



**GENERAL SPECIFICATION FORM**

Customer:

Area Specifications & Customer Drawings:

Intersection / General Description:

Controller - New/Modification (select one):  Serial number:

Specification Section:

Quotation number (Customer):

Quotation number (Company):

Company Order Number:

Intersection Number:  Issue:

Equipment Installation by:

Slot Cutting by:

Civils Works by:

Communication Provider, Type and Number or IP address:

Customers Engineer:

Telephone number:

E-mail:

Incoming Electrical Supply:

Operating Voltage (select one):

Lamp Dimming (select one):

Dimming voltage

Average Power Watts (Dim)

Average Power Watts (Bright)

Average Power kVA (Bright)

Peak Power Watts

Site reference

Specification Issue No.

Form Issue

Originators Initials

Date

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Additional items, such as Contract Appendices or full site layout drawings, may be included in the Index for completeness

Site reference  Specification Issue No.  Form Issue  Originators Initials  Date

**CONFIGURATION NOTES**

**General Controller Requirements:**

The control strategy for the Toucan is to be on MOVA with stage 1 to be the revertive stage.  
Lamp Dimming to be 27v

**Detection Requirements:**

Inductive loops for both Northbound and Southbound.

**Operational Modes:**

MOVA, VA and Manual

Note: This form may be used to provide any general information useful to others, such as any new facilities in this issue of the specification.

Site reference

Specification Issue No.

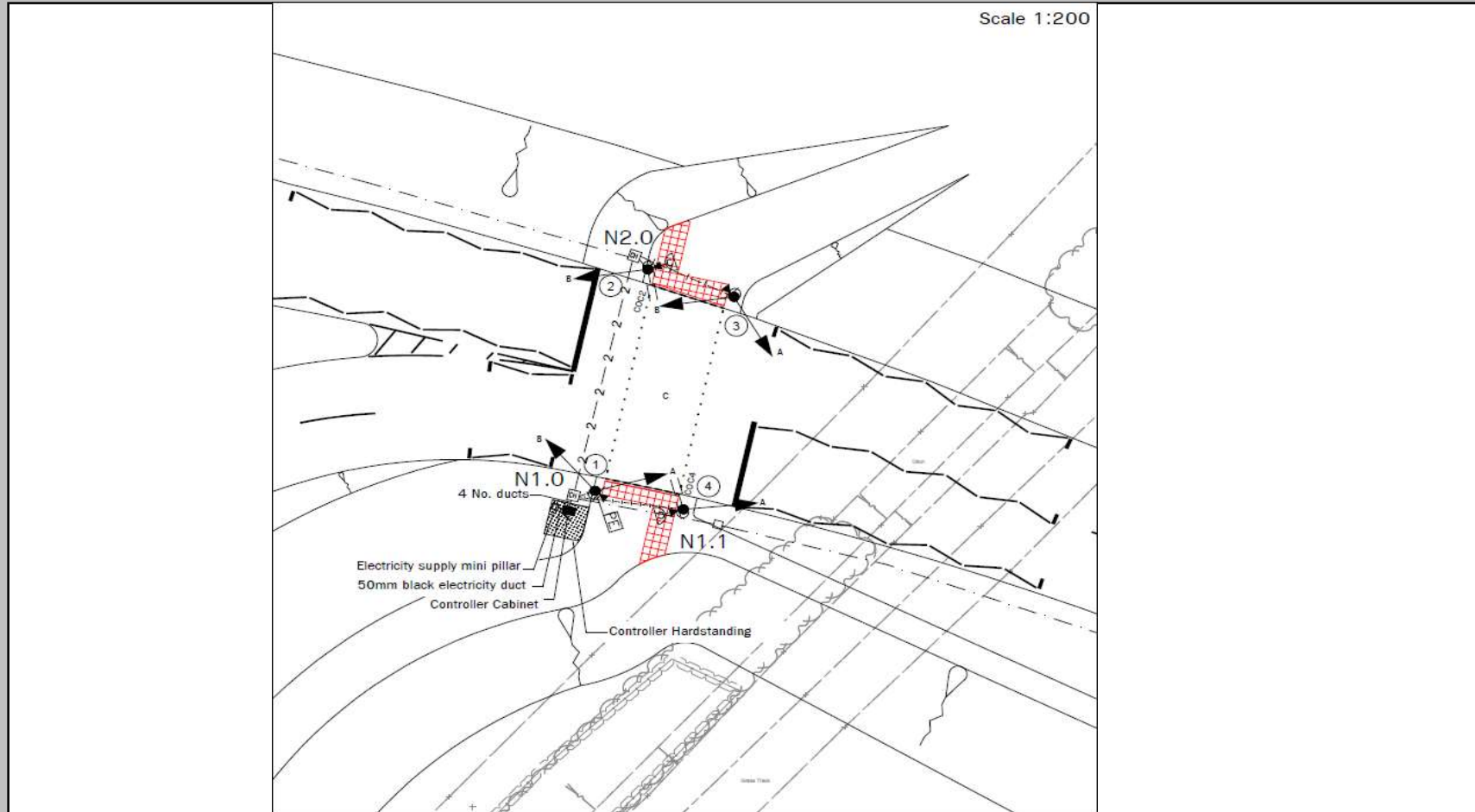
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### SITE LAYOUT



Note: This form may be used to provide a layout drawing of the junction.

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**MODE PRIORITY**

Stream								Method of Control
								Part Time - PT
								Emergency - EM
								Hurry Call - HC
								Selected Manual Control - MAN
								Urban Traffic Control - UTC
								MOVA
								Selected FXT, VA or CLF
								Cableless Linking - CLF
								Priority - PR
								<b>Either</b> - Vehicle Actuated - VA *
								<b>OR</b> - Fixed Time - FXT *

Assign priority number to each Method of Control. **1** = Top Priority, **2** = Second Priority etc. **X** = Not used.

Unless indicated - Priority will be assigned from top downwards.

\* Select either VA or FXT for normal operation, not both.

Facility Switch Availability	
Facility switch position	Facility not operative
Manual - Man	<input type="checkbox"/>
Fixed Time - FXT	<input type="checkbox"/>
Vehicle Actuated - VA	<input type="checkbox"/>

This may be achieved by appropriate arrangement of Method of Control Priority.

Under manual Control, Demand Dependent Filter Green Arrow to appear (select one):

Always 

Comments

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**PHASE GREEN TIMINGS**

	Phase Maxima								Global Extension	Phase Maxima								Global Extension
	Max A	Max B	Max C	Max D	Max E	Max F	Max G	Max H		Max A	Max B	Max C	Max D	Max E	Max F	Max G	Max H	
<b>A</b>	20	30																
<b>B</b>	20	30																
<b>C</b>																		

Comments

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### DETECTORS AND PUSHBUTTONS

#1

Type No.	Detector Type - Inductive loop, In carriageway, Above Ground, Optical, Video, Push-button, Pedestrian kerb-side, on-crossing etc	Manufacturer - model etc	Additional Information - ancillary equipment, ELV, IP address range, number of modules, location, is it in an MEC cabinet? If so cabinet No., comments etc
1	Inductive Loop		
2	Push Button		
3	On-Crossing		
4			
5			
6			
7			
8			
9			
10			

**Notes:**

#1 Type No.

Use this form to specify requirements for detection equipment types. Enter Type No. against each channel of detection on the subsequent detection forms.

#2 DFM Fail / Mode Group

On the subsequent detection forms, specify the required **Failure Mode** AND the **DFM Timing Group** for each channel of detection. The failure modes are:

A - Fail Active, I - Fail Inactive, Y - Use Input on failure, e.g. A1, I3 etc.

Introduction of DFM Group Sets should be specified on the Master Time Clock Form XIV or in Special Conditions Form XXIX (dependant upon requirement).

DFM Fail Group Number #2	Active (Minutes)				Inactive (Hours)			
	Set A	Set B	Set C	Set D	Set A	Set B	Set C	Set D
1	60				18			
2	60							
3								
4								
5								
6								
7								
8								

Note: This form may be used to specify the type of detection technologies to be used, along with additional information as required.

Site reference TBC      Specification Issue No. 1      Form Issue 1      Originators Initials AW      Date 19 January 2018 i



**URBAN TRAFFIC CONTROL**

Control Words																
Bit Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Control Bit	F1	F2														TO
Demand Dependent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bit Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Control Bit																
Demand Dependent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bit Number	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Control Bit																
Demand Dependent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bit Number	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Control Bit																
Demand Dependent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reply Words																
Bit Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reply Bit	G1	G2	CF	DF	LF1	LF2	LE									CRB
Bit Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Reply Bit																
Bit Number	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Reply Bit																
Bit Number	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Reply Bit																
Bit Number	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Reply Bit																
Bit Number	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Reply Bit																
Bit Number	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
Reply Bit																
Bit Number	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128
Reply Bit																

O.T.U. Manufacturer and Type  
 MOVA Chamleon RMS

Operation Standard (select one):  
 MCE0105/0106

UTC initiated by (select one):  
 Force Bits and Transmission Confirm  
 Signal TC/TO present

Number of bits  
 Control  
 Reply

RTC Synchronisation Time  
 Hour Minute Second  
 CC Synchronisation Reply  
 Seconds

O.T.U. Address Information  
 Enter additional information, such as SCN, Modem number, IP address (as appropriate)

Comments

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**UTC REPLY BIT FUNCTIONALITY**

Tick as appropriate:	G1 / G2	MC	RR	DF	CF	LF	RF1	RF2	LF2	LE			
Manual mode selected and operative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manual mode selected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No lamp power and/or signals off	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controller fault	<input type="checkbox"/>				<input checked="" type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detector fault				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VA or FT selected	<input type="checkbox"/>		<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lamp failure	<input type="checkbox"/>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1st Safety red failure					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2nd Safety red failure					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes: 1 - Tick appropriate boxes to indicate required reply bit functionality. 2 - Use additional columns and rows to detail non-standard combinations.

Comments

Note: This form may be used to specify the required functionality of UTC reply bits.

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**MANUAL PANEL**

Manual Selection		
Button No.	Stage(s) Called	Name
		All Red Stage(s)
1	1	Traffic
2	2	Crossing

Auxiliary Visual Indicators	
Output No.	Function

Manual Mode Enable
Always

Auxiliary Switch Inputs	
Input No.	Function

Comments Visual indicator to be configured to show when in MOVA mode (i.e. Higher Priority)

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**MID-BLOCK PEDESTRIAN CROSSING DATA**

Site Locations Crossing 1:  Crossing 2:

		1	2
Vehicle Phase	Fixed Vehicle Period (Sec)	30	
	VA minimum (Sec)	7	
	VA maximum (Sec)	30	
	Pre-timed maximum		
	Vehicle extension (Sec)		
Vehicle to Pedestrian Inter-green	All Red gap change (Sec)	3	
	All Red forced change (Sec)	3	
Pedestrian Phase	Pedestrian minimum green (Sec)	6	
	Kerbside detector extension (Sec)		
	Vehicle Termination Delay Time (Sec)		
	Pedestrian demand hold time (Sec)		
Pedestrian to Vehicle Inter-green	Pelican	Vehicle Red / Flashing Green Man [Period E] (Sec)	
		Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec)	
		Vehicle Flashing Yellow / Red Man [Period G] (Sec)	
	Pedestrian and TOUCAN far-sided signals	Minimum clearance - Vehicle Red / Pedestrian Blackout [Period v] (Sec)	
		Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec)	
		Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec)	
		All Red [Period viii] (Sec)	
		On-crossing extension (Sec)	
	PUFFIN and TOUCAN near-sided signals	Minimum clearance - Vehicle Red / Red Man [Period 5/VI] (Sec)	3
		Maximum extendible - Vehicle Red / Red Man [Period 6/VII] (Sec)	7
Forced change - Vehicle Red / Red Man [Period 7/VIII] (Sec)		0	
Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec)		0	
On-crossing extension (Sec)		2	
Other facilities	Pedestrian Audible Signals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Pedestrian Tactile Signals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	UTC <input type="checkbox"/> Local-linking <input type="checkbox"/>	1	2

Notes: 1 - The extendible period 6 starts at the end of period 5.

Comments

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**Controller Power Calculation**

Equipment	Quantity	Watts	Total		
Controller (base build)	1	50	50		
Additional phase drive card		25			
OTU / OMU	1	30	30		
Inductive Loop detector pack	1	3	3		
Above ground detectors		6			
Number of audible / tactile units	2	10	20		
Number of regulatory signs		30			
Number of pedestrian call accept indicators		6			
Number of near-side pedestrian indicators	2	16	32		
Number of pedestrian wait lamps (LED)	2	5	10		
Add additional equipment					
Add additional equipment					
Dimmable Equipment	Quantity	Dim	Bright	Total (dim)	Total (bright)
Number of signal heads (incl' far-side ped's) HI		33	63		
Number of signal heads (incl' far-side ped's) LED	6	4	29	24	174
Number of pedestrian wait lamps (40w)		25	42		
Add additional equipment					
Number of starting ambers (on at start-up)		63			

Average Power  
Watts (Dim) **169.00**

Average Power  
Watts (Bright) **319.00**

Power  
Factor **0.85**

Average Power  
kVA (Bright) **375.29**

Peak Power  
Watts **319.00**

Notes: Equipment descriptions and power consumption ratings **should** be modified to reflect site requirements and technology selection.

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