

**Ohio Department of Transportation  
Office of Traffic Engineering  
April 20, 2007**

**To Holders of the OTE Plan Insert Sheets (PISs):**

**As of April 20, 2007 four new or revised OTE Plan Insert Sheets (PISs) have been issued.**

The updated publications and the separate PIS revision package are available from the links below, the ODOT Design Reference Resource Center (<http://www.dot.state.oh.us/drrc/>), or from the Office of Traffic Engineering's Home Page (<http://www.dot.state.oh.us/traffic/>), using the Publications/Documents link. The revision package includes a detailed Revision Log.

**Per ODOT policy, paper copies of the publications are no longer distributed to all holders. Revisions will only be available via the web pages noted above.**

For questions, comments, or concerns please contact either:

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OTE PIS sheets	What's New Page	Traffic Home Page
April 20, 2007 Revision Package for the PISs, includes Revision Log		

## OTE Plan Insert Sheet Revision Log April 20, 2007 Revision

The following is a detailed list of the changes made to the OTE Plan Insert Sheets (PIS) as of April 20, 2007. For your convenience in using the electronic version of this list, links (blue, bold and underlined) have been provided in the following menu.

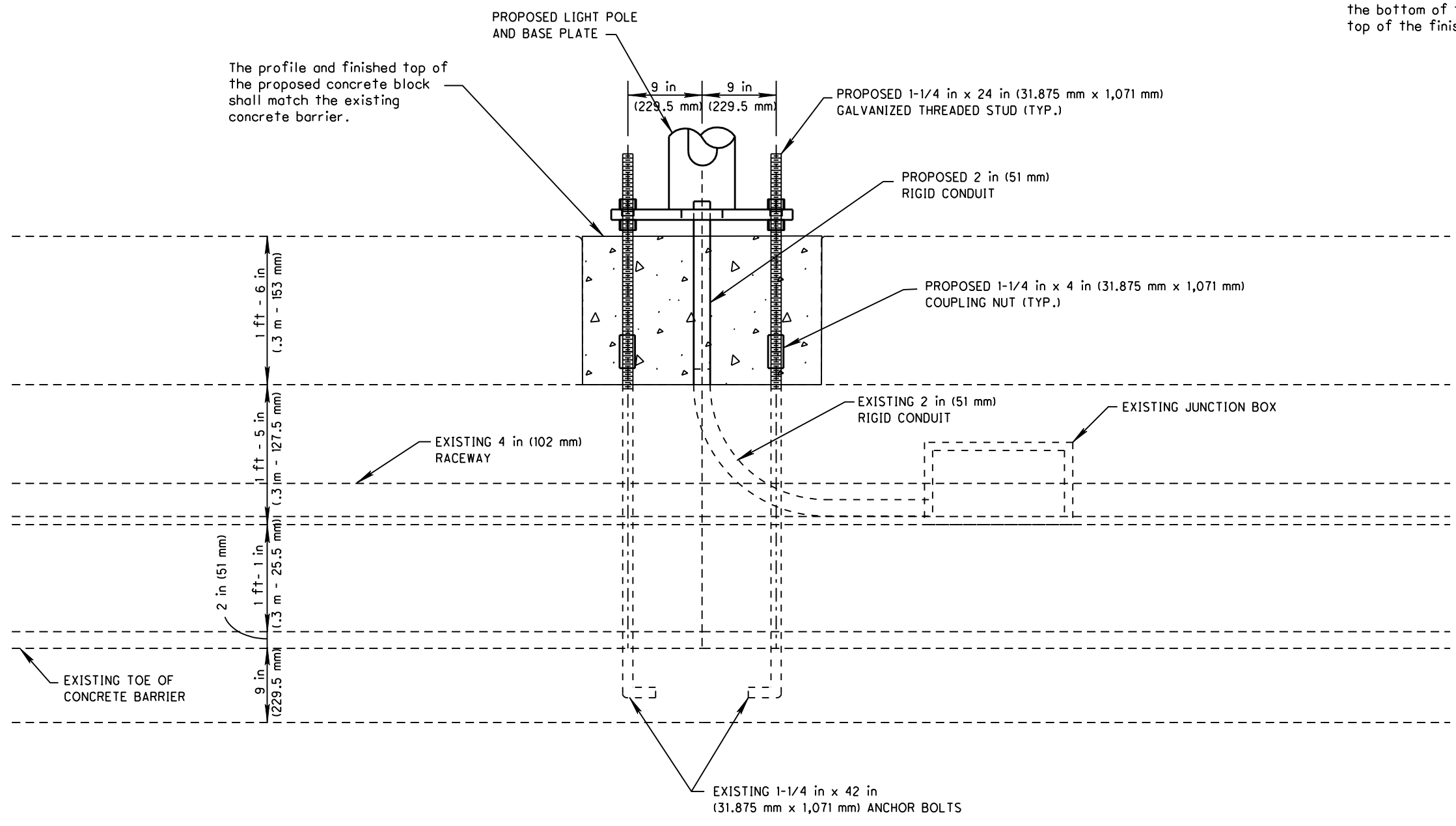
"What's New" Page	Traffic Home Page
<a href="#">PIS drawings</a>	

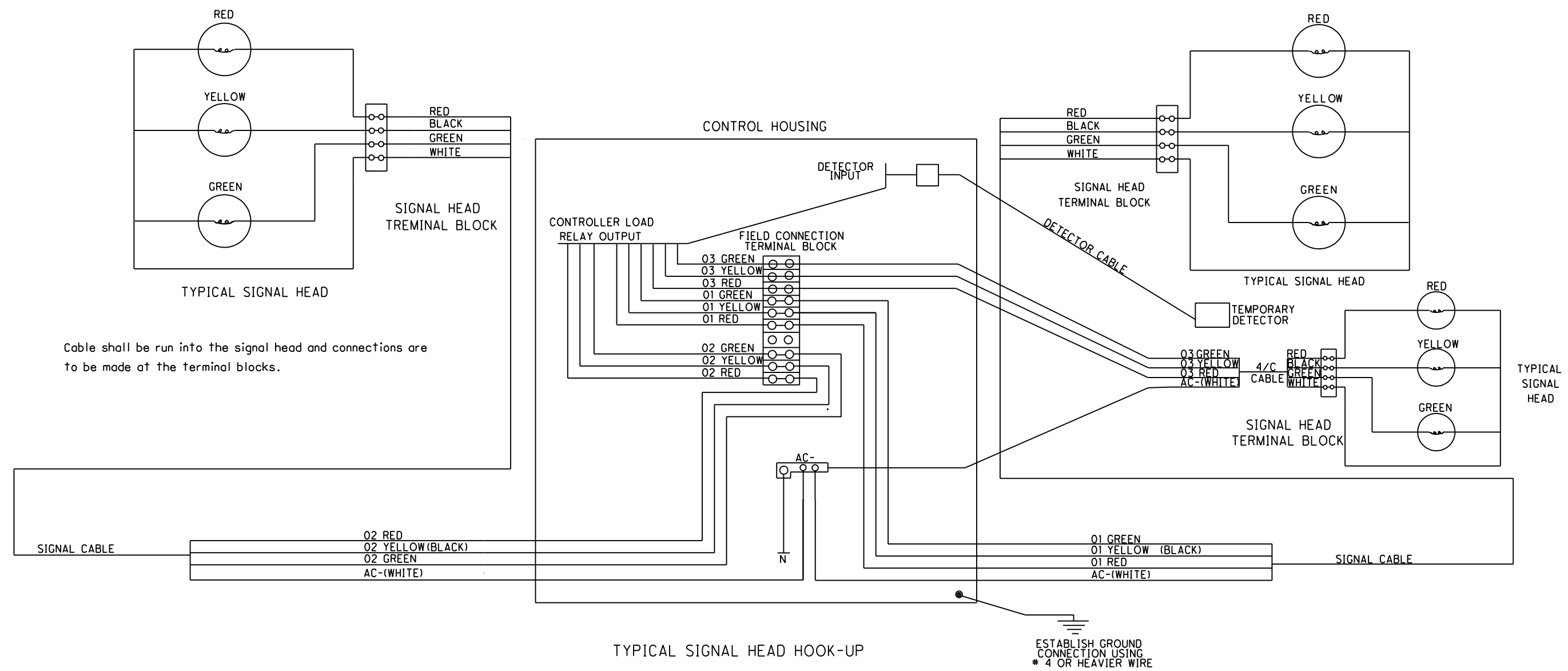
Revision Involves:		Revision Type *	Revision Description
Drawing Number	Title		
<p><b>*Change</b> - adding new information or revising existing information, more than an editorial change; <b>New</b> - adding a new drawing; <b>Deletion</b> - deleting a drawing; <b>Editorial</b> - revising text to provide clarification, updating references, correcting a typing or drawing mistake, simple editorial changes such as rephrasing a statement or making a format change.</p>			
<p><b>Plan Insert Sheets</b>     <a href="#">[top of page]</a> .</p>			
201015 New	Detail Plan Sheet Extension of Anchor Bolts	Change	New Drawing
209633	Pre-Timed Wiring Diagram-Signalized Closing 1 Lane of a 2 Lane Highway (3 Phase)	Editorial	Correction made to correct minor editorial errors.
209634	Actuated-Wiring Diagram for Signalized Closing 1 Lane of a 2 Lane Highway (3 Phase)	Editorial	Correction made to correct minor editorial errors.
2010180 New	Longitudinal Channelizer Detail	Change	New Drawing

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NOTES:

1. Run new 5000 volt distribution cable (AWG to match existing) from the existing junction box to the pole and bracket cable.
2. Use splice kits to make connections in the junction box, and type II and type III connector kits to make connections in the pole.
3. Maintain a 2-inch clearance between the bottom of the base plate and the top of the finished concrete.





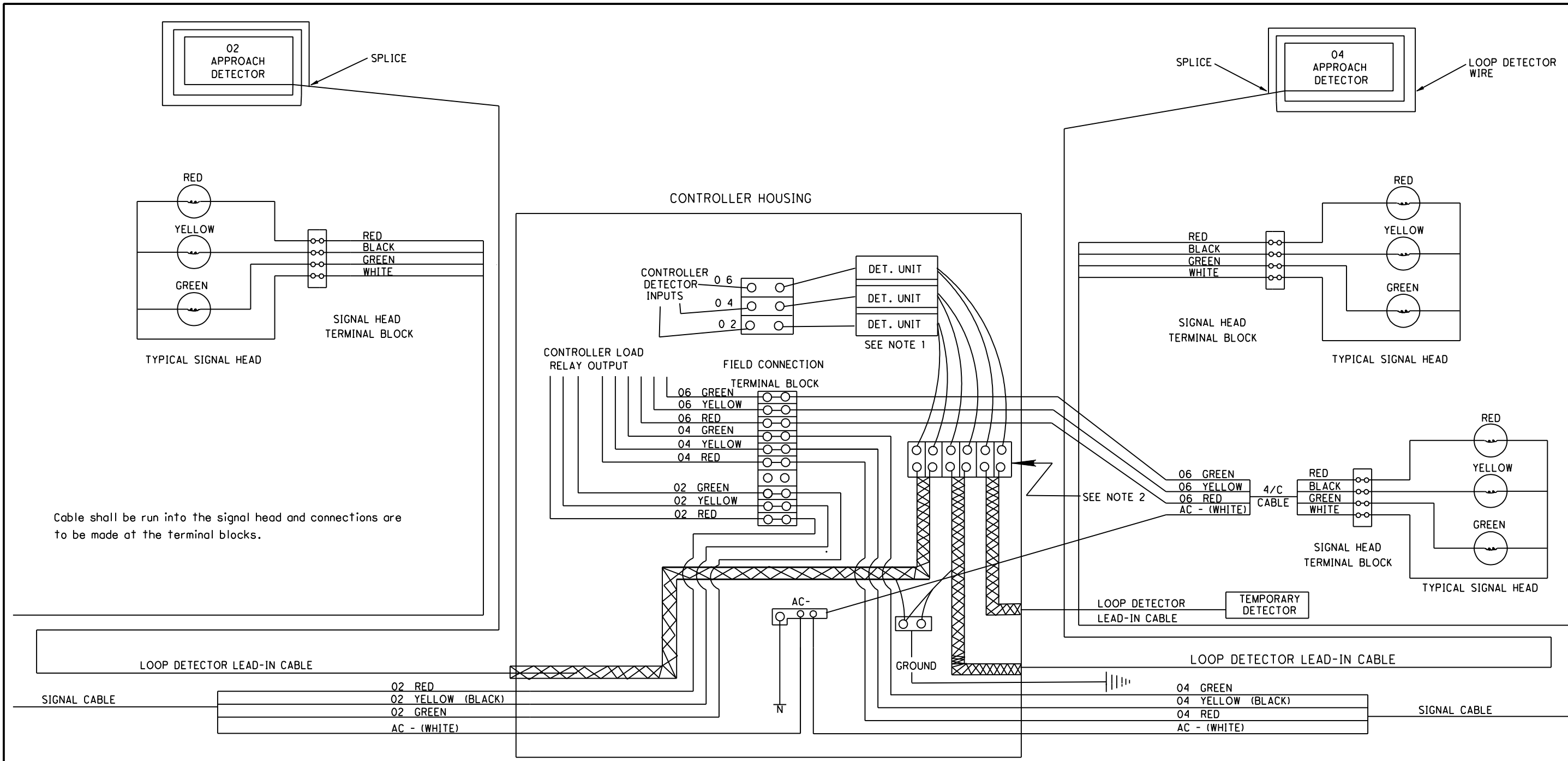
**GENERAL NOTES:**

1. Lightning protection, as required in 733.04, shall be provided for solid state electronic controllers and detectors.
2. Signal cable shall be 5/c No. 14 AWG as specified in 732.19. All electrical connections are to be made at terminal blocks using lock fork terminals. Splices in signal cable should be avoided, but if necessary splice kits shall be used. All connections at splice points shall be soldered.
3. Signal timing settings shall be as shown in the plans or provided to the Contractor by the Engineer prior to implementation of signal control. The Contractor shall periodically monitor the signal operation to determine failure or inefficient operation.

All equipment failures, including timing mechanisms and detectors shall be reported to the Engineer and fully repaired by the Contractor as soon as possible, but in no case longer than 8 hours following notification of the

Contractor by the Engineer. All failures resulting in unsafe operations of the signal (i.e., signal or lamp failure, short-timing of yellow or all red intervals, mis-aimed signals, conflicting displays) shall result in the Contractor using flaggers with 2-way radios to control traffic through the work area until the signal is fully repaired. Failures shall include situations caused by traffic accidents, acts of God or any other cause whether under the control of the Contractor or not.

If the Engineer determines that the signal operation, although in accordance with the plans and previous orders, is not providing acceptable safe and efficient movement of traffic, the Engineer shall order that appropriate changes such as timing alterations, signal or detector relocations, etc. be made to remedy the situation, at no additional cost to the State. Timing changes and signal relocations shall be implemented within 4 hours, detector relocations and changes within 24 hours. Failure to make required changes within these time limits shall result in the assessment of liquidated damages of \$100.00 per calendar day until the changes are completed.



Cable shall be run into the signal head and connections are to be made at the terminal blocks.

**GENERAL NOTES:**

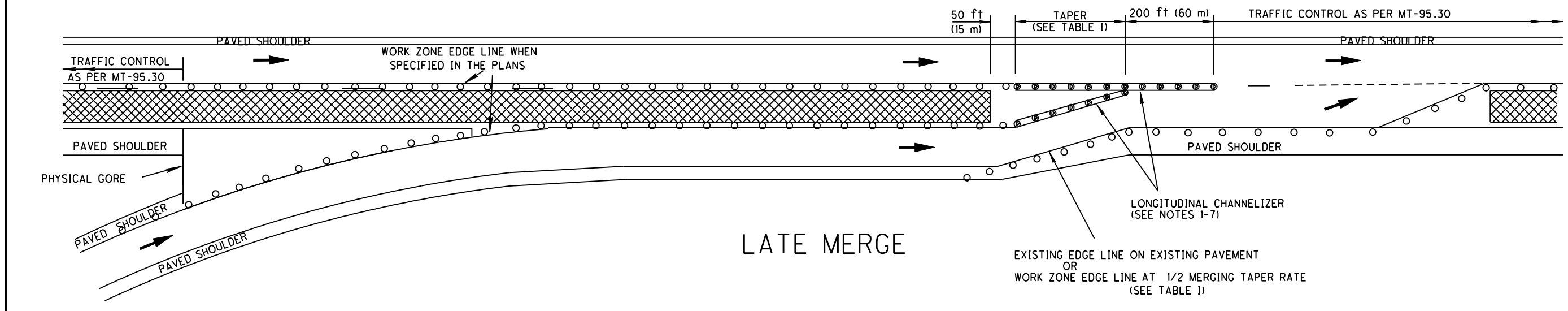
1. Detection may be loop, magnetometer, sonic or infra-red but shall be chosen, installed and operated to provide dependable accurate detection on each approach without false calls resulting from other traffic. Cabling shown is for loop detectors. However, suitable cable types, as recommended by the manufacturers shall be used for other detectors.
2. Lightning protection, as required in 733.04 shall be provided for solid state electronic controllers and detectors.
3. Signal cable shall be 5/c No. 14 AWG as specified in 732.19. All electrical connections are to be made at terminal blocks using lock fork terminals. Splices in signal cable should be avoided, but if necessary splice kits shall be used. All connections at splice points shall be soldered.
4. Signal timing settings shall be as shown in the plans or provided to the Contractor by the Engineer prior to implementation of signal control. The Contractor shall periodically monitor the signal operation to determine failure or inefficient operation.

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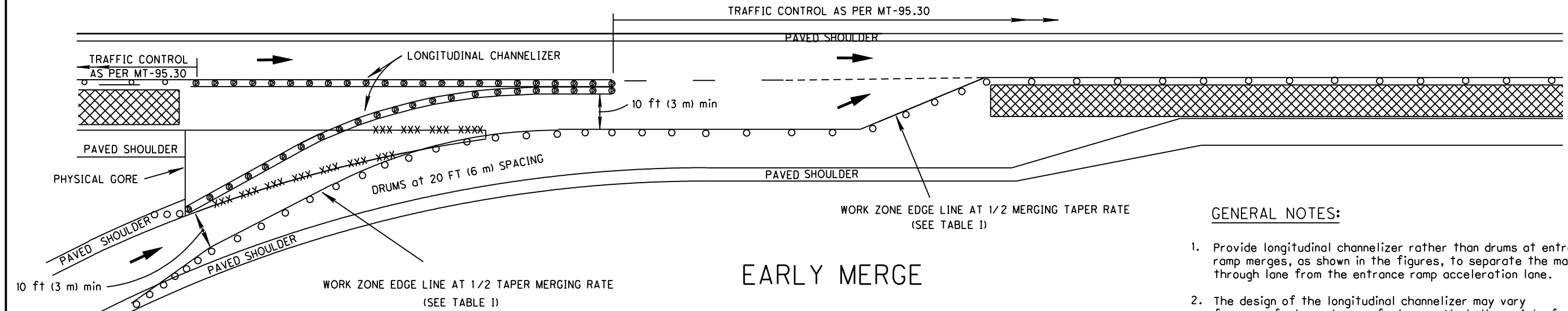
**TYPICAL SIGNAL HEAD HOOK-UP**

Contractor by the Engineer. All failures resulting in unsafe operations of the signal (i.e., signal or lamp failure, short-timing of yellow or all red intervals, mis-aimed signals, conflicting displays) shall result in the Contractor using flaggers with 2-way radios to control traffic through the work area until the signal is fully repaired. Failures shall include situations caused by traffic accidents, acts of God or any other cause whether under the control of the Contractor or not.

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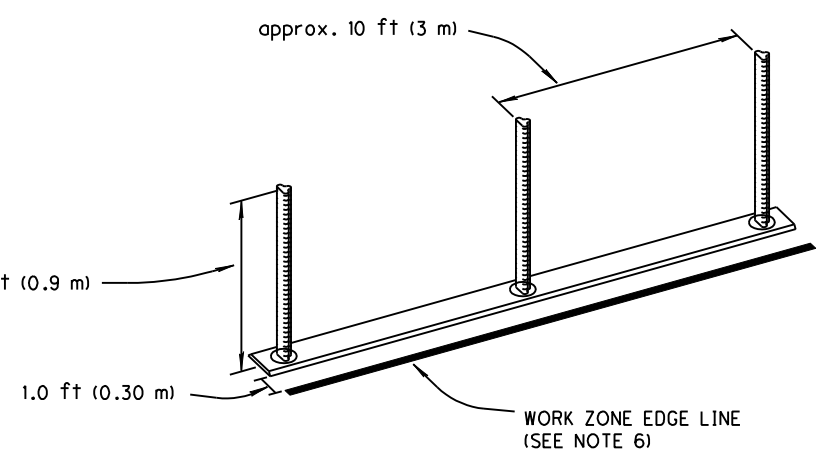
### LATE MERGE



### EARLY MERGE

#### GENERAL NOTES:

1. Provide longitudinal channelizer rather than drums at entrance ramp merges, as shown in the figures, to separate the mainline through lane from the entrance ramp acceleration lane.
2. The design of the longitudinal channelizer may vary from manufacturer to manufacturer. It shall consist of a verticle tubular component and a base component. The shape of the tubular component may vary from manufacturer to manufacturer. The width shall be a minimum of 3 inches (75 mm) on the side facing traffic. The height of the vertical component should be approximately 36 inches (0.9 m) but shall not be less than 28 inches (700 mm).
3. The longitudinal channelizer shall be NCHRP 350 compliant.
4. The tubular component shall be equipped with retro-reflective stripes. The stripes shall consist of two 3 inch wide white bands placed a maximum of 2 inches from the top with a maximum of 6 inches between the bands.
5. The base component shall be equiped with reflectors.
6. Where edge line is provided adjacent to the longitudinal channelizer, the edge line should be located 1 foot ( 0.30 m) from the longitudinal channelizer. The edge line should be provided if the resulting lane width would be 11 feet (3.3 m) or greater.
7. The color of the base component, including the attached reflectors, shall be in conformance with the pavement marking colors established in the OMUTCD.
8. For other information regarding traffic control at entrance ramps, see Standard Construction Drawings MT-98.15 and MT-98.16.



**TABLE I**

SPEED LIMIT (MPH)	MERGING TAPER RATE MINIMUM	1/2 MERGING TAPER RATE MINIMUM	SHOULDER TAPER RATE MINIMUM
25	11:1	6:1	4:1
30	15:1	8:1	5:1
35	21:1	11:1	7:1
40	27:1	14:1	9:1
45	45:1	23:1	15:1
50	50:1	25:1	17:1
55	55:1	28:1	18:1
60	60:1	30:1	20:1
65	65:1	33:1	22:1

#### LEGEND

WORK AREA	
DRUMS	
LONGITUDINAL CHANNELIZER	
REMOVE EXISTING MARKINGS	
DIRECTION OF TRAVEL	