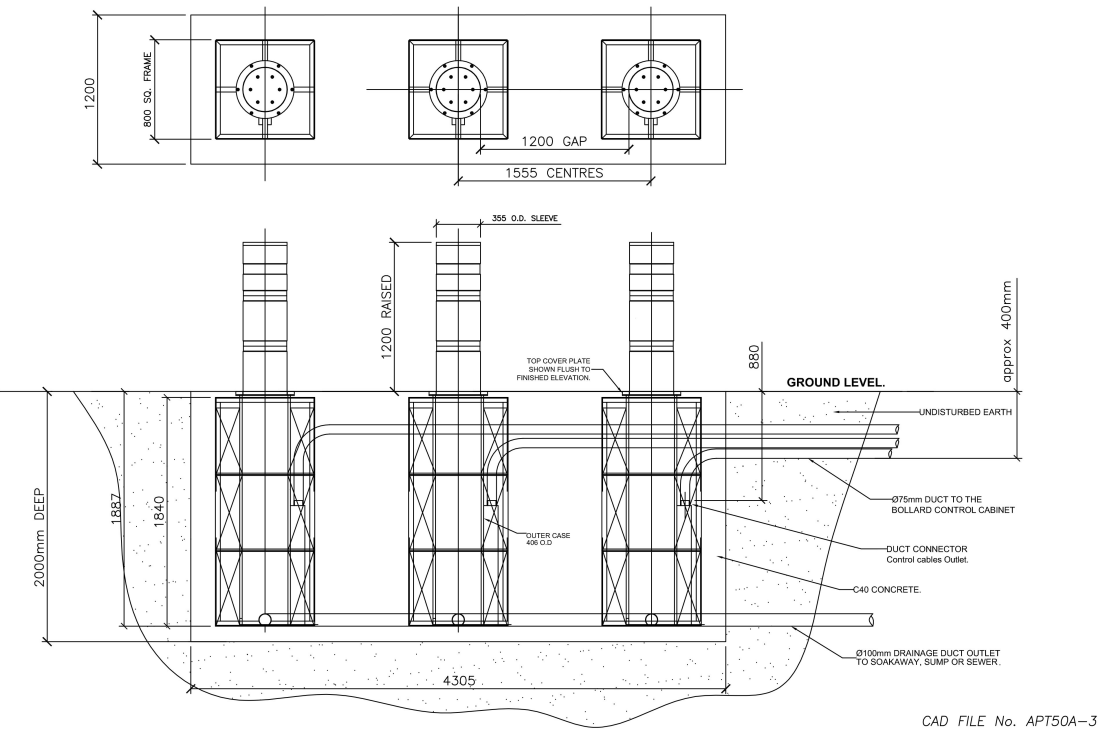
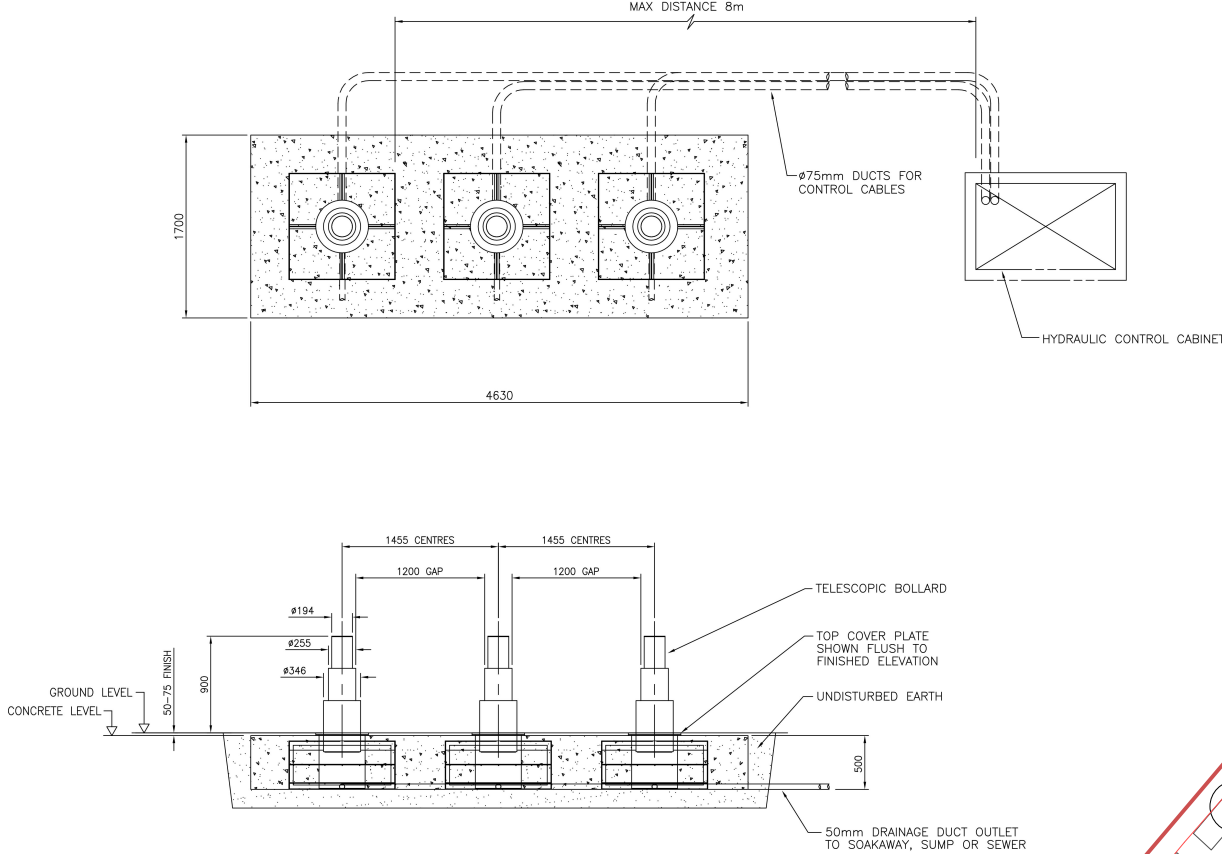


Gate Controlled Auto-Bollard Options

OPTION A
Installation detail of Automatic Hydraulic Bollards : APT50A
by APT Security Systems



OPTION B
Installation detail of Automatic Hydraulic Telescopic Bollards APT 30AT
by APT Security Systems



Precedent Images



APT Heavy Duty Static Bollards
Ø 114Dia x 1000mmH

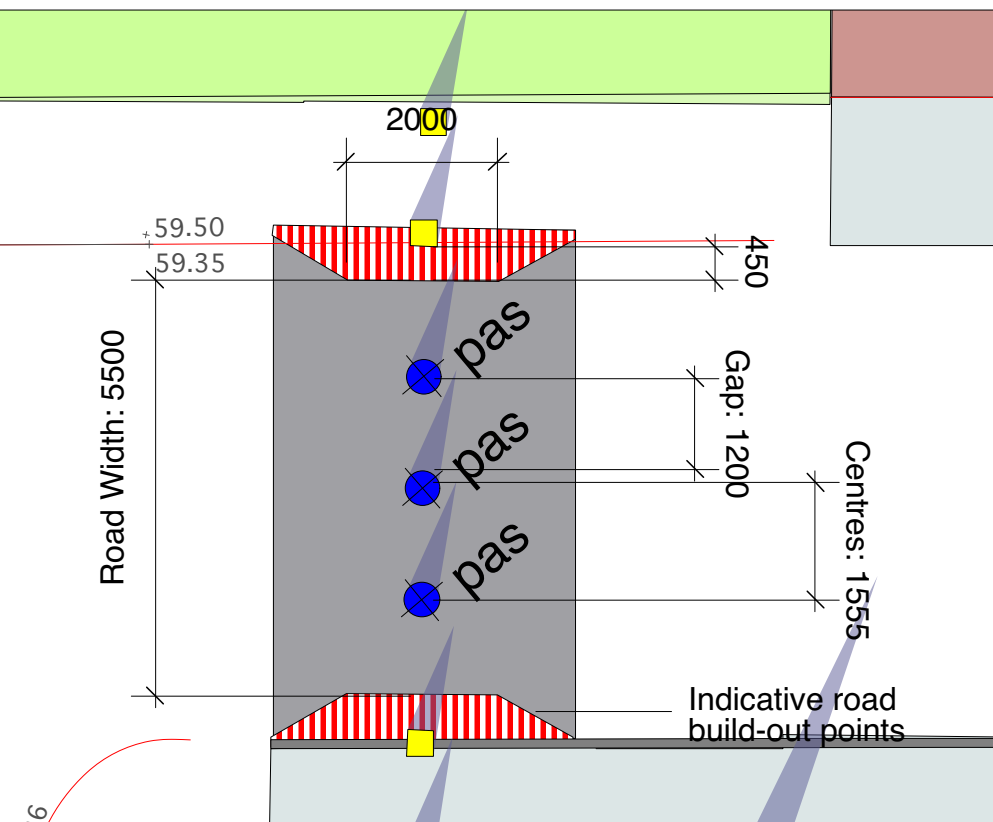


APT Heavy Duty Telescopic Bollards
Ø 114Dia x 1000mmH
(bespoke height required)



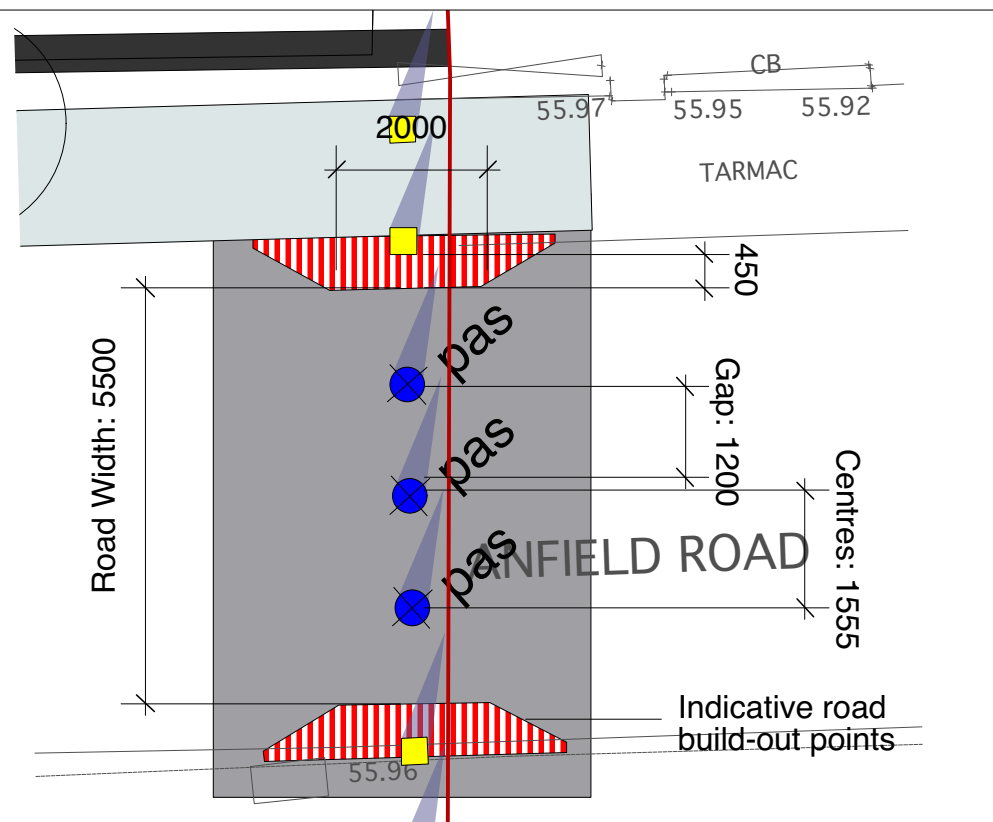
Timber and Rail knee posts

Detail Area A - 1:100 @ A1

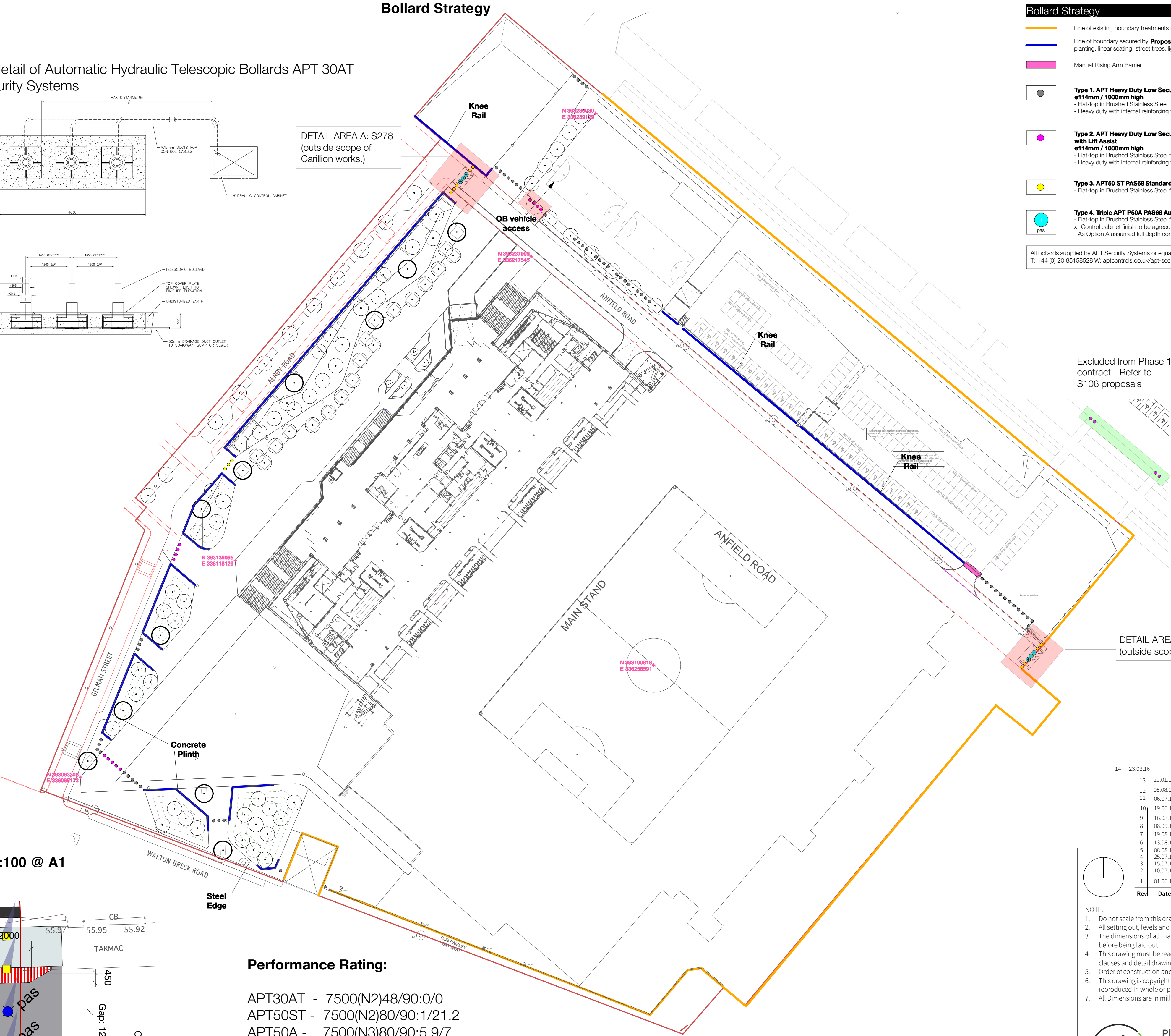


Sketch showing road build-out intent for Triple Automated Bollard points, subject to Highways input.
Works outside scope of Carillion works.

Detail Area B - 1:100 @ A1



Bollard Strategy



Bollard Strategy

- Line of existing boundary treatments retained // Or replaced by others
- Line of boundary secured by **Proposed** landscape elements and building edges; planting, linear seating, street trees, lighting columns etc.
- Manual Rising Arm Barrier
- Type 1. APT Heavy Duty Low Security Static Bollards - Q41 201A**
- Flat-top in Brushed Stainless Steel finish, with contrasting red band.
- Heavy duty with internal reinforcing tube
- Type 2. APT Heavy Duty Low Security Telescopic Bollards - Q41 202A with Lift Assist**
- Flat-top in Brushed Stainless Steel finish, with contrasting red band.
- Heavy duty with internal reinforcing tube
- Type 3. APT50 ST PAS68 Standard Static Bollards - Q41 203A**
- Flat-top in Brushed Stainless Steel finish, with contrasting red band.
- Type 4. Triple APT P50A PAS68 Auto Bollard - OPTION A+B - Q41 204A**
- Flat-top in Brushed Stainless Steel finish, with contrasting red band.
- Control cabinet finish to be agreed.
- As Option A assumed full depth construction to Anfield Road

All bollards supplied by APT Security Systems or equal approved.
T: +44 (0) 20 85168528 W: aptcontrols.co.uk/apt-security-systems

Excluded from Phase 1 contract - Refer to S106 proposals

DETAIL AREA B: S278 (outside scope of Carillion works.)

Performance Rating:

APT30AT - 7500(N2)48/90:0/0
APT50ST - 7500(N2)80/90:1/21.2
APT50A - 7500(N3)80/90:5.9/7

Spacings

- PAS Rated Bollards to be spaced as standard at 1.2m face-to-face (1.478m MAX centres)

- Heavy-duty Bollards to be spaced as standard at 1.70m centres

System Operation

- 3 x APT PAS68 automatic bollard systems will be lowered and raised remotely from onsite security via the hardwired link to each system.
For power information refer to Jacobs drawing: UN12545-EMM-DG7101

- Control location: TBC

Bollard Visibility

All bollards supplied with hi-visibility reflective bands

Rev	Date	Status and Description	Drawn	Apprvd.
14	23.03.16	Planning Discharge	JT	LH
13	29.01.16	Construction	JT	GB
12	05.08.15	PLANNING - Section T3	JT	GB
11	06.07.15	PLANNING - Section T3	JT	GB
10	19.06.15	Minor amendments	JT	GB
9	16.03.15	Design Change	JT	GB
8	08.09.14	TENDER	JT	GB
7	19.08.14	TENDER	JT	GB
6	13.08.14	Secure Line + Bollards	JT	GB
5	08.08.14	OB Access / PAS	JT	GB
4	25.07.14	DRAFT - Updated	JT	LH
3	15.07.14	DRAFT - Updated	JT	LH
2	10.07.14	DRAFT	JT	LH
1	01.06.14	DRAFT	JT	LH

NOTE:
1. Do not scale from this drawing
2. All setting out, levels and dimensions to be agreed on site.
3. The dimensions of all materials must be checked on site before being laid out.
4. This drawing must be read with the relevant specification clauses and detail drawings
5. Order of construction and setting out to be agreed on site.
6. This drawing is copyright protected and may not be reproduced in whole or part without written authority.
7. All Dimensions are in millimetres unless Otherwise Stated

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18 Bowling Green Lane London EC1R 0BW
020 7253 5678

Project	New Anfield
Client	Liverpool Football Club
Drg title	Bollard Strategy + Secure Boundary Line
Drg nr	PL1312.GA.128
Scale	1:750@A1
Date:	24.06.14
Drawn	JT
Status	Construction
Checked	LH