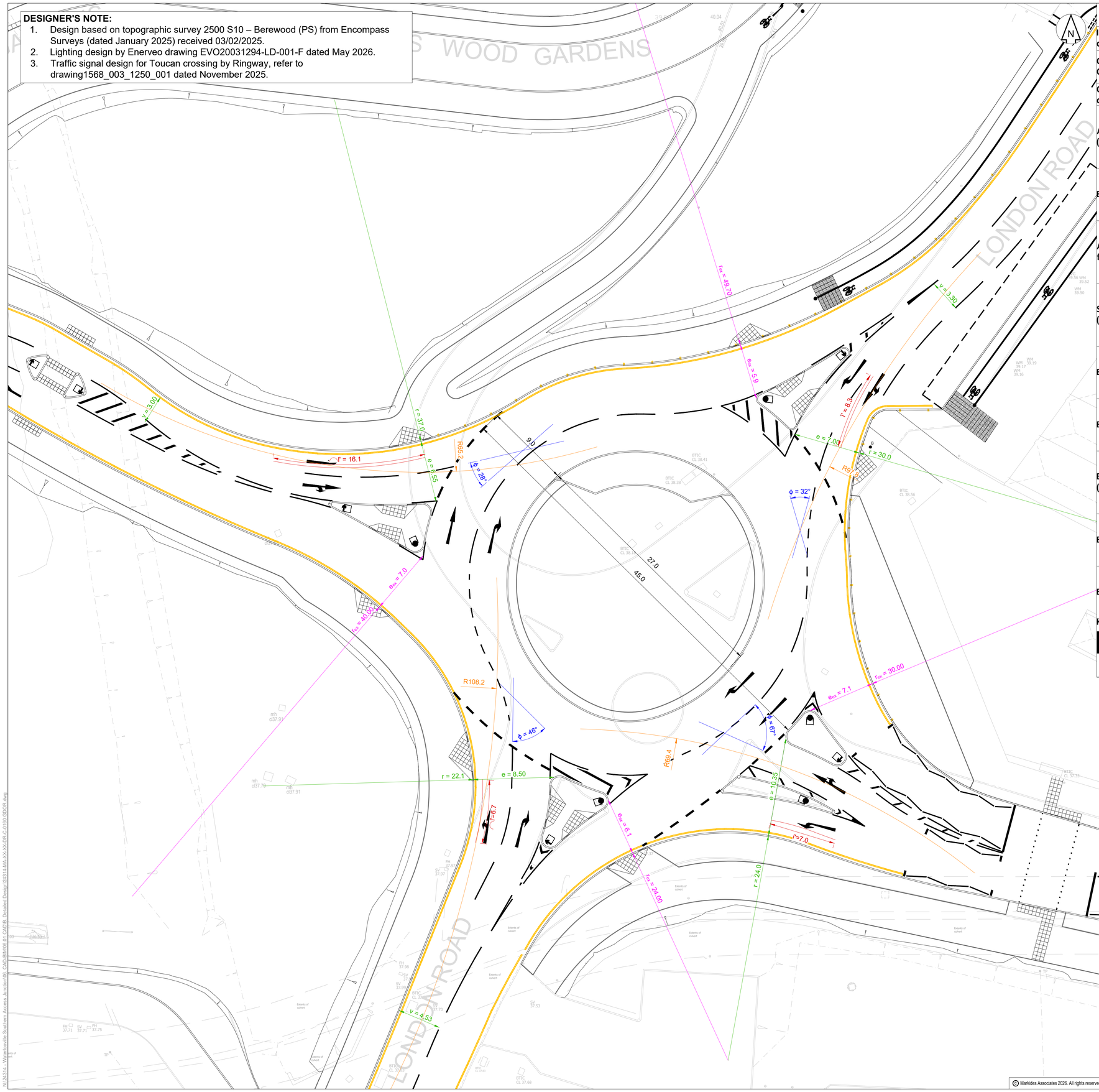
DESIGNER'S NOTE:

1. Design based on topographic survey 2500 S10 – Berewood (PS) from Encompass Surveys (dated January 2025) received 03/02/2025.
2. Lighting design by Enerveo drawing EVO20031294-LD-001-F dated May 2026.
3. Traffic signal design for Toucan crossing by Ringway, refer to drawing1568_003_1250_001 dated November 2025.



Parameter	Roundabout Arm	Design Value	CD116 Requirement
Inscribed circle diameter (D)		45.0 m	
Circulatory Carriageway Width		9.0 m	
Central island diameter		27.0 m	
Approach half width (v)	North Arm	3.30 m	-
	South Arm	4.53 m	
	East Arm	3.50 m	
	West Arm	3.00 m	
Entry width (e)	North Arm	7.20 m	
	South Arm	8.50 m	
	East Arm	10.35 m	
	West Arm	6.55 m	
Average effective flare length (l')	North Arm	8.3 m	l' ≥ 5m
	South Arm	6.7 m	
	East Arm	7.00 m	
	West Arm	16.1 m	
Sharpness of Flare (S)	North Arm	0.713	0 ≤ S ≤ 1
	South Arm	0.948	
	East Arm	1.566	
	West Arm	0.353	
Entry angle (ϕ)	North Arm	32.00 °	20° ≤ ϕ ≤ 60°
	South Arm	46.00 °	
	East Arm	67.00 °	
	West Arm	28.00 °	
Entry kerb radius (r)	North Arm	30.0 m	10m ≤ r ≤ 100m
	South Arm	22.1 m	
	East Arm	24.0 m	
	West Arm	37.0 m	
Entry path radius (r_e)	North Arm	97.8 m	
	South Arm	108.2 m	
	East Arm	69.4 m	
	West Arm	65.2 m	
Exit width (e_{ex})	North Arm	5.9 m	7m ≤ e_{ex} ≤ 7.5m
	South Arm	6.1 m	
	East Arm	7.1 m	
	West Arm	7.0 m	
Exit kerb radius (r_{ex})	North Arm	49.7 m	20m ≤ r_{ex} ≤ 100m
	South Arm	24.0 m	
	East Arm	30.0 m	
	West Arm	40.0 m	

Key

	Mandatory by CD116
	Recommended by CD116

DO NOT SCALE OFF THIS DRAWING

Notes:

1. Do not scale off this drawing.
2. All dimensions in metres unless otherwise stated.
3. Site Location:
   - 3.1. Nearest postcode - PO7 5EW
   - 3.2. What3Words - pays.saints.branch
4. All dimensions, levels, survey grid co-ordinates and details shown on this drawing are to be checked on site by the contractor. Any discrepancies must be reported to the engineer prior to commencement of the works so that adjustments may be made if necessary.
5. No deviation from the details shown on this drawing is permitted without prior permission from the engineer.
6. This drawing is to be read in conjunction with all drawings with project reference number 24314.
7. All proposed highway alignments are to tie into the existing kerb lines smoothly and tangentially.
8. All highway works are to be agreed with Hampshire County Council (HCC) prior to implementation on site. Appropriate S278 agreements must be in place prior to the works commencing (if required).
9. All highway works to be in accordance with the MCHW Specification for Highway Works and HCC Standard Detail Drawings.
10. The contractor will be responsible for providing all required traffic management layout information, methods of working and operative accreditation to HCC on request.
11. The contractor will be responsible for all applications and notifications for road space booking in accordance with the current NRSWA.
12. Contractor shall not construct works until traffic management plans/proposals have been agreed with HCC.
13. All road signs and markings to comply with the Traffic Signs Regulations and General Directions 2016 (TSRGD 2016).
14. Road name plate locations to be confirmed by HCC.
15. HEALTH AND SAFETY: The works shall be carried out by specialist competent and experienced contractors who are members of a recognised national organisation. Operatives shall have received full and appropriate training for the operations they are to undertake. All work shall be carried out in accordance with all pertinent Health and Safety Regulations.
16. The contractor is responsible for all site health, safety and security matters. They shall independently carry out their own risk assessments and investigations prior to commencing works. They shall independently carry out their own risk assessments and investigations prior to any construction works commencing.
17. All workmanship and materials are to comply with the specification, building regulations, relevant British Standards and manufacturer's recommendations.
18. The contractor shall undertake such materials testing as indicated in the specifications and shall include the cost of testing in the tender.
19. It is the contractor's responsibility to familiarise themselves with the existing site layout with respect to access, existing construction, health and safety matters, drainage below ground and at surface level, party wall matters, cellars/vaults etc., and to inform the engineer of any variations.
20. The contractor is responsible for maintaining the structural stability and integrity of all adjacent existing structures (e.g. buildings, footpaths, roads, etc.) and services to be retained during the works. The contractor must design, provide and install all temporary/permanent propping or bracing required to achieve this, and must provide a detailed method statement (including calculations and drawings if applicable) for these works.
21. Prior to any works being undertaken, the contractor must establish the locations of all services that may affect or be affected by the works. Any services to be removed must be identified and safely isolated prior to removal and commencement of works.

Key:

- v — Approach half width
- e — Entry width
- r — Entry kerb radius
- r_e — Entry path radius (deflection)
- Φ — Entry angle
- e_{ex} — Exit width
- r_{ex} — Exit kerb radius
- l' — Average effective flare length

Revision History

Rev	Comment	By	Chkd	Appr	Date
P03	FOR APPROVAL	LB	HJ	HJ	03.06.2026
P02	UPDATED LADYBRIDGE RD AND LONDON RD	LL	HJ	HJ	27.05.2026
P01	FOR APPROVAL	CNW	HJ	HJ	06.11.2025

Current Revision

Rev	Comment	By	Chkd	Appr	Date
P03	FOR APPROVAL	LB	HJ	HJ	03.06.2026

S4 - FOR APPROVAL

GRAINGER PLC

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Project

BEREWOOD, WATERLOOVILLE
SOUTHERN ACCESS JUNCTION

Drawing Title

SECTION 278
GEOMETRY DESIGN OF ROUNDABOUT

Markides Associates reference: 24314

1:200 @A1

24314-MA-XX-XX-DR-C-0160-S4 - P03

Scale 1:200 @ A1 - 1:400 @ A3

4m 0 4m 8m 12m 16m 20m

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