



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.
SECRETARY

August 4, 2011

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section **102**
Proposed Specification: **1020504 Maintenance of Traffic.**

Dear Ms. Gourdine:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

These changes were proposed by Stefanie Maxwell of the State Construction Office to clarify the use, method of measurement, and basis of payment for temporary signals, temporary detection and traffic control officers. Additionally, the term "arrow panel" has been changed to "arrow board" for consistency with the MUTCD and the additional payment for restoring damaged crash cushions has been deleted.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via Email to SP965RP or rudy.powell@dot.state.fl.us.

If you have any questions relating to this specification change, please call Rudy Powell, State Specifications Engineer at 414-4280.

Sincerely,

Signature on file

Rudy Powell, Jr., P.E.
State Specifications Engineer

RP/dt
Attachment

cc: Calvin Johnson, Chief Civil Litigation
Florida Transportation Builders' Assoc.
State Construction Engineer

MAINTENANCE OF TRAFFIC.**(REV ~~6-158-3-11~~)**

SUBARTICLE 102-5.4 (of the Supplemental Specifications) is deleted and the following substituted:

102-5.4 Crossings and Intersections: Provide and maintain adequate accommodations for intersecting and crossing traffic. Do not block or unduly restrict any road or street crossing the project unless approved by the Engineer. ~~Maintain all existing actuated or traffic responsive mode signal operations for main and side street movements for the duration of the Contract. Restore any loss of detection within 12 hours. Use only detection technology listed on the Department's Approved Products List (APL) and approved by the Engineer to restore detection capabilities.~~

_____ Before beginning any construction, provide the Engineer ~~a plan for maintaining detection devices for each intersection and~~ the name(s) and phone numbers of persons that can be contacted when signal operation malfunctions.

ARTICLE 102-7 (of the Supplemental Specifications) is deleted and the following substituted:

102-7 Traffic Control Officer.

Provide uniformed law enforcement officers, including marked law enforcement vehicles, to assist in controlling and directing traffic in the work zone when the following types of work is necessary on projects:

1. ~~Traffic control~~ *Directing traffic/overriding the signal* in a signalized intersection ~~when signals are not in use.~~
2. When Standard Index No. 619 is used on Interstate *roadways* at nighttime and called for in the plans.
3. When Standard Index No. 655 Traffic Pacing for overhead work is called for in the plans or approved by the Engineer.
4. When pulling conductor/cable above an open traffic lane on limited access facilities, when called for in the plans or approved by the Engineer.

SUBARTICLE 102-9.8 (of the Supplemental Specifications) is deleted and the following substituted:

102-9.8 ~~Advance Warning Arrow Panel~~*Board*: Furnish ~~advance warning arrow panels~~*boards* that meet the requirements of Section 990 as required by the plans and Design Standards to advise approaching traffic of lane closures or shoulder work.

SUBARTICLES 102-9.12 and 102-9.13(of the Supplemental Specifications) are deleted and the following substituted:

102-9.12 Temporary ~~Traffic Control~~ *Signalization and Maintenance*:
~~Furnish, install and operate~~ *Provide* temporary ~~traffic control~~ *signalization and maintenance at existing, temporary, and new intersections including but not limited to the following:*

Installation of temporary poles and span wire assemblies as indicated ~~shown~~ in the ~~p~~Plans,
Temporary portable traffic signals as shown in the Plans,
Adding or shifting signal heads,
Trouble calls,
Maintaining intersection and coordination timing and preemption devices.

~~-Restore any loss of operation within 12 hours after notification~~
~~Temporary traffic control signals will consist of either portable or fixed traffic signals.~~
 Provide ~~portable~~ traffic signals *equipment* that meets the requirements of the Design Standards, ~~and 603-2 and are listed on the APL.~~ The Engineer may approve used signal equipment if it is in acceptable condition. *Replacement components for traffic signal cabinet assemblies will be provided by the maintaining agency.*

102-9.13 Temporary Traffic Detection ~~Technology~~ *and Maintenance*: ~~Furnish, install and operate~~ *Provide* Temporary ~~Traffic D~~etection ~~Technology~~ *and maintenance at existing, temporary, and new **signalized** intersections. Provide temporary traffic detection equipment* listed on the Department's APL ~~and approved by the Engineer to restore detection capabilities.~~ *Restore any loss of detection within 12 hours. Ensure 90% accuracy per signal phase, measured at the initial installation and after any lane shifts, by comparing sample data collected from the detection system with ground truth data collected by human observation. Collect the sample and ground truth data for a minimum of five minutes during a peak and five minutes during an off-peak period with a minimum three detections for each signal phase. Perform the test in the presence of the Engineer.*

SUBARTICLE 102-11.14 (of the Supplemental Specifications) is deleted and the following substituted:

102-11.14 ~~Advance Warning Arrow~~ *Panel* **Board:** The quantity to be paid at the contract unit price will be for the number of ~~advance warning arrow~~ *panels* ~~boards~~ certified as installed/used on the project on any calendar day or portion thereof within the contract time.

SUBARTICLES 102-11.18 and 102-11.19 (of the Supplemental Specifications) are deleted and the following substituted:

102-11.18 Temporary ~~Traffic Control~~ *Signalization and Maintenance*: ~~For existing intersections, T~~he quantity ~~of Temporary Traffic Control Signals~~ to be paid for will be the number of ~~completed installations (each signalized location) of portable traffic~~

signals, or the number of fixed traffic signals in place and operating on the project, as authorized by the Engineer and certified as in place and in operation on the project intersections per day for the full duration of the Contract. For temporary intersections, the quantity to be paid for will be the number of signalized intersections per day for the duration of the temporary intersection. No separate payment will be made for temporary signalization and maintenance at new intersections.

102-11.19 Temporary Traffic Detection Technology and Maintenance: For existing intersections, the quantity of Temporary Traffic Detection Technology to be paid for will be the number of completed and accepted signalized intersections utilizing Temporary Traffic Detection Technology, authorized by the Engineer and certified as completed on the project. Compensation will begin the per day Temporary Traffic Detection Technology is placed into operation and approved by the Engineer and will end beginning the day contract time begins and ending the day the permanent detection is operational and approved by the Engineer. For temporary and new intersections, the quantity to be paid for will be the number of signalized intersections per day beginning the day the temporary detection is functional and ending the day:

- the permanent detection is operational and in the final lane configuration is in place for a new intersection; or,
- when the detection is removed for a temporary intersection.

SUBARTICLE 102-13.12.1 (of the Supplemental Specifications) is deleted and the following substituted:

102-13.12.1 Redirective: Price and payment will be full compensation for furnishing, installing, maintaining and subsequently removing (including restoring or replacing damaged) and subsequently removing such crash cushions. Payment for restoring damaged crash cushions will be the manufacturer's/distributor's invoice price for the new materials/parts plus 20% markup. The 20% markup is compensation for all necessary work, including but not limited to labor, equipment, supplies and profit, as authorized by the Engineer. Additional MOT required for the repair of the crash cushion will be paid for under the appropriate MOT pay item. On lump sum projects, additional MOT required for the repair of the crash cushion will be paid for based on the weighted average unit price in the Six Month Moving Statewide Averages report for the temporary traffic control devices deployed. The report for the six months prior to the letting of this Contract will be used.

SUBARTICLE 102-13.14 (of the Supplemental Specifications) is deleted and the following substituted:

102-13.14 Advance Warning Arrow Panel Board: Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing advance warning arrow panels boards.

SUBARTICLES 102-13.18 and 102-13.19 (of the Supplemental Specifications) are deleted and the following substituted:

102-13.18 Temporary ~~Traffic Control Signal~~ization and Maintenance: Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic control signals including all equipment and components necessary to provide an operable traffic signal. *Payment will be withheld for each day at each intersection where the temporary signalization is not operational within 12 hours after notification.*

102-13.19 Temporary Traffic Detection ~~Technology~~and Maintenance: Price and payment ~~of per intersection/per day~~ will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic detection ~~technology~~ including all equipment and components necessary to provide an acceptable signalized intersection. Take ownership of all equipment and components. *Payment will be withheld for each day at each intersection where the temporary detection is not operational within 12 hours after notification.*

SUBARTICLE 102-13.22 (of the Supplemental Specifications) is deleted and the following substituted:

102-13.22 Payment Items: Payment will be made under:

Item No. 102- 1-	Maintenance of Traffic - lump sum.
Item No. 102- 2-	Special Detour - lump sum.
Item No. 102- 3-	Commercial Material for Driveway Maintenance - per cubic yard.
Item No. 102- 14-	Traffic Control Officer - per hour.
Item No. 102- 60-	Work Zone Sign - per each per day.
Item No. 102- 61-	Business Sign - each.
Item No. 102- 71-	Barrier Wall - per foot.
Item No. 102- 94-	Glare Screen - per foot.
Item No. 102- 73-	Guardrail (Temporary) - per foot.
Item No. 102- 74-	Barricade (Temporary) - per each per day.
Item No. 102- 76-	Advanced Warning Arrow Panel Board - per each per day.
Item No. 102- 77-	High Intensity Flashing Lights (Temporary - Type B) - per each per day.
Item No. 102- 78-	Temporary Retroreflective Pavement Markers - each.
Item No. 102- 79-	Lights, Temporary, Barrier Wall Mount - per each per day.
Item No. 102- 81-	Crash Cushion (Gating) (Temporary) –per location.
Item No. 102- 89-	Crash Cushion (Temporary) - per location.
Item No. 102- 99-	Portable Changeable Message Sign (Temporary) - per each per day.

- Item No. 102-~~104~~.xxx- Temporary ~~Traffic Control~~ Signals *ization and Maintenance (Portable)*- per ~~each~~ *intersection* per day.
- ~~Item No. 102-104~~—Temporary Traffic Control Signals (Fixed)—per ~~each per day~~.
- Item No. 102-~~107~~.xxx- Temporary Traffic Detection *and Maintenance* - *per intersection* per day.
- Item No. 102-150- Portable Regulatory Sign - per each per day.
- Item No. 102-150- Radar Speed Display Unit - per each per day.
- Item No. 102-910- Temporary Raised Rumble Strip Set – per set
- Item No. 102-911- Removable Tape (White/Black) - per foot.
- Item No. 102-912- Removable Tape (Yellow) - per foot.
- Item No. 710- Painted Pavement Markings.
- Item No. 711- Thermoplastic Traffic Stripes and Markings.

MAINTENANCE OF TRAFFIC.**(REV 8-3-11)**

SUBARTICLE 102-5.4 (of the Supplemental Specifications) is deleted and the following substituted:

102-5.4 Crossings and Intersections: Provide and maintain adequate accommodations for intersecting and crossing traffic. Do not block or unduly restrict any road or street crossing the project unless approved by the Engineer. Before beginning any construction, provide the Engineer the names and phone numbers of persons that can be contacted when signal operation malfunctions.

ARTICLE 102-7 (of the Supplemental Specifications) is deleted and the following substituted:

102-7 Traffic Control Officer.

Provide uniformed law enforcement officers, including marked law enforcement vehicles, to assist in controlling and directing traffic in the work zone when the following types of work is necessary on projects:

1. Directing traffic/overriding the signal in a signalized intersection.
2. When Standard Index No. 619 is used on Interstate roadways at nighttime and called for in the plans.
3. When Standard Index No. 655 Traffic Pacing for overhead work is called for in the plans or approved by the Engineer.
4. When pulling conductor/cable above an open traffic lane on limited access facilities, when called for in the plans or approved by the Engineer.

SUBARTICLE 102-9.8 (of the Supplemental Specifications) is deleted and the following substituted:

102-9.8 Arrow Board: Furnish arrow boards that meet the requirements of Section 990 as required by the plans and Design Standards to advise approaching traffic of lane closures or shoulder work.

SUBARTICLES 102-9.12 and 102-9.13(of the Supplemental Specifications) are deleted and the following substituted:

102-9.12 Temporary Signalization and Maintenance: Provide temporary signalization and maintenance at existing, temporary, and new intersections including but not limited to the following:

Installation of temporary poles and span wire assemblies as shown in the Plans,

Temporary portable traffic signals as shown in the Plans,

Adding or shifting signal heads,
Trouble calls,
Maintaining intersection and coordination timing and preemption devices.

Restore any loss of operation within 12 hours after notification.

Provide traffic signal equipment that meets the requirements of the Design Standards and 603-2. The Engineer may approve used signal equipment if it is in acceptable condition. Replacement components for traffic signal cabinet assemblies will be provided by the maintaining agency.

102-9.13 Temporary Traffic Detection and Maintenance: Provide temporary traffic detection and maintenance at existing, temporary, and new signalized intersections. Provide temporary traffic detection equipment listed on the Department's APL. Restore any loss of detection within 12 hours. Ensure 90% accuracy per signal phase, measured at the initial installation and after any lane shifts, by comparing sample data collected from the detection system with ground truth data collected by human observation. Collect the sample and ground truth data for a minimum of five minutes during a peak and five minutes during an off-peak period with a minimum three detections for each signal phase. Perform the test in the presence of the Engineer.

SUBARTICLE 102-11.14 (of the Supplemental Specifications) is deleted and the following substituted:

102-11.14 Arrow Board: The quantity to be paid at the contract unit price will be for the number of arrow boards certified as installed/used on the project on any calendar day or portion thereof within the contract time.

SUBARTICLES 102-11.18 and 102-11.19 (of the Supplemental Specifications) are deleted and the following substituted:

102-11.18 Temporary Signalization and Maintenance: For existing intersections, the quantity to be paid for will be the number of signalized intersections per day for the full duration of the Contract. For temporary intersections, the quantity to be paid for will be the number of signalized intersections per day for the duration of the temporary intersection. No separate payment will be made for temporary signalization and maintenance at new intersections.

102-11.19 Temporary Traffic Detection and Maintenance: For existing intersections, the quantity to be paid for will be the number of signalized intersections per day beginning the day contract time begins and ending the day the permanent detection is operational. For temporary and new intersections, the quantity to be paid for will be the number of signalized intersections per day beginning the day the temporary detection is functional and ending the day:

the permanent detection is operational and the final lane configuration is in place for a new intersection; or,

when the detection is removed for a temporary intersection.

SUBARTICLE 102-13.12.1 (of the Supplemental Specifications) is deleted and the following substituted:

102-13.12.1 Redirective: Price and payment will be full compensation for furnishing, installing, maintaining (including restoring or replacing damaged) and subsequently removing such crash cushions. Additional MOT required for the repair of the crash cushion will be paid for under the appropriate MOT pay item. On lump sum projects, additional MOT required for the repair of the crash cushion will be paid for based on the weighted average unit price in the Six Month Moving Statewide Averages report for the temporary traffic control devices deployed. The report for the six months prior to the letting of this Contract will be used.

SUBARTICLE 102-13.14 (of the Supplemental Specifications) is deleted and the following substituted:

102-13.14 Arrow Board: Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing arrow boards.

SUBARTICLES 102-13.18 and 102-13.19 (of the Supplemental Specifications) are deleted and the following substituted:

102-13.18 Temporary Signalization and Maintenance: Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic control signals including all equipment and components necessary to provide an operable traffic signal. Payment will be withheld for each day at each intersection where the temporary signalization is not operational within 12 hours after notification.

102-13.19 Temporary Traffic Detection and Maintenance: Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic detection including all equipment and components necessary to provide an acceptable signalized intersection. Take ownership of all equipment and components. Payment will be withheld for each day at each intersection where the temporary detection is not operational within 12 hours after notification.

SUBARTICLE 102-13.22 (of the Supplemental Specifications) is deleted and the following substituted:

102-13.22 Payment Items: Payment will be made under:

- | | |
|------------------|--|
| Item No. 102- 1- | Maintenance of Traffic - lump sum. |
| Item No. 102- 2- | Special Detour - lump sum. |
| Item No. 102- 3- | Commercial Material for Driveway Maintenance - per cubic yard. |

Item No. 102- 14-	Traffic Control Officer - per hour.
Item No. 102- 60-	Work Zone Sign - per each per day.
Item No. 102- 61-	Business Sign - each.
Item No. 102- 71-	Barrier Wall - per foot.
Item No. 102- 94-	Glare Screen - per foot.
Item No. 102- 73-	Guardrail (Temporary) - per foot.
Item No. 102- 74-	Barricade (Temporary) - per each per day.
Item No. 102- 76-	Arrow Board - per each per day.
Item No. 102- 77-	High Intensity Flashing Lights (Temporary - Type B) - per each per day.
Item No. 102- 78-	Temporary Retroreflective Pavement Markers - each.
Item No. 102- 79-	Lights, Temporary, Barrier Wall Mount - per each per day.
Item No. 102- 81-	Crash Cushion (Gating) (Temporary) –per location.
Item No. 102- 89-	Crash Cushion (Temporary) - per location.
Item No. 102- 99-	Portable Changeable Message Sign (Temporary) - per each per day.
Item No. 102-xxx-	Temporary Signalization and Maintenance - per intersection per day.
Item No. 102-xxx-	Temporary Traffic Detection and Maintenance - per intersection per day.
Item No. 102-150-	Portable Regulatory Sign - per each per day.
Item No. 102-150-	Radar Speed Display Unit - per each per day.
Item No. 102-910-	Temporary Raised Rumble Strip Set – per set
Item No. 102-911-	Removable Tape (White/Black) - per foot.
Item No. 102-912-	Removable Tape (Yellow) - per foot.
Item No. 710-	Painted Pavement Markings.
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