

SAMPLING AND TESTING GUIDE

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY			LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE	INDEPENDENT ASSURANCE		
621									
CONCRETE BARRIER									
Concrete Ingredients Agents									
Portland Cement	Portland Cement	Air Content T137	DOT-175 Ga175						
		Fineness M85							
		Autoclave M85							
		Compressive Strength M85							
		Vicat T131							
Chemical M85									
Portland Pozzolan Cement	Portland Pozzolan Cement	Air Content T137	DOT-175 Ga175						
		Fineness M240							
		Autoclave M240							
		Compressive Strength M240							
		Vicat T131							
Chemical M240									
Fly Ash	Fly Ash	Physical & Chemical ASTM C311	DOT-175 Ga175	10 lbs.	QPL-30	One per Quarter, per Source, per District			
		Fineness M295							
		Activity M295							
		Soundness M295							
		Density M295							
Chemical M295									
Fine Aggregate	Fine Aggregate	Gradation T27	DOT-658 Ga658	20 lbs.	One per 500 tons based upon QPL-1, except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	QPL-1 Sources, 1 per month , per active plant, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.			
		Sand Equivalent GDT-63							
Coarse Aggregate	Coarse Aggregate	Wash 200 T11	DOT-658 Ga658	45 lbs.	One per 1,500 tons based upon QPL-2, except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	QPL-2 Sources, 1 per month , per active plant, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.			
		Gradation T27							
Water	Water	Quality of Water to be Used in Concrete T26	Ga088	1 qt.*	One per unpotable Source, per month			Enough in advance so that results are known before use	*non-metal container
Air Entrainment Admixtures	Air Entrainment Admixtures	Air-Entraining Admixtures for Concrete M154	T152	1 qt.	QPL-13	One per 6 months, per Source, per District		Ready Mix Plant Stock	

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	Chemical Admixtures	Chemical Admixtures for Concrete M194	T152	1 qt.	QPL-14	One per 6 months, per Source, per District		Ready Mix Plant Stock	
	Deck Oil		GACERT						
	Steel Bars for Reinforcement	Number M31M Weight M31M Dimensions M31M Deformation Spacing M31M Height & Gap M31M Tensile Strength T244 Yield Strength T244 Elongation T244 Bend Test T285 Chemical M31M	Reinforce ment Test Report Ga166	2 pcs. @ 24" per size	QPL-12 & QPL-61	Random sampling at Fabricator			
Joint Fillers & Sealers									
	Preformed Joint Filler	M153 or M213	Misc. GACERT	10"	QPL-20			Stock	Sample in accordance with SOP-17
	Hot Pour Joint Sealers	Penetration GDT-62 Flow GDT-62 Resilience GDT-62 Bond GDT-62 Compatibility GDT-62	Misc. GACERT	1 kit	Pre-inspected by Central Lab; 1 sample per shipment			Stock	
	Elastomeric Polymer Type Joint Compound	Cone Penetration GDT-15 Solubility GDT-15 Resilience GDT-15 Flow GDT-15 Bond GDT-15	Misc. GACERT	1 kit	Pre-inspected by Central Lab & Certified Mill Test Report; 1 sample per shipment			Stock	
	Preformed Elastic Joint Sealer	Tensile Strength ASTM D412 Elongation at Break ASTM D412 Hardness ASTM D2240 Oven Aging ASTM D573 Oil Swell ASTM D471 Ozone Resistance ASTM D1149 Joint Sealer Recovery GDT-47 Compression/Deflection GDT-70	Misc. GACERT	36"	Pre-inspected by Central Lab & Certified Mill Test Report; 1 sample per shipment			Stock	
	Water-Blown Urethane Joint Filler	Specification 833.05	Misc. GACERT		Certified Mill Test Report				
	Silicone Sealant	Tensile Stress ASTM D412 Hardness ASTM D2240 Bond GDT-106 Tack Free Time GDT-106 Extrusion GDT-106 Non-Volatile GDT-106	Misc. GACERT		QPL-66 or 1 sample per batch, per Type			Stock	

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		Specific Gravity <i>ASTM D792</i>							
		Adhesion <i>GDT-106</i>							
		Resistance <i>ASTM C793</i>							
Bond Breakers -Rods		Density <i>ASTM D1622</i>	Misc. GACERT	6 ft	Pre-inspected by Central Lab & Certified Mill Test Report; 1 sample per shipment		Stock		
		Tensile Strength <i>ASTM D1623</i>							
		Water Absorption <i>ASTM C1061</i>							
Bond Breakers -Tape		Thickness	Misc. GACERT		Certified Mill Test Report				
Neoprene for Bridge Deck Joint Seal		<i>Specification 833.07</i>	Misc. GACERT		Certified Mill Test Report				
Ethylene Propylene Diene Monomer for Bridge Deck Joint Seals		<i>Specification 833.08</i>	Misc. GACERT		Certified Mill Test Report				
Polyurethane Sealant for Inductive Loops		Hardness <i>ASTM D2240</i>	Misc. GACERT		QPL-75				
		Tensile Strength <i>ASTM D412</i>							
		Elongation <i>ASTM D412</i>							
		Flexibility Weather Resistance <i>ASTM D822</i>							
Preformed Foam Joint Filler		<i>Specification 833.10</i>	Misc. GACERT		Certified Mill Test Report				
Concrete		Strength <i>GDT-35 & T22</i>	DOT-319 T152	2 cylinders	See NOTE 1		Observe 1 set per 1500 yd ³	During pouring operation	Cylinders to be tested in Branch or Central Lab
NOTE 1: One set per each 75 yd ³ or fraction thereof placed daily, except for Concrete barrier placed with slip form equipment. Two cylinders shall be fabricated for each 150 yd ³ or fraction thereof placed daily.									
		Air <i>GDT-26 or GDT-32</i>							
		Slump <i>GDT-27</i>		See NOTE 2			Observe 1 set per 1500 yd ³	During pouring operation	
		Mix Temperature <i>GDT-122</i>							
NOTE 2: Air, Slump & Mix Temperature tests are required when cylinders are made & as judged necessary to insure adequate control.									

627									
MECHANICALLY STABILIZED EMBANKMENT RETAINING WALLS	Reinforcing Strips	Charpy ASTM E23	Misc. GACERT		Certified Mill Test Report				
		Dimensions							
		Yield Strength ASTM A709							
		Tensile Strength ASTM A709							
		Elongation ASTM A709							
		Reduction of Area ASTM A709							
		Hardness ASTM A709							
		Chemical ASTM A709							
	Reinforcing Mesh	Size ASTM A185	Welded Wire Test Report GACERT		Pre-inspected by Central Lab Personnel & serially numbered GDT tag attached				
		Diameter ASTM A185							
		Area ASTM A185							
		Tensile Strength T244							
		Yield Strength T244							
		Area Reduction T244							
		Bend Test ASTM A185							
		Weld Shear Strength ASTM A185							
		Width ASTM A185							

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		Length <i>ASTM A185</i>								
		Spacing <i>ASTM A185</i>								
	Connecting Devices	<i>As Specified</i>	GACERT		Certified Mill Test Report				Independent Assurance: sample occasionally	
	Fasteners	Chemical <i>ASTM A325</i>	Misc. GACERT							
		Yield Strength <i>ASTM A325</i>								
		Tensile Strength <i>ASTM A325</i>								
		Elongation <i>ASTM A325</i>								
		Reduction of Area <i>ASTM A325</i>								
		Hardness <i>ASTM A325</i>								
		Length								
		Diameter								
	Thread Class									
	Galvanization <i>ASTM A153</i>									
	Attachments	Size <i>ASTM A82</i>	Reinforce-ment Test Report GACERT							
		Diameter <i>ASTM A82</i>								
		Area <i>ASTM A82</i>								
		Tensile Strength <i>T244</i>								
		Yield Strength <i>T244</i>								
		Area Reduction <i>T244</i>								
		Bend Test <i>ASTM A82</i>								
Galvanization <i>ASTM A123</i>										
Concrete										
		Compressive Strength <i>GDT-35 & T22</i>	Misc. T152							
Portland Cement	Air Content <i>T137</i>	DOT-175 Ga175			QPL-3					
	Fineness <i>M85</i>									
	Autoclave <i>M85</i>									
	Compressive Strength <i>M85</i>									
	Vicat <i>T131</i>									
Chemical <i>M85</i>										

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					ACCEPTANCE	QUALITY ASSURANCE	INDEPENDENT ASSURANCE			
	Fine Aggregate	Gradation T27	DOT-658 Ga658	20 lbs.	One per 500 tons based upon QPL-1, except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	QPL-1 Sources, 1 per month, per active plant, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.				
		Sand Equivalent GDT-63								
	Coarse Aggregate	Wash 200 T11	DOT-658 Ga658	35 lbs.	One per 1,500 tons based upon QPL-2, except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	QPL-2 Sources, 1 per month, per active plant, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.				
		Gradation T27								
	Mechanically Stabilized Embankment	In Place Density GDT-24 GDT-59	DOT-553		One per wall per day.					
	Joint Fillers									
	Plastic Filter Fabric - Woven	Tensile Strength ASTM D4632	Misc. GACERT		QPL-28					
		Bursting Strength ASTM D3786								
		Elongation ASTM D4632								
		Percent Open Area GDT-88								
Plastic Filter Fabric – Non-Woven	Puncture Resistance ASTM D4833	Misc. GACERT		QPL-28						
	Grab Tensile Strength ASTM D4632									
	Grab Elongation ASTM 4632									

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				SIZE OF SAMPLE	ACCEPTANCE	QUALITY ASSURANCE	
		Flowrate GDT-87					
	Bearing Pads	Dimensions	Misc. GACERT				
		Hardness ASTM D2240					
	Granular Backfill	Physical & Chemical Analysis As Specified	DOT-658 Ga658		Approved by Central Lab Personnel		Prior to use
	Coating for Soil Reinforcing Devices	Determination of Zinc Coating Thickness Gauge GDT-82	GACERT				Occasionally*
		Epoxy Coated Systems					
	Wall Panels				QPL-9, Plant Shipping Report (OMR-122) & Official Plant Stamp		