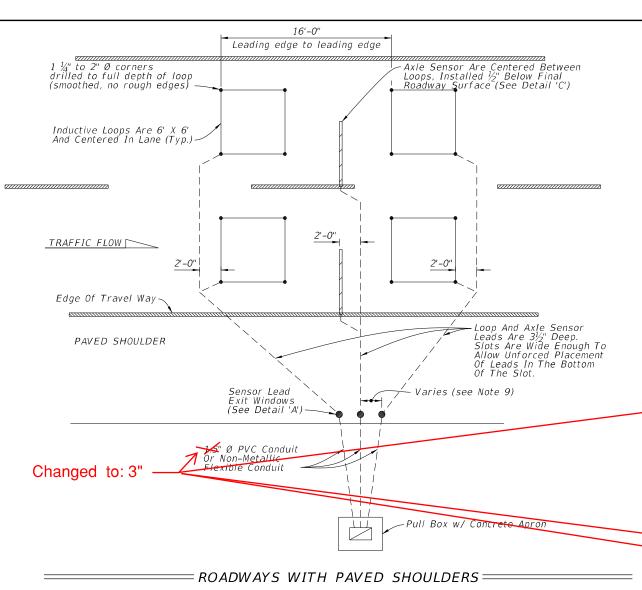
ORIGINATION FORM

Proposed Revisions to a Standard Plans Index (Please provide all information – Incomplete forms will be returned)

Contact Information:		Standard Plans:
Date: July 1, 2019		Index Number: 695-001
Originator: Eric Griffin		Sheet Number (s): 5 of 7
Phone: (850) 414-4709		Index Title: Traffic Monitoring Site
Email:		
Sheet 5: Changed the PVC Conduit or Non-Metallic Flexible Conduit from 1.5" to 3".		
Commentary / Background:		
Yes No	Other Affected Offices / Documents: (F	Provide name of responsible personnel)
	Other Standard Plans –	
	FDOT Design Manual –	
	Basis of Estimates Manual –	
	Standard Specifications –	
	Approved Product List –	
	Construction –	
	Maintenance –	
Yes N/A	Origination Package Includes: (Email or h	and deliver package to Derwood Sheppard)
	Redline Mark-ups	
	Proposed Standard Plan Instructions (SPI)	
	Revised SPI	
	Other Support Documents	
Implementation:		
Design Bulletin (Interim) DCE Memo Program Mgmt. Bulletin FY-Standard Plans (Next Release)		
Contact the Roadway Design Office for assistance in completing this form		



NOTES:

- 1. Install axle sensors and loops associated with axle sensors after placement of the friction course.
- 2. Cut a $3\frac{1}{2}$ " deep slot for the Inductive loops. Loop slots will be cut wide enough to allow unforced placement of the wire into the bottom of the slot. Four turns of #14 AWG, place the IMSA 51-7 copper wire in the slot. Place short pieces of backer rod (2" to 3" in length) every 18" to 24" to hold the loop wire in the bottom of the slot.
- 3. Twist loop leads at the rate of 8 to 16 twists per foot. Loops that are within 150' of the cabinet, extend the twisted pair loop wire directly to the cabinet. For distances over 150', #14 IMSA 50-2 shielded lead-in cable must be spliced to the loop wire twisted pair at the first pull box to which the loop wire is pulled.
- 4. Marking will consist of two rounds of contrasting colored tape, one color for the lane number and the second color for the lead loop location in the lane. The first band closest to the cabinet will represent the lane number, one round of tape will be for lane 1 and two rounds will be lane 2, etc. The lead loop in lane one would have one round of tape and a second round of a contrasting colored tape for the lead loop in the lane. The trailing loop would not have a second contrasting colored band of tape.
- 5. See Index 635-001 for pull box and apron details.
- 6. All splices will be performed using splice kits designed for direct burial. Splice kits will include screw on wire connectors and a housing with sufficient sealant to fully encapsulate the spliced connections. Taped splices are
- 7. Use a chalk line or string and paint to layout the position of the sensor and lead-in cable slots. Ensure saw cuts do not deviate more than 0.5 inches from the chalk line. Use a single blade or ganged blade saw wide enough to cut the axle sensor slot at full width in a single pass. Cutting two slots and chipping out roadway material between
- 8. All sensor slots and any cuts in the roadway will be thoroughly blown out to ensure there is no dust or debris prior to installation of sensors or leads.
- 9. Install Exit Windows at least 2' apart

= TYPICAL FOR UP TO 4 LANES OF SENSOR LEADS PULLED TO ONE SIDE OF THE ROADWAY =

LANE LAYOUT FOR TMS INDUCTIVE LOOP AND AXLE SENSOR

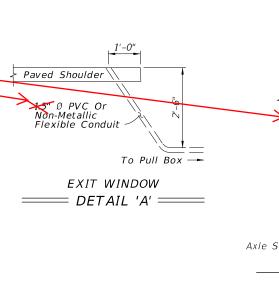
DESCRIPTION: LAST - 11/01/19



TRAFFIC MONITORING SITE

INDEX

SHEET 5 of 7



 $1\frac{1}{4}$ " to 2" Ø corners drilled to full depth of loop

(smoothed, no rough edges)

Inductive Loops Are 6' X 6' And Centered In Lane (Typ.)

2'-0"

Ø PVC Conduit Or Non-Metallic

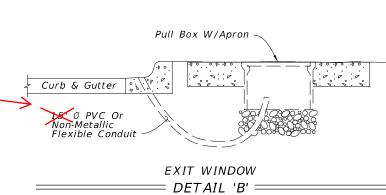
Flexible Conduit

TRAFFIC FLOW

Edge Of Travel Way

Curb & Gutter

Sensor Lead Exit Windows (See Detail 'B')



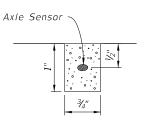
2'-0"

Pull Box w/ Concrete Apron

-Axle Sensor Are Centered Between Loops, Installed ⅓" Below Final

-Loop And Axle Sensor Leads Are 3½" Deep. Slots Are Wide Enough To Allow Unforced Placement Of Leads In The Bottom Of The Slot.

Roadway Surface (See Detail 'C')



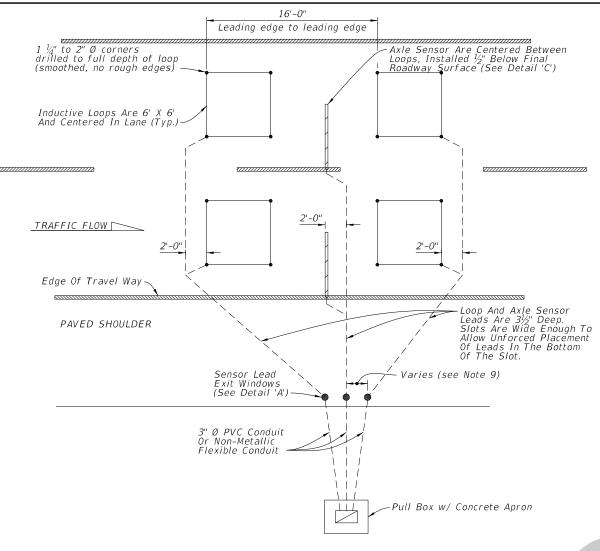
CURB & GUTTER ROADWAYS

16'-0"

Leading edge to leading edge

End Of Sensor Edge/Lane Stripe -

> END VIEW (Axle Sensor Slot) == DETAIL 'C' =====



=ROADWAYS WITH PAVED SHOULDERS =

NOTES:

- 1. Install axle sensors and loops associated with axle sensors after placement of the friction course.
- 2. Cut a $3\frac{1}{2}$ " deep slot for the Inductive loops. Loop slots will be cut wide enough to allow unforced placement of the wire into the bottom of the slot. Four turns of #14 AWG, place the IMSA 51-7 copper wire in the slot. Place short pieces of backer rod (2" to 3" in length) every 18" to 24" to hold the loop wire in the bottom of the slot.
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- 6. All splices will be performed using splice kits designed for direct burial. Splice kits will include screw on wire connectors and a housing with sufficient sealant to fully encapsulate the spliced connections. Taped splices are not permitted.
- 7. Use a chalk line or string and paint to layout the position of the sensor and lead-in cable slots. Ensure saw cuts do not deviate more than 0.5 inches from the chalk line. Use a single blade or ganged blade saw wide enough to cut the axle sensor slot at full width in a single pass. Cutting two slots and chipping out roadway material between
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- 9. Install Exit Windows at least 2' apart.

DESCRIPTION:

=TYPICAL FOR UP TO 4 LANES OF SENSOR LEADS PULLED TO ONE SIDE OF THE ROADWAY ==

LANE LAYOUT FOR TMS INDUCTIVE LOOP AND AXLE SENSOR

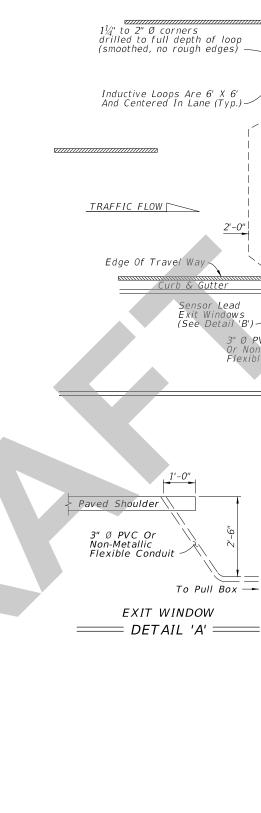
REVISION 11/01/19

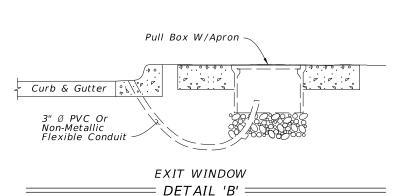


FY 2020-21 STANDARD PLANS

TRAFFIC MONITORING SITE

SHEET 5 of 7





Pull Box w/ Concrete Apron

-Axle Sensor Are Centered Between Loops, Installed ½" Below Final Roadway Şurface (See Detail 'C')

Loop And Axle Sensor Leads Are 3½" Deep. Slots Are Wide Enough To Allow Unforced Placement Of Leads In The Bottom Of The Slot.

Axle Sensor 3/4"

CURB & GUTTER ROADWAYS

16'-0"

Leading edge to leading edge

End Of Sensor Extends Into The Edge/Lane Stripe

2'-0"

3" Ø PVC Conduit Or Non-Metallic Flexible Conduit —

END VIEW (Axle Sensor Slot) ==== DETAIL 'C' ====