

- KEY:
- Proposed Adoptable Sewers:**
- Foul sewer
- Storm sewer
- Highway Gully
- To be constructed in accordance with HCC Standard Detail HCC11/D/015B and HCC Model Contract Specification Appendix 5/1
- Proposed Private Drainage:**
- Foul drain
- Storm drain
- Rodding eye
- Yard gully
- Aco drain
- Permavoid diffuser

Highway Gully – To be constructed in accordance with HCC Standard Detail HCC11/D/015B, HCC Model Contract Specification Appendix 5/1 and Cycle Friendly Gully Grating HCC Series 11 Notes for Guidance HCC11/D/015B paragraph 5

All private inspection chambers shall be polypropylene non-access chambers in accordance with The Building Regulations, Part H, Chamber sizes:

SVP

Depth to invert <0.6m DN300

Depth to invert >0.6m DN475

Invert levels shown thus: F10.00 S10.00

Filter Drain

Refer to Redrow detail F-S00105

Permeable paving

Refer to Redrow detail-EG ASHP Vaillant arotherm PLUS specifications

**Externals:**

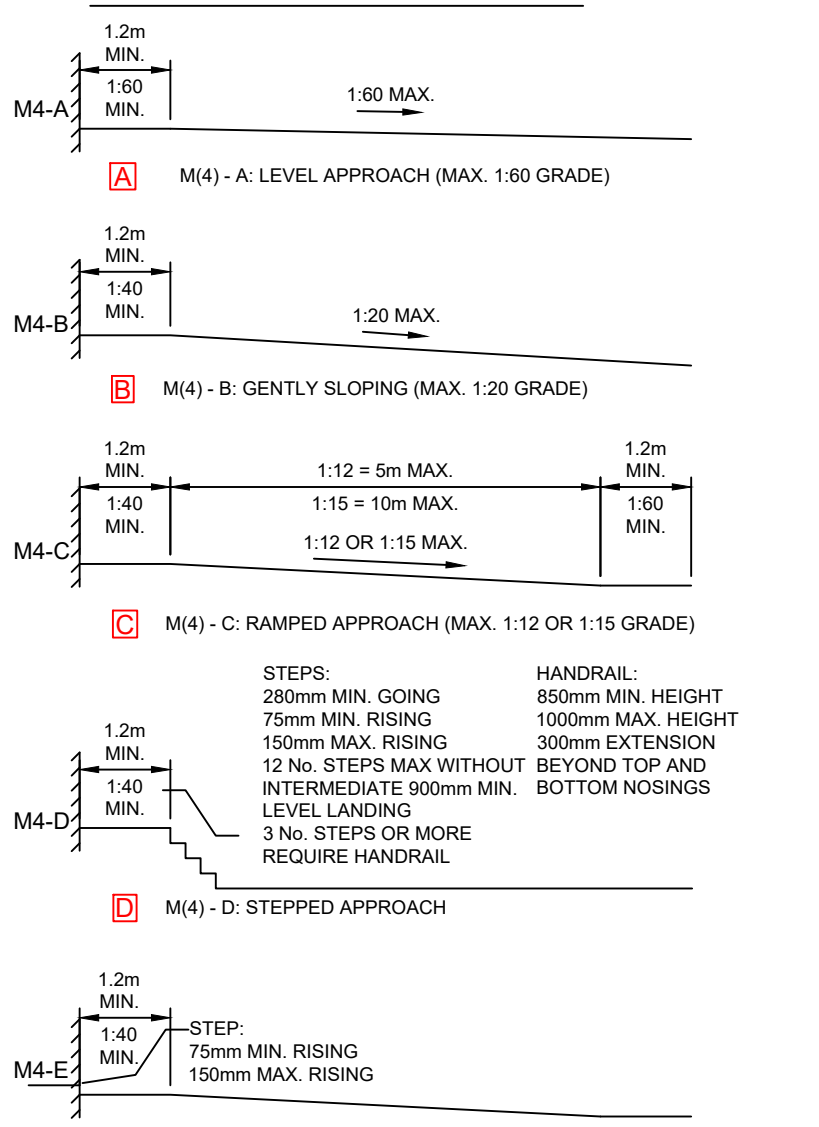
Finished floor levels shown thus: FFL 10.00

Carriageway Fall Arrows

Proposed Levels

Primary Access

**THE BUILDING REGULATIONS, PART M APPROACH ROUTE SCHEMATIC**



**Secondary Access**

In accordance with Part-M of the Building Regulations

Every flight of steps with three or more risers (approach to primary access point to have a suitable grippable HANDErail on one side of the flight (or both sides where the flight is wider than 1000mm). This grippable HANDErail is 850-1000mm above the pitch line of the flight and extends at least 300mm beyond the top and bottom nosings.

Stepped Cavity Tray or Raised DPC to architects specification.

**External Brickwork**

Tanking

Concrete Gravel Board

Max. Height 600mm

Retaining Wall

Embankment Tackle

Existing Tree Root Protection Area

Glasdon Neopolit™ 150

Removable Bollard or similar.

**LIGHTING KEY:**

Proposed adoptable lighting column. Refer to Envevo drawing EV0327003-LD-001-A.

Proposed private lighting column. Refer to Envevo drawing EV0327003-LD-101-A.

Proposed private lighting column. Refer to Envevo drawing EV020015041-LD-001-A.

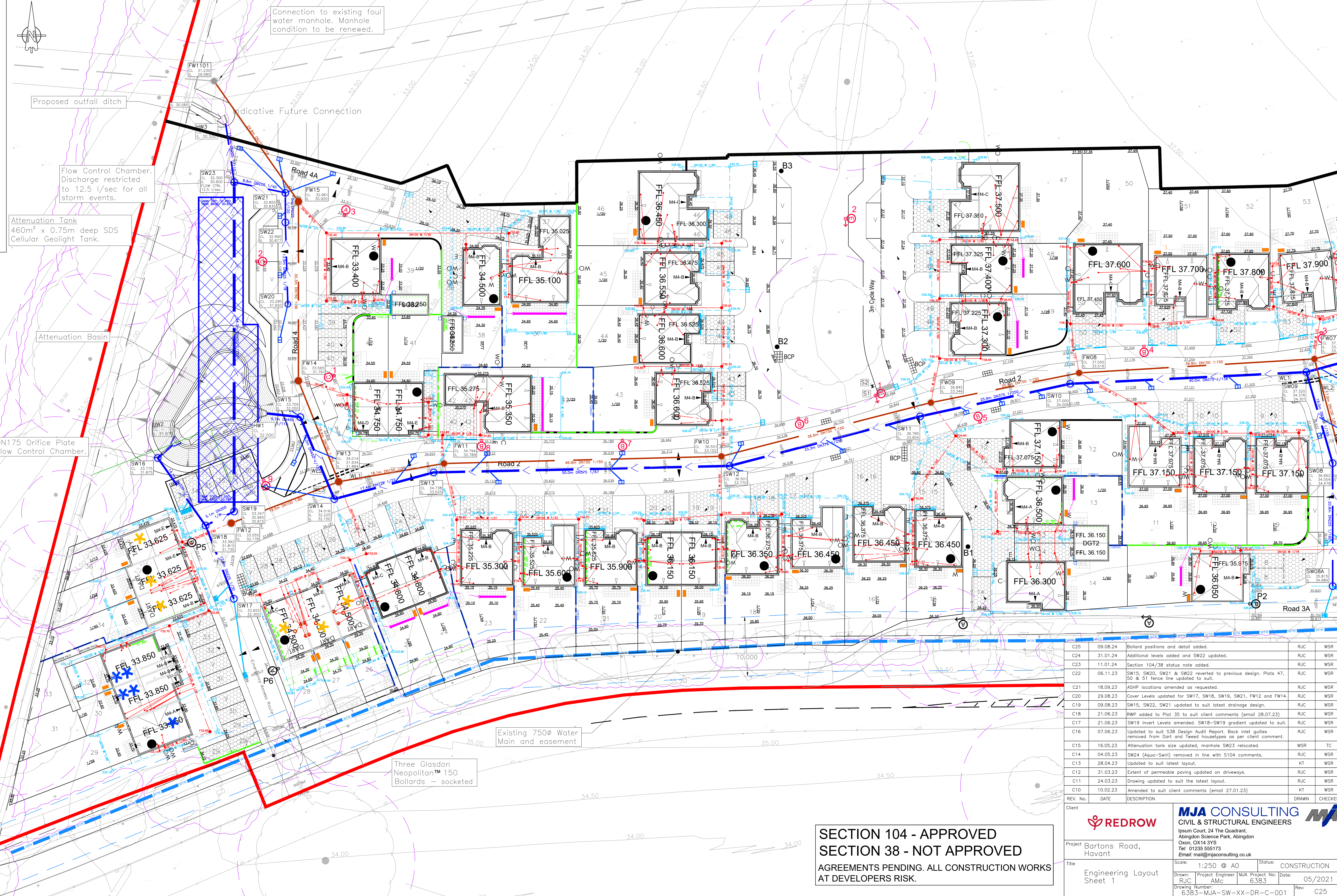
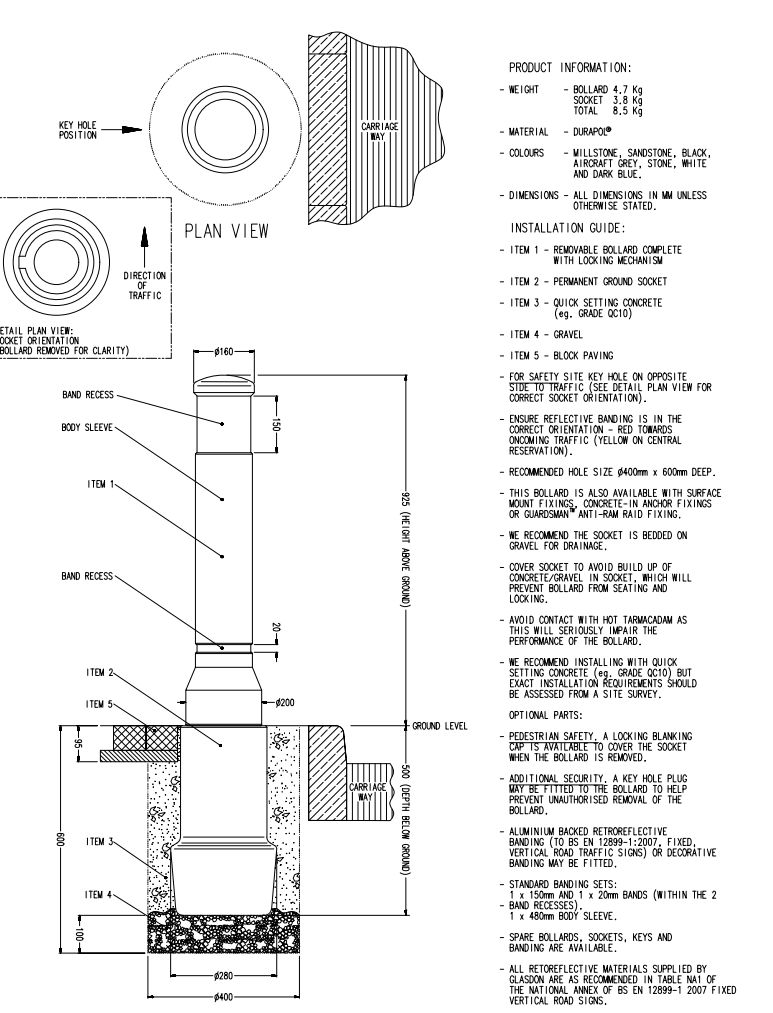
Proposed illuminated bollard. Refer to Envevo drawing EV020015041-LD-001-A.

**Construction Notes:**

- Do not scale from this drawing.
- All dimensions in metres.
- All levels relate to ordnance datum.
- This drawing is based on the latest Architectural planning layout and shall be read in conjunction with all other relevant development technical drawings & details.
- Any discrepancies with any of the drawings shall be reported to MJA Consulting Engineers.
- The level and location of all existing services shall be verified on site by the Contractor before commencing any construction work.
- All finished floor levels are shown on the drawing for guidance only and may need to be adjusted on site. However there is to be no deviation without prior approval.
- All foul & surface water drainage being offered for adoption by the Water Authority are to be constructed in accordance with the Water UK document, Design and Construction Guidance (DSG) "Code for Adoption" along with the Water Authority specification and addendums.
- Gullies, gully connections, drains, manholes, catchpits, soakways, headwalls and other drainage structures intended to convey highway water are to be constructed in accordance with the specification issued by Hampshire County Council.
- All foul and storm water drains which are not being adopted as public sewers shall be constructed using uPVC pipes or similar approved, bedded and backfilled in accordance with the manufacturers instructions and to the Building Regulations Part H, BS EN 752 & 8.R.E. S01.

- All building drainage to be 100mm dia. laid at a minimum gradient of 1 in 60 (FW) and 1 in 80 (SW) unless otherwise shown.
- Sewers and drains of different diameters should be laid soffit to soffit unless otherwise specified.
- Inspection chambers on private drains shall be non-access preformed polypropylene.
- Depth to invert Minimum size  
< 1.2m DN450  
> 1.2m DN600
- In accordance with the Building Regulations Part H & BS EN 752.
- Position of soil pipes, stubstacks, WC outlets rainwater downpipes etc positions shall be checked against architects house type drawings to ensure compatibility.
- Where back inlet gullies are used they should be roddable.
- All stub stacks to be fitted with air admittance valve where branch drain exceeds 12m except at head of run.
- Rainwater downpipes to be connected directly to drains via removable adapter to permit access for rodding.
- Positions of yard and house gullies are nominal and may be adjusted on site. aco drains to be installed at the end of all drives falling towards the public highway. All gully gratings in drives and parking areas should be of sufficient strength to withstand vehicular loading.
- Lintels or sleeves are to be provided for drains passing through foundation brickwork.
- All gully connections to be 150 dia. uPVC ultrabir or similar.
- All gully connections other than at manholes to be "Y" junctions.
- All drain runs are to be flushed through and building materials removed where necessary at the time of final test by Building Inspector and prior to occupation.

- Where applicable all soakways to be positioned a minimum of 5.0m from buildings (where utilised)
- Where applicable the construction of all pond embankments including selection of fill material, placing, compaction and use of stabilization membranes is to be carried out in accordance with an engineering earthworks specification approved by a specialist Geotechnical Engineer and in accordance with BS EN 1997-1 and BRE 363 to ensure safe and stable slopes during all phases of construction and operation.
- All traffic management shall comply with the requirements as set out in Chapter 8 of the Traffic Signs Manual. Warning signs may be erected outside the indicated boundaries. Any obstructions to traffic or pedestrians shall be properly signed and protected with barriers, cones, signs, and lamps.
- All traffic signs and road markings are to be in accordance with the Traffic Signs Regulations and General Directions 2016.



|                |                          |
|----------------|--------------------------|
| Sign Reference | 956 - S1                 |
| Height         | 450mm                    |
| Width          | 450mm                    |
| Area           | 0.16 sq.m                |
| Material       | Class RA2 (12899-1:2007) |
| Mount Height   | 2300                     |

|               |                          |            |        |
|---------------|--------------------------|------------|--------|
| Scheme Ref.   | 6281                     | x-height   | 40.0   |
| Sign Ref.     | 9662                     | Sign Face  | 600mm  |
| Letter colour | BLACK                    | Background | WHITE  |
| Border        | BLACK                    | Height     | 310mm  |
| Material      | Class RA2 (12899-1:2007) | Area       | 0.23m² |

| POST(S) & FOUNDATIONS |             |               |                      |
|-----------------------|-------------|---------------|----------------------|
| Mounting Height       | 2300mm      | Bases         | Individual           |
| Number                | 1           | Base Width    | 300mm                |
| Size                  | 60.3x3.2CHS | Base Length   | 300mm                |
| Length                | 3550mm      | Base Depth    | 800mm                |
| Centres               | N/A         | Base Vol. o/a | 0.072 m <sup>3</sup> |
| Illumination          | No          | Earth Cover   | 0mm                  |

**SIGNS**

|          |          |                                                                                                                          |       |         |
|----------|----------|--------------------------------------------------------------------------------------------------------------------------|-------|---------|
| C25      | 09.08.24 | Bollard positions and detail added.                                                                                      | RJC   | WSR     |
| C24      | 31.01.24 | Additional levels added and SW22 updated.                                                                                | RJC   | WSR     |
| C23      | 11.01.24 | Section 104/38 status note added.                                                                                        | RJC   | WSR     |
| C22      | 06.11.23 | SW15, SW20, SW21 & SW22 reverted to previous design. Plots 47, 50 & 51 fence line updated to suit.                       | RJC   | WSR     |
| C21      | 18.09.23 | ASHP locations amended as requested.                                                                                     | RJC   | WSR     |
| C20      | 29.08.23 | Cover Levels updated for SW17, SW18, SW19, SW21, FW12 and FW14.                                                          | RJC   | WSR     |
| C19      | 09.08.23 | SW15, SW22, SW21 updated to suit latest drainage design.                                                                 | RJC   | WSR     |
| C18      | 21.06.23 | RWP added to Plot 35 to suit client comments (email 28.07.23).                                                           | RJC   | WSR     |
| C17      | 21.06.23 | SW19 Invert Levels amended. SW18-SW19 gradient updated to suit.                                                          | RJC   | WSR     |
| C16      | 07.06.23 | Updated to suit S38 Design Audit Report. Back inlet gullies removed from Dart and Tread housepans as per client comment. | RJC   | WSR     |
| C15      | 16.05.23 | Attenuation tank size updated, manhole SW23 relocated.                                                                   | WSR   | TC      |
| C14      | 04.05.23 | SW24 (Aqua-Swirl) removed in line with S104 comments.                                                                    | RJC   | WSR     |
| C13      | 28.04.23 | Updated to suit latest layout.                                                                                           | KT    | WSR     |
| C12      | 31.03.23 | Extent of permeable paving updated on driveways.                                                                         | RJC   | WSR     |
| C11      | 24.03.23 | Drawing updated to suit the latest layout.                                                                               | RJC   | WSR     |
| C10      | 10.02.23 | Amended to suit client comments (email 27.01.23).                                                                        | KT    | WSR     |
| REV. No. | DATE     | DESCRIPTION                                                                                                              | DRAWN | CHECKED |

Client: **REDROW**

Project: Barton Road, Havant

Title: Engineering Layout Sheet 1

Scale: 1:250 @ A0

Status: CONSTRUCTION

Drawn: Project Engineer MJA Project No: 6383

Date: 05/2021

Drawing Number: 6383-MJA-SW-XX-DR-C-001

Rev: C25

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**SECTION 104 - APPROVED**  
**SECTION 38 - NOT APPROVED**  
AGREEMENTS PENDING. ALL CONSTRUCTION WORKS  
AT DEVELOPERS RISK.