

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
500								
CONCRETE STRUCTURES	Portland Cement	Air Content T137	DOT-175	10 lbs.	QPL-3	One per Quarter, per Source, per District	Stock	
		Fineness M85						
		Autoclave M85						
		Compressive Strength M85						
		Vicat T131						
		Chemical M85						
	Portland Pozzolan Cement	Air Content T137	DOT-175	10 lbs.	QPL-30	One per Quarter, per Source, per District	Stock	
		Fineness M240						
		Autoclave M240						
		Compressive Strength M240						
		Vicat T131						
		Chemical M240						
	Portland Slag Cement	Air Content Fineness M240	DOT-175	10 lbs.	QPL-30	One per Quarter, per Source, per District	Stock	
	Fly Ash	Physical & Chemical ASTM C311	DOT-175	10 lbs.	QPL-30	One per Quarter, per Source, per District	Stock	
		Fineness M295						
		Activity M295						
		Soundness M295						
		Density M295						
		Chemical M295						
	Slag	Fineness M302	DOT-175	10 lbs.	QPL-30	One per Quarter, per Source, per District	Stock	
		Activity M302						
Soundness M302								
Density M302								
Chemical M302								
Coarse Aggregate	Wash 200 T11	DOT-658	35 lbs.	One per month, per active plant. 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.	Stock or Conveyor Belt		

	Gradation T27						
Fine Aggregate	Gradation T27	DOT-658	20 lbs.	One per month per active plant. One per 500 tons based upon QPL-1;	QPL-2 Sources, 1 per month, per active	Stock or Conveyor Belt	
	Sand Equivalent GDT-63						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Wash 200 T11			except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	plant, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.		
	Water	Quality of Water to be Used in Concrete T26	DOT-088	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-Entraining Admixtures for Concrete M154	DOT-168	1 qt.	QPL-13	One per 6 months, per Source, per District	Ready Mix Plant Stock	
	Chemical Admixtures	Chemical Admixtures for Concrete M194	DOT-168	1 qt.	QPL-14	One per 6 months, per Source, per District	Ready Mix Plant Stock	
	Steel Bars for Reinforcement	Number M31M	DOT-166	1 pc @ 24" per size	QPL-12 & QPL-61 w/Certified Mill Test Reports.	Random sampling at Fabricator	Supplier, Fabricator or Jobsite storage	
		Weight M31M						
		Dimensions M31M						
		Deformation Spacing M31M						
		Height & Gap M31M						
		Tensile Strength T244						
		Yield Strength T244						
	Elongation T244							

Steel Wire for Reinforcement	Bend Test T285	Certification	1 pc @ 24" per size/dia	Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock	
	Chemical M31M						
	Size M32M						
	Diameter M32M						
	Area M32M						
	Tensile Strength T244						
	Yield Strength T244						
	Area Reduction T244						
Welded Steel Wire Fabric for Reinforcement	Bend Test M32M	Certification	2' X 2'	QPL-55 w/Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock	
	Size M55M						
	Diameter M55M						
	Area M55M						
	Tensile Strength T244						
	Yield Strength T244						
Area Reduction T244							

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Bend Test M55M						
		Weld Shear Strength M55M						
		Width M55M						
		Length M55M						
		Spacing M55M						
Permanent Steel Bridge Deck Forms		ASTM A446 & ASTM A525	Certification		Certified Mill Test Report			
Prestress Stay-In-Place Panels (SIPS)			OMR-122		QPL-9, OMR-122 & Plant Stamp			
Dowel Bars		Number M31M	DOT-166A	3 bars in basket assembly	QPL-43 w/Certified Mill Test Report			*N/A for Plain Dowel Bars
		Weight M31M						
		Dimensions M31M						
		Deformation Spacing M31M*						
		Height & Gap M31M*						
		Tensile Strength T244						
Yield Strength T244								

	Elongation T244						
	Bend Test T285						
	Chemical M31M						
	Coating 853.08						
Damproofing or Waterproofing Membrane	Specification Requirements M115, M118 or M121	Certification	1 qt.	One per Type, per Source		Before application	
Curing Agent	Specification for Liquid Membrane Curing M148	DOT-168		QPL-16		Stock	
Concrete	Compression Strength GDT-35 & T22	DOT-319	2 cylinders	See NOTE 1			
NOTE 1: One set per each 50 yd ³ of each Class of Concrete placed daily for each structure, except for Concrete used in Bridge Curb, Handrail or Wall Coping. Two Concrete cylinders shall be fabricated for each cumulative 50 yd ³ or fraction thereof, of Concrete placed per week in each structure. Cylinders shall not be fabricated at one structure to represent Concrete placed in another structure.							
	Air Content GDT-26 or GDT-32					Placement site	Additional Slump test will be required when Water is added on Project
		DOT-319	See NOTE 2	When cylinders are made			
	Slump GDT-27						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	GUIDE FREQUENCY			LOCATION OR TIME OF SAMPLING	REMARKS
				SIZE OF SAMPLE	ACCEPTANCE	QUALITY ASSURANCE		
		Mix Temperature GDT-122						
NOTE 2: Air, Slump & Mix Temperature tests are all required when cylinders are made & as judged necessary to insure adequate controls. Additional tests are recommended at least every third load on bridge deck placement.								
	<u>Bridge Deck Thickness</u>	<u>Thickness Measurement GDT-131</u>		<u>One ¾ inch boring</u>	<u>One per 5 spans</u>		<u>After all phases of bridge deck slab construction are completed</u>	
	Concrete for Pipe Head-Walls, Spillways, Slope Drains, Highway Signs Guardrails, Misc. Drainage Structures, Highway Light, Fence, see	Air Content GDT-26 & GDT-35					During pouring operation	
		Slump GDT-27	DOT-319	See NOTE 3				

Note 4	<p>NOTE: Acceptance of Concrete for these items is based upon results of Slump, Air & Mix Temp. tests & the properly documented DOT-319. No cylinders are required. Air & Slump tests are performed as judged necessary to insure adequate control. NOTE 4: For items listed and not listed, refer to the Pay Item for additional acceptance requirements.</p>							
Concrete used in mow strips under cable barrier	<p>Note: Acceptance of Concrete for this item is based upon results of Slump, Air, Mix Temp. & cylinders documented on DOT-319. Cylinders are required at a frequency of 1 set per 350 cubic yards or one set per week per plant.</p>							
Silicone Sealant	Tensile Stress ASTM D412 Durometer ASTM D2240 Bond GDT-106 Tack Free Time GDT-106 Extrusion GDT-106 Non-Volatile GDT-106 Specific Gravity ASTM D792 Adhesion GDT-106 Resistance ASTM C793	Misc. DOT-168 Certification		QPL-66				
Epoxy Adhesive	Pot Life GDT-58 Bond Strength GDT-58 Shelf Life Viscosity ASTM D1084 Specific Gravity Condition	Misc. DOT-168 Certification	1 kit	QPL-15 or 1 sample, per batch, per Type		Stock		
Graffiti-Proof Coating		Certification		QPL-42				
501								
STEEL STRUCTURES	Structural Steel	Charpy ASTM E23	Certification	6" X 24" per heat number (4" length is in direction of roll; main members	Certified Mill Test Report, preinspected by Office of Materials & GDT stamped		Fabrication shop	Sampling in Accordance with SOP-8 & Supplemental Specifications 501.01

			only)				
	Thickness						
	Yield Strength ASTM A370						
	Tensile Strength ASTM A370						
	Elongation ASTM A370						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Reduction of Area ASTM A370						
		Hardness ASTM A370						
		Chemical ASTM A709						
	Cold Finished Carbon Shafting	Chemical M169						
		Certification	Certification		Certified Mill Test Report			
	Steel Castings	Chemical M103						
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244	Certification		Certified Mill Test Report			
		Reduction of Area T244						
		Dimensions						
		Certification						
	Paints	Pigment ASTM D2371						
		Non-Volatile Vehicle						
		Grind						
		Viscosity ASTM D562						
		Dry Time ASTM D711	Certification	1 qt.	Approved by Office of Materials			
		Percent Volatile						
		Weight per Gallon ASTM D1475						
		Color						
		Certification						
	Steel Bolts, Nuts &	ASTM A307						
		Chemical ASTM F568	Certification	3 bolts	Certified Mill Test Report		Stock	Independent Assurance: sample occasionally

	Washers	Yield Strength ASTM F606						
		Tensile Strength ASTM F606						
		Elongation ASTM F606						
		Reduction of Area ASTM F606						
		Hardness ASTM F606						
		Length						
		Diameter						
		Thread Class						
		Galvanization ASTM A90 or ASTM E376						
High Tensile Strength Bolts,	ASTM A325 & ASTM A490	Certification	3 bolt assemblies	Certified Mill Test Report		Fabricator or Supplier	Sample for each Project	

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Nuts & Washers	Chemical ASTM F568		(bolt, washers, nut), per Rotational Capacity Lot Number (RCP)				
		Yield Strength ASTM F606						
		Tensile Strength ASTM F606						
		Elongation ASTM F606						
		Reduction of Area ASTM F606						
		Hardness ASTM F606						
		Rotation ASTM A325						
		Diameter						
		Thread Dimension						
		Galvanization ASTM A90 or ASTM E376						
	Anchor Bolts	Grade As Specified on Plans	Certification	1 bolt per diameter, per Heat Number, per Project			Fabricator or Supplier	
		Yield Strength T244						
		Tensile Strength T244						
		Elongation T244						
		Reduction of Area T244						
		Thread Dimensions						

Shear Connectors	Size	Certification						
	Diameter							
	Length							
	Chemical							
	Charpy ASTM E23							
	Thickness							
	Yield Strength ASTM A370							
	Tensile Strength ASTM A370							
	Elongation ASTM A370							
	Reduction of Area ASTM A370							
	Hardness ASTM A370							
	Chemical ASTM A709							
Length								
Elastomeric Bearing Pads	Hardness ASTM D2240	Certification	1 pad per Lot Number, per size, per Project	Pre-inspected & GDT stamped		Supplier		Independent Assurance: sample occasionally
	Tensile Strength ASTM D412							
	Elongation ASTM D412							

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Heat Resistance ASTM D573						
		Compression Set ASTM D395						
		Brittleness ASTM D746						
		Dimensions						
		Laminate Thickness						
		Tensile Strength M183						
		Yield Strength M183						
		Elongation M183						
Plain Cotton Duck	Certification	Certification		Certified Mill Test Report				

	Rubber Impregnated Cotton Duck	Certification	Certification		Certified Mill Test Report			
	Galvanizing	ASTM A90 or ASTM E376						
	SelfLubricating Bronze Bearing & Expansion Plates & Bushings	Certification	Certification		Certified Mill Test Report			

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TIMBER STRUCTURES	Treated Timber	Retention of Preservative AWPA C14	Certification		QPL-50, preinspected by Authorized Agency & AWW stamped			Independent Assurance: sample occasionally
	Untreated Timber	Certification	Certification		Certification of Inspection from Vendor & Visual Inspection; Grade Stamp required			
	Lumber & Timber	Certification	Certification		QPL-50, preinspected by Authorized Agency & AWW stamped			

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Preservative Treatment	Certification	Certification		QPL-50, preinspected by Authorized Agency & AWW stamped			
	Paints	Pigment ASTM D2371	Certification	1 qt.	Approved by Office of Materials			
		Non-Volatile Vehicle						
		Grind						
		Viscosity ASTM D562						
		Dry Time ASTM D711						
	Percent Volatile							

Misc. Bridge Hardware (Galvanized Items)	Weight per Gallon ASTM D1475	Certification	Certified Mill Test Report	Stock	Independent Assurance: sample occasionally
	Color				
	Certification				
	Chemical ASTM F568				
	Yield Strength ASTM F606				
	Tensile Strength ASTM F606				
	Elongation ASTM F606				
	Reduction of Area ASTM F606				
	Hardness ASTM F606				
	Length				
	Diameter				
	Thread Class				
	Structural Steel				
Charpy ASTM E23					
Thickness					
Yield Strength ASTM A370					
Tensile Strength ASTM A370					
Elongation ASTM A370					
Reduction of Area ASTM A370					
Hardness ASTM A370					
Chemical ASTM A709					

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Plain Cotton Duck	Certification	Certification		Certified Mill Test Report			
	Misc. Steel	Grade As Specified	Certification		Certified Mill Test Report			
		Yield Strength T244						
		Tensile Strength T244						

Size Elongation **T244**
 Reduction of Area **T244**
 Thread Dimensions
 Diameter
 Length
 Chemical
 Rotation **ASTM A325**
 Galvanization **ASTM A90 or ASTM E376**

503 FOUR HOUR ACCELERATED STRENGTH CONCRETE	Concrete Compressive Strength	Cylinders GDT-35 & T22	DOT-319	One set of 4 for each placement date. (2 for 4 Hours, 2 for 6 Hours) Air, Slump & Mix Temperature tests are required when cylinders are made & as judged necessary to insure adequate controls	In accordance with Section 503 of the Specifications
		Air Content GDT-26 & GDT-35			
		Slump GDT-27			
		Mix Temperature GDT-122			
Portland Cement	Air Content T137	DOT-175			
	Fineness M85				

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Autoclave M85	DOT-658	20 lbs.	One per month per active plant.		Stock or Conveyor Belt	
		Compressive Strength M85						
		Vicat T131						
		Chemical M85						
	Fine Aggregate	Gradation T27						
		Wash 200 T11						
		Sand Equivalent GDT-63						
Coarse	Wash 200 T11	DOT-658	35 lbs.	One per month per		Stock or Conveyor Belt		

	Aggregate	Gradation <i>T27</i>			active plant			
	Calcium Chloride	Specification <i>M144</i>	DOT-319					
	Water	Quality of Water to be Used in Concrete <i>T26</i>	DOT-088	1 qt.*	One per unpotable Source, per month		Enough in advance so that results are known before use	*non-metal container

503

STEEL GRID FLOORING	Steel Grid	Grade <i>As Specified</i> Galvanization <i>ASTM A123</i>	Certification		Certified Mill Test Report, preinspected & GDT stamped		Fabricator or Supplier	
	Paint	Specification Requirement <i>Section 870.01</i>	Certification		QPL-73 w/Certifications			Independent Assurance: sample occasionally
	Concrete	Cylinders <i>GDT-35 & T22</i>	DOT-319	One set per 50 yds ³ of each Class of Concrete placed daily for each structure, except for Concrete used in Bridge Curb or Wall Coping. Two Concrete cylinders shall be fabricated for each cumulative 50 yds ³ or fraction thereof, of Concrete placed per week in each structure. Cylinders shall not be fabricated at one structure to represent Concrete placed in another structure.				

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TWENTY-FOUR HOUR ACCELERATED STRENGTH CONCRETE	Concrete Compressive Strength	Cylinders <i>GDT-35 & T22</i>	DOT-319		One set of 4 for each placement date. (2 for 1 day, 2 for 3 day) Air, Slump & Mix Temperature tests are required when cylinders are made & as judged necessary to insure adequate controls		In accordance with Section 504 of the Specifications
		Air Content <i>GDT-26 & GDT-35</i>					
		Slump <i>GDT-27</i>					
		Mix Temperature <i>GDT-122</i>					
	Portland Cement	Air Content <i>T137</i> Fineness <i>M85</i>	DOT-175				

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & <i>Number</i>	REPORT <i>SM Report</i>	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		

	Fine Aggregate	Autoclave M85						
		Compressive Strength M85						
		Vicat T131						
		Chemical M85						
		Gradation T27	DOT-658	20 lbs.	One per month per active plant. 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.	Stock or Conveyor Belt	
		Wash 200 T11						
	Sand Equivalent GDT-63							
	Coarse Aggregate	Wash 200 T11	DOT-658	35 lbs.	One per month per active plant. One per 1,500 tons based upon QPL-2, except for Section-D, Stockpile Basis Sources; material from Section-D must be tested.	QPL-2 Sources, 1 per month, per active plant, except Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section-D Sources.	Stock or Conveyor Belt	
		Gradation T27						
	Calcium Chloride	Specification M144	DOT-319					
Water	Quality of Water to be Used in Concrete T26	DOT-088	1 qt.*	One per unpotable Source, per month		Enough in advance so that results are known before use	*non-metal container	

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CORRUGATED STEEL BRIDGE	Corrugated Steel Plank for Bridges	ASTM A123 or ASTM A525	Certification	Certified Mill Test Report			Independent Assurance: sample occasionally
		Yield Strength T244					
		Tensile Strength T244					
		Width					
		Thickness					
		Depth & Spacing of Corrugations					
		Chemical ASTM A570					
		Galvanization ASTM A90 or ASTM E376					

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & <i>Number</i>	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Paints	Certification	Certification	1 qt.	Approved by Office of Materials			
		Pigment ASTM D2371						
		Non-Volatile Vehicle						
		Grind						
		Viscosity ASTM D562						
		Dry Time ASTM D711						
		Percent Volatile						
		Weight per Gallon ASTM D1475						
		Color						
	Certification							
506								
EXPANDED MORTAR	Portland Cement		DOT-175	Sampled & tested in conjunction with other Concrete construction on Project. No additional sample required under normal circumstances.				
	Coarse Aggregate	Wash 200 T11	DOT-658	35 lbs.	One per month per active plant. 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 from Section D Sources.	Stock or Conveyor Belt	
		Gradation T27						
	Fine Aggregate	Gradation T27	DOT-658	20 lbs.	One per month per active plant. 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.	Stock or Conveyor Belt	
		Sand Equivalent GDT-63						
		Wash 200 T11						

Aluminum Powder	Fineness ASTM D480	Certification	50 g	Acceptance based on label stating material is Aluminum Powder of Unpolished Type or 1 sample per Project	Stock	
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					ACCEPTANCE	QUALITY ASSURANCE			
	Water	Quality of Water to be Used in Concrete T26	DOT-088	1 qt.*	One per unpotable Source, per month		Enough in advance so that results are known before use	*non-metal container	
507									
PRESTRESSED CONCRETE BRIDGE MEMBERS	Cocrete Bridge Members		OMR-122 (Shipping Report)		QPL-9, OMR-122, GDOT stamp & Plant Stamp				
	Plain Steel Bars – Threaded Ends	Chemical ASTM A370	DOT-166						
		Tensile Strength T244							
		Yield Strength T244							
		Elongation T244							
		Reduction of Area T244							
		Thread Dimensions							
	Anchor Bolts	Hardness ASTM A370							
		Grade As Specified on Plans	Certification	1 each: Bolt, Nut & Washer	Certified Mill Test Report		Stock		
		Yield Strength T244							
		Tensile Strength T244							
		Elongation T244							
		Reduction of Area T244							
		Thread Dimensions							
		Size							
Diameter									
Bushings, Bearings & Expansion Plates	Length								
	Chemical								
	Certification	Certification		Certified Mill Test Report		Stock			

Structural Steel	Charpy ASTM E23	Certification		Certified Mill Test Report, pre-inspected by Office of Materials & GDT stamped	Fabricator or Supplier	
	Thickness					
	Yield strength ASTM A370					
	Tensile Strength ASTM A370					
	Elongation ASTM A370					
	Reduction of Area ASTM A370					
	Hardness ASTM A370					
	Chemical ASTM A709					
Elastomeric	Hardness ASTM D2240	Certification	1 pad per Lot	Pre-inspected & GDT	Supplier	

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					ACCEPTANCE	QUALITY ASSURANCE		
	Bearing Pads	Tensile Strength ASTM D412		Number, per size, per Project	stamped			
		Elongation ASTM D412						
		Heat Resistance ASTM D573						
		Compression Set ASTM D395						
		Brittleness ASTM D746						
		Dimensions						
		Laminate Thickness						
		Tensile Strength M183						
		Yield Strength M183						
		Elongation M183						
Plain Cotton Duck	Weight	Certification	1 yd ²	One per shipment		Stock		
Rubber Impregnated Cotton Duck	Weight							
	Compressive Strength							
Paints	Pigment ASTM D2371	Certification	1 qt.	Approved by Office of Materials				
	Non-Volatile Vehicle							
	Grind							
	Viscosity ASTM D562							
	Dry Time ASTM D711							

		Percent Volatile					
		Weight per Gallon ASTM D1475					
		Color					
		Certification					

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ASPHALT PLANK BRIDGE FLOOR	Premolded Asphalt Plank	Dimensions		1 yd ²	One per Lot		Stock
		Weight of Surface Absorption					
		Brittleness					
		Hardness M46					
Cutback Asphalt	Viscosity T201	DOT-325	1 qt.	QPL-7		Before application	
Asphalt Cement	Dynamic Shear TP-5	DOT-504	1 qt.	QPL-7		Before application	

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PRESTRESSING CONCRETE BY	Ducts	Dimensions		48" piece	One per size		60 calender days prior to installation
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TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
POST TENSIONING	Anchorage Assembly	Dimensions		Complete Assembly	One per size			60 calender days prior to installation
	Steel Bars for Reinforcement	Number M31M	DOT-166	1 pc @ 24" per size	QPL-12 & QPL-61 w/Certified Mill Test Reports.	Random sampling at Fabricator	Supplier, Fabricator or Jobsite storage	60 calender days prior to installation
		Weight M31M						
		Dimensions M31M						
		Deformation Spacing M31M						
		Height & Gap M31M						
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
	Bend Test T285							
	Chemical M31M							
	Post-tensioning Steel Wire Strand	ASTM A 416		3 - 53" long pieces	One set per Heat Number and Certified Mill Test Report			60 calender days prior to installation
	Post-tensioning Steel Wire	ASTM A 421		3 - 53" long pieces	One set per Heat Number and Certified Mill Test Report			60 calender days prior to installation

	Post-tensioning Steel Bars	ASTM A 722		3 - 53" long pieces	One set per Heat Number and Certified Mill Test Report			60 calender days prior to installation	
	Pre-Package Grout				Certified Mill Test Report			Prior to use	
	Portland Cement	Air Content T137	DOT-175	10 lbs.	QPL-3			Prior to use	
		Fineness M85							
		Autoclave M85							
		Compressive Strength M85							
		Vicat T131							
	Chemical M85								
	Water	Quality of Water to be Used in Concrete T26	DOT-088	1 qt.*	One per unpotable Source, per month			Enough in advance so that results are known before use	*non-metal container

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REINFORCEMENT STEEL	Steel Bars for Reinforcement	Number M31M	DOT-166	1 pc @ 24" per size	QPL-12 & QPL-61 w/Certified Mill Test Reports.	Random sampling at Fabricator	Supplier, Fabricator or Jobsite storage	
		Weight M31M						
		Dimensions M31M						
		Deformation Spacing M31M						
		Height & Gap M31M						
		Tensile Strength T244						
		Yield Strength T244						
Elongation T244								

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Bend Test T285						
		Chemical M31M						
	Wire Bar Supports							
	Galvanized	Shape	Certification					
		Height						
		Wire Size						
		Galvanization ASTM A123						
	Stainless	Shape	Certification					
		Height						
		Wire Size						
		Chemical						
		Tensile Strength T244						
	Bright	Shape	Certification					

	Plastic Covered	Height	Certification						
		Wire Size							
	Shape								
	Height								
	Wire size								
	Tensile Strength T244								
	Hardness ASTM D2240								
	Epoxy Coated	Shape							
		Height							
		Wire Size							
		Thickness							
	Plastic	Condition							
		Shape							
		Height							
		Wire Size							
Compressive Strength T22									
Water Absorption ASTM D570									

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SHEAR CONNECTORS	Stud	Charpy ASTM E23	Certification	QPL-6 & Certified Mill Test Report			
		Thickness					
		Yield Strength ASTM A370					
		Tensile Strength ASTM A370					
		Elongation ASTM A370					

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY			REMARKS
					ACCEPTANCE	QUALITY ASSURANCE	LOCATION OR TIME OF SAMPLING	
		Reduction of Area ASTM A370						
		Hardness ASTM A370						
		Chemical ASTM A709						
		Length						
	Channel	Certification			QPL-6 & Certified Mill Test Report			

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PRECAST REINFORCED CONCRETE BOX CULVERT BARREL SECTIONS & END SECTIONS	Complete Units	Certification	DOT-164A / DOT-619		QPL-4 with CPT stamp or preinspected by Office of Materials Personnel & GDT stamped			
	Portland Cement	Air Content T137	DOT-175		QPL-3			
		Fineness M85						
		Autoclave M85						
		Compressive Strength M85						
		Vicat T131						
		Chemical M85						
	Portland Pozzolan Cement	Air Content T137	DOT-175		QPL-3			
		Fineness M240						
		Autoclave M240						
		Compressive Strength M240						
		Vicat T131						
		Chemical M240						
	Fine Aggregate	Gradation T27	DOT-658	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 Washed No. 200 T11						
	Coarse	Wash 200 T11	DOT-658	45 lbs.	One per 1,500 tons	QPL-2 Sources, 1		

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		

Aggregate	Gradation T27			based upon QPL-2, except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	per month, per active plant, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.		
Steel Bars for Reinforcement	Number M31M	DOT-166	1 pc @ 24" per size	QPL-12 & QPL-61 w/Certified Mill Test Reports.	Random sampling at Fabricator	Supplier, Fabricator or Jobsite storage	
	Weight M31M						
	Dimensions M31M						
	Deformation Spacing M31M						
	Height & Gap M31M						
	Tensile Strength T244						
	Yield Strength T244						
	Elongation T244						
	Bend Test T285						
Chemical M31M							
Steel Wire for Reinforcement	Size M32M	Certification	1 pc @ 24" per size/dia	Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock	
	Diameter M32M						
	Area M32M						
	Tensile Strength T244						
	Yield Strength T244						
	Area Reduction T244						
	Bend Test M32M						
Welded Steel Wire Fabric for Reinforcement	Size M55M	Certification	2' X 2'	QPL-55 w/Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock	
	Diameter M55M						
	Area M55M						
	Tensile Strength T244						
	Yield Strength T244						
	Area Reduction T244						
	Bend Test M55M						
	Weld Shear Strength M55M						
	Width M55M						
	Length M55M						
Spacing M55M							

Cylinders	Compressive Strength T22	DOT-319	3 ea.				
Steel Bolts,	Chemical ASTM F568	Certification		Certified Mill Test			

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY			REMARKS
					ACCEPTANCE	QUALITY ASSURANCE	LOCATION OR TIME OF SAMPLING	
	Nuts & Washers	Yield Strength ASTM F606			Report			
		Tensile Strength ASTM F606						
		Elongation ASTM F606						
		Reduction of Area ASTM F606						
		Hardness ASTM F606						
		Length						
		Diameter						
		Thread Class						
		Galvanization ASTM A90 or ASTM E376						
	Anchor Bolts	Grade As Specified	Certification		Certified Mill Test Report			
		Yield Strength T244						
		Tensile Strength T244						
		Elongation T244						
		Reduction of Area T244						
		Thread Dimensions						
		Size						
		Diameter						
		Length						
		Chemical						
	Corrugated Steel Pipe	Diameter	Certification		Certified Mill Test Report			
		Depth & Spacing of Corrugations M36						
		Thickness						
	Corrugated Plastic Pipe	Diameter	Certification		Certified Mill Test Report			
		Depth & Spacing of Corrugations M252						
		Thickness						
		Stiffness ASTM D2412						
		Flattening M252						

Elongation M252						
Brittleness M252						
Flexibility M252						
Couplings M252						
Strength M252						

Backfill

Type I – Class	Gradation GDT-4	DOT-408 /		One per major soil
I & II Soil	Percent Clay GDT-4	DOT-97	30 lbs.	Type

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY			REMARKS
					ACCEPTANCE	QUALITY ASSURANCE	LOCATION OR TIME OF SAMPLING	
	Type II – Backfill Aggregate	Volume Change GDT-6	DOT-658	45 lbs.	One per 20,000 tons. One per 1,500 tons based upon QPL-2, except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	As required by Project Engineer		
		Density GDT-7 or GDT-67						
		Classification Section 810						
	Type III – Soil/Organic	Gradation T27						
		Density GDT-7	DOT-408 / DOT-97		Notify Central Lab			
		Condition of Mixture						

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EPOXY COATED STEEL REINFORCEMENT	Steel Bars for Reinforcement	Number M31M	DOT-166A	1 pc @ 24" per size	QPL-43 w/Certified Mill Test Reports.	Random sampling at Fabricator	Supplier, Fabricator or Jobsite storage	
		Weight M31M						
		Dimensions M31M						
		Deformation Spacing M31M						
		Height & Gap M31M						
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
		Bend Test T285						
	Chemical M31M							
Epoxy Coating	Thickness ASTM G12			QPL-38				

		Adhesion M284					
515							
HANDRAIL - FERROUS METAL & PIPE	Anchor Bolts	Specification Requirements	Certification		Accepted by Project Personnel based on Visual Inspection & Certified Mill Test Report		
	Handrail & Misc. Steel Items	Galvanization ASTM A123	Certification		Finished Handrail inspected by Office of Materials Personnel		
	Structural Steel	Charpy ASTM E23	Certification		Certified Mill Test Report		
		Thickness					
		Yield Strength ASTM A370					
Tensile Strength ASTM A370							

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY			REMARKS
					ACCEPTANCE	QUALITY ASSURANCE	LOCATION OR TIME OF SAMPLING	
		Elongation ASTM A370						
		Reduction of Area ASTM A370						
		Hardness ASTM A370						
		Chemical ASTM A709						
	Malleable Iron Castings	Chemical ASTM A27	Certification		Certified Mill Test Report			
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
	Steel Castings	Reduction of Area T244	Certification		Certified Mill Test Report			
		Chemical M103						
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
		Reduction of Area T244						
	Steel Pipe	Dimensions	Certification		Certified Mill Test Report			
		Certification						
		Chemical ASTM A53						
		Yield Strength T244						
		Tensile Strength T244						

Steel Bolts, Nuts & Washers	Elongation T244	Certification	Certified Mill Test Report			
	Bending ASTM A53					
	Flattening ASTM A53					
	Non-Destructive Electric Test ASTM A53					
	Weight					
	Diameter					
	Thickness					
	Finish					
	Appearance					
	Chemical ASTM F568					
	Yield Strength ASTM F606					
	Tensile Strength ASTM F606					
	Elongation ASTM F606					
	Reduction of Area ASTM F606					
	Hardness ASTM F606					
Length						
Diameter						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Paints	Thread Class	Certification	1 qt.	Approved by Office of Materials			
		Galvanization ASTM A90 or ASTM E376						
		Pigment ASTM D2371						
		Non-Volatile Vehicle						
		Grind						
		Viscosity ASTM D562						
		Dry Time ASTM D711						
		Percent Volatile						
		Weight per Gallon ASTM D1475						
		Color						
Certification								

	Plain Steel Bars	Chemical ASTM A370	Certification		Certified Mill Test Report			
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
		Reduction of Area T244						
		Thread Dimensions						
		Hardness ASTM A370						

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ALUMINUM HANDRAIL	Aluminum Alloy Materials	Chemical	Certification		Certified Mill Test Report			
		Thickness						
		Dimensions						
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
		Bend Diameter Factor ASTM B209						
		Hardness ASTM B241						
	Shear Strength ASTM B565							
	Caulking Compound	Certification	Certification		Manufacturer's Certification			
	Plain Steel Bars	Chemical ASTM A370	Certification		Certified Mill Test Report			
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
		Reduction of Area T244						
Thread Dimensions								

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY			REMARKS
					ACCEPTANCE	QUALITY ASSURANCE	LOCATION OR TIME OF SAMPLING	
	Steel Nuts, Bolts & Washers	Hardness ASTM A370	Certification		Certified Mill Test Report			
		Chemical ASTM F568						
		Yield Strength ASTM F606						
		Tensile Strength ASTM F606						
		Elongation ASTM F606						

	Elastomeric Bearing Pads	Reduction of Area ASTM F606	Certification		Certified Mill Test Report			
		Hardness ASTM F606						
		Hardness ASTM D2240						
		Tensile Strength ASTM D412						
		Elongation ASTM D412						
		Heat Resistance ASTM D573						
		Compression Set ASTM D395						
		Brittleness ASTM D746						
		Dimensions						
		Laminate Thickness						
		Tensile Strength M183						
	Yield Strength M183							
	Elongation M183							
Galvanizing	ASTM A90 or ASTM E376	Certification		Pre-inspected by Office of Materials Personnel				

519									
BRIDGE DECK OVERLAY	Concrete	Cylinders GDT-35 & T22	DOT-319	2 cylinders	See NOTE 1			Cylinders to be broken in Branch or Central Lab	
		NOTE 1: One set per each 50 yd ³ of Class of Concrete placed daily for each structure. Cylinders shall not be fabricated at one structure to represent Concrete placed in another structure.							
		Air Content GDT-26 or GDT-32		See NOTE 2	When cylinders are made		Placement site		Additional Slump test will be required when Water is added on Project
		Slump GDT-27							
		Mix Temperature GDT-122							
		NOTE 2: Air, Slump & Mix Temperature tests is all required when cylinders are made & as judged necessary to insure adequate controls. Additional tests are recommended at least every third load on Bridge Deck placement							
Portland	Air Content T137	DOT-175	10 lbs.	QPL-3	One per Quarter, per				

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Cement	Fineness M85				Source, per District		
		Autoclave M85						

	Fine Aggregate	Compressive Strength M85	DOT-658	20 lbs.	One per month per active plant. 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.	
		Vicat T131					
		Chemical M85					
	Coarse Aggregate	Gradation T27	DOT-658	40 lbs.	One per month per active plant. 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.	
		Sand Equivalent GDT-63 Minus No. 200 T11					
	Fly Ash	Wash 200 T11	DOT-175	10 lbs.	QPL-30	One per Quarter, per Source, per District	
		Gradation T27					
		Fineness M295					
		Activity M295					
		Soundness M295					
	Slag Cement	Density M295	DOT-175	10 lbs.	QPL-30	One per 2,000 tons, per Source	Jobsite storage
		Chemical M295					
Fineness M302							
Activity M302							
Air Entrainment Admixtures	Air Content M302	DOT-168 Certification	1 qt.	QPL-13	One per 6 months, per Source, per District		
	Density M302						
	Chemical M302						

TYPE CONSTRUCTION			REPORT SM Report		GUIDE FREQUENCY	
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	MATERIAL	TEST PROCEDURES Name & Number		SIZE OF SAMPLE	ACCEPTANCE	QUALITY ASSURANCE	LOCATION OR TIME OF SAMPLING	REMARKS
	Chemical Admixtures	Chemical Admixtures for Concrete M194	DOT-168 Certification	1 qt.	QPL-14	One per 6 months, per Source, per District		
	Curing Agent	Specification for Liquid Membrane Curing M148	DOT-168 Certification	1 qt.	QPL-16			
	Water	Quality of Water for Concrete T26	DOT-168 Ga168 GACERT	1 qt.*		One per unpotable Source, per month		*non-metal container
520								
PILING	Prestressed Concrete		OMR-122 (Shipping Reprot)		QPL-9, OMR-122 & Plant Stamp			
	Treated Timber Piles	Retention of Preservative AWWA C14	Certification		QPL-50, preinspected by Authorized Agency & AWW Stamp			
	Preservative Treatment	Certification	Certification		QPL-50 & Preinspected by Authorized Agency			
	Aluminum Powder	Fineness ASTM D480	Certification					
	SelfLubricating Bronze Bearing & Expansion Plates & Bushings	Certification	Certification		Certified Mill Test Report			
	Paint	Pigment ASTM D2371	Certification	1 qt.	Approved by Office of Materials			
		Non-Volatile Vehicle						
		Grind						
		Viscosity ASTM D562						
		Dry Time ASTM D711						
		Percent Volatile						

	Weight per Gallon ASTM D1475					
	Color					

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Welded & Seamless Steel Pile	Certification	Certification		QPL-44 w/Certified Mill Test Report			
		Thickness						
		Chemical ASTM A252						
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
		Diameter						
		Weight						
	Fluted Steel Shell Pile	Certification	Certification		QPL-44 & Certified Mill Test Report			
		Thickness						
		Diameter						
		Yield Strength T244						
	Steel H-Pile	Certification	Certification		QPL-44 & Certified Mill Test Report			
		Charpy ASTM E23						
		Thickness						
		Yield Strength ASTM A370						
		Tensile Strength ASTM A370						
		Elongation ASTM A370						
		Reduction of Area ASTM A370						
		Hardness ASTM A370						
	Chemical ASTM A709							
	Steel Bolts, Nuts & Washers	Certification	Certification		Certified Mill Test Report			
		Chemical ASTM F568						
		Yield Strength ASTM F606						
		Tensile Strength ASTM F606						
		Elongation ASTM F606						

		Reduction of Area ASTM F606						
		Hardness ASTM F606						
		Length						
		Diameter						
		Thread Class						
		Galvanization ASTM A90 or ASTM E376						
Aluminum Alloy Sheet & Plate	Chemical	Certification	Certified Mill Test Report					
Thickness								

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Dimensions						
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
		Bend Diameter Factor ASTM B209						
		Hardness ASTM B241						
		Shear Strength ASTM B565						

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NAVIGATION LIGHTING	Electrical Materials	As Specified	Certification		Approved by the Underwriter's Laboratory or Certified Mill Report & approved Catalog Cuts		Stock	
	Anchor Bolts	Grade As Specified						
Yield Strength T244								
Tensile Strength T244								
Elongation T244								
Reduction of Area T244								
Thread Dimensions								
Size								
Diameter								

Paint	Length	Certification	1 qt.	Approved by Office of Materials		
	Chemical					
	Pigment ASTM D2371					
	Non-Volatile Vehicle					
	Grind					
	Viscosity ASTM D562					
	Dry Time ASTM D711					
	Percent Volatile					
	Weight per Gallon ASTM D1475					
	Color					
Certification						
Lighting Standards	Certification	Certification		QPL-52, pre-inspected by Office of Materials Personnel & GDT stamped		
Luminaries & Ballasts	Certification	Certification		Approved Catalog Cuts		

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Circuit Breakers	Certification	Certification		Approved Catalog Cuts			
	Cable	Certification	Certification		Approved Catalog Cuts			
530								
WATERPROOFING FABRICS	Waterproofing Membrane Material for Retaining Walls	Thickness	Certification		QPL-22			
		Tensile Strength ASTM D412						
		Elongation ASTM D412						
		Permeance ASTM E96						
		Puncture Resistance ASTM E154						
		Pliability ASTM D146						
		Cycling Over Crack Section 888.03						
		Certification						
531								

DAMPPROOFING	Bituminous Material for Waterproofing or Dampproofing	Specification Requirements M115, M118 or M121	Certification	1 qt.	One per Type, per Source		Before application	
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BRIDGE DECK WATERPROOFING MEMBRANE	Hot Mix Asphalt	ic Concrete Dynamic Shear TP-3155	DOT-504	Two 1 qt. cans	QPL-7	As per GSP-21	Storage Tank		
	Asphalt Cement								
	Coarse Aggregate for Asphaltic Concrete	Wash 200 T11							
		Gradation T27	DOT-658	45 lbs.	QPL-2	As necessary	Stockpile		
	Fine Aggregate for Asphaltic Concrete	Gradation T11 & T27							
		Clay Lumps T1121	DOT-658	20 lbs.	QPL-1	As necessary	Stockpile		
		Sand Equivalent GDT-63							
Mica Content ASTM C 295									
Mineral Filler	Gradation T11 & T27	DOT-168 Certification	10 lbs.	QPL-81	One per 500 tons, per Type, per Source	Stockpile			
In-Place Material	Thickness Measurement GDT42	DOT-176		One per 1,000 ft, per 2 lanes		Completed Course			
Hydrated Lime	Physical & Chemical Analysis M216-84	Certification	1 qt.*	QPL-41	One per Quarter	Silo or Tanker	*air-tight container		

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Gradation T219						As required by SOP-17
		Chemical T219						
	Complete Mixture	Asphalt Binder Content: Extractions GDT-125, GDT-83, or T-308 Gradation: T-27 or GDT-38T11, GDT-38, GDT73, GDT-83 or GDT-125	DOT-159387	Varies per Mix Type	Minimum-Asphalt Producer will test 1 per 500 tons	GDOT will test Two QA samples per 5 days production or 5 lots; 1 comparison sample per 10 days	Truck or Roadway	AASHTO T308 (Method A)
		Stripping Test GDT-56	DOT-159	300 g	One per Extraction (Open-Graded Mixes only)		Same as Extraction	For OGFC and PEM mixes only. For all Asphaltic Concrete "OGFC" & other Mixes where the additive is incorporated at the plant, test at frequency of 1 per Extraction

	Compaction GDT-39, or GDT-59 or GDT-73	DOT-150386	Core	Five per Lot*		After Compaction	Quantities less than 500 tons will be tested at 1 per 100 tons. Small quantities may be accepted with less Compaction tests *Each test consists of 3 readings when Nuclear Gauge is used to determine Density
	Bituminous Tack Coat Asphalt Cement	Dynamic Shear T-315P-5	DOT-504M	Two 1 quart cans	Once per week per distributor QPL-7	Distributor	
	Emulsified Asphalt	Viscosity T59	T59	Two 1 gal containers+ qt.	QPL-7 Once per week per distributor	Distributor Before application	Non metal container
	Sand For Blast Cleaning	Gradation GDT-3 TCLP EPA SWD 846-1311 Certification	Certification		Visual Inspection	Stock	Independent Assurance: sample occasionally
	Waterproofing Membrane Material for Bridge Decks	Bond GDT-69 Permeability GDT-69 Heat Resistance GDT-69 Penetration GDT-69 Freeze-Thaw GDT-69 Chemical Resistance GDT-69 Shear Resistance GDT-69 Effectiveness GDT-69 Certification		Certification			

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
535								
PAINTING STRUCTURES	Paint	Specification Requirements Section 870.01	Certification		QPL-73 w/Certifications			Independent Assurance: sample occasionally

Paint – Completed Coat	Anchor Pattern	DOT-168A Certification	QPL-73 w/Certifications			Independent Assurance
	Steel Temperature					
	Ambient Temperature					
	Humidity					
	Dew Point					
	Adhesion					
	MEK Rub GDT-110					
Final Paint Thickness						
Lead Paint Residue	TCLP EPA SWD 846-1311	TCLP Report				
	Disposal Manifest					

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CONSTRUCTION OF BRIDGE COMPLETE	Earthwork Embankments (to within 1 ft of top)	Theoretical Density GDT-7 or GDT-67				Roadway (before Compacting)	Volume Change tests may be omitted on accepted samples, except the first sample & each fifth sample thereafter, which shall be submitted to the Branch or Central Lab for testing, unless provisions are made for testing on the Project. Percent Moisture is part of Density test procedure.	
		Gradation GDT-4						
		Volume Change GDT-6						
		Classification Section 810	DOT-408/ DOT-97	30 lbs.	One per major soil Type			
		In-Place Density GDT-20, GDT21, GDT-55 & GDT-59	DOT-553		One per 5,000 yd ³			Completed Lift
	Rock	Gradation Visual	DOT-658	QPL-2				Requires approval by Pit & Quarry if not from QPL-2 Source
	Abrasion T96							
	Soundness T104							
	Petrographic Analysis ASTM C295							

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Pond Sand	Gradation Visual	DOT-408 / DOT-97				Requires approval by Pit & Quarry	
		Volume Change GDT-6						
		Density GDT-7 or GDT-67						

Piling Treated Timber Piles		Retention of Preservative AWWA C14		QPL-50, preinspected by Authorized Agency & AWW stamp			
		Certification					
Fluted Steel Shell Pile	Thickness	Certification		QPL-44 & Certified Mill Test Report			
	Diameter						
	Yield Strength T244						
	Certification						
Steel H-Pile	Charpy ASTM E23	Certification		QPL-44 & Certified Mill Test Report			
	Thickness						
	Yield Strength						
Lumber & Timber	Certification	Certification		QPL-50, preinspected by Authorized Agency & AWW stamp			
Expanded Mortar							
Portland Cement		Sampled & tested in conjunction with other Concrete construction on Project. No additional sample required under normal circumstances.					
Coarse Aggregate	Wash 200 T11	DOT-658	35 lbs.	One per month per active plant. One per 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. The Department will perform acceptance tests on materials delivered from Section D Sources.	Stock or Conveyor Belt	
	Gradation T27						
Fine Aggregate	Gradation T27	DOT-658	20 lbs.	One per month per active plant. One per 500 tons based upon QPL-1,	QPL-1 Sources, 1 per month, per	Stock or Conveyor Belt	
	Sand Equivalent GDT-63						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		

	Wash 200 T11			except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	active plant, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.		
Aluminum Powder	Fineness ASTM D480	Certification	50 g	Acceptance based on label stating material is Aluminum Powder of Unpolished Type or 1 sample per Project		Stock	
Water	Quality of Water to be Used in Concrete T26	DOT-088	1 qt.*	One per unpotable Source, per month		Enough in advance so that results are known before use	*non-metal container
Steel Bars for Reinforcement	Number M31M	DOT-166	1 pc @ 24" per size	QPL-12 & QPL-61 w/Certified Mill Test Reports.	Random sampling at Fabricator	Supplier, Fabricator or Jobsite storage	One sample per size, per Project by Independent Assurance Personnel
	Weight M31M						
	Dimensions M31M						
	Deformation Spacing M31M						
	Height & Gap M31M						
	Tensile Strength T244						
	Yield Strength T244						
	Elongation T244						
Bend Test T285							
Chemical M31M							
Misc. Bridge Hardware		Certification	One of ea. item	Certified Mill Test Report		Stock	
Joint Material							
Silicone	Tensile Stress ASTM D412						
Sealant	Durometer ASTM D2240	Certification		QPL-66		Stock	
	Bond GDT-106						
	Tack Free Time GDT-106						
	Extrusion GDT-106						
	Non-Volatile GDT-106						
	Specific Gravity ASTM D792						
	Adhesion GDT-106						
	Resistance ASTM C793						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & <i>Number</i>	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
Epoxy Adhesive		Pot Life GDT-58	Certification		QPL-15 or 1 sample per batch, per Type		Stock	
		Bond Strength GDT-58						
		Shelf Life						
		Elongation GDT-58						
		Hardness ASTM D2240						
		Sag T237						
		Wet Bond T137						
Bond Breakers – Rods		Density ASTM D1622	Certification	5 ft	One per Project & Certified Mill Test Report		Stock	
		Tensile Strength ASTM D1623						
		Water Absorption ASTM C1016						
Bond Breakers - Tape		Thickness	Certification	5 ft	One per Project & Certified Mill Test Report		Stock	
Creosote & Pitch					Accepted by Project Personnel based on Visual Inspection			
Roofing Felt					Accepted by Project Personnel based on Visual Inspection		Stock	Independent Assurance: sample occasionally
Sheet Packing					Accepted by Project Personnel based on Visual Inspection			
Tie Bolt Assembly			Certification		Certified Mill Test Report & Visual Inspection			
Paint		Specification Requirements Section 870.01	Certification		QPL-73 w/Certifications			Independent Assurance: sample occasionally
Completed Units					QPL-9			

544								
DECK DRAIN SYSTEMS	Clips, Brackets, Bars, etc.	Certification	Certification	1 ea.	Certified Mill Test Report		Stock	Independent Assurance: sample occasionally

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Galvanized Repair Compound	Certification	Certification	1 qt.	Approved by Office of Materials			
	Hardware	Certification	Certification		Certified Mill Test Report			

550

STORM DRAIN PIPE, PIPE-ARCH CULVERTS & SIDE DRAIN PIPE	Reinforced Concrete Pipe							
	Physical Properties of Pipe	Diameter M170			QPL-4 with CPT Stamp or preinspected by Office of Materials with GDT Stamp			
		Thickness M170						
		Reinforcement Design M170						
		External Load Strength T280	DOT-164					
	Portland Cement	Air Content T137	DOT-175	QPL-3				
		Fineness M85						
		Autoclave M85						
		Compressive Strength M85						
		Vicat T131						
		Chemical M85						
	Fly Ash	Fineness M295	DOT-175	QPL-30				
		Activity M295						
		Soundness M295						
		Density M295						
		Chemical M295						
	Fine Aggregate	Gradation T27	DOT-658	20 lbs.	One per 500 tons based upon QPL-1, except for Section D,	QPL-1 Sources, 1 per month, per active plant, except for		
		Wash 200 T11						

	Sand Equivalent GDT-63			Stockpile Basis Sources; material from Section D must be sampled.	Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.		
Coarse	Wash 200 T11	DOT-658	45 lbs.	One per 1,500 tons	QPL-2 Sources, 1		

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Aggregate	Gradation T27			based upon QPL-2, except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	per month, per active plant, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.		
	Steel Wire for Reinforcement	Size M32M	Certification	1 pc @ 24" per size/dia	Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock	
		Diameter M32M						
		Area M32M						
		Tensile Strength T244						
		Yield Strength T244						
		Area Reduction T244						
	Welded Steel Wire Fabric for Reinforcement	Bend Test M32M						
		Size M55M	Certification	2' X 2'	QPL-55 w/Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock	
		Diameter M55M						
		Area M55M						
		Tensile Strength T244						
		Yield Strength T244						
		Area Reduction T244						
		Bend Test M55M						
		Weld Shear Strength M55M						
	Width M55M							
	Length M55M							

	Spacing M55M						
Cylinders	Compressive Strength T22	Certification DOT -T152	3 ea.				
Non-Reinforced Concrete Pipe							
Physical Properties of Pipe	Diameter M86				QPL-4 with CPT Stamp or preinspected by Office of Materials with GDT Stamp		
	Thickness M86						
	Absorption M86						
	Permeability M86	DOT-164					
	External Load Strength T280	OMR-INSP-86					
Portland Cement	Air Content T137				QPL-3		
	Fineness M85	DOT-175					
	Autoclave M85						
	Compressive Strength M85						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Vicat T131						
		Chemical M85						
	Fly Ash	Fineness M295			QPL-30			
		Activity M295						
		Soundness M295	DOT-175					
		Density M295						
		Chemical M295						
		Fine Aggregate	Gradation T27				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.
	Wash -200 T11							
	Sand Equivalent GDT-63		DOT-658	20 lbs.				
	Coarse Aggregate	Wash 200 T11	DOT-658	45 lbs.	One per 1,500 tons based upon QPL-2, except for Section D, Stockpile Basis Sources; material from Section D must	QPL-2 Sources, 1 per month, per active plant, except for Section D, Stockpile Basis Sources; GDOT will perform		

		Gradation T27			be sampled.	acceptance tests on materials delivered from Section D Sources.		
	Corrugated Steel Plain Zinc Coated Pipe	Diameter M36M Depth & Spacing of Corrugations M36M Thickness M36M Galvanization M218M	DOT-291			QPL-56 & pre-inspected by CMPT or GDT tags		
	Corrugated Steel Aluminized Coated Type 2 Pipe	M274 & M36	DOT-291			QPL-56 & pre-inspected by CMPT or GDT tags		
	Corrugated	Diameter M196M	DOT-291			QPL-56 & pre-inspected by CMPT or GDT		

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Aluminum Alloy Pipe	Depth & Spacing of Corrugations M196M Thickness M196M Arch Dimensions M196M Chemical M197M Tensile Strength T244 Yield Strength T244 Elongation T244			tags			

Smooth Lined Corrugated Polyethylene (HDPE) Culvert Pipe	M294M		OMR-INSP-89		QPL-51 & pre-inspected by PPT stamp or sticker.		
Polyvinyl Chloride (PVC) Profile Wall Drain Pipe	M304		OMR-INSP-89		QPL-51 & pre-inspected by PPT stamp or sticker.		
PVC Corrugated Smooth Interior Pipe	ASTM F949		OMR-INSP89		QPL-51 & pre-inspected by PPT stamp or sticker.		
Ductile Iron Pipe	Certification		Certification		Certified Mill Test Report		
Mortar Cement	Specification Requirements M150		DOT-175	1 gal.	Enough to insure consistency & quality		Stock
Mortar Sand	Gradation T27		DOT-658	20 lbs.	QPL-1, Sections A, B & C		
Backfill							
Type I – Soil, Class I & II	Gradation GDT-4						
	Percent Clay GDT-4	DOT-408	30 lbs.		One per major soil Type	Before Compacting	
	Volume Change GDT-6						
	Density GDT-7 or GDT-67						
	Classification Section 810						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Type II – Backfill Aggregate	Gradation T27	DOT-658	45 lbs.	One per 500 tons based upon QPL-2, except for Section D, Stockpile Basis Sources; material from Section D Sources must be sampled. One per 20,000 tons.	As required by Project Engineer		

Type III – Soil/Organic	Density GDT-7	DOT-408	1 qt.	Notify Central Lab	Stock
	Condition of Mixture				
Bituminous Plastic Cement	Specification Requirements	Certification	1 qt.	QPL-21 or sample representing each Lot of shipment	Stock
	Diameter M245M				
Pre-Coated Galvanized Steel Culverts	Depth & Spacing of Corrugations M245M	Certification	1 qt.	Certified Mill Test Report	Stock
	Thickness M245M				
	Galvanize M218M				
	Coating Thickness M245M				
	Arch Dimensions M245M				
Galvanized Repair Compound	Certification	Certification	1 qt.	Approved by Office of Materials	
Gaskets	Certification	Certification		QPL-21 & Certified Mill Test Report	

Post Installation Inspection

All Pipe	GDT 136	Certified Test Report		Certified Test Report meeting requirements of Section 550 and GDT 136
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555

TUNNEL LINER	Liner Plates	Size As Specified	Certification	Certified Mill Test Report
		Thickness As Specified		
		Sectional Modulus As Specified		
		Tensile Strength T244		
		Yield Strength T244		
		Elongation T244		
		Bend Test ASTM A569		
		Galvanization M167M		

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Grout Ingredients	As Specified			Enough to insure consistency & quality			
	Bricks	Size	Certification	10 Bricks	One set per 50,000 bricks, per Source			

Absorption **T32**
Compressive Strength **T32**

560

STRUCTURAL
PLATE PIPE,
PIPEARCH & ARCH
CULVERTS

Backfill

Type I – Class
I & II Soils

Gradation **GDT-4**
Percent Clay **GDT-4**
Volume Change **GDT-6**
Density **GDT-7 or GDT-67**
Classification **Section 810**

DOT-408
DOT-658

One per major soil
Type
As required by Project
Engineer

Type II –
Backfill
Aggregate

Gradation **T27**

One per 20,000
tons. One per 500
tons based upon
QPL-2, except for
Section D, Stockpile
Basis Sources;
material from Section
D must be sampled.

Type III –
Soil/Organic

Density **GDT-7**
Condition of Mixture

DOT-408

Notify Central Lab

Steel Structural
Plate for Pipe,
Pipe-Arches, &
Arches

Diameter **M167M**
Depth & Spacing of Corrugations
M167M
Thickness **M167M**
Chemical **M167M**
Yield strength **T244**
Tensile Strength **T244**
Elongation **T244**
Galvanization **M167M**

Certification

QPL-56 & pre-inspected with CMPT or GDT
Tag

Galvanized
Repair
Compound

Certification

Certification

1 qt.

Approved by Office of Materials

Corrugated
Aluminum Alloy
Structural Plate
for Pipe,
PipeArches &
Arches

Diameter **M219M**
Depth & Spacing of Corrugations
M219M
Thickness **M219M**
Arch Dimensions **M219M**
Chemical **ASTM B209**

Certification

QPL-56 & pre-inspected with CMPT or GDT
tag

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number		SIZE OF SAMPLE	ACCEPTANCE	QUALITY ASSURANCE	LOCATION OR TIME OF SAMPLING	REMARKS
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
561								
RENOVATING PIPE (Helically Corrugated)	Corrugated Steel Pipe	Diameter M36M	DOT-291		QPL-56 & pre-inspected with CMPT or GDT tag			
		Depth & Spacing of Corrugations M36M						
		Thickness M36M						
		Galvanization M218M						
Portland Cement		Air Content T137	DOT-175					
		Fineness M85						
		Autoclave M85						
		Compressive Strength M85						
Mineral Filler		Vicat T131	Certification					
		Chemical M85						
Fine Aggregate		Gradation T27	DOT-658		QPL-81			
		Sand Equivalent GDT-63				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.	
Fly Ash		Fineness M295	DOT-175		QPL-30	One per Quarter, per Source, per District		
		Activity M295						
		Soundness M295						
		Density M295						
Water		Quality of Water to be Used in Concrete T26	DOT-088	1 qt.	One per unpotable Source, per month		Enough in advance so that results are known before use	
Grout Mixture		Slump GDT-84			One per day or enough to control work			

Smooth Lined Corrugated Polyethylene	Diameter M294M	OMR-INSP- 89	QPL-51 & pre-inspected by PPT stamp or sticker.		
	Depth & Spacing of Perforations M294M				

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Culvert Pipe	Thickness M294M						
		Stiffness M294M						
		Flattening M294M						
		Cracking M294M						
		Brittleness M294M						
		Fittings M294M						
570								
MINOR DRAINAGE STRUCTURES FOR DETOURS	Corrugated Metal Pipe	Diameter M36M	DOT-291			QPL-56 & pre-inspected with CMPT or GDT tag		
		Depth & Spacing of Corrugations M36M						
		Thickness M36M						
		Galvanization M318M						
	Type II – Backfill Aggregated	Gradation T27	DOT-658	45 lbs.	One per 20,000 tons. One per 500 tons based upon QPL-2, except for Section D, Stockpile Basis Sources; materials from Section D must be sampled.	As required by Project Engineer		
573								
UNDERDRAINS	Aggregate for Underdrain	Gradation T27	DOT-658	45 lbs.	One per 20,000 tons. 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 20,000 tons, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.	Spreader Belt or Trench	At least 1 in each 3 samples shall be taken from the Spreader, Conveyor & Belt. If the samples are taken from Trench, it shall be a combination of material taken from 3 locations at least 10' apart.
Reinforced Concrete Pipe								
	Physical	Diameter M170	DOT-164			QPL-4 with CPT Stamp or pre-inspected by Office of Materials with GDT Stamp		
	Properties of Pipe	Thickness M170						
		Reinforcement Design M170						

	External Load Strength T280	OMR-INSP86					
Portland Cement	Air Content T137	DOT-175	QPL-3				
	Fineness M85						
	Autoclave M85						
	Compressive Strength M85						
	Vicat T131						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
Fly Ash		Chemical M85	DOT-175		QPL-30			
		Fineness M295						
		Activity M295						
		Soundness M295						
		Density M295						
Fine Aggregate		Gradation T27	DOT-658	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.		
		Wash 200 T11						
		Sand Equivalent GDT-63						
Coarse Aggregate		Wash 200 T11	DOT-658	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						
Steel Wire for Reinforcement		Size M32M	Certification	1 pc @ 24" per size/dia	Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock	
		Diameter M32M						

Welded Steel Wire Fabric for Reinforcement	Area M32M	Certification	2' X 2'	QPL-55 w/Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock	
	Tensile Strength T244						
	Yield Strength T244						
	Area Reduction T244						
	Bend Test M32M						
	Size M55M						
	Diameter M55M						
	Area M55M						
	Tensile Strength T244						
	Yield Strength T244						
	Area Reduction T244						
	Bend Test M55M						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY			REMARKS		
					ACCEPTANCE	QUALITY ASSURANCE	LOCATION OR TIME OF SAMPLING			
		Weld Shear Strength M55M								
		Width M55M								
		Length M55M								
		Spacing M55M								
Cylinders		Compressive Strength T22	Certification	3 ea.						
<u>Non-Reinforced Concrete Pipe</u>										
Physical Properties of Pipe		Diameter M86								
		Thickness M86								
		Absorption M86								
		Permeability M86						DOT-164		
Portland Cement		External Load Strength T280	OMR-INSP86		QPL-4 with CPT Stamp or pre-inspected by Office of Materials with GDT Stamp					
		Air Content T137	DOT-175					QPL-3		
		Fineness M85								
		Autoclave M85								
		Compressive Strength M85								
Vicat T131										
Fly Ash		Chemical M85								
		Fineness M295						DOT-175	QPL-30	
		Activity M295								

Fine Aggregate	Soundness M295						
	Density M295						
	Chemical M295						
	Gradation T27	DOT-658	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.		
	Wash -200 T11						
Sand Equivalent GDT-63							
Coarse	Wash 200 T11	DOT-658	45 lbs.	One per 1,500 tons	QPL-2 Sources, 1		

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Aggregate	Gradation T27			based upon QPL-2, except for Section D, Stockpile Basis Sources; material from Section D must be sampled.	per month, per active plant, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.		
	Corrugated Aluminum Alloy Underdrain Pipe	Diameter M196M	DOT-291		QPL-56 & pre-inspected with CMPT or GDT tag			
		Depth & Spacing of Corrugations M196M						
		Thickness M197M						
		Arch Dimensions M196M						
		Chemical M197M						
		Tensile Strength T244						
		Yield Strength T244						
	Corrugated Steel Underdrain Pipe	Diameter M36M	DOT-291		QPL-56 & pre-inspected with CMPT or GDT tag			
		Depth & Spacing of Corrugations M36M						

Corrugated Polyethylene Underdrain Pipe	Thickness M36M	OMR-INSP-89	QPL-51		
	Galvanization M218M				
	Diameter M252M				
	Depth & Spacing of Corrugations M252M				
	Thickness M252M				
	Stiffness ASTM D2412				
	Flattening M252M				
	Elongation M252M				
	Brittleness M252M				
	Flexibility M252M				
	Couplings M252M				
	Strength M252M				
Smooth Lined Corrugated Polyethylene Culvert Pipe	Diameter M294M	OMR-INSP89	QPL-51 & pre-inspected by PPT stamp or sticker		
	Depth & Spacing of Perforations M294M				
	Thickness M294M				
	Stiffness M294M				
	Flattening M294M				

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Cracking M294M						
		Brittleness M294M						
		Fittings M294M						
574								
EDGE DRAINS	Corrugated Aluminum Alloy Slope Drain Pipe	Diameter M196M	DOT-291		QPL-56 & pre-inspected with CMPT or GDT tag			
		Depth & Spacing of Corrugations M196M						
		Thickness M197M						
		Arch Dimensions M196M						
		Chemical M197M						
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						

Reinforce Concrete Pipe							
Physical	Diameter M170						
Properties of Pipe	Thickness M170	DOT-164		QPL-4 with CPT Stamp or pre-inspected by Office of Materials with GDT Stamp			
	Reinforcement Design M170						
	External Load Strength T280	OMR-INSP86					
Portland Cement	Air Content T137	DOT-175		QPL-3			
	Fineness M85						
	Autoclave M85						
	Compressive Strength M85						
	Vicat T131						
	Chemical M85						
Fly Ash	Fineness M295	DOT-175		QPL-30			
	Activity M295						
	Soundness M295						
	Density M295						
	Chemical M295						
Fine Aggregate	Gradation T27	DOT-658	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.	
	Wash 200 T11						
	Sand Equivalent GDT-63						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	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						
Steel Wire for Reinforcement	Size M32M	Certification	1 pc @ 24" per size/dia	Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock		
	Diameter M32M							
	Area M32M							
	Tensile Strength T244							
	Yield Strength T244							
	Area Reduction T244							
	Bend Test M32M							
Welded Steel Wire Fabric for Reinforcement	Size M55M	Certification	2' X 2'	QPL-55 w/Certified Mill Test Report	Random sampling	Jobsite storage and/or producer stock		
	Diameter M55M							
	Area M55M							
	Tensile Strength T244							
	Yield Strength T244							
	Area Reduction T244							
	Bend Test M55M							
	Weld Shear Strength M55M							
	Width M55M							
	Length M55M							
Spacing M55M								
Cylinders	Compressive Strength T22	Certification	3 ea.					
Non-Reinforced Physical Properties of Pipe	Concrete Pipe							
	Diameter M86							
	DOT-164							
	Thickness M86							
	Absorption M86							
Permeability M86								
External Load Strength T280		OMR-INSP86		QPL-4 with CPT Stamp or pre-inspected by Office of Materials with GDT Stamp				

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & <i>Number</i>	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Portland Cement	Air Content T137	DOT-175		QPL-3			
		Fineness M85						
		Autoclave M85						
		Compressive Strength M85						
		Vicat T131						
		Chemical M85						
	Fly Ash	Fineness M295	DOT-175		QPL-30			
		Activity M295						
		Soundness M295						
		Density M295						
		Chemical M295						
	Fine Aggregate	Gradation T27	DOT-658	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.		
		Wash -200 T11						
		Sand Equivalent GDT-63						
	Coarse Aggregate	Wash 200 T11	DOT-658	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						
	Fine Aggregate	Gradation T27	DOT-658	20 lbs.	One per 1,500 tons based upon QPL-1, except for Section D, Stockpile Basis Sources; material from Section D must	QPL-1 Sources, 1 per 20,000 tons, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance		

Sand Equivalent **GDT-63** Minus No. 200 **T11**

be sampled.

tests on materials delivered from Section D Sources.

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS	
					ACCEPTANCE	QUALITY ASSURANCE			
	Coarse Aggregate	Wash 200 T11	DOT-658	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 20,000 tons, except for Section D, Stockpile Basis Sources; GDOT will perform acceptance tests on materials delivered from Section D Sources.			
		Gradation T27							
	Fly Ash	Fineness M295	DOT-175		QPL-30				
		Activity M295							
		Soundness M295							
		Density M295							
		Chemical M295							
	Portland Cement	Air Content T137	DOT-175		QPL-3				
		Fineness M85							
		Autoclave M85							
		Compressive Strength M85							
		Vicat T131							
	Corrugated Polyethylene Underdrain Pipe	Diameter M252M	OMR-INSP-89		QPL-51				
		Depth & Spacing of Corrugations M252M							
		Thickness M252M							
		Stiffness ASTM D2412							
		Flattening M252M							
		Elongation M252M							

		Brittleness M252M						
		Flexibility M252M						
		Couplings M252M						
		Strength M252M						
	Drainage Aggregate	Gradation T27	DOT-658		QPL-2, Sections A, B & C; QPL-2, Section D, 1 per 1,500 tons ¹ per 20,000 tons	QPL-2, Sections A, B & C, 1 per 20,000 tons		
		Target Density GDT-59	DOT-553	Average of 5 tests from 100 ft control strip	One per Source		Completed Course	
		Compaction GDT-59			One per mile			

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
		Hot Mix Asphaltic Concrete Target Density GDT-59	DOT-159-5 DOT-387	Average of 5 tests from 100 ft control strip	One per Source			
	Asphalt Cement	Compaction GDT-59	DOT-553		One per mile		Completed Course	
		Dynamic Shear TP-3155	DOT-504	Two 1 quart cans ¹ qt.	QPL-7	As per GSP-21	Storage Tank	
	Coarse Aggregate for Asphaltic Concrete	Wash 200 T11	DOT-658	45 lbs.	QPL-2	As necessary	Stockpile	
		Gradation T27						
	Fine Aggregate for Asphaltic Concrete	Gradation T11 & T27	DOT-658	20 lbs.	QPL-1	As necessary	Stockpile	
		Clay Lumps T112						
		Sand Equivalent GDT-63						
		Mica Content ASTM C 295						
	Mineral Filler	Gradation T11 & T27	DOT-168	10 lbs.	QPL-81	One per 500 tons, per Type, per Source	Silo	
	Hydrated Lime	Physical & Chemical Analysis M216-84	Certification	1 gallon ¹ qt.*	QPL-41	One per Quarter	Silo or Tanker	*air-tight container
		Gradation T219						As required by SOP-17

	Complete Mixture	Chemical T219 Asphalt Binder Content: GDT-125, GDT-38, or T-308	DOT 159	Varies Per Mix Type	Asphalt Producer will test 1 per 500 tons	GDOT will test two QA samples per 5 days production or 5 lots. 1 comparison sample per 10 days production.	Truck or Roadway	
		Stripping Test: GDT-56	DOT 159	300g	One per extraction		Same as extraction	For OGFC and PEM mixes only.
		Compaction: GDT-39, or GDT-56	DOT 150	Core	Five per lot*		In-place after compaction	Quantities less than 500 tons will be tested at 1 per 100 tons. *Each test consist of 3 readings when Nuclear Gauge is used to determine density.
	Bituminous Tack Coat Asphalt Cement	Dynamic Shear: T-315		Two 1 quart cans	Once per week per distributor		Distributor	
	Plastic Filter Fabric - Non-Woven	Puncture Resistance ASTM D4833	Certification		QPL-28			
Grab Tensile Strength ASTM D4632								
Grab Elongation ASTM D4632								
Flow Rate GDT-87								

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SLOPE DRAIN	Corrugated Aluminum Alloy Slope Drain Pipe	Diameter M196M	DOT-291		QPL-56 & pre-inspected with CMPT or GDT tag			
		Depth & Spacing of Corrugations M196M						
		Thickness M197M						
		Arch Dimensions M196M						
		Chemical M197M						
		Tensile Strength T244						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Corrugated Steel Culvert Pipe	Yield Strength T244	DOT-291		QPL-56 & pre-inspected with CMPT or GDT tag			
		Elongation T244						
		Diameter M36M						
		Depth & Spacing of Corrugations M36M						

	Smooth Lined Corrugated Polyethylene Culvert Pipe	Thickness M36M	OMR-INSP-89		QPL-51 & pre-inspected by PPT stamp or sticker		
		Galvanization M218M					
		Diameter M294M					
		Depth & Spacing of Perforations M294M					
		Thickness M294M					
		Stiffness M294M					
		Flattening M294M					
		Cracking M294M					
		Brittleness M294M					
	Fittings M294M						
	Polyvinyl Chloride (PVC) Profile Wall Drain Pipe	Diameter M304	OMR-INSP-89		QPL-51 & pre-inspected by PPT stamp or sticker		
		Depth & Spacing of Corrugation M304					
		Thickness M304					
		Stiffness M304					
		Flattening M304					
		Elongation M304					
		Brittleness M304					
		Flexibility M304					
Couplings M304							
Strength M304							

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METAL DRAIN INLETS	Asphaltic Concrete						
	Asphalt Cement	Dynamic Shear T-315TP-5	DOT-504	4-qt.two 1 quart cans	QPL-7	As per GSP-21	Storage Tank
	Coarse Aggregate for Asphaltic Concrete	Wash 200 T11	DOT-658	45 lbs.	QPL-2	As necessary	Stockpile
		Gradation T27					
Fine Aggregate for Asphaltic Concrete	Gradation T11 & T27	DOT-658	20 lbs.	QPL-1	As necessary	Stockpile	
	Clay Lumps T1121						
	Sand Equivalent GDT-63						
	Mica Content						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		

	Mineral Filler	Gradation T11 & T27	DOT-168 Certification	10 lbs.	QPL-81	One per 500 tons, per Type, per Source	Silo	
	In-Place Material	Thickness Measurement GDT42	DOT-176		One per 1,000 ft, per 2 lanes	Observe 1 per 3 miles, per 2 lanes	Completed Course	
	Hydrated Lime	Physical & Chemical Analysis M216-84	Certification	1 <u>gallon</u> .*	QPL-41	One per Quarter	Silo or Tanker	*air tight container
		Gradation T219						As required by SOP-17
		Chemical T219						
	Complete Mixture	Asphalt Binder Content: GDT-125, GDT-38, or T-308 Extractions T11, GDT-38, GDT73, GDT-83 or GDT-125	DOT-387 DOT-159-5	Varies per Mix Type	Asphalt producer will test Minimum 1 per 500 tons	GDOT will test two QA samples per 5 days production or 5 lots. 1 comparison sample per 10 days production. Two QA samples per 5 days production or lots; 1 comparison sample per 10 days	Truck or Roadway	AASHTO T308 (Method A) *For all Asphaltic Concrete "OGFC" & other Mixes where the additive is incorporated at the plant, test at frequency of 1 per extraction
	Stripping Test GDT-56		300 g	One per Extraction (Open-Graded Mixes only)		Same as Extraction	For OGFC and PEM mixes only.	
	Compaction GDT-39, or GDT-59 or GDT-73	DOT-150386	Core	Five per Lot*		After Compaction	Quantities less than 500 tons will be tested at 1 per 100 tons. Small quantities may be accepted with less Compaction tests. *Each test consists of 3 readings when Nuclear Gauge is used to determine Density.	
Concrete								
	Fly Ash	Fineness M295						
		Activity M295						
		Soundness M295						
		Density M295						
		Chemical M295	DOT-175		QPL-30			
Portland Cement		Air Content T137	DOT-175		QPL-3			
		Fineness M85						
		Autoclave M85						
		Compressive Strength M85						

	Vicat T131						
	Chemical M85						
Portland Pozzolan	Air Content T137	DOT-175		QPL-3			
	Fineness M240						

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	GUIDE FREQUENCY		LOCATION OR TIME OF SAMPLING	REMARKS
					ACCEPTANCE	QUALITY ASSURANCE		
	Cement	Autoclave M240						
		Compressive Strength M240						
		Vicat T131						
		Chemical M240						
Sand-Cement Bag Rip Rap		Compressive Strength T22	Certification	45 lbs.	Laboratory Mix Design			
		Moisture Content T134						
		Bag Material & Size						
Slope Drain Pipe								
	Corrugated	Diameter M196M						
Aluminum Alloy Pipe		Depth & Spacing of Corrugations M196M	DOT-291		QPL-56 & pre-inspected with CMPT or GDT tag			
		Thickness M197M						
		Arch Dimensions M196M						
		Chemical M197M						
		Tensile Strength T244						
		Yield Strength T244						
		Elongation T244						
Corrugated Steel Pipe		Diameter M26M	DOT-291		QPL-56 & pre-inspected with CMPT or GDT tag			
		Depth & Spacing of Corrugations M36M						
		Thickness M36M						
		Galvanization M218M						
Smooth Lined Corrugated Polyethylene Pipe		Diameter M294M	OMR-INSP- 89		QPL-51 & pre-inspected by PPT stamp or sticker			
		Depth & Spacing of Perforations M294M						
		Thickness M294M						
		Stiffness M294M						
		Flattening M294M						
Cracking M294M								

Brittleness **M294M**

Fittings **M294M**

Asphaltic Concrete Curb

When placed in conjunction with Pay Item in Section 400, and ingredients are sampled under that Item, no additional samples of AC, CA, FA, or Mineral Filler required.

Tack Coat	Dynamic Shear: T-315 Specification Requirements T59	DOT-503	4 gal. two 1 quart cans	QPL-7 One per week per distributor.	One per Project	Before application distributor
Asphalt Cement	Dynamic Shear T-315TP-5	DOT-504	Two 1 quart cans 1 qt.	Once per week QPL-7	One per Project	Before application storage tank
Mineral Filler	Gradation T11 & T27	Certification	10 lbs.	QPL-81	One per 1,000 tons, per Type, per Source	Stock

GUIDE FREQUENCY

TYPE CONSTRUCTION	MATERIAL	TEST PROCEDURES Name & Number	REPORT SM Report	SIZE OF SAMPLE	ACCEPTANCE	QUALITY ASSURANCE	LOCATION OR TIME OF SAMPLING	REMARKS
	Completed Mix	Asphalt Binder Content: GDT-125, GDT-38, or T-308 Specification Requirements GDT-38 or GDT-83	159	25 lbs. varies per mix type	Two per week Asphalt producer will test 1 per 500 tons	GDOT will test two QA samples per 5 days production or 5 lots. 1 comparison per 10 days	Truck or Roadway	*Job Mix Formula may not be required.
	Fine Aggregate	Gradation T27						
		Wash 200 T11	DOT-658		QPL-2	As necessary		
	Coarse Aggregate	Sand Equivalent GDT-63						
		Wash 200 T11	DOT-658		QPL-2	As necessary		
		Gradation T27						