

24050-04-001

PROPOSED HOUSING DEVELOPMENT AT  
BALLYMUN, DUBLIN

**Stage 1 Quality Audit**

(Incorporating a DMURS Street Design Audit, and Audits  
of Accessibility, Cycling, Walking and Road Safety)

for

Malone O'Regan

OCTOBER 2024



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**DOCUMENT CONTROL SHEET**

<b>Project Title</b>	Proposed Residential Development at Ballymun, Dublin
<b>Project No.</b>	24050-04
<b>Client</b>	Malone O'Regan
<b>Document Title</b>	Stage 1 Quality Audit
<b>Document No.</b>	24050-04-001

<b>Status</b>	<b>Author(s)</b>	<b>Reviewed By</b>	<b>Approved By</b>	<b>Issue Date</b>
Draft 1	GH	GF	GF	03/04/2024
Draft 2	GH	GF	GF	04/07/2024
Final	GH	GF	GF	23/10/2024

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## 1. INTRODUCTION

- 1.1 Roadplan Consulting has been commissioned by Malone O'Regan to carry out a Quality Audit of a proposed development at Ballymun, Dublin. This scheme is a part of the NDFA social housing schemes.
- 1.2 The proposed development comprises a large-scale residential development including dedicated car parking spaces, cycleway and cycle storage with numerous vehicular entrances.
- 1.3 Figure 1.1 below is a layout drawing of the development. The R108 and Balbutcher Lane both have posted speed limits of 50 km/h.



**Figure 1.1 – Site Location Map and Site Layout for the development**



## 2. QUALITY AUDIT

- 2.1 Quality Audit is a defined process, independent of, but involving, the design team that, through planning, design, construction and management stages of a project provides a check that high quality places are delivered and maintained by all relevant parties, for the benefit of all end users. Quality Audit is a process, applied to urban roads, traffic management or development schemes, which systematically reviews projects using a series of discrete but linked evaluations and ensures that the broad objectives of place, functionality, maintenance and safety are achieved.
- 2.2 Quality Audit was introduced in the publication Design Manual for Urban Roads and Streets following concerns that in the design of new streets provisions made for motor vehicles frequently led to a poorly designed public realm. In an urban area there is a high level of competing demand from different classes of road users. A well-balanced street will have minimal visual clutter and obstacles; it will use durable materials and most importantly, will encourage a degree of negotiation between road users as they make their way through it.
- 2.3 Quality Audit involves various assessments of the impacts of a street scheme in terms of road safety, visual quality and the use of streets by the community. Access for disabled people, pedestrians, cyclists and drivers of motor vehicles is considered.
- 2.4 In the context of a Quality Audit, road safety assessment is considered to be an appropriate method of examining road safety issues as it incorporates both the hazard identification techniques used in road safety audit and formal risk assessment techniques. This allows the opportunity at an early stage for road safety issues to be considered in a more dynamic way within the design process, and to ensure that safety issues are considered as part of the design rather than after design work is completed.
- 2.5 The Quality Audit Team reports findings with suggestions for future action. It should be noted that, in a Quality Audit, it is not the intention that suggestions would be binding on the design team; they are offered for detailed consideration in the design process.
- 2.6 DMURS states that Quality Audits should consist of the following parts:
- DMURS Street Design Audit
  - Individual Design Audits
  - Quality Audit Report

In the case of this report the individual design audits comprise an RSA, an Accessibility audit, a Walking audit and a Cycle audit.

### 3. METHODOLOGY

3.1 The Audit Team was as follows:

- George Frisby, Chartered Engineer, MIEI
- Glenn Hingerty, Chartered Engineer MIEI

3.2 Road safety, non-motorised users, visual quality, access for disabled and functionality were considered in the Quality Audit. This exercise focused on issues such as:

- the design rationale as it related to vehicle, cycle and pedestrian movements;
- pedestrian desire lines both to and through the site;
- access requirements for all modes of transport;
- access requirements for disabled people and other vulnerable users;
- any road safety concerns associated with the scheme;
- how the scheme is experienced by those entering it and moving around within the street, including how this affects road user behaviour; and
- any other issues considered relevant to each constituent element of the Quality Audit process.

3.3 The site visit for this quality audit was carried out on 18<sup>th</sup> March 2024.

The documents provided for the audit were:

Drawing Number	Rev	Drawing Title
SHB4-BMD-DR-MOR-CS-P1-101	PR12	Proposed Overall Site Layout
SHB4-BMD-DR-MOR-CS-P1-102	PR4	Proposed Site Layout Sheet No.1 of 3
SHB4-BMD-DR-MOR-CS-P1-103	PR3	Proposed Site Layout Sheet No.2 of 3
SHB4-BMD-DR-MOR-CS-P1-104	PR3	Proposed Site Layout Sheet No.3 of 3
SHB4-BMD-DR-MOR-CS-P1-110	PR6	Swept Path Analysis – Refuse Truck
SHB4-BMD-DR-MOR-CS-P1-112	PR12	Swept Path Analysis – Aerial Platform Special Appliance
SHB4-BMD-DR-MOR-CS-P1-114	PR6	Proposed Sightlines
SHB4-BMD-DR-MOR-CS-P1-115	PR8	Swept Path Analysis – Fire Tender
SHB4-BMD-DR-MOR-CS-P1-120	PR3	Proposed Sight Lines

Copies of these audited drawings are contained in Appendix A.

Details of drainage or road lighting are not provided. It is assumed that adequate layouts will be provided for each.

In accordance with DMURS Advice Note No. 4 May 2019 (contained on <https://www.dmurs.ie/supplementary-material>) a Quality Audit should always contain a DMURS Street Design Audit and Other Design Audits (as required). Section 4 of this report contains the Street Design Audit and Section 5 contains the Other Design Audits (Road Safety, Walking, Cycling, Accessibility). The Street Design Audit is in the format provided as a template on the DMURS website.

## 4. STREET DESIGN AUDIT

CONNECTIVITY		
Key Issues	Key DMURS Reference	Audit Suggestion
Strategic routes/major desire lines been identified and are clearly incorporated into the design.	3.1 – Integrated Street Network 3.2.1 – Movement Function 3.3.1 – Street layouts 3.3.4 - Wayfinding	3.2.1 – There are two vehicular entrances to the development which may cause vehicular rat running for traffic between the R108 and Balbutcher Lane wanting to avoid the signalised junction between the R108 / Balbutcher Lane. Filtered Permeability should be considered to keep strategic traffic off local roads in the development.
Multiple points of access are provided to the site/place, in particular for sustainable modes.	3.3.1 – Street Layouts 3.3.3 – Retrofitting <sup>1</sup>	3.2.1 – There are two vehicular entrances to the development which may cause vehicular rat running for traffic between the R108 and Balcutcher Lane wanting to avoid the signalised junction between the R108 / Balbutcher Lane. Filtered Permeability should be considered.
Accessibility throughout the site is maximised for pedestrians and cyclists, ensuring route choice.	3.3.1 – Street Layouts 3.3.2 – Block Sizes 3.4.1 – Vehicle Permeability	No Comment
Through movements by private vehicles on local streets are discouraged by an appropriate level of traffic calming measures.	3.2.1 – Movement Function 3.2.2 – Place Context 3.4.1 – Vehicle Permeability	No Comment

<sup>1</sup> When connecting with existing communities a detailed analysis and extensive community consultation should be carried out to identify the optimal location for connections (refer also to the NTA Permeability in Existing Urban Areas: Best Practice Guide).

SELF-REGULATING STREET ENVIRONMENT		
Key Issues	Key DMURS Reference	Audit Suggestion
A suitable range of design speeds have been applied with regard to context and function.	3.2.1 – Movement Function 3.2.2 – Place Context 4.1.1 – A Balanced Approach to Speed <sup>2</sup>	No Comment
The street environment will facilitate the creation of a traffic calmed environment via the use of 'softer' or passive measures. <sup>3</sup>	4.2.1 – Building Height and Street Width 4.2.2 – Street Trees 4.2.3 – Active Street Edges 4.2.4 – Signage and Line Marking 4.2.7 – Planting 4.4.2 – Carriageway Surfaces 4.4.9 – On-Street Parking Advice Note 1 – Transitions and Gateways	4.2.2 – Landscaped areas are proposed within the development. Street Trees appear to be proposed along most streets. Planting creates a sense of place and unique character to each streetscape. Care should be taken to ensure the street trees do not block visibility splays at the proposed junctions and pedestrian crossings. Their location should not create risk for mobility impaired users with regard to falling leaves or surface rooting trees creating tripping hazards.  4.2.4 – Adequate signage and road markings should be provided according to the TSM and DMURS at all junctions and elsewhere as required.
A suitable range of design standards/ measures have been applied that are consistent with the applied design speeds.	4.4.1 – Carriageway Widths 4.4.4 – Forward Visibility 4.4.5 – Visibility Splays 4.4.6 – Alignment and curvature 4.4.7 – Horizontal and Vertical Deflections Advice Note 1 – Transitions and Gateways	4.4.4 – Forward visibility at all carriageway deflections should be kept clear of all obstructions including parked vehicles, and vegetation/landscaping.  4.4.5 – Visibility Splays at all junctions should be kept clear of all obstructions including parked vehicles, and vegetation/landscaping. This includes future maintenance of tree growth in proximity to junction visibility splays.

<sup>2</sup> Refer also to the National Speed Limit Guidelines

<sup>3</sup> In retrofit situations a detailed analysis should be carried out to establish what measures exist, what their likely effectiveness is and level of intervention required to achieve the designed design speed.

SELF-REGULATING STREET ENVIRONMENT		
Key Issues	Key DMURS Reference	Audit Suggestion

<b>PEDESTRIAN AND CYCLING ENVIRONMENT</b>		
<b>Key Issues</b>	<b>Key DMURS Reference</b>	<b>Audit Suggestion</b>
The built environment contributes to the creation of a safe and comfortable pedestrian environment.	4.2.1 – Building Height and Street Width 4.2.3 – Active Street Edges 4.2.5 – Street Furniture 4.4.9 – On-Street parking	No Comment
Footpaths are continuous and wide enough to cater for the anticipated number of pedestrian movements.	3.2.1 – Movement Function 3.2.2 – Place Context 4.2.5 – Street Furniture 4.3.1 - Footways, Verges and Strips 4.3.2 - Pedestrian Crossings	4.2.5 – Segregated footways have been provided and appear to be clear of obstructions which may reduce their effective width.  4.2.5 – Some footways feature Sheffield Stands which may post a challenge for mobility for those with a vision impairment. Sheffield stands should be in designated area separated by kerbs and recessed away from footways.  4.2.5 – Benches may be a useful addition to the landscaped area. This will allow pedestrian with a mobility impairment to rest.
Cycling facilities will cater for cyclists of all ages and abilities.	3.2.1 – Movement Function 3.2.2 – Place Context 4.3.5 – Cycle facilities	3.2.1 – Cyclists will be expected to mix amongst general vehicular traffic to access the proposed development. There is no proposed tie-in provision for future cycle schemes in the GDA Cycle network strategy.
The particular needs of visually and mobility impaired users been identified and incorporated in the design.	4.2.5 - Street Furniture 4.3.1 - Footways, Verges and Strips 4.2.5 - Street Furniture 4.3.2 - Pedestrian Crossings 4.3.4 - Pedestrianised and Shared Surfaces	4.3.1 – Footpaths throughout the development may be used by cycles as there is no designated cycleway network.

<b>VISUAL QUALITY</b>		
<b>Key Issues</b>	<b>Key DMURS Reference</b>	<b>Audit Suggestion</b>
The landscape plan responds to the street hierarchy and the value of the place.	3.2.1 – Movement Function 3.2.2 – Place Context 4.2.2 – Street Trees 4.2.7 – Planting Advice Note 1 – Transitions and Gateways	4.2.2 – Landscaped areas are proposed within the development. Street Trees appear to be proposed along most streets. Planting creates a sense of place and unique character to each streetscape. Care should be taken to ensure the street trees do not block visibility splays at the proposed junctions and pedestrian crossings. Their location should not create risk for mobility impaired users with regard to falling leaves or surface rooting trees creating tripping hazards.
Street furniture is orderly placed.	3.2.1 – Movement Function 3.2.2 – Place Context 4.2.5 - Street Furniture 4.3.1 - Footways, Verges and Strips	4.3.1 – Footways largely appear clear of proposed obstacles that may reduce their effective width; however, it is not clear where bins will be stored on collection day. This may pose a hazard for those with visual and mobility impairments.
The use of signage and line marking has been minimised.	3.2.1 – Movement Function. 3.2.2 – Place Context. 4.2.4 - Signage and Line Marking.	No comment
Materials and finishes used throughout the scheme have been selected from a limited palette and respond to the value of the place?	3.2.1 – Movement Function 3.2.2 – Place Context 4.2.6 – Materials and Finishes 4.2.8 – Historic Contexts 4.3.2 – Pedestrian Crossings 4.4.2 – Carriageway Surfaces Advice Note 2 – Materials and Specifications	4.2.6 – It is not clear if there is clarity between footways and roadways for pedestrians with visual impairments.



**ADDITIONAL COMMENTS**

## 5. ROAD SAFETY

### 5.1 Issue

It is noted that the proposed raised tables and grade changes throughout the development including, but not limited to, those in Figure 5.1 & 5.2, do not feature drainage measures on either side of continuous ramps. This lack of drainage may result in ponding water, and/or associated silt forming, which may result in cyclists slipping and falling onto the road with associated injuries.

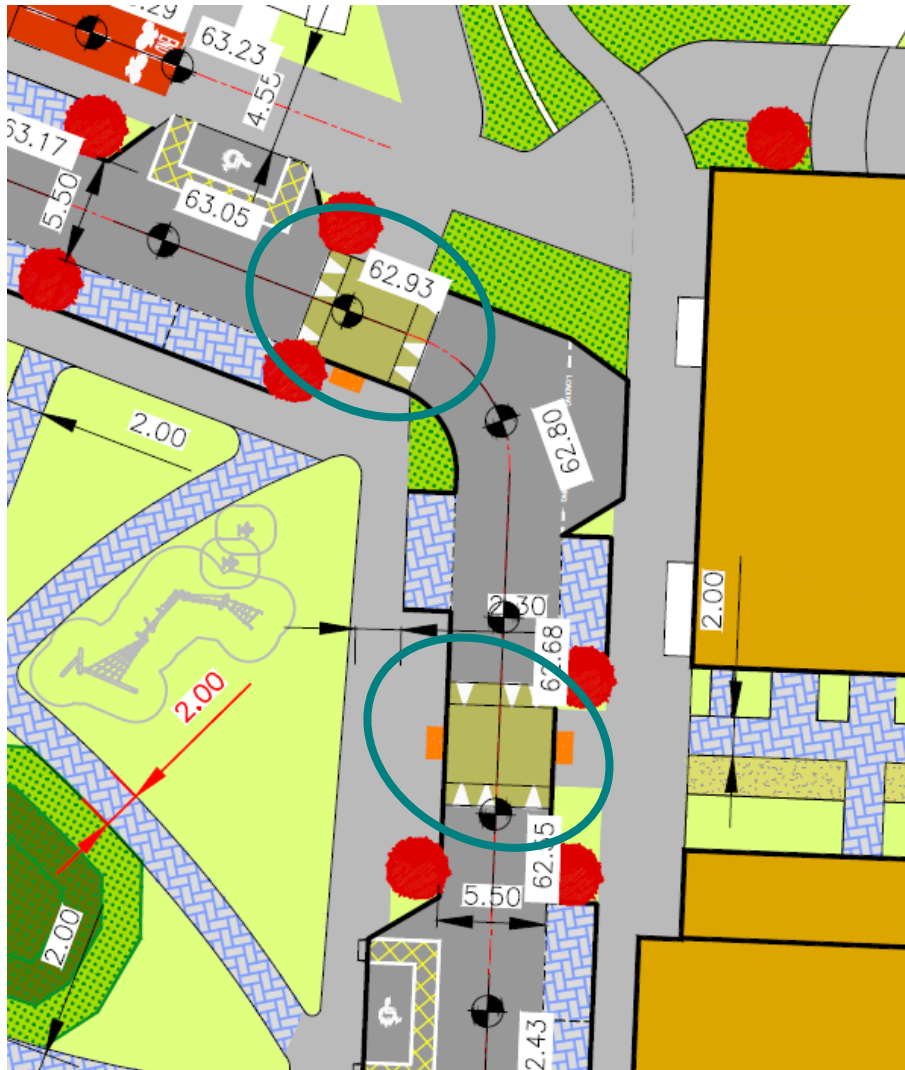


Figure 5.1 – Raised Crossings without drainage detail

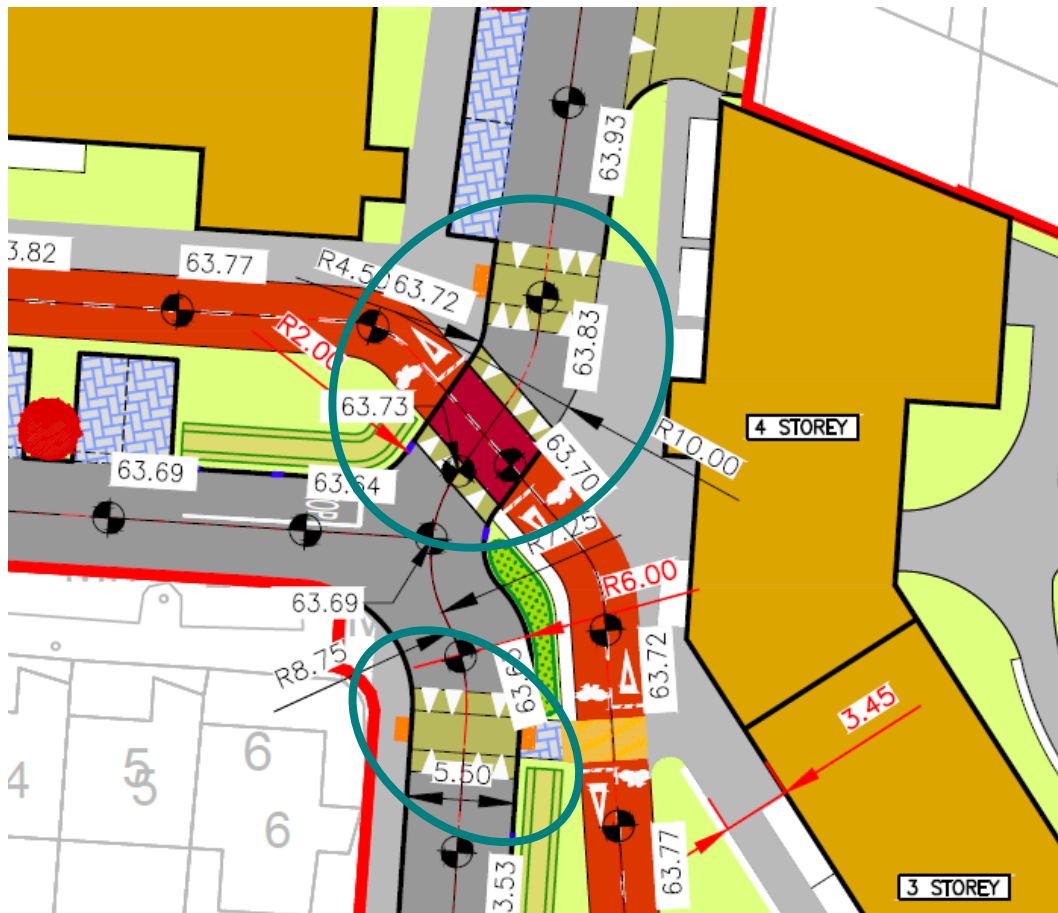


Figure 5.2 – Raised Crossings without drainage detail

### **Suggestion**

Ensure that adequate drainage measures are included for all such grade changes.

### 5.2 **Issue**

Sightlines at the priority junctions in Figure 5.3 & Figure 5.4 may be interrupted by tree and parked vehicles. This may increase the likelihood of vehicle collisions due to the reduced sightlines. The sightlines at the junction in 5.6 also may be interrupted by parked cars (both formal and informal/illegal parking) as outlined in Figure 5.5 and Figure 5.6.







**Figure 5.5 – Visibility Splay interrupted by parking**



**Figure 5.6 – Visibility Splay interrupted by parking**

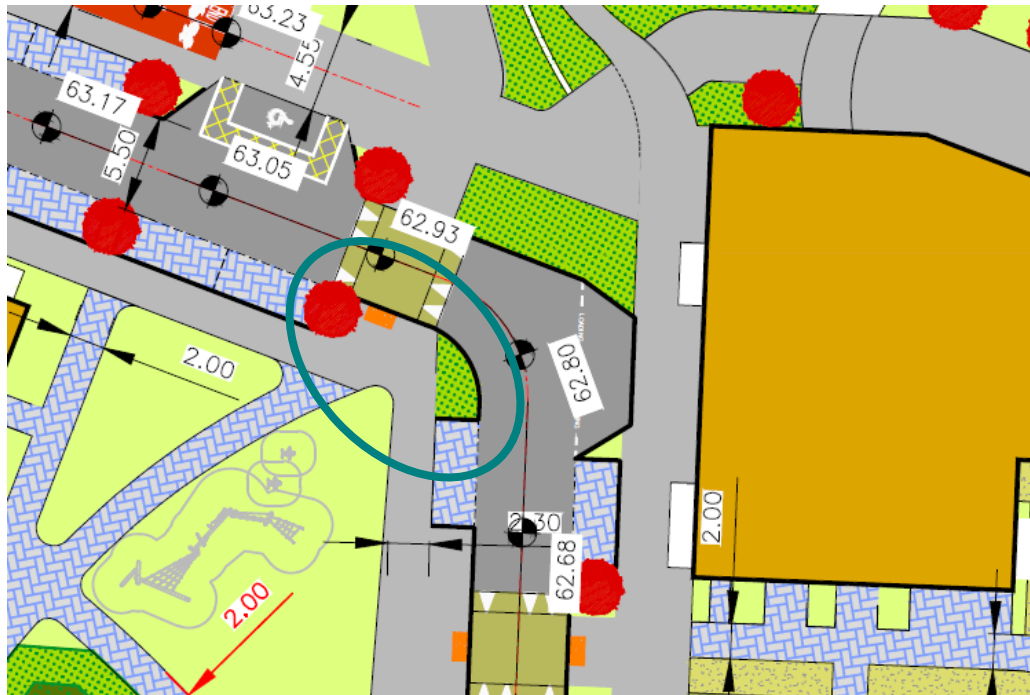
### **Suggestion**

Ensure adequate visibility splays at all junctions from edge of carriageway. Formalise parking and negate potential for illegal parking.

### **5.3 Issue**

The stopping sight distance (for vehicles approaching from the south) may be obstructed by vehicles parked in the parking bays (Figure 5.7), which may compromise visibility. This may increase the likelihood of vehicle collisions due to the reduced sightlines. Visibility of

pedestrians approaching the priority crossing may also be obscured, potentially causing injuries for users.



**Figure 5.7 – Stopping Sight Distance compromised by tree**

### **Suggestion**

Ensure adequate stopping sight distance along all roadways, particularly at bends.

### 5.4 **Issue**

The layout of the road alignment on the mainline through the junction Figure 5.8 may not accommodate the swept paths of two opposing vehicles without crossing over into the opposing lane. Such a layout may contribute to a side swipe collision with opposing vehicles at this location.

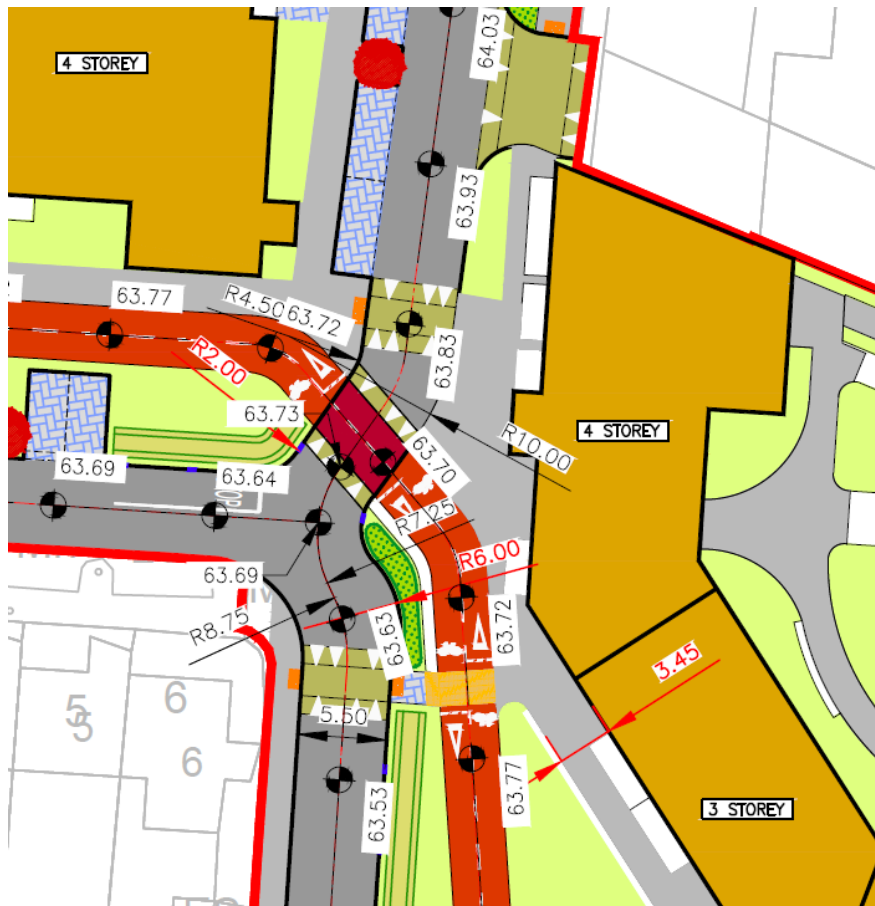


Figure 5.8 – Road Alignment

### **Suggestion**

Revise the layout of the road alignment at this location to ensure that it can accommodate two opposing vehicles.

### 5.5 **Issue**

It is unclear if the proposed bus stop bay in Figure 5.9 features Kassel Kerbing or kerbside tactile paving. Lack of Kassel Kerbing at this location may increase the likelihood of buses pulling in mounting kerbs and injuring pedestrians. Lack of bus top kerb edge tactile paving may also increase the likelihood of pedestrians being struck by vehicles if they become disorientated.





## 6. WALKING

### 6.1 Issue

Inter-visibility between pedestrians and drivers and between cyclists and pedestrians at crossings in the proposed development may be significantly compromised by the proposed trees and parking locations. This may increase the risk of collisions and pedestrian injuries at these locations because of trees and parking including, but not limited to, those circled in Figures 6.1 to Figure 6.4.



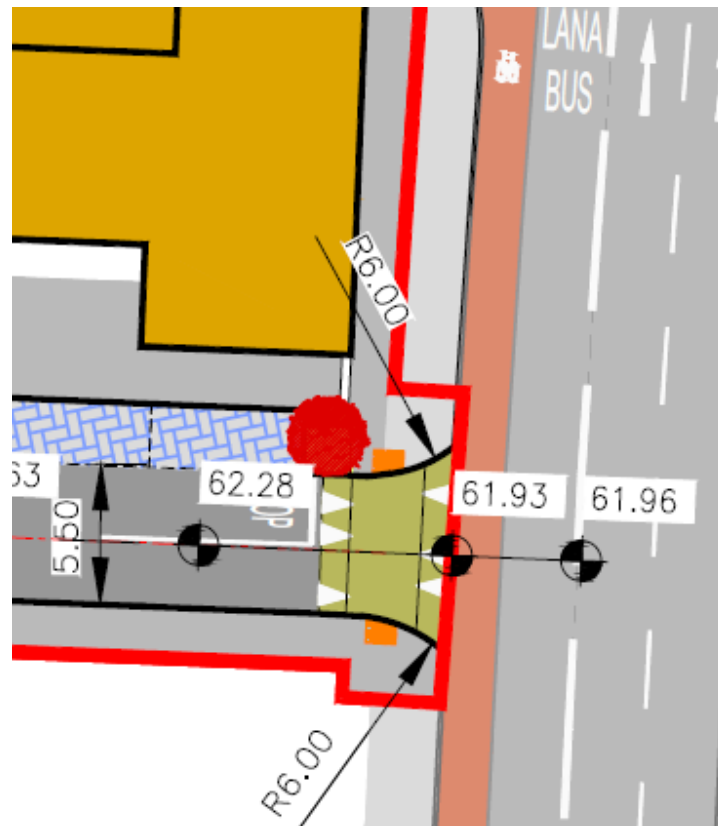
Figure 6.1 – Proposed Trees and parking compromising intervisibility of pedestrians and motorist at crossings



Figure 6.2 – Proposed Trees and parking compromising intervisibility of pedestrians and motorist at crossings



Figure 6.3 – Proposed Trees and parking compromising intervisibility of pedestrians and motorist at crossings



**Figure 6.4** – Proposed Trees and parking compromising intervisibility of pedestrians, motorists and cyclists at crossings

### **Suggestion**

Ensure adequate inter-visibility between pedestrians and drivers and pedestrians and cyclists at priority crossings. Relocate trees and parking as appropriate.

## 6.2 **Issue**

The proposed development features many trees. It is unclear what (if any) tripping hazards, due to differentially lifting footways, may be created by these trees if surface rooting species are specified.

### **Suggestion**

Ensure appropriate tree species specification. Consult an arborist as required. Install tree pits as appropriate.

## 7. CYCLING

### 7.1 Issue

The raised crossing on the R108 may pose problems for cyclists due to the narrow constraint (Figure 7.1). Cyclist arriving at the crossing will mix with pedestrians, at an oblique angle. Trees proposed may also impact the intervisibility between cyclists and pedestrians at this location, increasing the risk of collisions. The existing crossing is also a standard pedestrian crossing which will be too narrow (Figure 7.2) to facilitate a 2-way cycleway. This will result in an increased likelihood of cyclists striking other crossing users.

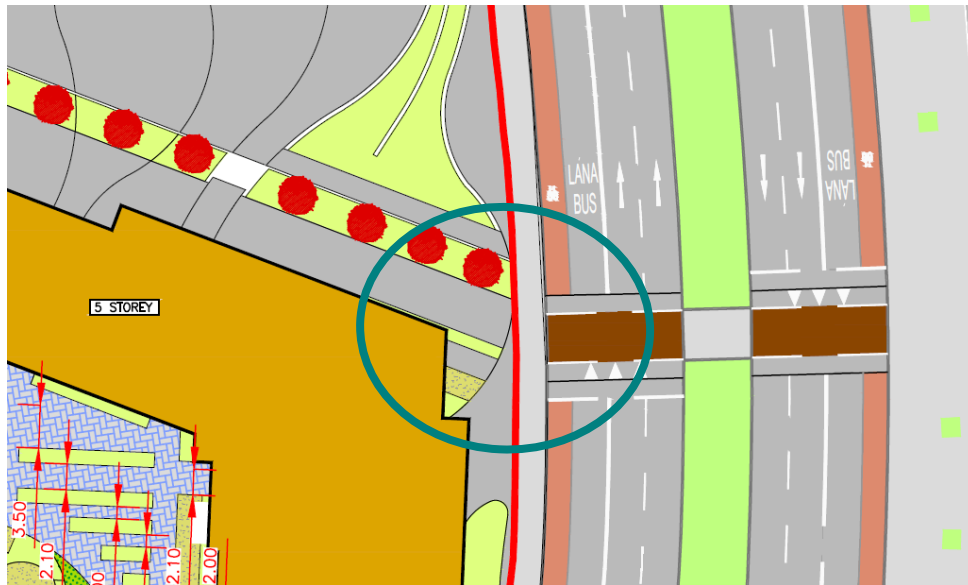


Figure 7.1 – Raised Crossing Tie-in



Figure 7.2 – Raised Crossing Width



**Suggestion**

Ensure adequate space here. Increase width of crossing on R108. Replace with Toucan Crossing. Improve intervisibility at cycleway/footway tie in.

**7.2 Issue**

Based on the proposed geometry, it is not clear what the cycleway maintenance strategy is. A lack of maintenance may result in a built up of leaves or other organic material or litter which may pose slipping hazard.

**Suggestion**

Ensure adequate maintenance of cycleway. Consider what type of vehicle will be used for design purposes.

**7.3 Issue**

While there is no proposed cycle infrastructure in the development, except the greenway through the development, it is not clear however how the development will tie into the proposed 'Primary Orbital' Cycle Route (red in Figure 7.3) along the R108, the 'Secondary' Route (blue in Figure 7.3) on Balbutcher Lane, or the 'Feeder' Route (dashed pink line in Figure 7.3) on Dolmen Way. A lack of coordination may reduce the effectiveness of these schemes, proposed by Dublin City Council and National Transport Authority, and undermine potential to achieve cyclist desire lines.

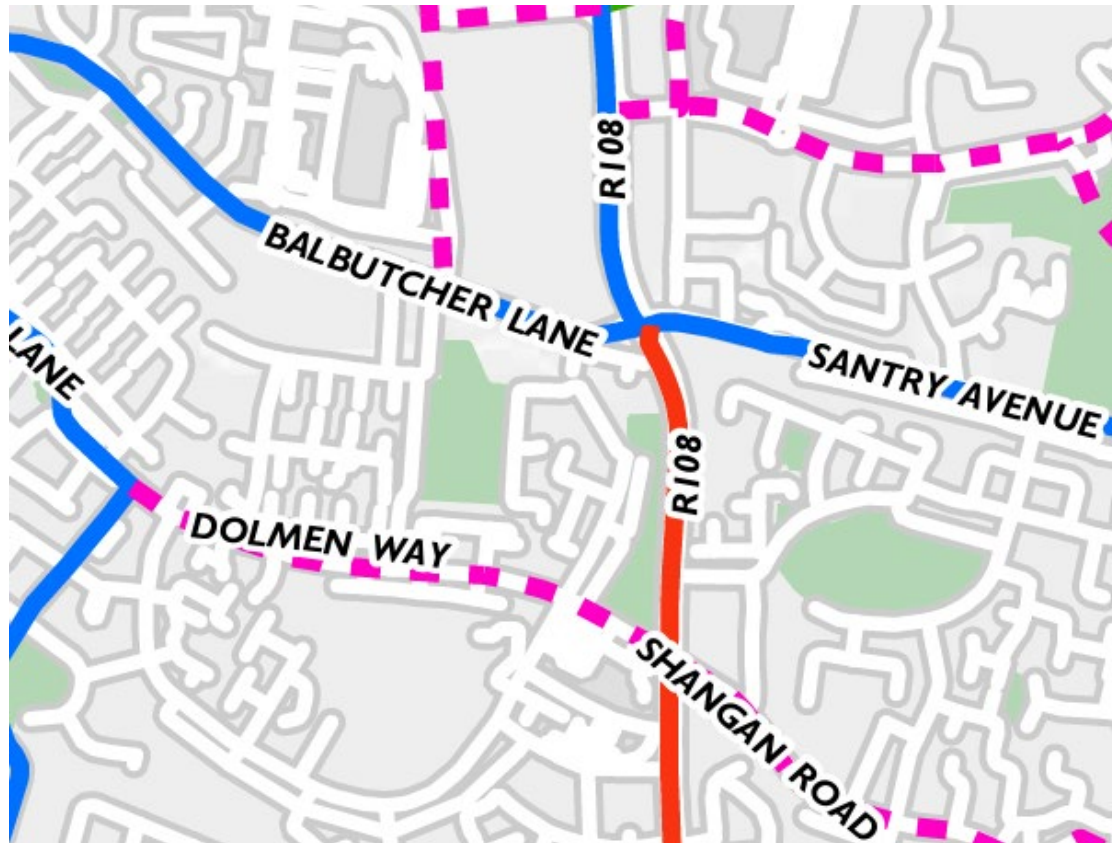


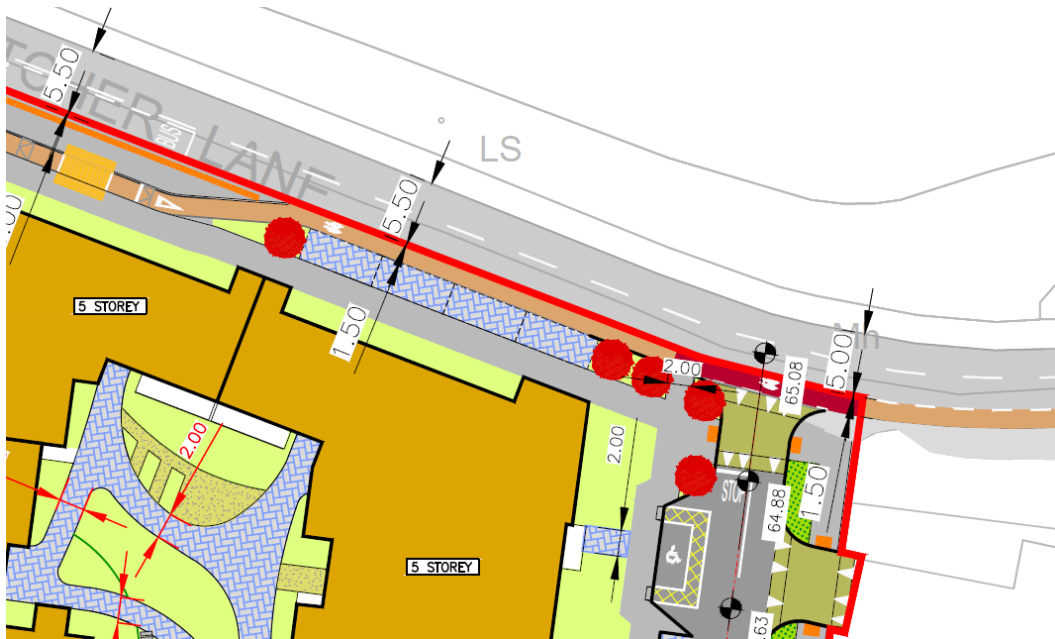
Figure 7.3 – GDA Cycle Network ([www.nationaltransport.ie/wp-content/uploads/2023/01/2022-GDA-Cycle-Network.pdf](http://www.nationaltransport.ie/wp-content/uploads/2023/01/2022-GDA-Cycle-Network.pdf))

**Suggestion**

Consider wider network impacts of future schemes to support Provide a network of segregated cycleways through the development. Consult with Dublin City Council Active Travel to ensure the development is futureproofed.

**7.4 Issue**

It is proposed to install parallel parking next to advisory cycleway on Balbutcher Lane (Figure 7.4). This may increase the likelihood of collisions between cyclists and vehicles, or the likelihood of cycles being struck by opening car doors.



**Figure 7.4 – Advisory Cyclelane on Balbutcher Lane**

**Suggestion**

Remove parking. Provide adequate separation between cyclists and traffic. Consult the National Cycle Manual.



## 8. ACCESSIBILITY

### 8.1 Issue

The existing crossing on the R108 (Figure 8.1) does not feature adequate tactile paving to facilitate crossing for those with a vision impairment. There are also no shared space tactile paving indicators at this transition between the cycleway on the R108, the footway on the R108, the existing raised crossing and the proposed cycleway in the development (Figure 8.2). This may result in user confusion or disorientation at this location.



Figure 8.1 – Existing pedestrian Crossing on R108

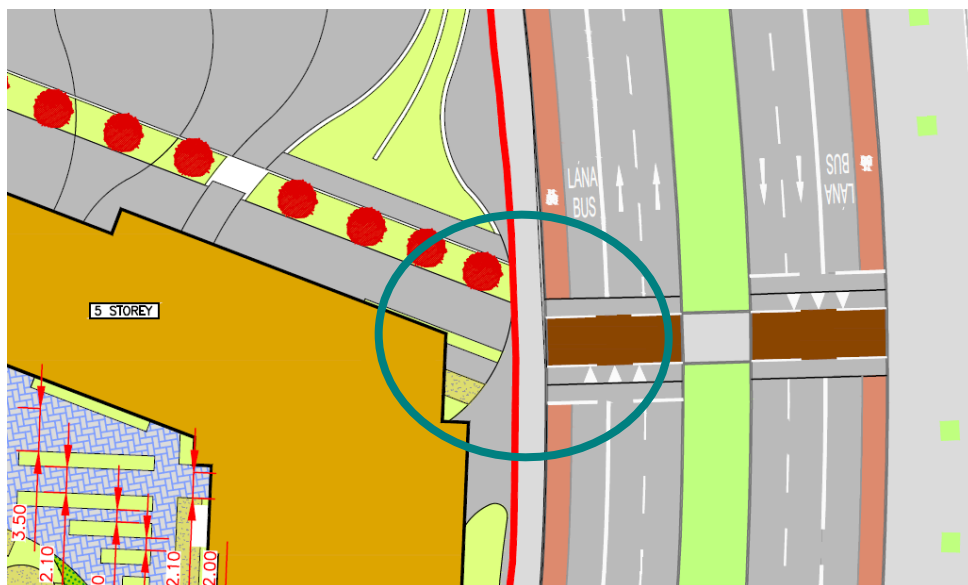


Figure 8.2 – Shared Space Transition

### **Suggestion**

Ensure adequate provision of Tactile Paving and space to navigate this shared space.

### 8.2 **Issue**

DMURS style Local Shared Streets (E.g. Figure 8.3) feature in the proposed development. As these may feature roads and footways with potentially no level difference (it is unclear from drawings provided if there is a proposed level change), this may pose a risk that pedestrians with a vision impairment may wander out onto the carriageway (at locations other than a formal crossing) and be struck by a vehicle. There is also no tactile paving provided at the crossings on the junction in Figure 8.3.



**Figure 8.3 – Local Shared Street**

### **Suggestion**

Include an upstand between the footway and carriageway, or a tactile delineation line, to support navigation by vision impaired pedestrians with a white cane. Provide tactile paving at all crossings points.

### 8.3 **Issue**

Sets of steps in the development (existing – Figure 8.4) do not feature tactile paving. It is unclear if proposed steps feature railings. Lack of railings and tactile paving may increase the likelihood of injuries for pedestrians with mobility impairments or vision impairments respectively.



**Figure 8.4 – Existing Steps with no Tactile Paving**

**Suggestion**

Ensure all steps and ramps throughout the development feature railings and appropriate tactile paving.

## 9. QUALITY AUDIT FEEDBACK FORM

**Scheme:** Ballymun Residential Development, Dublin

**Document Number:** 24050-04-001

**Date Audit Completed:** 28<sup>th</sup> March 2024

Paragraph No. in Safety Audit Report	To Be Completed By Designer			To Be Completed by Audit Team Leader
	Problem accepted (yes/no)	Recommended measure Accepted (yes/no)	Describe alternative measure(s). Give reasons for not accepting recommended measure. Only complete if recommended measure is not accepted.	Alternative measures or reasons accepted by auditors (yes/no)
5.1	Yes	Yes	-----	-----
5.2	Yes	Yes	-----	-----
5.3	Yes	Yes	-----	-----
5.4	Yes	Yes	-----	-----
5.5	Yes	Yes	-----	-----
6.1	Yes	Yes	-----	-----
6.2	Yes	Yes	-----	-----
7.1	Yes	No	The raised crossing on the R108 is outside the red line and outside the scope of the project.	Yes
7.2	Yes	Yes	-----	-----
7.3	Yes	Yes	-----	-----
7.4	Yes	Yes	-----	-----
8.1	Yes	No	The existing crossing on the R108 (figure 8.1 and 8.2) is outside the red line and outside the scope of this project.	Yes
8.2	Yes	Yes	-----	-----
8.3	Yes	Yes	-----	-----

**Safety Audit Signed off** .....  ..... **Design Team Leader**

**Print Name** .....Douglas Weir.....

**Date** ...04/07/24...

**Safety Audit**



**Signed off** Glen Murray ..... **Employer**  
**Print Name** Glen Murray ..... **Date** 22/10/2024 .....

**Safety Audit** George Frisby  
**Signed off** ..... **Audit Team Leader**  
**Print Name** George Frisby ..... **Date** 22/10/2024 .....

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**APPENDIX A – DRAWINGS**



DONT FORGET SAFETY

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THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, SPECIFICATIONS AND THE PRELIMINARY HEALTH & SAFETY PLAN.

ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE. DO NOT SCALE DIMENSIONS.

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THIS OFFICE IN WRITING.

NOTES

BY	DRAWING No. & REFERENCE	DATE
SURVEY		
ARCH	SHB4-BMD-DR-MOR-CS-P1-14_20112_Ver2	24.06.2024
S. ARCH	SHB4-BMD-DR-MOR-CS-P1-0001_Rvt4	21.08.2024

LEGEND

- PROPOSED STREET CENTRELINE
- PROPOSED ROAD
- PROPOSED FOOTPATH
- PROPOSED LANDSCAPING
- PROPOSED GRASS
- PROPOSED BUILDING
- PERMEABLE PAVING
- TACTILE PAVING



DRAFT  
25/06/2024

PR12	ARCHITECT AND LANDSCAPE LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	25.06.24	KD	FM
PR11	SITE LAYOUT REVISED AS PER COMMENTS	08.05.24	KD	FM
PR10	SITE LAYOUT REVISED AS PER DCC COMMENTS	25.04.24	KD	FM
PR9	ON-ROAD CYCLELANE TO NORTH SIDE OF BALBUTCHER LANE REMOVED	19.03.24	KD	PB
PR8	ISSUED FOR INFORMATION	11.03.24	KD	PB
PR7	LAYOUT REVISED AS PER ARCHITECT COMMENTS	01.03.24	KD	PB
PR6	ARCHITECT LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	31.01.24	KD	PB
PR5	SITE LAYOUT UPDATED	03.01.24	JC	PB
PR5	SITE LAYOUT UPDATED	03.01.24	JC	PB
PR4	SITE LAYOUT UPDATED	20.12.23	JC	PB
PR3	SITE LAYOUT UPDATED	24.11.23	JC	PB
PR2	SITE LAYOUT UPDATED	20.10.23	JC	PB
PR1	SITE LAYOUT UPDATED	10.10.23	JC	PB
PR	ISSUED FOR INFORMATION	XXXXX	TB	PB

REV DESCRIPTION DATE BY CHK

STATUS

**P1 - INFORMATION**



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CLIENT  
DUBLIN CITY COUNCIL

JOB NAME  
SOCIAL HOUSING BUNDLE 4, DEVELOPMENT AT BALLYMUN

DRG. NAME  
PROPOSED OVERALL SITE LAYOUT

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV.
23006	A1	1:500	SEPT'2023	KD	PB	PB	PR12

DRG. NO.  
SHB4-BMD-DR-MOR-CS-P1-101



DONT SCALE DIMENSIONS



NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR STORED IN ANY RETRIEVAL SYSTEM OF ANY NATURE WITHOUT THE WRITTEN PERMISSION OF MALONE O'REGAN CONSULTING ENGINEERS AS COPYRIGHT HOLDER EXCEPT AS AGREED FOR USE ON THE PROJECT FOR WHICH THE DRAWING WAS ORIGINALLY CREATED.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, SPECIFICATIONS AND THE PRELIMINARY HEALTH & SAFETY PLAN.

ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE. DO NOT SCALE DIMENSIONS.

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THIS OFFICE IN WRITING.

NOTES

BY	DRAWING No. & REFERENCE	DATE
SURVEY		
ARCH	SHB4-BMD-DR-MOR-PT-1A_230112_Ver2	24.06.2024
S. Arch	SHB4-BMD-DR-MOR-L-PT-0001_Rv4	21.06.2024

LEGEND

- PROPOSED STREET CENTRELINE
- PROPOSED FOOTPATH
- PROPOSED LANDSCAPING
- PROPOSED GRASS
- PROPOSED BUILDING
- PERMEABLE PAVING
- TACTILE PAVING



KEYPLAN



DRAFT  
25/06/2024

PR4	ARCHITECT AND LANDSCAPE LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	25.06.24	KD	FM
PR3	SITE LAYOUT REVISED AS PER COMMENTS	08.05.24	KD	FM
PR2	SITE LAYOUT REVISED AS PER DCC COMMENTS	25.04.24	KD	FM
PR1	ON-ROAD CYCLELANE TO NORTH SIDE OF BALBUTCHER LANE REMOVED	19.03.24	KD	PB
PR	ISSUED FOR INFORMATION	11.03.24	KD	PB
REV	DESCRIPTION	DATE	BY	CHK

STATUS P1 - INFORMATION

**MDR** MALONE O'REGAN CONSULTING ENGINEERS

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WATERFORD T: +353 51 876 855 E: waterford@mor.ie

CLIENT DUBLIN CITY COUNCIL

JOB NAME SOCIAL HOUSING BUNDLE 4, DEVELOPMENT AT BALLYMUN

PROPOSED SITE LAYOUT SHEET NO.1 OF 3.

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV
23006	A1	1:250	MARCH'2024	KD	PB	PB	PR4

DRG. NO. SHB4-BMD-DR-MOR-CS-P1-102





DONT FORGET SAFETY

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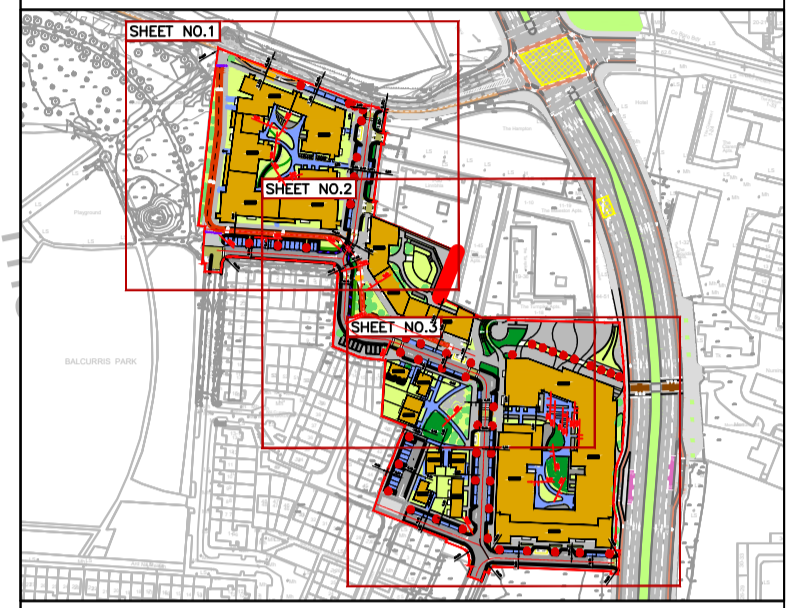
THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, SPECIFICATIONS AND THE PRELIMINARY HEALTH & SAFETY PLAN.  
ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE. DO NOT SCALE DIMENSIONS.

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BY	DRAWING No. & REFERENCE	DATE
SURVEY	SHB4-BMD-DR-MOR-CS-P1-1A_20112_Ver2	24.06.2024
ARCH	SHB4-BMD-DR-MOR-CS-P1-1A_20112_Ver2	24.06.2024
S. ARCH	SHB4-BMD-DR-MOR-CS-P1-1A_20112_Ver2	21.06.2024

**LEGEND**

	PROPOSED STREET CENTRELINE
	PROPOSED ROAD
	PROPOSED FOOTPATH
	PROPOSED LANDSCAPING
	PROPOSED GRASS
	PROPOSED BUILDING
	PERMEABLE PAVING
	TACTILE PAVING



KEYPLAN



**DRAFT**  
25/06/2024

REV	DESCRIPTION	DATE	BY	CHK
PR3	ARCHITECT AND LANDSCAPE LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	25.06.24	KD	FM
PR2	SITE LAYOUT REVISED AS PER COMMENTS	08.05.24	KD	FM
PR1	SITE LAYOUT REVISED AS PER DCC COMMENTS	25.04.24	KD	FM
PR	ISSUED FOR INFORMATION	11.03.24	KD	PB

**P1 - INFORMATION**

**MOR**  
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WATERFORD T: +353 51 876 855 E: waterford@mor.ie

CLIENT  
DUBLIN CITY COUNCIL

JOB NAME  
SOCIAL HOUSING BUNDLE 4, DEVELOPMENT AT BALLYMUN

PROPOSED SITE LAYOUT  
SHEET NO.2 OF 3.

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV
23006	A1	1:250	MARCH'2024	KD	PB	PB	PR3

DRG. NO.  
SHB4-BMD-DR-MOR-CS-P1-103



DONT SCALE DIMENSIONS



DONT FORGET SAFETY

NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR STORED IN ANY RETRIEVAL SYSTEM OF ANY NATURE WITHOUT THE WRITTEN PERMISSION OF MALONE O'REGAN CONSULTING ENGINEERS AS COPYRIGHT HOLDER EXCEPT AS AGREED FOR USE ON THE PROJECT FOR WHICH THE DRAWING WAS ORIGINALLY CREATED.

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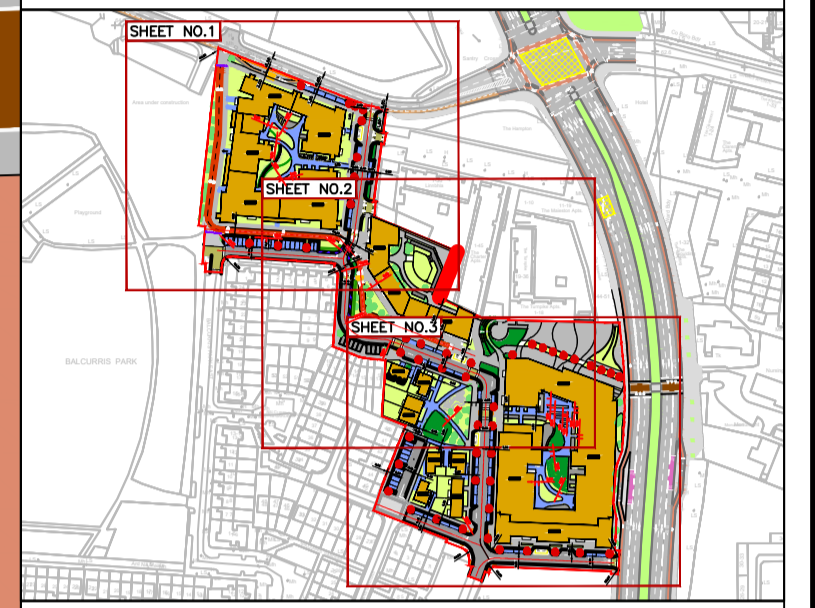
THE CONTRACTOR SHALL CHECK ALL DIMENSIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THIS OFFICE IN WRITING.

NOTES

BY	DRAWING No. & REFERENCE	DATE
SURVEY		
ARCH	SHB4-BMD-DR-MOR-CS-P1-1A_2024_Ver2	24.06.2024
S. Arch	SHB4-BMD-DR-MOR-CS-P1-0001 Rev4	21.06.2024

LEGEND

- PROPOSED STREET CENTRELINE
- PROPOSED ROAD
- PROPOSED FOOTPATH
- PROPOSED LANDSCAPING
- PROPOSED GRASS
- PROPOSED BUILDING
- PERMEABLE PAVING
- TACTILE PAVING



KEYPLAN



DRAFT  
25/06/2024

PR3	ARCHITECT AND LANDSCAPE LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	25.06.24	KD	FM
PR2	SITE LAYOUT REVISED AS PER COMMENTS	08.05.24	KD	FM
PR1	SITE LAYOUT REVISED AS PER DCC COMMENTS	25.04.24	KD	FM
PR	ISSUED FOR INFORMATION	11.03.24	KD	PB
REV	DESCRIPTION	DATE	BY	CHK

STATUS P1 - INFORMATION

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CLIENT  
DUBLIN CITY COUNCIL

JOB NAME  
SOCIAL HOUSING BUNDLE 4, DEVELOPMENT AT BALLYMUN

PROPOSED SITE LAYOUT  
SHEET NO.3 OF 3.

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV
23006	A1	1:250	MARCH'2024	KD	PB	PB	PR3

DRG. NO.  
SHB4-BMD-DR-MOR-CS-P1-104



DONT SCALE DIMENSIONS





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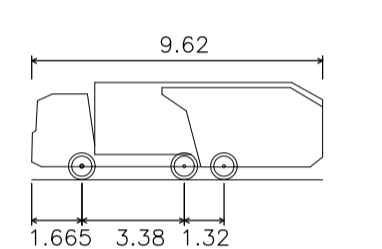
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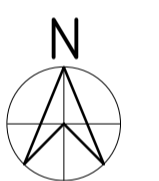
BY	DRAWING No. & REFERENCE	DATE
ARCH	SHB4-BMD-DR-MOR-CS-P1-1A_20112_Ver2	24.06.2024
S. ARCH	SHB4-BMD-DR-MOR-CS-P1-0001_Rv4	21.06.2024

VEHICLE SWEEP PATH LEGEND	
<span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	SATISFACTORY: SWEEP PATH WORKS WITH CURRENT LAYOUT
<span style="background-color: #FFD700; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	FEASIBLE: SLIGHT DIFFICULTIES BUT SWEEP PATH COULD WORKS WITH MINOR LAYOUT MODIFICATIONS
<span style="background-color: #FF0000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	NOT ACCEPTABLE: SWEEP PATH NOT POSSIBLE WITH LAYOUT AND SIGNIFICANT ALTERATION REQUIRED
<span style="background-color: #CCCCCC; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	SOLID HATCH INDICATES FORWARD MOTION OF THE VEHICLE
<span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, #CCCCCC 2px, #CCCCCC 4px); border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	LINED HATCH INDICATES REVERSE MOTION OF THE VEHICLE

\*N.B. COLOUR OF SOLID/LINED HATCHES IN LEGEND TO MATCH RELEVANT COLOUR OF THE AUTO-TRACK IN THE DRAWING (i.e. IF SWEEP PATH IS A SATISFACTORY GREEN THEN SO WILL HATCHES BE SHOWN AS ABOVE)



PHOENIX 2-18W (WITH ELITE 2 6X2MS CHAS)	
OVERALL LENGTH	9.620M
OVERALL WIDTH OVERALL	2.530M
BODY HEIGHT	3.211M
MIN BODY GROUND	0.416M
CLEARANCE TRACK WIDTH	2.530M
LOCK-TO-LOCK TIME	4.005
CURB TO CURB TURNING RADIUS	9.550M



**DRAFT**  
25/06/2024

REV	DESCRIPTION	DATE	BY	CHK
PR6	ARCHITECT AND LANDSCAPE LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	25.06.24	KD	FM
PR5	SITE LAYOUT REVISED AS PER COMMENTS	08.05.24	KD	FM
PR4	SITE LAYOUT REVISED AS PER DCC COMMENTS	25.04.24	KD	FM
PR3	ARCHITECT LAYOUT REVISED AND SITE LAYOUT & SWEEP PATHS UPDATED TO SUIT	31.01.24	KD	PB
PR2	ISSUED FOR INFORMATION	03.01.24	JC	PB
PR1	ISSUED FOR INFORMATION	25.11.23	JC	PB
PR	ISSUED FOR INFORMATION	12.07.23	TB	PB

**P1 - INFORMATION**

**ADR**  
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WATERFORD T: +353 51 876 855 E: waterford@more.ie

CLIENT  
DUBLIN CITY COUNCIL

JOB NAME  
SOCIAL HOUSING BUNDLE 4, DEVELOPMENT AT BALLYMUN

DRG. NAME  
SWEEP PATH ANALYSIS  
REFUSE TRUCK

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV
23006	A1	1:500	JULY 2023	TB	PB	PB	PR6

DRG. NO.  
SHB4-BMD-DR-MOR-CS-P1-110

DONT SCALE DIMENSIONS



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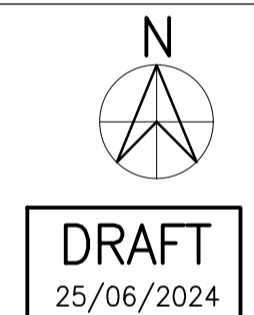
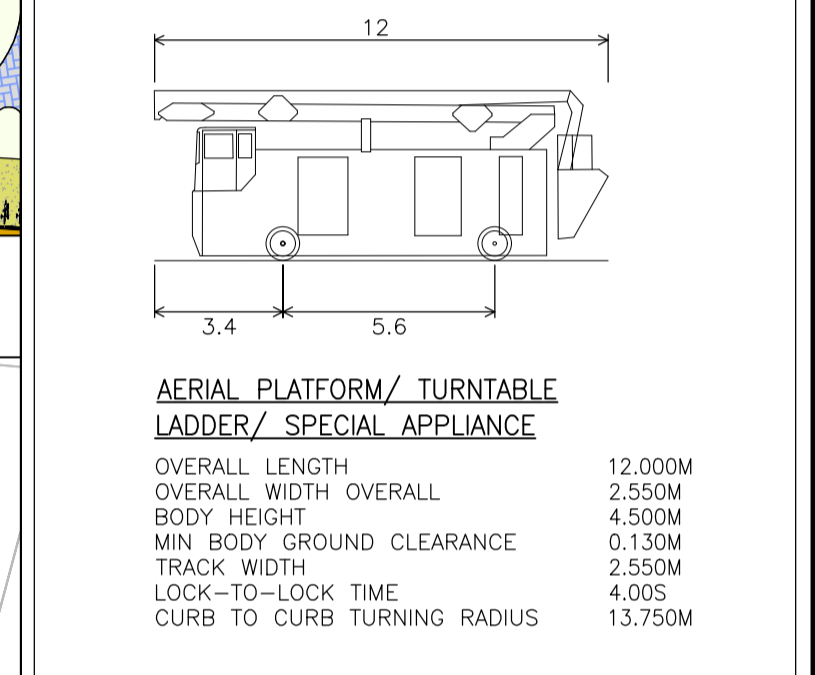
NOTES

BY	DRAWING No. & REFERENCE	DATE
SURVEY		
ARCH	SHB4-BMD-DR-MOR-AR-P1-LA 240112_Ver2	24.06.2024
LS Arch	SHB5-BMD-DR-MAL-L-P1-0001 Rev4	21.06.2024

**VEHICLE SWEEP PATH LEGEND**

	SATISFACTORY: SWEEP PATH WORKS WITH CURRENT LAYOUT
	FEASIBLE: SLIGHT DIFFICULTIES BUT SWEEP PATH COULD WORKS WITH MINOR LAYOUT MODIFICATIONS
	NOT ACCEPTABLE: SWEEP PATH NOT POSSIBLE WITH LAYOUT AND SIGNIFICANT ALTERATION REQUIRED
	SOLID HATCH INDICATES FORWARD MOTION OF THE VEHICLE
	LINED HATCH INDICATES REVERSE MOTION OF THE VEHICLE

\*N.B. COLOUR OF SOLID/LINED HATCHES IN LEGEND TO MATCH RELEVANT COLOUR OF THE AUTO-TRACK IN THE DRAWING (i.e. IF SWEEP PATH IS A SATISFACTORY GREEN THEN SO WILL HATCHES BE SHOWN AS ABOVE)



PR12	ARCHITECT AND LANDSCAPE LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	25.06.24	KD	FM
PR11	SITE LAYOUT REVISED AS PER COMMENTS	08.05.24	KD	FM
PR10	SITE LAYOUT REVISED AS PER DCC COMMENTS	25.04.24	KD	FM
PR9	ARCHITECT LAYOUT REVISED AND SITE LAYOUT & SWEEP PATHS UPDATED TO SUIT	31.01.24	KD	PB
PR8	SITE LAYOUT REVISED AND SWEEP PATHS UPDATED TO SUIT	03.12.23	JC	PB
PR7	SITE LAYOUT REVISED AND SWEEP PATHS UPDATED TO SUIT	24.11.23	JC	PB
PR6	SITE LAYOUT REVISED AND SWEEP PATHS UPDATED TO SUIT	20.10.23	JC	PB
PR5	SITE LAYOUT REVISED AND SWEEP PATHS UPDATED TO SUIT & RE-ISSUED FOR INFORMATION	10.10.23	JC	PB
PR4	SITE LAYOUT REVISED AND SWEEP PATHS UPDATED TO SUIT & RE-ISSUED FOR INFORMATION	XXXXX	JC	PB
PR3	SITE LAYOUT REVISED AND SWEEP PATHS UPDATED TO SUIT & RE-ISSUED FOR INFORMATION	31.08.23	JC	PB
REV	DESCRIPTION	DATE	BY	CHK

**P1 - INFORMATION**

**MALONE O'REGAN CONSULTING ENGINEERS**  
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 T: +353 1 260 2655  
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Offices also in:  
 GALWAY T: +353 91 531 069 E: galway@mor.ie  
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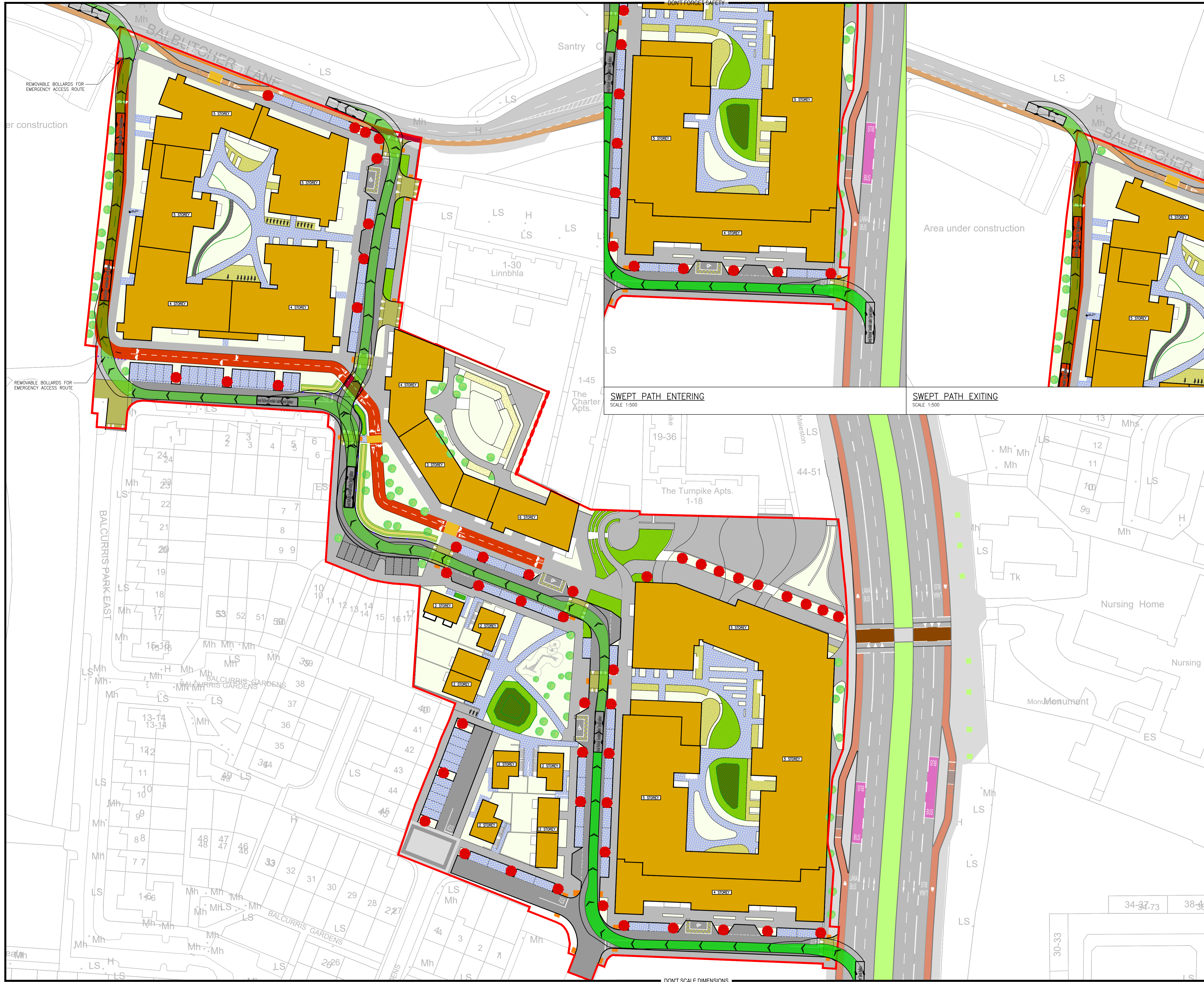
CLIENT: DUBLIN CITY COUNCIL

JOB NAME: SOCIAL HOUSING BUNDLE 4, DEVELOPMENT AT BALLYMUN

DRG. NAME: SWEEP PATH ANALYSIS AERIAL PLATFORM SPECIAL APPLIANCE

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV.
23006	A1	1:500	SEPT'2023	JC	PB	PB	PR12

DRG. NO.: SHB4-BMD-DR-MOR-CS-P1-112



SWEPT PATH ENTERING  
SCALE 1:500

SWEPT PATH EXITING  
SCALE 1:500

DONT SCALE DIMENSIONS



NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR STORED IN ANY RETRIEVAL SYSTEM OF ANY NATURE WITHOUT THE WRITTEN PERMISSION OF MALONE O'REGAN CONSULTING ENGINEERS AS COPYRIGHT HOLDER EXCEPT AS AGREED FOR USE ON THE PROJECT FOR WHICH THE DRAWING WAS ORIGINALLY CREATED.

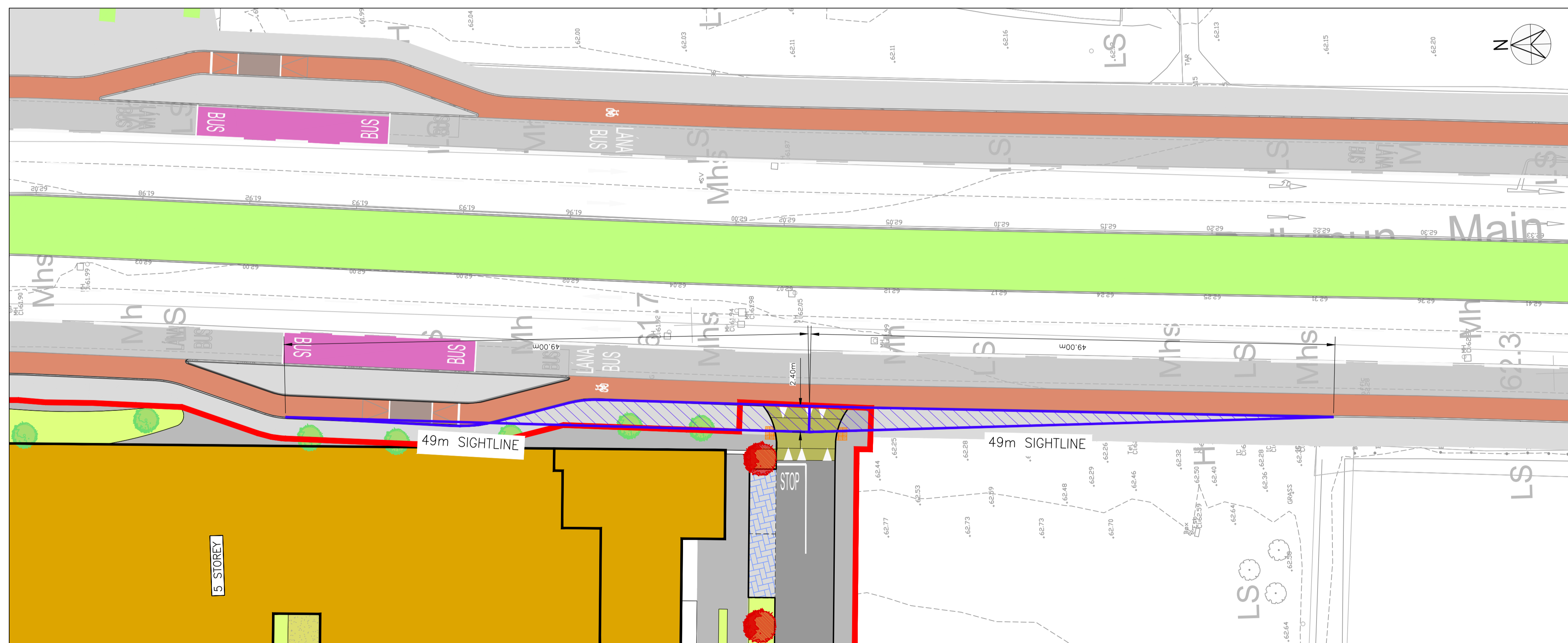
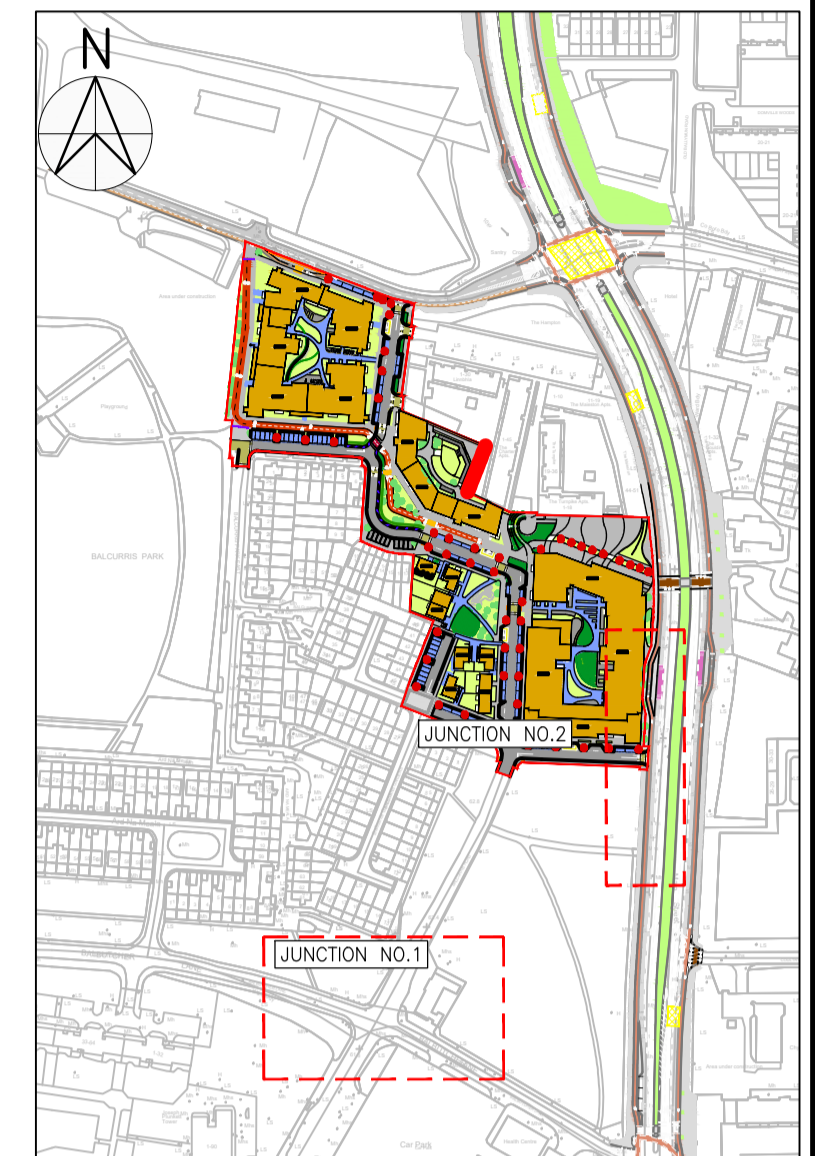
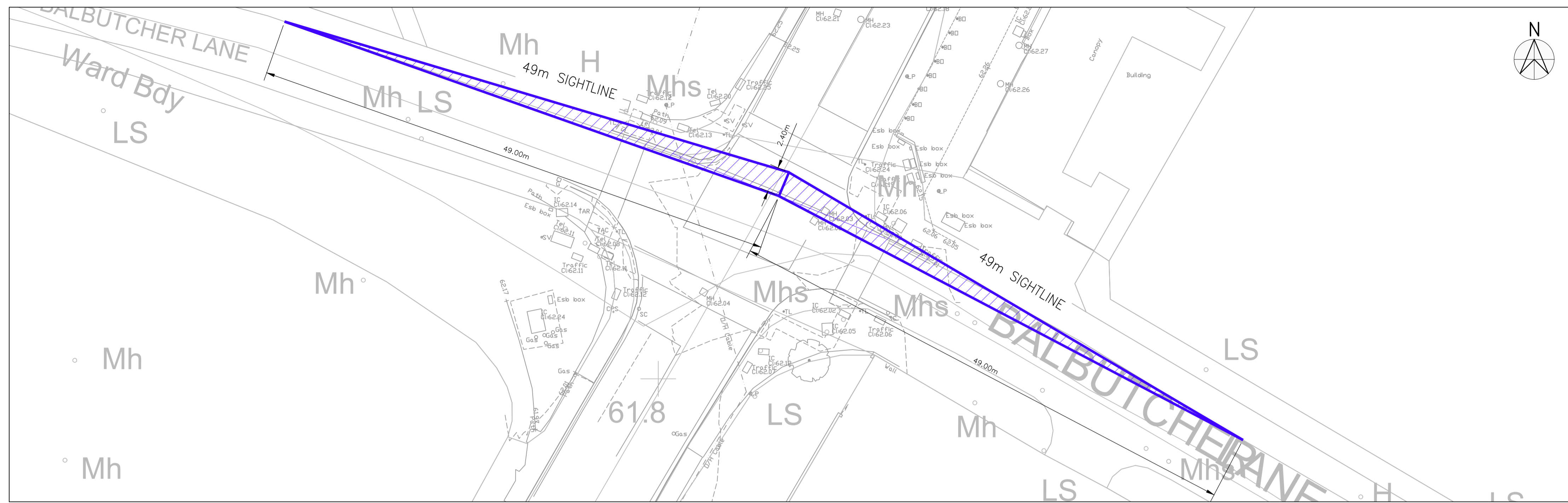
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NOTES

BY	DRAWING No. & REFERENCE	DATE
SURVEY	SHB4-BMD-DR-MOR-P1-14_240112_Ver2	24.06.2024
ARCH	SHB4-BMD-DR-MOR-P1-14_240112_Ver2	24.06.2024
S. ARCH	SHB4-BMD-DR-MOR-P1-14_240112_Ver2	21.06.2024



DRAFT  
25/06/2024

REV	DESCRIPTION	DATE	BY	CHK
PR6	ARCHITECT AND LANDSCAPE LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	25.06.24	KD	FM
PR5	SITE LAYOUT REVISED AS PER COMMENTS	08.05.24	KD	FM
PR4	SITE LAYOUT REVISED AS PER DCC COMMENTS	25.04.24	KD	FM
PR3	ARCHITECT LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	31.01.24	KD	PB
PR2	SITE LAYOUT UPDATED	02.01.24	JC	PB
PR1	SITE LAYOUT UPDATED	24.11.23	JC	PB
PR	ISSUED FOR INFORMATION	13.07.23	KD	PB

STATUS P1 - INFORMATION

**ADR**  
MALONE O'REGAN CONSULTING ENGINEERS

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WATERFORD T: +353 51 876 855 E: waterford@mor.ie

CLIENT DUBLIN CITY COUNCIL

JOB NAME SOCIAL HOUSING BUNDLE 4, DEVELOPMENT AT BALLYMUN

PROPOSED SIGHT LINES

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV
23006	A1	1:250	JULY 2023	KD	PB	PB	PR6

DRG. NO. SHB4-BMD-DR-MOR-CS-P1-114



DONT FORGET SAFETY

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BY	DRAWING No. & REFERENCE	DATE
SURVEY		
ARCH	SHB4-BMD-DR-MOR-PT-1A_20112_Ver2	24.06.2024
S. Arch	SHB4-BMD-DR-MOR-PT-0001 Rev4	21.06.2024

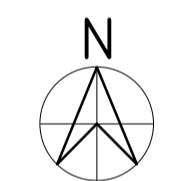
VEHICLE SWEEP PATH LEGEND

- SATISFACTORY** (Green): SATISFACTORY: SWEEP PATH WORKS WITH CURRENT LAYOUT
- FEASIBLE** (Orange): FEASIBLE: SLIGHT DIFFICULTIES BUT SWEEP PATH COULD WORKS WITH MINOR LAYOUT MODIFICATIONS
- NOT ACCEPTABLE** (Red): NOT ACCEPTABLE: SWEEP PATH NOT POSSIBLE WITH LAYOUT AND SIGNIFICANT ALTERATION REQUIRED
- SOLID HATCH** (Grey): SOLID HATCH INDICATES FORWARD MOTION OF THE VEHICLE
- LINED HATCH** (Hatched): LINED HATCH INDICATES REVERSE MOTION OF THE VEHICLE

\*N.B. COLOUR OF SOLID/LINED HATCHES IN LEGEND TO MATCH RELEVANT COLOUR OF THE AUTO-TRACK IN THE DRAWING (i.e. IF SWEEP PATH IS A SATISFACTORY GREEN THEN SO WILL HATCHES BE SHOWN AS ABOVE)

**DENNIS SABRE FIRE TENDER (LWB)**

OVERALL LENGTH	7.700m
OVERALL WIDTH OVERALL	2.430m
BODY HEIGHT	3.512m
MIN BODY GROUND CLEARANCE	0.397m
CLEARANCE TRACK WIDTH	2.350m
LOCK-TO-LOCK TIME	5.00s
CURB TO CURB TURNING RADIUS	7.400m



DRAFT  
25/06/2024

REV	DESCRIPTION	DATE	BY	CHK
PR8	ARCHITECT AND LANDSCAPE LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	25.06.24	KD	FM
PR7	SITE LAYOUT REVISED AS PER COMMENTS	08.05.24	KD	FM
PR6	SITE LAYOUT REVISED AS PER DCC COMMENTS	25.04.24	KD	FM
PR5	ARCHITECT LAYOUT REVISED AND SITE LAYOUT & SWEEP PATHS UPDATED TO SUIT	31.01.24	KD	PB
PR4	SITE LAYOUT UPDATED	03.01.24	JC	PB
PR3	SITE LAYOUT UPDATED	24.11.23	JC	PB
PR2	SITE LAYOUT UPDATED	20.10.23	JC	PB
PR1	SITE LAYOUT UPDATED	10.10.23	KD	PB
PR	ISSUED FOR INFORMATION	21.07.23	KD	PB

P1 - INFORMATION

**ADR** MALONE O'REGAN CONSULTING ENGINEERS

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CLIENT  
DUBLIN CITY COUNCIL

JOB NAME  
SOCIAL HOUSING BUNDLE 4, DEVELOPMENT AT BALLYMUN

DRG. NAME  
SWEEP PATH ANALYSIS  
FIRE TENDER

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV
23006	A1	1:500	SEPT'2023	JC	PB	PB	PR8

DRG. NO.  
SHB4-BMD-DR-MOR-CS-P1-115



DONT SCALE DIMENSIONS



DONT FORGET SAFETY

NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR STORED IN ANY RETRIEVAL SYSTEM OF ANY NATURE WITHOUT THE WRITTEN PERMISSION OF MALONE O'REGAN CONSULTING ENGINEERS AS COPYRIGHT HOLDER EXCEPT AS AGREED FOR USE ON THE PROJECT FOR WHICH THE DRAWING WAS ORIGINALLY CREATED.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, SPECIFICATIONS AND THE PRELIMINARY HEALTH & SAFETY PLAN.

ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE. DO NOT SCALE DIMENSIONS.

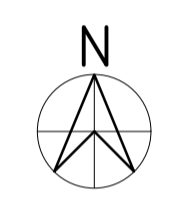
THE CONTRACTOR SHALL CHECK ALL DIMENSIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THIS OFFICE IN WRITING.

BY	DRAWING No. & REFERENCE	DATE
SURVEY		
ARCH	SHB4-BMD-DR-MOR-CS-P1-LA_240112_V02	24.06.2024
S. ARCH	SHB4-BMD-DR-MOR-CS-P1-LA_21.06.2024	21.06.2024

- NOTES:**
- SIGN LOCATION IS APPROXIMATELY ONLY. CONTRACTOR SHALL CONFIRM WITH THE ENGINEER AT SITE PRIOR TO ERECTION.
  - ALL TRAFFIC SIGN AND ROAD MARKING DIMENSIONS AND CODES IN ACCORDANCE WITH THE DEPARTMENT OF THE ENVIRONMENT 'TRAFFIC SIGN MANUAL'.
  - ALL CYCLE SYMBOLS TO BE PROVIDED AS INDICATED AND DIMENSIONS AND CODES IN ACCORDANCE WITH THE DEPARTMENT OF THE ENVIRONMENT 'TRAFFIC SIGN MANUAL'.
  - ROAD MARKINGS TO BE EXTRUDED THERMOPLASTIC MATERIAL.

**CYCLE TRACK LEGEND**

- 1.1m WIDE CYCLEWAY SYMBOL TO TSM M116
- CYCLEWAY YIELD LINE TO TSM RRM 018C
- 2.0m HALF SIZE CYCLEWAY YIELD SIGN TO TSM M115C
- JUNCTION ON ROAD CYCLE TRACK: RESIN BASED SURFACE TREATMENT - HIGH FRICTION RED COLOUR SURFACE DRESSING
- OFF ROAD CYCLE TRACK: SURFACE TREATMENT - COLOUR SURFACE DRESSING TO ARCHITECT SPECIFICATION AND COUNCIL AGREEMENT



**DRAFT**  
25/06/2024

REV	DESCRIPTION	DATE	BY	CHK
PR3	ARCHITECT AND LANDSCAPE LAYOUT REVISED AND SITE LAYOUT UPDATED TO SUIT	25.06.24	KD	FM
PR2	SITE LAYOUT REVISED AS PER COMMENTS	08.05.24	KD	FM
PR1	SITE LAYOUT REVISED AS PER DCC COMMENTS	25.04.24	KD	FM
PR	ISSUED FOR INFORMATION	07.03.24	KD	PB

STATUS: **P1 - INFORMATION**

**ADR**  
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CLIENT: DUBLIN CITY COUNCIL

JOB NAME: SOCIAL HOUSING BUNDLE 4, DEVELOPMENT AT BALLYMUN

PROPOSED ROADMARKINGS AND SIGNAGE LAYOUT

JOB REF	SHEET	SCALE	DATE	BY	ENG	APP	REV
23006	A1	1:500	MAR'2023	KD	PB	PB	PR3

SHB4-BMD-DR-MOR-CS-P1-120



DONT SCALE DIMENSIONS