

QUALIFIED PRODUCTS LIST

The materials in this section may be accepted for use on Michigan Department of Transportation projects based on the trade name, model number, etc., as listed.

This Qualified Products List is in accordance with the 2003 Standard Specifications for Construction.

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)	
401-SP Culverts; Smooth Lined Corrugated Plastic Pipe (CPE); Class B	Size: 12 – 24 inch Size: 12 – 24 inch Blue Seal	Advanced Drainage Systems (ADS) Hancor (ADS)	
402-SP Storm Sewers; Smooth Lined Corrugated Plastic Pipe (CPE); Corrugated Polyvinyl Chloride Pipe (CPV); Class B	Size: 12 – 24 inch Size: 12 – 24 inch A-2000 PVC Size: 12 – 24 inch Blue Seal	Advanced Drainage Systems (ADS) Contech Drainage Systems Hancor (ADS)	
502-SP Protective Polymer Coating For HMA Pavement at Snowmobile Trail Crossings *NOTE: Contractor applied, must have prior approval to apply this material. Contact Tom Miller, MDOT, C&T, at 517-322-1070 for approval.	<u>Liquid Binders</u> CB 700 *Nor-Skilt Grade E-5 Mark-163 Flexogrid Mark-174 Polymer Road System E-Bond 526 Lo-Mod Sikadur 22 Lo-Mod Propoxy DOT Type III <u>Aggregate Size</u> #612 6x12 4 SB Grade - #7 BT 6x10 EP 5 Modified	Axson North America Inc. Clark Highway Services Poly-Carb, Inc. Poly-Carb, Inc. Ridgemoor Supply Sika Corporation Unitex Best Sand Dixie Cut Stone and Marble Flat Rock Bagging Inc. Humble Sand & Gravel Manufacturers Minerals Co. Unimin Corporation	800-225-5649 800-225-5649 248-569-5665 616-532-0782 517-663-8191 816-231-7700 231-499-1611 313-782-2073 800-783-4661 206-228-2120 800-257-7034 918-673-1737 800-237-4986

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)
<p>603.03B2 Adhesive Systems for Grouting Dowel Bars and Tie Bars for Full-Depth Concrete Pavement Repairs</p> <p>NOTE: Use these Qualified Products for grouting repairs to existing concrete in the same direction of traffic in the same lane of repair. For grouting lane ties (deformed bars positioned transverse to the direction of traffic located between traffic lanes) use Qualified Products listed in 712.03J, "Adhesive Systems for Structural Anchors and Lane Ties".</p>	<p>Anchor-it 1. Solid Bond HS-200 2. Solid Bond HR-200 Ultrabond 1, 2, 3 Ultrabond RT66 Ultrabond Speed Set 2 Inject-Tite Standard Set Inject-Tite Fast Set Aka Bond Aka Bond 550XP Aka Bond 550XPP Sonneborn Rapid Gel BHS-1250 BHS-1250XP Araldite AW / HW 8561 Spec Bond 201 Highway Fast Set Epoxy TRU Grip HI-Modepoxy 590 Tru-Grip 591 Dural Fast Set Epoxy Gel Futura Bond 566 Hilti RSE DOT HY-150 Epcon A7 Epcon-Ceramic 6 Kelipoxy II Poly-Carb Mark 198.4 Polyject/Polybac 1257 Polyject/Polybac 1295 AC 100+ Gold Power Fast Epoxy Adhesive - Normal Set T308+ Speed Bond #1 Sikadur Injection Gel Sikadur 881 DBA Sikadur DOT SP-13 Arcylic -Tie AT Epoxy Tie Dowel Bar Adhesive #5 Pro Poxy 300 Pro Poxy 300 FAST CIA Gel 7000 Rezi-Weld Gel Paste</p>	<p>Adhesives Technology Corp. Adhesives Technology Corp. Adhesives Technology Corp. Adhesives Technology Corp. Adhesives Technology Corp. Adhesives Technology Corp. ANKR-Tite Fastening Systems ANKR-Tite Fastening Systems Axson North America (Formerly Akemi Plastics) Axson North America (Formerly Akemi Plastics) Axson North America (Formerly Akemi Plastics) BASF Construction Chemical Blackhawk Sales Company, Inc. Blackhawk Sales Company, Inc. Ciba Specialty Chemicals Corp. Conspec Marketing & Mfg. Co., Inc. Dayton Superior Corp. J. Dedoes, Inc. J. Dedoes, Inc. Euclid Chemical Company Futura Adhesives & Chemicals Hilti, Inc. Hilti, Inc. ITW Ramset/Red Head ITW Ramset/Red Head Kelken Construction Systems Poly-Carb, Inc. Poly-Carb, Inc. Polygen, Inc. Polygen, Inc. Powers Fasteners, Inc. Powers Fasteners, Inc. Powers Fasteners, Inc. Prime Resins, Inc. Sika Corporation Sika Corporation Sika Corporation Simpson Strong-Tie Company, Inc. Simpson Strong-Tie Company, Inc. Superior Epoxies & Coatings Unitex Unitex USP Structural Connectors W. R. Meadows</p>

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)																		
702.02B Non-Shrinking Mortar and Grout Type H-1(Non-Metallic) Pre Mixed H-2 eliminated.	MBT 928 Grout MBT Construction Grout Set Grout Boomer Premium Grout Upcon Super Flow Grout Celtite 10-50 Hi-Flow Conspec 100 Enduro 50 Grout Gifford-Hills Supreme Grout 1107 Advantage Grout Sure Grip Grout Sure Grip Utility Grout NS Grout Five Star Grout Pro-Grout 90 Sure-Grip Crystex Duragrout Quikrete Precision Grout Superb Grout 611 Multi Purpose Grout Sealite 588 Grout	BASF Construction Chemical, Shakopee, MN BASF Construction Chemical, Shakopee, MN BASF Construction Chemical, Shakopee, MN Boomer Construction Materials, Detroit, MI Bostik Const. Prod. Co., Cleveland, OH Celtite Inc., Georgetown, KY Conspec Marketing & Mfg., Kansas City, KS Conspec Marketing & Mfg., Kansas City, KS Cormix, Inc., Cleveland, OH (form. Gifford-Hill) Dayton Superior Corp., Oregon, IL Dayton Superior Corp., Oregon, IL Dayton Superior Corp., Oregon, IL Euclid Chemical Co., Cleveland, OH Five Star Products, Inc. G.C.M., Inc., Bensalem, PA Kaufman Products, Inc., Baltimore, MD L&M Construction Chemicals, Inc., Omaha, NE L&M Construction Chemicals, Inc., Omaha, NE Quikrete Technical Center, Atlanta, GA Specco Industries, Lemont, IL Symons Prod, Inc., Denver, CO & Richmond Screw Anchor W.R. Meadows, Inc., Elgin, IL																		
703 Prepackaged Hydraulic Fast Set* Mortar NOTE: *Percentage based upon weight of prepackaged bag containing both cement and sand. Example Calculation: 23kg bag approved at 60% extension = 23 x 0.60 = 14kg coarse aggregate per bag.	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="text-align: center; border-bottom: 1px solid black;">Max. Aggregate Extension, %</th> </tr> </thead> <tbody> <tr><td>Emaco 10-60 Rapid Mortar</td><td style="text-align: center;">60*</td></tr> <tr><td>Emaco Set 45</td><td style="text-align: center;">60*</td></tr> <tr><td>Burke Fast Patch 928</td><td style="text-align: center;">50*</td></tr> <tr><td>Chem Speed 65</td><td style="text-align: center;">50*</td></tr> <tr><td>HD-50 Heavy Duty Concrete Patch</td><td style="text-align: center;">60*</td></tr> <tr><td>Five Star Highway Patch</td><td style="text-align: center;">60*</td></tr> <tr><td>Durapatch Hiway</td><td style="text-align: center;">50*</td></tr> <tr><td>HD-Dot Patch</td><td style="text-align: center;">60*</td></tr> </tbody> </table>		Max. Aggregate Extension, %	Emaco 10-60 Rapid Mortar	60*	Emaco Set 45	60*	Burke Fast Patch 928	50*	Chem Speed 65	50*	HD-50 Heavy Duty Concrete Patch	60*	Five Star Highway Patch	60*	Durapatch Hiway	50*	HD-Dot Patch	60*	BASF Construction Chemical BASF Construction Chemical The Burke Company Chem Masters Dayton Superior Corp. Five Star Products, Inc. L&M Construction Chemicals, Inc. Symons Corp.
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706.03S Protective Coating for Concrete (Penetrating Water Repellent Treatment of Structure Concrete Surfaces)	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="text-align: center; border-bottom: 1px solid black;">Application Rate, sq ft/gal (sq m/L)</th> </tr> </thead> <tbody> <tr><td>Hydrozo Enviroseal 20</td><td style="text-align: center;">125-200 (3.07-4.91)</td></tr> <tr><td>Hydrozo Enviroseal 40</td><td style="text-align: center;">125-200 (3.07-4.91)</td></tr> <tr><td>Barracade Silane</td><td style="text-align: center;">125 (3.07)</td></tr> <tr><td>Aquapel Plus 20% Silane</td><td style="text-align: center;">125 (3.07)</td></tr> <tr><td>Stifel</td><td style="text-align: center;">125 (3.07)</td></tr> </tbody> </table>		Application Rate, sq ft/gal (sq m/L)	Hydrozo Enviroseal 20	125-200 (3.07-4.91)	Hydrozo Enviroseal 40	125-200 (3.07-4.91)	Barracade Silane	125 (3.07)	Aquapel Plus 20% Silane	125 (3.07)	Stifel	125 (3.07)	BASF Construction Chemical BASF Construction Chemical Euclid Chemical Co. L&M Construction Chemicals, Inc. Nox-Crete Chemicals						
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707.02 Bushings for Pins & Link Plates	Rulon CJ Garmax	Furon/Saint-Gobain Garlock																		

QUALIFIED PRODUCTS LIST (QPL)

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<p>712.03J Adhesive Systems for Structural Anchor & Lane Ties*</p> <p>NOTE: *Lane Ties defined as deformed bars positioned transverse to the direction of traffic located between lanes. For grouting dowel bars and tie bars (bars positioned to existing concrete in the direction of the traffic in the same lane as the repair) use QP list on 603.03B2, "Adhesive Systems for Grouting Dowel Bars for Full-Depth Concrete Pavement Repairs". Note 1. Anchors shall be installed per manufacturer's recommendations with a minimum embedment depth of 12 diameters for reinforcing steel and 9 diameters for threaded bolts. Note 2. Material is limited to the shelf life recommendations by the manufacturer.</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"><u>Name</u></th> <th style="width: 20%;"><u>Adhesive Type</u></th> <th style="width: 10%;"><u>Mixing & Inject.</u></th> </tr> </thead> <tbody> <tr><td>Ultrabond 1</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>HS-200</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>Tru-Grip 591</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>HY-150</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>HY-150 MAX</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>RE 500</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>Hilti HTE 50</td><td>Epoxy</td><td>Capsule</td></tr> <tr><td>HVU</td><td>Urethane-Methacrylate</td><td>Capsule</td></tr> <tr><td>Ceramic 6</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>Epcon Acrylic 7</td><td>Methacrylate</td><td>Yes</td></tr> <tr><td>Super Por-Rok</td><td>Non-Shrink Grout</td><td>Yes</td></tr> <tr><td>Power-Fast (Standard Set)</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>AC100 Plus</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>Acrylic-Tie</td><td>Methacrylate</td><td>Yes</td></tr> <tr><td>EDOT</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>Epoxy-Tie</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>SET</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>Pro-Poxy 300</td><td>Epoxy</td><td>Yes</td></tr> <tr><td>CIA-Gel 7000</td><td>Epoxy</td><td>Yes</td></tr> </tbody> </table>	<u>Name</u>	<u>Adhesive Type</u>	<u>Mixing & Inject.</u>	Ultrabond 1	Epoxy	Yes	HS-200	Epoxy	Yes	Tru-Grip 591	Epoxy	Yes	HY-150	Epoxy	Yes	HY-150 MAX	Epoxy	Yes	RE 500	Epoxy	Yes	Hilti HTE 50	Epoxy	Capsule	HVU	Urethane-Methacrylate	Capsule	Ceramic 6	Epoxy	Yes	Epcon Acrylic 7	Methacrylate	Yes	Super Por-Rok	Non-Shrink Grout	Yes	Power-Fast (Standard Set)	Epoxy	Yes	AC100 Plus	Epoxy	Yes	Acrylic-Tie	Methacrylate	Yes	EDOT	Epoxy	Yes	Epoxy-Tie	Epoxy	Yes	SET	Epoxy	Yes	Pro-Poxy 300	Epoxy	Yes	CIA-Gel 7000	Epoxy	Yes	<p>Adhesives Technology Corp. Adhesives Technology Corp. J. Dedoes, Inc. Hilti, Inc. Hilti, Inc. Hilti, Inc. Hilti, Inc. Hilti, Inc. Hilti, Inc. ITW Ramset/Red Head ITW Ramset/Red Head Novex Systems International, Inc. Powers Fasteners, Inc. Powers Fasteners, Inc. Simpson Strong-Tie Anchor Systems Simpson Strong-Tie Anchor Systems Simpson Strong-Tie Anchor Systems Simpson Strong-Tie Anchor Systems Unitex USP Structural Connectors</p>
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<p>712.03L Mechanical Reinforcement Splicing</p> <p>NOTE: Splices used to connect precast structural elements shall be high strength splices.</p>	<p>BPI Bar Splicer System Grip Twist Threaded Position Coupler Zap Screwlok Bar-Lock L-Series Bar-Lock S/CA-Series DB SAE Lenton Lenton Form Saver Lenton Interlok (High Strength) Lenton Position Coupler NMB Splice Sleeve (High Strength)</p>	<p>Bar Splice Products, Inc., Beavercreek, OH Bar Splice Products, Inc., Beavercreek, OH Bar Splice Products, Inc., Beavercreek, OH Dayton Superior Corp., Miamisburg, OH Dayton Superior Corp., Miamisburg, OH Dayton Superior Corp., Miamisburg, OH Dayton Superior Corp., Miamisburg, OH ERICO Concrete Construction, Solon, OH ERICO Concrete Construction, Solon, OH ERICO Concrete Construction, Solon, OH ERICO Concrete Construction, Solon, OH Splice Sleeve North America, Inc., Irvine, CA</p>																																																												
<p>712.03Y Embedded Galvanic Anodes</p>	<p>MBT Emaco Corr-Stops Sentinel-GL Sika Galvashield XP Sika Galvashield XP+ Galvashield XP Galvashield XP+</p>	<p>BASF Construction Chemicals, Bldg Systems Euclid Chemical Co. Sika Corporation Sika Corporation Vector Corrosion Technologies Vector Corrosion Technologies</p>																																																												
<p>713.02B Sealant for Perimeter of Beam Repairs</p> <p>NOTE: No silicone materials - only polyurethane (PU) or PU blended materials that are paintable. Typically 1 week cure prior to painting. All non-sag material.</p>	<p>Sonneborn NP1 Duralink (F1200) Sherwin Williams Stampede 1 Sika Flex 15LM Vulkem 116</p>	<p>BASF Construction Chemicals, Shakapee, MN Chem Link Sherwin Williams Sika Corp., Lyndhurst Tremco, Inc.</p>																																																												
<p>715.02 Coating Systems for New Hanger Assemblies</p>	<p>See Bridge Coating Systems, Spec. 915</p>																																																													
<p>715.02 Abrasive, Low Dusting</p> <p>NOTE: The blasting profile produced by these abrasives will depend on the equipment used. It is the responsibility of the contractor to produce a profile within the 1.0 to 2.8 mils specified range. The abrasive additive, Blastox may be used with any of the listed low-dusting abrasives.</p>	<p>Black Diamond Abrasive GMA Garnet Blast Black Shot Granulated Slag StarBlast XL Emerald Creek Garnet Blackjack MSM, Waupaca Materials Blast Away Ebony Grit Black Beauty Norblast E-1015 M-1015</p>	<p>ATI-Black Diamond, Woodbury, MN Barton Mines Corp., Golden, CO Bell & MacKenzie Co Ltd, Hamilton, Ontario Dupont, Wilmington, DE Emerald Creek Garnet, Fernwood, ID Falk Brothers Constr. Co., Inc., Waupaca, WI Gibbco, Inc. Opta Minerals Inc. Reed Minerals Division, Highland, IN Transtech Inc., Covington, KY Universal Ground Cullets, Inc., Brook Park, OH Universal Ground Cullets, Inc., Brook Park, OH</p>																																																												

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)
<p>803.02-SP Detectable Warning Surfaces (ADA Compliant Sidewalk Ramps), 1. Cast-in-Place</p>	<p>Cast in Place Truncated Dome Warning System Alertcast EJIW Detectable Warning Plate Armor-Tile Cast in Place Stainless Armor-Tile Cast in Place Composite NF Detectable Warning Plate</p>	<p>ADA Solutions, North Billerica, MA Detectable Warning Systems, Wilmington, NC East Jordan Iron Works, East Jordan, MI Engineered Plastics, Inc., Williamsville, NY Engineered Plastics, Inc., Williamsville, NY Neenah Foundry Company, Neenah, WI</p>
<p>2. Surface Applied* *NOTE: Surface applied detectable warning surfaces may only be used to retrofit existing concrete</p>	<p>Surface Applied Panel System with Beveled Edges Alerttile Armor-Tile Surface Applied Composite Warning System TopMark</p>	<p>ADA Solutions, North Billerica, MA Detectable Warning Systems, Wilmington, NC Engineered Plastics, Inc., Williamsville, NY Flint Trading Inc., Thomasville, NC</p>

QUALIFIED PRODUCTS LIST (QPL)

ADMIXTURES FOR CONCRETE Air Entraining - ASTM C 260; Chemical - ASTM C 494 (See Notes Following Listing of Admixtures)

Spec. # and Material Name	Manufacturer or Supplier and Trade Name	Type	Producer and Description	Dosage min. or range fl oz/cwt	Dosage min. or range ml/100k
903.01 Air Entraining Admixtures	<u>AXIM CONCRETE TECHNOLOGIES, INC.</u>				
903.02 Concrete Accelerators	Allegro 122	F	High-range water-reducer	5 - 12	325 - 780
	Catexol AE 260	AE	Air-entraining	1	65
903.03 Water Reducing and Water Reducing Retarding Admixtures for Concrete	Catexol AE 360	AE	Air-entraining	1 - 3	65 - 195
	Catexol Hydrosense	A MR	Water-reducer Mid-range water-reducer	3 - 5 6 - 8	195 - 325 390 - 520
	Catexol VR	AE	Air-entraining (vinsol resin)	0.75	49
	Catexol 800N	A	Water-reducer	3	195
	Catexol 1000N	A D	Water-reducer Water-reducer retarder	2 4	130 260
	Catexol 1000R	D	Water-reducer retarder	2	130
	Catexol 1000 RHE	C	Accelerator (non chloride)	16	1042
	Catexol 1000 SPMN	F MR	High-range water-reducer Mid-range water-reducer	10 - 40 8 - 12	651 - 2602 521 - 782
	Catexol 2000 Ni	A MR G	Water-reducer Mid-range water-reducer High-range water-reducer retarder	3 - 8 8 - 12 14 - 24	195 - 522 522 - 782 910 - 1565
	Catexol 2000 SPMN	F	High-range water-reducer	10 - 32	651 - 2082
	Catexol 2000 RHE	E	Water-reducer accelerator (non chloride)	10 - 90	651 - 5860
	Catexol 3000 GP	A MR	Water-reducer Mid-range water-reducer	2 - 4 5 - 8	130 - 260 325 - 520
	Catexol 3500 N	MR	Mid-range water-reducer	5 - 12	325 - 780
	Duraflux 33	MR F	Mid-range water-reducer High-range water-reducer	3 - 5 5 - 8	195 - 520 325 - 520
	Duraflux 66	MR F	Mid-range water-reducer High-range water-reducer	6 - 8 9 - 12	390 - 520 585 - 780
	Stop Set L	D	Water-reducer retarder	2 - 8	130 - 520
	Superflux 2000pc	F	High-range water-reducer	3	195
	<u>BASF CONSTR. CHEM.</u>				
	Delvo Stabilizer	D	Water-reducer retarder	3	195
	Everair Plus	AE	Air-entraining	1- 4	65 - 260
	Glenium 3000 NS	F	High-range water-reducer	4 - 12	260 - 780
	Glenium 3030 NS	MR F	Mid-range water-reducer High-range water-reducer	3 - 5 5 - 7	195 - 325 325 - 455

(Continued)

QUALIFIED PRODUCTS LIST (QPL)

ADMIXTURES FOR CONCRETE Air Entraining - ASTM C 260; Chemical - ASTM C 494 (See Notes Following Listing of Admixtures)

Spec. # and Material Name	Manufacturer or Supplier and Trade Name	Type	Producer and Description	Dosage min. or range fl oz/cwt	Dosage min. or range ml/100k	
Continued: 903.01 Air Entraining Admixtures	BASF Continued: Glenium 3400NV	F	High-range water-reducer	3 - 10	195 - 650	
	Glenium 7500	A F	Water-reducer High-range water-reducer	1.5 3 - 15	100 195 - 978	
903.02 Concrete Accelerators	Glenium 7700	MR F	Mid-range water-reducer High-range water-reducer	2 - 4 4 - 15	130 - 160 160 - 980	
	Masterpave	A	Water-reducer	5 - 6	326 - 390	
903.03 Water Reducing and Water Reducing Retarding Admixtures for Concrete	Masterpave N	A	Water-reducer	2 - 4	130 - 260	
	MB-AE 90	AE	Air-entraining			
	MB-VR and MB-VR Concentrated	AE	Air-entraining (vinsol resin)			
	MICRO-AIR	AE	Air-entraining			
	Polyheed 900		A	Water-reducer	4	260
			MR	Mid-range water-reducer	7	455
	Polyheed 997		A	Water-reducer	3	195
			MR	Mid-range water-reducer	6	390
			F	High-range water-reducer	10	650
	Polyheed 1725		A	Water-reducer	2.5 - 4	165 - 260
			MR	Mid-range water-reducer	5.5 - 7	360 - 455
			F	High-range water-reducer	8 - 12	520 - 780
	Polyheed FC-100		A	Water-reducer	4	260
			MR	Mid-range water-reducer	8	520
	Pozzolith 80		A	Water-reducer	3.75 - 5.75	245 - 375
			D	Water-reducer retarder	5.75 - 10	375 - 650
	Pozzolith 100-XR		D	Water-reducer retarder	3 - 4	195 - 260
	Pozzolith 200-N		A	Water-reducer	2 - 3	130 - 195
D			Water-reducer retarder	3 - 6	195 - 390	
Pozzolith 220-N		A	Water-reducer	2 - 3	130 - 195	
		D	Water-reducer retarder	3 - 5	195 - 326	
Pozzolith 322N		A	Water-reducer	3	195	
		D	Water-reducer retarder	5	325	
Pozzolith NC-534		C	Accelerator (non-chloride)	10 - 45	650 - 2930	
Pozzutec 20		E	Water-reducer accelerator (non-chloride)	10	651	
PS 1481		MR	Mid-range water-reducer	3	195	
		F	High-range water-reducer	6	390	
Rheobuild 1000		MR	Mid-range water-reducer	9	585	
		F	High-range water-reducer	13	850	

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ADMIXTURES FOR CONCRETE Air Entraining - ASTM C 260; Chemical - ASTM C 494 (See Notes Following Listing of Admixtures)

Spec. # and Material Name	Manufacturer or Supplier and Trade Name	Type	Producer and Description	Dosage min. or range fl oz/cwt	Dosage min. or range ml/100k
Continued: 903.01 Air Entraining Admixtures	<u>D.W. DAVIS & CO., INC.</u> Air Entrainer #500	AE	Air-entraining (vinsol resin)	---	---
903.02 Concrete Accelerators	<u>EUCLID CHEMICAL CO.</u> AEA - 92	AE	Air-entraining	0.5	33
903.03 Water Reducing and Water Reducing Retarding Admixtures for Concrete	AEA - 92S	AE	Air-entraining	0.5 - 2	35 - 130
	Accelguard 80	C	Accelerator (non-chloride)	18 - 32	1170 - 2080
	AIR MIX 200	AE	Air-entraining	0.5	33
	EUCON Air Mix	AE	Air-entraining (vinsol resin)	0.75	49
	EUCON MR	A MR F	Water-reducer Mid-range water-reducer High-range water-reducer	4 - 6 6 - 9.5 9.5 - 12	260 - 390 390 - 625 625 - 780
	EUCON WR-75	A	Water-reducer	2.5 - 5	163 - 326
	EUCON WR-91	A D	Water-reducer Water-reducer retarder	3 - 5 5 - 6	195 - 325 325 - 390
	EUCON A+	A MR	Water-reducer Mid-range water-reducer	3 - 6 6 - 8	195 - 390 390 - 520
	EUCON Retarder75	D	Water-reducer retarder	4	260
	EUCON 37	F	High-range water-reducer	16	1042
	EUCON 537	G	High-range water-reducer retarder	16	1042
	EUCON 1037	F	High-range water-reducer	10 - 25	650 - 1630
	PLASTOL 5000	F	High-range water-reducer	3 - 15	195 - 978

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Continued: 903.01 Air Entraining Admixtures	<u>GENERAL RESOURCE TECHNOLOGY</u>				
	Melchem	F	High-range water-reducer	8	522
903.02 Concrete Accelerators	Polychem VR	AE	Air-entraining (vinsol resin)	---	---
	Polychem AE	AE	Air-entraining	---	---
903.03 Water Reducing and Water Reducing Retarding Admixtures for Concrete	Polychem SPC	F	High-range water-reducer	6	390
	Polychem KB-1000	A MR	Water-reducer Mid-range water-reducer	3 6 - 8	195 390 - 520
	Polychem 1000	A	Water-reducer	3	195
	Polychem 400 NC	A	Water-reducer	3	195
	Polychem Super Set	C	Accelerator (non-chloride)	16	1043
	Polychem R	D	Water-reducer retarder	3	195
	Polychem Superflo 3000	F	High-range water-reducer	8	522

QUALIFIED PRODUCTS LIST (QPL)

ADMIXTURES FOR CONCRETE Air Entraining - ASTM C 260; Chemical - ASTM C 494 (See Notes Following Listing of Admixtures)

Spec. # and Material Name	Manufacturer or Supplier and Trade Name	Type	Producer and Description	Dosage min. or range fl oz/cwt	Dosage min. or range ml/100k
Continued: 903.01 Air Entraining Admixtures	<u>PROMIX ADMIXTURES</u> <u>(PREMIERE CONCRETE</u> <u>ADMIXTURES)*</u>				
903.02 Concrete Accelerators	EcoFlo SCM 728	A	Water-reducer	3 - 4	195 - 260
		MR	Mid-range water-reducer	6 - 8	390 - 520
903.03 Water Reducing and Water Reducing Retarding Admixtures for Concrete	EcoFlo SCM 40	A	Water-reducer	3 - 4	195 - 260
		MR	Mid-range water-reducer	6 - 8	390 - 520
	Optiflo 700	MR	Mid-range water-reducer	5 - 8	325 - 520
	OptiFlo 50	A	Water-reducer	3	195
	OptiFlo 500	A	Water-reducer	2 - 3.5	130 - 230
		D	Water-reducer	3.5 - 5	230 - 325
	OptiFlo Renu	D	Water-reducer	3 - 6	195 - 390
	OptiFlo Plus	MR	Mid-range water-reducer	5 - 12	325 - 780
	OptiFlo MR	MR	Mid-range water-reducer	7 - 12	455 - 780
	OptiFlo 100R	D	Water-reducer	3 - 5	195 - 325
	ConAir	AE	Air-entraining	0.5 - 4	35 - 260
	ConAir VR	AE	Air-entraining (vinsol resin)	0.5 - 4	35 - 260
	ConAir TX	AE	Air-entraining	0.5 - 4	35 - 260
	ConAir 260	AE	Air-entraining	0.5 - 4	35 - 260
	UltraFlo 2000	MR	Mid-range water-reducer	4 - 6	260 - 390
		F	High-range water-reducer	6 - 12	390 - 780
UltraFlo 4600	MR	Mid-range water-reducer	5 - 8	325 - 520	
	F	High-range water-reducer	10 - 20	650 - 1300	
UltraFlo DP	F	High-range water-reducer	4 - 10	260 - 650	
NitroCast K	C	Accelerator (non-chloride)	10 - 90	650 - 5870	
* Beginning June 1, 2009, Promix Admixtures will become Premiere Concrete Admixtures					
	<u>RUSSTECH</u>				
	LC-400R	D	Water-reducer retarder	3	195 - 390
	RCI	C	Accelerator (non-chloride)	8	520
	RSA-10	AE	Air-entraining		
	Superflo 2000RM	A	Water-reducer	1 - 3	65 - 195
		F	High-range water-reducer	7 - 20	455 - 1300

QUALIFIED PRODUCTS LIST (QPL)

ADMIXTURES FOR CONCRETE Air Entraining - ASTM C 260; Chemical - ASTM C 494 (See Notes Following Listing of Admixtures)

Spec. # and Material Name	Manufacturer or Supplier and Trade Name	Type	Producer and Description	Dosage min. or range fl oz/cwt	Dosage min. or range ml/100k
Continued:	<u>SIKA CORP.</u>				
903.01 Air Entraining Admixtures	AEA-14	AE	Air-entraining	0.5 - 3	35 - 195
903.02 Concrete Accelerators	Plastiment	D	Water-reducer retarder	2 - 8	130 - 520
	Plastocrete 161	A	Water-reducer	2	130
903.03 Water Reducing and Water Reducing Retarding Admixtures for Concrete	Sika AEA-15	AE	Air-entraining	0.5 - 3.0	35 - 195
	Sikament 20 ESL	MR F	Mid-range water-reducer High-range water-reducer	4 - 6 7 - 10	260 - 390 455 - 650
	Sikament 686	MR F	Mid-range water-reducer High-range water-reducer	4 - 6 8 - 10	260 - 390 520 - 650
	Sikaplast 500	A MR	Water-reducer Mid-range water-reducer	3.0 - 5.0 5.0 - 7.0	195 - 325 325 - 455
	Sikset NC	C	Accelerator (non-chloride)	10 - 45	650 - 2930
	Viscocrete 2100	F	High-range water-reducer	8 - 10	520 - 650
	Viscocrete 4100	F	High-range water-reducer	5 - 8	325 - 520
	Viscocrete 6100	F	High-range water-reducer	3 - 8	195 - 520

QUALIFIED PRODUCTS LIST (QPL)

ADMIXTURES FOR CONCRETE Air Entraining - ASTM C 260; Chemical - ASTM C 494 (See Notes Following Listing of Admixtures)

Spec. # and Material Name	Manufacturer or Supplier and Trade Name	Type	Producer and Description	Dosage min. or range fl oz/cwt	Dosage min. or range ml/100k
Continued: 903.01 Air Entraining Admixtures	<u>W. R. GRACE & COMPANY</u>				
	ADVA 190	F	High-range water-reducer	3 - 9	195 - 585
903.02 Concrete Accelerators	ADVA Cast 575	F	High-range water-reducer	3 - 10	195 - 650
903.03 Water Reducing and Water Reducing Retarding Admixtures for Concrete	Daracem 19	F	High-range water-reducer (40% solids)	12.5	807
	Daracem 50	A(CL)	Water-reducer (contains chloride restricted use, see Note #5)	3 - 10	195 - 650
	Daracem 55	A	Water-reducer	3 - 10	195 - 650
	Daracem 65	A MR	Water-reducer Mid-range water-reducer	4 - 6 6 - 12	260 - 390 390 - 780
	Daracem 100	A F G	Water-reducer High-range water-reducer High-range water-reducer retarder	3 - 7 9 - 12 12 - 15	325 - 455 651 - 781 781 - 977
	Daratard HC	D	Water-reducer retarder	3	195
	Daratard 17	D	Water-reducer retarder	4	260
	Daravair 1000	AE	Air-entraining		
	Daravair 1400	AE	Air-entraining		
	Darex II AEA	AE	Air-entraining		
	Darex EH AEA	AE	Air-entraining	0.5 - 5.0	35 - 325
	Lubricon NCA	C	Accelerator (non-chloride)	15 - 25	975 - 1630
	Mira 92	A F	Water-reducer High-range water-reducer	3 - 5 8 - 15	195 - 326 520 - 978
	Polarset	C	Accelerator (non-chloride)	8 - 60	520 - 3910
	WRDA 20	A D	Water-reducer Water-reducer retarder	2 - 3 3 - 5	130 - 195 195 - 326
	WRDA 82	A	Water-reducer	3	195
	WRDA w/HYCOL	A D	Water-reducer Water-reducer retarder	3 - 4.5 4.5	195 - 293 293

SPEC. 903 ADMIXTURE NOTES:

1. Dosage Rate

The dosage rate shown is the minimum quantity permitted according to the Qualified Products List. The dosage indicated is that recommended by the producer or that used in qualification tests for approval of the admixture. There is no assurance that the desired water-reduction and/or retardation will be achieved with these dosages with a particular cement being used, as the effect is dependent on the cement chemistry, concrete temperature, and other factors. Increasing the dosage appreciably above that recommended may result in abnormal behavior of the concrete, such as extremely long or very short setting times. Reducing the dosage below that recommended may have the effect of substantially no change from concrete without the admixture. The dosage shown for retarding admixtures will normally produce a 1- to 3-hour retardation in the setting of the concrete, compared to similar concrete without the admixture, when used at normal temperatures (approximately 21 C). Increased dosage, within reasonable limits, will usually increase the retardation. Use of a retarding admixture will not slow the stiffening of concrete due to loss of slump.

2. Air-Entraining Admixtures

The contractor is responsible for verifying the compatibility of all chemical admixtures and the air-entraining admixture. If admixtures are from more than one manufacturer, run a trial batch prior to concrete placement. Provide test results for slump, air-entrainment and seven-day compression for two (2) cylinders. Actual dosage for Air-Entrainers may vary from those listed on the Qualified Products List as required by the mix design.

3. Lignin Type Admixtures

Lignin (or lignosulfonate) admixtures typically will cause the entrainment of additional air in air-entrained concrete. This type admixture does not generally entrain air by itself, but makes other air-entraining materials much more efficient. Thus, a change in dosage of either the chemical admixture or the air-entraining admixture may have a more significant effect on the air content than normally expected. It is the contractor's responsibility to be sure the specific admixture proposed for use is compatible with his operations so that excessive air content in the concrete is not developed. Most lignosulfonate type water-reducers will provide a moderate retardation if used at higher dosage rates.

4. High-Range Water-Reducers

Type F and G high range water-reducing (HRWR) admixtures (frequently called "superplasticizers") are capable of greater water reduction and greater strength gain than regular Type A water-reducers, or can provide substantial increase in slump while maintaining a cohesive concrete without loss of strength. Type G admixtures will also provide retardation of setting similar to Type D admixtures. Problems with this type of admixture include the following: (a) Loss of slump is frequently much more rapid than with plain concrete or when other admixtures are used, especially for older formulations of superplasticizers; (b) Effectiveness depends on the chemistry of the Portland cement, and the cements generally available in Michigan do not have the most favorable chemistry; (c) The air-void system may be adversely affected. Type F and G admixtures are to be used only according to the provisions of the Standard Specifications.

5. Admixtures Containing Chlorides

Some Type A and D admixtures may contain chlorides, as noted in the above listing. Section 903.03 of the Standard Specifications permits the use of these admixtures, except they are prohibited in concrete for bridge superstructure, prestressed concrete, and concrete containing galvanized steel or aluminum.

(End of Admixture Notes)

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name		Manufacturer(s) or Supplier(s)
905.03C1 Bar Reinforcement (Epoxy Coating) NOTE: Epoxy Coating Material Only. The Coating Applicator and Bar Manufacturer can be Approved Manufacturers, see Approved Manufacturers List.	<u>Epoxy Coating Product Name</u> Scotchkote 215 Scotchkote 413 Interpon HD-33 Interpon HD-34 Resicoat 500607 Resicoat 500620 Resicoat RB-600 Nap-Gard 7-2709 Nap-Gard 7-2719 Corvel Green 10-6071 Corvel Green 10-6095 Greenbar 720A009	<u>Repair Coating Product Name</u> Scotchkote 413/215 PC Scotchkote 413/215 PC Interpon HD-5020 Interpon HD 5020 Resicoat 506610 Resicoat 506610 Denso Protal 7200 Nap-Gard 7-2727 Nap-Gard 7-1870 or 7-2727 Corvel 10-6071PC2 Corvel 10-6071PC2 Greenbar 920-G-966/920-C-966	3M 3M Akzo Nobel Powder Coatings Akzo Nobel Powder Coatings Akzo Nobel Powder Coatings Akzo Nobel Powder Coatings Akzo Nobel Powder Coatings Dupont Powder Coating (O'Brien Products) Dupont Powder Coating (O'Brien Products) Morton Powder Coating Morton Powder Coating Valspar
906.08 Shear Developers (Studs)	<u>Markings:</u> N X TW C		Nelson Stud Welding Co. (Div. of Gregory Ind.) Stud Welding Associates, Inc. Tru-Weld from True Fit Products Corp. TRW Cox Industries
908.05 Alternate Adjustable Gray Iron Castings For Manholes, Drainage Structures, and Covers	Final Cut Municipal Casting		Site Solutions, Inc., Gibraltar, MI
909.01 Adjusting Rings for Manholes and Drainage Structures (Alternatives, Recycled Rubber)	Flex-O-Ring Pivoted Turnbuckle Infra-Riser UGT Grade Ring Whirlygig		American Highway Products American Highway Products East Jordan Iron Works Underground Technologies Whirlygig, Inc.

Spec #	Pipe Material	Joint Components (Inches)	Pipe Diameter (Inches)	Approved Manufacturers
909.03 Watertight Joint Systems (Continued)	Corrugated Metal Pipe	H12 Hugger Band with Single Bolt Bar and Strap with Compression Gasket	12 thru 24	Contech Construction Products, Inc.
	Corrugated Metal Pipe	Gasket-Bidco Wrap 12 x 3/8 Band	12 thru 18 Band 7 24 thru 30 Band 12 & larger Band 21	Jensen Bridge & Supply Co.
	Corrugated Metal Pipe	12 Bolted Band Angle with Compression Gasket Bidco Wrap 6 x 1/8 Band	12 thru 72	Premarc Inc. (Cadillac Facility)
	Corrugated Metal Pipe	Bolted Corrugated Steel Band with Compression Gasket Ensolite IV Series	12 thru 24	St. Regis Culvert Inc.

QUALIFIED PRODUCTS LIST (QPL)

Spec #	Pipe Material	Joint Components (Inches)	Pipe Diameters (Inches)	Approved Manufacturers
909.03 Continued Watertight Joint Systems	Corrugated Polyethylene Pipe	Gasket Self Locking Bell/Spigot Hancor Blue Seal Single Compression Gasket	12 thru 60	ADS - Hancor
	Corrugated Polyethylene Pipe	Gasket Self Locking Bell/Spigot Hancor SURE-LOK Single Compression Gasket	12 thru 60	ADS - Hancor
	Corrugated Polyethylene Pipe	Bell/Spigot N-12WT Pro-Link Ultra WT Rubber Gasket	12 thru 60	Advanced Drainage Systems, Inc. (ADS)
	Corrugated Polyethylene Pipe	Compression Gasket	12 thru 24	Baughman Tile Co.
	Corrugated Polyethylene Pipe	Haviland Smooth-Flow WT Compression Gasket	12 thru 60	Haviland Drainage Products Co.
	Corrugated Polyethylene Pipe	Gold Flow Corrugated SLCP Compression Gasket	12 thru 36	Prinsco, Inc.
	Corrugated Polyethylene Pipe	Storm Seal Gasketed Bell/Spigot Rubber or Polyisoprene Gasket	12 thru 48	Quality Culvert, Inc., Wausau
	Corrugated Polyethylene Pipe	Bell/Spigot Polyisoprene Gaskets	12 thru 60	Southeast Culvert, Inc.
	Corrugated Polyethylene Pipe	Vertex Single Compression Gasket	12 thru 60	Southeast Culvert, Inc.
	Corrugated Polyvinyl Chloride Pipe (PVC)	Integrally Formed Elastomeric Gasket, Bell/Spigot	12 thru 36	Contech Construction Products, Inc.
	Concrete Pipe	Single Offset Self-Lubricating Gasket, Tylox - Hamilton Kent	12 thru 24	Co-Pipe Products Inc.
	Concrete Pipe	Compression Gasket Press Seal Gasket Co.	12 thru 24	Independent Concrete Pipe Co.
	Concrete Pipe	Compression Gasket	12 thru 24	National Concrete Prod.
	Concrete Pipe	Gasket-Press Seal/Gasket Corp -Profile X-Section Gasket; Single Offset Self-Lubricating Gasket, Tylox-Hamilton Kent	12 thru 36 Trylox or Profile 42 thru 144 (O-ring)	Northern Concrete Pipe, Inc.
	Concrete Pipe	Gasket-Pipe Gasket & Supply Corp. O-Ring X-Section Gasket Compression Gasket, Press Seal Gasket Corp.	12 thru 72 12 thru 24	Premarc, Inc.
	Concrete Pipe	Compression Gasket, Profile Cross Section, O-Ring Cross Section, Pipe Gasket & Supply	12 thru 24	Upper Peninsula Concrete Pipe Co.
Concrete Pipe	Profile X-Section Gasket, Hamilton Kent	12 thru 36	Wausaw Concrete	

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)
909.05A1 Polymer Coated Corrugated Steel Pipe	Trenchcoat Protective Film	Dow Chemical Company
909.08C Bridge Deck Drain Extensions (Fiberglass)		Ann Arbor Plastic Industrial Plastic Nero Plastic, Inc. Professional Fiberglass
909.10 Drainage Marker Post	See Delineator Posts 2. Plastic Material, Spec 919.03D	
910.04 Silt Fence Geotextile Fabric	Belton 940 Geoturf S1200 Geoturf S1400 Kintex SF-3 GTF - 180 Propex 2130 SKAPS W100 TerraTex SC Willacoochee, Style 1210	Belton Industries, Inc., Norcross, SC CSI Geoturf, Highland, MI CSI Geoturf Geoproducts, Inc., Birmingham, MI LinQ Industrial Fabrics Propex Fabrics, Inc., Austell, GA Skaps Industries, Athens, GA Hanes Geo Components, Winston-Salem, NC Willacoochee, GA
912.09Q Recycled Plastic Or Rubber Guardrail Offset Blocks	<u>Model</u> Type B/BD Dura-Bull Bloclout SPI #4 Eco-Block Mondo Block #NREC P-Block Thrie Beam Block EDEN Block Polylumber PL6814R King Block Type T/TD Mondo Block Steel Post Model #NREC Thrie Beam Block EDEN Block Polylumber King Size King Block	Creative Building Products Eco-Composites LLC Mondo Polymer Technologies Monroeville Industrial Moldings Monroeville Industrial Moldings Project Back to EDEN Ramco International Trinity Industries, Inc. Mondo Polymer Technologies Monroeville Industrial Moldings Project Back to EDEN Ramco International Trinity Industries, Inc.
914.03B Recycled Rubber Joint Filler	Reflex	The J D Russell Company
914.06 Epoxy Resin Adhesive & Temporary Seal (Crack Injection)	Akabond 817 Akabond 818 Akabond 819 MBT P&R Concrevice 1380 MBT P&R Concrevice 1360 BHS-1617 BHS-1618 BHS-1619 Armdite 8560 True Grip 150 NIP124LV CI 060 E Bond 550 Sika-Dur 35 Hi- Mod L.V. Sika-Dur 52 Pro Poxy 50 Super LV	Axson, Eaton Rapids, MI (formerly Akemi Corp) Axson, Eaton Rapids, MI (formerly Akemi Corp) Axson, Eaton Rapids, MI (formerly Akemi Corp) BASF Construction Chemical, Shakopee, MN BASF Construction Chemical, Shakopee, MN Blackhawk Sales Co, Inc, Rock Island, IL Blackhawk Sales Co, Inc, Rock Island, IL Blackhawk Sales Co, Inc, Rock Island, IL Ciba Corporation, East Lansing, MI J. Dedoes, Inc., Milford, MI Epoxy Unlimited, Harrison Twp, MI Hilti Inc., Columbus, OH Ridgemoor Supply, Kentwood, MI Sika Corp., Lindhurst, NJ Sika Corp., Lindhurst, NJ Unitex, Kansas City, MO
914.07A Transverse Pavement Joint 1. Dowel Bar Coating (Epoxy)	See Reinforcement Bar Coating, Spec. 905.03C	
2. Bond Release	Bond Release Agent - Tectyl 506	Tectyl Ashland

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)	
914.08 Transverse Pavement Joint, <u>Deformed</u> Dowel Bar Coating	See Reinforcement Bar Coating, Spec. 905.03C		
914.09 Straight & Bent Tie Bars for Longitudinal Pavement Joints (Lane Ties), Coating	See Reinforcement Bar Coating, Spec. 905.03C		
914.10 Structure Expansion Anchors (Mechanical Expansion Anchors) Pull-out Testing is required per Q.A. Manual. NOTE: Mechanical Expansion Anchors shall be set by applying the manu- facturer's specified torque. The turn of the nut method will not be an acceptable alternative.	<ol style="list-style-type: none"> 1. Self Drilling <ol style="list-style-type: none"> a) ITW Ramset/Redhead - Self Drilling (3/8" (10mm), 1/2" (13mm), dia. anchors only) 2. Pre-Drilled Flush Type <ol style="list-style-type: none"> a) Hiliti HDI (3/8" (10mm), 1/2" (13mm), 3/4" (19mm), dia. anchors only) b) ITW Ramset/Redhead - Multi-Set II (3/8" (10mm), 1/2" (13mm), 5/8" (16mm), dia. anchors only) 3. Pre-Drilled Stud Type - Not suitable for lane ties or for guardrail end shoes because of exposed thread. <ol style="list-style-type: none"> a) Hilti Kwik-Bolt II or Kwik-Bolt III <ul style="list-style-type: none"> 3/8" (10mm) dia. anchor - min. embedment = 2 1/2" (65mm) 1/2" (13mm) dia. anchor - min. embedment = 3 1/2" (90mm) 5/8" (16mm) dia. anchor - min. embedment = 4" (100mm) 		
914.11 Preformed Waterproofing Membrane NOTE: Not to be used on Treated Wood Materials.	Carlisle CCW 711-Highway and Bridge Membrane Geotac Waterproofing Membrane Geotac Polyester HS Protecto Wrap M400 AR Sealtight Mel-Dek	Carlisle Coatings and Waterproofing Crafco Inc. Crafco Inc. Protecto Wrap Co. W. R. Meadows	
915 Coating Systems for Steel Structures, Hanger Assemblies and End Diaphragms NOTES: *Indicates product can be used on faying surfaces of slip critical bolted connections which require Class "B". +Information from the Slip Coefficient and Creep Resistance Test Certificate is given for use with primed bolted connections to meet Class "B" requirements. #Alternative primer can only be used on faying surfaces of slip critical bolted connections which require Class "B".	<p>*Carbozinc 859 +100 hrs min cure, 6 mils max DFT, 10 oz/gal max thin Carboguard 561 Carbothane 134 HG #Carbozinc 11 HS Inorganic Zinc Primer +18 hrs min cure, 6 mils max DFT, 15 oz/gal max thin</p> <p>*Carbozinc 859 +100 hrs min cure, 6 mils max DFT, 10 oz/gal max thin Carboguard 888 Carbothane 133 LH #Carbozinc 11 HS Inorganic Zinc Primer +18 hrs min cure, 6 mils max DFT, 15 oz/gal max thin</p> <p>*Carbozinc 859 +100 hrs min cure, 6 mils max DFT, 10 oz/gal max thin Carbozinc 893 Carbozinc 133 LH #Carbozinc 11 HS Inorganic Zinc Primer +18 hrs min cure, 6 mils max DFT, 15 oz/gal max thin</p> <p>E-2800 E-500 M.I.O. E-600 or E-700</p> <p>24-166 Zinc Rich Epoxy Primer 24-125 White Epoxy Midcoat 27-250 Aliphatic Urethane Top Coat</p> <p>Catha-Coat 303H Devran 224 HS Devthane 359 #Catha-Coat® 304V Silicate Inorganic Zinc Coating +24 hrs min cure, 3 mils max DFT, 0 oz/gal max thin</p>	<p>Coats</p> <p>1st 2nd 3rd</p> <p>1st 2nd 3rd</p> <p>1st 2nd 3rd</p> <p>1st 2nd 3rd</p> <p>1st 2nd 3rd</p> <p>1st 2nd 3rd</p>	<p>Carboline Company Approved for use on projects let prior to 09/30/08</p> <p>Carboline Company Approved for use on projects let prior to 03/31/10</p> <p>Carboline Company Approved for use on projects let prior to 06/30/12</p> <p>Environmental Protective Coating Approved for use on projects let prior to 09/30/08</p> <p>Hoffer's Inc. Approved for use on projects let prior to 09/30/08</p> <p>ICI Devoe Coatings Approved for use on projects let prior to 09/30/08</p>
(Continued)			

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)
<p>915 Continued Coating Systems for Steel Structures, Hanger Assemblies and End Diaphragms</p> <p>NOTES: *Indicates product can be used on faying surfaces of slip critical bolted connections which require Class "B".</p> <p>+Information from the Slip Coefficient and Creep Resistance Test Certificate is given for use with primed bolted connections to meet Class "B" requirements.</p> <p>#Alternative primer can only be used on faying surfaces of slip critical bolted connections which require Class "B".</p>	<p>Interzinc 52 Intergard 475 HS Interthane 990HS #Interzinc® 22HS Inorganic Zinc Silicate Primer <i>+16 hrs min cure, 4 mils max DFT, 8 oz/gal max thin</i></p>	<p>1st 2nd 3rd</p> <p>International Protective Coatings Approved for use on projects let prior to 09/30/08</p>
	<p>Polyzinc 3079 Polylock 2260 Diamondglaze 500 or Diamondglaze M</p>	<p>1st 2nd 3rd</p> <p>Polycoat Products Approved for use on projects let prior to 09/30/08</p>
	<p>Urethane Zinc-Rich Primer UC65147/97-674 Pitt-Guard All Weather DTR Epoxy 97-946 Pitthane Ultra Gloss Urethane Enamel 95-8000 #Aquaon 97-670 Series Zinc-Rich Primer <i>+24 hrs min cure, 4 mils max DFT, 0 oz/gal max thin</i></p>	<p>1st 2nd 3rd</p> <p>PPG Industries Approved for use on projects let prior to 09/30/08</p>
	<p>*Amercoat 68HS <i>+72 hrs min cure, 3 mils max DFT, 8 oz/gal max thin</i> Amercoat 399 Amercoat 450H #Dimecote 9VOC Zinc-Rich Primer <i>+24 hrs min cure, 4 mils max DFT, 7 oz/gal max thin</i></p>	<p>1st 2nd 3rd</p> <p>PPG Protective & Marine Coatings Approved for use on projects let prior to 09/30/09</p>
	<p>*Zinc Clad III HS <i>+168 hrs min cure, 5 mils max DFT, 12 oz/gal max thin</i> Epoxy Mastic D.O.T. Acrolon 218 HS #Corothane I GalvaPac One Pack Zinc Primer <i>+24 hrs min cure, 4 mils max DFT, 0 oz/gal max thin</i></p>	<p>1st 2nd 3rd</p> <p>Sherwin-Williams Approved for use on projects let prior to 09/30/08</p>
	<p>*Zinc Clad III HS <i>+168 hrs min cure, 5 mils max DFT, 12 oz/gal max thin</i> Macropoxy 646 Acrolon 218 HS #Corothane I GalvaPac One Pack Zinc Primer <i>+24 hrs min cure, 4 mils max DFT, 0 oz/gal max thin</i></p>	<p>1st 2nd 3rd</p> <p>Sherwin-Williams Approved for use on projects let prior to 07/31/10</p>
<p>*MC-Zinc <i>+48 hrs min cure, 4 mils max DFT, 6 oz/gal max thin</i> MC-Miomastic or MC-Ferrox B MC-Ferrox A</p>	<p>1st 2nd 3rd</p> <p>Wasser High Tech Coatings Approved for use on projects let prior to 09/30/08</p>	
<p>916.02 Silt Fence (Fabric Only) (See also 910.04)</p>	<p>Belton 940 Geoturf S1200 Geoturf S1400 Kintex SF-3 GTF - 180 Propex 2130 SKAPS W100 TerraTex SC Willacoochee, Style 1210</p>	<p>Belton Industries, Inc., Norcross, SC CSI Geoturf, Highland, MI CSI Geoturf Geoproducts, Inc., Birmingham, MI LinQ Industrial Fabrics Propex Fabrics, Inc., Austell, GA Skaps Industries, Athens, GA Hanes Geo Components, Winston-Salem, NC Willacoochee, GA</p>

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)					
<p>917.12 Seed and Seeding Mixtures (Varieties)</p> <p>Varieties of Seed on QPL Date of Testing Not to Exceed One Year</p> <p>Approved MDOT seed mixes. See Table 917-1 in the Spec Book.</p> <p>For Approved Manufacturers of Seed Mixes, see 917.12 in Approved Manufacturers section.</p> <p>*Species</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;"> <p><u>*Kentucky Blue Grass</u></p> <p>Baron Bristol Cannon Columbia Eva Nassau Parade Raven Rugby Touchdown Viva</p> </td> <td style="width: 33%; vertical-align: top;"> <p><u>*Perennial Ryegrass</u></p> <p>Advent Boardwalk Buccaneer Charger Elegance Fiesta II Manhattan 3 Nighthawk Palmer II Pennant Pennfire Prelude II Prism Quickstart Saturn Target</p> </td> <td style="width: 33%; vertical-align: top;"> <p><u>*Hard Fescue</u></p> <p>Aurora Frontier (4AG) Reliant Rescue Scaldis Spartan</p> </td> </tr> </table>	<p><u>*Kentucky Blue Grass</u></p> <p>Baron Bristol Cannon Columbia Eva Nassau Parade Raven Rugby Touchdown Viva</p>	<p><u>*Perennial Ryegrass</u></p> <p>Advent Boardwalk Buccaneer Charger Elegance Fiesta II Manhattan 3 Nighthawk Palmer II Pennant Pennfire Prelude II Prism Quickstart Saturn Target</p>	<p><u>*Hard Fescue</u></p> <p>Aurora Frontier (4AG) Reliant Rescue Scaldis Spartan</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;"> <p><u>*Creeping Red Fescue</u></p> <p>Dawson Hector Logro Marker Pennlawn Ruby Shademaster</p> </td> <td style="width: 33%; vertical-align: top;"> <p><u>*Fults Puccinellia Distans</u></p> <p>Fults Salty</p> </td> </tr> </table>	<p><u>*Creeping Red Fescue</u></p> <p>Dawson Hector Logro Marker Pennlawn Ruby Shademaster</p>	<p><u>*Fults Puccinellia Distans</u></p> <p>Fults Salty</p>
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<p>917.15B1 Turf Mulch Blankets, High Velocity Mulch Blankets (Two Sided Net)</p>	<p>AEC Premier Straw Highway Double Net Contech High Velocity ERO-MAT ECS-2 Mulch Blanket Enviroscape HV Straw Mulch Blanket S2000 S2 Erosion Control Blanket WS072B Erosion Control Blanket DS-150 Erosion King High Velocity Double Net Verdyol High Velocity Excelsior Verdyol High Velocity ERO-MAT Excel SS-2 (Regular) WinterStraw HVW</p>	<p>American Excelsior Co. Contech Construction Products East Coast Erosion Control Blankets Enviroscape ECM S.I. Geosolutions / Land Green Fix America North American Green Rhino Seed & Landscape Supply Verdyol Alabama, Inc. Verdyol Alabama, Inc. Western Excelsior Corp. Winters Excelsior Company</p>					
<p>917.15B2 Turf Mulch Blankets, Mulch Blankets (Single Sided Net)</p>	<p>AEC Premier Straw Highway Single Net Curlex Blankets Curlex ICL Contech ERO-MAT Futerra Mulch Blanket ECS-1 Mulch Blanket Enviroscape Straw Mulch Blanket S1000 WS05 Erosion Control Blanket DS-75 Xcel Excelsior Erosion Control Blankets Erosion King Mulch Blanket S1 Erosion Control Blanket Verdyol Standard Excelsior Blanket Verdyol Standard ERO-MAT ERO-MAT V75S Excel SR-1 (Regular) WinterStraw SNW</p>	<p>American Excelsior Co. American Excelsior Co. American Excelsior Co. Contech Construction Products Profile Products, LLC East Coast Erosion Control Blankets Enviroscape ECM Green Fix America North American Green PPS Packaging Co. Rhino Seed & Landscape Supply Synthetic Ind. / BonTerra America Verdyol Alabama, Inc. Verdyol Alabama, Inc. Verdyol-Canada Western Excelsior Corp. Winters Excelsior Company</p>					

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)		
917.15C5 Mulch Binders (Tackifiers)	<u>A. Excelsior/Guar Gum Base Adhesive</u> Excel Fiber Mulch ConWed 2000 Refiber Mix w/TAC Refiber Wood w/TAC <u>B. Guar Gum Base Adhesive</u> Second Nature Tacpac GTX Geotack EcoTak-OP5 Finn A500 Hydro-Stik Landtack Lawn Tack <u>C. Hydrophilic Polymers</u> Agro Tack MP Exact-Tac (E-T) Con-Tack A/T Eco-Tak-SAT 11 RMB Plus <u>D. Latex Base Adhesive</u> BUTOFAN NS 268 <u>E. Paperfiber Mulch Binders</u> Applegate Mulch Cellin Fiber Mulch Geoturf Hydro Mulch Geoturf Hydro Mulch Plus Hydro Green Hydroseeding Mulch Hydro Green Hydroseeding Mulch Rhino Greenstar Rhino Greenstar Plus	American Excelsior Co. Profile Products, LLC Wood Recycling, Inc. Wood Recycling, Inc. Central Fiber Corp. CSI Geoturf, Inc. Eastern Products, Inc. Finn Corporation Midwest Land Supply, Inc. Rhino Seed & Landscape Supply Agro Diversified Industries American Excelsior Co. Profile Products, LLC Eastern Products, Inc. Reinco Mulch Binder Corp. BASF Corp. Applegate Insulation System Cellin Manufacturing, Inc. CSI/Geoturf, Inc. CSI/Geoturf, Inc. Nu-Wool, Inc. Nu-Wool, Inc. Rhino Seed & Landscape Supply Rhino Seed & Landscape Supply		
918.06E Light Weight Composite Handholes	PHA Series Hand Holes Quazite Box PG1730BA12 & Cover PG1730HA Synertech Underground Enclosure S1730B12FA & Cover S1730HBB0A	Highline Products, Inc. Hubbell Synertech Molded Products		
918.08C Light Standards, Frangible Transformer Bases New Listing March 2005: Contact MDOT, Construction & Technology Div., Structural Unit (517) 322-5707 or Materials Control (517) 322-5665	<u>11 Inch Bolt Circle</u> TB1-17 Modified TB2-17 <u>13 Inch Bolt Circle</u> TB1-17 TB1-17 Modified	Akron Foundry Co.		
919.02B1 Reflective Sheeting	<u>Type III</u> Series 3870 -- -- Nikkalite Ultra-lite Grade II	<u>Type IV</u> Series 3930 -- T-6500 Series --	<u>Type IX</u> Series 3990 Series 4000 T-9500 Series --	3M 3M Avery Dennison Nippon Carbide
919.03D Delineator Post 2. Plastic, Flexible	Survivor Delineator Post Flexi-Guide 400 Series Flexi-Guide 500 Series Flexstake HD 600 Series Flexstake SM 700 Series Flexstake TM 650 Series Flexstake TM 750 Series EZ Drive 2 Marker SH248GP3	Carsonite Filtrona Extrusion/ Davidson Traffic Control Products Flexstake Flexstake Flexstake Flexstake Flexstake Flexstake Safe-Hit	<u>Distributor</u> Carrier & Gable, Inc.	

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Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)																																																							
920.01A Cold Plastic Tape, Permanent (Long Line, Legends & Crosswalks) *WR Tape is wet-night retro reflective	Cold Plastic Tape (Preformed Long Line): <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>White</u></td> <td style="text-align: center;"><u>Yellow</u></td> <td style="text-align: center;"><u>Adhesive</u></td> </tr> <tr> <td style="text-align: center;">380</td> <td style="text-align: center;">381</td> <td style="text-align: center;">SP44</td> </tr> <tr> <td style="text-align: center;">5730</td> <td style="text-align: center;">5731</td> <td style="text-align: center;">SP44</td> </tr> <tr> <td style="text-align: center;">*380 WR</td> <td style="text-align: center;">*381 WR</td> <td style="text-align: center;">SP44</td> </tr> <tr> <td style="text-align: center;">Director</td> <td style="text-align: center;">Director</td> <td style="text-align: center;">DP-E4</td> </tr> </table> Cold Plastic Tape (Preformed Legends & Symbols): <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>White</u></td> <td style="text-align: center;"><u>Yellow</u></td> <td style="text-align: center;"><u>Adhesive</u></td> </tr> <tr> <td style="text-align: center;">5730</td> <td></td> <td style="text-align: center;">E-44 Contact Cement</td> </tr> <tr> <td style="text-align: center;">6330</td> <td></td> <td style="text-align: center;">E-44 Contact Cement</td> </tr> <tr> <td style="text-align: center;">270 ES</td> <td style="text-align: center;">271 ES</td> <td style="text-align: center;">P50</td> </tr> <tr> <td style="text-align: center;">380 ES</td> <td style="text-align: center;">381 ES</td> <td style="text-align: center;">P50</td> </tr> <tr> <td style="text-align: center;">ATM 300</td> <td></td> <td style="text-align: center;">ATM Black TAC</td> </tr> <tr> <td style="text-align: center;">Premark 20/20</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Director</td> <td></td> <td style="text-align: center;">DP-E4</td> </tr> </table> Cold Plastic Tape (Preformed Crosswalks & Stop Bars): <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>White</u></td> <td style="text-align: center;"><u>Adhesive</u></td> </tr> <tr> <td style="text-align: center;">5760</td> <td style="text-align: center;">E-44 Contact Cement</td> </tr> <tr> <td style="text-align: center;">380</td> <td style="text-align: center;">E-44 Contact Cement</td> </tr> <tr> <td style="text-align: center;">270 ES</td> <td style="text-align: center;">P50</td> </tr> <tr> <td style="text-align: center;">380 ES</td> <td style="text-align: center;">P51</td> </tr> <tr> <td style="text-align: center;">ATM 300</td> <td style="text-align: center;">ATM Black TAC</td> </tr> <tr> <td style="text-align: center;">Premark 20/20</td> <td></td> </tr> <tr> <td style="text-align: center;">Director</td> <td style="text-align: center;">DP-E4</td> </tr> </table>	<u>White</u>	<u>Yellow</u>	<u>Adhesive</u>	380	381	SP44	5730	5731	SP44	*380 WR	*381 WR	SP44	Director	Director	DP-E4	<u>White</u>	<u>Yellow</u>	<u>Adhesive</u>	5730		E-44 Contact Cement	6330		E-44 Contact Cement	270 ES	271 ES	P50	380 ES	381 ES	P50	ATM 300		ATM Black TAC	Premark 20/20			Director		DP-E4	<u>White</u>	<u>Adhesive</u>	5760	E-44 Contact Cement	380	E-44 Contact Cement	270 ES	P50	380 ES	P51	ATM 300	ATM Black TAC	Premark 20/20		Director	DP-E4	3M 3M 3M Volare/Swarco Ind., Inc. 3M 3M 3M 3M Advanced Traffic Markings Flint Trading Volare/Swarco Ind., Inc. 3M 3M 3M 3M Advanced Traffic Markings Flint Trading Volare/Swarco Ind., Inc.
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920.01A Hot Applied Thermoplastic Permanent (Long Lines, Legends & Crosswalks)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>White</u></td> </tr> <tr> <td style="text-align: center;">Premark 20/20 Flex Plus</td> </tr> </table>	<u>White</u>	Premark 20/20 Flex Plus	Flint Trading																																																					
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920.01B2a Waterborne, Liquid Pavement Marking Material	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>White</u></td> <td style="text-align: center;"><u>Lead Free Yellow</u></td> </tr> <tr> <td style="text-align: center;">BP-5760</td> <td style="text-align: center;">P8479</td> </tr> <tr> <td style="text-align: center;">TM-2204</td> <td style="text-align: center;">TM-2205</td> </tr> <tr> <td style="text-align: center;">982211</td> <td style="text-align: center;">982212</td> </tr> <tr> <td style="text-align: center;">982221</td> <td style="text-align: center;">982222</td> </tr> <tr> <td style="text-align: center;">982201</td> <td style="text-align: center;">982202</td> </tr> </table>	<u>White</u>	<u>Lead Free Yellow</u>	BP-5760	P8479	TM-2204	TM-2205	982211	982212	982221	982222	982201	982202	Baltimore Paint (Sherwin Williams) Baltimore Paint (Sherwin Williams) Ennis Paint Co. Ennis Paint Co. Ennis Paint Co.																																											
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920.01B2b Regular (Solvent), Liquid Pavement Marking Materials *Low Temperature Waterborne, Liquid Pavement Marking Material	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>White</u></td> <td style="text-align: center;"><u>Lead Free Yellow</u></td> </tr> <tr> <td style="text-align: center;">TM-5604</td> <td style="text-align: center;">TM-5607</td> </tr> <tr> <td style="text-align: center;">982271</td> <td style="text-align: center;">982282</td> </tr> <tr> <td style="text-align: center;">*985251</td> <td style="text-align: center;">*985252</td> </tr> <tr> <td style="text-align: center;">*TM2372</td> <td style="text-align: center;">*TM2373</td> </tr> </table>	<u>White</u>	<u>Lead Free Yellow</u>	TM-5604	TM-5607	982271	982282	*985251	*985252	*TM2372	*TM2373	Baltimore Paint (Sherwin Williams) Ennis Paint Co. Ennis Paint Co. Sherwin Williams Company																																													
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920.01B2c Epoxy, Liquid Pavement Marking Materials	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Fast Cure, LS 50</td> <td style="text-align: center;">White and Yellow</td> </tr> <tr> <td style="text-align: center;">Slow Cure LS 60</td> <td style="text-align: center;">White and Yellow</td> </tr> <tr> <td style="text-align: center;">Slow Cure, Mark 55.2</td> <td style="text-align: center;">White and Yellow</td> </tr> <tr> <td style="text-align: center;">Fast Cure, Mark 55.3</td> <td style="text-align: center;">White and Yellow</td> </tr> <tr> <td style="text-align: center;">Slow Cure, Mark 55.4</td> <td style="text-align: center;">White and Yellow</td> </tr> </table>	Fast Cure, LS 50	White and Yellow	Slow Cure LS 60	White and Yellow	Slow Cure, Mark 55.2	White and Yellow	Fast Cure, Mark 55.3	White and Yellow	Slow Cure, Mark 55.4	White and Yellow	Epo-Plex Epo-Plex Poly-Carb, Inc. Poly-Carb, Inc. Poly-Carb, Inc.																																													
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920.01B2c Polyurea, Liquid Pavement Marking Materials	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">1000 LPM</td> <td style="text-align: center;">White Long Lines Special Marking</td> </tr> <tr> <td style="text-align: center;">1001 LPM</td> <td style="text-align: center;">Yellow Long Lines Special Marking</td> </tr> <tr> <td style="text-align: center;">1200 LPM</td> <td style="text-align: center;">White Long Lines</td> </tr> <tr> <td style="text-align: center;">1201 LPM</td> <td style="text-align: center;">Yellow Long Lines</td> </tr> <tr> <td style="text-align: center;">LS90</td> <td style="text-align: center;">White and Yellow Long Lines</td> </tr> <tr> <td style="text-align: center;">LS90</td> <td style="text-align: center;">White Special Markings</td> </tr> <tr> <td style="text-align: center;">HPS-5</td> <td style="text-align: center;">White and Yellow</td> </tr> </table>	1000 LPM	White Long Lines Special Marking	1001 LPM	Yellow Long Lines Special Marking	1200 LPM	White Long Lines	1201 LPM	Yellow Long Lines	LS90	White and Yellow Long Lines	LS90	White Special Markings	HPS-5	White and Yellow	3M 3M 3M 3M Epo-Plex Epo-Plex IPS																																									
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920.01B2c Modified Urethane, Liquid Pavement Marking Materials	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">HPS-4</td> <td style="text-align: center;">White</td> </tr> <tr> <td style="text-align: center;">HPS-4</td> <td style="text-align: center;">Yellow</td> </tr> </table>	HPS-4	White	HPS-4	Yellow	IPS IPS																																																			
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Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)												
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<u>White</u>	<u>Yellow</u>													
884255	884940													
884255B	884940B													
885590	885593													
885590B	885593B													
Swarcotherm EWH 131	Swarcotherm EYH 132													
920.01B2d Thermoplastic, Blocks Rumble Strips & Snowmobile Crossings	E411W (Block) Rumble Strip E4190 (Block) White Darkened to Gray Snowmobile Crossing	Cleansol Cleansol E-4												
920.01B2e Thermoplastic, Sprayable, Liquid Pavement Marking Material	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><u>White</u></td> <td style="width: 50%; border: none;"><u>Yellow</u></td> </tr> <tr> <td style="border: none;">01-WHK-BADA</td> <td style="border: none;">01-YHK-AADA</td> </tr> <tr> <td style="border: none;">Dobco Smart Spray-Hydro W2SS7056</td> <td style="border: none;">Dobco Solar Smart-Hydro W2SS7006</td> </tr> <tr> <td style="border: none;">Dobco Smart Spray-Alkyd W1SS7056</td> <td style="border: none;">Dobco Solar Smart-Alkyd W1SS7006</td> </tr> <tr> <td style="border: none;">884824</td> <td style="border: none;">884825</td> </tr> <tr> <td style="border: none;">Swarcoplast EWHMI-001</td> <td style="border: none;">Swarcoplast SYHMI-001</td> </tr> </table>	<u>White</u>	<u>Yellow</u>	01-WHK-BADA	01-YHK-AADA	Dobco Smart Spray-Hydro W2SS7056	Dobco Solar Smart-Hydro W2SS7006	Dobco Smart Spray-Alkyd W1SS7056	Dobco Solar Smart-Alkyd W1SS7006	884824	884825	Swarcoplast EWHMI-001	Swarcoplast SYHMI-001	Crown Technology Dobco-Sherwin Williams Dobco-Sherwin Williams Ennis Paint Co. Swarco
<u>White</u>	<u>Yellow</u>													
01-WHK-BADA	01-YHK-AADA													
Dobco Smart Spray-Hydro W2SS7056	Dobco Solar Smart-Hydro W2SS7006													
Dobco Smart Spray-Alkyd W1SS7056	Dobco Solar Smart-Alkyd W1SS7006													
884824	884825													
Swarcoplast EWHMI-001	Swarcoplast SYHMI-001													
920.01C Raised Pavement Markers NOTE: All lenses on a corridor shall be of the same model.	<u>Casting Model and Manufacturer</u> 101LP Stimsonite B-250 Nightline	<u>Available Lenses</u> <u>3M Model 190 series</u> RPM-190-W Monodirectional crystal lens RPM-190-Y Monodirectional amber lens RPM-190-2W Bidirectional crystal lens RPM-190-2Y Bidirectional amber lens NOTE: The following lenses only available for existing roadway castings. <u>Stimsonite Model 940 series</u> 940AW - Bidirectional crystal lens 940AY - Bidirectional amber lens 940BW - Monodirectional crystal lens 940BY - Monodirectional amber lens												
922.02 Traffic Maintenance and Control, Temporary Signs	Engineering Grade Sheeting (Type I) (Type VII & All Orange must be Fluorescent) Flexible Roll Up Signs Engineering Grade Sheeting (Type I) Engineering Grade Sheeting (Type I) Flexible Roll Up Signs Prismatic Sheeting	3M, St. Paul, MN 3M, St. Paul, MN 3M, St. Paul Avery Fasson, Painsville, Ohio Nippon Carbide Industries, Whitehouse, OH Reflexite Marathon Stimsonite Corp.												
922.03D Traffic Maintenance and Control, Type III Barricade, Reflective Sheeting		3M, St. Paul, MN Avery Fasson, Painsville, OH Nippon Carbide Industries, Whitehouse, OH												
922.03E1 Barriers Reflector Markers, Temporary and Permanent	Astro Optics JD Stimsonite 965 BAM Vega JD	Astro Optics Corporation Stimsonite Corporation Stuckley, L.L.C. Vega Molded Plastics												

QUALIFIED PRODUCTS LIST (QPL)

Spec # and Material Name	Product Name	Manufacturer(s) or Supplier(s)																												
922.04A Traffic Maintenance and Control Temporary Pavement Markings A. Type R and NR Tape B. Paint - See Specific Paint Type in Section 920.01B2 *WR Tape is wet-night retro reflective	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><u>White (Type)</u></td> <td style="width: 50%; border: none;"><u>Yellow (Type)</u></td> </tr> <tr> <td style="border: none;">5160 (NR)</td> <td style="border: none;">5161 (NR)</td> </tr> <tr> <td style="border: none;">5710 (R)</td> <td style="border: none;">5711 (R)</td> </tr> <tr> <td style="border: none;">620 (R)</td> <td style="border: none;">621 (R)</td> </tr> <tr> <td style="border: none;">*780 WR (R)</td> <td style="border: none;">*781 WR (R)</td> </tr> <tr> <td style="border: none;">ATM 200 (R)</td> <td style="border: none;">ATM 200 (R)</td> </tr> <tr> <td style="border: none;">Series 100 (R)</td> <td style="border: none;">Series 100 (R)</td> </tr> <tr> <td style="border: none;">Flex-O-Line 200 (NR)</td> <td style="border: none;">Flex-O-Line 200 (NR)</td> </tr> <tr> <td style="border: none;">Prismoline (R)</td> <td style="border: none;">Prismoline (R)</td> </tr> <tr> <td style="border: none;">RW-140 (R)</td> <td style="border: none;">RY-140 (R)</td> </tr> <tr> <td style="border: none;">Aztec 100-W (NR)</td> <td style="border: none;">100-Y (NR)</td> </tr> <tr> <td style="border: none;">Aztec 102 (R)</td> <td style="border: none;">390 (R)</td> </tr> <tr> <td style="border: none;">Director-2 (R)</td> <td style="border: none;">Director-2 (R)</td> </tr> <tr> <td style="border: none;">Visaline CG (NR)</td> <td style="border: none;">Visaline CG (NR)</td> </tr> </table>	<u>White (Type)</u>	<u>Yellow (Type)</u>	5160 (NR)	5161 (NR)	5710 (R)	5711 (R)	620 (R)	621 (R)	*780 WR (R)	*781 WR (R)	ATM 200 (R)	ATM 200 (R)	Series 100 (R)	Series 100 (R)	Flex-O-Line 200 (NR)	Flex-O-Line 200 (NR)	Prismoline (R)	Prismoline (R)	RW-140 (R)	RY-140 (R)	Aztec 100-W (NR)	100-Y (NR)	Aztec 102 (R)	390 (R)	Director-2 (R)	Director-2 (R)	Visaline CG (NR)	Visaline CG (NR)	3M 3M 3M 3M ATM Brite-line Technologies FOL Tape, LLC Linear Dynamics/ Carrier & Gable Market Manager Rd Tape, Trelleborg Ind. AB P.B. Laminations, Inc. P.B. Laminations, Inc. Volare/ Swarco Industries, Inc. Volare/ Swarco Industries, Inc.
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922.04B Temp. Raised Pavement Markers	Type 1: Model 932 Chip Seal Marker TRPM Chip Seal Marker Type 2: Model 932 Overlay Marker Temporary Overlay Marker Type 3: Stimsonite Model 88	Apex Universal, Inc. Bunzl Extrusions/Davidson Traffic Control Prod Apex Universal, Inc. Bunzl Extrusions/Davidson Traffic Control Prod Stimsonite Corporation																												
922.05 Traffic Maintenance and Control, Lighted Arrows Type B and Type C (Solar Assist)	Eclipse 2220 SE/ALT SEH 15-2-B-P SEH 15-2-B-5 SEH 15-3-B-S SEH 15-3-B-S Retrofit unit with aluminum sign panel DLSE Model 4000 SumUp Solar Arrow Board VM-4815 Silent Sentinel Model AB-0515 Silent Sentinel Model AB-0715 Silent Sentinel Model AB-1015 S6000-LED 15 TC1-15S TCI-15S Retrofit unit with aluminum sign panel TC4- 15S WTSP50-LSA-08 WTSP55-LSAC-08 WTSP75-LSA-08 WTSP75-LSAC-08 WTSP110-LSA WTSP110-LSA-08 WTSP110-LSAC-08 WAAW-15SB-WA-MICH WAAW-15SB-STD	Allmand Brothers, Inc. Allmand Brothers, Inc. Allmand Brothers, Inc. Allmand Brothers, Inc. Allmand Brothers, Inc. Amida Industries, Inc. Amstate, Inc. National Signal, Inc. Signalisation Ver-Mac, Inc. Solar Technology Solar Technology Solar Technology Tracom Dietz Trafcon Industries Trafcon Industries Trafcon Industries WANCO Inc. WANCO Inc. WANCO Inc. WANCO Inc. WANCO Inc. WANCO Inc. WANCO Inc. Work Area Protection Corp. Work Area Protection Corp.																												