

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 2019)				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		T 99	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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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 00344 - TREATED SUBGRADE											
Granular Quicklime	Sieve Analysis			T 27	4000	1/Project or 1/Source	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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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 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		
Sand Drainage Blanket	Sampling Reducing Sieve Analysis			R 90 R 76 T 27/T 11	1792				
Establishing Maximum Density (for Compaction)	Density Curve			T 99	3468	1/Source and Type		1/Project	
Compaction	Bulk Specific Gravity			T 85	3468				
	Deflection Testing		TM 158		1793S	1 test per 3 ft. in depth			
	Deflection Testing Nuclear Gauge Coarse Particle Correction		TM 158	T 310 T 99	1793S	See Table 00360-1 Below		1 Test per 10 QC Tests per Table 00360-1	
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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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 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	Submit to Lab	See Section 4(A)		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	Submit to Lab	See Section 4(A)		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-	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	1792					
	(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			
	(3) Sand Equivalent									
(3) Fine Aggregate (See Section 02690.30)	Soundness			T 104 T 96	4000					
	Abrasion			T 113 T 21						
Portland Cement Admixtures	Degradation	TM 208				Start of production and when changes in aggregate occurs				
	Lightweight Pieces				1825					
	Organics				1825C 1825					
Mixing Water	(2) Dry Rodded Unit Weight			T 19		Two Test Panels per Mix Design & Two Panels per days Production See Section 00396.14(a)2	Submit to Central Lab			
	(2)(3) Bulk Specific Gravity & Absorption			T 84 & T 85						
Production Testing (See Section 00396.14)						Material must meet the requirements of Section 02010				
(S) 3 Cores minimum per Panel						Material must meet the requirements of Section 02020				
Compression Test Cores	(S) Test Panel					1/Set Cores per Test panel	Submit to Central Lab			
	Strength			T 22	4000C					

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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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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			1/Source or Gradation		
Rigid Pipe: Commercial 1" - 0 or 3/4" - 0 Aggregate					1792				Visual	
Establishing Maximum Density (¹) Method "A" & ODOT TM 223 for Dense Graded Base Aggregate	Density Curve				(¹) T 99					
	Bulk Specific Gravity				T 85			1/Source or Aggregate Gradation		
	Coarse Particle Correction				T 99					
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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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 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 (1) Method "A" & ODOT TM 223 for Dense Graded Base Aggregate	Density Curve			(1) T 99	3468				
	Bulk Specific Gravity			T 85	3468			1/Soil Type or Aggregate Gradation	
	Family of Curves			R 75	3468FC				
Compaction	Nuclear Gauge Coarse Particle Correction			T 310 T 99	1793S or 1793B			(C) 1 test per 300 ft. of Trench and every 1.5 ft. of Fill	
(C) Density testing is based on cumulative lineal feet of pipe placement.									
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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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 00430 - SUBSURFACE DRAINS																			
Granular Drain Backfill Material	Sampling Reducing Sieve Analysis			R 90 R 76 T 27	1792	A Sublot equals 1000 Tons													
										TM 208	T 96	4000	See Section 4A	Submit To Lab	See Section 4A				
																See section 405 for compaction requirements			
SECTION 00440 - COMMERCIAL GRADE CONCRETE																			
Special Filter Material See Section 00430.46(a)	Compaction																		
										Mixture	TM 2	T 152 T 121 T 121 T 119 T 309	3573WS or 4000 C	(S) 1 per each set of cylinders					
																Modifiers	Material must meet the requirements of Section 02030		
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 (See section 00440.14(a))			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	Region Quality Assurance
SECTION 00442 - CONTROLLED LOW STRENGTH MATERIALS (CLSM)								
CLSM Mixture	Mix Proportions Trial Batch Strength					1/Project or Source		
				T 22 & T 23				
						4000C		
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								
Excavation, bedding, pipe zone and trench backfill		See Section 00405 for pipes less than 72"						
Excavation, bedding, pipe zone and trench backfill		See Section 00510 for pipes greater than 72"						
Concrete Blocks		Material must meet the requirements of Section 00440						

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	QUALITY ASSURANCE	
		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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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 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 ACP Mixture Level 2, (1/2")		<i>Material must meet the requirements of Section 00744</i>							

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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 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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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 00510 - STRUCTURE EXCAVATION AND BACKFILL										
Soils, Soil/Aggregate Mixtures and Graded Aggregates										
Granular Structure Backfill (See Section 02630.10)	Sampling Reducing (¹) Sieve Analysis Fracture (Method 1) Sand Equivalent			R 90 R 76 T 27 T 335 T 176	1792	1/Sublot (Minimum 1/Project)				
				T 96	4000		Submit to Lab			
				T 90 T 11			See Section 4C 1/Source			
Product Compliance	Abrasion Degradation Plasticity Index Sieve Analysis	TM 208								
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				
<p style="text-align: center;">A Sublot equals 1,000 Tons</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.										

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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 00510 - STRUCTURE EXCAVATION AND BACKFILL (CONTINUED)									
Soils, Soil/Aggregate Mixtures and Graded Aggregates									
Granular Wall Backfill (See Section 02630.11) (¹) Perform a minimum of 3 tests QL's required	Sampling Reducing (¹) Sieve Analysis Fracture (Method 2)	TM 208	R 90 R 76 T 27 T 335	1792	1/Sublot (Minimum 1/Project)	Submit to Lab	A Sublot equals 1,000 Tons		Minimum 1/Project or 1/Source
Product Compliance	Abrasion Degradation	TM 208	T 96	4000	See Section 4C 1/Source				
(²) Compaction	(²) Deflection Testing	TM 158		1793B	1/Sublot (Minimum 1/Project)				
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	1792				
(1) QAE may waive after 5 sublots/shifts	(2)/(3)/(4) Sieve Analysis			T 27/T 11 T 27/T 11			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				4000				
(4) Fine Aggregate (See Section 02690.30)	(4) Sand Equivalent				4000		Submit to Lab		See Section 4(A)
Portland Cement Modifiers Admixtures	Soundness Abrasion Degradation Lightweight Pieces Organics	TM 208		T 104 T 96 T 113 T 21	1825 1825C 1825				
Drilling Slurry	(3) Dry Rodded Unit Weight			T 19					
	(3)/(4) Bulk Specific Gravity & Absorption			T 84 & T 85			Start of production and when changes in aggregate occurs		
	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								

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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					
									T 119 T 309 T 121 T 121 T 121	3573WS or 4000C						
									T22/23	4000C						
<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>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															

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)		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
							(A) 1 Anchor/Sublot or portion thereof (Minimum 1/Shift)	Visual per Sublot
Production Testing (See Section 00535.45(b))	Strength of Anchors in Concrete Elements	E 488			5189			
(A) Anchor testing is required per critical element identified in the Special Provisions or Plan Drawings.								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)			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					See Section 4A
(4) Fine Aggregate (See Section 02690.30)	(4) Sand Equivalent	TM 208		T 113 T 21	4000			Submit To Lab		
	Soundness Abrasion			T 19	1825 1825C					
	Degradation Lightweight Pieces Organics			T 84 & T 85	1825					
	(3) Dry Rodded Unit Weight									
	(3)(4) Bulk Specific Gravity & Absorption									
Portland Cement Modifiers Admixtures	Materials must meet the requirements of Section 02001.10									
Mixing Water	Material must meet the requirements of Section 02020									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-734-	Contractor Quality Control	QUALITY ASSURANCE		
		ODOT	WAQTC	AASHTO			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	(M) (S) Test at minimum frequencies according to table 00540-1. Review specs.	QA Testing		
							<u>Projects under 100 yd³ all classes</u> 1/Project representing all classes of PCC <u>Projects over 100 yd³ all classes</u> 1/500 yd ³ per class minimum 1/class		
TABLE 00540-1 Frequency of Quality Control Testing <u>Minimum frequencies per Class of concrete based on daily production records.</u> <u>Production</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									

(S) 1 Set Represents a minimum of 3 Cylinders

(M) Per Mix Design & Source

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)			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 2019)			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	Region Quality Assurance	Materials Laboratory
SECTION 00559 - SILICA FUME AND LATEX MODIFIED CONCRETE OVERLAYS									
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 T 27/T 11 T 176			1792 1792				
(2) Perform a minimum of 3 tests, QL's required									
(3) Coarse Aggregate (See Section 02690.20 & 00559.10)	(1)/(3) Elongated Pieces (1)/(3) Wood Particles	TM 229 TM 225			1792				
(4) Fine Aggregate (See Section 02690.30 & 00559.10)									
	Abrasion Degradation Soundness Lightweight Pieces Organics	TM 208			4000 4000				
	(3) Dry Rodded Unit Weight								
	(3)/(4) Bulk Specific Gravity & Absorption				1825 1825C 1825				
Portland Cement Modifiers Admixtures	Materials must meet the requirements of Section 02001.10								
Mixing Water	Material must meet the requirements of Section 02020								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE					(Revised November 2019)			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 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 T 121 T 121	3573WS or 4000 C	A sublot equals 1 set of tests per 50 yd3			1 per 10 Sublots		
						1 / Sublot or Minimum 1 per Shift				
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 2019)		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	T 96	See Section 4A	4000	See Section 4A	Submit to Lab	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	1/Sublot	1792	1792	1792	1792	1792	1792	1792
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	See Section 4C & 02690	4000	See Section 4C & 02690	Submit To Lab	See Section 4C	See Section 4C										
										A Sublot equals 1,000 Tons									
										Sampling Reducing ⁽²⁾ Sieve Analysis ⁽¹⁾ Wood Particles Fracture (Method 2) Elongated Pieces	R 90 R 76 T 27/T 11 T 335	1/Sublot	1792	1792	1792	1792	1792	1792	1792
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)	Abrasion Degradation Sieve Analysis	TM 208	T 96	See Section 4C	4000	See Section 4C	Submit To Lab	See Section 4C	See Section 4C										
										A Sublot equals 1,000 Tons									
										Sampling Reducing ⁽²⁾ Sieve Analysis ⁽¹⁾ Wood Particles Fracture (Method 2) Elongated Pieces	R 90 R 76 T 27/T 11 T 335	1/Sublot	1792	1792	1792	1792	1792	1792	1792
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)	Abrasion Degradation Sieve Analysis	TM 208	T 96	See Section 4C	4000	See Section 4C	Submit To Lab	See Section 4C	See Section 4C										
										A Sublot equals 1,000 Tons									
										Sampling Reducing ⁽²⁾ Sieve Analysis ⁽¹⁾ Wood Particles Fracture (Method 2) Elongated Pieces	R 90 R 76 T 27/T 11 T 335	1/Sublot	1792	1792	1792	1792	1792	1792	1792
A Sublot equals 1,000 Tons																			

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)			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	See Section 4C										
										Testing Frequency for Product Compliance per Source 1/5,000 Tons Minimum 1/Project									

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	Independent Assurance/Verification		
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	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	1792	1/Sublot				
								1792	1/5 Sublots
Placement	Establishing Maximum Density (¹) Method A	Density Curve	(1) T 99 T 85	3468					
								Bulk Specific Gravity	T 85
Nuclear Gauge	T 310	1793B	1/ 100 yd3 (Minimum 1/day)						
				Deflection Testing	TM 158	1793B	1 per layer		
								Visual See section 00596A.47 (c-5)	
<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>									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)			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	A Sublot equals 1,000 Tons Minimum 1/Project					
														1792	1/Sublot			
														1792	1/5 Sublots			
⁽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)	A Sublot equals 1,000 Tons						
⁽³⁾ Modular Block Core and Drainage 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 1792	1/Sublot												
											Abrasion Degradation Sieve Analysis	T 96	4000	See Section 4C	Submit To Lab	See Section 4C		
																	1792	1/Sublot
																	4000	1/Sublot

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)		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													
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	See Section 4C	Testing Frequency for Product Compliance per Source 1/5,000 Tons Minimum 1/Project			

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)			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		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 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		T 310	3468	1/100 yd ³ (Minimum 1/day)			
					1793B				
					1793B				
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 2019)			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	R 90 R 76 T 27	4000	See Section 4C	Submit To Lab		See Section 4C				
											4000	1/Sublot	
Retaining Wall Granular Backfill Retaining Wall Granular Backfill (Product Compliance) (Also reference 02630.10)	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		
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		1792	1/Sublot							
											1792	1/5 Sublots	

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)			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						
	Nuclear Gauge			T 310	1793B	1/ 100 yd3 (Minimum 1/day)			
	Deflection Testing		TM 158		1793B	1 per layer			
							Visual See section 00596C.42(f)		
<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>									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)				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
SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS							
Aggregate Production	Abrasion			T 96	4000	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	Visual	
Aggregate Base and Shoulders	Abrasion Degradation	TM 208		T96	4000	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	1792	1/Sublot & Start of Production	1 per 10 Sublots
Aggregate Shoulder (See 02640)	(1) Sieve Analysis						
Open Graded Aggregate Base (See 02630.11)	(2) Sand Equivalent						
	Fracture (Method 1)			T 335	1792	1/5 Sublots & Start of Production	
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	1792	1/Sublot or minimum 1/Day	1 per 10 Sublots
Establishing Maximum Density & Optimum Moisture (Mix Design)	Density Curve Coarse Particle Correction	TM 223		(3) T 99	3468 B	Each Size per Source	1/Project
Compaction	Bulk Specific Gravity			T 85	3468 B		
	Deflection Testing Nuclear Gauge	TM 158		T310	1793B	1 per Sublot	
(D) (Individual tests must meet Specification)					1793B	(D) 5 Tests Per Sublot	(D) 1 (5 Tests) per 10 Sublots

FIELD TESTED MATERIALS ACCEPTANCE GUIDE					(Revised November 2019)			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 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 2019)		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 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			R 90 R 76 T 27 T 176	1792	1/Sublot & Start of Production				
	(1) Sieve Analysis (2) Sand Equivalent				1792					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	TM 227		R 90 R 76 T 27	1792	1/Sublot & Start of Production				1 per 10 Sublots
	(1) Cleanness Value				1792					
	Abrasion Degradation	TM 208		T 96 T 113	4000	See Section 4A	Submit to Lab			See Section 4A
	Lightweight Pieces				4000					
	Fracture (Method 1) Elongated Pieces Wood Particles	TM 229 TM 225		T 335	1792	1/5 Sublots & Start of Production				1 per 10 Sublots
					1792					

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)		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 2019)		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									
	Material must meet the requirements of Section 00706.16									
Mixture	Material must meet the requirements of Section 00706.16									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)		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 (4) Not required for Dry Key Material (5) 1/5 Sublots & Start of Production	Abrasion	TM 208	T 96	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	See Section 4A	
	Degradation		T 104							
	Soundness		T 113	4000						
	Lightweight Pieces		T 19							
	Dry Rodded Unit Weight		R 90							
(1) Wood Particles (1)(4) Elongated Pieces (2) Sieve Analysis (3) Cleanness Value	Sampling Reducing	TM 225	T 335	1792	1/5 Sublot & Start of Production					
	(5) Fracture (Method 1)	TM 229	T 27/T 11	1792						
		TM 227								
Asphalt Cement (Emulsion)	Dry Rodded Unit Weight		T 19	1825	production and when changes in aggregate occurs					
	Compliance		R 66	4000						
										1/50 Tons Submit All
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 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 TM 229</p> <p>TM 227</p>	<p>T 96</p> <p>T 104 T 113 T 19</p> <p>R 90 R 76 T 335</p> <p>T27/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 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>1 per 10 Sublots</p>	<p>See Section 4A</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
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⁾ 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
			T 27/T 11	1792			
			T 19	1825	Start of production and when changes in aggregate occurs		
			R 66	1825C			
Asphalt Cement (Emulsion)			4000	1/50 Tons Submit All	Submit to Lab	1/5 QC Samples (Random)	
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 00712.10 and 712.15, Aggregate Production.							
2. 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:							
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
SECTION 00715 - MULTIPLE APPLICATION EMULSIFIED ASPHALT SURFACE TREATMENT								
Aggregate Production								
<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</p> <p>⁽¹⁾⁽⁴⁾ Elongated Pieces</p> <p>⁽²⁾ Sieve Analysis</p> <p>⁽³⁾ Cleaness Value</p> <p>Dry Rodded Unit Weight</p> <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>	TM 208	T 96 T 104 T 113 T 19	4000	See Section 4A	Submit to Central Lab	1 per 10 Sublots	See Section 4A	
	TM 225 TM 229 TM 227	T 27/T 11	1792 1792	1/5 Sublot & Start of Production				
		T 19	1825 1825C	Start of production and when changes in aggregate occurs				
		R 66	4000	1/50 Tons Submit All	Submit to Lab		1/5 QC Samples (Random)	
	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 00715.10 and 715.15, Aggregate Production.							
	2. 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:							
	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				(Revised November 2019)			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 2019)		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	4000					See Section 4A		
						4000						Submit to Lab	
						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							
(2) May be waived by QAE	Sampling Reducing (1) Sieve Analysis (2) Cleanness Value Fracture (Method 1 & 2)	TM 227			R 90 R 76 T 27/T 11 T 335	1792					1 per 10 Sublots		
						1792						1/Sublot & Start of Production	
						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							
(3) QAE may waive after 5 sublots/shifts	Sieve Analysis				T 27	1792					1/Sublot	1/Project	
Choke Aggregate													

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	Region Quality Assurance
SECTION 00735 - EMULSIFIED ASPHALT CONCRETE PAVEMENT (CONTINUED)								
Mixture Acceptance					A Sublot equals 1000 Tons of Mixture			
% Emulsified Asphalt ⁽¹⁾ Required at start of production and if meters fail to meet specification	Sampling Reducing Sieve Analysis Moisture Content			R 90 R 76 T 27/T 11 T 255	1/Sublot		1 per 10 Sublots	
	Meter Backed by Tank Measure Daily	TM 321 ⁽¹⁾ TM 322			Daily Production			
	Compliance							
Emulsified Asphalt Cement				R 66		See Section 4C 1/Sublot (Submit All)	Submit to Lab 1 per 10 Sublots	1/5 QC Samples (Random)
SECTION 00740 - COMMERCIAL ASPHALT CONCRETE PAVEMENT (CACP)								
					See Specifications when Testing is Required by Agency			

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	1/Sublot & Start of Production		
	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	Region Quality Assurance
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		R 97 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		R 97 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 2019)		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		R 97 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		R 97 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
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
⁽²⁾ Required at start of production and if meters fail to meet specification							1/5 QC Samples (Random)

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 00744 - ASPHALT CONCRETE PAVEMENT							
Aggregate Production		See Specifications when Aggregate Testing is Required by the Agency					
Mixture Acceptance		A Sublot equals 1000 Tons					
Gradation		A Sublot equals 1000 Tons					
Ignition method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.	
Ignition method	Sampling Reducing			R 97 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			R 97 R 47		1/Sublot or Min. 1/day	
	Asphalt Content			T 308	2277		
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 2019)				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 00744 - ASPHALT CONCRETE PAVEMENT (CONTINUED)											
Compaction	Nuclear Density			T 355	1793A						

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 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)							
Mixture Acceptance - ACP " With and Without RAP"							
A Sublot equals 1000 Tons							
Gradation	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.	1/JMF & Each Calendar Year.
Ignition method	Sampling Reducing Sieve analysis		R 97 R 47 T 30		2277	1/Sublot	1 per 10 Sublots
(Residual aggregate from AASHTO T 308)							
Asphalt Content							
A Sublot equals 1000 Tons							
Ignition Method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.	1/JMF & Each Calendar Year.
Ignition Method	Sampling Reducing		R 97 R 47			1/Sublot or Min. 1/day	1 per 10 Sublots
	Asphalt Content		T 308		2277		
⁽²⁾ RAP Percentage	Meter Method	TM 321			2277	1/Sublot or Minimum 1/Day	1 per 10 Sublots
⁽²⁾ If applicable		⁽¹⁾ TM 322					
⁽¹⁾ Required at start of production and if meters fail to meet specification	⁽²⁾ 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 ACP	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 and Without RAP"							
Mix Design Verification Testing							
Fabrication	Gyratory Specimen	TM 326					
Maximum Density Test	Max. Specific Gravity		T 209	2050GV 2050	1/Sublot & according to Section 00745.16 (b)-1-d		1 per 10 Sublots
Determination of G_{mb}	Bulk Specific Gravity		T 166	*5068 *2560 *5069			
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)

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)			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

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)			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					4000C			^(M) ^(S) 1 Set of Cylinders per Sublot or Minimum 1 set per Day	1 per 10 Sublots
^(M) Per Mix Design & Source									
Smoothness Certification of Profiler Equipment Determining Profile Index		TM 769 TM 770						See Special Provisions	
Thickness of Pavement	Sticking Measure	TM 775						See Specs	

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2019)				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)															
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 00921 - MAJOR SIGN SUPPORT DRILLED SHAFTS																			
Aggregate Production																			
(1) QAE may waive after 5 sublots/shifts	Sampling Reducing (2)/(3)/(4) Sieve Analysis (4) Fineness Modulus (1)/(3) Wood Particles (4) Sand Equivalent	TM 225		R 90 R 76 T 27/T 11 T 27/T 11	1792	1/Sublot & Start of Production	1 per 10 Sublots	See Section 4(A)											
									TM 208		T 104 T 96 T 113 T 21	4000	See Section 4A	Submit to Lab					
															(3) Dry Rodded Unit Weight		T 19	1825 1825C	Start of production and when changes in aggregate occurs
Portland Cement Modifiers Admixtures	Materials must meet the requirements of Section 02001.10																		
									Drilling Slurry	Slurry material must meet the requirements of Section 00921.14 & 00921.43(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 2019)

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 00921 - MAJOR SIGN SUPPORT DRILLED SHAFTS																		
Portland Cement Concrete	Sampling Slump	TM 2						QA Testing										
	Concrete Temperature																	
	Density (Unit Weight)																	
	Yield																	
	Water/Cement Ratio																	
	Strength																	
<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><u>Minimum frequencies per Class of concrete based on daily production records.</u></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><u>Quantity Over 100 yd³</u></td> <td></td> </tr> <tr> <td>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	<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
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