Safe Roads : Improving the junction to remove congestion on the existing network

Reliable Journeys : Works will be undertaken using appropriate forms of traffic management to minimise disruption to our customers

Informed Travellers : Advance notices to be erected on site 3 weeks prior to start, advising restrictions and work content

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POLES
- 6.0m Straight Passive Pole
- 4.0m Straight Passive Pole

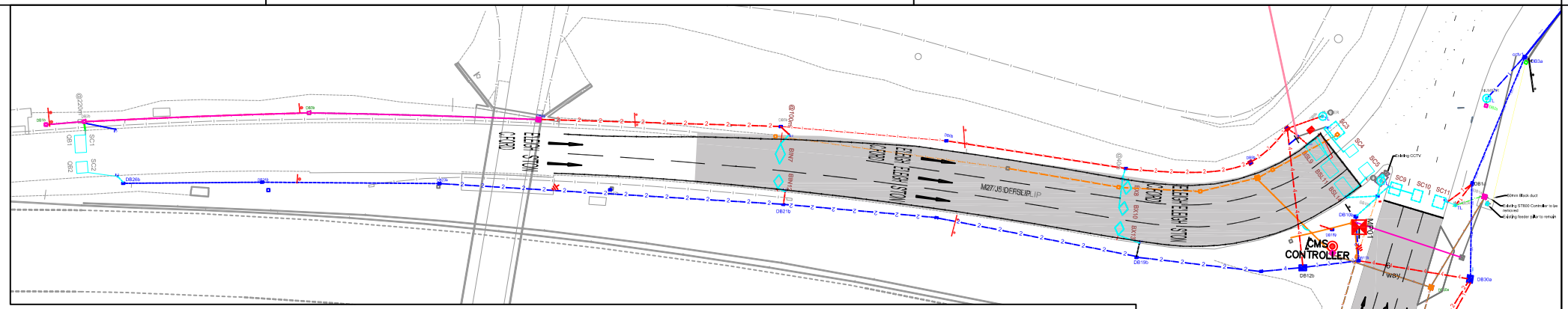
VEHICLE SIGNAL HEADS
- Primary ELV CLS RAG LED Signal Head with High Level Repeater -Type 1
- Primary ELV CLS RAG LED Signal Head -Type 1
- Secondary ELV CLS RAG LED Signal Head-Type 1
- Cut away Hoods

SIGNAL EQUIPMENT & VEHICLE DETECTION
- Proposed Photo-Electric Cell
- Queue Loops (Q)
- SCOOT Loops (SC) and Presence Loops (SL)
- Proposed MOVA Loops (IN & X)

CIVILS
- 1x50mm Black Duct
- 1x50mm Under Kerb Duct
- 'n'x100mm Polyethylene Traffic Signal Duct
- Extra Large Duct Box (600x600mm) - Type B
- Large Duct Box (600x450mm) - Type 2
- Medium Duct Box for Pole Connection (495x390mm) - Type 1B
- Medium Duct Box for Loop Connection (495x390mm) - Type 1A
- Pole Retention Socket (NAL RS115)
- Large Pole Retention Socket (NAL RS165)
- Existing Ducting to be utilised
- Existing Ducting to be made redundant
- Existing Duct Boxes to be utilised
- Existing Duct Boxes to be removed

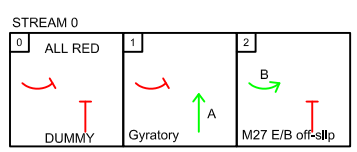
MISCELLANEOUS
- (1) Pole Number
- Existing CCTV to be Utilised
- Grey Coloured Anti-Skid surface
- Hard Standing Area & Maintenance Bay
- Existing Controller to be removed
- Existing Electric Feeder Pillar to Remain (FP)

NOTES
1. Grey coloured antiskid surfacing is to be laid for a distance of 115m from stop line on the M27 off slip and 65m from the gyratory stop line.
2. Existing ducting is to be utilised where possible. All existing duct boxes to be checked for dirt/soil and cleaned if required. New ducting shall be tied in with the existing ducting as shown on the drawing.
3. Refer to 3/527987/DR/500/101-104 ducting drawings for detail information.
4. The Contractor shall ensure that all civil works shall be conducted in accordance with the following HCC standard detail drawings. All these details can be found at : http://www3.hants.gov.uk/engineering-services/developer-information/standard-details/ environment-transport-t-series-details.htm
7. Pole 3 and 4 are 6m tall poles. High level repeater signal heads are to be installed as shown on the drawing.
8. All poles to be installed into a pole retention socket (NALRS115). Tall poles 3 and 4 are to be installed into large pole retention socket (NALRS165).
9. The lowest part of any signal head assembly including brackets to have a minimum clearance above the finished ground level of 2.1m.
10. Cut away hoods to be installed on secondary signal heads on poles 1.
11. All signal poles with primary signal poles shall be installed 2.5m from the associated stop lines.
12. All SCOOT loops shall be connected to the controller.
13. All signal poles to be connected to MEC cabinet.
14. All MOVA loops shall be connected to EC.
15. 1x50mm duct to be used at loop positions where under kerb ducts are used.
16. 1x50mm diameter black duct shall be installed from the existing feeder pillar to new feeder pillar.
17. Existing BT PSTN to be converted to ADSL line and utilised at the new controller HAS008.
18. Existing PTZ CCTV camera to be utilised and installed on pole 3.
19. All loops are shown indicatively on the drawing. They must be placed on site by a suitably trained engineer in accordance with the detection tables. They are to be sited under the instruction of HCC Engineer. All loops to be cut in accordance with MCH1540.
20. SCOOT loops SC1 and SC2 have dual functionality. They are to be utilised as queue loops.
21. Siting of the signal poles and the final equipment posting to be agreed on site.
22. A 2mx2m hard standing area should be provided around the signal poles for ladder support. Hard standing areas around the poles are shown indicatively. Refer to 3/527987/DR/1100 series drawings (maintenance areas and footpaths) for detail information.



Detector Label	Detector Distance from the Associated Stop Line (m)	Phase Demand	Phase Extend	Loop distance from kerb or n/s lane A	Loop distance from kerb or off/s lane B	Detector Type
AIN1	90	-	-	0.4	0.8	MOVA/VA
AX2	40	A	A	0.4	0.8	MOVA/VA
AIN3	90	-	-	0.8	0.8	MOVA/VA
AX4	40	A	A	0.8	0.8	MOVA/VA
AIN5	90	-	-	0.8	0.4	MOVA/VA
AX6	40	A	A	0.8	0.4	MOVA/VA
BIN7	100	-	-	0.4	0.8	MOVA/VA
BX8	40	B	B	0.8	0.4	MOVA/VA
BSL9	1.5	B	B	0.4	0.8	MOVA/VA
BX10	40	B	B	0.8	0.8	MOVA/VA
BSL11	1.5	B	B	0.8	0.8	MOVA/VA
BIN12	100	-	-	0.8	0.4	MOVA/VA
BX13	40	B	B	0.8	0.4	MOVA/VA
BSL14	1.5	B	B	0.8	0.4	MOVA/VA

STREAM 0



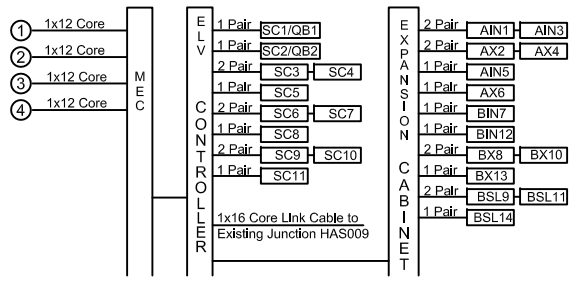
SCOOT DETECTOR SCHEDULE

Detector Label	Detector Distance from the Associated Stop Line (m)	Loop distance from kerb or n/s lane A	Loop distance from kerb or off/s lane B	Detector Type
SC1/QB1	220.00	0.4	1.25	SCOOT
SC2/QB2	220.00	1.25	0.4	SCOOT
SC3	1.50	1.25	0.4	SCOOT
SC4	1.50	1.0	0.4	SCOOT
SC5	1.50	0.4	0.1	SCOOT
SC6	103.00	0.4	1.25	SCOOT
SC7	103.00	1.25	1.25	SCOOT
SC8	103.00	1.25	0.4	SCOOT
SC9	1.50	0.4	1.25	SCOOT
SC10	1.50	1.0	1.0	SCOOT
SC11	1.50	1.25	0.4	SCOOT

SITING OF POLES & EQUIPMENT SCHEDULE (1)

Pole No	Pole Height (m)	Pole Type	Pole Distance from Kerb Face (m)	Primary Signal Head Type	Secondary Signal Head Type	PE Cell	Notes
1	4.0	Straight	1.50	-	2 x Type 1	-	Cut away hoods required
2	4.0	Straight	1.10	1 x Type 1	-	1	-
3	6.0	Straight	1.75	3 x Type 1	-	-	RAG high level repeater & Existing CCTV to be re installed on pole 3
4	6.0	Straight	1.50	2 x Type 1	-	-	RAG high level repeater

CABLE & FEEDER DIAGRAM

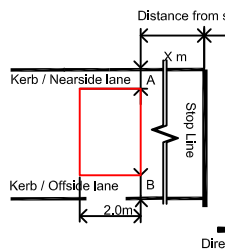


PASSIVE POLE WIND LOAD RESULTS

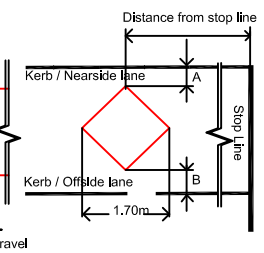
Pole No	Pole Height (m)	Standard Level Aspects	High Level Aspects	SAPA Pole		
				SAPA Pole	Part Number	Unity Factor*
1	4,0	2x3	-	SAPA 114 - 145 - HD	15,040,145,09uk	0.42
2	4,0	1x3	-	SAPA 114 - 145 - HD	15,040,145,09uk	0.30
3	6.0	2x3	1x3 & CCTV	SAPA 165 -145 - 6m	15,060,165,04 6m	0.96
4	6,0	1x3	1x3	SAPA 165 -145 - 6m	15,060,165,04 6m	0.88

NOTES
1. Passive pole rating is based on an assessment carried out by the Design Engineer and the guidance as laid out in BS EN 12767:2007 UK Annex.
2. Please refer to drawing detail for exact traffic signal aspect arrangement in each head (i.e. 3 aspect, 4 aspect, L shape etc).
3. *Poles with a unity factor of less than 1 are adequate.
4. Tunnel hoods are not fitted.
5. Extension brackets are not permitted on passively safe poles.
6. CCTV camera assumed same size as Siecore, mounted at top or middle of a pole.
7. All poles are straight not cranked.
8. All signal poles are to be installed into pole retention socket (NALRS115). Tall poles pole 3 and 4 are to be be installed into large pole retention sockets (NALRS165). Termination enclosure is required for each pole. Configurations as per the the signal drawing.

SCOOT / PRESENCE / QUEUE LOOPS DETAILS

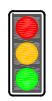


MOVA LOOP DETAIL

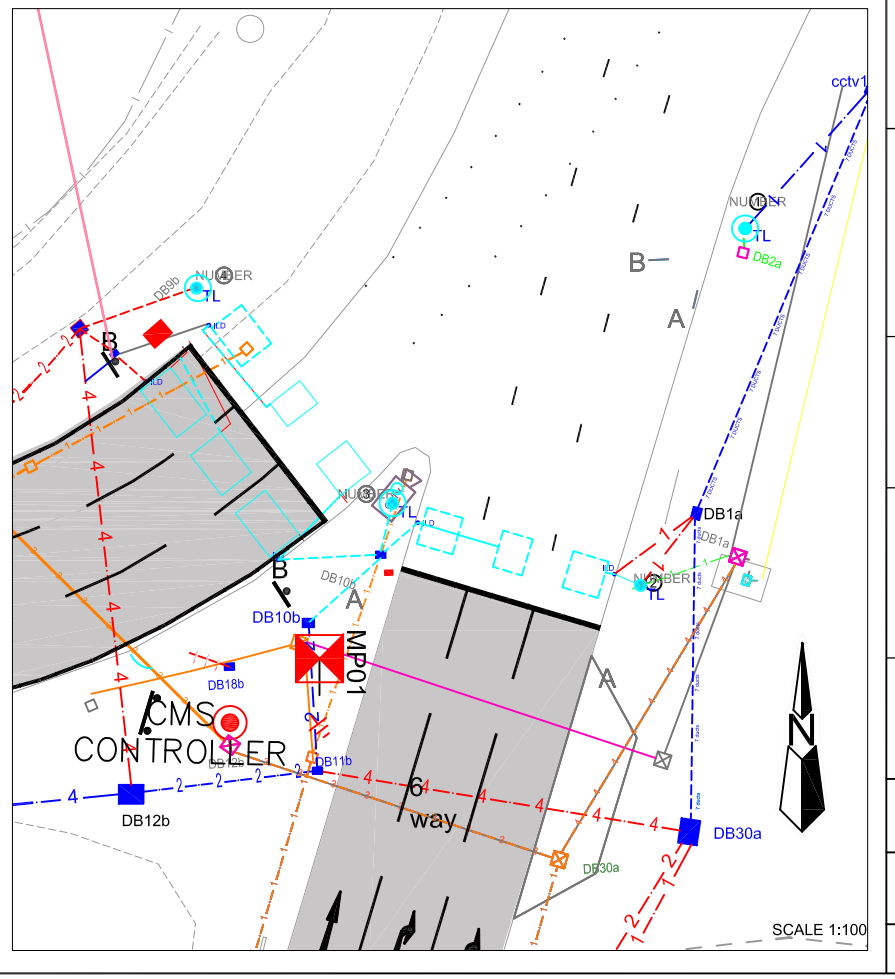


For Presence loop X= 1.5m
For SCOOT/QUEUE loops X= See detection tables

SIGNAL HEAD TYPE SCHEDULE

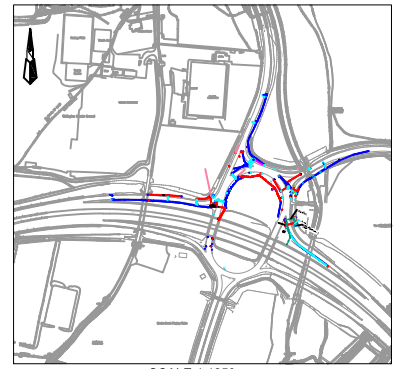


Type 1



NOTES

INTERSERVE CONSTRUCTION AS-BUILT



SCALE 1:1250

REV	DATE	DESCRIPTION	BY	CHKD	APPD
B	04/14	Issued for construction	HAC	SI	GSH
A	12/13	Issued for tender	HAC	SI	GSH

Easton Lane Compound
M3 Junction 9
Winchester
Hampshire
SO23 7TY

Tel: 01962 893000
Fax: 01962 856669

CLIENT: HIGHWAYS AGENCY

Federated House
London Road
Dorking
RH4 1SZ

PROJECT
M27 Junction 5
Freeflow Eastbound On-slip
Pinch Point Programme
(HA PIN 527987)

TITLE
TRAFFIC SIGNALS
M27 EASTBOUND OFF SLIP / GYRATORY
AS-BUILT
Sheet 1 of 3

DATE	24/10/13	DRAWN	MG
SCALE	AS SHOWN	DESIGNED	MG
CAD REF	3-527987-DR-1200-101 to 105_B Traffic Signals Interserve As Built.dwg	CHECKED	CWH
		APPROVED	GSH

DRAWING NUMBER: 3/527987/DR/1200/103
REVISION: B

STATUS: FOR CONSTRUCTION

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