

RECOGNIZED PRODUCTS LIST

October 2009 Edition



Hwy. # 14 Sombrio Creek

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INTRODUCTION / DEFINITIONS

The Recognized Products List document is intended for reference use by Contractors who are providing services or performing work for the Ministry, which entails supplying or providing material.

Where possible, brand name products, which in the opinion of the Ministry satisfy the Ministry's generic specifications for the material type, or are otherwise satisfactory to the Ministry, are listed.

In some cases a qualifier on applicability or usage may be included.

This listing is not to be construed to be an endorsement of a given product, or in any way a guarantee of adequate performance relative to the specific Contract requirements.

Use of a listed material by a Contractor shall in no way relieve the Contractor from his contractual obligations. This list is intended to be a **guide only** for Contractors to identify those specific brands of products which the Ministry feels generally meets its Specifications for particular purposes as:

“TENTATIVE” products which appear to meet requirements of the Standard Specifications and the specific requirements of the work, but have not yet been used extensively on Ministry projects;

“PROVEN” products for which an adequate performance record has been established on Ministry projects; and

“APPROVED” products for which the Ministry of Transportation and Infrastructure has been directly involved in the development of the products for a very specific purpose unique to the Ministry (e.g. traffic paint).

The absence of a particular brand of product from this list does not necessarily imply that it does not meet the Ministry Specifications.

For the latest status of any product, users are encouraged to direct inquiries to the Committee by fax to the Ministry of Transportation and Infrastructure, Geotechnical, Materials & Pavement Engineering, Victoria, fax no. (250) 356-2012 or email to: RPL@gov.bc.ca. The Committee also welcomes suggestions for improving its service.

Pamphlets explaining the Committee and including a products submission form are available from the Committee contact and from all Ministry Regional Geotechnical, Materials & Pavement Offices throughout the Province.

NOTE: Throughout the List, a three digit number in brackets shown after the name of some products is an office “Product Submission Form” file number and has no reference to the Product Name.

RECOGNIZED PRODUCTS LIST

ASPHALT PRODUCTS

ADDITIVES – GENERAL

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Redicote C2914 (318) Silicone Dow Corning DC 200 Fluid Tall Oil Pitch Emulsion Tall Oil Pitch (J-32A Juvenax A) – Not used any more-approx. 100 km of pavement constructed 1982/84.	

ANTI-STRIPPING AGENT

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Ad-Here LOF 65-00 (543) CES 446 Redicote C2914 (318) Travcor 4505 (556) Tall Oil Pitch (B.C. Chemicals Only) Indulin 814 (for H.F. Emulsions)	Roadshop (McTar) 129-A (695) Ad Here 77-00 (994)

CUT BACKS

As regulated by Ministry of Environment, Waste Management Act – Asphalt Plant Regulation (Part 3 Hot Mix Asphalt and Cutback Asphalt) these products may not be used on roadways between May 1 and Sept 30 as a primer or tack coat.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
MC-250 RC-30 RM-20 SC-250 SC-70	

ADDITIVES or PROCESSES for WARM MIX ASPHALT

Ministry is undertaking trials and evaluation of various additives and processes for Warm Mix Asphalts.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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EMULSIONS

HIGH FLOAT

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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HF-100
HF-100S
HF-100P
HF-150S
HF-150P
HF-250
HF-500

- High Float Emulsified Asphalt will be in accordance with the Standard Specifications for Highway Construction Section 951 – Asphalt & Paving Material for Highway Use.
- Sand when tested according to ASTM Designation C117 will have a mean Gradation within the following limits:

<u>Screen (metric)</u>	<u>Percentage Passing</u>
12.5 mm	100
9.5 mm	80 – 100
4.75 mm	50 – 95
2.36 mm	30 – 80
0.600 mm	10 – 50
0.300 mm	0 – 25

- High Float Emulsified Asphalt will be used on pavements greater than ten years old or pavements where there are depressions at the cracks or where the majority of cracks are greater than 25 mm in width;
- Cracks sealed with High Float Emulsified Asphalt will be sanded after sealing to prevent the asphalt from Tracking. Excess sand will be removed. The sealant overband will not be so thick that it will produce a noticeable bump when driven across; and
- Routed or cleaned cracks will be filled with sealant the same day.

RAPID SET

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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RS-1
RS-2K

SLOW SET

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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EP2000
EP 94 HI-PEN PRIMER (MCTAR) (651)
SS-1

ENGINEERED PRODUCTS

MULTI-GRADE

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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None at the present time but it will be introduced very soon.

POLYMER ADDITIVES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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SBS Latex

POLYMER MODIFIED

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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Bitumen 352 (534)
Husky Black Max (401)
Imperial Oil – EB 350
Imperial Oil – EB 352
Infrapave Polymer Binder (473)

RUBBER ASPHALT

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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None at this time.

TACK COAT & PRIMERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
------------------------	---------------------------

EP 94 HI-PEN primer (McTar) (651)
Emulsified Tall Oil Pitch – B.C Chemicals only
RC-30
RM-20
SS-1 (not for joints)
CSS-1
Snap Tac
EP 2000
Husky Oil – EAP-2 (525)

EPT McAsphalt (811)

EMULSIFIED PENETRATING PRIMERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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EP 94
EP 2000
EAP-2

ABT-2 (986)

ASPHALT MAINTENANCE & REHAB.

JOINT / CRACK SEALING SYSTEMS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Seal –cut (630) TOK Reinstatement Tape (547) TOK band Special (548) Denso Skid Resistant Tape (832) Denso Reinforcement Tape (833)

PREFABRICATED CRACK SEALERS (MEMBRANES)

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Crack-a-Tac (274)	Beram 195 (593) Petrotac crack suppression membrane (729) Tapecoat M860 Road Repair (380) MiraTak (885)

REJUVENATORS

CONVENTIONAL

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Cyclogen L (203) CRF- Restorative Seal (665) Reclamite	Rejuvenite (currently under review) Rap 400 (currently under review) Cyclogen P (948)

HOT-IN-PLACE

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Rejuvoil 2 (834) Cyclogen L (203)	Cyclogen P (948)

RUBBERIZED & ELASTICIZED CRACK SEALANTS

ENTIRE PROVINCE

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Bakelite 590-13A Bi-Crackee (433) CP Primer Crafco Roadsaver 221 Crafco Roadsaver 231 Elastopave 2110 Hydrotech Sealz 6165 Koch 9005 (133) Meadows Hi-Spec Shell Cariphalt Tremco THC 200	Beram 195 / 195/LM Hot Pour (594) Crafco-521 Elsro 1191 (439) Elsro 1192

LOWER MAINLAND SUNSHINE COAST / VANCOUVER ISLAND

PROVEN PRODUCTS	TENTATIVE PRODUCTS
NOTE: All products listed for entire Province plus:	
Asphalt Rubber, Type 2 or "MS" Bakelite 590-13 Crafco Asphalt Rubber Plus (Viscous) Crafco Roadsaver 211 Flex-A-Fill Hydrotech Sealz 6160 Meadows 164R Tremco THC 205	Beram 190

SPECIALTY PAVING DEVICES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	I.D. Locator (447) Popper (247)

SURFACE TREATMENT

PROVEN PRODUCTS	TENTATIVE PRODUCTS
RC- 30 SS-1 CRF (665) Reclamite (203)	Enduraseal 300 (254) Rejuvaseal RA-1 (164) Rejuvail 1 (464) Renoil RA-5 (251)

ASPHALT CRACK FILLER SEALANTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
CRF(665) HF 150P	

ASPHALT MIXES PROPRIETARY

ASPHALT PATCHING

ASPHALT BASED

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Everlasting Patch Mix WR Meadows Road Repair (Reg, Fine, and Bulk) Pavement Cold Patch (652) QPR 2000 (265) Unique Patch Mix	Blacktop Husky Black Mix (401) Innovative Asphalt Repair (569) Koch EXP Winter Patch (621) Perma-Patch (151) RC 1100 Cold Pour (331) Redicote 95S (318) Tapecoat M 860 Road Rep (380) Tag 8000 (479) Target – Cold Patching Asphalt WSPE-1 Spray Patch Emulsion (939) Crafco Polypatch (1038)

EPOXY BASED

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Miton 514 (138) Sikadur Sternflex 1 (362) Sternflex 2 (359) Talypon 1509-208 (344) Talypon 1509-205 (345)	Everset Type II (358)

PORTLAND CEMENT BASED

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Duracal Excel Permanent Cold Patch (646) Express Repair SET 45	Koch EXP Winter Patch (621) Ocean Patching Road Repair 1170,1175,1178 (644) Flexcrete (713)

BRIDGES

ALTERNATIVE COMPOSITE BRIDGE GIRDERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Compo-Girder (647)

BRIDGE BEARINGS

Products in the following categories are considered a part of the engineered solution and require specific analysis on a case by case basis.

DISC BEARINGS

LOAD MEASURING BEARINGS

POT BEARINGS; SEISMIC ISOLATION BEARINGS

SHOCK ABSORPTION

BRIDGE BEARING PADS

Products in the following categories are considered a part of the engineered solution and require specific analysis on a case by case basis.

SLIDING LAMINAR

ELASTOMERIC BEARING PADS

LAMINAR ELASTOMERIC BEARING PADS

PLAIN ELASTOMERIC BEARING PADS

BRIDGE CONCRETE SEALANTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
None at this time	

BRIDGE CONCRETE FORM AND SPACING SYSTEMS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Total Bond Bar Supports (Chairs) (721)	Fabric Forms (657)

FIBRE REINFORCED POLYMER WRAP SYSTEMS

Fibre Reinforced Polymer Wrap Systems engineered with Glass, Carbon, or Aramaide fibres to meet specific requirements/applications are acceptable from the following manufacturers.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Fyfe Co. LLC (1059) Sika Canada Inc BASF Mitsubishi Chemical - Replark	

PEDESTRIAN FENCING

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Dural (Z-Tech) (434)	

BRIDGE DECKS

DECK JOINT SYSTEMS

ASPHALTIC PLUG DECK JOINTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Bridge Joint Infra-Flex APJ Bridge Joint (599) Jeene Joint (370) Koch B.J.S. (329) Oletex XE 300 (561) Series 1000(Z-Tech) (434) Series 2000(Z-Tech) (434) Silico Flex (654) Thorma Joint (192)	Sho-Bond #301 (736)

COMPRESSION SEALS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Neoferma Joint Seals (723) Tensa Grip-Movement Joint Silent (679) Tensa Grip –Movement Joint (680) Tensa Lastic Grip (681) Britflex “NJ” (859)

FINGER JOINTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Tensa-flex finger (682)

MODULAR JOINTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Transflex (857)

STRIP SEALS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Tensa – Acme joint Seals (678)

DECK MEMBRANE SYSTEMS

LIQUID

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Sterling Lloyd – Eliminator (172)	Britdex “MDP” (861) Bakor 790-11 (932) Stop a Drop (954)

PREFABRICATED

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Protecto Wrap, M-400A (152) Tamco Bridgeguard (636) Tamko TWP Primer only (637)	Tuff Tac (954)

OTHER

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Rosphalt 50 (770) (includes paving aggregate)

DECK CONCRETE SEALANTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Capseal-X (Cappar) Capseal-U Chem-Trete BSM-40 Concessive-AEX 3142SIL-ACT ATS 42 Dow-Corning 899 Duralane (Dural) Marathon-40 (Watson) Suretreat Perma-Seal 444 Evercrete / Dynacrete DPS	Evercrete Top Seale (Surface Treatment) (615) Fabrishield 840 BASF Hydrozo Silane 40 VOC (Revised) (365) Isoflex 620 Iso-Flex 618 Miton 400 (147) PQ 6100 BM (529) Sikaguard 70 Sikaguard 71H

Other silanes which satisfy Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction Section 418 – Concrete Bridge Deck Sealants (Silane Surface Treatment of New Portland Cement Concrete).

COATING SYSTEMS

NOTE: Federal Environmental Regulations are being legislated to limit volatile organic compounds in paints and coatings (possibly coming into effect January 1, 2012 – proposed regs. to start the 3rd anniversary of the effective Regulation date). Recognized Coating Systems products will be subject to complying with these regulations when they come into effect.

CONCRETE

FIELD ANTIGRAFFITI

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Cappar, Capseal A50 Dow Corning, All Guard Elsro #736 Sternson, Acrytite Sikagard Color A50 GPA-200 SEI (853)	Canyon-Tone (Conchem) (110) Spray-Deck (462)

Note: the above products may be suitable for steel

BRIDGE STEEL

Bridge Steel Coating Colour Guideline Per US Federal Specification 595b

	Steel Structure Colour Choices (Top Coat)	US Federal Spec. No. (595b)	DOH Colour	Application		Matching Railing Colour Choices
				Visible Areas	Under Decks	
1	Mid-Grey	16314		O.K.	Yes	4, 6, 10, 11, 12, 13, 15,
2	Light Grey	16515		Yes	Yes	4, 6, 10, 11, 12, 13, 14,
3	Light Blue (Sky)	15187	M-6	Yes	Yes	4, 10, 11, 12, 13, 14, 16
4	Mid-Blue (Lake)	15180		O.K.	Yes	2, 3, 10, 11, 12, 13, 14, 16
5	Dark Blue (Navy)	15065		-No-	O.K.	2, 3, 6, 10, 11, 12, 16
6	Light Green (Grass)	14260		Yes	Yes	2, 6, 8, 10, 11, 12, 13, 14, 16
7	Mid-Green (Leaf)	14193		Yes	Yes	2, 6, 10, 11, 12, 13, 14, 16
8	Dark Green (Forest)	14090		O.K.	Yes	2, 6, 10, 11, 12, 16
9	Mid-Brown	10115		Yes	Yes	2, 3, 6, 10, 11, 12, 13, 14, 16
10	Yellow/Brown	10371		Yes	Yes	2, 3, 6, 13, 14, 16
11	Beige/Brown	12648		Yes	Yes	2, 3, 6, 9, 10, 11, 13, 14, 16
12	Orange (Highways)	12473		-No-	O.K.	2, 3, 6, 11, 12, 14, 16
13	Yellow	13538	T-2	-No-	-No-	N/A
14	Red	11310		-No-	O.K.	2, 3, 6, 10, 11, 12, 16
15	White	17886	B-3, D-1, D-2, D-3, T-3	-No-	-No-	N/A
16	Silver (Aluminum)	17178		Yes.	Yes.	3, 6, 10, 11, 12, 13

COATING SYSTEM SELECTION TABLE

System Code	Application Area	Structural Environment	Coating System Primer - Midcoat - Topcoat
STRUCTURAL STEEL, SHOP APPLICATION SYSTEMS			
SS1	Steel, Shop	Standard New Steel Coating for Moderate to Severe Service	Inorganic zinc, epoxy, polyurethane
SSWP	Steel, Shop Weldable Primer	Not Used	
STRUCTURAL STEEL, FIELD APPLICATION SYSTEMS			
SF1	Steel, Field	Severe Field Application	Metallizing, epoxy, polyurethane
SF2	Steel, Field	Standard Field Recoat for Moderate to Severe Service	Organic zinc, epoxy, polyurethane
SF3	Steel, Field	Not Used	
SF4	Steel, Field	Not Used	
SF5	Steel, Field	Moderate	Alkyd on steel
SF6	Steel Field	Moderate to Severe Field Application	Multi-Component Urethane Systems
SF7	Steel Field	Moderate to Severe Field Applications where good gloss retention is critical	Organic Zinc, Epoxy, Polysiloxane
SFIM1	Steel Field, Immersion	Moderate to Severe Field Application	Coal Tar Epoxy or Equivalent
STRUCTURAL STEEL, FIELD OVERCOAT SYSTEMS			
SFO1	Steel, Field Overcoat	Moderate to severe	Water-based Acrylics and Vinyls
SFO2	Steel, Field Overcoat	Moderate to Severe	Water Based Single Component
SFO3	Steel, Field Overcoat	Moderate to Severe	Solvent Based Single Component
SFO4	Steel, Field Overcoat	Moderate to Severe	Solvent Based Surface Tolerant Epoxy
SFO5	Steel, Field Overcoat	Moderate	Alkyd on steel CAN/CGSB-1.59M alkyds
SFAG	Steel, Field Antigrffiti Coatings	Not Used	Varies with system
STRUCTURAL STEEL, TOUCHUP SYSTEMS			
SFTA	Steel, Field Touchup Aerosol	Small Damaged Areas, or as a Holding Primer	Rust Inhibitive Primer / Topcoat
SFTB	Steel, Field Touchup Brushable	Small Damaged Areas, or as a Holding Primer	Rust Inhibitive Primer / Topcoat
PENETRATING SEALERS			
SPS	Steel, Penetrating Sealers	Penetrating Sealers for Joints, Bolts, Rivets etc.	Various Unique Systems, Designed To Be Used With Coating Materials From The Same Manufacturer
CAULKING MATERIALS			
PCM	Paint Caulking Materials	For Non-immersion Service	Assorted
UNIQUE SITUATIONS			

U1	Steel, Unique Products	Moderate	Rust Inhibitive Sealer / Topcoat
U2	Steel, Unique Products	Low Temperature, high humidity	Organic Zinc / Midcoat / Topcoat
WEATHERING STEEL			
SW *	Steel, Weathering Field Coatings	Under Development	Two or three coat systems
STEEL RAILINGS			
SRG	Steel, Hot Dip Galvanizing	Preferred Treatment for Removable Railings See CAN/CSA –G164-M92 Specification	Hot Dip Galvanizing
SRM	Steel, Metallizing	Primarily for non-removable posts	Zinc - Zinc Aluminum Powder or Wire
WOOD			
WFR	Wood, Railings and Rub Rails	Moderate to Severe	Primer, Midcoat, Topcoat CAN/CGSB-1.59M alkyds
WFT	Wood, Field Touchup	Moderate to Severe	Primer, Midcoat, Topcoat CAN/CGSB-1.59M alkyds

STRUCTURAL STEEL - SHOP APPLICATION

SYSTEM – SS1

INORGANIC ZINC PRIMER, EPOXY MIDCOAT, POLYURETHANE TOPCOAT

Ministry Usage: This system is designed for use in a shop coating environment where the new steel is protected from the weather during coating and curing. The system will provide good service in a moderate to severe field environment.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
Carboline	Carbozinc 11	None	Midcoat	Carboguard 893	None	Carbothane 134HG
ICI-Devoe	Cathcoat 302H/HB	None	Midcoat	Bar Rust 235	None	Devtran 229
International Paint	Interzinc 22	None	Midcoat	Intergard 475HS	None	Interthane 990
Tentative Products, acceptable for use, but not proven.						
Cloverdale System	Clovazinc 2	None	Midcoat	Clovagard 8315	None	Clovathane 8314
ICI Devoe	Cathcoat 302H	None	Midcoat	Bar Rust 235	None	Devthane 379UVA
General Paint Amercoat 450H	Dimetcote 9	None	Midcoat Amerlock 400		None	Amercoat 450H

Notes for use:

- Depending on the system chosen, the inorganic zinc primer may require a mist coat to prevent bubbling in the mid-coat material.
- Inorganic Zinc must be dry and cured before additional coatings are applied.
- Note that any stripe coating must be placed on top of the inorganic zinc.

- While most of the above systems require SSPC-SP 10 surface preparation, SSPC-SP 5 "White Metal" blasting will typically give a longer service life.
- It is preferable to complete the system in the shop prior to shipping.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

STRUCTURAL STEEL - FIELD APPLICATION

SYSTEM – SF1

METALLIZING PRIMER, EPOXY MIDCOAT, POLYURETHANE TOPCOAT

Ministry Usage: This system is designed for use in a field coating environment where extreme exposure areas such as splash zones, fence posts (panels should be hot dip galvanized), bearings, expansion joints and any steel exposed to de-icing chemical solutions are present; or where structures are close to heavy industry.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
Carboline	Zinc wire or powder	15% thinned midcoat	None	Carboguard 893	None	Carbothane 134HG
ICI-Devoe	Zinc wire or powder	15% thinned midcoat	None	Marine Bar Rust 236 or 235	None	Devran 229
Tentative Products, acceptable for use, but not proven.						
International Paint		15% thinned midcoat		Intergard 475 HS		Interthane 990
ICI Devoe	Zinc wire or powder	15% thinned midcoat	Midcoat	Marine Bar Rust 236 or 235	None	Devthane 379UVA
SURFACE PREPARATION		SSPC-SP5 "White Metal", Profile: 50-100 µm (2-4 mils)				

Notes for use:

- Previously galvanized railings, fence posts, and panels are to be "Brush-off" cleaned and top-coated with a different colour than the structure, after a wash primer is applied.
- Metallizing can be either of using zinc or zinc:aluminum::85:15 alloy wire thermal spray, flame process or spray and fuse powder process.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM – SF2

ORGANIC ZINC PRIMER, EPOXY MIDCOAT, POLYURETHANE TOPCOAT

Ministry Usage: This system is designed for use in a field coating environment with moderate to severe exposure areas. This is the most often used field coating system.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
Carboline	Carbozinc 859	None	Midcoat over primer	Carboguard 893	None	Carbothane 134HG
ICI-Devoe	Catha Coat 303H	None	Midcoat over primer	Bar Rust 231,235, or 236	None	Devran 229
ICI-Devoe	Cathacoat 313	None	Midcoat over primer	BarRust 231	None	DevThane38 9H
Cloverdale	ClovaZinc 3	None	Midcoat over primer	ClovaGuard	None	ClovaThane
Sherwin Williams	SincClad III HS	None	Midcoat over primer	Macropoxy 646	None	Acrolon 218 HS
Tentative Products, acceptable for use, but not proven.						
International Paint	Interzinc 52	None	Midcoat over primer	Intergard 475 HS	None	Interthane 990
ICI Devoe	Cath Coat 302H	None	Midcoat	Bar Rust 231, 235, or 236	None	Devthane 379UVA
SURFACE PREPARATION SSPC-SP 6/NACE No.3, Commercial Blast Cleaning, , Minimum Profile: 50-75 µm (2-3 mils)						

Notes for use:

- There shall be no inter-mixing of paints/solvents from different manufacturers.
- Note that any stripe coating must be placed on top of the primer coat and brushed to a strip width of 50 mm (2 inches) minimum as per SS216.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM – SF3 NOT USED

SYSTEM – SF4 NOT USED

SYSTEM – SF5

ALKYD ON STEEL, THREE COAT

Ministry Usage: This system is designed for use in a field coating situation where more moderate conditions are expected. It may also be used in areas where surface preparation is less than ideal.

STRUCTURE	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
Steel Structure	General Paint 06-160 Grey with 05-550 thinner or equivalent	None	Midcoat over prime	Alkyd Midcoat (CAN/CGSB-1.59-97)	None	Alkyd Topcoat (CAN/CGSB-1.59-97)
SURFACE PREPARATION SSPC-SP 2, Hand Tool Cleaning or SSPC-SP 3, Power Tool Cleaning						

Notes for use:

- While this system will work on the an SSPC-SP 2, Hand Tool Clean or an SSPC-SP 3, Power Tool Clean surface, service life will be improved on an SSPC- SP 6 Commercial blast surface. There shall be no inter-mixing of paints/solvents from different manufacturers.
- Note that any stripe coating must be placed on top of the primer coat and brushed to a strip width of 50 mm (2 inches) minimum as per SS216.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM – SF6

MULTI-COMPONENT URETHANE SYSTEMS

Ministry Usage: This system is designed for use in a field coating environment in moderate to severe exposure areas.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
Pacific Endura Finishes Ltd.	MC-ZN		EX-2C	EX-2C		EX-2C
SURFACE PREPARATION SSPC-SP 2, Hand Tool Cleaning or SSPC-SP 3, Power Tool Cleaning						

Notes for use:

- While this system will work on the an SSPC-SP 2, Hand Tool Clean or an SSPC-SP 3 Power Tool Clean surface, service life will be improved on an SSPC- SP 6 Commercial blast surface.
- Note that any stripe coating must be placed on top of the primer coat and brushed to a strip width of 50 mm (2 inches) minimum as per SS216.

- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM – SF7

ORGANIC ZINC, EPOXY, POLYSILOXANE

Ministry Usage: This system is useful in moderate to severe field applications where good gloss retention is desired.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Tentative Products, acceptable for use, but not proven.						
Ameron	Amercoat 68HS		Midcoat	Amerlock 400		PSX 700
Carboline	Carboline 859		Carboline 893	Carboline 893		Carboxane 2000
International Paint	Interzinc 52		Midcoat	Intergard 475HS		Interfine 979
Hempel	Hempel 17360 Hempadur Zinc		Midcoat	Hempadur 45880		Hempaxane 55000 polyurethane

Notes for use:

- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.
- Surface preparation shall be SSPC-SP 10/NACE No.3 and Sharp.
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM – SFIM1

STRUCTURAL STEEL, FIELD IMMERSION - COAL TAR EPOXY OR EQUIVALENT

Ministry Usage: This system is designed for use in a field coating environment in immersion situations.

MANUFACTURER	PRIMER	SEAL COAT	STRIPECOAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Tentative Products, acceptable for use, but not proven.						
Ameron	None Typically		Amercoat 78HB	Amercoat 78HB		Amercoat 78HB
Carboline			Bitumastic 300M or Bitumastic 50	Bitumastic 300M or Bitumastic 50		Bitumastic 300M or Bitumastic 50
ICI-Devoe			Devtar 5A or Devtar 247	Devtar 5A or Devtar 247		Devtar 5A or Devtar 247
International Paint			Interseal 670HS	Interseal 670HS		Interseal 670HS
Cloverdale			Clovatar 22 (Cloverdale 83022)	Clovatar 22 (Cloverdale 83022)		Clovatar 22 (Cloverdale 83022)

Notes for use:

- These coatings work best over SSPC-SP 5/NACE No.1, White Metal Blast Cleaning.
- Normally applied as a two coat system to ensure that the coating completely covers the substrate.
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- Some coal tar filled products are carcinogenic. Read the MSDS for detailed information.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing before acceptance or at times of application.

STRUCTURAL STEEL – FIELD APPLICATION – OVERCOAT

Moderate to Severe Conditions

SYSTEM – SFO1

WATER-BASED ACRYLIC OR VINYL SYSTEM

Ministry Usage: This system is designed for use in a field over coating situation where the original alkyd system is intact or where loose rust/paint can be removed by hand/power tools before repair and top coating. Sealcoat is optional but may be specified for sealing lap joints etc.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2 nd MIDCOAT	TOPCOAT
Proven Products						
Ameron		Amerlock Sealer				Amercoat 220
Carboline		Rust Bond				Carbocrylic 3359 DTM
ICI / Devoe	Rustmaster 5571		Rustmaster 5572	Rustmaster 5572		Rustmaster 5573
ICI / Devoe		Preprime 167				Devflex 4208
International Paint	Intercryl 520		Intercryl 520	Intercryl 520		Intercryl 530
International Paint		Interbond 600				
Tentative Products, acceptable for use, but not proven.						
Cloverdale	Cloverdale Primer 71289			Cloverdale Primer 71289		Cloverdale Acrylic 72229

Notes for use:

- These products are designed primarily for overcoating and encapsulating existing coatings.
- A test patch, and subsequent adhesion measurements and observation of compatibility are recommended prior to specifying this type of coating. This reduces the risk of overcoating.
- Manufacturer's instructions are used here because there are a wide range of possibilities that require specific details of cleaning, coating and curing to address each individual circumstance.
- Areas of old coating that are feathered back should be built up to the topcoat level, before overcoating.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM – SFO2

WATER- BASED SYSTEM SINGLE COMPONENT

Ministry Usage: This system is designed for use in a field over coating situation where the original alkyd system is intact or where loose rust/paint can be removed by hand/power tools before repair and top-coating.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2 nd MIDCOAT	TOPCOAT
Tentative Products, acceptable for use, but not proven.						
Cloverdale	71282					71282
Devoe Coatings	Noxyde					Noxyde

Notes for use:

- These products are designed primarily for overcoating and encapsulating existing coatings.
- A test patch, and subsequent adhesion measurements and observation of compatibility are recommended prior to specifying this type of coating. This reduces the risk of overcoating.
- Manufacturer's instructions are used here because there are a wide range of possibilities that require specific details of cleaning, coating and curing to address each individual circumstance.
- Areas of old coating that are feathered back should be built up to the topcoat level, before overcoating.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM – SFO3

SOLVENT- BASED SYSTEM SINGLE COMPONENT

Ministry Usage: This system is designed for use in a field over coating situation where the original alkyd system is intact or where loose rust/paint can be removed by hand/power tools. It may be used in moderate to severe exposures.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2 nd MIDCOAT	TOPCOAT
Proven Products						
Micron Camcoat (BC) Ltd	Xymax Mono-zinc		Xymax mono-ferro	Xymax mono-ferro		Xymax Bridge Finish
Camcoat Industries (BC) Ltd.	Xymax mono-zinc		Xymax mono-ferro	Xymax mono-ferro		Xymax Bridge Finish
Termarust	None	Termarust 2200 (as per manufacturer's instructions)				Termarust 2100
Wasser	MC Zinc	None	MC-miomastic	MC MIO Mastic	None	MC FerroX-A)
Tentative Products, acceptable for use, but not proven						
Cloverdale	None	Chemotex 5200				Chemotex 4100
Micron Camcoat	AS8411	AS8204				AS8410
Micron Camcoat		AS8204				AS8301KY
SURFACE PREPARATION Rusted areas and Delaminated areas: High pressure water wash then SSPC-SP 11, Power Tool Cleaning to Bare Metal. Undamaged areas high pressure water wash						

Notes for use:

- Do not use Cloverdale or Termarust products in areas of high abrasion or in areas where there is pedestrian access as the coating is soft and can be damaged.
- Wasser and Xymax coatings are moisture cured. The entire can should be used at once to prevent reaction and gelling of the coating in the can.
- These products are designed primarily for overcoating and encapsulating existing coatings.
- A test patch, and subsequent adhesion measurements and observation of compatibility are recommended prior to specifying this type of coating. This reduces the risk of overcoating.
- Manufacturer's instructions are used here because there are a wide range of possibilities that require specific details of cleaning, coating and curing to address each individual circumstance.
- Areas of old coating that are feathered back should be built up to the topcoat level, before overcoating.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM - SFO4

SOLVENT- BASED SURFACE TOLERANT EPOXY

Ministry Usage: This system is designed for use in a field over coating situation where the original alkyd system is intact or where loose rust/paint can be removed by hand/power tools. It may also be used in damp or condensing areas on structures. It may be used in moderate to severe exposures.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
Sigma	7476		7476			7476
SURFACE PREPARATION Rusted areas and Delaminated areas: High pressure water wash then SSPC-SP 11, Power Tool Cleaning to Bare Metal. Undamaged areas high pressure water wash						

Notes for use:

- This system is designed as a two coat system.
- These products are designed primarily for overcoating and encapsulating existing coatings.
- This material shall not be applied to damp or condensing surfaces.
- Edges shall be feathered and where possible, bare areas shall be built up to the level of the previous topcoat before overcoating.
- A test patch, and subsequent adhesion measurements and observation of compatibility are recommended prior to specifying this type of coating. This reduces the risk of overcoating.
- Manufacturer's instructions are used here because there are a wide range of possibilities that require specific details of cleaning, coating and curing to address each individual circumstance.
- Areas of old coating that are feathered back should be built up to the topcoat level, before overcoating.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM – SFO5

ALKYD SYSTEM ON STEEL STRUCTURES

Ministry Usage: This system is designed for use in a field over coating situation where the original alkyd system is intact or where loose rust/paint can be removed by hand/power tools. It may be used for moderate exposures.

STRUCTURE	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
Steel Structure	06-160 Grey with 05-550 thinner	None	Midcoat over prime	DOH B-3 White DOH B-4 Grey (CAN/CGSB-1.59-97)	None	DOH C-2 Mid green DOH C-4 Grey DOH C-6 Mid blue (CAN/CGSB-1.59-97)
SURFACE PREPARATION SSPC-SP 2, Hand Tool Cleaning or SSPC-SP 3, Power Tool Cleaning						

Notes for use:

- Formulation 06-160 and thinner 05-550 are made by General Paint.
- All paints shall comply in all respects to the relevant current Canadian Government Specification Board (CGSB) specification as noted.
- Manufacturer's instructions are used here because there are a wide range of possibilities that require specific details of cleaning, coating and curing to address each individual circumstance.
- Areas of old coating that are feathered back should be built up to the topcoat level, before overcoating.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.
- There shall be no inter-mixing of paints/solvents from different manufacturers.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM - -PCM

STEEL, PAINT CAULKING MATERIALS

MoT Usage: These materials are designed to be used immediately under the topcoat material. They are compatible with most paint systems, but a test is recommended to ensure compatibility. They are used primarily to seal joints in steel structures to prevent the ingress of water in laps, splices etc. Manufacturer's instructions are followed for use.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Tremco Mono	Sikaflex 1a

Notes for use:

- These materials are applied on the midcoat, and then coated with the final topcoat.
- Typically the top and sides of a plate are sealed and the bottom is not caulked to enable water to exit the crack if any gets in.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.

- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM - SFTA

TOUCH-UP COATING SYSTEM, AEROSOL

SMALL DAMAGED AREAS OR AS A HOLDING PRIMER: AEROSOL PRODUCTS

Ministry Usage: This system is designed for quick touch-up use in a field overcoating situation where the original alkyd system is intact or where loose rust/paint can be removed by hand/power tools. It is designed as a stopgap measure until proper maintenance coating can be scheduled.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
General Paint	06-160 Grey with 05-550 thinner		Alkyd Midcoat	Alkyd Midcoat (CAN/CGSB-1.59-97)		Alkyd Topcoat (CAN/CGSB-1.59-97)
Pacific Evergreen Industries	Zinga					
Termarust	Termarust 2100					Termarust 2100
Unistrut Building Systems	ZRC					
Tentative Products, acceptable for use, but not proven.						
Micron Camcoat	Armor Shield As8301KY					Armor Shield AS830KY
SURFACE PREPARATION		SSPC-SP 2, Hand Tool Cleaning or SSPC-SP 3, Power Tool Cleaning				

Notes for use:

- All coatings will work better on a properly prepared surface ie. High pressure water washed and abrasive blasted.
- All paints shall comply in all respects to the relevant current Canadian Government Specification Board (CGSB) specification as noted.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.
- Zinga confers some cathodic protection, while Termarust 8100 is an inhibitive barrier coat.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.
- These coatings are not designed for use on faying surfaces.

SYSTEM - STFB

TOUCH-UP COATING SYSTEM, BRUSHABLE

SYSTEM SFTB SMALL DAMAGED AREAS OR AS A HOLDING PRIMER: BRUSHABLE PRODUCTS

Ministry Usage: This system is designed for brush application in a field touchup situation where the original alkyd system is intact and where loose rust/paint can be removed by hand/power tools

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
General Paint	06-160 Grey with 05-550 thinner		Alkyd Midcoat	Alkyd Midcoat (CAN/CGSB-1.59-97)		Alkyd Topcoat (CAN/CGSB-1.59-97)
Pacific Evergreen Industries	Zinga					
Unistrut Building Systems	ZRC					
Termarust	Termarust 2100					Termarust 2100
Tentative Products, acceptable for use, but not proven.						
Micron Camcoat	Armor Shield As8301KY					Armor Shield AS830KY
SURFACE PREPARATION SSPC SP-2 "Hand Tool Cleaning" or SP-3 "Power Tool Cleaning" or SP-11 Industrial						

Notes for use:

- All coatings will work better on a properly prepared surface ie. High pressure water washed and Sandblasted.
- Zinga confers some cathodic protection, while Termarust 2100 is an inhibitive barrier coat.
- Formulation 06-160 and thinner 05-550 are made by General Paint.
- All paints shall comply in all respects to the relevant current Canadian Government Specification Board (CGSB) specification as noted.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.
- These coatings are not designed for use on faying surfaces.

SYSTEM - SPS

STEEL, PENETRATING SEALERS

MoT Usage: These products are designed for use in the field to help seal joints, pack rusted areas riveted and bolted area, and generally any area where a product that will wick into any small cracks and crevices to help seal them. These products must be topcoated as most are epoxy based and will not provide good service in exterior sunlight.

MANUFACTURER	PRIMER	SEALCOAT	STRIPECOAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products, acceptable for use						
Carboline		Rust Bond				As per Manufacturer's Instructions
ICI-Devoe		Preprime 167				
Tentative Products, acceptable for use, but not proven.						
Ameron		Amerlock Sealer				As per Manufacturer's Instructions
Cloverdale		Chemotex 5200				
International Paint	Intercryl 520	Interbond 600	Intercryl 520		I Intercryl 520	
Micron Camcoat		AS8204				
Termarust		Termarust 2200				
Wasser		Prepbond				

Notes for use:

- It is important to apply these products exactly as the Manufacturer states since they do not tolerate over-thickness well.
- These products shall be used only with compatible products from the same manufacturer.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.
- When used as part of a coating system, these products shall be applied after the primer coat, before the stripe and midcoats. This is to take greatest advantage of the sacrificial primer which must be in electrical contact with the steel to be most effective.

SYSTEM - U1

STEEL, UNIQUE SITUATIONS, ENCLOSED SPACES AND PROTECTED AREAS

MODERATE TO SEVERE CONDITIONS, NON IMMERSION STEEL ONLY

ENCLOSED SPACES AND PROTECTED AREAS

Ministry Usage: This system is designed to use in situations where corrosion protection is desired and where high gloss is not as important. It is not for use in abrasive areas or where dirt retention is a problem.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products						
Termarust	None	Termarust 2200 Penetrating Sealer	Termarust 2100 if needed	None	None	Termarust 2100
Tentative Products, acceptable for use, but not proven.						
Micron Camcoat		AS8204				As8301KY
SURFACE PREPARATIONS SPC SP-6 "Commercial" blast, New Steel SP-10 Near White Blast						

Notes for use:

- The penetrating sealer shall be used to penetrate and seal rusted areas and lap joints that cannot be properly cleaned. This is a unique application and Manufacturer's instructions shall be followed
- These products shall be used only with compatible products from the same manufacturer.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.
- When used as part of a coating system, these products shall be applied after the primer coat, before the stripe and midcoats. This is to take greatest advantage of the sacrificial primer which must be in electrical contact with the steel to be most effective.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM – U2

LOW TEMPERATURE / HIGH HUMIDITY

Ministry Usage: This system is designed to use in situations where low temperature and /or high humidity preclude the use of other coating systems.

COMPANY	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products, acceptable for use						
Wasser	MC Zinc	None	MC-MIO Mastic	MC-MIO Mastic	None	MC Ferrox-A
Wasser	MC-MIOZinc	None	MC-CR	MC-CR	None	MC-Luster
Tentative Products, acceptable for use, but not proven						
Sherwin Williams	Corothane I Primer	None	Corothane I Mastic	Corothane I Mastic	None	Corothane Ironox A
SURFACE PREPARATION SSPC-SP 6/NACE No.3, Commercial Blast Cleaning for new steel SSPC-SP 10/NACE No. 2, Near-white Blast Cleaning.						

Notes for use:

- Wasser coatings are moisture cured, the entire can should be used at once to prevent reaction of the coating in the can from contact with atmospheric moisture.
- The Wasser coatings above may also be used at normal coating temperatures and humidities. Since it is cured by atmospheric moisture, it shall not be used in areas of low relative humidity
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.
- All paints are subject to inspection and testing as specified by the Ministry Representative.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.

SYSTEM – SRG

RAILINGS - HOTDIP GALVANIZING

Ministry Usage: This system is designed for use where small parts such as railing can be removed and sent to the galvanizing plant.

STRUCTURE	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
This category has been replaced by CAN/CSA-G164-M92, "Hot Dip Galvanizing of Irregularly Shaped Articles"						

Notes for use:

- This is the preferred treatment for rails as it provides a very long life combined with low maintenance.
- The colour is grey, if colour is required, then the SRF or SRD coatings should be specified.
- Sections with closed tubes are not able to be hot dipped without relieving the tubes by drilling holes to let the hot gases escape. This must be designed into the item.
- Both the inside and outside of sections are coated with zinc.

- Defects include inclusions, dross, runs and mottling.

SYSTEM - SRM

RAILINGS AND POSTS – METALLIZING

Ministry Usage: This system is used primarily to coat steel fence posts that cannot be easily removed from a structure. It can however be used to coat any structural element in place. For elements which can be removed, hot dip galvanizing is the preferred treatment.

STRUCTURE	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
NON-REMOVABLE HANDRAIL SECTIONS						ZINC
SURFACE PREPARATION Surface preparation SSPC-SP 5/NACE No.1, White Metal Blast Cleaning						

Notes for use:

- Zinc or zinc/aluminum - 85/15 wire or powder shall be used. This material is available from a number of different manufacturers and if metallurgically pure, will provide equivalent service.
- The surface to be coated shall meet SSPC- SP 12/NACE No. 5, NV-2 level immediately prior to coating.
- All materials are subject to inspection and testing as specified by the Ministry Representative.
- As long as cleanliness standards are maintained, this work may proceed at virtually any temperature.

FIELD APPLICATION – WOOD

SYSTEM - WFR

ALKYD SYSTEM WOOD RAILINGS AND RUBRAILS

Ministry Usage: This system is designed for use in a field over coating situation for wooden railings and rubrails where the original alkyd system is intact or loose paint can be removed by hand/power tools.

STRUCTURE	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products, acceptable for use						
Wood Exterior	DOH A-3 (CAN/CGSB-1.189-2000)	None	None	DOH B-3 White DOH B-4 Grey (CAN/CGSB-1.59-97)	None	DOH D-1 White latex (CAN/CGSB-1.138-97) DOH D-2 White alkyd (CAN/CGSB-1.59-97) For guardrails: DOH D-3 White alkyd (CAN/CGSB-1.28-98) For sign/posts: DOH T-1 Green alkyd DOH T-2 Yellow DOH T-3 White (CAN/CGSB-1.59-97)
SURFACE PREPARATION		SSPC SP-2 "Hand Tool Cleaning" or SP-3 "Power Tool Cleaning"				

Notes for use:

- All paints shall comply in all respects to the relevant current Canadian Government Specification Board (CGSB) specification as specified.
- Color identification numbers are those of CGSB Schedule 1-GP-12c: Standard Paint Colours unless prefixed DOH as those of the Ministry of Transportation and Infrastructure.
- All colors when dry shall match the designated CGSB or DOH colour chips.
- White colour has CGSB specification number 513-101.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All materials are subject to inspection and testing as specified by the Ministry Representative.

SYSTEM - WFT

ALKYD SYSTEM FOR TOUCHUP ON WOOD STRUCTURES

Ministry Usage: This system is designed for use in a field over coating situation where the original alkyd system is intact or where loose paint can be removed by hand/power tools.

STRUCTURE	PRIMER	SEAL COAT	STRIPE COAT	MIDCOAT	2nd MIDCOAT	TOPCOAT
Proven Products, acceptable for use						
Wood Exterior	DOH A-3 (CAN/CGSB-1.189-2000)	None	None	DOH B-3 White DOH B-4 Grey (CAN/CGSB-1.59-97)	None	DOH D-1 White latex (CAN/CGSB-1.138-97) DOH D-2 White alkyd (CAN/CGSB-1.59-97) For guardrails: DOH D-3 White alkyd (CAN/CGSB-1.28-98) For sign/posts: DOH T-1 Green alkyd DOH T-2 Yellow DOH T-3 White (CAN/CGSB-1.59-97)
SURFACE PREPARATION			SSPC SP-2 "Hand Tool Cleaning" or SP-3 "Power Tool Cleaning"			

Notes for use:

- All paints shall comply in all respects to the relevant current Canadian Government Specification Board (CGSB) specification as specified.
- Color identification numbers are those of CGSB Schedule 1-GP-12c: Standard Paint Colours unless prefixed DOH as those of the Ministry of Transportation and Infrastructure.
- All colors when dry shall match the designated CGSB or DOH colour chips.
- White colour has CGSB specification number 513-101.
- All paints must bear the manufacturer's name and address, batch number, paint type, color code, and mixing and application instructions.
- All paints are subject to inspection and testing before acceptance or at times of application.

OIL BASED SEALER – WOOD FENCING – WF1 (under development)

WATER BASED COATING FOR WOODEN FENCING WF2 (under development)

Bridge Steel Coating Colour Guideline Per US Federal Specification 595b

	Steel Structure Colour Choices (Top Coat)	US Federal Spec. No. (595b)	DOH Colour	Application		Matching Railing Colour Choices
				Visible Areas	Under Decks	
1	Mid-Grey	16314		O.K.	Yes	4, 6, 10, 11, 12, 13, 15,
2	Light Grey	16515		Yes	Yes	4, 6, 10, 11, 12, 13, 14,
3	Light Blue (Sky)	15187	M-6	Yes	Yes	4, 10, 11, 12, 13, 14, 16
4	Mid-Blue (Lake)	15180		O.K.	Yes	2, 3, 10, 11, 12, 13, 14, 16
5	Dark Blue (Navy)	15065		-No-	O.K.	2, 3, 6, 10, 11, 12, 16
6	Light Green (Grass)	14260		Yes	Yes	2, 6, 8, 10, 11, 12, 13, 14, 16
7	Mid-Green (Leaf)	14193		Yes	Yes	2, 6, 10, 11, 12, 13, 14, 16
8	Dark Green (Forest)	14090		O.K.	Yes	2, 6, 10, 11, 12, 16
9	Mid-Brown	10115		Yes	Yes	2, 3, 6, 10, 11, 12, 13, 14, 16
10	Yellow/Brown	10371		Yes	Yes	2, 3, 6, 13, 14, 16
11	Beige/Brown	12648		Yes	Yes	2, 3, 6, 9, 10, 11, 13, 14, 16
12	Orange (Highways)	12473		-No-	O.K.	2, 3, 6, 11, 12, 14, 16
13	Yellow	13538		-No-	-No-	N/A
14	Red	11310		-No-	O.K.	2, 3, 6, 10, 11, 12, 16
15	White	17886	B-3, D-2, D-3, T-2	-No-	-No-	N/A
16	Silver (Aluminum)	17178		Yes.	Yes.	3, 6, 10, 11, 12, 13

CONCRETE

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction - Section 211, qualifies under this section.

CORRUGATED STEEL PIPE

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction - Section 320, qualifies under this section.

CULVERT SYSTEMS

MISCELLANEOUS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Boss 2000	PVC Pipe (Flex-Lox) (533) Solflo single (724) Solflo Max (724) Double Zinc Atlantic (757) Solen HDPE Pipe (767) KorFlo (926)

FITTINGS AND END TREATMENTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
PRO-ECO-LTE Structural Headwall (718)	A.B.C. 3 X 3 Brown Water tube (710) Culvert Debris Deflector (187) Ages Discharge Tube (829)

PLASTIC DRAINS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Slotted Drain C.S.P. (231)

DE-ICING CHEMICALS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Ice-Stop (130) K-Mix (201) Freezgard System (550-4) Calcium Chloride Sodium Chloride Magnesium Chloride	CMA Sodium Formate Nu-Salt (153) *Salt

- **MoT Standard Specifications for Highway Construction Section 991 Calcium Chloride and Sodium Chloride shall apply for**

Calcium Chloride - CGSB 15.1-92

Sodium Chloride - CGSB 15.9-92

Note: CGSB Specifications are obtainable from
Canadian Government Specification Board
Ottawa, Ontario K1A 0S5
<http://www.pwgsc.gc.ca/cgsb/prgsrv/stdsdev/stdsdev-e.html>

DUST PALLIATIVES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Magnesium Chloride Calcium Chloride Calcium Lignosulphonate Sodium Lignosulphonate	BA 65 (under evaluation, summer 2003) DC-40 (827)

- **MoT Standard Specifications for Highway Construction Section 991 Calcium Chloride and Sodium Chloride shall apply.**

General Chemical (328)

- Calcium Chloride 38%
- 77% Calcium Flake
- 94% Calcium Mini Pellets

ELECTRICAL EQUIPMENT – APL0106

Please quote the above number when making a request to the Ministry on this section.

Note: The following is a list of suppliers and their product(s) who have successfully been pre-approved to supply the Ministry of Transportation and Infrastructure.

GENERAL EQUIPMENT

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
1	Circuit Breakers	Square 'D'	QO	n/a
2	Size 1 - 4 pole lighting contactors	Westinghouse	A202KIDA	n/a
3	Flasher Unit	Electro Systems	TFF-12	n/a
4	Photocells	Precision Multiple Controls Inc.	869ON (105-285V)	n/a
5	Photocells Receptacles	American Electric	99000	n/a
6	Padlocks	Associated Lock	AS-HWY-1	n/a
7	70 W HPS Pedestrian Underpass Luminaire	Valid Manufacturing		Apr/07
8	Banner Hangers	Globe Foundry	BB100	n/a
9	End Mount Plumbizer	Econolite Canada	C00641P001 c/w Kit no. SE-3045	n/a
10	Illuminated Pedestrian Crosswalk Signs	Valid Manufacturing		n/a
		Electromega		Apr/06

LIGHTING EQUIPMENT LUMINAIRES & ACCESSORIES

ROADWAY LUMINAIRES

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
	Roadway Luminaires			
1	150W HPS Roadway Luminaires with standard glass refractors (120V) 313 series. Photometric file: AE20301.IES	T&B	MoTH-SC314-00660	Sep-98 no longer used
2	150W HPS Roadway Luminaires with flat glass lens (120V) 313 series, Photometric file: AE45051.PHT	T&B	MoTH-SC314-00656	Sep-98
3	250W HPS Roadway Luminaires with standard glass refractors (120V). 125 series, Photometric File: AE38421.PHT	T&B	MoTH-SC326-00664	Jul-98 no longer used
4	250W HPS Roadway Luminaires with flat glass lens (120V). 125 series, Photometric file: P5820.IES	T&B	MoTH-SC326-00659	Jul-98
5	400W HPS Roadway Luminaires with standard glass refractors (120V). 125 series, Photometric file: AE38421.PHT	T&B	MoTH-SC326-00662	Jul-98 no longer used
6	400W HPS Roadway Luminaires with flat glass lens (120V) 125 series, Photometric file: TB_P5718.IES	T&B	MoTH-SC326-00596	Jul-98
7	150W HPS Roadway Luminaire with flat glass lens (120V), Photometric file: OVF1S2D.IES	Cooper	MoTH-OVF15 IIMC	Aug-98
8	250W HPS Roadway Luminaire with flat glass lens (120V) Photometric file: OVF2S2D.IES or OVF2S3D.IES	Cooper	MoTH-OVF25S IIMC	Aug-98
9	400W HPS Roadway Luminaire with flat glass lens (120V) Photometric file: OVF4S2D.IES	Cooper	MoTH-OFV40S IIMC	Aug-98
10	150W HPS Roadway Luminaires with standard glass refractors (120v) M250A2 Photometric file: GE7230.IES	GE	MoTH-M2AR-15S-1A G MS2-1-114 c/w Encapsulated Starting Aid	Aug-98 no longer used
11	150W HPS Roadway Luminaires with flat glass lens (120v) M400A Photometric file: 98081903.IES	GE	MoTH-MDCL15S 1A 1 2 F MC2 1 116 c/w Encapsulated Starting Aid	Aug-98
12	250W HPS Roadway Luminaires with standard glass refractors (120v) M400A Photometric file: 98072104.IES	GE	MoTH-MDRL-25S-1A 1-2-R-MC3-1-282 c/w Encapsulated Starting Aid	Aug-98 no longer used
13	250W HPS Roadway Luminaires with flat glass lens (120v) M400A Photometric file: GE1006.IES	GE	MoTH-MDCL 25S 1A 1 2 F MC3 1 1116 c/w Encapsulated Starting Aid	Aug-98
14	400W HPS Roadway Luminaires with standard glass refractors (120V) M400A Photometric file: GE1011.IES	GE	MoTH-MDRL-40S-1A 1-2-R-SC3-1-283 c/w Encapsulated Starting Aid	Aug-98 no longer used
15	400W HPS Roadway Luminaires with flat glass lens (120V) M400A Photometric file: 98040209.IES	GE	MoTH-MDCL 40S 1A 1 2 F MC3 1 284 c/w Encapsulated Starting Aid	Aug-98

WALLMOUNT LUMINAIRES

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL
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				DATE
	Wallmount Luminaires			
16	150W HPS Wall Mount Luminaires (120V).	T&B	WP3G15S4-BCT	Apr-93
	Post Top Luminaires			
17	150W HPS Post-Top Luminaires (120V).	T&B	MoTH-246-H5962-8A	Apr-93

LUMINIARE ACCESSORIES

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
18	Glare shield for 150W Roadway Luminaires	T&B	55754	Apr-93
19	Glare shield for 150W Roadway Luminaires	GE	ELS-M2A	Jun-95
20	Glare shields for 250/400W Roadway Luminaires	T&B	55755	Apr-93
21	Glare shields for 250/400W Roadway Luminaires	GE	ELS-M4A	Jun-95
22	HID Lamps	Phillips		Mar-96
23	HID Lamps	Osram-Sylvania		Mar-96
24	HID Lamps	GE Lighting		Mar-96
25	HID Lamps	Standard – Eye Sunlux HPS		Jan-09

SIGN LUMINIARES & ACCESSORIES

NO.	PRODUCT	AIMING ANGLE	ARM LENGTH (MM)	APPLICATION NOTES	MANUFACTURER	MODEL NO.	APPR. DATE
Sign Luminaires							
1	Type A 100W HPS Sign Luminaires (120V). Photometric file: xxxxx.IES, Tilt=60 in AGI, Tilt fixture 30	30	1200	Use for 1.8m x 3.0m signs or smaller	Holophane	Predator, MoTH-PD100HP12KW4G	Apr-93
2	Type A 100W HPS Sign Luminaires (120V). Photometric file: GE8372.IES, Tilt=0 in AGI, Tilt fixture 0	0	1200	Use for 1.8m x 3.0m signs or smaller	GE Lighting	Versaflood II Signliter MOTH-V2FS10S1M1PSN4GRP c/w 5m of 14/3 SOW and Encapsulated Starting Aid	Nov-98
3	Type A 100W HPS Sign Luminaires (120V). Photometric file: 1972B.IES, Tilt=60 degrees using AGI, Tilt fixture 0	0	1200	Use for 1.8m x 3.0m signs or smaller	Metrolux (Div of Quality Lighting)	SignMaster Series, MoTH SI-17F-HPS100-(60)-120-LG-SF-QD-RTP- NL	Oct-98
4	Type A 175W MV Sign Luminaires (120V). Photometric file: 36366.IES, Tilt=60 in AGI, Tilt fixture 30	30	1200	Use for 1.8m x 3.0m signs or smaller	Holophane	Predator, MoTH-PD175MV12KW4G	Jun-96
5	Type A 175W MV Sign Luminaires (120V). Photometric file: GE8374.IES, Tilt=0 in AGI, Tilt fixture 0	0	1200	MacGrid WG / KG Series	GE Lighting	Versaflood II Signliter MOTH-V2FS17M1A1PSN4GRP c/w 5m of 14/3 SOW and Encapsulated Starting Aid	Nov-98

NO.	PRODUCT	AIMING ANGLE	ARM LENGTH (MM)	APPLICATION NOTES	MANUFACTURER	MODEL NO.	APPR. DATE
6	Type A 175W MV Sign Luminaires (120V). Photometric file: 1972B.IES, Tilt=60 in AGI, Tilt fixture 0	0	1200	Use for 1.8m x 3.0m signs or smaller	Metrolux (Div of Quality Lighting)	SignMaster Series, MoTH SI-17F-MV175-(60)-120-LG-SF-QD-RTP- NL	Oct-98
7	Type A 250W MV Sign Luminaires (120V). Photometric file: 40896.IES, Tilt=0 in AGI, Tilt fixture 0	0	1600	Use for signs higher than 2.4m	Holophane	Sign-Vue II, MoTH-SNVW250WMVOOXD	Oct-98
8	Type A 250W MV Sign Luminaires (120V). Photometric file: 37223.IES, Tilt=60 in AGI, Tilt fixture 30	30	1600	Use for signs higher than 2.4m	Holophane	Predator, MoTH-PF250MV12KS4G	Nov-98
9	Type A 250W MV Sign Luminaires (120V). Photometric file: GE5506.IES, Tilt=0 in AGI, Tilt fixture 0	0	1600	Use for signs higher than 2.4m	GE Lighting	Versaflood II Signlitter MOTH-V2FS25M1A1PSN3GRP c/w 5m of 14/3 SOW and Encapsulated Starting Aid	Nov-98
10	Type A 250W MV Sign Luminaires (120V). Photometric file: 1972A.IES Tilt=60 in AGI, Tilt fixture 0	0	1600	Use for signs higher than 2.4m	Metrolux (Div of Quality Lighting)	SignMaster Series, MoTH SI-17F-MV250-(60)-120-LG-SF-QD-RTP- NL	Oct-98
11	Type B 250W MV Sign Luminaires (120V). Photometric file: 37163.IES, Tilt=90 in AGI, Tilt fixture 0	0	1600	Use for signs wider than 3.0m and 2.4m high or less	Holophane	Panel-Vue, MoTH-PAN250MH12NTG	Apr-93
12	Type B 250W MV Sign Luminaires (120V). Photometric file: 37224.IES, Tilt=55 in AGI, Tilt fixture 35	35	1600	Use for signs wider than 3.0m and 2.4m high or less	Holophane	Predator, MoTH-PF250MV12NGR	Nov-98

POLE STRUCTURES

All frangible and breakaway pole structures must meet the crash test requirements of NCHRP Report 350 Test Level 3

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
1	Traffic Signal, Luminaire and Sign Poles	Nova Pole International Westcoast Engineering Ltd. Valmont Industries Standard Poles Ltd. (name changed)		Jun-95 March-09
2	Frangible Bases	Pacific Mako Patriot Sales Inc. (name changed) Globe Foundry	1730-003	May-94 March-09 Sep-97
3	Breakaway Base – Luminaire Pole (Type 2-6.5 & 8.0mm 280mm BCD)	Safety Base Ltd. Transpo Pole Break Safe	CS Coupler/ RP2C /Reaction Plate/S3C Shroud	Sept-05 Sept. 2009
4	Breakaway Base – Luminaire Pole (Type 2 – 11.0 m 12" BCD)	Safety Base Ltd. Transpo Pole Safe		July 2009
5	Breakaway Base – Luminaire Pole (Type 1 or 3 16" BCD)	Safety Base Ltd. Transpo Pole Safe		n/a July 2009
6	Breakaway Sign Structures	Nova Pole International West Coast Engineering Ltd. H & H Welding Safety Base Ltd.		Apr-95 Apr-95 Apr-95 Sept 05

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
7	Barrier Stands	Nova Pole International Westcoast Engineering Ltd. Brenco Industries H & H Welding		Apr-95 Apr-95 Oct-96 Apr-95
8	Sign Bridge and Cantilever Sign Support Structures	Nova Pole International Westcoast Engineering Ltd. Valmont Industries		Jun-95 Jan-97
9	Highmast Pole	Nova Pole International Westcoast Engineering Ltd. Valmont Industries		Jan-97 Jan-97 Jan-97
		Millerbernd Manufact. (981) Tentative		Jan 07
10	Electrical Systems for Highmast Poles	Valid Manufacturing West Coast Electric Ltd. Sigma Technologies		Jan-97 Jan-97 Jan-97
		Millerbernd Manufact. (981) Tentative		Jan 07
11	Winches, Steel Cables, Head End Assembly and Drive Units for Highmast Poles	CU Phosco Lighting Limited		Jun-96
		Millerbernd Manufact. (981)-Tentative		Jan 07

POWDER COAT APPLICATORS

NO.	PRODUCT	SUPPLIER	MODEL NO.	APPROVAL DATE
1	Altech Custom Coaters	Burnaby, B.C.		6-Aug-96
2	Hudson Plating	West 5 th – Vancouver, BC		6-Aug-96
3	Linex Industries Ltd.	Delta, B.C.		6-Aug-96
4	McCain Traffic Supply	Vista, California		6-Aug-96
5	Protek Powder Coating Ltd.	Kelowna, B.C.		6-Aug-96
6	Wesgar Industries	Port Coquitlam, B.C.		6-Aug-96
7	ABC Electro Powdercoating	Port Hope, Ontario		9-Sep-96
8	Automatic Coating Ltd.	Scarborough, Ontario		26-Aug-96
9	Ducan Powder Coating	Duncan, B.C.		20-Aug-96
10	Island Powder Coating	Victoria, B.C.		15-Aug-96

POWDER COAT PRODUCTS

This document contains a list of suppliers and their product(s) who have successfully been pre-approved to supply the Ministry of Transportation and Infrastructure.

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
1	Polyester(TGIC)	Protech		
2	Polyester(TGIC)	Fuller-O'Brien		
3	Polyester(TGIC)	Cardinal		

SERVICE EQUIPMENT

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
1	30A-120/240 V, 1 Ø,Service Panels	Valid Manufacturing West Coast Electric Ltd.	HWYSP8	May-94 Jan-96
2	100A-120/240 V, 1 Ø,Service/Distribution Panels	Valid Manufacturing West Coast Electric Ltd.	HWYSP16	May-94 Jan-96
3	100A-120/240 V, 1 Ø,Service Disconnect Panels	Valid Manufacturing West Coast Electric Ltd.	HWYSD	May-94 Jan-96
4	100A-120/208 V, 3 Ø,Service/Distribution Panels	Valid Manufacturing West Coast Electric Ltd.	HWYSP3	May-94 Jan-96
5	Pre-emption Panels	Valid Manufacturing West Coast Electric Ltd.		N/a N/a
6	Telephone Demarcation Panels	Valid Manufacturing West Coast Electric Ltd.	HWYTDP	May-94 Jan-96
7	Distribution Kiosks	Sigma Technologies Electrotec Industries Valid Manufacturing West Coast Electric Ltd.		Apr-93 Jan-02 May-94 Jan-96

SIGNAL EQUIPMENT

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
1	Side Mount Kits (Single arm brackets, pole plates, bolts, and washers)	Greenlite Traffic Globe Foundry	GEL189	Sep-94 Apr-00
2	Spring cushion end hangers	Greenlite Traffic	GEL327	Sep-94
3	Spring cushion end sign hangers	Greenlite Traffic	GEL348	May-95
4	Spring cushion mid hangers	Greenlite Traffic	GEL307	Sep-94
5	Spring cushion mid sign hangers	Greenlite Traffic	GEL338	May-95
6	Plumbizer kit	Greenlite Traffic	GEL378	Sep-94
		Globe Foundry		Apr-00
		Canadian World Trading Inc.		Sep-97
7	Plumbizer and sign bracket	Greenlite Traffic Globe Foundry	GEL379	May-95 Apr-00
8	Flasher Luminaires	Greenlite Traffic	GEL125	Sep-94
9	Post top adaptors	Greenlite Traffic Globe Foundry	GEL143	Sep-94 Apr-00
10	Two-way spreaders (Tubular and T- Section) 18"	Greenlite Traffic Globe Foundry	GEL410	Sep-94 Apr-00
11	Three-way spreaders (Tubular and T- Section) 22"	Greenlite Traffic Globe Foundry	GEL440	Sep-94 Apr-00

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
12	Four-way spreaders (Tubular and T-Section) 22"	Greenlite Traffic Globe Foundry	GEL460	Sep-94 Apr-00
13	Small spacer	Greenlite Traffic Globe Foundry	GEL197	Sep-94 Apr-00
14	Large spacer	Greenlite Traffic Globe Foundry	GEL198	Sep-94 Apr-00
15	Finials	Greenlite Traffic Globe Foundry	GEL133	Sep-94 Apr-00
		Canadian World Tradind		Sep-97
16	Two-way sign mounting kit	Greenlite Traffic	GEL340	May-95
17	Span wire hanger and cable entrance	Greenlite Traffic	GEL360	Sep-94
18	Pedestrian Pushbuttons	Polara	BDLM (Bulldog) -red led	Nov-04
		47 th Parallel Traffic Products	Bull's Eye -red led	Nov-04
		Progressive Traffic Products	Bumble Bee -red led	Nov-04
	Signal heads without visors (200 Ø Red, 200 Ø Yellow and 200 Ø Green)	McCain Eagle Econolite	SRH130 EA31-BC	Jun-96 Oct-98 May-93
20	Signal head without visors (300 Ø Red, 200 Ø Yellow and 200 Ø Green)	McCain Eagle Econolite	SRH121 CA36-BC	Jun-96 Oct-98 May-96
21	Signal head without visors (300 Ø Red, 300 Ø Yellow, 300 Ø Green)	McCain Eagle Econolite	SRH103 TA31-BC	Jun-96 Oct-98 May-93
22	Signal head (200 Ø) with no lens and no visor	McCain Eagle Econolite	EAIX-BC	Jun-96 Oct-98 May-93
23	Signal head (300 Ø) with no lens and no visor	McCain Eagle Econolite	TAIX-BC	Jun-96 Oct-98 May-93
24	Pedestrian heads - 1 section	McCain Econolite	7090-BC	Jun-96 May-93
25	Pedestrian heads with visors 2 section	McCain Econolite Eagle	PED2-BC	Jun-96 May-93 Mar-99
26	Polycarbonate Signal Head (300 Ø Red, 300 Ø Yellow, 300 Ø Green)	Econolite		Aug-01
27	Backboards, Visors, and Lenses	Econolite Eagle Fortran McCain	- -	May-93 Oct-98 Jan-94 Jun-96
28	50 Watt halogen lamp and receptacle for fibre optic displays	Philips GE Osram-Sylvania Leuci Iwasaki (Eye)	50MR16/NFL24-EXZ 50MR16/NFL25-EXZ 50MR16/24/NFL (EXZ) EXZ-GU5,3 50MR16NFL (EXZ)	Mar-96 Mar-96 Mar-96 Jul-00 Aug-02

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
29	Traffic Signal lamps	Phillips Osram-Sylvania Duro-Test GE Lighting		Feb-94 Mar-96 Feb-94 Mar-96
30	Audible Signals	Novax	DS102A-S124VDC	Nov-94
31	1 Pair (2 Conductor) No. 18 Shielded Cable	Beldon	9318	
32	2 Pair No. 18 Shielded Cable	Impulse	181801	Apr-00
33	3 Pair No. 18 Shielded Cable	Beldon Alpha Impulse	9773 6024C 181803	Oct-00 Oct-00 Oct-00
34	4 Pair No. 18 Shielded Cable	Beldon Impulse	9388 18104	Apr-00 Apr-00
35	1.8 m Square ¾"RPVC Preformed Loop c/w 25m of twisted home run conductors (Dwg SP635-2.8.15)	Valid Manufacturing Electromega InterProvincial Traffic	1818B 17-7306 ITS-RPL	Oct-00 Oct-00 Oct-00
36	1.8 m Square Flexible PVC Preformed Loop c/w 25m of twisted home run conductors (Dwg SP635-2.8.15)	InterProvincial Traffic	ITS-FPL	Oct-00
37	200mm Red LED Display	Gelcore Dialight Precision Solar Act One Leotek Electronics Corp. Duralight	D08RA2-A4 4331110003XL T1-08R-004 JXC200-HFR	Aug-00 Mar-08 Rev. Mar-02 Aug-02 Sept 05 March 09
38	300mm Red LED Display	Gelcore Dialight Precision Solar Act One Leotek Electronics Corp. Duralight	D12RA4-A4 4331210003XL T1-12R-004 JXC300-HFR	Aug-00 Mar-08 Rev. Mar-02 Aug-02 Sept 05 March 09
39	200mm Yellow LED Display	Gelcore Dialight Precision Solar Act One Leotek Electronics Corp. Duralight	D08YA2-4 433111001XL T1-08A-004 JXC200-HFY	Aug-00 Mar-08 Rev. Mar-02 Aug-02 Sept 05 March 09
40	300mm Yellow LED Display	Gelcore Dialight Precision Solar Act One Leotek Electronics Corp. Duralight	D12YA4-4 433323001XL T1-12A-001 JXC300-HFY02	Aug-00 Mar-08 Rev. Mar-02 Aug-02 Sept 05 March 09
41	200mm Green LED Display	Gelcore Dialight Precision Solar Act One Leotek Electronics Corp. Duralight	D08GA2-4 4322170001XL T1-08G-004 JXC200-HFG	Aug-00 Mar-08 Rev. Mar-02 Aug-02 Sept 05 March 09
42	300mm Green LED Display	Gelcore Dialight Precision Solar Act One Leotek Electronics Corp. Duralight	D12GA7-4 4322270001XL T1-12G-001 JXC300-HFG	Aug-00 Mar-08 Rev. Mar-02 Aug-02 Sept 05 March 09

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
43	300mm Sqr. Pedestrian Don't Walk LED Display	Gelcore Leotek Electronic Corp. Act One Dialight	P09PAC-3S4 TP-12WP-002 4306774001	Aug-00 Sept 05 Aug-02 Aug-00
44	300mm Sqr. Pedestrian Don't Walk Signal	Gelcore Leotek Electronic Corp		Aug-00 Sept 05
45	300 mm Bi-modal Green/Yellow Left Turn Arrow	Gelcore Leotek Electronic Corp Precision Solar Dialight	D12YGA7-4 4306730	Aug-00 Sept 05 Mar-02 Aug-00
46	Signal Bags	Trans Canada Traffic Ltd. ITS.	SignalSax Signal shirts	Dec-04 Dec-04
47	Uninterruptible Power Supply	Alpha Technologies Corp. Clary Corp Trans Canada traffic	FXM 1100 SP1000 SR.SN BM124M11	March-08 Jan-05 Dec-04
48	Countdown Pedestrian Signal	Gelcore Tassinco Dialight	PSG-PFD2_01A PSC-121 430-7773-001	June-05 June-05 June-05
49	PLH – Preformed Flexible Detector Loops -Tentative (1018)	Electromega Ltd.		Dec-07

UNDERGROUND ELECTRICAL EQUIPMENT

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPR. DATE
1	Large Round Plastic Junction Box Sections	Westcoast Engineering Ltd.	WCE-JB530-P	Apr-94
2	Large Round Steel Junction Box Lids	Westcoast Engineering Ltd.	WCE-L530-S	Apr-94
3	Large Round Plastic Junction Box Lids	Westcoast Engineering Ltd.	WCE-L530-P	Apr-94
4	Large Round Plastic Junction Box Drain Plates	Westcoast Engineering Ltd.	WCE-D530-P	Apr-94
5	Rectangular Plastic Junction Box Sections	Westcoast Engineering Ltd.	WCE-JB1324-P	May-94
6	Rectangular Steel Junction Box Lids	Westcoast Engineering Ltd.	WCE- L1324-S	May-94
7	Rectangular Plastic Junction Box Drain Plates	Westcoast Engineering Ltd.	WCE- D1324-P	May-94
8	Rectangular Junction Box Mid Braces	Westcoast Engineering Ltd.	WCE- MB1324	May-94
9	Large Round to Rectangular Plastic Junction Box Adaptors	Westcoast Engineering Ltd.	WCE- AP1324/530 - P	May-94
10	Small Round Plastic Junction Box Sections	Westcoast Engineering Ltd.	WCE-JB370-P	May-94
11	Small Round Steel Lids	Westcoast Engineering Ltd.	WCE-L370-S	May-94
12	Small Round Plastic Lids	Westcoast Engineering Ltd.	WCE-L370-P	May-94
13	Small Round Plastic Drain Plates	Westcoast Engineering Ltd.	WCE-D370-P	May-94
14	Concrete Junction Box (SP635-1.3.1)	A.E. Concrete Products Kon Kast Products	MoTH No. 5686 No. 950	Jun-96 Jun-96

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
15	Concrete Vault (SP635-1.3.3)	A.E. Concrete Products Kon Kast Products		Jun-96 Jun-96
16	4" by 20' 6" long multi-cell conduit - coloured innerducts (BL, OR, GR, BR), Schedule 40 RPVC outerduct (orange)	Carlton Telecom Systems Opticom Manufacturing Network Inc.	MFSS40A-020	Mar-96 Mar-96
17	4" by 20' 6" long multi-cell conduit - coloured innerducts (BL, OR, GR, BR), bullet resistant FRE outerduct	Carlton Telecom Systems Opticom Manufacturing Network Inc.	MBSS40A-020	Apr-96 Apr-96
18	4" by 10' 6" long multi-cell conduit - coloured innerducts (BL, OR, GR, BR), galvanized steel outerduct	Carlton Telecom Systems Opticom Manufacturing Network Inc.	MRSS40A-010	Apr-96 Apr-96
19	4" Schedule 40 pass through termination kit	Carlton Telecom Systems Opticom Manufacturing Network Inc.	MFT24S (type 2) 526771200 (type F)	Mar-96 Mar-96
20	Spare innerduct spacers	Carlton Telecom Systems Opticom Manufacturing Network Inc.	MAES4 536005000	Mar-96 Mar-96
21	10' repair kit (1 innerduct occupied)	Carlton Telecom Systems	MFR14S	Mar-96
22	10' repair kit (2 innerducts occupied)	Carlton Telecom Systems	MFR24S	Mar-96
23	10' repair kit (3 innerducts occupied)	Carlton Telecom Systems	MFR34S	Mar-96
24	10' repair kit (4 innerducts occupied)	Carlton Telecom Systems	MFR44S	Mar-96
25	10' repair kit - specify combination of occupied innerducts when ordering	Opticom Manufacturing Network Inc.	536123090	Mar-96
26	0.250" FRE to Sch. 40 PVC adapter	Opticom Manufacturing Network Inc. Carlton Telecom Systems	526331240 MFAB4	Apr-96 Apr-96
27	0.250" FRE to Steel Threaded adapter	Opticom Manufacturing Network Inc. Carlton Telecom Systems	526334050 MRAB4	Apr-96 Apr-96
28	4" Steel to Sch. 40 PVC adapter	Opticom Manufacturing Network Inc.	526331250	Apr-96
29	1 1/4" conduit plugs	Carlton Telecom Systems Jackmoon U.S.A., Inc.	MRAF4 12D148U	Apr-96 Mar-96
30	2" conduit plugs	Jackmoon U.S.A., Inc.	20D236U	Mar-96
31	1 1/4" conduit plug - central hole for fibre optic cables 0.35"-0.57" f	Jackmoon U.S.A., Inc.	12S057SB	Apr-96
32	1 1/4" conduit plug - central hole for fibre optic cables 0.57"-0.70" f	Jackmoon U.S.A., Inc.	12S070SB	Apr-96
33	1 1/4" conduit plug - central hole for fibre optic cables 0.57"-0.70" f	Jackmoon U.S.A., Inc.	12S090SB	Apr-96

TRAFFIC CONTROLLER PRODUCTS

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
1	Controller Unit	Peek Traffic	LMD 8000 Rev 8K	Jan-04
2	Conflict Monitor	Peek Traffic	LN12E Rev 18	Jan-04
3	Malfunxion Management Unit	Peek Traffic	Double Diamond MMU TS1 Cardwith TS2 Covered	Jan-04
4	Programmable Logic Controller for Traffic Controller Assemblies	Omron	CPM1/CPM1A- 20CDR-D (24 VDC source,24 VDC input,24 VDC or 240VAC output)	Jan-04
5	Hand-Held Loader for Programmable Logic Controllers for Traffic Controller Assemblies	Omron	CPM1-EMU01-V1	Jan-04
6	Firmware (EEProm) Loader for Programmable Logic Controllers for Traffic Controller Assemblies	Omron	AT28C256 15PL 0022	Jan-04
7	Programming Cable Loader for Programmable Logic Controllers for Traffic Controller Assemblies	Omron	CQM1-CLF02	Jan-04
8	Cellular Telephone for Traffic Controller Assemblies	Motorola	S4018A	Jan-04
9	Cellular TelephoneAntenna for Traffic Controller Assemblies	Maxrad	MLPV8000 c/w MAML 195PLmounting hardware and cable	Jan-04
10	General Purpose Solid State Relay	Electro Systems	120-25-SSR 525 S/N	Jan-04
11	Solid State NEMA Load Switch	Electro Systems	Model 200	Jan-04
12	Solid State Two Pole NEMA Intersection Flasher	Electro Systems	Model204	Jan-04
13	Advanced WarningFlasher	Electro Systems	Model AW-2	Jan-04
14	Advanced Warning Card	Electro Systems or Thermatek Instruments	TEC-AW2	Jan-04
15	Pre-emption Interface Card	Electro Systems or Thermatek Instruments	TEC_DPE3	Jan-04
16	4-Phase Pedestrian Vehicle Interface Card	Electro Systems or Thermatek Instruments	TED-PV4	Jan-04
		Electro Systems or Thermatek Instruments	TEC-PV8	Jan-04
17	Two-pole Flasher	Electro Systems	Model TFF12	Jan-04
18	Loop Detector	Sarasota	GP6C	Jan-04
		E.D.I.	ORA2	Jan-04

		Reno A&E	222R	Jan-04
19	LCD Diagnostic Detector	Eberle	MORACLE/2	Jan-04
20	Power Supply Card	Thermatek Instruments	TEC-PS	Jan-04
21	Pedestrian Audible Signal	Novac or Traconex	APS-10	Jan-04
22	Mercury Relay Contactor	MDI or Durakool	SP-1130-120A	Jan-04
23	Flash Transfer Relay	Midtex	136—62T3A1	Jan-04
		AEMCO	136-4992	Jan-04
24	#14-6 Screw Lugs	Burndy	KPA-8C	Jan-04
25	120V Flash Control Relay	Potter & Brumfield	KRPA-11AG-120	Jan-04
26	Traffic Controller Serial Communication Cable	Cabco	TEC-1 through TEC-7 inclusive	Jan-04
27	Solid State Timer	ARTISAN	438 USA	Jan-04
28	K9-Relay 24VDC	Potter & Brumfield	R10-EIX4-V700	Jan-04
29	Fire Signal Controller	Novax Industries Inc.	ELA 515	Sept 05

VIDEO DETECTION PRODUCTS

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
1	Video Image Processor For Video Detection	Traficon Traficon Iteris	VIP 3.2 VIP3D.x	Jan-04
2	Video Detection Expansion Module	Traficon Traficon Iteris	2-I/O Extender 4-I/O Extender	Jan-04 Jan-04
3	Surge Suppresor For Video Detection	EDCO	CX06-BNCY	Jan-04
4	Image Processor Key Pad Controller	Traficon Iteris	Trafico Programming Key Pad	Jan-04
5	Camera Focus/Zoom Controller	Traficon Iteris	Zoom Box	Jan-04
6	Video Monitor	Phillips	LTC 9388/60	Jan-04
7	Power Supply for Video	Thermatek Instruments	TC-PS1	Jan-04

WEB CAMERA PRODUCTS

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
1	Day / Night Network Camera with AutoIris & Zoom Lens	Axis	Axis 221	July-05
2	Heat / Blow 120V 105 Watt Pelco Enclosure	Pelco	EH5729-1	July-05
3	Window Defroster	Pelco	WD57-1 120 V	July-05
4	Thermal Insulation	Pelco	TI57	July-05
5	Enclosur Mounting Arm	Pelco	EM-1900U	July-05
6	Power Supply	Sola	663-SCP30S15-DN	July-05
7	CDMA X1 Cellular Modem	Anydata or Airlink Comm	EMIII Dual Raven	July-05
8	Coaxial Cable	Various	LMR 400	July-05
9	Antenna	Max Rad	Various	July-05
10	Telephone Modem	US Robotics	USR5686E	July-05
11	Uninterruptible Power Supply	Alpha Techn	Micro 300	March 07

SOLAR PRODUCTS

NO.	PRODUCT	MANUFACTURER	MODEL NO.	APPROVAL DATE
1	Solar Flashing Beacon	Carmanah Technologies	R247C	Sept 05
		JSF Technologies	1400 – 24hr Flashing Beacon	Sept 05
2	Solar LED Pedestrian Cross Walk Flashers	Carmanah Technologies		Sept 05
		JSF Technologies		Sept 05

EPOXY PRODUCTS

ANCHORING

For structural and load carrying applications, products for epoxy anchoring require an engineering evaluation for strength, creep, durability, and other performance factors to verify suitability for the specific intended use.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
CIA Gel Epoxy System (545) HST200 (597) HS200 (597) JR200 Power-Fast (758) Chem-Stud (759)	High Tech Structural Gel (687) Hilti HIT RE500 (1067) Hilti HTE 50 (1067) Hilti HIT HY 150 Max (1067) Hilti HIT RE500 SD (1067)

CRACK INJECTION

PROVEN PRODUCTS	TENTATIVE PRODUCTS
BASF Concessive 1380 BASF Concessive 1446 Sikadur 31 HI MOD Gel Sikadur 33	Sho-bond #101 Pro-Poxy 50 – Unitex (1063) Pro-Poxy 100– Unitex (1063)

EPOXY GENERAL

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Bonding Agent ST-433 (372) Bonding Agent ST-435 (372) Miton 514 (138) Sternflex 1 (362) Ulcan Hanner Cap (619)	Bonding Agent ST-432 (361) Everset Type II (358) Miton 223 (141) Miton 227 (143) Pro-Proxy 300 Fast – Unitex (609) Talygrout 100 (356) Pro-Poxy 200 – Unitex (1063) Pro-Poxy 204 – Unitex (1063) BASF – Concessive 1090 (438)

EROSION CONTROL SYSTEMS

BLANKETS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	A-Jax Block
Bon Terra (Various)	Georidge (848)
EcoAegis (Bonded Fiber) (731)	Aqua Dams (333)
Geocoir/Dekowe (487)	Foreshore Revetment Mattress (373)
Multimat 100Geogrid (226)	Made to degrade (459)
North American Green(Various)	Xcel Temp/Perm (478)
Soil guard (Bonded Fibre Matrix System) (440)	AGES Premium Silt Fence
	Supergro (843)
	MacMat N 10, & 20 (880 & 881)
	Gabion Mat (882)
	Western Excelsior ECB (890)
	SI GeosolutionsTRM (891)
	Excelsior Erosion Products – Excel, EStaple, CurlexI, CurlexII, CurlexIII, Recyclex, & AEC(1088)

SILT FENCING

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Beltech Silt Fence (489)	Layfield SF100 & SF124 (987)
Layfield WBSF (892)	Beltech Silt Fence (489)
AGES Premium Silt Fence (904)	

EROSION – GENERAL

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Deltalok (791)	Trilock Erosion Control (686)
	Enviroberm (691)
	Modular Gabions (1028)
	Scour Stop (975)

FASTENERS

GENERAL

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Strapbinder (627)	

GEOSYNTHETICS

GEOTEXTILES - WOVEN & NONWOVEN

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Geolon HP Series (883)	Geoweb (224) Trevira Spunbond (227) Geocoir/Dekowe (487) Beltech Silt Fence (489) Antiwash Geojute Plus (690) Webtech (826) Ages HS (828) Checkmate Geosynthetics (905) Geotex Geosynthetics (979) CSE CE Non Woven (1006) Maccaferri MACTEX Geotextiles (1008)

CELLULAR CONFINEMENT SYSTEMS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Geoweb (224)

ENVIRONMENTAL LINERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Layfield Plastics 30mil PVC sheet	Bentofix (838)

GEOGRIDS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Mirafi XT\PWG Series (714) Multimat 100 Geogrid (226) Pitchmastic (Tensar) (662) Tensar Bx Series Tensar Ux Series Fortrac 20/13-20 (603) Fortrac 110/30-20 (607) Fortrac 35/20-20 (604) Fortrac 55/30-20 (605) Fortrac 80/30-20 (606)	MacGrid EB 20 / 30 (813) MacGrid WG . KG Series (813) Carthage Mills FX Series(870) E'Grid (889) Tenax TT Sieries (894) Mirafi AXEG Series (897) Combi Grid (929) Tenax MS 220/330 Series (689) Strata Geogrid Products Paralink / Paragrid Checkmate BX and Ux Series (905) Secugrid (940) Nilex Triax Geogrid (719) Terrafix Biaxial Geogrids BX Series (1086)

GEOGRIDS-PAVEMENTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Nilex Glassgrid	MiraPave (994) PaveGrid FG Series (896) PaveGrid FGC Series (898) Checkmate Roadgrid (905)

GEOMEMBRANES

Note: This category is currently under revision

PROVEN PRODUCTS	TENTATIVE PRODUCTS
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GEODRAINS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
ADS Advan edge/HDPE (633) Miradrain 6000 Miradrain 9000 (136) RED Pak (281)	Tendrain (688) Delta Drain LD Series (893)

GEOCOMPOSITES

Note: This category is currently under revision

GEOFOAM

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Geospec (855)	Plasti-Fab (799)

HAZARDOUS WASTE MANAGEMENT

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Aqua Dams (333) Claymax (225) KCM Containment (400) HAZGARD 100 and 250 (907) HAZGARD 500 (908) HAZGARD 10000 (911)

LIGHTWEIGHT FILL MATERIAL

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Geolite (711)	Plasti-Fab (799) Super Fill LW (925)

Note: see also Geofoam

HIGHWAY SAFETY DEVICES

BREAKAWAY DEVICES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Dent Sign Post Fuse Plate (993) (For use with breakaway sign supports) Dent Breakaway Bolt (966) Transpo Break Safe (1005)

CABLE BARRIERS (Wire Rope Safety Fence)

NOTE: The following products have met the certification requirements of the National Co-operative Highway Research (NCHRP) Report 350, Test Level 3 (4 wire systems) and as such are acceptable for use by the Ministry. See Tech Circular T-15/04 Wire Rope Safety Fence (WRSF).

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Brifen Wire Rope Safety Fence (...)	Gibraltar Cable Barrier System (955) Safence (965) CASS-TL3 (1026)

GLARE SCREENS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Glare-Guard (519) Safe-hit (728) Carsonite (109)	

IMPACT ATTENUATORS

NOTE: The following products have met the certification requirements of the National Co-operative Highway Research (NCHRP) Report 350, Test Level 3 and as such are acceptable for use by the Ministry.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Brakemaster 350 CAT – 350 Energite III Sand Barrels Fitch Sand Barrels Quad Guard React 350 SCI100GM Universal TAU-II Quad Trend	Adiem 350 Traffix sand barrels Quad Guard Elite Quad Guard LMC TRACC 984 Traffix Compressor Attenuator (997) (Note: Steel Base fixed to pavement surface must be engineered) CrashGard Sand Barrels (1012) Quest Impact Attenuator (1065)

WATER FILLED BARRIERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Guardian Barrier System Triton Barrier System

NOTE: Contact Highway Safety Section, Engineering Branch, Victoria, (Ed Miska (250) 387-7676), prior to using Glare Screens, Impact Attenuators, Cable Barrier, Water Filled Barriers Products.

PLASTIC DRAINAGE PIPE

P.E.

P.E. Plastic Drainage Pipe - Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction, Section 317 under this heading, qualifies under this section.

P.V.C.

PVC Plastic Drainage Pipe - Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction, Section 318 under the same heading, qualifies under this section.

SHAPES, SPACERS & FITTINGS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
RACI - Spacers (Insulators) (234) Ring-Tite (886)	ADS Polythene End Sections (634) AGRU Pipes AGRU Liners (207)

SPECIALTY APPLICATIONS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Boss 2000 (377) Weholite (618) ACO S100 Power Draun (924) Perma-Loc (945) Ultra-Rib (944)	ADS N-12 & N12HC Pipe (632) Sure-Lok HDPE (748) Royal Cobra Lock System (926) KorFlo (926)

PORTLAND CEMENT CONCRETE

ADMIXTURES

Note: Admixtures have unique properties which influence the resulting properties of the concrete product. Applications of Admixtures need to be thoroughly understood and carefully applied as to achieve the concrete results as required.

AIR-ENTRAINING

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Darex II - Grace (943) replaces Darex AEA - Grace (535) Daravair 1400 Grace (943) MBVR - Master Builders MBAE 90-Master Builders	Micro Air - Master Builders NVR – Sternson Websen Air – Websen Air R ² - Chryso (992) Air NVR - Chryso (992) AEA 92 - Euclid (1010)

HYDRATION CONTROL

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Delvo Stabilizer (liquid or puck)	Eucon DS - Euclid (1010) Daratard HC – Grace (943)

MISCELLANEOUS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Tylac 97314-00 (Reichold) (162) Tylac 68015-00 (Reichold) (163) Fibremesh (613)	Rheomac UW450 Anti-washout VMA 358 VMA 362 Xel 650A Chryso (992)

SET RETARDERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Delvo Stabilizer (liquid or puck)	Daratard 17 – Grace (943) Recover – Grace (943) Plastiment - Sika Tard CHR - Chryso (992) Eucon Retarder 100 - Euclid (1010) Eucon DS - Euclid (1010)

SUPERPLASTICIZERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Daracem 19 Grace (943)	SPN – Conchem
	Sternflo – Sternson
	Rheobuild 1000 - Master Builders
CorrCrete MCI – 2007 Cortec	Glenium 1466
	Glenium 3400 NV (Precast)
	Glenium 3030 NS (Ready Mix)
	Adva Cast 530 (927)
	ADVA 100 and 140 (930)
	Plast CER - Chryso (992)
	Plast 460, 500, and 850 - Chryso (992)
	Plastol 341 S - Euclid (1010)
	Eucon 37 - Euclid (1010)
	Eucon SPC - Euclid (1010)
	ADVA 195 – Grace (943)
	ADVA 405 – Grace (943)
	ADVA CAST 575 – Grace (943)

WATER REDUCERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
WRDA L440 Non Chloride – Grace (943)	WRDA 20 Non Chloride – Grace (943)
WRDA 82 Non Chloride – Grace (943)	Pozzolith 200N
WRDA Hycol Non Chloride – Grace (943)	WRDA 64 - Grace (943)
	MIRA 92 - Grace (943)
Pozzolith 322N Non Chloride – Master Builders	Recover - Grace (943)
Polyheed 997 Non Chloride – Master Builders	Fluid Permia 100, 180, and 190 - Chryso (992)
	Fluid Optima 100, 203, and 216 - Chryso (992)
	Fluid AG - Chryso (992)
	Plast Omega 101 - Chryso (992)
	Eucon X15 - Euclid (1010)
	Eucon NW - Euclid (1010)
	ADVA 195 – Grace (943)

ANCHORS

For structural and load carrying applications, products for anchoring require an engineering evaluation for strength, creep, durability, and other performance factors to verify suitability for the specific intended use.

MECHANICAL TYPE

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Hilti HSL (557) Machtle HLN (558) Redhead HL (559) Spit 2X (560)	Hilti HDA Undercut Anchor (1067) Hilti Kwik Bolt TZ expansion anchor (1067) Hilti Kwik Bolt 3 expansion anchor (1067)

ADHESIVE TYPE

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Acrylic-Tie AT (901) Epoxy-Tie SET, ET, ETF (902) Vinylester Glass Capsule Adhesive VGC (903) Hilti HTE 50 (1067) Hilti HIT RE 500 SD (1067) Hilti HIT HY150 Max (1067)

ANTI-SKID TREATMENTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
SRM Grip (472)	Durabak (816)

BONDING AGENT

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Bonding Agent ST 433 Bonding Agent ST 435 (372) BASF Concessive 1090 Powerbond Pro-Bond Sikadur	Target Bonding Agent 935) Bonding Agent 432 (361) Everset Type II (358) Industrial Formulators Miton 514 (138) Starpatch Acrylic 900 (301) Sternson Strong Bond (Symons) Talygrout 100 (356) Target

CORROSION INHIBITORS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Cortec MCI 2005 Cortec MCI 2006 D.C.I. (Darex) (535)	

CURING MEMBRANES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Elsro 702 BASF Sonneborn Kure-N-Seal (438) Vabar 300 (279)	Dayton Ritecure – Sternson (348) W.R. Meadows Webres – Websen Waterproof & Spec. Coating

GROUTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Burke-2 (108) Burke, Fast Patch 928 (126) Flowcrete (703) Grout (Nonferrous) (127) Grout (Standard 621) (128) Miton 700 (144) Miton 227 (141) Basalite Non Shrink (425) Machine Base Grout (699) Portland Expanding (708) 1118 Grout (702) Rapid Set Non Shrink (321) Starpatch Patch (313) Starpatch Hard Top (314) Starpatch - Thin Set Starpatch Filling Mix (315) Talygrout 100 (356)	Basalite Rehab Mix -(426) Dot Patch & Strong Bond (Symons) (580) Everset Type II (358) M-Bed Standard (369) Basalite Microsil Anchor (424) M-Bed Superflow (346) Planigrout 712 (1070) Planigrout 740 (1070)

PATCHING PRODUCTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Basalite Fast Patch (422)	BASF 10-60 Rapid Mortar (438)
Basalite Rehab Mix -(426)	BASF Emaco S88 (438)
Fast Set Patching Concrete (700)	BASF Emaco GP (438)
Fusion-Crete Crystals (638)	BASF EMACO T430 (438)
Highway Patch	BASF Emaco S66 (438)
Insta-Patch	BASF EMACO T415 (438)
Rapid Set No Shrink Grout (323)	Basalite Dam Sac (421)
Rapid Set Mortar Mix (320)	Epoxy Overlay/Polymer Concrete (437)
Rapid Set Cement (321)	Fusion Crete (Reg Set) (123)
Rapid Set Concrete Mix (322)	Flexcrete (713)
Rapid Set DOT (467)	Five Star Highway Patch (194)
BASF Set 45	Fusion Crete (Minute Set)
SC100W (701)	BASF Gel Patch (712)
SC100D (704)	MCI – 2038 (Cortec)
Basalite Traffic Patch (423)	MCI – 2039 (Cortec)
Traffic Patch Fine (Target) (706)	Quasite(patching blend) (209)
Traffic Patch Course (705)	RT-15 (Master Builders) (444)
Wunder-Plast Swiss System (180)	RE-18 (Master Builders) (445)
	Starpatch Thin Coat (316)
	Sealcoat Elastic Plus (652)
	Starpatch Patch Mortar (313)
	Starpatch Hard Top Mortar (314)
	Starpatch Hard Top Mortar (314)
	Starpatch Skim-Coat (312)
	Starpatch Filling Mix (315)
	Sylcrete 10 min Concrete Mender (277)
	Thin Patch (Symons) (577)
	Tapecoat M860 Road Repair (380)
	Verticle Patch (Symons non-sag) (582)
	HD-50 (837)
	MG-Krete (937)
	V/O Patching and Repair Mortar (967)
	Euclid Duraltop (1010)
	Euclid Eucocrete (1010)
	Euclid Concrete – Top Supreme (1010)
	Euclid Eucospeec MP (1010)
	Euclid Thin-To Supreme (1010)
	Euclid Veraspeed (1010)
	Euclid Veticcoat Supreme (1010)
	MAPEI Planitop 18 (1070)
	MAPEI Planitop XS (1070)

SEALANT

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	CIM Membranes (112) Cemflex (658) Chemco System 646 (129) Clear seal (460) Code Blue (544) Dynasytan BH-N (381) BASF Hydrozo Silane 40 VOC (365) Masonry Guard(Weather-bos) (642) Miton 400 (147) Pena-Seal (455) Sealcoat Elastic (652) Sealoflex (659) Sealclear (660) Sealobond (661) Euclid Baracade Silane 40 (1010)

SIDEWALK TOPPING

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Epoxy Overlay/Polymer Concrete (Steilacoom) (437) Starpatch Skim Coat Mortar (312) System 400 (443)

SPECIALTY PRODUCTS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Sacking Mix (707)	Dam Sac Rehab Mix (420) Ultimax (620) Voton (178)

PRESERVATIVES

WOOD TREATMENT

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction Section 908, Preservative Treatment - Wood Products, qualifies under this section.

PROPRIETARY STRUCTURES

Note: The application/selection of a proprietary structure must fulfill the designed parameters and requirements desired for the location and use. Each application is unique to the engineering requirements and the selection will be related to those requirements such as life cycle, economics, and functionality.

CONCRETE ARCHES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
RECO Tech Span Shotcrete Arch Note: unbound tendons are not permitted	BEBO Concrete Arches (949)

STEEL ARCHES AND PIPES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
ALL Super-Cor Bolt-a-Plate (655) Armtec Mini-Span (843) Armtec Multi-Plate Super Span Armtec Bridge-Plate (821)	Siderar Arsa MP 150 AND 152S(775)

BRIDGE ABUTMENTS and RETAINING WALLS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Hilfiker Eureka Reinforced Soil (436) Hilfiker RSE Smooth Face (436) ISOGRID SSL MSE Plus (629) Reinforced Earth TerraClass (264) VSL Retained Earth	Atlantic Wire Wall c/w Precast Facing (1036)

Note: See MoT's Bridge Standards and Procedures Manual Volume 1 Supplemental to CHBDC S6-06 Section 6.12 and 6.14 for details on abutment and wall requirements.

RETAINING WALLS - (UP TO 5M IN HEIGHT)

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Allan Block (324) Evergreen Wall	Versa-Lok Wall System Lock + Load (720) <i>facing slope shall not be steeper than 10 vertical to 1 horizontal if geogrid reinforcement is specified Miragrid XT or Stratagrid geogrid shall be used</i>
Standard Unit Keystone United Lock Block <i>with geosynthetic reinforcement</i> Gabions PVC Maccaferri (124) Tensar Mesa Plateau System (719) Stresswall (174) <i>Hollow panels not permitted</i>	Maccaferri Terramesh (836) Redi-Rock (822) <i>with geosynthetic reinforcement</i> Strata Slope Systems (901) Magnumstone (995) Keystone - 1.33 Elite and Compac (931) Modular Gabions (1028)

NOTE: In areas of the Province where the number of freeze–thaw cycles will exceed 3000 over the design life of the project, dry pack (zero slump) concrete products will not be used. In these areas, wet poured concrete products may be used with a 4 – 6% entrained air requirement added to the requisition.

NOTE: All modular block systems with individual block heights of less than 300 mm. must have the top 4 courses grouted. Additional mechanical connections may be required for seismic design considerations.

Note: See MoT’s Bridge Standards and Procedures Manual Volume 1 Supplemental to CHBDC S6-06 Section 6.12 and 6.14 for details on abutment and wall requirements (products in this category are governed by a height of 5m).

RETAINING WALLS - (UP TO 9M IN HEIGHT)

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Hilfiker Eureka Reinforced Soil (436)	Reinforced Earth GeoMega (264)
Hilfiker RSE Smooth Face (436)	Nilex Tensar Ares (719)
ISOGRID	Reinforced Earth TerraPlus (862)
SSL MSE Plus (629)	Strata Slope System (901) System acceptance based on Strata’s geosynthetic products
Reinforced Earth TerraClass (264)	KeySystem (931)
VSL Retained Earth	Criblock (942)
	Nilex Tensar SierraScape (719)
Hilfiker Welded Wire (436)	Maccaferri Terrawall (1008)
	Atlantic Wire Wall (1036)
	Armtec Wire Mesh Wall Systems (949)

NOTE: In areas of the Province where the number of freeze –thaw cycles will exceed 3000 over the design life of the project, dry pack (zero slump) concrete products will not be used. In these areas, wet poured concrete products may be used with a 4 – 6% entrained air requirement added to the requisition

NOTE: Approval for systems using wire facing is conditional on compliance with AASHTO Standard Specifications for Highway Bridges, corrosion-resistance durability requirements. The design life of Wire Faced MSE Walls shall be 100 years unless otherwise specified by the Ministry. Wire Faced Walls shall be designed for site specific environment and exposure conditions. Exposure to drainage, runoff and spray containing de-icing salts shall be specifically addressed by a corrosion evaluation during the design phase. Corrosion of Wire Faced MSE walls has occurred prematurely on a couple of Ministry walls and a review of Wire Faced MSE walls is being under taken by the Ministry to find and address the cause.

Note: See MoT’s Bridge Standards and Procedures Manual Volume 1 Supplemental to CHBDC S6-06 Section 6.12 and 6.14 for details on abutment and wall requirements (products in this category are governed by a height of 9m).

LANDSCAPING WALLS – (UP TO 3M IN HEIGHT)

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	C-Loc Vinyl Plastic Sheeting (750)
	Yard Blocks (787)
	Maccaferri Green Terramesh (867)
	Detalok (791)
	Strata Slope Systems (901)
	Envirolok (1032)

Note: See MoT's Bridge Standards and Procedures Manual Volume 1 Supplemental to CHBDC S6-06 Section 6.12 and 6.14 for details on abutment and wall requirements.

SALT STORAGE STRUCTURES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Cover-All Building Systems Colony Fabric Structures	Fabric Shelter (788) Megadome / Superdome (with Fabrene type N705 fabric only)
Barr Fabric Structures (831)	Norseman Portable Shelter (922) Diamond Fabric Shelter (938)

SLOPE ROCKFALL SYSTEMS

NOTE: Products accepted as follows can be applied to a slope according to the manufacture's/design requirements to stabilize and secure/capture loosening materials but not to perform as a retaining system.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	TECCO Mesh (906) Trumer Omega Net (985) Trumer High Performance Netting (985) Maccaferri RO System (1043) High Energy Rockfall Barrier

SLOPE RETENTION SYSTEMS – (Up to 5m in Height)

NOTE: The following Slope Retention System products are limited to a slope angle of up to 70 degrees. Systems installed steeper than 70 degrees must qualify as a retaining wall.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Tensar Sierra Slope Retention System	Deltalok (791) Strata Slope System (901)

SLOPE RETENTION SYSTEMS - (Up to 9m in Height)

NOTE: The following Slope Retention System products are limited to a slope angle of up to 70 degrees. Systems installed steeper than 70 degrees must qualify as a retaining wall.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Tensar Sierra Slope Retention System (719)	Strata Slope System (901)

SOUND ATTENUATION WALL SYSTEMS

Note: Structural design of the wall must meet Ministry requirements for the project and drawings will be signed off by an engineer registered in BC. Products are assessed against Ministry sound absorption and other criteria.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Whisper Wall (965)	Durisol Sound Absorption Noise Barrier (950) SoundSorb (1019)

ROCK FALL CATCH FENCES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Trumer Schutzbauten Rock Fall Protection System (985) Geobrug Rockfall Protection System (1023) Maccaferri High Energy Rockfall Barrier (1043)

RAILWAY CROSSINGS

FLANGEWAYS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
HI-Rail PPI Rubber Interface Polycorp Railseal Interface	

SURFACES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
HI-Rail (rubber) Omega (concrete) Rail-Way Inc.(concrete & rubber)	

REINFORCING STEEL

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction Section 913, Reinforcement for Concrete qualifies under this section.

ROADSIDE DEVELOPMENT PRODUCTS

HYDRO-SEEDING

HYDRO-MULCHES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
EcoAegis (731) Eco Fiber (731) Spra-mulch Silva Fiber Soil Guard (440)	Hydrotech (732) HydraCX ² Extreme Slope Matrix (719)

TACKIFIERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
J-Tac M-Binder DS-Tack FX (764)	Earth Bond (664)

LANDSCAPING

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Commercial Tree Ties Interlocking Concrete Pavers Lava Rock (284) Stamped Concrete Finish (Bowmanite) Weed Barrier Geo Textile	Driwater (725) Deeproot Barrier (468) Netlon Advanced Turf Trilock (686)

REST AREA IMPROVEMENT

PROVEN PRODUCTS	TENTATIVE PRODUCTS
<u>Composting Toilets</u> Clivus Multrum (733) Phoenix System (717)	
<u>Environmental Cleanup</u> BOE 505/BOE 510 (626)	
<u>Miscellaneous</u> Eco-Superwood (330)	Concrete Blocks (451)
<u>Picnic Tables</u> Dominion pre-cast (Terrazzo Finish) Leko precast (Terrazzo Finish)	Maintenance Free Benches & Picnic Tables (538)
<u>Waste Receptacle – Machinery</u> Rough Country Hide-A-Bag (Rollins) I BC Special Bear Proof Refuse/Recycling Container (45 gallon capacity) Hide-A-Bag (Rollins) II BC Special Bear Proof Refuse/Recycling Container (90 gallon capacity) Hide-A-Bag (Rollins) I Mini Special Bear Proof Refuse/Recycling Container (32 gallon capacity) Hide-A-Bag (Rollins) II Mini Special Bear Proof Refuse/Recycling Container (64 gallon capacity)	

ROAD MATERIALS – TEMPORARY

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Terra Mats (262)

SOIL STABILIZATION

ROADWAY BASE

ASPHALT EMULSIONS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
SS-1	

B.C. STABILIZER

1. Lignosulphonate

<i>Test Parameter</i>	<i>Ammonium</i>	<i>Calcium</i>	<i>Sodium</i>
Solids (wt %)	53.0	51.3	53.2
Water (wt %)	47.0	48.7	46.8
Relative Density	1.23	1.26	1.25
pH (1:1 with water)	4.2	6.8	5.2
Sugars (% of solids)	14.3	3.8	19.7
Ash (% of solids)	3.2	18.0	16.2
Viscosity (cp)	250	660	200

2. SS-1 asphalt Emulsion component in accordance with Specifications Section 951 of the Standard Specifications for Highway Construction.

3. Water component that is clean and soft with a conductance less than 200 V, ph @ 6.0 to 8.0 and fully compatible with SS-1 asphalt Emulsion.

J. Stabilizer mixture at equal parts asphalt Emulsion, lignosulphonate and water.

Test Parameter

SS-1 asphalt emulsion (volume %)	33.3
Water (volume %)	33.3
Lignosulphonate (volume %)	33.3
Relative density 1.09 – 1.10 Solids (weight %)	37.0
Solids (volume %)	31.3
7.0 – 8.0 Viscosity (cp)	50.0
Stability 24 hour	Stable
Compatibility	Compatible

CALCIUM CHLORIDE

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction Section 991 Calcium Chloride and Sodium Chloride shall apply.

LIGNOSULPHONATES

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Calcium Lignosulphonate Georgia Pacific Sodium Lignosulphonate ITT Rayonier	

SUBGRADE BASE

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Base Seal (568) CBR Plus Con-Aid (415) Consolid Blend (458) Conservex CX (with lime) (457) Descobond Enduraseal (120) Elastomer Method SFPP2000 (624) Geol-Bind ISS-2500 (549) Lime Lite-Con Mountain Grout Soil Stabilizer (849) Paczyme Soil-sement (510) Top Seal Geosolid (928)

FOUNDATION BASE

EXPANDING INJECTION SOIL STABILIZERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Uretek (956)

STEEL & IRON

GENERAL

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction Section 911 – Steel & Iron and 219 – Concrete Curb & Gutter & Storm Drainage, qualifies under this section,

Culvert Pipe, Half-Round Flume
Catch Basin Boxes and Covers
Cast Iron Frames for Cast Iron Basins and Manholes
Barsplice Mechanical Couplers (653)

STEEL & WIRE FENCING MATERIALS

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction Section 316 –under the above heading, qualifies under this section.

PRE-CAST FENCE FOOTINGS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Chain Link Fence Footing (Ericsson Manufacturing)

STORMWATER and DRAINAGE MANAGEMENT

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Ring-Tite (886) Perma-Loc (945) Ultra-Rib (944)	StormFilter (819) Interceptor A67 (825) Stormtech Chambers (845) EMCO Raintank Systems (852) Enviro Liner 6000 (910) Vortechs (1044) Aco Drain Systems (1004)

TIMBER

GLUE LAMINATE

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction Section 905 – Glued Laminated, & 906 –Round Timber Piles, qualifies under this section.

TIMBER MATERIALS

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction Section 903, Timber Materials, and 904, Treated and Untreated, Fabrication & Handling, qualifies under this section.

TRAFFIC CONTROL DEVICES

ACTIVE DELINEATORS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Sigma Technologies SMG (Barrier Side Mount)	J.S. Foster PD-5 (Post Mount)
Sigma Technologies TM1 (Barrier Top Mount)	HIL-Tech LEDline (Barrier Top Mount)
Sigma Technologies TM2 (Upgradeable Top Mount)	
Harding Smartstud Wayfarer	Item Miracle MS200
J.S.Foster PF-8 (Post Mount)	Item Miracle MS100
SunBeacon SB104 (Barrier Top Mount)	
JSF Active Barrier	

BARRIER MOUNTED REFLECTORS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Astro Optic B1 (235)	Astro Optics CM1 (104)
Stimsonite 965	Davidson PCBM T12 (998)
Stimsonite 960	Item IMarker (701)
Swareflex 3350-Glass bead (715)	Artuk FT-2 (895)
Swareflex 3351-Glass bead (715)	
BAM Flexible	
Rayolite 2001 (154)	
Rayolite 2002 (154)	
Rayolite 2003 (154)	
Rayolite G-1 Way (154)	
Rayolite G-2 Way (154)	
3M Scotchlite Linear Delineation System (851)	

CENTRELINE REFLECTORS

~~FLOWABLE~~ (no longer used)

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Stimsonite 96 (1066) no longer used Stimsonite 96LP (1066) no longer used T-Circular to follow	Rayolite Snow Plowable (steel) no longer used Stimsonite 101LP (1066) no longer used

RAISED

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Stimsonite 911 (1066) Stimsonite 88 (1066) 3M 290 series Rayolite 8700 series Rayolite All Acrylic series Rayolite AA ARC-II series Rayolite 2002 series	Stimsonite 948 (1066) Stimsonite 953 (1066) Apex 921 AR Item IMarker 702 80/C80 Reflector (999)

MISCELLANEOUS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Lifeguard Chennelizer (669) Barrier Stand (750) Portable Changeable message signs (863)	Traf-Fix Flags (291) Traf-Fix Stand (292) Traf-Fix Signs (293) Traffic Control Products (542) Superwood (330) Super bright roll-up signs (663) Versa Bump (319) Qwick Kurb (951)

ROAD EDGE DELINEATION

PROVEN PRODUCTS	TENTATIVE PRODUCTS
4" Flexible Marker Posts (441) Carsonite (109)	Polytubes Highway Post (899) Ridan Composite Marker (960) Steel Flex (1052)

TRAFFIC BARRIERS - STEEL BEAM & WOOD POST

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction, of Section 312 - Steel Traffic Barriers & Wood Posts, qualifies under this section.

TRAFFIC BARRIERS – WATER FILLED

Products listed in this category provide visual delineation only. No traffic redirection should be considered.

PROVEN PRODUCTS

TENTATIVE PRODUCTS

Road Runner –Premium Plastics (850)

TRAFFIC CONES

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specifications for Highway Construction of Section 971 – Plastic Traffic Cones, qualifies under this section.

CONCRETE SINGLE POST SIGN BASES

PROVEN PRODUCTS

TENTATIVE PRODUCTS

Ericsson (523) (Sign size/base wt. requirements have been moved to Sample Special Provisions)

ROUND SIGN POST - BREAKAWAY BASE

PROVEN PRODUCTS

TENTATIVE PRODUCTS

Quickfix Sign Base QF 001
SkiRil Sign Breakout- Flush Mounted Breakaway Base (Oct 2005)

Kalifix (900) (note: contact HQ Traffic for trial use)

ALTERNATE BACKFILL FOR CONCRETE SINGLE POST SIGN BASES

PROVEN PRODUCTS

TENTATIVE PRODUCTS

BMK Polecrete (989)

TRAFFIC MARKING MATERIALS

GLASS BEAD

Any product which meets the requirements of AASHTO M 247-08 with a minimum roundness value of 75% true spheres, qualifies under this section.

TEMPORARY

PROVEN PRODUCTS

TENTATIVE PRODUCTS

Yodock Barrier System (341)
Removable Pavement Marking Tape (410)
Wet Night Removable Marking Tape (411)
Removable Blackout Pavement Mask (412)
Durable pavement. marking Tape Ss. 1000 (413)

PERMANENT

EPOXY

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Epoplex LS50 (918) Epoplex LS90 (919) Epoplex Glowmarc 50 (920) Epoplex Glowmarc 90 (921)

COLD PLASTIC

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Lafrentz System 400 (1041)

THERMOPLASTIC

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Interprovincial Traffic Services Can 100 (White) Lafrentz System 300 (1041) – 0320 & 0333 (White) Lafrentz System 300 (1041) – 0358 & 0359 (Yellow)	Swarcotherm Hydro White (947)

METHYLMETHACRYLATE

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Pathfinder - LaFrentz (1017)

SPECIALTY MARKINGS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Ennis Flame Tape (1030) Flint Trading - Hot Tape (1069) Ride-A-Way (1061) DuraTherm (1061)

TRAFFIC PAINT

NOTE: Federal Environmental Regulations are being legislated to limit volatile organic compounds in paints and coatings (possibly coming into effect January 1, 2012 – proposed regs. to start the 3rd anniversary of the effective Regulation date). Recognized Traffic Paint products will be subject to complying with these regulations when they come into effect.

The following list details the suppliers and their formulations which have been tested to meet specifications for supplying Traffic Paint to the Ministry Pavement Marking Contractors:

WHITE TRAFFIC PAINT (ALKYD)

Supplier	Contains Lead Pigment	Formulation	VOC g/l	Year Accepted	Year Last Used
Standard White		78-915			
General Paint	No	78-612		1996	1998
General Paint	No	78-915		1999	2002
General Paint	No	78-512		2007	
General Paint	No	78-741	395	2007	
General Paint	No	78-742	381	2007	
Ibis Products	No	40-4948		2002	
Mills Paint	No	EX-004		2002	
Cloverdale Paint	No	79-424		2002	
TMT Pathway	No	HVS101		2006	

YELLOW TRAFFIC PAINT (ALKYD)

Supplier	Contains Lead Pigment	Formulation	VOC g/l	Year Accepted	Last Year Used
Standard Yellow		78-161			
Ennis Paint	No	991071	416	2007	
General Paint	Yes	78-161		1991	2002 (under review)
General Paint	No	78-965		1999	
General Paint	No	78-966		1999	
General Paint	No	78-967		1999	
General Paint	No	78-562		2006	
Ibis Products	No	40-4845		1999	
Ibis Products	No	40-4923		2001	
Ibis Products	No	40-4925		2001	
Ibis Products	No	40-4949		2002	
Ibis Products	No	T-40-4973		2003	
Ibis Products	Yes	T-40-4975		2003	(under review)
Northern Pt/ (Cloverdale)	Yes	62321		2003	(under review)
Northern Pt/ (Cloverdale)	Yes	62324		2003	(under review)

WHITE TRAFFIC PAINT (WATER BASED)

Supplier	Contains Lead Pigment	Formulation	VOC g/l	Year Accepted	Year Last Used
Ennis Paint	No	991062	102	2007	
Ennis Paint	No	991066	90	2007	
General Paint	No	78-916		1999	
General Paint	No	78-192		2000	
General Paint	No	78-034		2000	
General Paint	No	78-210		2002	
General Paint	No	78-211		2002	
General Paint	No	78-197	115	2007	
General Paint	No	78-792	74	2007	
Ibis Products	No	40-4844		1999	
Ibis Products	No	44-4964		2002	
Ibis Products	No	44-4956		2002	
Ibis Products	No	44-4958		2002	
Ibis Products	No	44-4960		2002	
Ibis Products	No	44-4962		2002	
Ibis Products	No	44-5010		2003	
LaFrentz Road Marking	No	0459SLB01	80	2007	
Mills Paint	No	EX-006		2002	
Mills Paint	No	EX-007		2002	
Cloverdale Paint	No	79-426		2002	

YELLOW TRAFFIC PAINT (WATER BASED)

Supplier	Contains Lead Pigment	Formulation	VOC g/l	Year First Approved	Last Year Used
Ibis Products	No	44-4955		2002	
Ibis Products	No	44-4959		2002	
Ibis Products	No	44-4963		2002	

WET NIGHT HIGH VISIBILITY STRIPING SYSTEMS

Desired profile characteristics.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Rainline (666)	Stamark 750 (3M) (1077)
Bright Spot System 400 MMA (LaFrentz)	PolyCarb-Mark 55.4 (Petersen)
Sno Pro Rumble Strip (LaFrentz)	Innovative Performance System HPS 4 (Petersen)
Sno Pro Thermo 0320 Diamond (LaFrentz)	
Sno Pro Thermo 0320 Gear (LaFrentz)	
Stamark A380-ES (3M) (1077)	

REFLECTIVE SHEETING

Accepted products must meet ASTM 4956 - Type 1, Type 3, and Type 9 or better - Type 11 sheeting.

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Avery Dennison Products	
3 M Products (1077)	

TRAFFIC MARKING DEVICES

ILLUMINATING LEDs

PROVEN PRODUCTS	TENTATIVE PRODUCTS
	Lanelight MLK 150 (941) (MoT – test section req.) LEDline (959) (MoT Barrier tested – test section req.)

URETHANE INJECTION CRACK SEALERS

PROVEN PRODUCTS	TENTATIVE PRODUCTS
Miton 700 (144) Miton 773 (140)	

WIRE ROPE

Any product which meets the requirements of the Ministry of Transportation and Infrastructure Standard Specification for Highway Construction of Section 917 – under the same heading, qualifies under this section.