td>over 600 yd³ on a single day</td> <td>1 Set per each 200 yd³ or portion thereof after reaching 600 yd³</td> </tr> </tbody> </table>											Production	Frequencies	0 to 100 yd ³ on a single day	1 Set each day	Quantity Over 100 yd³ 100 to 600 yd ³ on a single day	1 Set per each 100 yd ³ or portion thereof	over 600 yd ³ on a single day	1 Set per each 200 yd ³ or portion thereof after reaching 600 yd ³
Production	Frequencies																	
0 to 100 yd ³ on a single day	1 Set each day																	
Quantity Over 100 yd³ 100 to 600 yd ³ on a single day	1 Set per each 100 yd ³ or portion thereof																	
over 600 yd ³ on a single day	1 Set per each 200 yd ³ or portion thereof after reaching 600 yd ³																	

