Managed Motorways

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THE CHARTERED
INSTITUTION OF HIGHWAYS
& TRANSPORTATION

Julian Road, Bath

3 years before

- 1 fatal crash
- 8 serious injury crashes
- numerous slight injuries

3 years after

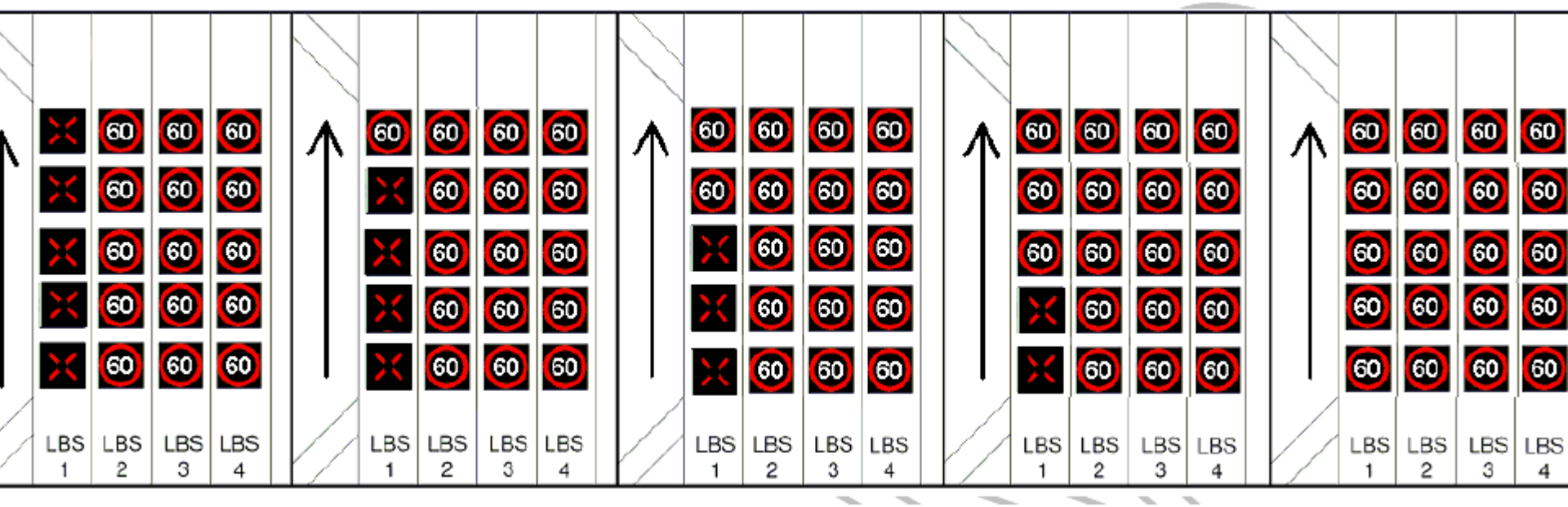
- 0 fatal crashes
- 0 serious injuries
- 0 slight injuries

Which is which?

50
50
50

50
50
50

Use
hard shoulder
for M40
only
60
60
60
60
SOLIHULL
TRANSPORT
0121-705 7575
WHITE
TOTAL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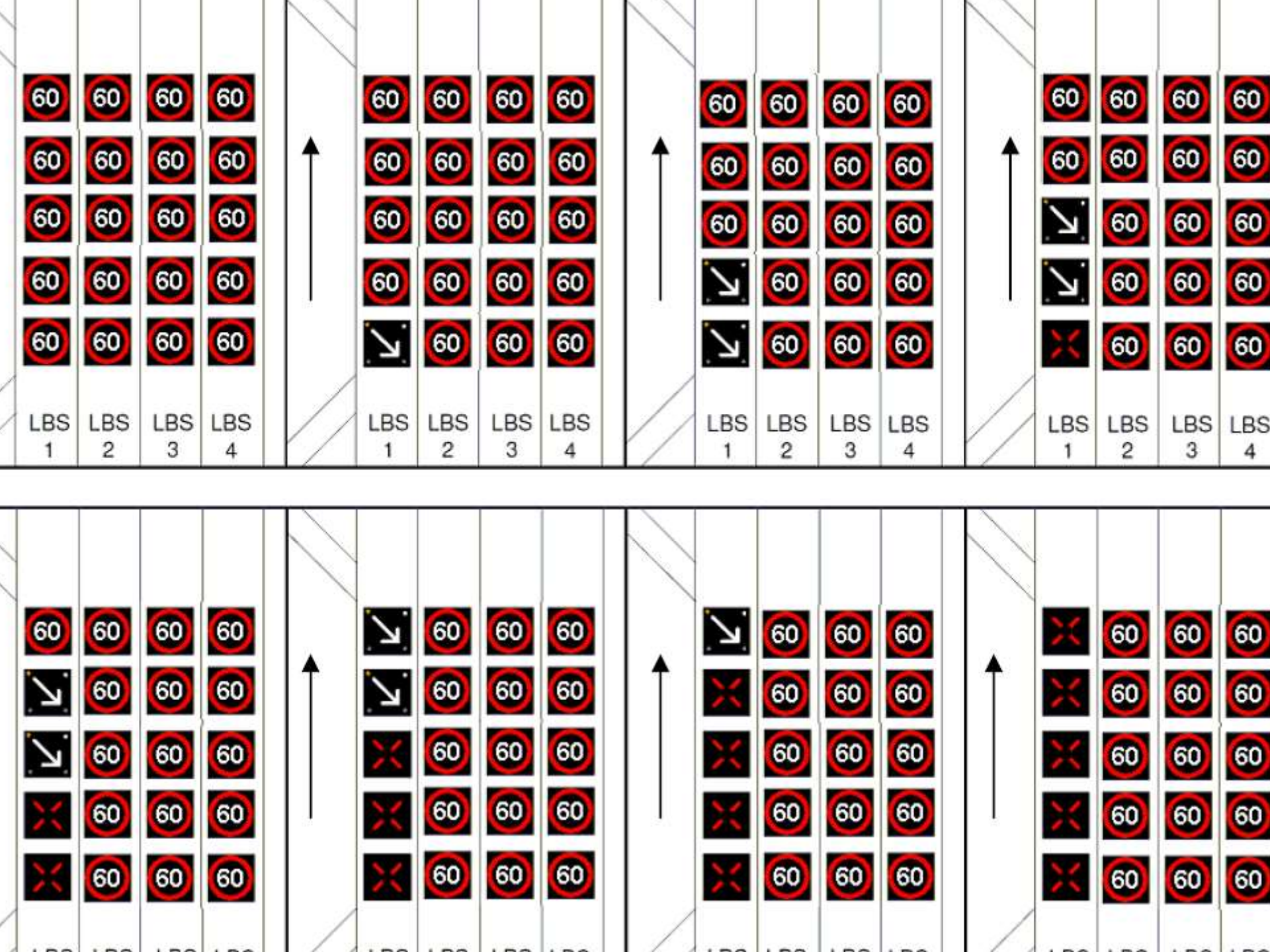
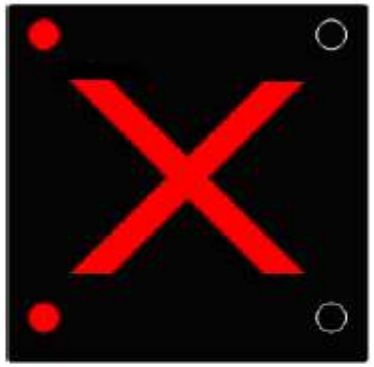
LBS 1
LBS 2
LBS 3
LBS 4


60
LBS 1
LBS 2
LBS 3
LBS 4

Red-Cross (lane control) aspect
TSRGD Diagram 5003.1



Red-Cross (STOP) aspect
TSRGD Diagram 6031.1

(Note: Flashing red lanterns)

Figure 8-4: The two types of Red-Cross aspect used on MM-HSR

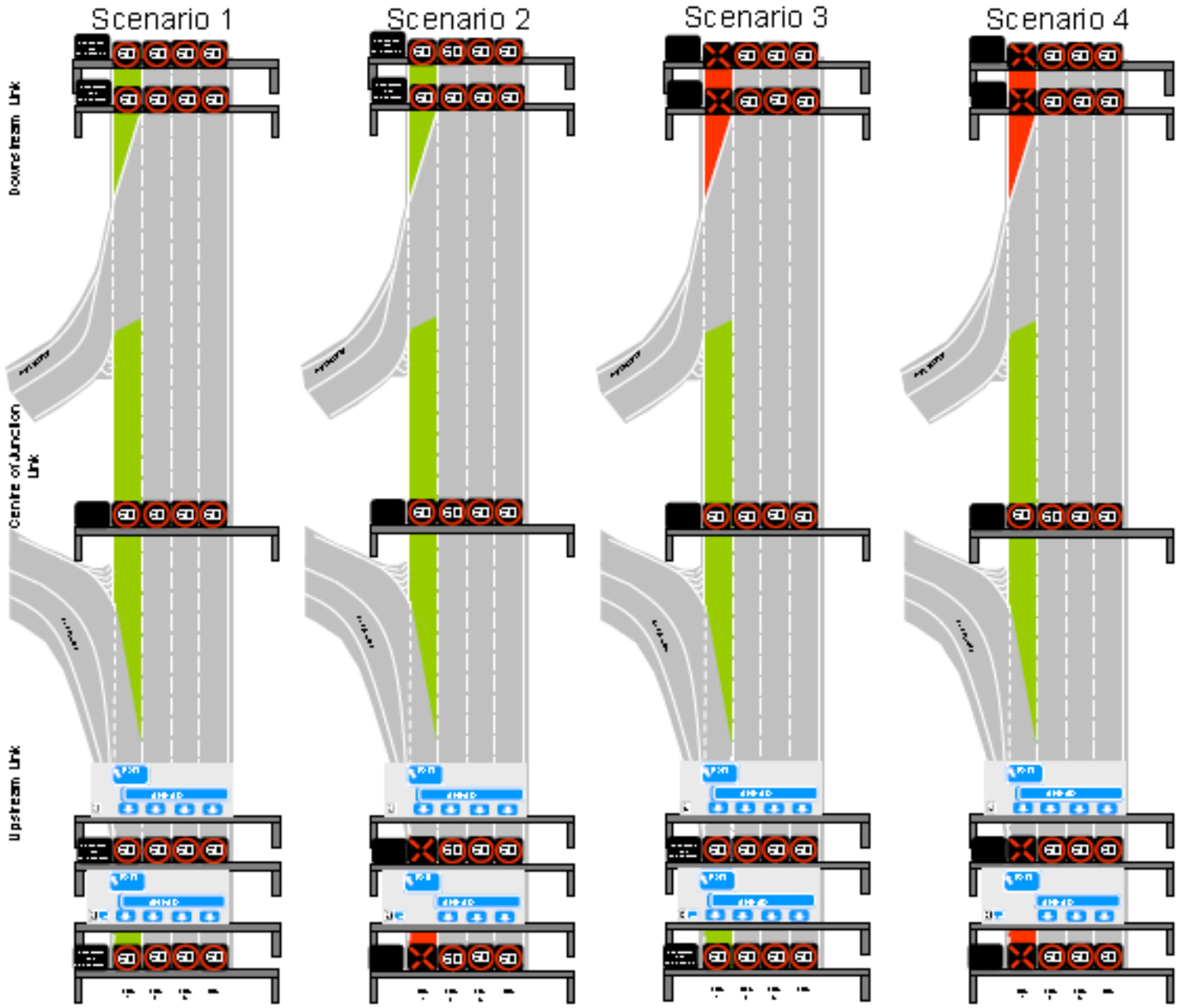
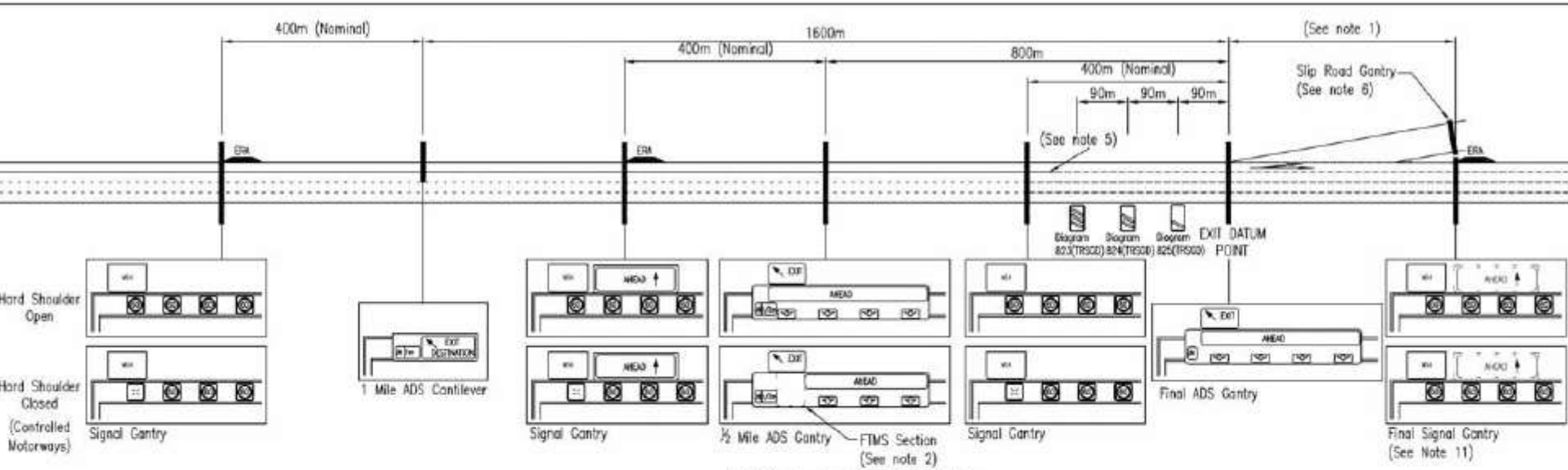
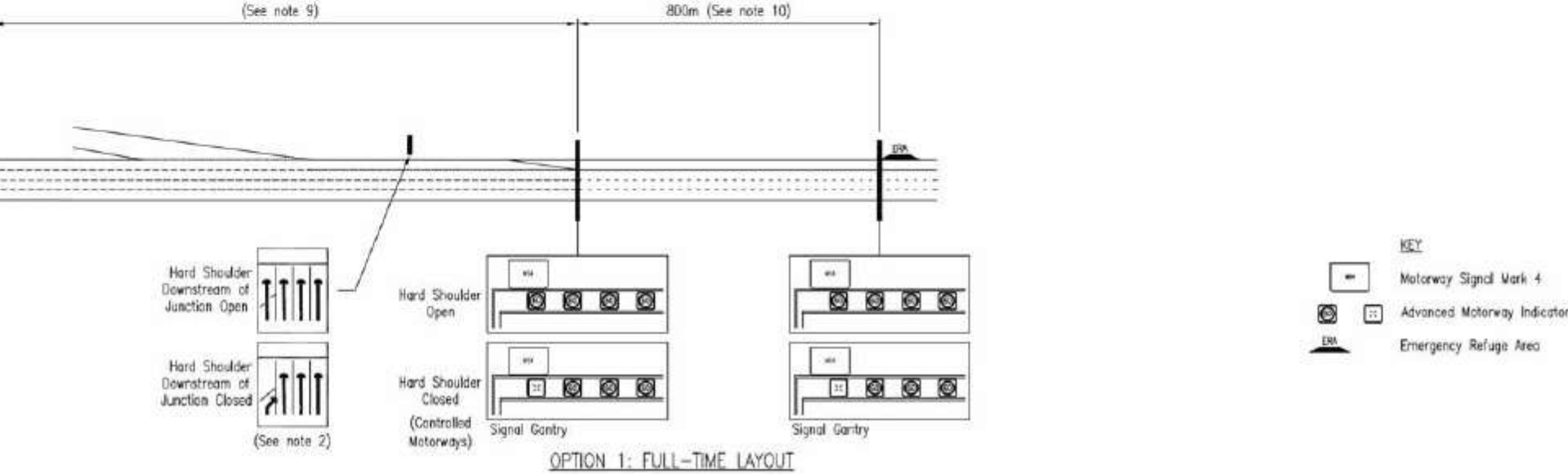


Figure 4.1: Examples of Signal Sequencing Options for Full-time TJR during VMSL



OPTION 1: FULL-TIME LAYOUT



OPTION 1: FULL-TIME LAYOUT

417 6413B

Merging traffic doesn't know if LBS1 open downstream

Platoons of traffic each side of peak

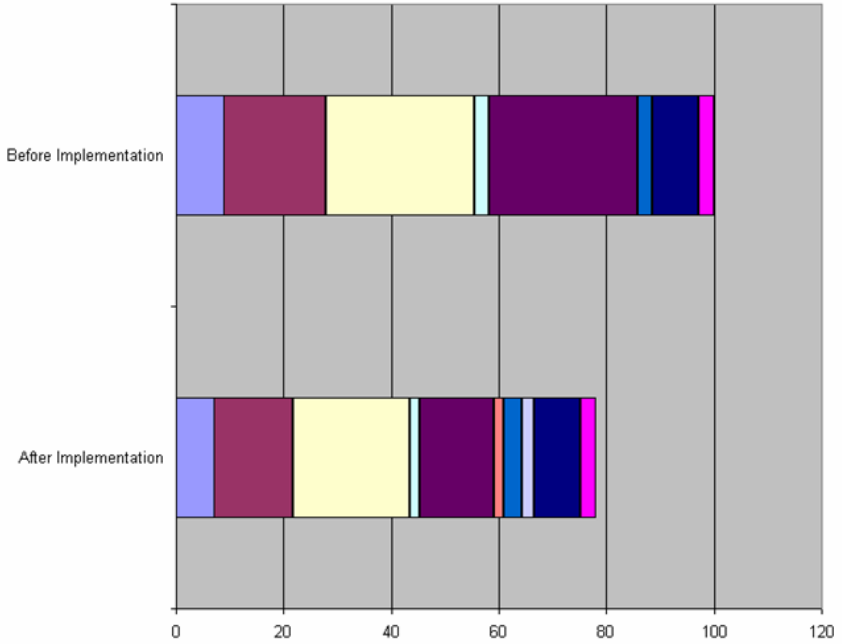
Sudden merge (or not at all)

So…is there a better way?

ALR

- No opening/closing regime
- Consistent 24/7
- Less signing = less capital/revenue cost inc staff
- Less visual intrusion
- Deters discretionary stops
- Potentially hazardous for workers – mitigate by process and control (less technology to maintain)

- Remember '**before**' as well as '**after'**!



Severity	Frequency of collision: more than one per year	one every 1-4 years	one every 5-10 years	less than one per 10 years
Fatal	Very high	High	High	Medium
Serious	High	High	Medium	Medium
Slight	High	Medium	Medium	Low
Damage	Medium	Medium	Low	Low

Net Risk

- More slight injuries vs fewer serious?
- More pedestrian injuries vs fewer vehicle users

Remember to consider '**before**' as well as '**after**'!

Consider the consequences of the staged implementation on drivers' perceptions – especially how they perceive other links.

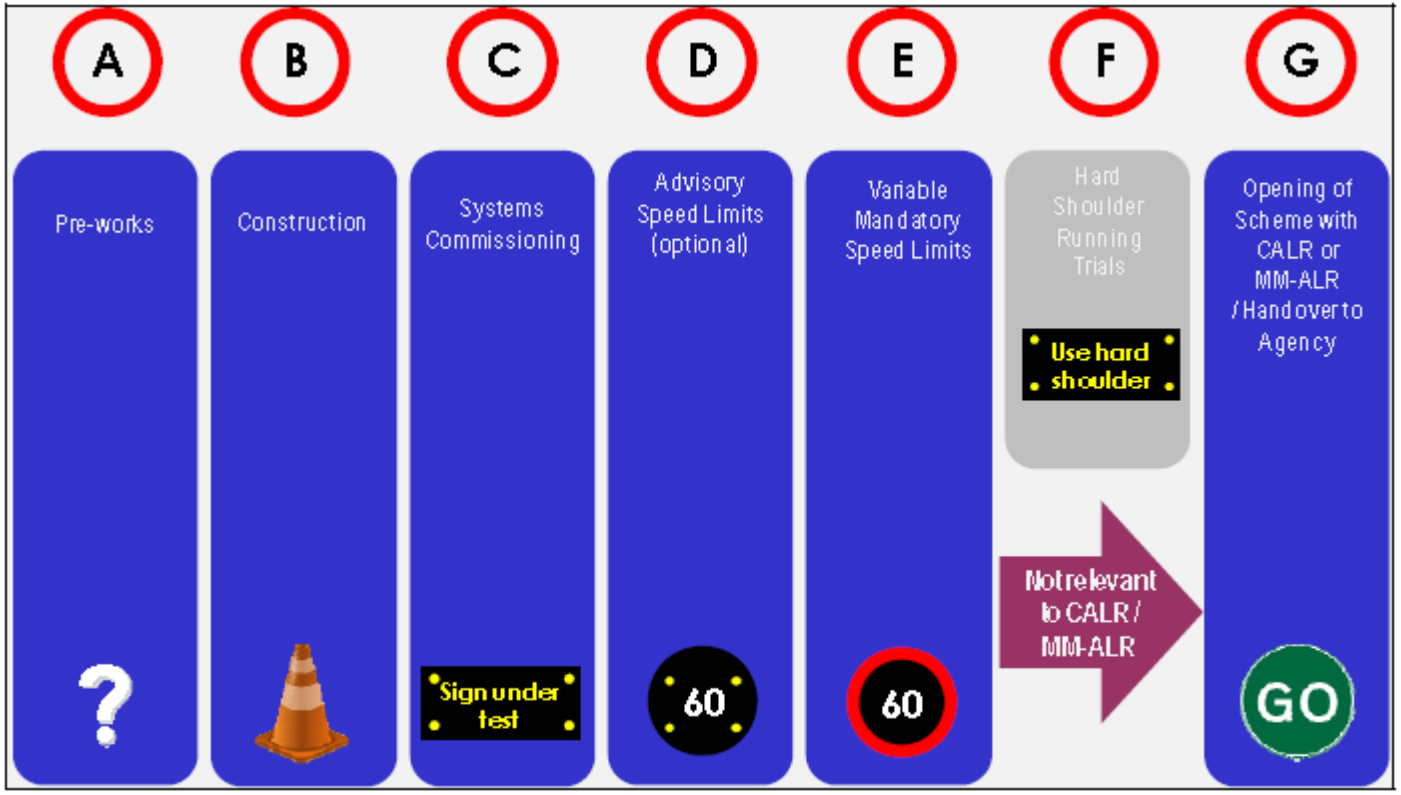
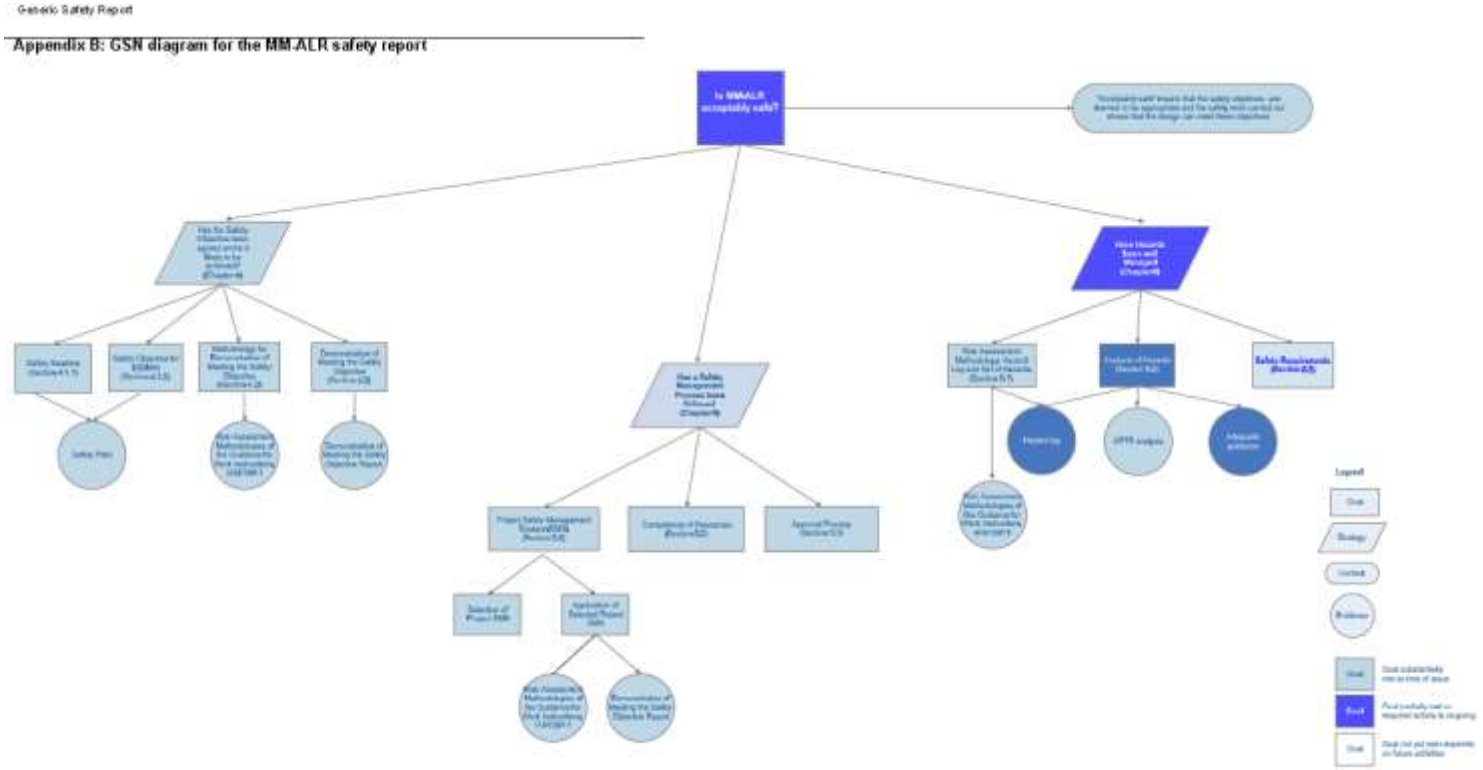


Figure 9 – Lifecycle of the CALR or MM-ALR Scheme

Possible future developments: MM3?

- Route consistency
- Safety driven
- Self-explaining



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