

Origination Form

Proposed Revisions to a Standard Plans Index

Originator:	Johnson, Victor	Index Number:	695-001
Date:	6/26/2024	Sheet Number(s):	11, 14, & 15
E-mail:	victor.johnson@dot.state.fl.us	Index Title:	Traffic Monitoring Site

Summary of the changes:
<p>page 11: increase spacing between the sensors</p> <p>page 14: change wording from "Varies 5'0" max" to 7'6" max"</p> <p>page 15: change wording from "Varies 8'0" to 15'0" to 7'6" to 15'0"</p>

Commentary/Background:
to accurately depict the layouts of the 695-001 SPI

Other Affected Documents/Offices	Person Contacted	Affected (Yes/No)
Other Standard Plans		No
FDOT Design Manual		No
Standard Specifications		No
Basis of Estimates Manual		No
Approved Product List		No
Construction Office		No
Maintenance Office		No

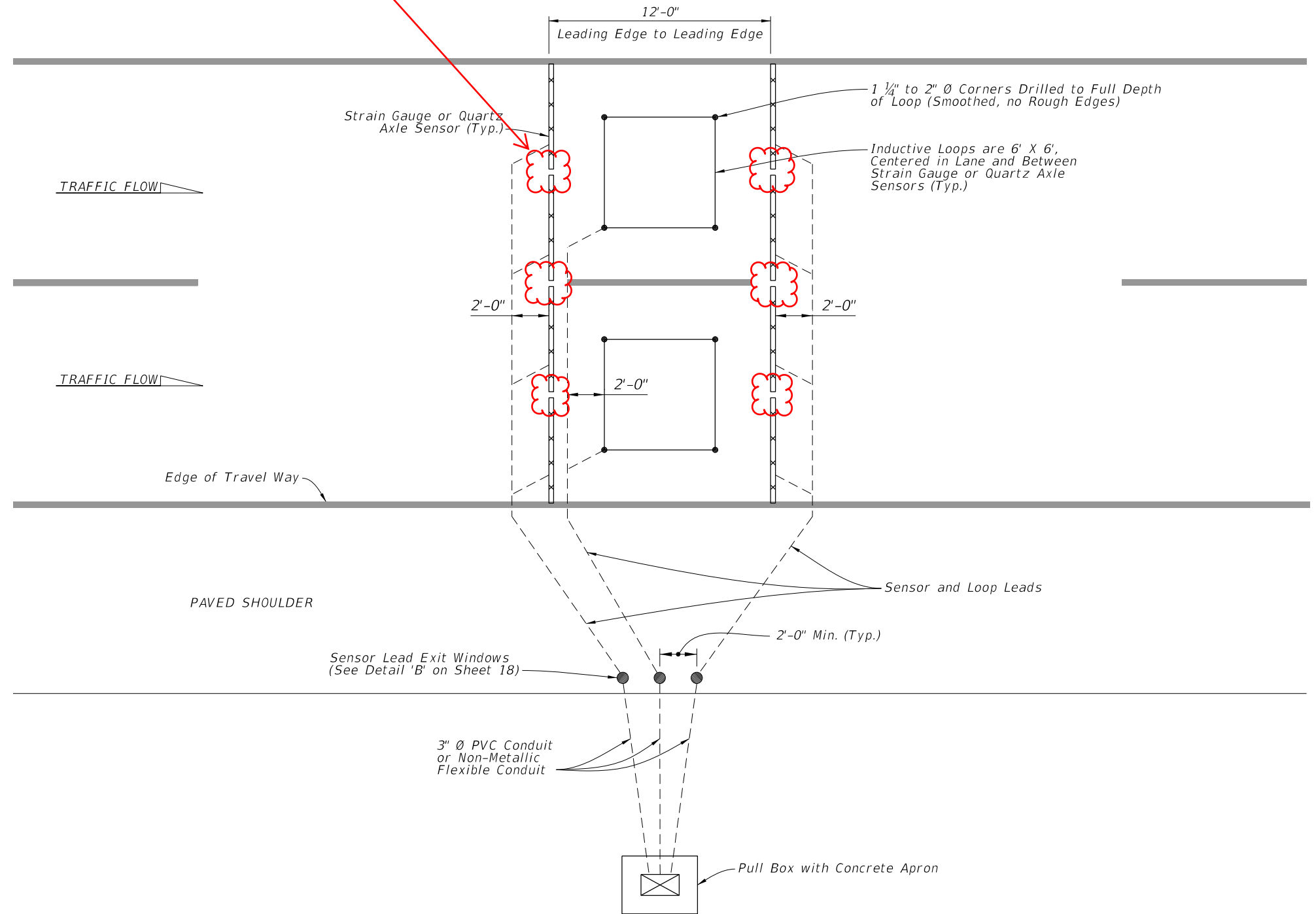
Implementation
["FY-Standard Plans (Next Release)"]

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NOTES:

1. Install axle sensors and loops associated with axle sensors after placement of the friction course.
2. Cut a 3 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. Place four turns of #14 AWG 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. Extend the twisted pair loop wire directly to the cabinet. No splicing of the loop leads will be permitted.
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 for 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 concrete apron details.
6. 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 1/2" from the chalk line. Install the sensor according to manufacturer's recommendations.
7. 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.
8. Install Exit Windows at least 2' apart.

CHANGED: Gap between Sensors



LANE LAYOUT FOR TTMS/CCS INDUCTIVE LOOP AND WEIGH-IN-MOTION SENSORS

WEIGH-IN-MOTION MONITORING SITE

LAST REVISION	DESCRIPTION:
11/01/23	
11/01/24	

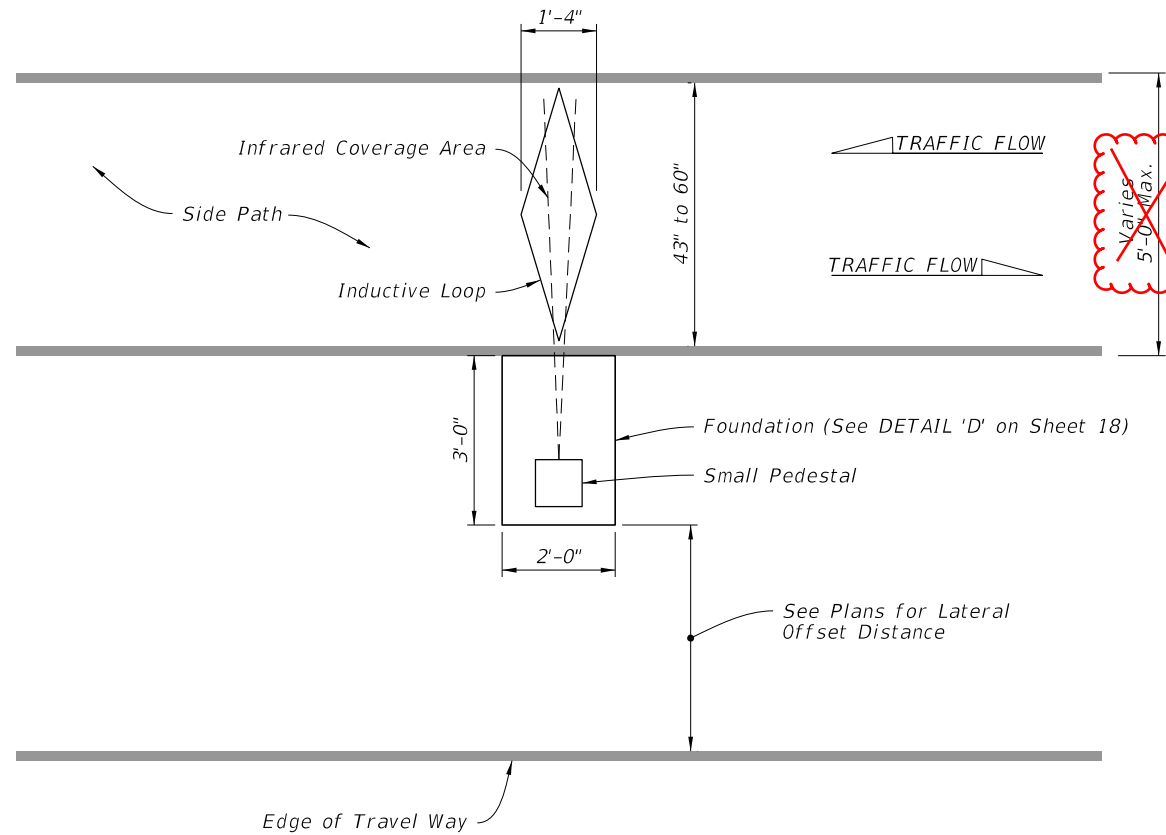


FY 2024-25
STANDARD PLANS

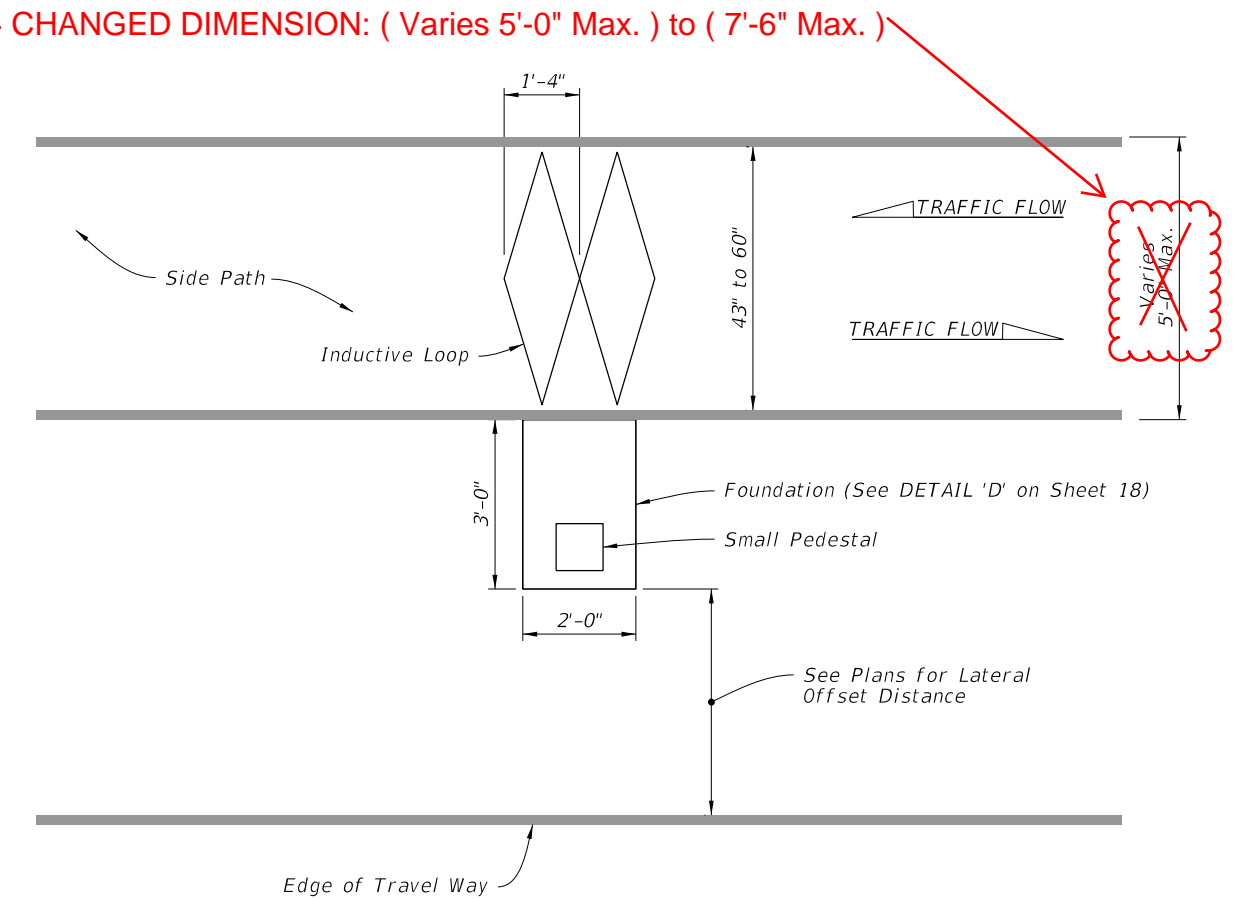
TRAFFIC MONITORING SITE

INDEX
695-001

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SINGLE LOOP ASSEMBLY
(Directional Recognition With Infrared)



DUAL LOOP ASSEMBLY
(Directional Recognition Without Infrared)

NON-MOTORIZED MONITORING SITE NOTES:


1. 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 at full width in a single pass. Cutting two slots and chipping out roadway material between them is not allowed.
2. Cut a 1/4" to 1/2" wide slot.
3. All sensor slots and any cuts in the pathway will be thoroughly blown out to ensure there is no dust or debris prior to installation of the loops and leads.
4. Place eight turns of loop wire in each slot.
5. Twist loop leads at the rate of 10 twists per foot.
6. Extend the twisted pair loop wire directly to the termination point with no splices.
7. For the side-by-side configuration, install the farthest loop lead through the near side loop slot.
8. At the termination point, for north-south pathways, mark the north piezometer and inductive loop sensor lead(s) with one tape. For east-west pathways, mark the east piezometer and inductive loop sensor lead(s) with one tape. Mark the south and west sensor lead(s) with two tapes.
9. Do not point infrared sensors towards a path where motor vehicles pass, a metallic or reflective surface, surfaces exposed to sunlight or vegetation that are likely to move.
10. Avoid placing infrared sensors near heat sources, steep surfaces, high voltage power cables, and telecommunications equipment.
11. If crossing pavement joints see DETAIL "F" on Sheet 18.

NARROW SIDE PATH CONFIGURATIONS

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11/01/24

NON-MOTORIZED MONITORING SITE

LAST REVISION	DESCRIPTION:		FY 2024-25 STANDARD PLANS	TRAFFIC MONITORING SITE	INDEX 695-001	SHEET 14 of 20
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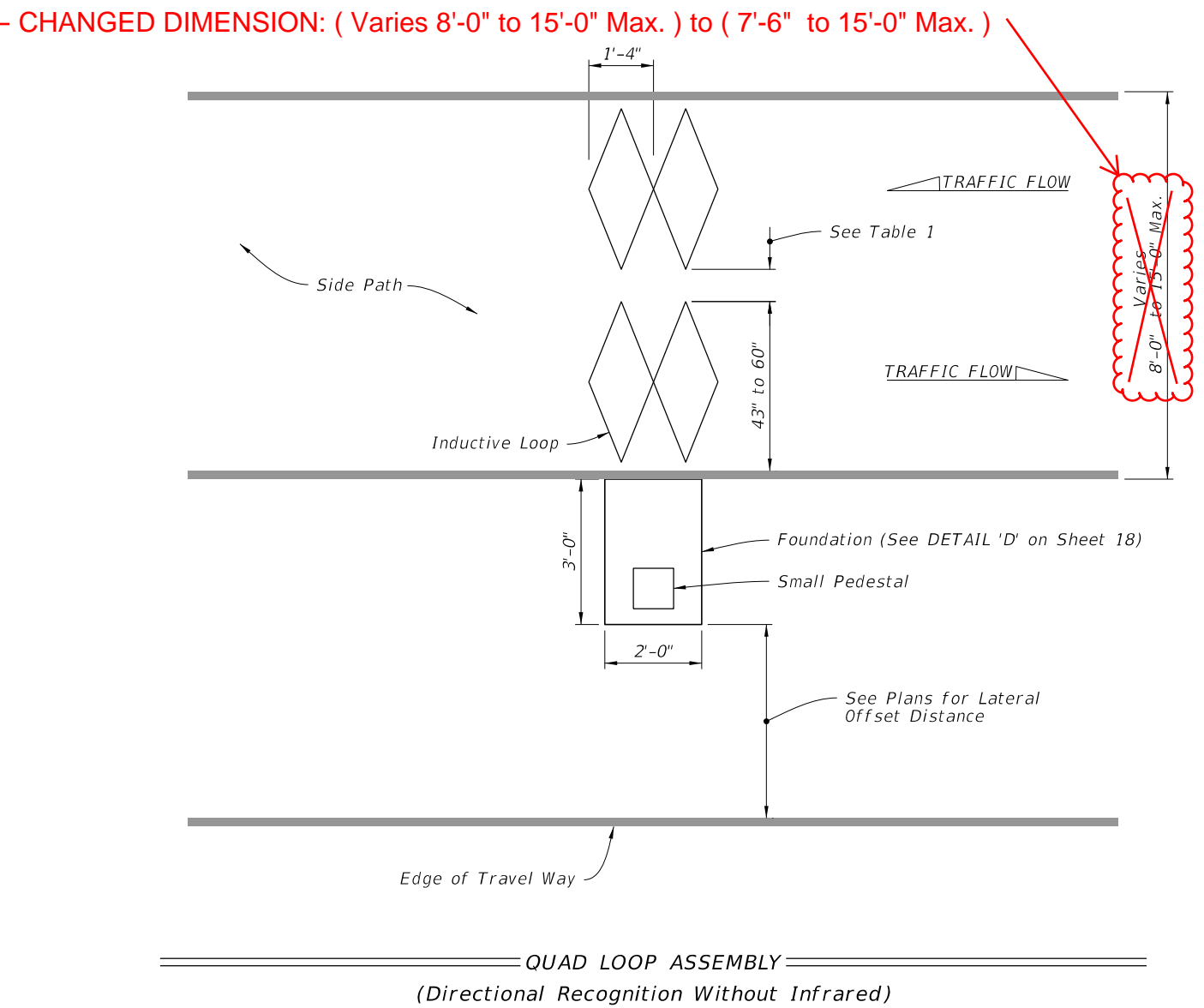
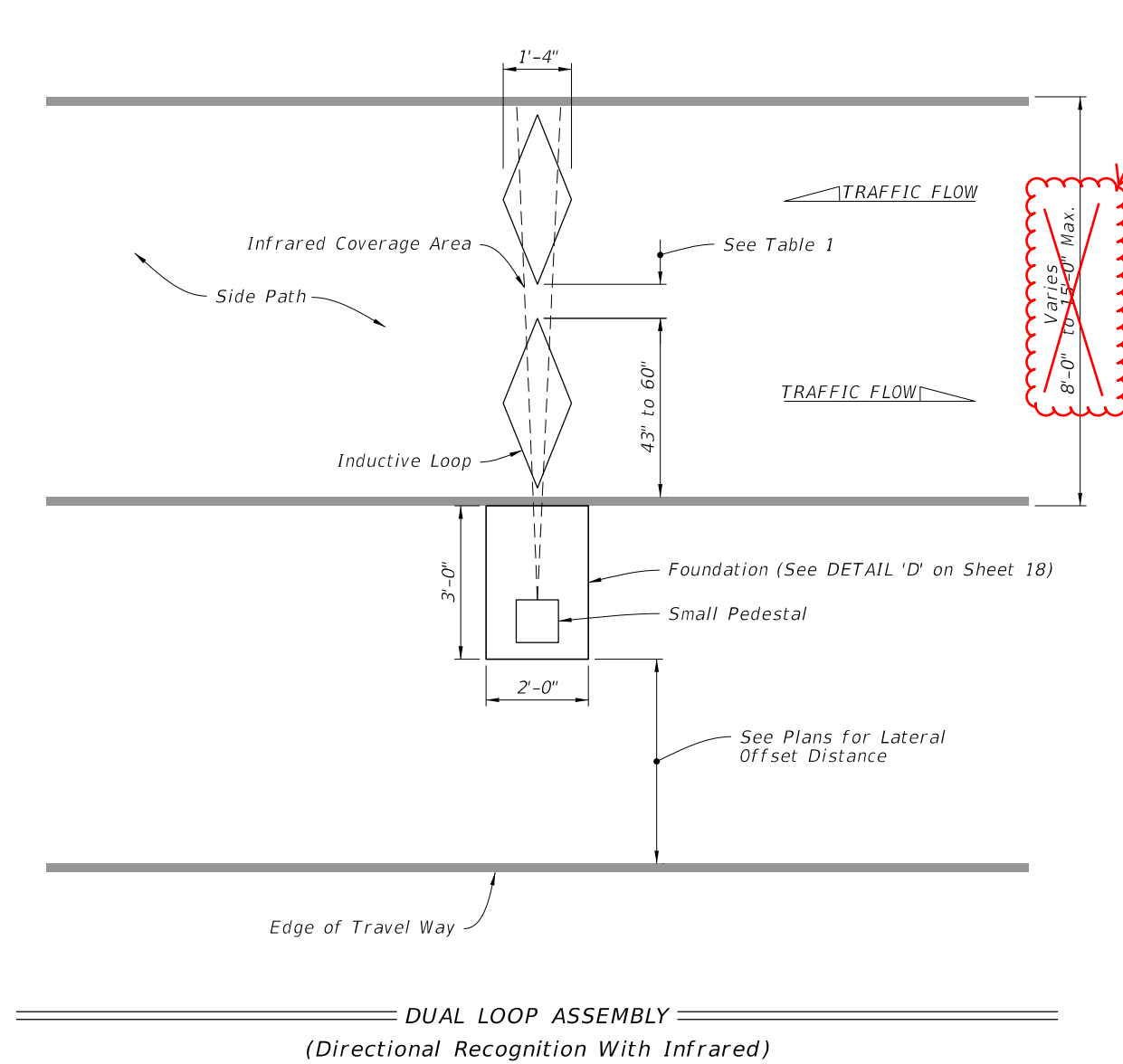


TABLE 1

Loop Length	Distance
Greater than 59"	Contact Manufacturer to evaluate the feasibility
59"	3.00"
55"	4.00"
51"	4.75"
47"	5.50"
43"	6.25"
Less than 43"	Contact Manufacturer to evaluate the feasibility

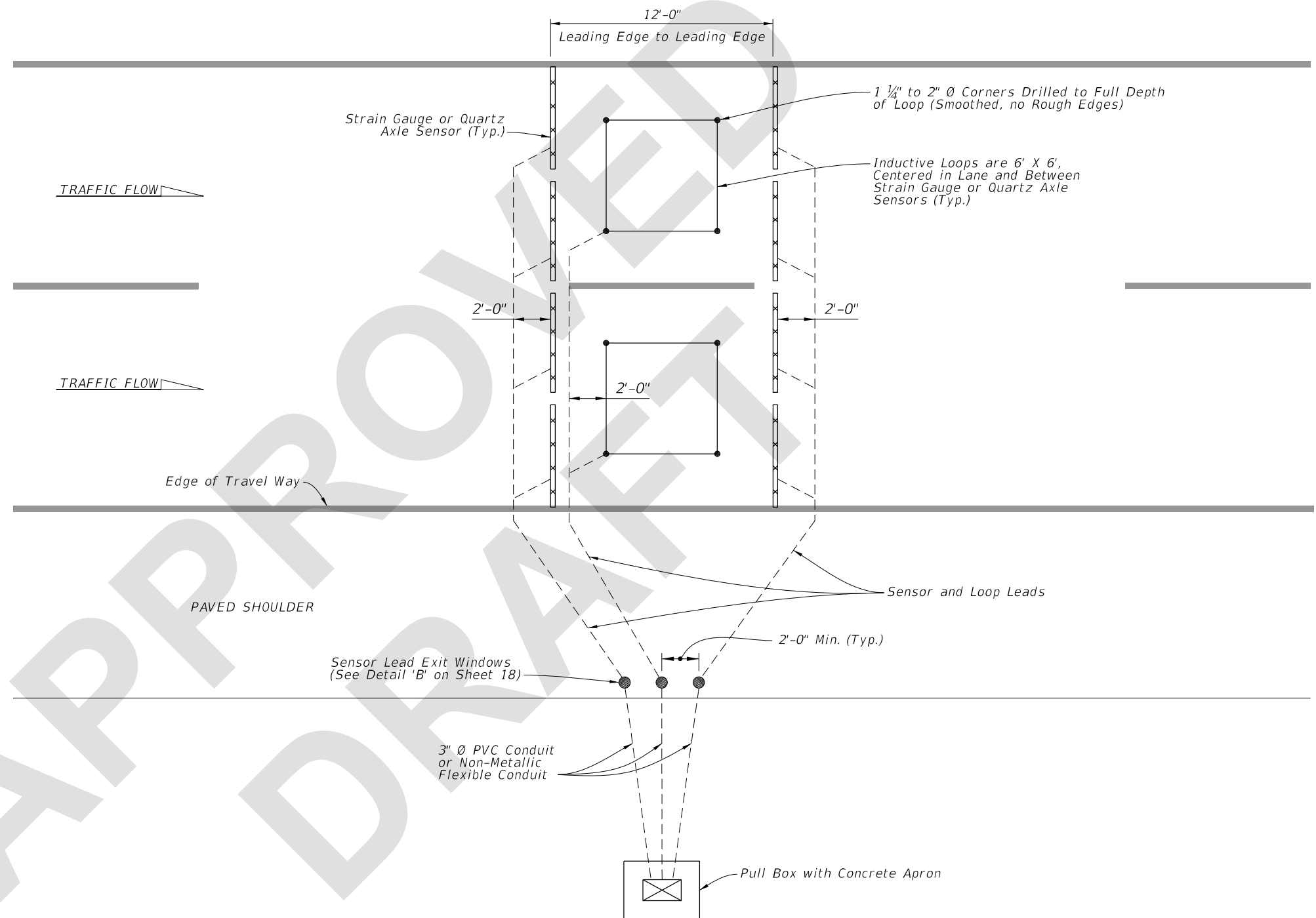
LARGE SHARED USE PATH CONFIGURATIONS

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LAST REVISION	REVISION	DESCRIPTION:
11/01/23		
		11/01/24

NOTES:


1. Install axle sensors and loops associated with axle sensors after placement of the friction course.
2. Cut a 3½" 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. Place four turns of #14 AWG 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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5. See Index 635-001 for pull box and concrete apron details.
6. 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 ½" from the chalk line. Install the sensor according to manufacturer's recommendations.
7. 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.
8. Install Exit Windows at least 2' apart.

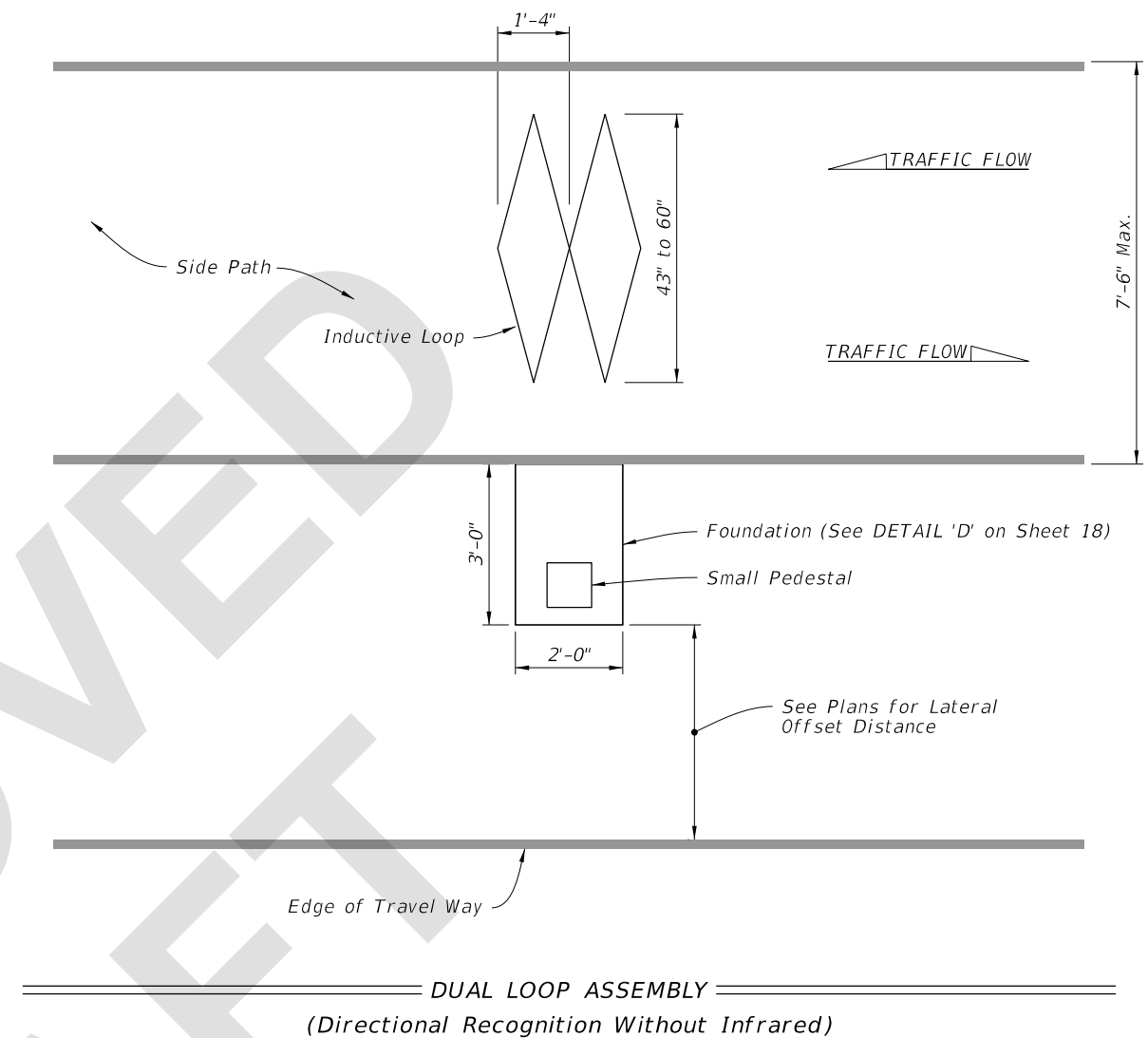
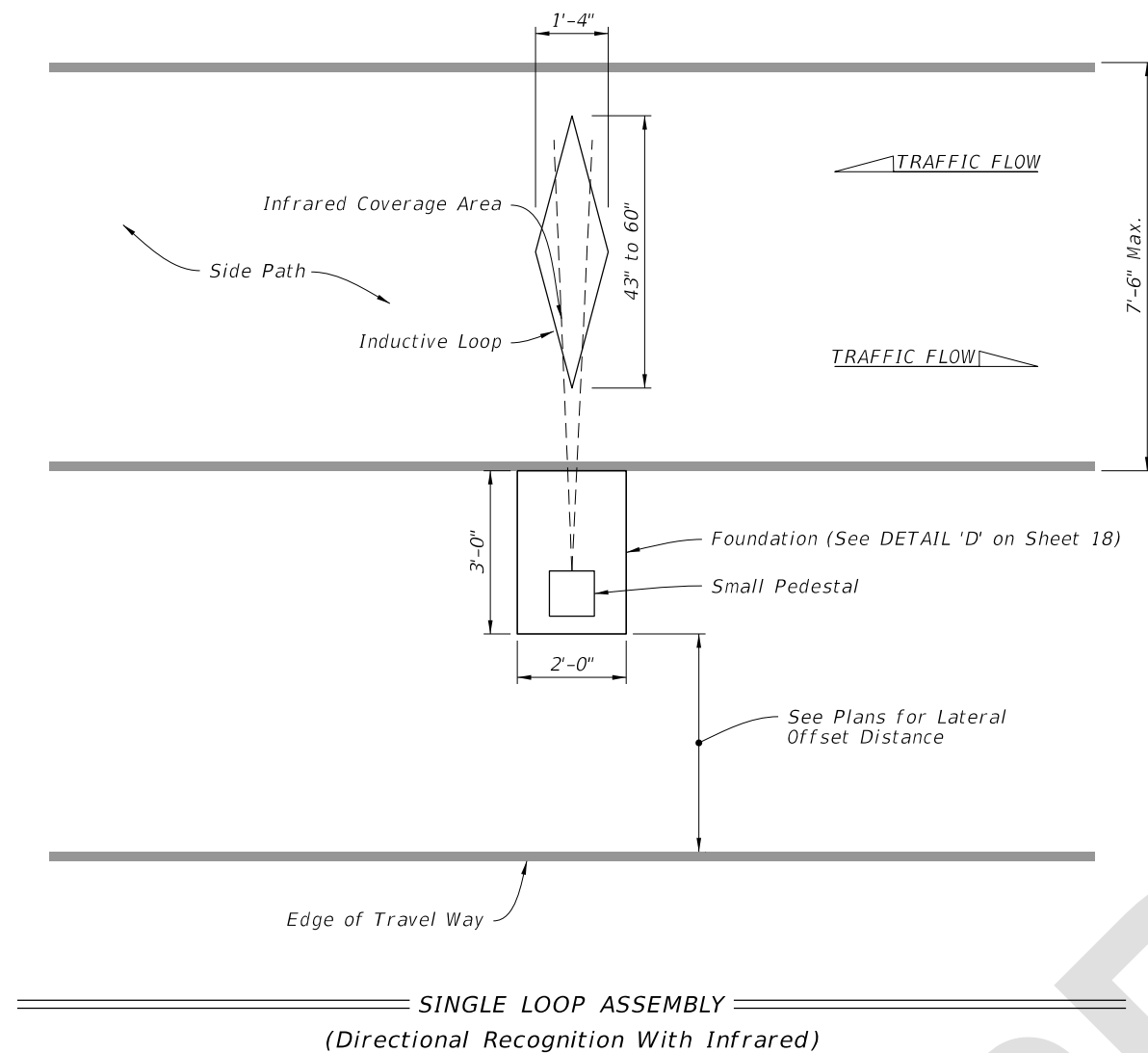


LANE LAYOUT FOR TTMS/CCS INDUCTIVE LOOP AND WEIGH-IN-MOTION SENSORS

WEIGH-IN-MOTION MONITORING SITE

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LAST REVISION 11/01/24	REVISION	DESCRIPTION:	 FY 2025-26 STANDARD PLANS	TRAFFIC MONITORING SITE	INDEX 695-001	SHEET 11 of 20
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NON-MOTORIZED MONITORING SITE NOTES:

1. 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 at full width in a single pass. Cutting two slots and chipping out roadway material between them is not allowed.
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11. If crossing pavement joints see DETAIL "F" on Sheet 18.

NARROW SIDE PATH CONFIGURATIONS

NON-MOTORIZED MONITORING SITE

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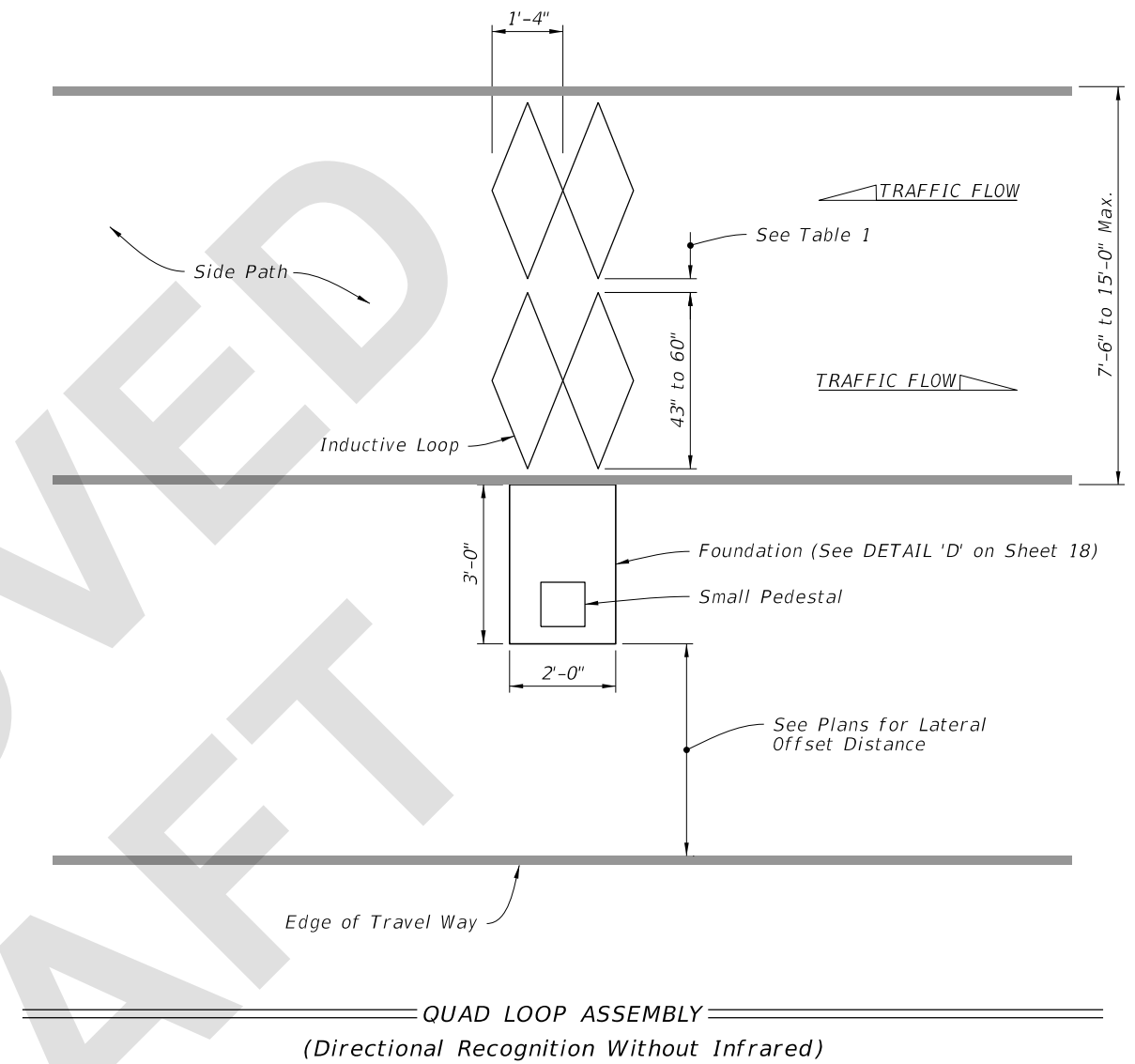
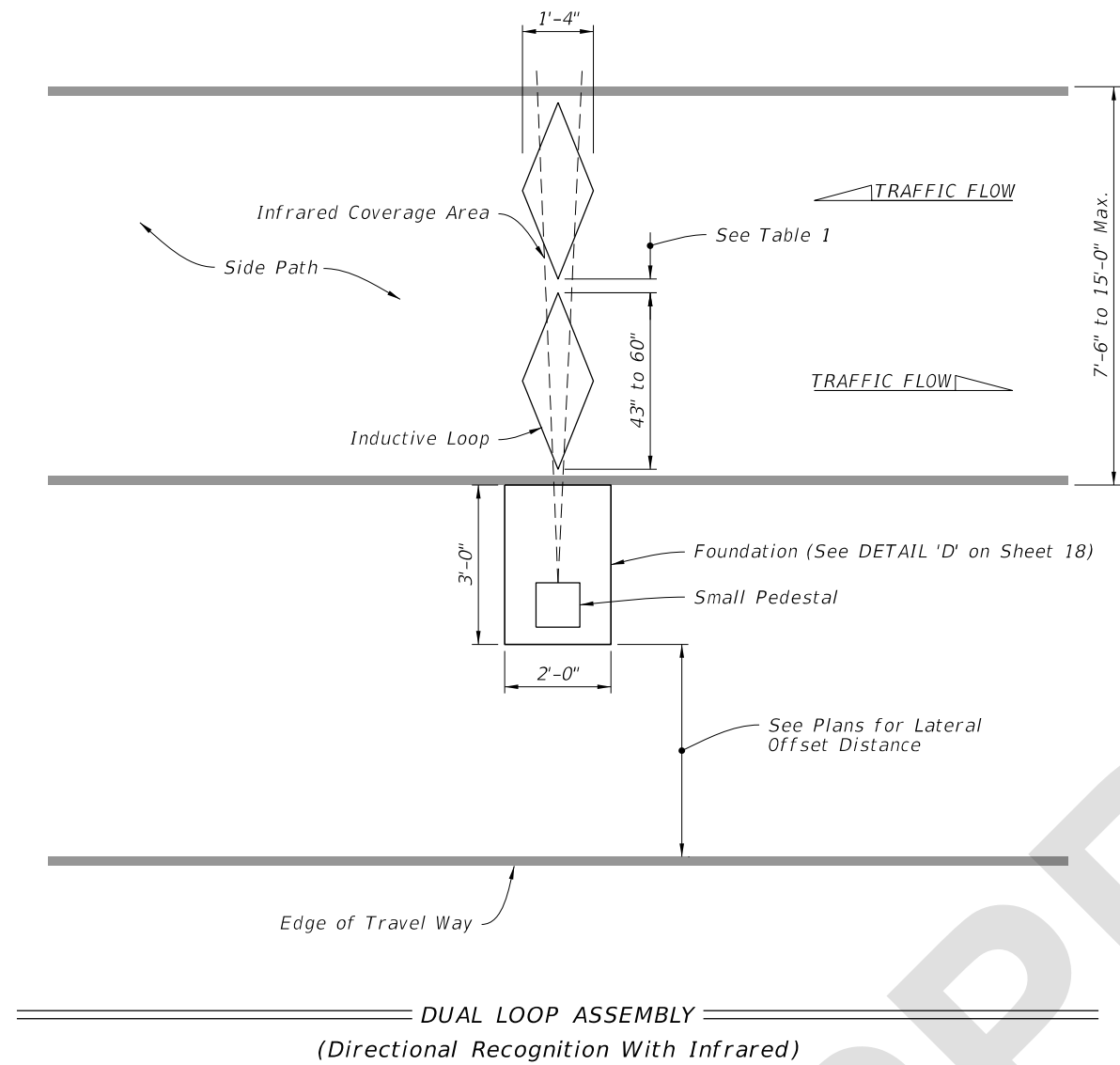


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Less than 43"	Contact Manufacturer to evaluate the feasibility

LARGE SHARED USE PATH CONFIGURATIONS

NON-MOTORIZED MONITORING SITE

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