

Niagara Region – Transportation - Approved Product and Equipment List (APEL)

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Roads

Item	Description	Make	Model No.	Supplier	Product Info
Sidewalk Tactile Warning Plates	Cast Iron Plates			Neenah Foundry	https://www.nfco.com/
Sidewalk Tactile Warning Plates	Cast Iron Plates			East Jordan Foundry	New East Jordan Foundry (ejco.com)
Sidewalk Tactile Warning Plates	Cast Iron Plates			Cedar Infrastructure Products	Home Cedar Infrastructure Products LP (cedarcip.com)
Sidewalk Tactile Warning Plates	Cast Iron Plates			Kinesik Engineered Products Inc	Leading Accessibility Solutions Provider Kinesik Products
Sidewalk Tactile Warning Plates	Cast Iron Plates			Ontario Utility Castings Inc	Quality Cast, Ductile and Aluminum Products Ontario Utility Castings Inc (oucastings.com)
Cold Mix	ProPatch			Innovative Surface Solutions	https://www.nfco.com/
Permanent Asphalt Repair (PAR)	Road Shouldering Coating	Ecoloc 555 Road and Shoulder		CRC Coatings – IMCO Technologies	Road Base & Should Spray Coatings - Eco-Loc 555 - CRC Coating Technologies Inc. (crccoatings.com)

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Item	Description	Make	Model No.	Supplier	Product Info
Manhole Frames and Grates – Self Adjustable	Self Adjustable – for installation on roads with less than 10,000 AADT, and delayed top asphalt			Cedar Infrastructure Products	Home Cedar Infrastructure Products LP (cedarcip.com)
Manhole Frames and Grates – Self Adjustable	Self Adjustable – for installation on roads with less than 10,000 AADT, and delayed top asphalt			East Jordan Foundry	New East Jordan Foundry (ejco.com)
Oil Grit Separators	Hydroguard		HG-#	Hydroworks	
Oil Grit Separators	HydroDome		HydroDome	Canadian Infrastructure Products	
Sewer Connections	SaniTite	ADS	SaniTite	ADS	
Sewer Connections	InsertaTee	ADS	InsertaTee	ADS	
Asphalt Reinforcing Fibre	FORTA-FI			FORTA Corporation	
Asphalt Reinforcing Fibre	Aramid Fibre			Surface Tech	

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Item	Description	Make	Model No.	Supplier	Product Info
Flexible Bollard	Bike Lane Delineator Post	Cyclo-Zone		DeveloTech	https://www.develotech.com/en/bicycle-path-flexible-bollard/
Flexible Bollard	In-street Traffic Calming Sign	Ped-Zone speed reduction sign	PZ-2022, PZ-2120, PZ-2121, PZ-2304, PZ-2621, PZ-2625, PZ-2627	DeveloTech	https://www.develotech.com/en/sign-speed-reduction/
Flexible Bollard	In-street Pedestrian Crossover Sign	Ped-Zone Pedestrian Crossover Sign	PZ-1223	DeveloTech	https://www.develotech.com/en/sign-pedestrian-crossovers/
Pavement Marking Equipment	2 gun line striper with dual bead dispenser	Titan	PowrLiner 6955	Sherwin-Williams Paints	https://www.sherwin-williams.com/

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Ducting

Item	Description	Make	Model No.	Supplier	Product Info
Rigid PVC Traffic Duct	50mm (2") and 100mm (4")	Sceptre or Approved Equivalent	NA	Nedco Electric	https://www.nedco.ca/cnd/
HDPE Traffic Duct	50mm (2") and 100mm (4")	Lamson	SDR 13.5	Nedco Electric	https://www.nedco.ca/cnd/
Conduit Bell Ends	50mm (2") and 100mm (4")	Sceptre	EB-35	Nedco Electric	https://www.nedco.ca/cnd/

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Junction Boxes

Item	Description	Make	Model No.	Supplier	Product Info
Junction Box (Underground Enclosure)	Quazite 13 x 24 x 18 Tier 15 Flared Wall (Nestable) Junction Box w/ 2 Penta bolt cover (Electric Logo)	Hubbell Power Systems Inc.	B12132418A (Junction Box) C12132402A (Cover)	Guillevin or Nedco Electric	https://www.guillevin.com/eediv_electric_en/ https://www.nedco.ca/cnd/
Junction Box (Underground Enclosure)	Quazite 13 x 24 x 12 Tier 15 Flared Wall (Nestable) Junction Box w/ 2 Penta bolt cover (Electric Logo)	Hubbell Power Systems Inc.	B12132412A (Junction Box) C12132402A (Cover)	Guillevin or Nedco Electric	https://www.guillevin.com/eediv_electric_en/ https://www.nedco.ca/cnd/
Junction Box (Underground Enclosure)	13 x 24 x 18 Tier 15 Flared Wall (Nestable) Junction Box w/ 2 Penta bolt cover (Electric Logo)	Oldcastle Infrastructure	1324F Oldcastle FRP	Guillevin or Nedco Electric	https://www.guillevin.com/eediv_electric_en/ https://www.nedco.ca/cnd/
Junction Box (Underground Enclosure)	13 x 24 x 12 Tier 15 Flared Wall (Nestable) Junction Box w/ 2 Penta bolt cover (Electric Logo)type 6	Oldcastle Infrastructure	1324F Oldcastle FRP	Guillevin or Nedco Electric	https://www.guillevin.com/eediv_electric_en/ https://www.nedco.ca/cnd/
Junction Box (Underground Enclosure)	Bulk	Channell	2 & 3	Nedco	https://www.channell.com/product-category/vaults/

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Pole and Anchor Assemblies

Item	Description	Make	Model No.	Supplier	Product Info
Pole Foundation Anchor Assemblies	Type 1 1cm x 19cm x 19cm (3/4" x 7 1/2" x 7 1/2")	National Concrete Accessories	DGR-2S-190	Sentinel Pole	http://sentineltraffic.com/
Pole Foundation Anchor Assemblies	Type 3 2cm x 23cm x 23cm (1" x 9" x 9")	PoleFab/AMG Metals	100000127	PoleFab/AMG Metals	http://polefab.com/
Pole Foundation Anchor Assemblies	Type 3 2cm x 23cm x 23cm (1" x 9" x 9")	National Concrete Accessories	DGR-2S-323	Sentinel Pole	http://sentineltraffic.com/
Pole Foundation Anchor Assemblies	Type 5 3cm x 28cm x 28cm (1 1/4" x 11" x 11")	PoleFab/AMG Metals	100000134	PoleFab/AMG Metals	http://polefab.com/
Pole Foundation Anchor Assemblies	Type 5 3cm x 28cm x 28cm (1 1/4" x 11" x 11")	National Concrete Accessories	DGR-2S-395	Sentinel Pole	http://sentineltraffic.com/
Pole Foundation Anchor Assemblies	Type 6 3cm x 32cm x 32cm (1 1/4 x 12 1/2" x 12 1/2")	National Concrete Accessories	DGR-2S-449	Sentinel Pole	http://sentineltraffic.com/
Pole Foundation Anchor Assemblies	Type 6 3cm x 32cm x 32cm (1 1/4 x 12 1/2" x 12 1/2")	PoleFab/AMG Metals	100005952	PoleFab/AMG Metals	http://polefab.com/
Pole Foundation Anchor Assemblies	Type 8 3cm x 42cm x 42cm (1 1/4 x 16 1/2" x 16 1/2")	National Concrete Accessories	DGR-2S-592	Sentinel Pole	http://sentineltraffic.com/

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Item	Description	Make	Model No.	Supplier	Product Info
Pole Plates	Mast Arm Base	Sentinel	Wood Pole - 1.2m-2.4m (4'-8'), 3m-4.6m (10'-15'), 5.5m-7.6m (18'-24')	Sentinel Pole & Traffic Equipment Limited	http://sentineltraffic.com/
Pole Plates	Mast Arm Base	Sentinel	Steel or Concrete Pole - Type 3 -1.2m-2.4m (4'-8'), 3m-4.6m (10'-15'), 5.5m-7.6m (18'-24')	Sentinel Pole & Traffic Equipment Limited	http://sentineltraffic.com/
Pole Plates	Mast Arm Base	Sentinel	Steel or Concrete Pole - Type 5 -1.2m-2.4m (4'-8'), 3m-4.6m (10'-15'), 5.5m-7.6m (18'-24')	Sentinel Pole & Traffic Equipment Limited	http://sentineltraffic.com/
Pole Plates	Mast Arm Base	Sentinel	Steel or Concrete Pole - Type 6 -1.2m-2.4m (4'-8'), 3m-4.6m (10'-15'), 5.5m-7.6m (18'-24')	Sentinel Pole & Traffic Equipment Limited	http://sentineltraffic.com/
Pole Anchor	190 BCD x 305 Depth		100000120	PoleFab/AMG Metals	http://polefab.com/
Pole Anchor	323 BCD x 457 Depth		100000127	PoleFab/AMG Metals	http://polefab.com/
Pole Anchor	323 BCD x 457 Depth SD -205 Rev. R-2		100000134	PoleFab/AMG Metals	http://polefab.com/

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Poles

Item	Description	Make	Model No.	Supplier	Product Info
Pedestrian Pole **	Type 1 - 1.5m Spun Aluminum	Sentinel Pole	TP5-550-AB190	Sentinel Pole	http://sentineltraffic.com/
Pedestrian Pole **	Type 1 - 1.5m Spun Aluminum	PoleFab/AMG Metals	PF-7505PB-AL	PoleFab/AMG Metals	http://polefab.com/
Pedestrian Pole **	Type 1 - 3.66m Spun Aluminum	Sentinel Pole	SRAL5-12-AB190	Sentinel Pole	http://sentineltraffic.com/
Pedestrian Pole **	Type 1 - 3.66m Spun Aluminum	PoleFab/AMG Metals	PF-7512PB-AL	PoleFab/AMG Metals	http://polefab.com/
Signal and Illumination Pole *	Type 3 - 5.26M Sectional Steel Pole 1-3 base mounted w/ 4" x 9" HH galvanized	PoleFab/AMG Metals	PF13C49B-GA/AS	PoleFab/AMG Metals	http://polefab.com/
Signal Pole/Illumination Pole *	Type 5 - 5.52m Sectional Steel Pole 3/3-5 base mounted w/ 7" x 12" HH @ 24" w/ insert, galvanized	PoleFab/AMG Metals	PF335C712B-H-IN-GA	PoleFab/AMG Metals	http://polefab.com/

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Item	Description	Make	Model No.	Supplier	Product Info
Signal and Illumination Pole *	Type 5 – 8.92m Sectional Steel Pole 1-5 base mounted w/ 7"x12" HH @1100mm twin pipe spacer c/w insert Galvanized	PoleFab/AMG Metals	PF15C712B-H-IN-GA	PoleFab/AMG Metals	http://polefab.com/
Signal and Illumination Pole *	Type 6 - 5.42m Sectional Steel Pole 4/4-6 base mounted w/ 7" x 12" HH @ 24" w/ insert, galvanized	PoleFab/AMG Metals	PF6544C712B-H-IN-GA	PoleFab/AMG Metals	http://polefab.com/
Signal and Illumination Pole *	Type 6 - 10.5m Sectional Steel Pole 1-6 base mounted w/ 7"x12" HH @ 39-3/8" twin pipe spacer c/w insert galvanized	PoleFab/AMG Metals	PF16C712B-H-2P-IN-GA	PoleFab/AMG Metals	http://polefab.com/
Signal and Illumination Pole *	Type 6 - 7.0M Sectional Steel Pole 3-6 direct burial w/ 4" x 6" HH galvanized	PoleFab/AMG Metals	PF36S46D-GA/AS	PoleFab/AMG Metals	http://polefab.com/

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Item	Description	Make	Model No.	Supplier	Product Info
Signal and Illumination Pole *	Type 7 - 12.0M Sectional Steel Pole 1-7 direct bury w/ 7x12" HH twin galvanized	PoleFab/AMG Metals	PF17C712D-2P-GA/AS	PoleFab/AMG Metals	http://polefab.com/
Signal and Illumination Pole *	Type 8 - 10.4m Sectional Steel Pole 0-8 BM w/ 7x12 HH @ 39-3/8" 2-3/8" OD tenon w/ 35' cant arm GA	PoleFab/AMG Metals	PF08C712B-2.0-35A-GA/AS	PoleFab/AMG Metals	http://polefab.com/
Illumination Pole	Decorative Concrete Pole	StressCrete	206A6336-4	StressCrete Group	http://www.scgrp.com/home
Illumination Pole	Concrete Pole 12.2m (40')	StressCrete	NR-40BPR	StressCrete Group	http://www.scgrp.com/home
Decorative Pole Base *	Niagara Region Cast Aluminum Base Cover	PoleFab/AMG Metals	F055159	PoleFab/AMG Metals	http://polefab.com/

* Direct buried and base mounted sectional steel poles decorative upgrade (black - Polecoat) can be requested as an upgrade

**Base mounted poles decorative upgrade (Black Powdercoating) can be requested as an upgrade

Pole Details can be found at Appendix H on the Traffic Signal Standards web page: [Traffic Signal Standards - Niagara Region, Ontario](#)

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Arms

Item	Description	Make	Model No.	Supplier	Product Info
Signal Mast Arm **	1.22m (4')	Alluminous	TR4-SMA	Sentinel Pole	http://sentineltraffic.com/
Signal Mast Arm **	1.22m (4')	Alluminous	TR4-SMA	Nedco Electric	https://www.nedco.ca/cnd/
Signal Mast Arm **	1.82m (6')	Alluminous	TR6-SMA	Sentinel Pole	http://sentineltraffic.com/
Signal Mast Arm **	1.82m (6')	Alluminous	TR6-SMA	Nedco Electric	https://www.nedco.ca/cnd/
Signal Mast Arm **	2.44m (8')	Alluminous	TR8-SMA	Sentinel Pole	http://sentineltraffic.com/
Signal Mast Arm **	2.44m (8')	Alluminous	TR8-SMA	Nedco Electric	https://www.nedco.ca/cnd/
Signal Mast Arm **	3.05m (10')	Alluminous	TR10-SMA	Sentinel Pole	http://sentineltraffic.com/
Signal Mast Arm **	3.05m (10')	Alluminous	TR10-SMA	Nedco Electric	https://www.nedco.ca/cnd/
Signal Mast Arm **	3.66m (12')	Alluminous	TR12-SMA	Sentinel Pole	http://sentineltraffic.com/
Signal Mast Arm **	3.66m (12')	Alluminous	TR12-SMA	Nedco Electric	https://www.nedco.ca/cnd/
Signal Mast Arm **	4.57m (15')	Alluminous	TR15-SMA	Sentinel Pole	http://sentineltraffic.com/
Signal Mast Arm **	4.57m (15')	Alluminous	TR15-SMA	Nedco Electric	https://www.nedco.ca/cnd/
Signal Mast Arm **	5.48m (18')	Alluminous	TR18-SMA	Sentinel Pole	http://sentineltraffic.com/
Signal Mast Arm **	5.48m (18')	Alluminous	TR18-SMA	Nedco Electric	https://www.nedco.ca/cnd/

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Item	Description	Make	Model No.	Supplier	Product Info
Basket Hanger Arm	Flower Pot Support Arm (black)	PoleFab/AMG Metals	9489T38	PoleFab/AMG Metals	http://polefab.com/
Banner Arms	Round Tapered Banner Arm 25" (black)	PoleFab/AMG Metals	BNA25-BL	PoleFab/AMG Metals	http://polefab.com/
Luminaire Arm ** (Elliptical)	1.82m (6')	Alluminous	RE6-35125	Sentinel Pole	http://sentineltraffic.com/
Luminaire Arm ** (Elliptical)	1.82m (6')	Alluminous	RE6-35125	Nedco Electric	https://www.nedco.ca/cnd/
Luminaire Arm ** (Elliptical)	2.44m (8')	Alluminous	RE8-4125	Sentinel Pole	http://sentineltraffic.com/
Luminaire Arm ** (Elliptical)	2.44m (8')	Alluminous	RE8-4125	Nedco Electric	https://www.nedco.ca/cnd/
Luminaire Arm ** (Elliptical)	2.44m (8') MTO	Alluminous	RE8-4188	Sentinel Pole	http://sentineltraffic.com/
Luminaire Arm ** (Elliptical)	2.44m (8') MTO	Alluminous	RE8-4188	Nedco Electric	https://www.nedco.ca/cnd/
Luminaire Arm ** (Elliptical)	3.05m (10')	Alluminous	RE10-4188	Sentinel Pole	http://sentineltraffic.com/
Luminaire Arm ** (Elliptical)	3.05m (10')	Alluminous	RE10-4188	Nedco Electric	https://www.nedco.ca/cnd/

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Item	Description	Make	Model No.	Supplier	Product Info
Luminaire Arm (Wood Poles)	2.44m (8')	Alluminous	ALP-WE8M	Sentinel Pole	http://sentineltraffic.com/
Luminaire Arm (Wood Poles)	2.44m (8')	Alluminous	ALP-WE8M	Nedco Electric	https://www.nedco.ca/cnd/
Luminaire Arm (Wood Poles)	3.05m (10')	Alluminous	ALP-WE10M	Sentinel Pole	http://sentineltraffic.com/
Luminaire Arm (Wood Poles)	3.05m (10')	Alluminous	ALP-WE10M	Nedco Electric	https://www.nedco.ca/cnd/
Luminaire Arm (Wood Poles)	3.66m (12')	Alluminous	ALP-WE12M	Sentinel Pole	http://sentineltraffic.com/
Luminaire Arm (Wood Poles)	3.66m (12')	Alluminous	ALP-WE12M	Nedco Electric	https://www.nedco.ca/cnd/
Luminaire Arm **	Decorative Arm 1.82m (6') (Aluminum)	StressCrete	206A6336-7	StressCrete Group	http://www.scgrp.com/home

** Luminaire Arms decorative upgrade (Black Powder coating) can be requested as an upgrade

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Traffic Signal Heads

Item	Description	Make	Model No.	Supplier	Product Info
Traffic Signal Head	12" Sectional	Econolite		Econolite	https://www.econolite.ca/
Traffic Signal Head	12" Sectional	Fortran		Fortran Traffic	https://www.fortrantraffic.com/
Pedestrian Signal	2 Section LED Bi Modal with countdown	Econolite		Econolite	https://www.econolite.ca/
Pedestrian Signal	2 Section LED Bi Modal with countdown	Fortran		Fortran Traffic	https://www.fortrantraffic.com/
Traffic Signal Head Bracket	Versa-Brac Bracket Assembly	Sentinel	VSB-338	Sentinel Pole	http://sentineltraffic.com/
Traffic Signal Head Bracket	Versa-Brac Bracket Assembly	Sentinel	VSB-346	Sentinel Pole	http://sentineltraffic.com/
Traffic Signal Head Bracket	Versa-Brac Bracket Assembly	Sentinel	VSB-458	Sentinel Pole	http://sentineltraffic.com/

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Cabling

Item	Description	Make	Model No.	Supplier	Product Info
Traffic Signal Cable	14/4C Solid Copper Traffic Signal Cable (CSA C22.2 No. 239)	IMSA19.1	Niagara Region	Impulse Technologies	https://impulsetechnologies.com/
Traffic Signal Cable	14/7C Solid Copper Traffic Signal Cable (CSA C22.2 No. 239)	IMSA19.1	Niagara Region	Impulse Technologies	https://impulsetechnologies.com/
Traffic Signal Cable	14/11C Solid Copper Traffic Signal Cable (CSA C22.2 No. 239,)	IMSA19.1	Niagara Region	Impulse Technologies	https://impulsetechnologies.com/
Traffic Signal Cable	14/25C Solid Copper Traffic Signal Cable (CSA C22.2 No. 239)	IMSA19.1	Niagara Region	Impulse Technologies	https://impulsetechnologies.com/
Loop Lead Cable	16/2C(black/white) grey PVC jacket	AWM Style 2464 stranded tinned copper w/ foil shield & drain wire		General Cable	https://generalcable.com/
Loop Lead Cable	16/2C (black/white) grey PVC jacket	AWM Style 2464 stranded tinned copper w/ foil shield & drain wire		Impulse Technologies	https://impulsetechnologies.com/

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Loop Lead Cable	16/2C (black/white) grey PVC jacket	AWM Style 2464 stranded tinned copper w/ foil shield & drain wire		Sun Petra (2189058 Ontario Inc)	https://www.sunpetra.com/
Push Button Cable	16/2C (black/red) grey PVC jacket	AWM Style 2464 stranded tinned copper w/ foil shield & drain wire		General Cable	https://generalcable.com/
Push Button Cable	16/2C (black/red) grey PVC jacket	AWM Style 2464 stranded tinned copper w/ foil shield & drain wire		Impulse Technologies	https://impulsetechnologies.com/
Push Button Cable	16/2C (black/red) grey PVC jacket	AWM Style 2464 stranded tinned copper w/ foil shield & drain wire		Sun Petra (2189058 Ontario Inc)	https://www.sunpetra.com/
Communication Cable	Fibre Optic Cable	GCC Optical Cable	SM-MIA-WB	Impulse Technologies	https://impulsetechnologies.com/
Fiber Optic Patch Panel	Outdoor rated patch panel	Gator Patch	Gator Patch-Length G320J006SNB-31-0	Impulse Technologies	https://impulsetechnologies.com/

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Detection, Cameras & Pre-Emption

Item	Description	Make	Model No.	Supplier	Product Info
Vehicle Detection – Multiple Approach	Video Vehicle Detection	MioVision	SmartView 360° Camera	Velociti Innovations	https://www.velociti-innovations.com/miovision-traffic-solutions/
Vehicle Detection – Single Approach, Front Fire	Video/Radar Hybrid Vehicle Detection	Iteris	Vantage Apex	CGI Road & Traffic	https://www.iteris.com/oursolutions/traffic-detection/vantage-apex
Vehicle Detection – Single Approach, Side Fire	Radar Detection	Wavetronix	SmartSensor Matrix	Fortran Traffic Systems Limited	https://www.wavetronix.com/intersection-efficiency-system
Vehicle Detection – Single Approach, Front Fire	Thermal Detection	FLIR	TrafiSense AI	Tacel	https://www.flir.com/products/trafisense-ai/?srsltid=AfmBOooJHXDG-uVIXX6yskOxzPEpPad9wcQ6nS4bhl9JQo1rMVZyoyr
Network Camera	PTZ Camera	Axis Communications	Q6355-LE	Design Electronics, Turn Key Security Solutions Inc.	https://www.axis.com/products/axis-q6355-le
Vehicle Pre-Emption	Vehicle Unit	Emtrac	ST-9282-E-VEHKIT-NIA	Emtrac Canada	www.emtraccanada.ca
Vehicle Pre-Emption	Intersection Unit	Emtrac	ST-9281-INTKIT-NIA	Emtrac Canada	www.emtraccanada.ca

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Item	Description	Make	Model No.	Supplier	Product Info
Vehicle Pre-Emption	Interrogator	Emtrac	ST-9184-K	Emtrac Canada	www.emtraccanada.ca
Vehicle Pre-Emption	GPS/UHF Antenna	Emtrac	ST-9065-L25	Emtrac Canada	www.emtraccanada.ca

Flashers

Item	Description	Make	Model No.	Supplier	Product Info
Flashing Beacons	School Zone (Solar or AC)	RTC	AP22	Electromega	http://electromega.com/en/
Flashing Beacons	School Zone (Solar or AC)	RTC	AP22	Simrex	http://www.simrex.com/site/
Flashing Beacons	Solar 24hr	JSF	FL1412R/Y	Fortran Traffic	https://www.fortrantraffic.com/
Flashing Beacons	Solar School Crossing	JSF	SZ-1412-P	Fortran Traffic	https://www.fortrantraffic.com/
Rectangular Rapid Flashing Beacon (RRFB)	Pedestrian Activated Flashing Crosswalk Beacons	JSF Technologies	AB-9407 Series (100W Solar or AC)	Fortran Traffic Systems Limited	https://www.jsftechnologies.com/ab-series
Radar Speed Sign	Premium Speed Display Board	Kalitec	Evolis Vision – Premium	Kalitec Inc.	https://www.kalitec.com/en/product/radar-speed-sign/

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Illumination

Item	Description	Make	Model No.	Supplier	Product Info
Luminaire	Medium LED Cobrahead Fixture 4000K (grey shroud)	Roadfocus	RFM- 160W48LED4K-T- R2M-UNV-DMG- FAWS-RCD7-GY3 RFM- 160W48LED4K-T- R3M-UNV-DMG- FAWS-RCD7-GY3	Lumec	https://www.guillevin.com/eediv_electric_en/
Luminaire	Large LED Cobrahead Fixture 4000K (grey shroud)	Roadfocus	RFL- 215W96LED4K-T- R2M-UNV-DMG- FAWS-RCD7-GY3 RFL- 215W96LED4K-T- R3M-UNV-DMG- FAWS-RCD7-GY3	Lumec	https://www.guillevin.com/eediv_electric_en/
Luminaire	Medium LED Cobrahead Fixture 4000K (grey shroud)	Roadfocus	RFM- 160W48LED4K-T- R2M-UNV-DMG- FAWS-RCD7-GY3 RFM- 160W48LED4K-T- R3M-UNV-DMG- FAWS-RCD7-GY3	Lumec	https://www.nedco.ca/cnd/

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Item	Description	Make	Model No.	Supplier	Product Info
Luminaire	Large LED Cobrahead Fixture 4000K (grey shroud)	Roadfocus	RFL- 215W96LED4K-T- R2M-UNV-DMG- FAWS-RCD7-GY3 RFL- 215W96LED4K-T- R3M-UNV-DMG- FAWS-RCD7-GY3	Lumec	https://www.nedco.ca/cnd/
Luminaire	Medium LED Cobrahead Fixture 4000K (grey shroud)	Roadfocus	RFM- 160W48LED4K-T- R2M-UNV-DMG- FAWS-RCD7-GY3 RFM- 160W48LED4K-T- R3M-UNV-DMG- FAWS-RCD7-GY3	Lumec	https://www.graybarcanada.com/
Luminaire	Large LED Cobrahead Fixture 4000K (grey shroud)	Roadfocus	RFL- 215W96LED4K-T- R2M-UNV-DMG- FAWS-RCD7-GY3 RFL- 215W96LED4K-T- R3M-UNV-DMG- FAWS-RCD7-GY3	Lumec	https://www.graybarcanada.com/

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Item	Description	Make	Model No.	Supplier	Product Info
Luminaire	Medium LED Cobrahead Fixture 4000K (grey shroud)	Roadview	RVM-160W96LED4K-G2-LE3-UNIV-DMG-API-BL-HS-SP2-PH8-GY3	Phillips	https://www.guillevin.com/eediv_electric_en/
Luminaire	Medium LED Cobrahead Fixture 4000K (grey shroud)	Roadview	RVM-160W96LED4K-G2-LE3-UNIV-DMG-API-BL-HS-SP2-PH8-GY3	Phillips	https://www.nedco.ca/cnd/
Luminaire	Medium LED Cobrahead Fixture 4000K (grey shroud)	Roadview	RVM-160W96LED4K-G2-LE3-UNIV-DMG-API-BL-HS-SP2-PH8-GY3	Phillips	https://www.graybarcanada.com/
Luminaire	Medium LED Cobrahead Fixture 4000K (grey shroud)	Evolve	ERL2-0-21-B5-40-A-GRAY-ILRV1 ERL2-0-21-C5-40-A-GRAY-ILRV1	GE	https://www.nedco.ca/cnd/
Wall Pack Illumination	LED Wallpack Luminaire 4000K	Ledvance		Sylvania	https://www.nedco.ca/cnd/
Crosswalk Lighting	Pedestrian Activated Crosswalk Lighting System	JSF Technologies	LumiWalk	Fortran Traffic Systems Limited	https://www.jsftechnologies.com/lumiwalk

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Traffic Signal & Illumination Appurtenances

Item	Description	Make	Model No.	Supplier	Product Info
Ground Rod	Copper clad 3m x 19mm			Guillevin	https://www.guillevin.com/eediv_electric_en/
Ground Rod	Copper clad 3m x 19mm			Nedco Electric	https://www.nedco.ca/cnd/
Ground Rod	Copper clad 3m x 19mm			Graybar	https://www.graybarcanada.com/
Ground Rod	Copper clad 3m x 19mm			Westburne	https://www.westburne.ca/cwr/
Pedestrian Push Button	Bulldog III Series Vandal Resistant ADA Compliant	Polara	PBBDLM-Y	Tacel	https://tacel.ca/
Accessible Pedestrian Signal (APS) System	Signalized Intersection APS w/ Wave Feature	Polara	iNS2 2/3 Wire Opt "E" w/iDetect (Yellow)	Tacel	https://polara.com/ids-ins
Accessible Pedestrian Signal (APS) System	PXO Crossing APS - w/ Wave Feature	Polara	iDX APS Station with LED (9x12) Opt S Sign – Yellow	Tacel	https://polara.com/audible-information-devices/idx-inx-crosswalk-button-station
Traffic Signal Cabinet	Base Mounted	Econolite	MXNAT 12/16PNL 16CH RCK (NR Spec)	Econolite	https://www.econolite.ca/

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Item	Description	Make	Model No.	Supplier	Product Info
Traffic Signal Cabinet	Pole Mounted	Econolite	G48NAT 8/16PNL TS2-1 2CH HW RC (NR Spec)	Econolite	https://www.econolite.ca/
Traffic Signal Controller	NEMA TS2	Econolite	Cobalt - 1000	Econolite	https://www.econolite.ca/
Malfunction Management Unit	MMU	Econolite	MMU2-16LEip	Econolite	https://www.econolite.ca/
Power Supply Cabinet	Supply Control Cabinet Type 1 120/240V, 100A, 1-Phase, 3-wire Stainless Steel	B & M	OPSD 2440.01M Type 1 (1PH, 3W)	B & M Manufacturing	http://www.bmgrp.ca/
Power Supply Cabinet	Supply Control Cabinet Type 3S 120/240V, 60A, 1-Phase, 3-wire Stainless Steel	B & M	OPSD 2440.01 Type 3S (1PH, 3W)	B & M Manufacturing	http://www.bmgrp.ca/
Combination Power Supply Cabinet	Overhead Combination Meter/Breaker Panel 100A 120/240V	Microelectric	C01-SD	Nedco Electric	https://www.nedco.ca/cnd/
Uninterruptable Power Supply (UPS) Battery	AlphaCell 195XTV Outdoor UPS Battery	Alpha	Alpha Cell 195 XTV	Tacel	https://www.alpha.com/products/item/alphacell-xtv

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Item	Description	Make	Model No.	Supplier	Product Info
Traffic Cabinet UPS	Alpha FXM 650 (includes UPS Kit, Alpha FXM HP650 48V w/ Batt Cable Assy and Universal Transfer & Generator Switch)	Alpha	Inverter CAUPH650A, Transfer Switch MXSRM19	Tacel	https://www.alpha.com/products/equipment/inside-plant-power/item/alpha-fxm-650
Traffic Cabinet UPS	Econolite UPS DBL 1000MXU (includes UPS DBL1000 MXU W/CHARGER # 36VDC and BYPASS SWITCH SINGLE PWR CABLE 8FT)	Econolite	Inverter Model: DBLMX1000U-4 8, Bypass model: HSU-1500	Econolite	https://www.econolite.ca/support-page/technical-documentation/cabinets-canada/dblmxu-48-series-double-conversion-ups-datasheet-ca/
Traffic Cabinet UPS	APC SecureUPS (includes - Inverter XU1K3LLXXR CC, APC UPS Transfer Switch XS30ALLXXR2 , and APC SCHNEIDER Smart-UPS 8FT BATTERY	APC	Inverter BBS002, Transfer Switch BYP003, Harness Set HAR008	Fortran	https://www.fortrantraffic.com/products/apc-secure-ups

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Item	Description	Make	Model No.	Supplier	Product Info
	HARNESS SET)				
Wireless Communication Radios	5.8GHZ Wideband Radio	Simrex	DM-WB	Simrex	http://www.simrex.com/site/
Ethernet Managed Switch	Managed Switch with power supply	Simrex	MS-5	Simrex	http://www.simrex.com/site/
Network Switch	Rugged Series industrial DIN rail switch	Cisco	IE-3300-8T2S, IE-3400-8P2S	ITEXPRESS DIRECT INC	https://www.cisco.com/site/us/en/products/networking/industrial-switches/catalyst-ie3400-rugged-series/index.html?ccid=cc002430&oid=powit024548&dtid=odc000509
GPS Time Sync Device	GPS Time Clock	Simrex	SimSync	Simrex	http://www.simrex.com/site/
Solar Powered Radio Repeater	Solar Powered Charge Unit	Simrex	Solar Repeater	Simrex	http://www.simrex.com/site/
Serial Radio	Serial Data Radio	Simrex	DataMoverSS	Simrex	http://www.simrex.com/site/
Spread Spectrum Transceiver	Status Indicator System	Simrex	DataMoverIO	Simrex	http://www.simrex.com/site/