

Qualified Products List (QPL)

Miami-Dade County Department of Transportation and Public Works

The Miami-Dade County (MDC) Department of Transportation and Public Works (DTPW) Traffic Signals and Signs Division's Qualified Products List (TSSQPL) is a listing of the traffic control signals or devices including flashers, beacons, variable message, feedback signs and related components and materials currently accepted by PWWM for installation in MDC public right-of way, government facilities, and properties open to public travel within the jurisdictional boundaries of MDC including all municipalities, unincorporated areas, state roads, and MDX toll-way on/off ramp intersections. Only those products currently listed in the TSSQPL, or submitted to and approved in writing by PWWM for addition to the TSSQPL, are allowed to be installed in MDC.

MDC requires that certain devices and materials adhere to more stringent specifications than may be required by the Florida Department of Transportation (FDOT) for listing in the FDOT Approved Products List (APL) and as such, not all products listed in the FDOT APL may qualify for addition to the TSSQPL. With regards to those products, the TSSQPL is intended to be a subset of the FDOT APL and provides the FDOT APL Certification Number as a reference. Items that do not require FDOT APL certification are noted "N/A" and the approval date is the County's TSSQPL approval date. The TSSQPL follows, wherever possible, the Section numbering used in the FDOT "Standard Specifications for Road and Bridge Construction".

Contact Nahum Fernandez, Traffic Control Standards and Specifications Coordinator at fernan@miamidade.gov with regards to any questions concerning the TSSQPL approval process or to report discrepancies, errors, or omissions noted in the TSSQPL.

Product Consideration and Evaluation Process

All contractors, manufacturers or suppliers within the state of Florida who intend to sell or install a transportation device (as described in s. 316.0745, Florida Statute) must first obtain approval through the FDOT APL approval process prior to its sale or installation. Additional information is available at the FDOT website:

<https://www.fdot.gov/programmanagement/ProductEvaluation/Default.shtm>

To begin the process for DTPW evaluation of a product for inclusion in the TSSQPL, the applicant must complete a DTPW Request for Product Consideration form and follow the steps below:

Step 1 Request For Product Consideration:

A. FDOT APL listed Traffic Control Signals and Devices (and related ancillary system equipment):

1) The applicant may submit a written request to DTPW to consider adding to the TSSQPL a product that has been approved by FDOT and listed on the FDOT Approved Product List (APL). The written request package must include a completed Request for Product Consideration form and the following minimum attachments:

a) Copy of the complete APL application made to FDOT including all supporting documentation and copies of all correspondences to and from FDOT with regards to the Application. Include itemized costs for a complete and operable installation; and maintenance requirements and parts needed for a 10 year maintenance cycle.

b) Certification along with supporting documents from the manufacturer certifying that the product meets all applicable DTPW specifications and Florida Building Code requirements that pertain to all areas of the County (e.g. wind loads, flood elevation requirements, etc.). Manufacturer must detail any additional requirements necessary for product use and installation in the County, identify recommended mounting hardware necessary for meeting applicable wind load requirements, and detail potential concerns regarding use or installation considering regional environmental factors (e.g. high temperature and humidity, seasonal heavy precipitation, etc.)

c) Detailed manufacturer's warranty documents.

2) The complete request package must be submitted in both hardcopy and electronic format (PDF) be neatly organized in a binder and include tab-separated sections as listed above. The binder must also contain a CD or other storage

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device that includes all contents in an electronic format (PDF).

3) Upon review of the written request, the DTPW may require that the applicant provide additional information directly from manufacturer to include supplemental product literature, specifications, datasheets, evaluation, inspection, and in-house or independent lab testing results to meet all applicable specifications.

4) Do not submit the actual product for evaluation until directed by DTPW in response to this request for product consideration. Upon notification from DTPW, submit the product in accordance with the requirements for submittal of product for evaluation in Section C below.

B. For products that are not required by FDOT to be listed on the FDOT APL:

1) Manufactured products that are not required by FDOT to be listed on the FDOT APL but that are required to meet FDOT and DTPW specifications for use in the County, must also be approved by the DTPW prior to use. The applicant may submit a written request to DTPW to consider adding to the TSSQPL such a product. The written request package must include a completed Request for Product Consideration form and include the following:

a) Production Information (Name of Product; Description of major components; List of material required for operation including hardware, software, firmware, cables, etc.; Manufacturer's device specifications; Electronic image of device; Device drawing or cut sheets; Assembly and installation instructions; Operation manual; Material Safety Data Sheet if applicable; Warranty information; Trouble-shooting and service manual; Compliance matrix; Circuit board schematics or block diagrams if applicable; Parts list; Test data as required in compliance matrix; and Recommended Use).

b) Listing of all Federal, State, and Miami-Dade County specifications applicable to the product.

c) Documentation pertaining to other FDOT approvals or listings (e.g. FDOT QPL) for the product

2) The application package must be neatly organized in a binder and include tab-separated sections as listed above. The binder must also contain a CD or other storage device that includes all contents in an electronic format (PDF).

3) Upon review of the written request, the DTPW may require that the applicant provide additional information directly from manufacturer to include supplemental product literature, specifications, datasheets, evaluation, inspection, and in-house or independent lab testing results to meet all MDC specifications.

4) Upon notification from DTPW, submit the product in accordance with the requirements for submittal of product for evaluation in Step 2 below.

Step 2 Product Evaluation (You Will Be Directed When To Start This Step):

1) Upon notification from DTPW, submit the product to the Traffic Control Standards and Specifications Coordinator, DTPW TSS Division, 7100 NW 36 Street, Miami, FL 33166.

2) The device must be a fully functional production unit with all accessory components necessary to power-up and fully operate the product. All costs including freight and shipping is borne by the applicant. No product will be returned to the applicant unless previously requested in writing prior to evaluation with return shipping paid and arranged by the applicant.

3) Some product may be irreversibly damaged during the evaluation process. Any damage to any product due to any aspect of the evaluation process will in no way be cause for claim or payment by MDC unless stipulated and agreed upon in writing by MDC prior to the start of the process.

Step 3 Listing in the TSSQPL:

Upon successful completion of the steps 1 and 2 above and DTPW acceptance, the product will be listed in the TSSQPL

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subject to continued compliance with its conditions for acceptance. Any modifications made to the product must be reviewed and approved by the DTPW (and FDOT for APL listed items) prior to sale or use of the modified product. Failure to do so may cause removal of the device from the TSSQPL. At the sole discretion of the DTPW, the TSSQPL will be updated as warranted to address changes, corrections, additions, and deletions.

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620 Grounding and Lightning Protection

A) Ground Rods - Copper bonded (Clad) 10' x 5/8"

Pointed w/compression couplings and Sectional w/threaded couplings (UL 467-1984; ANSI C33.8).

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Eritech (Erico International Corp.)	635800 / Sectional Ground Rod
N/A	08/01/2009	Eritech (Erico International Corp.)	615800 / Pointed Ground Rod
N/A	04/13/2011	Galvan Industries Inc.	6260S / Sectional Ground Rod
N/A	04/13/2011	Galvan Industries Inc.	6260 / Pointed Ground Rod
N/A	08/27/2010	Harger Lightning and Grounding	S5810 / Sectional Ground Rod
N/A	08/27/2010	Harger Lightning and Grounding	5810 / Pointed Ground Rod
N/A	08/01/2009	Southern Grounding Products	C5810 / Pointed Ground Rod
N/A	08/01/2009	Southern Grounding Products	CS5810 / Sectional Ground Rod

B) Ground Rod Couplings for 5/8-inch

For Pointed and Sectional Ground Rods; (UL 467 Listed)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Eritech (Erico International Corp.)	CR58 / Threaded for Sectional
N/A	08/01/2009	Eritech (Erico International Corp.)	CC58 / Compression for Pointed
N/A	04/13/2011	Galvan Industries Inc.	60-C / Threaded for Sectional
N/A	04/13/2011	Galvan Industries Inc.	60-TC / Compression for Pointed
N/A	08/27/2010	Harger Lightning and Grounding	GRC58 / Threaded for Sectional
N/A	08/27/2010	Harger Lightning and Grounding	GRCC58 / Compression for Pointed
N/A	08/01/2009	Southern Grounding Products	58C / Threaded for Sectional
N/A	08/01/2009	Southern Grounding Products	58DC / Compression for Pointed
N/A	04/13/2011	T & B/Blackburn	60C / Threaded for Sectional

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N/A	04/13/2011	T & B/Blackburn	60CNT2 / Compression for Pointed
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C) Exothermic Welded Connections

1,2,3 or 4 Conductor for 5/8-inch Copper Clad Ground Rods; Solid or Stranded #3, 4, 6 AWG (UL 467 Listed)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Continental Industries Inc.	thermOweld Single Shot CR-2 / 2 Conductor
N/A	08/01/2009	Continental Industries Inc.	thermOweld Single Shot CR-1 / 1 Conductor
N/A	08/01/2009	Continental Industries Inc.	thermOweld Single Shot CR-25 / 3 Conductor
N/A	08/01/2009	Continental Industries Inc.	thermOweld Single Shot CR-24 / 4 Conductor
N/A	08/01/2009	Erico International Corp.	Cadweld One Shot NT1161L / 3 Conductor
N/A	08/01/2009	Erico International Corp.	Cadweld One Shot GT1161L / 2 Conductor
N/A	08/01/2009	Erico International Corp.	Cadweld One Shot GR1161L / 1 Conductor
N/A	08/01/2009	Erico International Corp.	Cadweld One Shot NX1161L / 4 Conductor
N/A	08/25/2010	Harger Lightning and Grounding	Ultraweld Uni-Shot G41- 584 / 4 Conductor
N/A	08/25/2010	Harger Lightning and Grounding	Ultraweld Uni-Shot G31- 584 / 3 Conductor
N/A	08/25/2010	Harger Lightning and Grounding	Ultraweld Uni-Shot G21- 584 / 2 Conductor
N/A	08/25/2010	Harger Lightning and Grounding	Ultraweld Uni-Shot G11-584 / 1 Conductor

D) Universal Grounding Clamps (UGC)

5/8-inch Acorn Type Grounding Connector for Ground Rod (UL 467 Listed)

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FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	04/13/2011	Galvan Industries Inc.	G-5 / #10 Solid - #2 Stranded
N/A	08/01/2009	Harger Lightning and Grounding	301LD / #10 Solid - #2 Stranded
N/A	08/01/2009	Southern Grounding Products	G-5 / #10 Solid - #2 Stranded
N/A	04/13/2011	T & B/Blackburn	G-5 / #10 Solid - #2 Stranded

E) Surge Protective Devices (SPDs)

Only Surge Protective Devices (SPDs) that are listed on the FDOT Approved Products List (APL) and that meet the Materials requirement of Section 620 (Grounding and Lightning Protection) of the Florida Department of Transportation (FDOT) "Standard Specifications for Road and Bridge Construction" may be used within the Miami-Dade County traffic control and intelligent transportation systems. Use FDOT certified SPDs that meet all applicable requirements for the equipment being protected unless more stringent requirements to protect existing systems are specified by the Miami-Dade County Traffic Signals and Signs (TSS) Division. Any use-appropriate SPD certified under FDOT APL Section 620 may be used by manufacturers of pre-wired cabinets as long as they meet the manufacturer's design and performance requirements and all applicable FDOT and TSS Division specifications for the equipment.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A			

HISTORY:

Addition of Galvan and T&B/Blackburn to various items above to QPL (04/13/2011)

Last Modified on : 2/28/2025 12:33:46 PM

630 Conduit

A) 2-Inch Schedule 40 PVC Rigid Nonmetallic Conduit (RNC)

Heavy Wall EPC (UL 651 Conformance; NEMA TC-2)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	8108 / Belled End / 10'
N/A	08/01/2009	Cantex Inc.	A52CA12 / Belled End / 10'
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	49011-020 / Belled End / 20'
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	49011-010 / Belled End / 10'

B) 2-Inch Schedule 80 PVC Rigid Nonmetallic Conduit (RNC)

Extra Heavy Wall EPC-80 (UL 651 Conformance; ASTM D1785-06)

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FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	9308 / Belled End / 10'
N/A	08/01/2009	Cantex Inc.	
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	49411-020 / Belled End / 20'
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	49411-010 / Belled End / 10'

C) 2-Inch Schedule 40 PVC Plain End Elbows

Standard Radius (UL 651 Conformance)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	59566 / 30°
N/A	08/01/2009	Allied Tube and Conduit	59593 / 90°
N/A	08/01/2009	Allied Tube and Conduit	9580 / 45°
N/A	08/01/2009	Cantex Inc.	5133828 / 90°
N/A	08/01/2009	Cantex Inc.	5133768 / 45°
N/A	08/01/2009	Cantex Inc.	5133748 / 30°
N/A	08/01/2009	Kraloy	078545 / 90°
N/A	08/01/2009	Kraloy	078557 / 45°
N/A	08/01/2009	Kraloy	078569 / 30°
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	UA7AJ / 45°
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	UA9AJ / 90°
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	UA6AJ / 30°

D) 2-Inch Schedule 40 PVC Belled End Elbows

Standard Radius (UL 651 Conformance)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	802757 / 90°
N/A	08/01/2009	Allied Tube and Conduit	802783 / 30°
N/A	08/01/2009	Allied Tube and Conduit	802771 / 45°
N/A	08/01/2009	Cantex Inc.	5233828 / 90°
N/A	08/01/2009	Cantex Inc.	5233768 / 45°
N/A	08/01/2009	Cantex Inc.	5233748 / 30°
N/A	08/01/2009	Kraloy	/ 30°
N/A	08/01/2009	Kraloy	078605 / 45°
N/A	08/01/2009	Kraloy	078593 / 90°

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N/A	08/01/2009	Prime Conduit Inc. (formally UA6AJB / 30° Carlon)
N/A	08/01/2009	Prime Conduit Inc. (formally UA7AJB / 45° Carlon)
N/A	08/01/2009	Prime Conduit Inc. (formally UA9AJB / 90° Carlon)

E) 2-Inch PVC Couplings

For use with Schedule 40 and 80 Conduit (UL 651 and 514 Conformance)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	59606 / Standard
N/A	08/01/2009	Cantex Inc.	R6141628 / Standard
N/A	08/01/2009	Kraloy	078006 / Standard
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	CP200 / Standard (E940J)

F) 2-Inch Schedule 40 Special Long Line PVC Couplings

For use with Schedule 40 and 80 Conduit (UL 651 and 514 Conformance)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	XXXXXXX / Long Line Type
N/A	08/01/2009	Cantex Inc.	XXXXXXX / Long Line Type
N/A	08/01/2009	Kraloy	XXXXXXX / Long Line Type
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	CPLLC200X4125 / Long Line Type (E941J)

G) 2-Inch End Bells

For use with Schedule 40 and 80 Conduit (UL 651 and 514 Conformance)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	XXXXXXX / End Bell
N/A	08/01/2009	Cantex Inc.	XXXXXXX / End Bell
N/A	08/01/2009	Kraloy	XXXXXXX / End Bell
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	EB200 / End Bell (E997J)

H) 2-Inch Fabricated End Bells

For use with Schedule 40 Conduit; 6-inch long (UL 651 and 514 Conformance)

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FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	XXXXXXX / Fabricated use w/Sch. 40
N/A	08/01/2009	Cantex Inc.	XXXXXXX / Fabricated use w/Sch. 40
N/A	08/01/2009	Kraloy	XXXXXXX / Fabricated use w/Sch. 40
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	EB200X600 / Fabricated use w/Sch. 40

I) 2-Inch Adapters

For use with Schedule 40 and 80 Conduit (UL 651 and 514 Conformance)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	XXXXXXX / Female Adapter
N/A	08/01/2009	Cantex Inc.	XXXXXXX / Female Adapter
N/A	08/01/2009	Kraloy	XXXXXXX / Female Adapter
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	FA200 / Female Adapter (E942J)
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	TA200 / Male Terminal Adapter (E943J)

J) 2-Inch High Density Polyethylene Pipe (HDPE)

Smooth Interior Wall; Type S/S; Wall Standard Dimensional Ratio: SDR 11 (UL 651 A and B Conformance; NEMA TC-7)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Isco Industries	XXXXXXX
N/A	08/01/2009	Prime Conduit Inc. (formally Carlon)	A13C6N1ENNA4000 / Grey

K) Galvanized Rigid Metallic Conduit (GRMC)

Hot Dipped Galvanized with both ends reamed and threaded (UL Safety Standard #6 and ANSI C80.1)

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FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	1/2 - Inch
N/A	08/01/2009	Allied Tube and Conduit	1 - Inch
N/A	08/01/2009	Allied Tube and Conduit	1 1/4 - Inch
N/A	08/01/2009	Allied Tube and Conduit	1 1/2 - Inch
N/A	08/01/2009	Republic Conduit	1 1/2 - Inch
N/A	08/01/2009	Republic Conduit	1 1/4 - Inch
N/A	08/01/2009	Republic Conduit	1/2 - Inch
N/A	08/01/2009	Republic Conduit	1 - Inch
N/A	08/01/2009	Western Tube and Conduit Co.	1 1/2 - Inch
N/A	08/01/2009	Western Tube and Conduit Co.	1 1/4 - Inch
N/A	08/01/2009	Western Tube and Conduit Co.	1 - Inch
N/A	08/01/2009	Western Tube and Conduit Co.	1/2 - Inch
N/A	08/01/2009	Wheatland Tube Co.	1 1/2 - Inch
N/A	08/01/2009	Wheatland Tube Co.	1/2 - Inch
N/A	08/01/2009	Wheatland Tube Co.	1 1/4 - Inch
N/A	08/01/2009	Wheatland Tube Co.	1 - Inch

L) Conduit Fittings for GRMC
(UL and ANSI C80 Standards)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Allied Tube and Conduit	1/2 - Inch to 1 1/2 - Inch
N/A	08/01/2009	Republic Conduit	1/2 - Inch to 1 1/2 - Inch
N/A	08/01/2009	Western Tube and Conduit Co.	1/2 - Inch to 1 1/2 - Inch
N/A	08/01/2009	Wheatland Tube Co.	1/2 - Inch to 1 1/2 - Inch

HISTORY:

Change listing from Carlon to Prime Conduit Inc. in QPL (04-20-11)

632 Signal And Interconnect Cable

A) Traffic Signal Cable (Aerial and Duct)

Standard 4, 7, 12 or 20 Cabled Conductor Stranded Bare Copper #14 AWG with Polyethylene Insulation; PVC Jacket; Stranded Bare Copper Conductors; Color Coded per specification; Rated 600 Volts (IMSA 19-1)

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FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Advanced Digital Cable (ADC)	8120 / 20 Conductor
N/A	08/01/2009	Advanced Digital Cable (ADC)	8112 / 12 Conductor
N/A	08/01/2009	Advanced Digital Cable (ADC)	8107 / 7 Conductor
N/A	08/01/2009	Advanced Digital Cable (ADC)	8104 / 4 Conductor
N/A	08/01/2009	Belden Electronics Division	601443 / 20 Conductor
N/A	08/01/2009	Belden Electronics Division	601207 / 12 Conductor
N/A	08/01/2009	Belden Electronics Division	601205 / 7 Conductor
N/A	08/01/2009	Belden Electronics Division	601137 / 4 Conductor
N/A	08/01/2009	Deca Cables	72-765 / 20 Conductor
N/A	08/01/2009	Deca Cables	72-757 / 7 Conductor
N/A	08/01/2009	Deca Cables	72-754 / 4 Conductor
N/A	08/01/2009	Deca Cables	72-732 / 12 Conductor
N/A	08/01/2009	Falcon Fine Wire	980414X19-1 / 4 Conductor
N/A	08/01/2009	Falcon Fine Wire	982014X19-1 / 20 Conductor
N/A	08/01/2009	Falcon Fine Wire	981214X19-1 / 12 Conductor
N/A	08/01/2009	Falcon Fine Wire	980714X19-1 / 7 Conductor
N/A	08/01/2009	Isotec (General Cable)	IM1420BA19 / 20 Conductor
N/A	08/01/2009	Isotec (General Cable)	IM1412BA19 / 12 Conductor
N/A	08/01/2009	Isotec (General Cable)	IM144BA19 / 4 Conductor
N/A	08/01/2009	Isotec (General Cable)	IM147BA19 / 7 Conductor
N/A	02/07/2012	Tappan Wire & Cable (Southwire)	SU6036.1 / 7 Conductor
N/A	02/07/2012	Tappan Wire & Cable (Southwire)	SU6066.1 / 4 Conductor
N/A	02/07/2012	Tappan Wire & Cable (Southwire)	SU6073.1 / 20 Conductor
N/A	02/07/2012	Tappan Wire & Cable (Southwire)	SU6069.1 / 12 Conductor

B) Shielded Loop Detector Lead-In Cable

2-Conductor Stranded Tinned Copper #14 AWG with Polyethylene Insulation; Twisted; Shielded w/Alum. Mylar and Jacketed with Black Low-Density Polyethylene; complete w/Drain Wire; Rated 600 Volts (IMSA 50-2)

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FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Advanced Digital Cable (ADC)	8780
N/A	08/01/2009	Belden Electronics Division	601765
N/A	08/01/2009	Deca Cables	70-915
N/A	08/01/2009	Falcon Fine Wire	98021450-2
N/A	08/01/2009	Isotec (General Cable)	ILT142AP19
N/A	02/07/2012	Tappan Wire & Cable (Southwire)	SU6038.1

C) Loop Wire

Per Miami-Dade County Traffic Control Equipment Standards and Specifications Section 660: XHHW Stranded Bare Copper Conductor #14 AWG with Black Cross-Linked Polyethylene Insulation and an additional outer sleeve composed of polyvinylchloride or polyethylene insulation that meets the requirements of International Municipal Signal Association (IMSA) 51-7; High Heat and Moisture Resistant; Rated: 600 Volts

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	07/16/2018	Advanced Digital Cable (ADC)	8460XL or 8460XLP
N/A	07/16/2018	Belden Electronics Division	581923 or 582115
N/A	07/16/2018	Southwire Company	595987

D) Electrical Service Wire RHW-2 / RHH / USE-2

#6 AWG Copper Conductors with 7 Strands; Rated 600V with Cross-Linked Polyethylene (XLP) Insulation; High Heat, High Moisture, and Sunlight Resistant; Insulation Jacket Colors: BLACK for Ungrounded Conductor and WHITE for Grounded Conductor; (UL Standard 44).
Exception: Insulation Jacket Colors: RED for Ungrounded Conductor and WHITE for Grounded Conductor when used for Traffic Infraction Detectors (TID) Electrical Service; TID Electrical Service Wire require RED color coded tie wrap flag markers

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	05/23/2025	Advanced Digital Cable (ADC)	Part Number 306
N/A	12/01/2010	Pyrsman Cables and Systems	Q01820A / Type RHH/RHW-2/USE
N/A	05/23/2025	Service Wire Company	Part Number USE6BK
N/A	03/02/2011	Southwire Company	#6 [SPECIFIC COLOR(S)] / Type RHH/RHW-2/USE

E) Communications Interconnect Cable

RUS 7 CFR 1755.390 (formerly REA PE-39); 6 pair / 19 AWG Solid, Annealed Bare Copper Conductors; Core assembly completely filled with an extended thermoplastic rubber (ETPR) filling between the pairs and under the core tape; Shield shall be corrugated, rodent resistant copper alloy or copper clad steel tape longitudinally applied with overlap; Black, low density polyethylene jacket; For use in wet environments; Approved for direct burial, duct or aerial installations when supported by a messenger (Compliance with RUS 7 CFR 1755.390 and ANSI/ICEA S-84-608-1994)

Qualified Products List (QPL)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	General Cable	7524618
N/A	08/01/2009	Houston Wire and Cable Co.	HW353 01906
N/A	08/01/2009	Superior Essex	04-026-21

F) Pull and Locate Wire

THHN/THWN Stranded Single Bare Copper Conductor #12 AWG; Insulation Jacket Color: ORANGE; Gasoline and Oil resistant; High Heat and Moisture resistant; Wet locations (UL Standard 83)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	03/02/2011	Southwire Company	22 97 08 / Orange

G) Composite Cable (Power and Video)

For use with Video Detection (Iteris); Two (2) Components: Component 1 (Power cable) w/16 AWG 3 conductors 19/29 bare copper, 0.030" PVC insulation, color code: Black, White, Green; Component 2 (75 Coax) w/20 AWG 1 conductor solid bare copper; .198" solid polyethylene insulation, color code: Natural, 98% tinned copper braid shield x 2; overall .030" black PVC jacket; Sun Resistant; Rated 600 Volts.

For use with Video Detection (Traficon); Two (2) Components: Component 1 (Power cable) w/18 AWG 6 conductors 7/26 bare copper, .016" PVC insulation, color code: Black, Blue, Brown, Green, Red, White; Component 2 (75 Coax) w/20 AWG 1 conductor solid bare copper; .056" foam polyethylene insulation, color code: Natural, 95% bare copper braid shield; overall .037" HDPE jacket black; overall .030" black PVC jacket; Sun Resistant; Rated 300 Volts

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	10/22/2010	ADC (Supplied by Iteris)	99163SFX
N/A	10/22/2010	Isotec (Supplied by Control Technologies)	X3411212-00 / WIRE-VC-RG#18/6
N/A	10/22/2010	Isotec (Supplied by Iteris)	I59PVCC-00

HISTORY:

Addition of Service Wire Company Part # USE6BK (05/23/2025)

Addition of Advanced Digital Cable (ADC) Part # 306 (05/23/2025)

Addition of Composite Cable to QPL (11-01-10)

Addition of Color Coding Electrical Service Wires for TID to QPL (12-01-10)

Addition of Southwire to Items D & F to QPL (03-02-11)

Addition of Tappan Wire & Cable to Items A, B & C to QPL (02-07-12)

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635 Pull And Junction Boxes

A) Pull Box and Covers

Meet the requirements of Section 635 of the Miami-Dade County Traffic Control Equipment Standards and Specifications.

Qualified Products List (QPL)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
635-001-077	09/02/2022	American Polymer Company	PC 1324
635-001-079	09/02/2022	American Polymer Company	PC2436
635-001-020	05/28/1997	Armorcast Products Co.	Model A6001946TAPCX12
635-001-051	03/18/2010	Quazite (Division of Hubbell)	Model A24132412AR81
635-001-025	07/05/2001	Quazite (Division of Hubbell)	Model PG1324BA12

HISTORY:

Addition of American Polymer Company Models PC1324 and PC2436 (04-11-2024)

Addition of Oldcastle Infrastructure Model 1324 Duralite Pull Box and Cover (09-14-2023)

Delete Items not currently on the FDOT APL 63510141707043, 63510140210103, and 63510142448013.(03/18/2022)

CDR Pull Box Failures: MODEL SA24-1324-SERIES 12/18/2006 APL # 63510140413053 REMOVED from APL (2/12/09)

CDR Pull Box Redesigned with new FDOT APL (03/18/10)

Addition of "A-1" Pull Boxes & Covers for use w/TID equipment to QPL (03-03-11)

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639 Electrical Power Service Assembly

A) Service Disconnect with NEMA 4X Enclosure

Raintight, watertight, corrosion resistant, windblown dustproof outdoor enclosure; Type 304 Stainless Steel (Conformance with UL 98, Listed File E2875 or E154828; NEMA Standards Publication KS1, Enclosed Switches; Federal Specifications WS-865c for Type HD).

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	01/27/2011	Cutler-Hammer (Eaton Corp.)	DH222NWK or DH262NWK / NEMA 4X
N/A	01/27/2011	General Electric Co. (GE)	TH3222SS / NEMA 4/4X
N/A	09/22/2014	Siemens Industry Inc.	HF222S (Type 4X) Heavy Duty
N/A	01/27/2011	Square D Comapny(Schneider Electric)	H222 DS / NEMA 4/4X

B) 40 & 15 Amp Fuses for Service Disconnect - Heavy Duty Safety Switch

Dual-Element, Time-Delay Fuses [10 seconds (minimum) at 500% rated current]; 250 Volt; Interrupting Rating: 200,000A RMS Sym. DC Ratings: 20,000 A/C @ 125 VDC (UL Standard 248-12, Class RK-5, Guide JDDZ)

Qualified Products List (QPL)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Cooper Bussman Inc.	Fusetron FRN-R-15
N/A	08/01/2009	Cooper Bussman Inc.	Fusetron FRN-R-40
N/A	08/01/2009	Mersen	Tri-Onic TR15R
N/A	08/01/2009	Mersen	Tri-Onic TR40R

**C) Outdoor Load Center (Secondary Disconnect Required for TID equipment):
(Refer to Notes)**

NEMA 3R outdoor, rainproof enclosure; Current Rating 100 Amps, Copper wire size #8-1 AWG; 120/240 VAC, Single Phase w/ 40 Amp, 2-pole, Main Circuit Breaker and 20 Amp, Single pole, Branch Circuit Breakers w/ AIR Rating 10Ka (Conformance with Federal Specification W-P-115c as Type 1 Class 2; UL and NEMA Standards)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	01/25/2011	Square D Comapny(Schneider Electric)	QO6-12L100RB / Series G04

D) Transient Protection Device

Refer to Section 620-Grounding and Lightning Protection. Only Surge Protective Devices (SPDs) that are listed on the FDOT Approved Products List (APL) and that meet the Materials requirement of Section 620 (Grounding and Lightning Protection) of the Florida Department of Transportation (FDOT) "Standard Specifications for Road and Bridge Construction" may be used within the Miami-Dade County traffic control and intelligent transportation systems. Use FDOT certified SPDs that and meet all applicable requirements for the equipment being protected unless more stringent requirements to protect existing systems are specified by the Miami-Dade County Traffic Signals and Signs (TSS) Division. Any use-appropriate SPD certified under FDOT APL Section 620 may be used by manufacturers of pre-wired cabinets as long as they meet the manufacturer's design and performance requirements and all applicable FDOT and TSS Division specifications for the equipment.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A			

E) Manual Transfer Switch and Emergency Generator Interface

For retrofitting existing Miami-Dade County MD-552 and MD-660 series traffic signal cabinets with an externally mounted enclosure containing a manual transfer switch and emergency generator interface. Product and installation must meet the requirements stipulated in Section 639R (Retrofit of Miami-Dade County Traffic Signal Cabinets with Manual Transfer Switch and Emergency Generator Interface) of the Miami-Dade County Traffic Control Equipment Standards and Specifications.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	12/12/2019	Reliance Controls Corporation	Model C51A1L-C1 (with #2 key)

HISTORY:

Addition of Main and Secondary Disconnects for use w/TID equipment to QPL (12-01-10)
 Addition of Outdoor Load Center for use w/TID equipment to QPL (01-25-11)
 Addition of Stainless Steel NEMA 4X Enclosure; "A-2" & "B-2" required use on FDOT Projects to QPL (01-28-11)
 Addition of Transient Protection Device for use w/all Service Disconnect switches to QPL (12-22-11)
 Addition of Reliance Controls Corporation Model C51A1L-C1 (12/12/2019)
 Deleted Service Disconnect Heavy Duty NEMA 3R Switch Category (01-12-2023)

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Qualified Products List (QPL)

641 Concrete Strain Poles

A) Service Pole (Direct Burial)

Meet the requirements of Specification Section 641, and be constructed and permanently and legibly marked in accordance with FDOT Standard Plans Index 641-010 except that the total length of the Type P-II service pole is as designated in the Device Description below

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	09/25/2009	Dura-Stress inc.	Type P-II (Service Pole) / 16 feet overall pole length and 6 feet direct burial/ No center void
N/A	04/28/2022	Precast Specialties LLC	Type P-II (Service Pole) / 16 feet overall pole length and 6 feet direct burial / No center void

HISTORY:

Addition of Precast Specialties, LLC Concrete Service Pole (04/28/2022)

Addition of Concrete Service Pole; Dura-Stress Inc. to QPL (02-01-11)

List of FDOT Concrete Pole Manufacturers to QPL (02-01-11)

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646 Aluminum Poles, Pedestals and Posts

A) Aluminum Pedestal

Spun Aluminum tube (Standard) - use w/ Pedestrian Heads, Vehicular Heads, Electronic Display Sign Assemblies, and Sign Beacon Assemblies. Color: Natural Aluminum Finish; 4 inch – 8 NPT either Schedule 40 or Schedule 80 as specified by Engineer to meet specific loading requirements or as required by Miami-Dade County Specifications; Installation of pedestal requires a pedestal base except installation of 6-inch pedestal requires slip base and footing per FDOT Standard Plans Index 700-010, refer to subsection for Slip Base and Foundation Details.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	10/28/2011	Eastern Metal Supply	17-DOT-140 / D.O.T. Round Tube 6061-T6 - Stds. 19 / 6" OD
N/A	11/03/2011	Eastern Metal Supply	DOT-6-UBOLT / 6-inch U-bolts w/ lock washers & nuts
N/A	07/11/2014	Pelco Products Inc.	PB-5100
N/A	07/11/2014	Pelco Products Inc.	PB-5102

B) Square Aluminum Pedestal Base

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
646-001-001	10/05/2016	Pelco Products Inc.	SP-1116-FL-AD-NL-GL-PNC / Manufacturer applied P33 Gloss Black Standard Powder Coat Finish may be accepted in lieu

Qualified Products List (QPL)

of non-coated (PNC) where specified on site plans approved by the Miami-Dade County Traffic Signals and Signs Division.

C) Pole & Base Collar Assembly

Cast Aluminum; Color: Natural Aluminum Finish; Reinforcing collar for use with new or retro-fit installation onto a Square Aluminum Pedestal Base (T-Base) with 4-1/2 inch O.D. Aluminum tube connection.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	01/12/2000	Pelco Products Inc.	PB-5325

D) Anchor Bolts for Aluminum T-Base

Galvanized steel anchor bolts, four (4) each required for Square Aluminum Pedestal Base (T-Base); Grade 55 "3/4"-10NC, 18-inch long w/ 3-inch hook; threaded top 3-inches minimum; complete with galvanized washers and double nuts (ASTM F2329)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	06/30/2020	Pelco Products Inc.	PB-5543-GLV

E) Aluminum Pedestal Slip Base (Break-Away Base)

Cast Aluminum; Color: Natural Aluminum Finish; Aluminum sleeve and base plates (double beveled slots), Aluminum bolt keeper plates, shall be fabricated and assembled per FDOT Standard Plans Index 700-010 (Single Column Ground Signs) for use with 6-inch OD Spun Aluminum tube.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	11/03/2011	Eastern Metal Supply	DOT-6-BPB PKG / Sign Pole Base w/(DOT-6-KIT) Bolt Kits

F) Slip Fitter

Cast Aluminum; Color: Natural Aluminum Finish; w/ minimum three (3) Stainless Steel set screws; For pedestal mount

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A		Pelco Products Inc.	PN SP-1034-FL/For use w/ 4-

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649 Galvanized Steel Strain Poles, Mast arms and Monotube Assemblies

A) Steel Mast Arms Meet the requirements of FDOT Specification Section 649. Galvanized Finish; Painted / Powder Coated Pole Finishes Prohibited; Fabricate mast arm assemblies and miscellaneous hardware in accordance with Miami-Dade County Mast Arm Detail Sheets for all traffic signalization/flashers; Exception: Signalization projects bid by FDOT, specified to meet FDOT Standards, or signalizations installed on the State Highway System shall use the FDOT Standard Plans Indices 649-030 and 649-031(Mast Arm Assemblies) for pole fabrication. Note: Base hand hole required to be located at 0° orientation; Cut all materials to the final dimensions and complete all welding prior to galvanizing; All components for individual mast arm assemblies shall be from the same fabricator (In accordance with ASTM A123; except fastener assemblies ASTM A153)

Qualified Products List (QPL)

Use the following Steel Mast Arm Pole Manufacturers if currently certified on the FDOT Metals Production Facility Listing:

Millerbernd Manufacturing	PelcoStructural, LLC	Arcosa Traffic Structures
622 6th Street South	1501 Industrial Boulevard	1749 CR 525 East
Winsted, MN 55395	Claremore, OK 74017	Sumterville, FL 33585
(612) 270-5338	(918) 283-4004	(352) 748-4258
Valmont Ind. Inc.	Maico Industries Inc.	Ameron Pole Products
2551 Valmont Drive	936 North Hwy 14	2333 South Yukon
Brenham, TX 77833	Ellsworth, KS 67439	Tulsa, OK 74107
(402) 359-2201	(785) 472-5390	(918) 585-5611x1023

Union Metal Industries Corp.	Stony Brook Structures of Florida LLC
1432 Maple Avenue N.E.	2009 Tally Rd
Canton, OHIO 44705	Leesburg, FL 34748
(330) 458-5118	(352) 742-1289 (FDOT Mast Arms)

HISTORY:

Addition of Stony Brook Structures of Florida LLC (03-25-24)

Removal of Rohn Product, LLC (03-17-22)

Addition of Arcosa Traffic Structures (09-10-21)

Addition of Union Metal Industries Corporation (11-22-19)

Addition of Steel Mast Arms List of FDOT Approved Manufacturers to QPL (02-02-11)

650 Vehicular Traffic Signal Assembly

A) 12-inch Vehicular LED Modules - BALLS

Compliance with ITE VTC SH LED Circular Supplement Adopted June 27, 2005; (Conformance with Intertek's LED Traffic Signal Modules Certification Program; and ETL "Verified" product labeling including MDPW / FDOT Wiring Color Code)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
650-010-033	02/20/2007	Dialight Corp.	433-1210-003XLF / Red
650-012-017	06/26/2009	Dialight Corp.	433-3230-901XLF / Yellow
650-013-021	02/20/2007	Dialight Corp.	433-2220-001XLF / Green
650-010-038	02/12/2014	Dialight Corp.	433-1210-003XLF15 / Red
650-012-023	02/12/2014	Dialight Corp.	433-3230-901XLF15 / Yellow
650-013-026	02/12/2014	Dialight Corp.	433-2220-001XLF15 / Green
650-012-021	10/19/2012	Leotek Electronics USA LLC	TSL-12Y-LX-IL6-A1-P2 / Yellow

Qualified Products List (QPL)

650-013-024	10/19/2012	Leotek Electronics USA LLC	TSL-12G-LX-IL6-A1-P2 / / Green
650-010-036	10/19/2012	Leotek Electronics USA LLC	TSL-12R-LX-IL6-A1-P2 / Red

B) 12-inch Vehicular LED Modules - ARROWS (Omni Directional)

Compliance with ITE VTCSH LED - Part 3: LED Vehicle Arrow Traffic Signal Modules Adopted 03/04; (Conformance with Intertek's LED Traffic Signal Modules Certification Program; and ETL "Verified" product labeling including MDPW / FDOT Wiring Color Code)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
650-015-019	01/05/2015	Dialight Corp.	432-2324-001XOF15 / Green
650-011-027	01/05/2015	Dialight Corp.	432-1314-001XOF15 / Red
650-014-019	01/05/2015	Dialight Corp.	431-3334-901XOF15 / Yellow
650-015-014	11/19/2007	Dialight Corp.	432-2324-001XODF / Green
650-014-014	06/26/2009	Dialight Corp.	431-3334-901XODF / Yellow
650-011-022	11/19/2007	Dialight Corp.	432-1314-001XODF / Red
650-015-018	10/19/2012	Leotek Electronics USA LLC	TSL-12GA-IL6-A1 / Green
650-011-026	10/19/2012	Leotek Electronics USA LLC	TSL-12RA-IL6-A1 / Red
650-014-018	10/19/2012	Leotek Electronics USA LLC	TSL-12YA-IL6-A1 / Yellow

C) Programmed Visibility Vehicular LED Modules - PV Type

Plug-in module replacement for Optically Programmable Signal Heads

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
650-020-002	05/20/2005	Dialight Corp.	P46-3G33-003** / Green
650-019-002	05/20/2005	Dialight Corp.	P46-3Y33-003** / Yellow
650-018-002	05/20/2005	Dialight Corp.	P46-3R33-003** / Red

D) Vehicular Traffic Signal Head and Hazard Beacon Housings and Visors

Color: Flat (Dull) Black; Furnished with Stainless Steel hardware and terminal block; Housing approved only for use with LED modules listed in Section 650 "C" above; Visor exception: Full Circle type only when used with Louvers; (Compliance with all applicable sections of ITE Adjustable Face Vehicular Traffic Control Signal Head Standard; Dull Black- Matching Federal Standard 595b-37038)

Qualified Products List (QPL)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
650-008-001	02/07/2009	Econolite Control Products Inc.	Poly Black Housing* w/Tunnel Visors
650-002-006	06/02/1987	Econolite Control Products Inc.	Die Cast Black Housing w/Tunnel Visors
650-001-008	12/12/1991	McCain Traffic Supply	Poly Black Housing* w/Tunnel Visors
650-002-007	09/05/1990	McCain Traffic Supply	Die Cast Black Housing w/Tunnel Visors
650-002-011	05/14/1982	Mobotrex (formerly Siemens ITS/Eagle)	SG Aluminum Die Cast Black Housing w/Tunnel Visors -FL Series
650-002-005	12/12/1985	Peek Traffic Corp.(formally Traffic Control Technologies)	Die Cast Black Housing w/Tunnel Visors
650-001-006	12/10/1985	Peek Traffic Corp.(formally Traffic Control Technologies)	Poly Black Housing* w/Tunnel Visors

E) Optically Programmable Vehicular Traffic Signal Head

Color: Flat (Dull) Black; Furnished with Stainless Steel hardware and terminal block; Directional traffic signals used to limit signal visibility to specific target areas to avoid motorist confusion at skewed intersections, when two intersections are in close proximity, or for precise lane control; Requires special masking kit from manufacturer; Approved only for use with PV Type LED modules listed in Section 650 "C" above; No dimming devices allowed; (Signal Head and Acrylic lenses color compliance with applicable portions of MUTCD and ITE standards/specifications; Dull Black- Matching Federal Standard 595b-37038)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
650-005-002	07/01/1994	McCain Traffic Supply	HP-XX-3 / Die Cast Black Housing w/Tunnel Visors

F) Backplates w/Retroreflective Borders

Sheet Aluminum 0.0625 with 5-inch border width, mounting slots and louvers; Color: Flat Black (Powder Coat); configured to accommodate 12-inch signal head w/1 to 5 Sections In-line and 5 Section Cluster; with 2-inch wide Type VIII Yellow Retroreflective Sheeting attached to Face; complete w/ Stainless Steel hardware, 10-24x3/8 Truss Combo Type F and Washer; For limited use at selected locations only; (Federal Standard 595A-37038 for dull black and ASTM E1347)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
650-022-002	07/20/2009	McCain Traffic Supply	Model M6 Series
650-022-005	03/18/2019	Pelco Products Inc.	AeroFlex Flexible Retroreflective Backplates (BK-8#0#-RTX-FL). Use AeroFlex "Signal Specific" backplates consistent with the approved signal housing
650-022-004	05/12/2010	Transportation Control Systems	BP-5000B Series

Qualified Products List (QPL)

HISTORY:

Lumination (GE) DR6-RTFB-17A; DR6-YTFB-17A-YX1; DR6-GTFB-17A-FL; DR6-RTAAN-17A-FL; DR6-YTAAN-17A-YX; and DR6-GTAAN-17A-FL

QPL Administrative Suspension (09-02-10); ETL Verification conformance letter 11/10/10; Reinstated on QPL (12-01-10)

Leotek Yellow Ball & Omni Directional LEDs; ETL Verification conformance /FDOT APL letter January 5, 2011; Added to QPL (01-05-11)

Addition of Optically Programmable Vehicular Traffic Signal Head to QPL (04-21-11)

Addition of Siemens ITS/Eagle FL Series Aluminum Head to QPL (09-22-11)

Addition of Current, powered by GE VLA Series LED Arrows (R,Y,G) to QPL (05-17-19)

Addition of Pelco AeroFlex Flexible Retroreflective Backplates (BK-8#0#-RTX-FL) to QPL (11-16-2022)

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653 Pedestrian Signal Assembly

A) 16"x18" Hand/Man w/Countdown LED MODULES

Compliance with ITE PTCSI LED Pedestrian Traffic Control Signal Indicators - Light Emitting Diode Signal Modules (PTCSI LED) dated August 4, 2010; (Intertek's LED Traffic Signal Modules Certification Program; and ETL Verified product labeling)

Compliance with ITE PTCSI Part 2 LED Pedestrian Traffic Signal Modules Adopted 03/04; (Conformance with Intertek's LED Traffic Signal Modules Certification Program; and ETL Verified product labeling)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
653-022-014	06/24/2011	Dialight Corp.	430-6479-805XF
653-022-018	09/04/2015	GE Lighting Solutions	PS7-CFF1-VLA
653-022-019	02/13/2017	Leotek Electronics USA LLC	TSL-PED-16-SPC-V1

B) 16"x18" Hand/Man (Side-by-Side) LED MODULES (DELETED)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A			

C) 16"x18" Type Housings with Crate Type Visors

Color: Black; w/Stainless Steel hardware; Approved only for use with LED modules in 653 "A" above;

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
653-020-001	01/07/2000	McCain Traffic Supply	Series 8000 / Polycarbonate Black
653-019-001	01/07/2000	McCain Traffic Supply	Series 8000 / Die Cast Black
653-025-001	05/22/2007	Mobotrex (formerly Siemens ITS/Eagle)	Model: SG7SZ10C3BBB10-21 / Polycarbonate Black
653-024-002	08/29/2006	Mobotrex (formerly Siemens ITS/Eagle)	Model: SG7SZ20C3FFF10-21 / Die Cast Black

D) Bracket Assemblies for Pedestrian Signal Heads w/Tri-Stud

Qualified Products List (QPL)

Color: Natural Aluminum Finish - only; Exception: When used w/Painted Mast Arm pole/pedestal shall match pole color; w/Stainless Steel hardware; For mast arm pole or concrete pole mount (Rev. 11/11)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A		Cost Cast Inc.	Pole End- Flat/Curved; (Assembly)
653-001-001	05/14/1982	Cost Cast Inc.	PN 1915 / Elbow Tri-stud / Green
N/A		Cost Cast Inc.	Alum.1-1/2" x 10" Pipe Nipple
N/A		Pelco Products Inc.	SE-0436-10 / Alum.1-1/2" x 10" Pipe Nipple
653-001-004	07/07/1987	Pelco Products Inc.	SP-1011-FL; Pedestrian Signal Bracket Sand Cast

HISTORY:

Addition of Leotek Model TSL-PED-16-SPC-V1 (04-14-2022)

16"x18" Hand/Man (Side-by-Side) Pedestrian Modules Deleted by PWWM for use(05-01-10)

16"x18" Hand/Man (Side-by-Side) Dialight 430-6450-001XF & Lumination PS7-CFC1-26A LED
Modules DELETED from QPL (05-01-10)

Addition w/New ITE PTCSI LED specification for Hand/Person/Countdown module s, dated Aug. 4,
2010 (07-20-11)

Addition of Dialight Model 430-6479-805XF replacing Model 430-6479-001XF for compliance w/ITE
PTCSI LED dated Aug. 4, 2010 (07-20-11)

Addition of Siemens 16"x18" (Poly & Die Cast) Type Housing w/crate Type Visors added to QPL (05-
31-11)

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654 Midblock Crosswalk Enhancement Assemblies

A) Rectangular Rapid Flashing Beacon Assembly

Dual forward and rear facing rectangular shaped Yellow LED modules; Stainless Steel hardware; Flash operation commences upon pedestrian push button; push button station has locator tone and a verbal message to audibly and visually advise pedestrian that rapid flash beacons are activated; complete with MUTCD fluorescent yellow/green compliant dual sided pedestrian crossing symbol signage; Assembly must meet the requirements of Miami-Dade County Specifications for Rectangular Rapid Flashing Beacons.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
654-001-013	09/24/2021	Carmanah Technologies Corp.	RRFB-XL2 Series as approved by Miami-Dade County; Solar Powered or AC Powered (radio or radioless) and Polara Model iNX (Mid-Block APS for RRFB)
654-001-009	10/23/2019	TAPCO	RRFB-XL2 Series as approved by Miami-Dade County; Solar Powered or AC Powered (radio or radioless) and Polara Model iNX (Mid-Block APS for RRFB)

HISTORY:

Qualified Products List (QPL)

REPLACED Polara XAV2E-LED-B with Polara Model iNX (05-10-2022)
DELETED Carmanah Model SC315 SOLAR and AC (05-10-2022)
ADDED Carmanah Model SC315G (05-10-2022)

Last Modified on: 5/13/2025 12:32:07 PM

659 Mast Arm, Span Wire, And Pole Mounting Assemblies

A) Adjustable Hanger

Cast Aluminum; Color: Natural Aluminum Finish; w/Stainless Steel hardware and 1-inch Cable Clamp;
For span wire

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-005-003	05/13/1983	Cost Cast Inc.	PN 1906
659-005-008	04/02/1993	Pelco Products Inc.	SP-1029-FL

B) Disconnect Hanger

Cast Aluminum; 18 circuit; Top & Bottom Shurlock Boss Serrations; Color: Black; w/Stainless Steel hardware; For span wire

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-004-002	05/14/1982	Cost Cast Inc.	PN 1901T(18CIRCUIT SAND CAST/ALMAG HUB PLATE)
659-004-019	02/04/1987	Pelco Products Inc.	SP-1022-FL

C) Extension Bar

Cast Aluminum; Color: Natural Aluminum Finish; Complete with Aluminum: 6-inch Clamp, Disconnect and Signal Head Reinforcement Plates, Vehicle Signal Top Bracket Reinforcement Plate, Spacers, Shims; Stainless Steel hardware and fasteners; For span wire

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-015-001	05/13/1983	Cost Cast Inc.	PN 1906-E
659-015-003	09/22/1987	Pelco Products Inc.	SE-0507-72

D) Mast Arm Camera Mounting

Cast Aluminum; Color: Natural Aluminum Finish; w/Stainless Steel hardware and aircraft cables

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-035-007	01/21/2020	Cost Cast Inc.	Model 1428-E-Cxx-Gyy with 74" gusseted tube
659-035-005	04/19/2017	Pelco Products Inc.	SP-1106-FL

E) Mast Arm Detector Mounting

Cast Aluminum; Color: Natural Aluminum Finish; w/Stainless Steel hardware and aircraft cables

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-038-001	03/23/2016	Pelco Products Inc.	SP-1113-FL (for mounting GTT Opticom Model 3100 GPS Radio)

F) Mast Arm Sign Mounting

Qualified Products List (QPL)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-034-003	06/23/2014	Pelco Products Inc.	SP-1010-FL
659-034-010	09/22/2020	Pelco Products Inc.	SP-1131-FL

G) Mast Arm Signal Mounting

Cast Aluminum; Color: Natural Aluminum Finish; w/Stainless Steel hardware and aircraft cables

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-031-018	09/03/2015	Cost Cast Inc.	Value-Brac Model 1416-G-Cxx Gyy; Per Drawing No. 1393
659-031-020	05/12/2017	Pelco Products Inc.	SP-1119-FL, Astro-Brac Atlas; Articulating horizontal mounted; gusseted tube must be centered on cable mount
659-031-011	06/23/2014	Pelco Products Inc.	SP-1006-FL

H) Pivotal Adjustable Hanger Assembly

Cast Aluminum; Color: Natural Aluminum Finish; Complete with Aluminum: 6-inch Clamp, Disconnect and Signal Head Reinforcement Plates, Vehicle Signal Top Bracket Reinforcement Plate, Spacers, Shims; Stainless Steel hardware and fasteners; For span wire

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-032-002	10/12/2007	Signal Safe Inc.(w/Cost Cast)	Model 880/For Existing 2-Point Span Wire

I) Pole Mounting Assembly

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A			

J) Sign Bracket

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A			

K) Span Wire Sign Mounting

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A			

L) Span Wire Signal Mounting

Cast Aluminum; Color: Natural Aluminum Finish; w/Stainless Steel hardware and aircraft cables

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-037-003	05/10/2012	Pelco Products Inc.	SP-1050-FL (for mounting of Wavetronix sensors)

M) Spanwire Clamp

Qualified Products List (QPL)

Cast Aluminum; Color: Natural Aluminum Finish; w/Stainless Steel hardware and stainless steel bushing

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-010-002	08/18/1982	Cost Cast Inc.	PN 1909 w/ bushing

N) Vehicle Signal Bracket

Cast Aluminum; Color: Black; w/Stainless Steel hardware

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-001-007	05/14/1982	Cost Cast Inc.	1902 (Top) / 1902B (Bottom); 2-Way
659-001-008	05/14/1982	Cost Cast Inc.	1903 (Top) / 1903B (Bottom); 3-Way
659-001-047	06/11/1997	Cost Cast Inc.	1916-A
659-001-009	05/14/1982	Cost Cast Inc.	1904 (Top) / 1904B (Bottom); 4-Way
659-001-037	02/21/1991	Pelco Products Inc.	SP-1017-FL (Top); 4-Way
659-001-030	02/21/1991	Pelco Products Inc.	SP-1018-FL (Bottom); 4-Way
659-001-030	08/15/1988	Pelco Products Inc.	SP-1026-FL (Top); 2-Way
659-001-031	08/15/1988	Pelco Products Inc.	SP-1027-FL (Bottom); 2-Way
659-001-036	02/21/1991	Pelco Products Inc.	SP-1015-FL (Top); 3-Way
659-001-034	02/21/1991	Pelco Products Inc.	SP-1016-FL (Bottom); 3-Way

O) Wire Entrance Fitting

Cast Aluminum; Color: Natural Aluminum Finish; w/Stainless Steel hardware; For span wire

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
659-006-001	05/14/1982	Cost Cast Inc.	1976T (Single Entrance; 1 bushing)

HISTORY:

Addition of Cost Cast Inc. Model 1428-E-Cxx-Gyy with 74" gusseted tube to QPL (04-27-2021)

PWWM QPL w/FDOT APL reevaluation of improvements per release drawing dated 06/01/09

Addition of Backplates to QPL (09-14-10)

Addition of CCD Camera Bracket to QPL (10-28-10)

Addition of Cost Cast Wire Entrance & Span Wire Hangers to QPL (02-01-11)

Addition of Pole & Base Collar Assembly to QPL (04-20-11)

Addition of Precast Concrete Pedestal Base to QPL (05-31-11)

Addition of Eastern Metal Supply to QPL (09-20-11)

Addition of Signal Head Closure Kit (Pelco) to QPL (09-20-11)

Addition of Anchor Bolts to QPL (10-25-11)

Addition of 6-inch OD Aluminum Pedestals to QPL (10-28-11)

Addition of Aluminum Pedestal Slip Base to QPL (11-03-11)

Addition of Hub Plate Side of Pole to QPL (11-04-11)

Removed Engineered Castings, Inc. PN 2085 and PN 2087-T (10-24-2018)

Addition of Cost Cast Inc. Value-Brac Model 1416-G-Cxx-Gyy; Per Drawing No. 13935 to QPL (06-17-19)

Addition of Pelco Products, Inc. SP-1119-FL, Astro-Brac Atlas to QPL (12-23-19)

Qualified Products List (QPL)

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660 Vehicle Detector

A) Loop Amplifiers

(Compliance with Traffic Signals & Signs Division technical specification: Traffic Controller Assemblies Specifications, 2007 Edition).

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
660-008-034	12/31/2008	Eberle Design Inc.	LMD222
660-008-025	06/24/2005	Eberle Design Inc.	LM222

B) Loop Sealant

Two-component Polyester Loop Sealant; self leveling; permanently flexible; shall withstand corrosive effect of road salts, automotive fluids, jet fuel, gasoline and extreme weather conditions; rapid curing with extreme adhesion to concrete and asphalt

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
660-005-024	04/16/1996	Durant Performance Coatings	STAT-A-FLEX (For Asphalt or Concrete)

C) Video

Unless otherwise stated in the Device Description: Special Composite cable required, located under Section 632 - Signal and Interconnect Cable, item "G" Composite Cable (Power and Video); CCD Camera Mount Mast Arm Bracket, located under Section 659 - Signal Head Auxiliaries.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
660-015-023	03/13/2008	FLIR ITS	Model VIP3D.1s with CT RDP TC650AZD65 camera and RDP OHT housing with sun shield, FLIR FC-Series ITS cameras (with lens option selected for site-specific use), or CT BCH-AZ10X30-115x camera; FLIR ViewCom/E MAX+ Communication Board ; and CT Port 1 Interface Module (PIM)
660-015-024	03/13/2008	FLIR ITS	Model VIP3D.2s with CT RDP TC650AZD65 camera and RDP OHT housing with sun shield, FLIR FC-Series ITS cameras (with lens option selected for site-specific use), or CT BCH-AZ10X30-115x camera; and FLIR ViewCom/E MAX+ Communication Board
660-015-011	03/10/2003	Iteris Inc. (Odetic)	+/-Ext Modules / Vantage Edge2-2N
660-015-012	03/10/2003	Iteris Inc. (Odetic)	+/-Ext Modules / Vantage Edge2-1N

D) Current Switch

Qualified Products List (QPL)

For detection of Red and Yellow traffic signal phases for use with Traffic Infraction Detectors (T I D) and any other applications that require an on/off indication of AC current flow; Operating conditions: 112 VAC within +/- 32 VAC; Off-state leakage current maximum 50 ua; On-state continuous maximum 1.0 Amps AC RMS max.; Operating Temperature: -30° C to +60° C; Six (6) turns installation conformance required with device usage; (Conformance with IACP "Performance Specifications: Red Light Camera System Module", RLCS Performance Standards, Volume 1 dated 11/29/07)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	11/24/2010	CR Magnetics Inc.	CR9350-ACA

E) Wireless Magnetometer Assembly

While inductive loop detectors continue to be the predominant vehicular detection type in Miami-Dade County, the site-specific use of alternate vehicular detection types, including the product(s) listed below, will be considered on a case-by-case basis and may be limited to further pilot-scale evaluations on Miami-Dade County roadways.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A			

F) Microwave

While inductive loop detectors continue to be the predominant vehicular detection type in Miami-Dade County, the site-specific use of alternate vehicular detection types, including the products listed below, will be considered on a case-by-case basis and may be limited to further pilot-scale evaluations on Miami-Dade County roadways

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
660-026-002	02/27/2012	Wavetronix LLC	SS-200V and SS-200E (SmartSensor Advance); Arc6 and SmartSensor Surge card(s) ; ss710 junction box; cables 600v insulation rated including factory-terminated drop cable ; mount with Pelco SP-1139-FL (mast arm) and SP-4171-PNC (span wire)
660-018-004	12/08/2010	Wavetronix LLC	SS225 SmartSensor Matrix; Arc6 and SmartSensor Surge card(s); ss710 junction box; cables 600v insulation rated including factory-terminated drop cable; mount with Pelco SP-1139-FL (mast arm) and SP-4171-PNC (span wire)

HISTORY:

Addition of CT Port 1 Interface Module (PIM) to FLIR ITS VIP3D.1s (08-07-19)

Discontinued, Econolite Control Products Inc. Autoscope Encore (03-13-19)

Addition of Durant Performance Coatings to QPL (10-28-10)

Addition of Current Switch and Wireless Magnetometer Assembly for use w/TID equipment to QPL (12-01-10)

Addition of LMD222 Loop Amplifier to QPL (10-26-11)

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Qualified Products List (QPL)

663 Signal Priority and Preemption Systems

A) Preemption System

Use of the following products within the Miami-Dade County's Traffic Signal System is subject to additional site/project specific conditions and approvals from the County including interagency/interlocal agreements as needed; Manufacturer must provide initial and periodic training to Miami-Dade County traffic engineers and technicians.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
663-001-006	01/12/2012	Global Traffic Technologies LLC	GTT Opticom: Model 764 Multimode Phase Selector; Model 3100 GPS Radio (mast arm mounted using Pelco SP 1113-FL or Pelco SP-1076-FL with 1-1/2" NPT X 3/4" NPT reducer bushing)

Addition of GTT Opticom: Model 764 Multimode Phase Selector; Model 3100 GPS Radio (08-21-19)

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665 Pedestrian Detector

A) ADA Compliant 2-inch button, Standard

Cast Aluminum Housing; Color: Black; Assemblies shall meet Americans with Disabilities Act (ADA) requirements: Control Buttons Raised or Flush mounted w/housing; button force no greater than 5 lbf (22.2 N)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
665-003-010	03/09/2010	Pelco Products Inc.	SP-1090-FL (PPI 04-29-10)

B) ADA Compliant 2-inch button with Audible/Tactile for Accessible Pedestrian Signal (APS)

Cast Aluminum Housing; Color: Black; Assemblies shall meet Americans with Disabilities Act (ADA) requirements: Button Raised or Flush mounted w/housing; button force no greater than 5 lbf (22.2 N); Vibrating arrow button; Audible sounds during WALK interval; PB Locating tone during PED Clearance and DW Intervals;

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
665-004-012	05/29/2020	Polara Enterprises LLC	iNavigator 2-Wire with iCCU-S2, iN2-ICB and 9" x 15" APS Push Button Station (iNS2 PBS); Requires use of 14 AWG IMSA 50-2 cable (12AWG if PBS is greater than 300 feet from controller cabinet)

C) ADA Compliant 2-inch button with Audio and Visual Confirmation

Cast Aluminum Housing; Color: Black; Assemblies shall meet Americans with Disabilities Act (ADA) requirements: Button Raised or Flush mounted w/housing; Piezo driven solid state switch with a button force no greater than 3 lbf (13.3 N); when activated, shall give a momentary audible indication of

Qualified Products List (QPL)

actuation (i.e., beep) and shall simultaneously display a momentary visual indication with the illumination of a Red LED.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
66513902018041	04/21/2004	Polara Engineering Inc.	APL CERTIFICATION DISCONTINUED; Bulldog Series

D) Mid-Block Pedestrian Detector

Cast Aluminum Housing; Color: Black; Assemblies shall meet Americans with Disabilities Act (ADA) requirements: Field adjustable ADA compliant push button with directional arrow; Piezo driven solid state switch with a button force no greater than 3 lbf (13.3 N); provides locator tone when warning beacons are off; when actuated must provide continuous verbal indication that warning beacons are flashing.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
654-003-001	11/16/2020	Polara Engineering Inc.	Model iNX (Mid-Block APS for RRFB).

HISTORY:

REPLACED Polara XAV2E-LED-B with Polara Model iNX (05-10-2022)
REMOVED Polara Engineering, Inc. iNavigator 2-Wire (iN2) APL # 665-004-008 (10-01-2021)
REMOVED Polara Engineering, Inc. Navigator EZ Communicator System (APL # 665-004-004) (10-01-2021)
ADDED Polara Enterprises, LLC iNavigator 2-Wire with iCCU-S2, iN2-ICB and iNS2 PBS (APL # 665-004-012) (09-01-2021)
DISCONTINUED Polara Engineering, Inc. Navigator EZ Communicator System (Models EN2xxxx-B and CCU2EN, V1.10, 2-Wire) (03-26-19)
DISCONTINUED Polara Engineering, Inc. Bulldog Series (FDOT APL 66513902018041) (03-26-19)
ADDED Polara Engineering, Inc. iNavigator 2-Wire (iN2) with ICCU-S and iN2-ICB (03-22-19)
Pelco SE-2061-08 replaced w/ SP-1090-FL on FDOT APL (03/09/10)
Polara 2wAPS Suspended by FDOT 04/13/10; FDOT added 2WPSM-001 requirement; Reinstated on APL (07/27-10)
Polara 2wAPS QPL Suspension 04/13/10; Reinstated on QPL (12-01-10)
Addition of Polara 2wAPS Navigator EZ Comm.; EN25ANO-B; w/CCU2EN & PSM2 to FDOT APL; Replaces 2-Wire Navigator APS on QPL (07-20-11)
Addition of ADA Compliant 2-inch button with Audio and Visual Confirmation (Pelco) to QPL (09-21-11)

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671 Traffic Controller

A) 2070LX Traffic Controller

The controllers listed below are for use within Miami-Dade County MD-660X traffic signal cabinets and subject to the requirements of the Section 671 of the Miami-Dade County Traffic Control Equipment Standards and Specifications (<https://www.miamidade.gov/publicworks/library/section-671-traffic-signal-controllers.pdf>).

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
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PENDING*

History: REMOVED Yunex Model 2070LX controller (01-09-2025)
REMOVED McCain Model D170E, McCain Model 2070LX, Intelight Model 2070LC, and Safetran Model

Qualified Products List (QPL)

ATC 2070C (04-26-2021)
ADDED Intelight Model 2070LC (09-12-2018)
ADDED Yunex Traffic, A Siemens Business Model 2070LX (08-27-2018)
ADDED McCain Model 2070LX (04-19-2018)
ADDED Safetran Model ATC 2070C (04-07-2017)

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676 Controller Cabinet

A) Pole/Pedestal Mounted (Type 1- Unwired)

Aluminum cabinet for use with flashing beacons, speed feedback signage and various other electronic devices; Constructed of domestic sheet aluminum alloy 5052-H32 with min. thickness of 0.125 inches; Natural aluminum finish; Two (2) ventilation slots; Keyed w/PPB-1 Corbin type lock; w/Continuous Stainless Steel (SS) Hinge; Continuous Neoprene Gasket all around door; complete w/Two (2) continuous aluminum vertical mounting rails minimum 5/8-inch offset or four (4) corner standoffs; w/0.125 inch aluminum back panel; w/Stainless Steel hardware (Conformance with NEMA 250-2003 3R Rating)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
676-005-001	05/14/1982	Southern Manufacturing (a Division of Ernest Products Inc.)	Flasher Unwired (+/- 16"H x 14"W x 11"D)
676-005-006	05/04/2005	Transportation Control Systems	Model TCS-1/TYPE 1(+/- 13"H x 10"W x 11"D)

B) Traffic Signal Cabinet

Aluminum cabinet w/ pullout rotatable rack assembly; Compliance with DTPW Traffic Signals and Signs Division technical specification: Traffic Controller Assemblies Specifications, 2007 Edition.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
676-040-001	04/20/2009	Control Technologies	MD552X
676-041-001	04/20/2009	Control Technologies	MD660X

C) Cabinet Base Adapter

Color: Beige; 12-inch high aluminum controller cabinet mounting base extender for use with all MD-552 and MD-660 series cabinets; 38" W x 24" D base footprint for DC-4T foundation mount with 28" W x 20-5/8" D top cabinet mount; complete with all necessary mounting holes and slots; Compliance with MDPW Traffic Signals and Signs Division technical specification: Traffic Controller Assemblies Specifications, 2007 Edition.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	09/30/2009	Control Technologies	Cabinet extender base

HISTORY:

Addition of Pole/Pedestal Mounted (Type 1- Unwired) to QPL (09-14-10)

Last Modified on : 2/28/2025 4:21:32 PM

Qualified Products List (QPL)

678 Traffic Controller Accessories

A) Time Switch, Type 2

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
678-009-005	04/24/2023	RTC Manufacturing Inc.	Model AP-22 Time Switch with 506475M2-ADV (communications harness), Advantech SmartFlex Router (Part No. BB-SR30500420-SWH) and PSD-A40W24 P/S; and Skywave Antenna Model 16-7024-C

B) Conflict Monitor for 170/2070 Controllers

Type 170/179/2070 for use in MD-552 and MD-660 series cabinets; Compliance with MDPW Traffic Signals and Signs Division technical specification: Traffic Controller Assemblies Specifications, 2007 Edition

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
678-023-002	12/31/2008	Eberle Design Inc.	Model: 2018KCLip with Ethernet (ip) communication port
678-023-001	11/04/2004	Eberle Design Inc.	2010ECL

HISTORY:

Deleted RTC Manufacturing Inc. CPR-2102 (05-17-2023)

Added RTC Manufacturing Inc. AP-22 (05-17-2023)

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682 Video Equipment

A) Camera - Dome

Must meet requirements of Miami-Dade County Traffic Control Equipment Standards and Specifications Section 682 . Mounting hardware and installation must be designed to withstand 150 mph wind speed loading.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
682-002-004	05/05/2015	Bosch Security Systems Inc.	VG5-ITS1080P-30x4 / (Autodome AD ITS Dynamic 7000 HD 30x Pend Clear); requires High POE Midspan 60W, Single Port, AC adaptor and pipe mount
682-002-011	06/08/2016	CohuHD Costar LLC	Model 4220HD Series CCTV with 75W PoE++ Injector; Requires 600V rated field cable.
682-002-009	02/02/2015	GovComm Inc.	GC-IMPO-FIZ6DE / with firmware Version V5.4.9 or

Qualified Products List (QPL)

greater; Delta Electronics, Inc.
DIN Rail Power Supply Model
DRP024V120W1BN and MOXA
DIN Rail POE Injector Model
INJ-24A-T; Approved for job
lettings on or before June 30,
2020.

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684 Network Devices

A) Managed Field Ethernet Switch

DIN Rail Mounted

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
684-002-017	06/29/2017	Advantech B+B Smartworx	EKI-7710G-2CI-AE, Managed Ethernet Switch (evaluated with Advantech PSD-A40W24, P/S)

HISTORY:

Added EKI-7710G-2CI-AE, Managed Ethernet Switch (10-27-2020)

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685 Traffic Control System Auxiliaries

A) Uninterruptible Power Supply (UPS)

UPS assembly must meet the requirements of Miami-Dade County Traffic Control Equipment Standards and Specifications Section 685. UPS for traffic signal intersections must be listed on both the Caltrans QPL and FDOT APL and together with its battery string provide a minimum of 6.5 hours of continuous backup power. In addition, systems using nickel-zinc batteries must meet the requirements of Caltrans Specifications for Green Technology Battery Back-Up System (TEES Chapter 12).

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
685-002-020	11/17/2021	Alpha Technologies	Model FXM-HP-1100 UPS w/ Alpha UATS and UGTS with 19" rack mount; (4) AlphaCell 240XTV batteries; Alpha Technologies SCMini-Plus Remote Battery Management System with BS3B-12-4-EQ battery monitoring sensors; and approved battery wiring harness.

B) Traffic Signal UPS Cabinet

UPS Cabinet must be wired to meet the requirements of Miami-Dade County Traffic Control Equipment Standards and Specifications Section 685. UPS Cabinet must include an ASCO Model 420 Surge Protective Device (ASCO Cat #420120NP05NWAJ10), 30-amp main breaker for cabinet, 20-amp duplex GFCI receptacle with a dedicated circuit breaker branching directly from incoming utility power (i.e. not regulated by the UPS module), separate bus bars for utility (L, G, and N) including an equipment grounding lug, and door tamper switch.

Qualified Products List (QPL)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
685-002-004	01/20/2006	Southern Manufacturing (a Division of Ernest Products Inc.)	Wired UPS Enclosure Only (54" height). For use with UPS and supporting components listed on the TSSQPL supported by approved shop drawings and details.

HISTORY:

Addition of Model Model FXM-HP-1100 UPS; FDOT APL # 685-002-020 (03-17-2023)
 Deletion of Model FXM1100 UPS; FDOT APL # 685-002-009 (03-17-2023)
 Addition of Southern Mfg. Model SM-UPS-1 (Wired cabinet Only) to UPS (03-17-2022)
 Addition of Alpha Technologies Model FXM1100 UPS to QPL (09-09-19)
 Communications Unit (CTCS) DELETED from QPL - Not required with ATMS Controller Cabinets/System (02-02-11)
 Peek/Quixote Traffic Corp. LS-3800 (CTCS) listing deleted; permanently removed (03-02-11)

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700 Roadway Signs

A) 24/7 Sign Beacon Controller Assembly

Ground-mounted solar powered assembly requires use of approved 4 inch nominal (4.5" O.D.) Schedule 80 aluminum pedestal and reinforcing pedestal base collar.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
700-026-013	06/13/2016	Carmanah Technologies Corp.	Model R247-G approved with 80W solar panel, Dialight 12 VDC Red (433-1210-000XL) or Yellow (433-3230-900XL) LED Module, Eagle signal head housing, and 100Ah battery
676-011-002	04/30/1985	Transportation Control Systems	Model: 2266082AT/S w/ Reno A&E FL-200 Type 3 flasher and SE-1100 cabinet mount; AC-powered.

B) School Zone Sign Beacon Controller Assembly

Ground-mounted solar powered assembly requires use of approved 4 inch nominal (4.5" O.D.) Schedule 80 aluminum pedestal and reinforcing base collar.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
700-026-014	06/10/2016	Carmanah Technologies Corp.	Model R829-G approved with 80W solar panel, Dialight 12 VDC Yellow (433-3230-900XL) LED Modules, Eagle signal head housings, 100Ah battery, and RTC AP-22 time switch.
676-011-012	05/29/2014	Temple Inc.	Model: TF4001F-FL, Type I wired cabinet with Model 204 Flasher and Pelco SE 1100 mounting kits for mounting on 4"

Qualified Products List (QPL)

pedestal. For non-pedestal mounting, use Pelco SE-0120 cabinet mounting bracket where suitable.

C) Electronic Speed Feedback Signage (ESFS)

Use ASTM Type XI fluorescent yellow sheeting for feedback display panel used in non-school related sign beacons operating 24/7 (e.g.: hazardous curves, crossings and visibility); School Speed Zones beacons must use ASTM Type IV fluorescent yellow-green sheeting and be programmed to permit sign operation (feedback display) only during school zone hours/days; radar operation data collection can operate continuously or variable selected hours/days; feedback display - Yellow LED's Alpha/Numeric only; Solar powered or 120 Volt AC.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
700-019-001	08/03/2007	Carmanah Technologies Corp.	SpeedCheck-15; AC-powered and Solar-powered (80W panel & 100AH C&D Tech. Model VRS 12-100HIT battery)

D) Blank-Out Signs

Aluminum Housing; Color: Flat Black; Various LED light source for display Symbol/Message conformance with MUTCD; For aerial attachment to mast arms, sign gantries, span wire and overpasses; (PWWM Interim Compliance with FDOT MSTCD Section A700 Electronic Display Signs for Blank-Out Signs [BOS]).

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
700-012-010	05/20/2005	Southern Manufacturing (a Division of Ernest Products Inc.)	Model LED Blankout Series*
700-012-012	05/01/2014	Transportation Control Systems	Models TCSLEDBO Series*

E) AGM Batteries for use with Solar-Powered ESFS or Sign Beacon Assemblies

Battery shall be deep cycle solar rated, Valve Regulated Lead Acid (VRLA), Absorbent Glass Mat (AGM) sealed lead acid; Spill proof construction; Nominal Voltage: 12V 100 Amp Hrs.; Minimum Operating Temperature Range between: -4°F (-20°C) - 122°F (50°C)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	09/30/2021	C&D Technologies Inc.	Model VRS 12-100HIT
N/A	01/27/2022	East Penn Manufacturing Co	MK Battery/Deka Model 8A31DT

F) Blank-Out Signs

Aluminum Housing; Color: Flat Black; Various LED light source for display Symbol/Message conformance with MUTCD; For aerial attachment to mast arms, sign gantries, span wire and overpasses; (PWWM Interim Compliance with FDOT MSTCD Section A700 Electronic Display Signs for Blank-Out Signs [BOS]).

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
700-012-010	05/20/2005	Southern Manufacturing (a Division of Ernest Products Inc.)	Model LED Blankout Series*

Qualified Products List (QPL)

700-012-012	05/01/2014	Transportation Control Systems	Models TCSLEDBO Series*
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G) Internally Illuminated Street Name Signs (IISNS)

Aluminum Housing; Housing Color: Flat Black; (Compliance with PWWM TSS Division Interim Specification titled: "Internally Illuminated Street Name and Specialty Signage", dated 11/24/2010)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
700-015-021	04/12/2005	Southern Manufacturing (a Division of Ernest Products Inc.)	Model SSLED Series
700-015-020	05/04/2005	Transportation Control Systems	TCSSIGNFLO***
700-015-025	11/09/2007	Transportation Control Systems	TCSSIGNLED Series
700-015-024	07/09/2012	Transportation Control Systems	BriteLite TCSSIGNBL Series mounted with Pelco SP-1010-FL

H) Internally Illuminated Specialty Signs (IISS)

Aluminum Housing; Color: Flat Black; (Compliance with PWWM TSS Division Interim Specification titled: "Internally Illuminated Street Name and Specialty Signage", dated 11/24/2010)

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
700-015-021	04/12/2005	Southern Manufacturing (a Division of Ernest Products Inc.)	Model SSLED Series
700-015-020	05/04/2005	Transportation Control Systems	TCSSIGNFLO***
700-015-025	11/09/2007	Transportation Control Systems	TCSSIGNLED Series

I) Photo Control

For use with Internally Illuminated signs; 120V 15Amp; Rated: 1800 Watt Tungsten; Ballast 1000 VA; 15 Amp Tungsten; 8.3 Amp VAC; Temperature range: - 40°F to +158°F (UL); Compliance with MDPW Traffic Signals and Signs Division technical specification: Internally Illuminated Street Name and Specialty Signs Specification, Revised October 2009.

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
N/A	08/01/2009	Intermatic Inc.	K4221C / 1/2"-14 threaded stem; swivel

HISTORY:

MOR Manufacturing (3M) Urban DFB Series APL # 70030101603021(02/18/10) 3M stops production 01/2011; DELETED from QPL (12-01-10)
MOR Manufacturing (3M) deleted listing permanently removed (03-01-11)
Addition of Solar Batteries for ESFS to QPL (03-02-11)
Addition of Blank-Out Signs for EDS-BOS to QPL (12-22-11)
QPL FEB2012 FINAL 02-07-12
IISNS and IISS Mast Arm Hanger(Located under Section 659 - SIGNAL HEAD AUXILIARIES)

Qualified Products List (QPL)

Last Modified on : 5/13/2025 12:33:09 PM

706 Raised Pavement Markers and Bituminous Adhesive

A) Internally Illuminated Raised Pavement Markers (Class F)

Retroreflective raised pavement markers (RPMs) are the Department's standard type of raised pavement markers and are used as positioning guides to supplement longitudinal pavement markings for enhanced nighttime and wet weather visibility. Internally Illuminated Raised Pavement Markers (IIRPMs) are steady burn (i.e. IIRPMs do not blink) internally illuminated raised pavement markers that may be installed in the roadway surface, pursuant to Chapter 3B of the MUTCD, as an alternative to standard RPMs and subject to the following:

1. Proposed use of IIRPMs is limited to mitigation strategies on County Roads whose curves have substandard horizontal alignment or super-elevation; substandard lane widths; or substandard shoulder widths
2. A signed and sealed Traffic Engineering and Safety Study must be conducted to justify the use of IIRPMs. Installation requires County-approved site-specific engineering plans and permit
3. Design and construction must meet all requirements of FDOT Standard Specifications for Road and Bridge Construction Sections 706 and 970; and FDOT Standard Plans Index 706-001. IIRPM spacing must comply with Sections 3B.12 through 3B.14 of the MUTCD
4. The manufacturer must provide a five-year, non-prorated warranty on all components for five years from the date of final acceptance of construction in accordance with FDOT Section 706

FDOT APL NO	APPROVAL	MANUFACTURER	DEVICE DESCRIPTION
706-005-001	08/05/2019	Lux Solar Inc	Model LS1000+; Red, White, and Yellow; Steady Illumination Only

HISTORY:

Added Lux Solar Inc. Model: LS1000+ Class F Internally Illuminated Raised Pavement Markers (02-27-2020)

Last Modified on : 2/28/2025 4:44:23 PM

Qualified Products List (QPL)

MANUFACTURER NAME	WEBLIST
ADC (Supplied by Iteris)	www.adcable.com
Accord Industries	
Advanced Digital Cable (ADC)	www.advanceddigitalcable.com
Advantech B+B Smartworx	advantech-bb.com
Allied Tube and Conduit	www.alliedtube.com
Alpha Technologies	www.alpha.ca/solutions/by-industry/traffic-and-its
American Polymer Company	www.apcunderground.com/
Armorcast Products Co.	www.armorcastprod.com
Belden Electronics Division	www.belden.com
Bosch Security Systems Inc.	www.us.boschsecurity.com
C&D Technologies Inc.	cdtechno.com/
CR Magnetics Inc.	www.crmagnetics.com
Cantex Inc.	www.cantexinc.com
Carmanah Technologies Corp.	www.carmanah.com
CohuHD Costar LLC	www.cohuhd.com
Continental Industries Inc.	www.conind.com
Control Technologies	www.cttraffic.com
Cooper Bussman Inc.	www.bussmann.com
Cost Cast Inc.	www.costcast.com
Current powered by GE	www.gecurrent.com/applications/transportation
Current powered by GE (formerly GE Lighting Solutions)	www.gecurrent.com/applications/transportation
Cutler-Hammer (Eaton Corp.)	www.eaton.com
Deca Cables	www.decacables.com
Dialight Corp.	www.dialight.com
Dura-Stress inc.	www.durastress.com
Durant Performance Coatings	www.durantcorp.com
East Penn Manufacturing Co	www.eastpennmanufacturing.com/divisions/transportation/
Eastern Metal Supply	www.easternmetal.com
Eberle Design Inc.	www.editraffic.com

Qualified Products List (QPL)

Econolite Control Products Inc.	www.econolite.com
Erico International Corp.	www.erico.com
Eritech (Erico International Corp.)	www.erico.com
FLIR ITS	www.flir.com/home/
Falcon Fine Wire	www.falconfinewire.com
GE Lighting Solutions	www.gecurrent.com/applications/transportation
Galvan Industries Inc.	www.galvanelectrical.com
General Cable	www.generalcable.com
General Electric Co. (GE)	electrification.us.abb.com
Global Traffic Technologies LLC	www.gtt.com
GovComm Inc.	www.govComm.us
Harger Lightning and Grounding	www.harger.com
Houston Wire and Cable Co.	www.houwire.com
Intermatic Inc.	www.intermatic.com
Isco Industries	www.isco-pipe.com
Isotec (General Cable)	
Isotec (Supplied by Control Technologies)	
Isotec (Supplied by Iteris)	
Iteris Inc. (Odetic)	www.iteris.com
Kraloy	www.kraloyfittings.com
Leotek Electronics USA LLC	www.leotek.com
Leotek Electronics USA LLC	www.leotek.com
Lux Solar Inc	www.iirpm.com
McCain Traffic Supply	www.mccaintraffic.com
Mersen	www.ep-us.mersen.com
Mobotrex (formerly Siemens ITS/Eagle)	www.mobotrexmanufacturing.com
Oldcastle Infrastructure	www.oldcastleinfrastructure.com/brands/duralite/
Peek Traffic Corp.(formally Traffic Control Technologies)	www.oriux.com
Pelco Products Inc.	www.pelcoinc.com
Pelco Products Inc. (formerly Engineered Castings Inc.)	www.pelcoinc.com
Polara Engineering Inc.	www.polara.com
Polara Enterprises LLC	www.polara.com

Qualified Products List (QPL)

Precast Specialties LLC	www.precastspecialties.com
Prime Conduit Inc. (formally Carlon)	www.primeconduit.com
Prysmian Cables and Systems	www.prysmianusa.com
Quazite (Division of Hubbell)	www.hubbell.com/hubbellpowersystems/en/hps-brands/quazite
RTC Manufacturing Inc.	www.rtc-traffic.com
Reliance Controls Corporation	www.reliancecontrols.com
Republic Conduit	www.nucortubular.com/products/
Service Wire Company	www.servicewire.com/Products/USE-CT.html
Siemens Industry Inc.	www.siemens.com/us/en/home.html
Signal Safe Inc.(w/Cost Cast)	
Southern Grounding Products	www.southatlanticllc.com
Southern Manufacturing (a Division of Ernest Products Inc.)	www.southernmfg.com
Southwire Company	www.southwire.com
Square D Company(Schneider Electric)	www.se.com/us/en/brands/squared/
Superior Essex	www.superioressex.com
T & B/Blackburn	www.tnb.com
TAPCO	www.tapconet.com
Tappan Wire & Cable (Southwire)	www.southwire.com
Temple Inc.	www.temple-inc.com
TrafficCast International Inc.	www.trafficcast.com
Transportation Control Systems	www.tcstraffic.com
Wavetronix LLC	www.wavetronix.com
Western Tube and Conduit Co.	www.westerntube.com
Wheatland Tube Co.	www.wheatlandtube.com

Qualified Products List (QPL)

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