

Harrietsham Scope Reduction

TECHNICAL NOTE

Report

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Report Record

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1 Introduction

Background

- 1.1 JMP has been commissioned by Maidstone Borough Council (MBC) to review previously issued layouts and associated cost estimate, by JMP, for Section 106 works on the A20 at Harrietsham. This follows clarification of available budgets and a phased approach to the Section 106 works.
- 1.2 An initial scheme layout and cost estimate was prepared and issued by JMP in April 2014 and revised following inclusion of development accesses in November 2014.
- 1.3 Richard Timms and Catherine Slade (MBC) confirmed at a meeting on 11th February 2015 the constraints of the budget for the Section 106. There are a number of developments at various stages of planning, which will contribute to an overall Section 106 budget of £1,102,500. The budget will be based on a maximum contribution of £3,500 per dwelling (315 dwellings).
- 1.4 However, money from the overall budget will not be available as a lump sum as developments will come on line at different times. The works will be constructed in four phases starting with the CTRL development comprising 114 dwellings. This development is located centrally in Harrietsham and requires that the central section of the scheme is constructed within a budget of £399,000.

2 Technical Review

Scheme Aspirations and Background

- 2.1 The scheme comprises a section of the A20 which passes through Harrietsham in Kent and includes a number of improvements: narrowing of an overly wide road, creation of new footway and pedestrian crossing facilities, and the lowering of the existing 40mph speed limit to 30mph.
- 2.2 A major aspiration of the scheme is to improve permeability in Harrietsham across the A20. Historically, the residential areas of Harrietsham lie to the north of the A20; however, three of the new developments will be sited on the south side and MBC consider the promotion of greater access between the two sides a priority. A reduction in the speed limit to 30mph and additional pedestrian crossing facilities are seen as the most appropriate way of achieving this aim.
- 2.3 Previous iterations of the layout included for narrowing of the A20 over a far longer section than is now being considered but due to the constraints imposed by the phased approach and reduced budget the original scope has been reduced.
- 2.4 The scheme centres around the junctions with West Street and East Street. The existing carriageway is at its widest in this location as there was a major works site for the Channel Tunnel Rail Link (CTRL) accessed from a junction opposite West Street. The purpose of the increased width was to accommodate oversize vehicles delivering to the site.
- 2.5 The proposed scheme narrows the A20 to one lane in each direction with ghost island right turn lanes. The proposed road layout sits within the extents of the carriageway; to the west of East Street it is aligned to the south side of the A20 before a series of curves takes the alignment to the north side. This 'kink' acts as a traffic calming measure, effecting the reduction in speed to 30mph. At the same time, the narrowed carriageway enables the creation of additional green space to the north on either side of West Street.
- 2.6 The proposed reduction in speed limit is located on the east and west approaches to Harrietsham on the A20 and the transition is marked by gateway features.
- 2.7 Three of the developments contributing to the Section 106 budget will be accessed directly from the A20. The CTRL site is likely to be the first of a number of sites in Harrietsham to be developed and reuses the existing access opposite West Street. MBC have made clear that a standalone Phase 1 scheme should be designed which can be paid for with the CTRL site's Section 106 contribution. There are 114 houses planned for the site which results in a budget of £399,000.
- 2.8 In addition to the CTRL site, two other sites accessed from the A20 have resolution to grant: Bell Farm, 35 dwellings, and Mayfield Nurseries, 49 dwellings. A further 117 dwellings from a combination of developments within Harrietsham contribute the remainder of the Section 106 budget.

Phasing

- 2.9 MBC requires that the Section 106 works are constructed in phases governed by the money released when developments come on line. Table 2.1 details a phasing strategy based on the CTRL site being constructed first (Phase 1). It is assumed that the Bell Farm and Mayfields Nurseries sites will be the next developments to be built but it is not clear as to which will be constructed first.
- 2.10 For simplicities sake, it is assumed that Phase 4 will be an amalgam of the Section 106 monies obtained from a number of other developments within Harrietsham.

Table 2.1 Suggested construction phasing

Construction Phase	Budget
Phase 1 CTRL Site	£399,000
Phase 2 Bell Farm	£122,500
Phase 3 Mayfield Nurseries	£171,500
Phase 4 Remaining Sites	£409,500
Total	£1,102,500

Section 278 Schemes

- 2.11 It is assumed that the accesses to the CTRL, Bell Farm and Mayfield Nurseries developments will fall outside the scope of the Section 106 works and will instead be constructed under Section 278 agreements. Any costs associated with Section 278 agreements are therefore excluded from the Section 106 costs.
- 2.12 The scope of the Section 278 works for the CTRL site will comprise the junction access only; the staggered puffin replaces an existing facility and has a wider benefit to Harrietsham as a whole. For the Bell Farm and Mayfield Nurseries sites, the Section 278 works will include the junction accesses, uncontrolled pedestrian crossings and associated footway links. This is on the basis that the Section 106 delivers highway improvements beneficial to Harrietsham as a whole; these elements have been excluded because they are considered to benefit the development sites only.

Technical Review

General

- 2.13 The scheme has been designed on the basis that diversions to Statutory Undertaker's plant will not be required. C2 plant location records have been assessed and the design amended accordingly. There are no highway widening works as part of the Section 106 scheme. It should be noted that the new accesses required into the development sites will likely require diversion works but it is expected this will be paid for under Section 278 agreements.
- 2.14 Ghost island right turns have been designed in accordance with the Design Manual for Roads and Bridges. However, due to the proximity of junctions in this location, no additional capacity for queuing is possible.

Phase 1

- 2.15 The Phase 1 works are shown on drawing ST16082-01 (Appendix A) and the scope comprises the central section of the scheme between Willow Close and East Street. The essence of the Section 106 scheme is contained in Phase 1 and to reduce its scope too drastically would adversely affect the overall character of the scheme. The main element to be retained is the 'kink' in the alignment of the A20 which provides additional green space to the north. To achieve this requirement, a 'do minimum' approach has been taken with regard to construction and where possible existing carriageway pavement construction is reused.
- 2.16 The budget of the Phase 1 scheme means resurfacing of the carriageway is not allowed for in this phase and proposed drainage will be designed to suit the existing surface in relation to the new channel alignments. A consequence of this approach will be the misalignment of the camber. This could be corrected with surface regulation but for cost reasons, this measure cannot be included in Phase 1.

2.17 At present the street lighting should be adequate to light what is a very wide road. The narrower road alignment falls within the extents of the existing road and would therefore be lit by existing lighting. The cost of upgrading the street lighting is included in subsequent phases.

2.18 Ghost island right turns have been retained to minimise the extent to which the carriageway is narrowed. It could be argued that removal of ghost island right turns would act as an effective traffic calming measure. However, the presence of the staggered crossing and reduced budget mean this is not practical.

Phase 1A

2.19 Ideally, the gateways marking the proposed transition from 40mph to 30mph on the approaches to Harrietsham would be constructed as part of Phase 1 as the alignment of the A20 in the central section has been designed to for the reduction in speed. The cost of the gateway features is included as a separate item as its inclusion in Phase 1 exceeds the available budget.

2.20 Proposed layouts are shown on drawing ST16082-02 (Appendix A) and include build outs effecting a narrowing of the carriageway at the transition in speed limits.

2.21 Surface dressing of the carriageway over the section where the central hatched area road markings are to be modified has been included as removal of the road markings is not an entirely effective measure and, in these particular locations, could cause safety issues.

Phases 2 and 3

2.22 The proposed Phase 2 layout is shown on drawing ST16082-03 and Phase 3 is shown on ST16082-04, both can be found in Appendix A.

2.23 Phases 2 and 3 derive from the budgets of the Bell Farm and Mayfield Nurseries developments respectively. For both the Bell Farm and Mayfield Nurseries developments, most works adjacent to the site will be constructed under Section 278. It is not known which development will come on line first or indeed if both will be constructed at the same time. To cater for all eventualities, the areas of construction that tie in to the Phase 1 works have been arranged so they can be constructed in self contained blocks.

Phase 4

2.24 The proposed Phase 4 layout is shown on drawing ST16082-04 and can be found in Appendix A.

2.25 Phase 4 will enable the installation of new street lighting and for the resurfacing of the A20 in areas where the highway has been modified. During Phase 1, the budget only allows for the removal of road markings; however, it is not possible to remove road markings entirely and a residual image of the markings will remain. Street lighting and resurfacing is left until Phase 4 due to the budget constraints of a phased approach: they are large items and would exceed the budgets of Phases 1 to 3 if included in those phases.

2.26 It is considered that the existing street lighting will be adequate to light the new road layout in the short term but ultimately, a new lighting scheme is required and should be installed at the earliest available opportunity.

2.27 The resurfacing of the new road layout will result in an element of abortive work in previous phases; for example, the surface layers of the new road construction to replace the traffic islands will be removed during the resurfacing. Despite the abortive works, budget constraints mean resurfacing cannot happen until Phase 4.

Cost Estimate

2.28 The revised cost estimate can be found in Appendix B.

2.29 The costs for each phase align with the phased approach described above. Costs are summarised in Table 2.2.

Table 2.2 Cost Estimate Summary

Construction Phase	Budget	Cost Estimate
Phase 1	£399,000	£399,569.81
Phase 1A	n/a	£83,065.44
Phase 2	£122,500	£122,252.26
Phase 3	£171,500	£171,282.43
Phase 4	£409,500	£329,018.94
Total	£1,102,500	£1,105,188.87

2.30 It can be seen from Table 2.2 that Phases 1, 2 and 3 all hit the prescribed budgets. Phase 1A, ideally, would be constructed at the same time as Phase 1; although, MBC may decide there is a temporary solution which will enable Phase 1 to be constructed without the change in speed limits or with a temporary signing arrangement. Phases 1A and 4 combined broadly meet the budget prescribed for Phase 4.

2.31 In addition to construction cost subtotal, the following additions are made:

- 15% preliminaries
- 5% Additional installation fees (such as power connections)
- 15% Traffic management
- 20% Contingency on all of the above
- 10% Design fee on all of the above

2.32 The additional percentage rates outlined above are standard for construction schemes of this nature. Contingencies are set at 20% as until detailed design is undertaken, there are a lot of unknowns which could incur additional cost.

2.33 It is assumed that the cost of design will be funded by Section 106 monies and as such, an allowance of 10% is made.

Appendix A

SCHEME LAYOUT DRAWINGS

ST16082-01: Phase 1

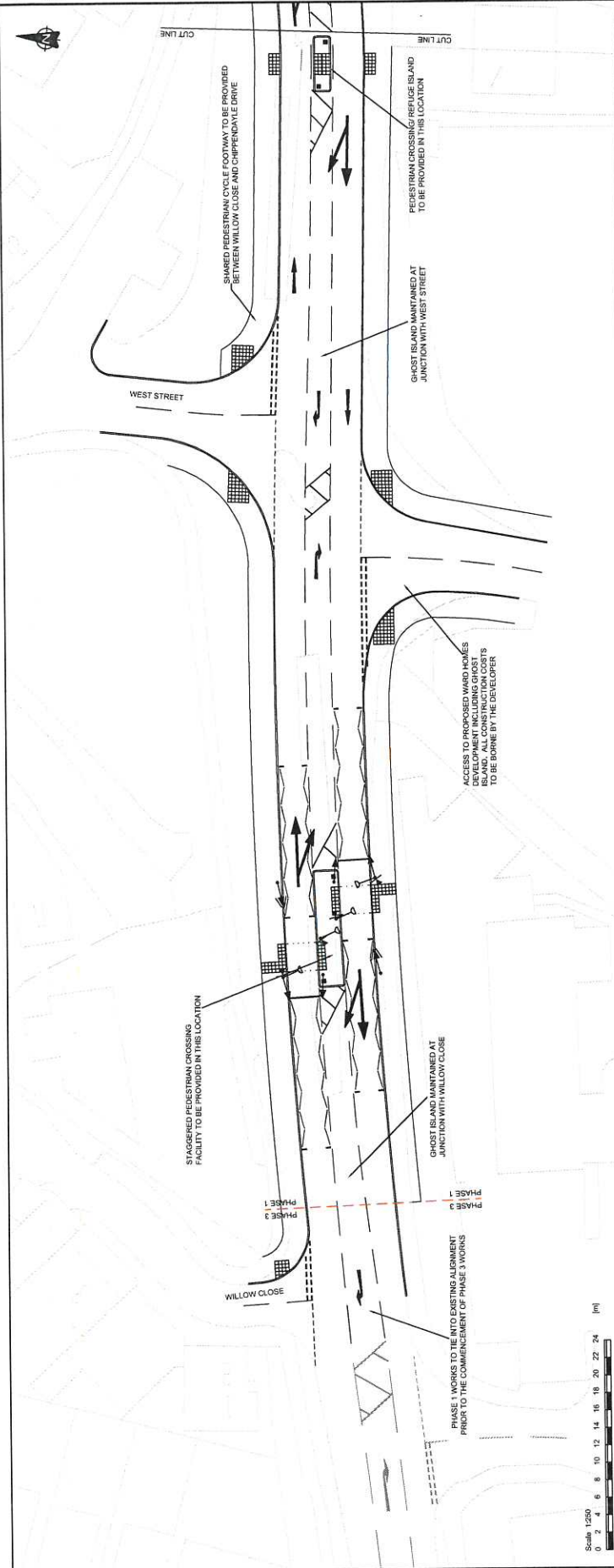
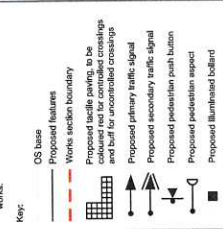
ST16082-02: Phase 1A

ST16082-03: Phase 2

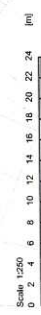
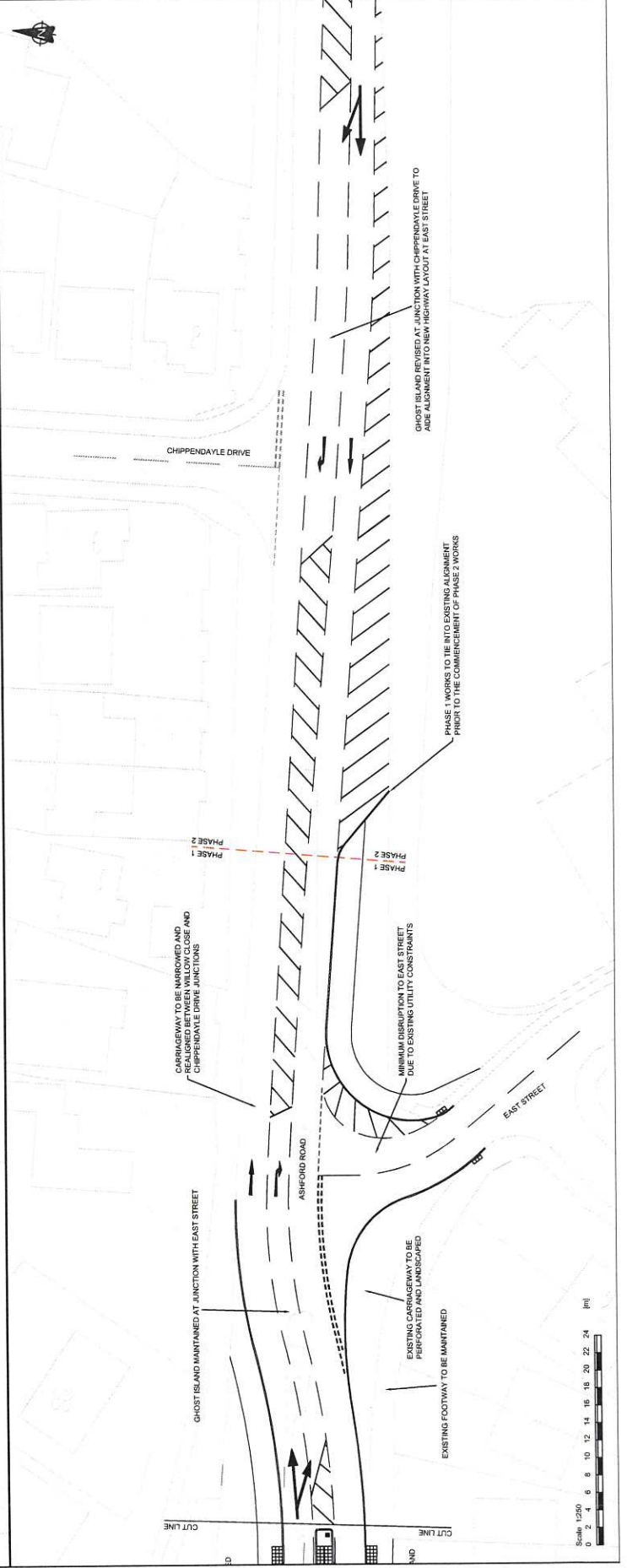
ST16082-04: Phase 3

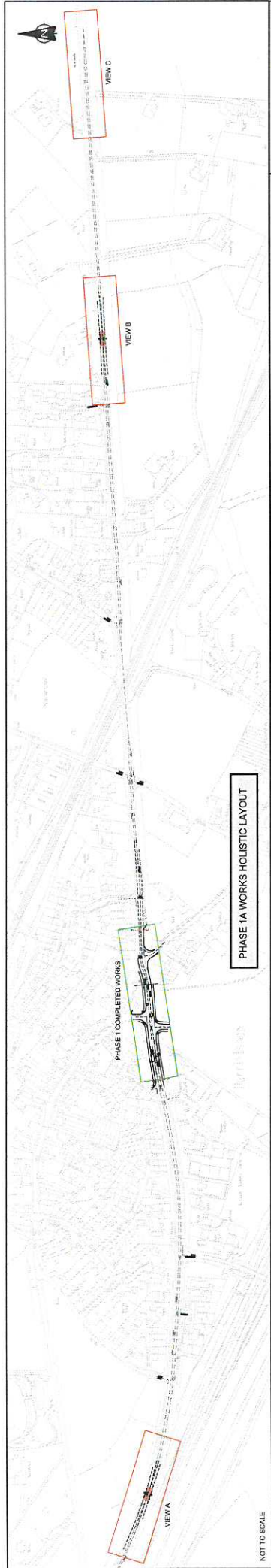
ST16082-05: Phase 4

- Notes:**
1. Do not scale from this drawing. If in doubt refer to the project manager for clarification.
 2. All dimensions in metres unless otherwise stated.
 3. Refer to JMP drawing ST10052-02 for Phase 1A works.
 4. Refer to JMP drawing ST10052-03 for Phase 2 works.
 5. Refer to JMP drawing ST10052-04 for Phase 3 works.
 6. Refer to JMP drawing ST10052-05 for Phase 4 works.

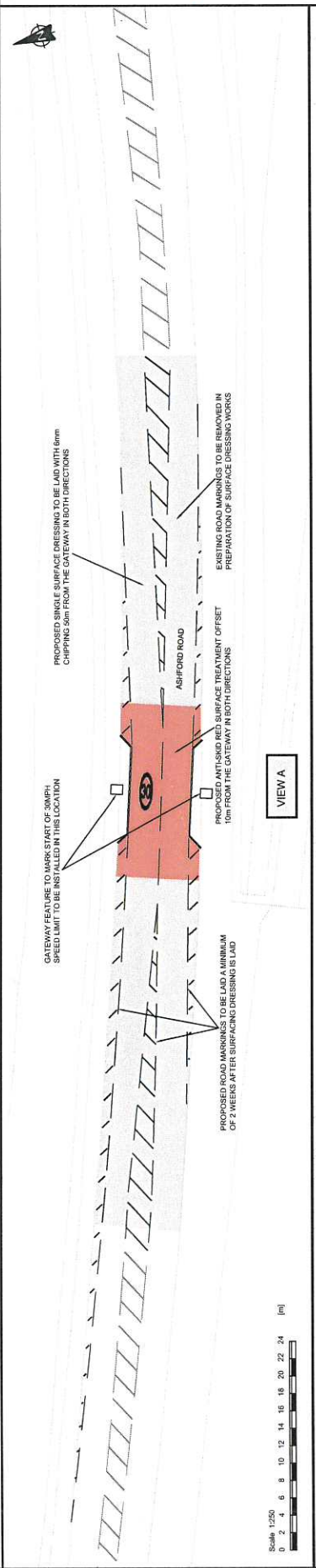


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MADSTONE BOROUGH COUNCIL	
HARBETSHAM STREET SCHEME IMPROVEMENTS	
GENERAL ARRANGEMENT PHASE 1	
SRP	JC
Drawn by: AJ	Date: April 2015
Scale: Information	Sheet: ST10052-01

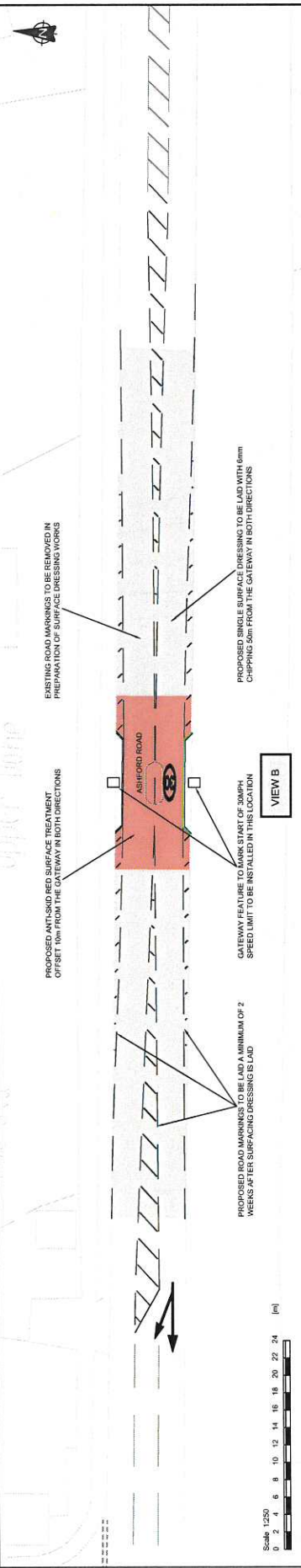




- Notes:**
1. All work shall be in line with the drawings. If it is found to refer to the project manager for clarification.
 2. All dimensions in meters unless otherwise stated.
 3. Refer to JMP drawing ST1692-01 for Phase 1 works.
 4. Refer to JMP drawing ST1692-03 for Phase 2 works.
 5. Refer to JMP drawing ST1692-04 for Phase 3 works.
 6. Refer to JMP drawing ST1692-05 for Phase 4 works.
- Key:**
- OS base
 - Proposed features
 - Works area boundary
 - Proposed kerb line, to be covered red for controlled crossings and buff for uncontrolled crossings
 - Proposed primary traffic signal
 - Proposed secondary traffic signal
 - Proposed pedestrian push button
 - Proposed pedestrian aspect
 - Proposed blindstreet bollard



- Notes:**
1. All work shall be in line with the drawings. If it is found to refer to the project manager for clarification.
 2. All dimensions in meters unless otherwise stated.
 3. Refer to JMP drawing ST1692-01 for Phase 1 works.
 4. Refer to JMP drawing ST1692-03 for Phase 2 works.
 5. Refer to JMP drawing ST1692-04 for Phase 3 works.
 6. Refer to JMP drawing ST1692-05 for Phase 4 works.
- Key:**
- OS base
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 - Proposed pedestrian aspect
 - Proposed blindstreet bollard



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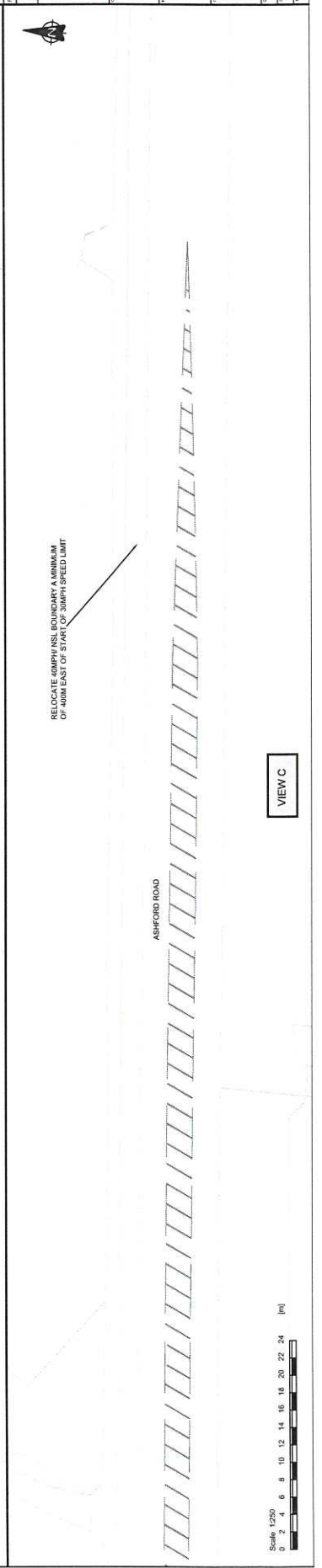
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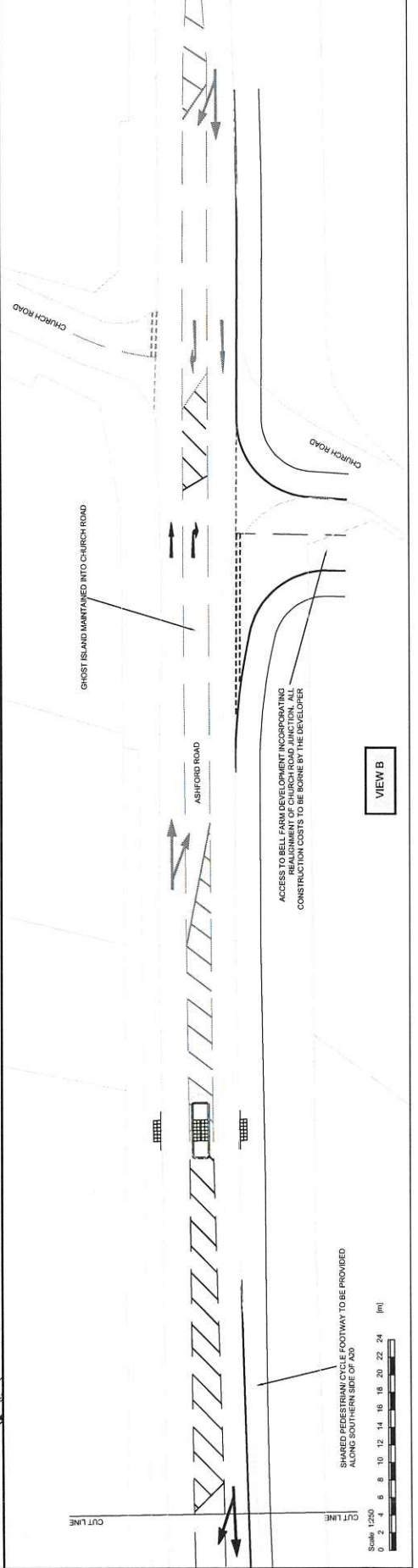
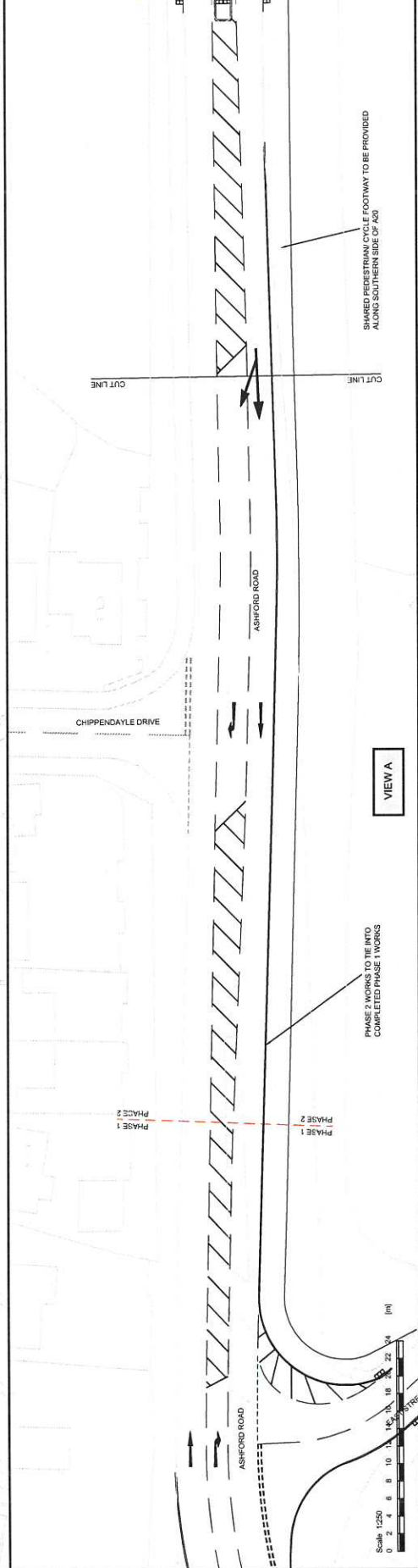
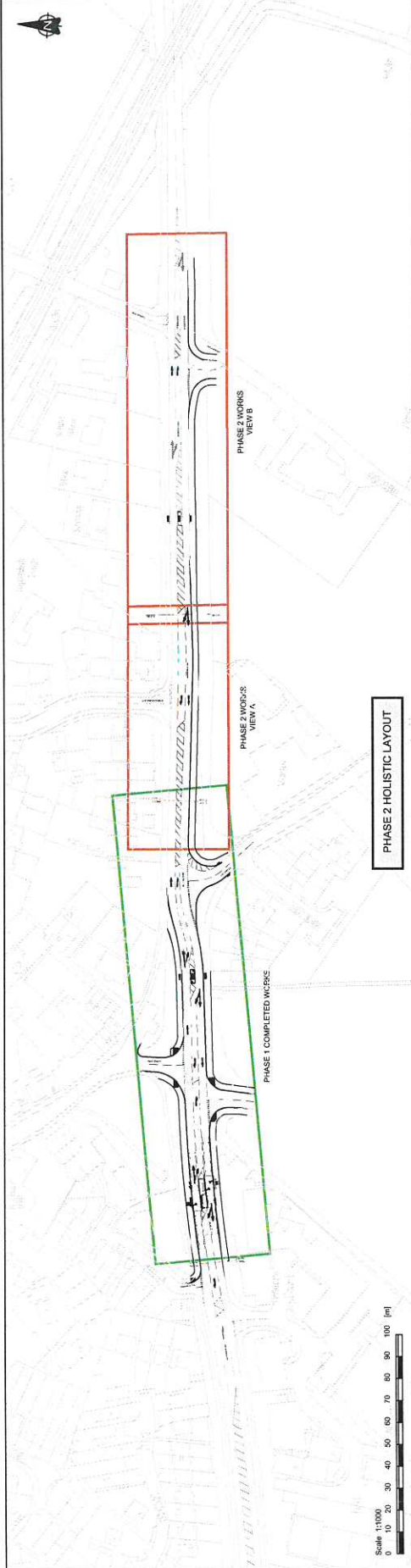
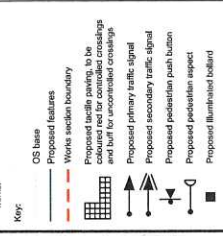
HARBETSHAM STREET SCENE IMPROVEMENTS

GENERAL ARRANGEMENT PHASE 1A

Client	SRP	Project	JC	Author	PWJ
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Information					
Drawing No. ST1692-02					



- Notes:**
1. Do not scale from this drawing. If in doubt refer to the project manager for clarification.
 2. All dimensions in metres unless otherwise stated.
 3. Refer to JMP drawing ST16082-01 for Phase 1 works.
 4. Refer to JMP drawing ST16082-02 for Phase 1A works.
 5. Refer to JMP drawing ST16082-04 for Phase 3 works.
 6. Refer to JMP drawing ST16082-05 for Phase 4 works.



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MAIRSTONE BOROUGH COUNCIL

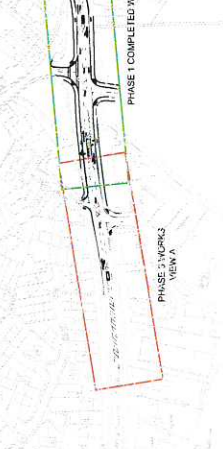
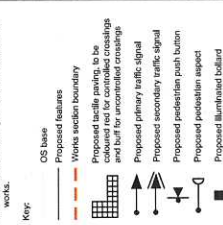
**MARRETSHAM STREET
SCENE IMPROVEMENTS
PHASE 2**

**GENERAL ARRANGEMENT
PHASE 2**

Drawn	SRP	Checked	JC	Approved	PMU
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Project No.	ST16082-03				

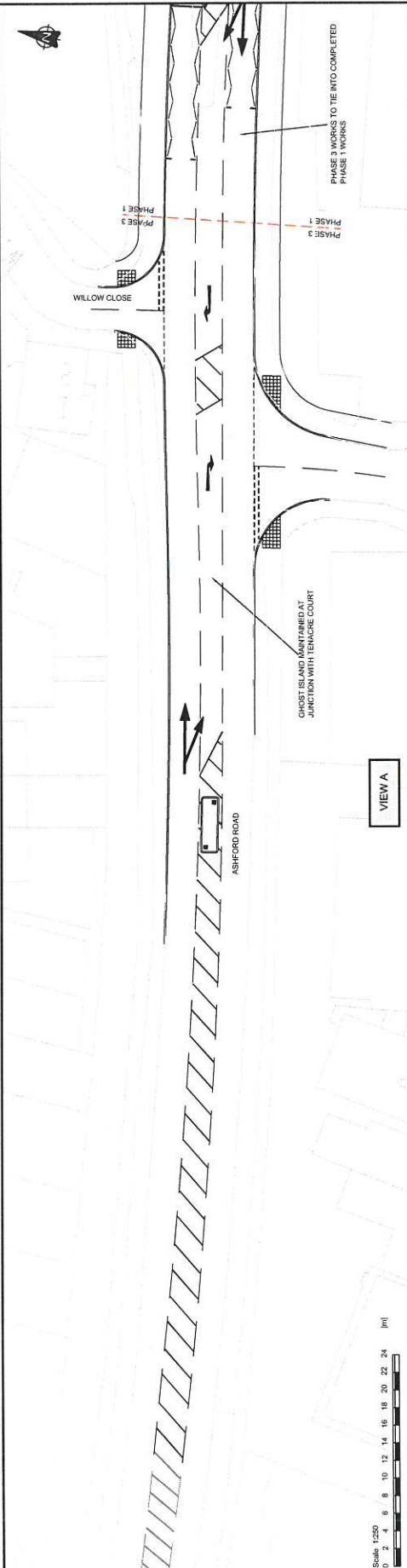
Information

- Notes:**
1. Do not scale from this drawing. If in doubt refer to the project manager for clarification.
 2. All dimensions in metres unless otherwise stated.
 3. Refer to JMP drawing ST 16082-01 for Phase 1 works.
 4. Refer to JMP drawing ST 16082-02 for Phase 1A works.
 5. Refer to JMP drawing ST 16082-03 for Phase 2 works.
 6. Refer to JMP drawing ST 16082-05 for Phase 4 works.



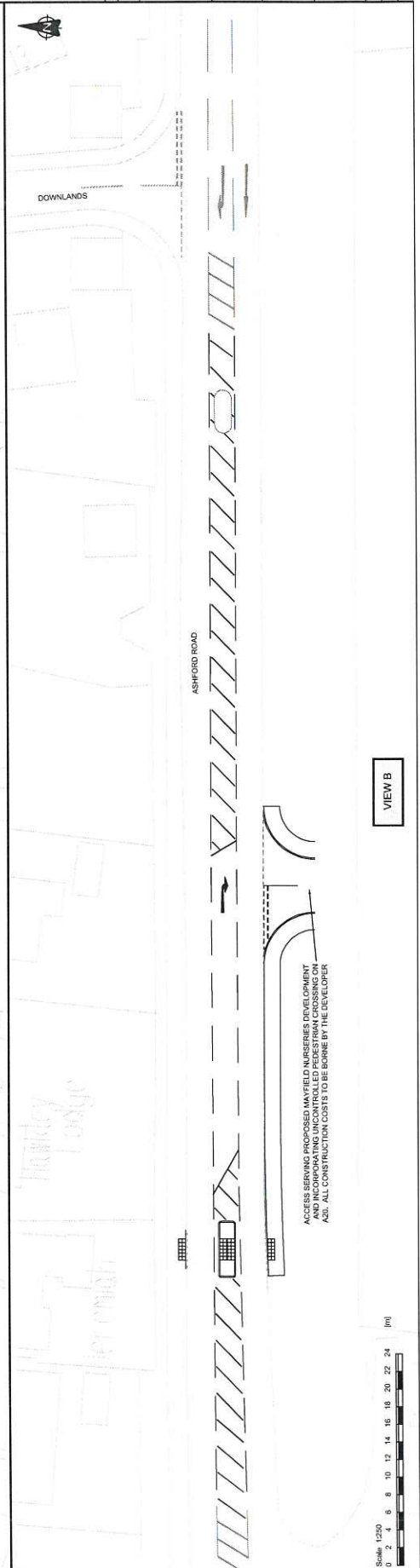
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PHASE 3 HOLISTIC LAYOUT



Scale 1:250
0 2 4 6 8 10 12 14 16 18 20 22 24 [m]

VIEW A



Scale 1:250
0 2 4 6 8 10 12 14 16 18 20 22 24 [m]

VIEW B

Author	SRP	Checked	JC	Drawn	PWJ
Issue No.	1	Issue Date	April 2015	Issue By	As shown
Information					
ST16082-04					



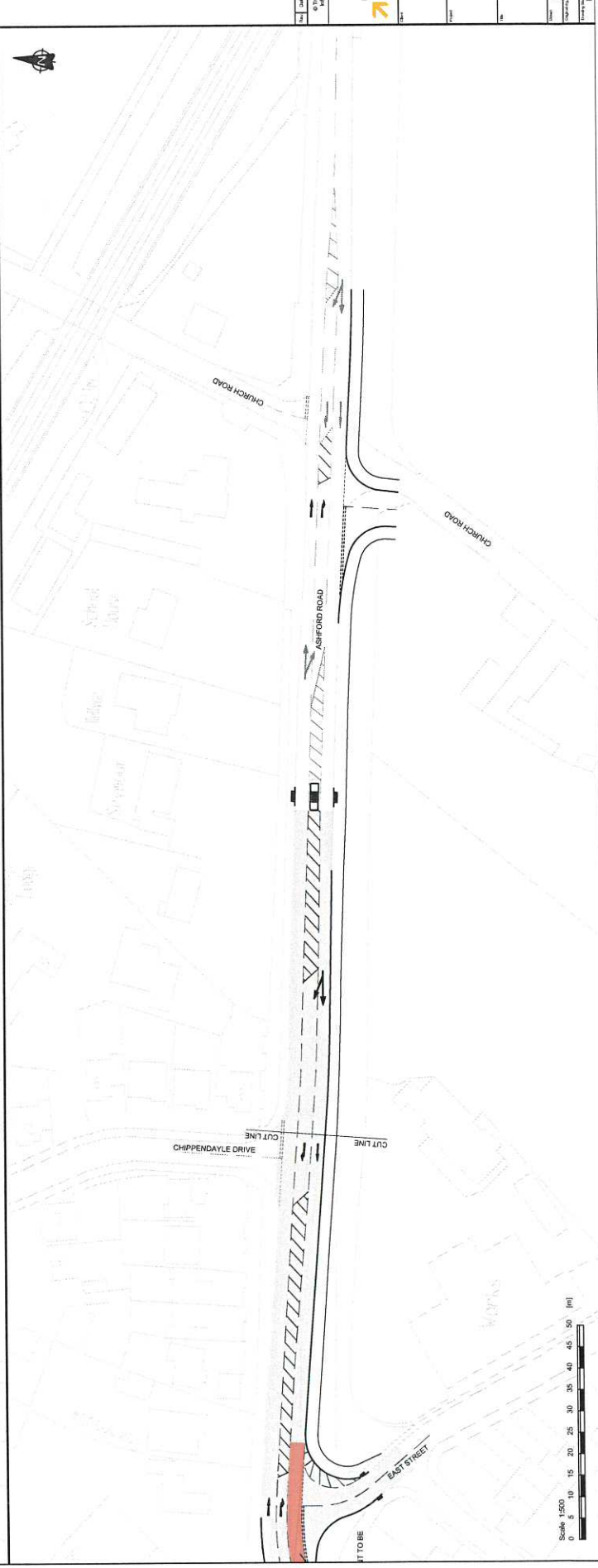
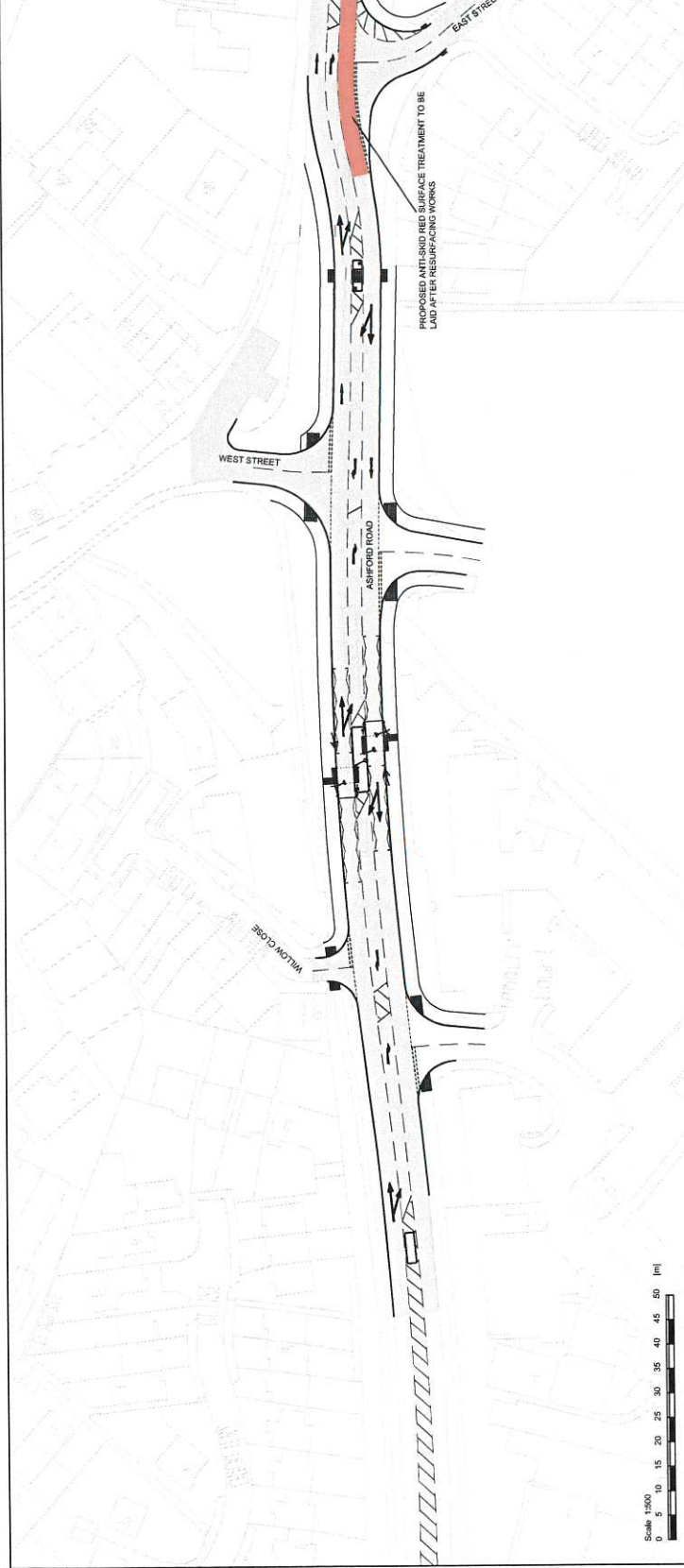
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HARRETSHAM STREET SCENE IMPROVEMENTS	
GENERAL ARRANGEMENT PHASE 3	

Notes:

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3. Refer to JMP drawing ST16062-01 for Phase 1 works.
4. Refer to JMP drawing ST16062-02 for Phase 1A works.
5. Refer to JMP drawing ST16062-03 for Phase 2 works.
6. Refer to JMP drawing ST16062-04 for Phase 3 works.

Key:



Client	Maidstone Borough Council
Project Name	Harrietsham Street Scene Improvements
Project No	ST16062-05
Revision	1
Author	JMP
Check	JC
Drawn	PWJ
Date	April 2015
Time	15:00
Information	Refer to ST16062-05

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HARRIETSHAM STREET
SCENE IMPROVEMENTS

GENERAL ARRANGEMENT
PHASE 4

Appendix B

COST ESTIMATE

Revision D



CONSTRUCTION COST ESTIMATE

Project:	Harrietsham Street Scene Improvements
Title:	Preliminary Cost Estimate - revision D
Unit rate source:	HMW Rates (Vol 4) - increased to 2014 figures

Job Number:	ST16082
By:	SRP
Date:	Apr-15
Checked:	
Date:	
Approved:	
Date:	

Ref	Description	Unit	PHASE 1			PHASE 1A			PHASE 2			PHASE 3			PHASE 4		
			Rate	QT	Amount	Rate	QT	Amount	Rate	QT	Amount	Rate	QT	Amount	Rate	QT	Amount
02.0050	Series 200 - Site Clearance	m	£1.36	798.62	£1,086.12	£1.36	52	£70.72	£1.36	146.46	£199.19	£1.36	139.31	£189.46	£1.36	0	£0.00
200.0210	Take up and dispose kerbs	No.	£31.16	10	£311.60	£31.16	0	£0.00	£31.16	5	£155.80	£31.16	13	£405.08	£31.16	8	£249.28
1200.2710	Removal of lighting columns (Approx 1 per 25m)	m	£1.15	677.76	£779.42	£1.15	520	£598.00	£1.15	0	£0.00	£1.15	274	£315.10	£1.15	0	£0.00
1200.3015	Removal of intermittent line markings	No.	£13.72	8	£109.76	£13.72	2	£27.44	£13.72	0	£0.00	£13.72	4	£54.88	£13.72	0	£0.00
500.2251	Series 500 - Drainage	No.	£477.38	12	£5,728.56	£477.38	4	£1,909.52	£477.38	8	£3,819.04	£477.38	4	£1,909.52	£477.38	0	£0.00
500.2192	150mm internal diameter	m	£14.07	60	£844.20	£14.07	20	£281.40	£14.07	40	£562.80	£14.07	20	£281.40	£14.07	0	£0.00
	New gully connection where required	No.	£48.73	12	£584.76	£48.73	4	£194.92	£48.73	8	£389.84	£48.73	4	£194.92	£48.73	0	£0.00
	Water authority connection fees	No.	£485.00	12	£5,820.00	£485.00	4	£1,940.00	£485.00	8	£3,880.00	£485.00	4	£1,940.00	£485.00	0	£0.00
Est.	Series 600 - Earthworks	m2	£15.00	334.15	£5,012.25	£15.00	0	£0.00	£15.00	0	£0.00	£15.00	1.95	£29.25	£15.00	0	£0.00
Est.	Road realignment excavation	m2	£15.00	371.48	£5,572.20	£15.00	0	£0.00	£15.00	0	£0.00	£15.00	118.96	£1,784.40	£15.00	0	£0.00
600.0970	Footway resurfacing excavation	m2	£30.23	12	£963.76	£30.23	4	£120.92	£30.23	8	£241.84	£30.23	4	£120.92	£30.23	0	£0.00
600.0010	Remove and backfill gully (Approx 1 per 200m2)	No.	£7.93	10	£79.30	£7.93	0	£0.00	£7.93	0	£0.00	£7.93	0	£0.00	£7.93	0	£0.00
06.0135	Excavation for tree pit	m3	£34.21	150.37	£5,144.07	£34.21	0	£0.00	£34.21	0	£0.00	£34.21	0.8775	£30.02	£34.21	0	£0.00
06.0135	Dispose unacceptable material - carriageway @ 450mm	m3	£34.21	74.296	£2,541.67	£34.21	0	£0.00	£34.21	0	£0.00	£34.21	23.792	£813.92	£34.21	0	£0.00
	Dispose unacceptable material - footway @ 20mm	m3															
700.1265	Series 700 - Pavements	m2	£25.54	554.21	£14,154.52	£25.54	0	£0.00	£25.54	70.79	£1,807.98	£25.54	77.91	£1,989.82	£25.54	4500	£114,930.00
Est.	Carriageway surfacing	m2	£30.00	64.03	£1,920.90	£30.00	0	£0.00	£30.00	209.21	£6,276.30	£30.00	88.98	£2,669.40	£30.00	0	£0.00
07.0930	Full depth footway	m2	£17.20	0	£0.00	£17.20	322	£5,538.40	£17.20	0	£0.00	£17.20	0	£0.00	£17.20	132	£2,270.40
	Buff or Red Skid resistant Surface treatment	m2	£103.75	0	£0.00	£103.75	0	£0.00	£103.75	0	£0.00	£103.75	0	£0.00	£103.75	0	£0.00
	Grass/footway to full depth Carriageway	m2	£5.87	0	£0.00	£5.87	1858	£10,906.46	£5.87	0	£0.00	£5.87	0	£0.00	£5.87	0	£0.00
	Surface dressing, Type 1	m2	£30.00	617.82	£18,534.60	£30.00	31.6	£948.00	£30.00	236.77	£7,103.10	£30.00	10	£300.00	£30.00	0	£0.00
	Build up using regulating ex road to footway	m2															
1100.0505	Series 1100 - Kerbs, Footways and Paved Areas	m	£0.71	751.14	£533.31	£0.71	52	£36.92	£0.71	313.28	£222.43	£0.71	196.98	£139.86	£0.71	0	£0.00
1100.0820	Excavation of kerb foundation	m	£19.12	485.12	£9,275.48	£19.12	52	£994.24	£19.12	149.87	£2,865.51	£19.12	165.64	£3,150.29	£19.12	0	£0.00
11.1205	New kerb line	m	£11.23	266.02	£2,987.40	£11.23	0	£0.00	£11.23	163.41	£1,835.09	£11.23	31.34	£351.95	£11.23	0	£0.00
1100.4548	Precast concrete edging	m2	£11.19	371.48	£4,156.86	£11.19	0	£0.00	£11.19	0	£0.00	£11.19	118.96	£1,331.16	£11.19	0	£0.00
1100.5300	Footway resurfacing - 20mm	m2	£30.00	20	£600.00	£30.00	0	£0.00	£30.00	0	£0.00	£30.00	0	£0.00	£30.00	0	£0.00
	River Path improvement	m2	£60.93	40.48	£2,466.45	£60.93	0	£0.00	£60.93	0	£0.00	£60.93	14.09	£858.50	£60.93	0	£0.00
	New Tactile paving	m3	£38.16	6.072	£231.71	£38.16	0	£0.00	£38.16	0	£0.00	£38.16	2.1135	£80.55	£38.16	0	£0.00
	New Tactile paving - Foundation	m3	£730.08	5	£3,650.40	£730.08	0	£0.00	£730.08	0	£0.00	£730.08	0	£0.00	£730.08	0	£0.00
	Benches	No.															
Est.	Series 1200 - Signals, Signs and Ducts	No.	£30,000.00	1	£30,000.00	£30,000.00	0	£0.00	£30,000.00	0	£0.00	£30,000.00	0	£0.00	£30,000.00	0	£0.00
	Traffic signals	No.	£500.00	9	£4,500.00	£500.00	10	£5,000.00	£500.00	4	£2,000.00	£500.00	5	£2,500.00	£500.00	0	£0.00
	Concrete base for signage	m	£56.00	220	£12,320.00	£56.00	100	£5,600.00	£56.00	50	£2,800.00	£56.00	150	£8,400.00	£56.00	400	£22,400.00
	Service duct in trench depth to invert not exceeding 2 metres.	m	£500.00	0	£0.00	£500.00	4	£2,000.00	£500.00	0	£0.00	£500.00	0	£0.00	£500.00	0	£0.00
	average depth to invert 750 mm.	No.	£500.00	9	£4,500.00	£500.00	10	£5,000.00	£500.00	4	£2,000.00	£500.00	5	£2,500.00	£500.00	0	£0.00
	Gateway Feature	No.	£206.58	4	£826.32	£206.58	0	£0.00	£206.58	0	£0.00	£206.58	2	£413.16	£206.58	0	£0.00
	Highway Signage	No.	£1.00	898.24	£898.24	£1.00	520	£520.00	£1.00	40	£40.00	£1.00	274	£274.00	£1.00	0	£0.00
1200.3475	Traffic bollard, internally illuminated, any type.	m	£1.56	20	£31.20	£1.56	0	£0.00	£1.56	0	£0.00	£1.56	10	£15.60	£1.56	0	£0.00
1200.3600	Road mark 1004	m	£1.56	20	£31.20	£1.56	0	£0.00	£1.56	0	£0.00	£1.56	10	£15.60	£1.56	0	£0.00
1200.3620	Road Mark 1003	m	£5.00	253.81	£1,269.05	£5.00	130	£650.00	£5.00	20	£100.00	£5.00	60	£300.00	£5.00	0	£0.00
	Road mark 1009	m	£19.53	19	£371.07	£19.53	2	£39.06	£19.53	4	£78.12	£19.53	6	£117.18	£19.53	0	£0.00
	Road mark 1040	m	£1.00	128	£128.00	£1.00	0	£0.00	£1.00	0	£0.00	£1.00	0	£0.00	£1.00	0	£0.00
1200.3780	Arrows	m	£1.08	7	£7.56	£1.08	0	£0.00	£1.08	0	£0.00	£1.08	0	£0.00	£1.08	0	£0.00
1200.3670	Zig Zag markings	m															
1200.3385	Rd mark 1001	m															
Est.	Series 1300 - Lighting	No.	£3,500.00	10	£35,000.00	£3,500.00	0	£0.00	£3,500.00	5	£17,500.00	£3,500.00	14	£49,000.00	£3,500.00	8	£28,000.00
	Lighting columns (highways - Approx 1 per 25m)																
Est.	Series 3000 - Landscaping	m2	£10.04	694.61	£6,973.88	£10.04	0	£0.00	£10.04	131.17	£1,316.95	£10.04	24.61	£247.08	£10.04	0	£0.00
	Change hard surfaces to grassed area (perforate & topsoil)	No.	£15.00	20	£300.00	£15.00	0	£0.00	£15.00	5	£75.00	£15.00	3	£45.00	£15.00	0	£0.00
	Willow Bush	No.	£250.00	10	£2,500.00	£250.00	0	£0.00	£250.00	5	£1,250.00	£250.00	3	£750.00	£250.00	0	£0.00
	A20 Trees	No.	£60.65	10	£606.50	£60.65	0	£0.00	£60.65	5	£303.25	£60.65	3	£181.95	£60.65	0	£0.00
3000.0245	New trees to grass	No.	£1,000.00	10	£10,000.00	£1,000.00	0	£0.00	£1,000.00	5	£5,000.00	£1,000.00	3	£3,000.00	£1,000.00	0	£0.00
Est.	Monocapit tree pit	No.	£109.00	10	£1,090.00	£109.00	0	£0.00	£109.00	5	£545.00	£109.00	3	£327.00	£109.00	0	£0.00
Est.	Tree pit installation	No.															
	Sub-Total				£208,841.35			£42,376.00			£62,367.24			£87,380.08			£167,849.68
	Preliminaries	15.00%			£30,576.20			£6,356.40			£9,355.09			£13,107.01			£25,177.45
	Additional installation fees	5.00%			£10,192.07			£2,118.80			£3,118.36			£4,369.00			£8,392.48
	Traffic Management	15.00%			£30,576.20			£6,356.40			£9,355.09			£13,107.01			£25,177.45
	Sub-Total				£275,185.82			£57,207.60			£84,195.77			£117,963.11			£226,597.07
	Site supervision	10.00%			£27,518.58			£5,720.76			£8,419.58			£11,796.31			£22,659.71
	Sub-Total				£302,704.40			£62,928.36			£92,615.35			£129,759.42			£249,256.77
	Contingencies	20.00%			£60,540.88			£12,585.67			£18,523.07			£25,951.88			£49,851.35
	Sub-total				£363,245.28			£75,514.									