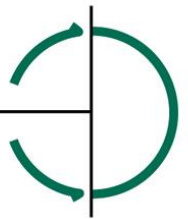


Proposed Strategic Housing Development at Dunshaughlin East, Co. Meath

Client: Rockture1 Ltd

Stage 1-2 Road Safety Audit



PROPOSED STRATEGIC HOUSING DEVELOPMENT AT DUNSHAUGHLIN EAST, CO. MEATH

Description:

Stage 1-2 Road Safety Audit

Author:

Ken Swaby

Mark Andrews

Audit Brief Submitted By:

Joseph O'Reilly Consulting Civil & Structural Engineers

Distribution:

Joseph O'Reilly Consulting Civil & Structural Engineers



1 AUDIT INFORMATION

- 1.1 Title** RSA DUNSHAUGHLIN S1-2
- 1.2 Audit Reference Number** RSA DUNSHAUGHLIN S1-2 KS 289
- 1.3 Project Code** DUNSGEMTIA
- 1.4 Date Audit Completed** 4th December 2018
- 1.5 Audit Attended By** Ken Swaby
Mark Andrews
- 1.6 Audit Team**
 - Team Leader** Ken Swaby, ILTP
 - Team Member** Mark Andrews, ILTP
- 1.7 Information Received**

ITEM		Supplied	Comments
A	Plans	Yes	<p><u>Received from Joseph O'Reilly Consulting Civil & Structural Engineers</u></p> <p>Joseph O'Reilly Consulting Civil & Structural Engineers Drawings:</p> <ol style="list-style-type: none"> 1. Road Layout Sheet 1 of 2, ref. 030, rev. 3 2. Road Layout Sheet 2 of 2, ref. 031, rev. 3 3. Road Signage & Markings Layout Plan Sheet 1 of 3, ref. 032, rev. 3 4. Road Signage & Markings Layout Plan Sheet 2 of 3, ref. 033, rev. 3 5. Road Signage & Markings Layout Plan Sheet 3 of 3, ref. 034, rev. 3 6. Site Services: Stormwater Drainage Layout Sheet 1, ref. 012, rev. 1 7. Site Services: Stormwater Drainage Layout Sheet 2, ref. 013, rev. 1 8. Autotrack Simulations Sheet 1 of 2, ref. 047, rev. 1 9. Autotrack Simulations Sheet 2 of 2, ref. 048, rev. 1 <p>McElligott Consulting Engineers Drawings:</p> <ol style="list-style-type: none"> 10. SHD Public Lighting Layout, ref. E004 SHD, rev. B 11. SHD Virgin Media Services Layout, ref. E003 SHD, rev. E
B	Traffic Count Data	No	
C	Speed Count Data	No	
D	Accident Data	No	
E	Design Standards	No	
F	Design Brief	No	
G	Other Data	Yes	<p><u>Received from Joseph O'Reilly Consulting Civil & Structural Engineers</u></p> <ol style="list-style-type: none"> 1. An Bord Pleanála Notice of Pre-Application Consultation Opinion, dated 27th April 2018 2. Inspector's Report on Recommended Opinion ABP-301099-18, dated 25th April 2018 3. Meath County Council Planning Authority Opinion and Section 247 Consultation on Proposed Strategic Housing Development, Dublin Road, Dunshaughlin, dated 28th March 2018



2 INTRODUCTION

- 2.1.1 This is a Stage 1-2 Road Safety Audit which examines the road safety implications of a proposed Strategic Housing Development (SHD) at Dunshaughlin East, Co. Meath, and its connection to the existing road network.
- 2.1.2 This Stage 1-2 Road Safety Audit has been undertaken as part of a wider Quality Audit for the proposed development, which also includes an Access Audit, Cycle Audit and Walking Audit. The main Quality Audit report is included under separate cover. Where problems are considered to relate to both documents they have been repeated.
- 2.1.3 The Feedback Form for this Stage 1-2 Road Safety Audit is included in **Appendix A** of this report.
- 2.1.4 This Stage 1-2 Road Safety Audit is based upon drawings provided to the design team, as included under paragraph 1.7, and also attached as **Appendix B**.
- 2.1.5 The extent of the Stage 1 Road Safety Audit is shown on the drawings listed in paragraph 1.7 above. This includes the part of the proposed Distributor / Outer Relief Road within the subject lands, but excluding the section of this road constructed under the previously permitted Phase 1a residential development to the south.
- 2.1.6 The Quality Audit including Road Safety Audit has been carried out in accordance with the Design Manual for Urban Roads and Streets (DMURS).
- 2.1.7 This Stage 1-2 Road Safety Audit has been conducted in accordance with the Transport Infrastructure Ireland publication entitled *Road Safety Audit*, ref. GE-STY-01024, March 2015.
- 2.1.8 Site visits were carried out on Friday 8th June 2018 in daylight conditions, at approximately 14:30hrs, and on 10th August 2018, at approximately 17:00hrs. The weather was fine and dry during both site visits.
- 2.1.9 This Stage 1-2 Road Safety Audit specifically examines the road safety aspects of the proposed development. It is not an appraisal of policy or strategic issues associated with the planning of the development and it does not examine or verify the compliance of the design to any other design criteria or guidelines. The designer and all concerned stakeholders must therefore defend all actions taken on the basis that such care was taken, as was in all circumstances reasonably required, to ensure that the roadway was not unsafe for road users. It is important, therefore that where possible the recommendations in this report are acted upon.
- 2.1.10 Landscaping details have not been provided as part of this audit, and so have not been audited. Landscaping details will need to be audited at detailed design stage.
- 2.1.11 Under Podium parking layouts and lighting details have not been provided as part of this audit, so have not been audited. These details will need to be audited at detailed design stage.



3 ITEMS RESULTING FROM PREVIOUS ROAD SAFETY AUDITS

The audit team are not aware of these proposals having been previously audited.



4 ITEMS RESULTING FROM STAGE 1 ROAD SAFETY AUDIT

4.1 General

Problem 4.1.1

The information provided for audit does not show details of landscaping throughout the site. Inappropriate planting or street furniture may be restrictive to visibility throughout the site, both in terms of forward visibility and junction visibility envelopes. This may potentially lead to side swipe and shunt accidents at junctions, shunt accidents throughout the site or vehicle / pedestrian collisions at junctions and crossing points.

Recommendation 4.1.1

It is recommended that the design team ensures that the proposed planting and street furniture are suitably located and maintained to attain appropriate visibility throughout the site.

Problem 4.1.2

The drawings provided for audit do not include sightline assessments for vehicles exiting onto the proposed Distributor / Outer Relief Road. Inappropriate visibility splays present a potential risk of vehicles emerging unaware of the presence of oncoming traffic and coming into conflict.

Recommendation 4.1.2

It is recommended that the design team ensures that appropriate visibility splays are available in both directions from the proposed development access junctions onto the proposed Distributor / Outer Relief Road, and demonstrates that such visibility splays can be appropriately maintained.

Problem 4.1.3

It is unclear from the information provided for audit if there is appropriate space for emergency vehicles to safely navigate all areas of the site and perform turnabout manoeuvres within the confines of the carriageway.

Recommendation 4.1.3

It is recommended that the design team ensures that the facilities provided are appropriate for all relevant vehicles to safely manoeuvre within the site.

Problem 4.1.4

The information provided for audit does not include sufficient detail to determine if the proposed cul-de-sacs throughout the development are appropriately configured to allow vehicles, including delivery vehicles, to safely perform turnabout manoeuvres. Inappropriate turnabout facilities may present a potential risk of vehicle / pedestrian conflicts, particularly when performing reversing manoeuvres. The information provided shows a refuse wagon attempting to turn within a turning head and potentially overrunning footway areas around it. This may cause collisions with pedestrians and other road users who frequent the footway.

**Recommendation 4.1.4**

It is recommended that the design team ensures that the facilities proposed are appropriate for all relevant vehicles to safely perform turnabout manoeuvres at the relevant areas within the site.

Problem 4.1.5

The drawings provided for audit do not show pedestrian or cycle crossing facilities on the proposed Distributor / Outer Relief Road between the R147 and the most southerly development access road proposed as part of the current proposals. Inappropriate or insufficient pedestrian / cycle crossing facilities along desire lines in this area may potentially lead to such non-motorised users entering the carriageway at an inappropriate location or time and coming into conflict with motorised traffic.

Recommendation 4.1.5

It is recommended that the design team ensures that appropriate pedestrian and cycle crossing facilities are provided along the anticipated ped / cyclist desire lines.

Problem 4.1.6

The drawings provided for audit indicate an Open Space area to the northwest of the proposals, but do not appear to include pedestrian access facilities in this area, such as footpaths adjoining the surrounding streets (refer Figure 4.1). Inappropriate or insufficient pedestrian facilities linking the proposed Open Space area and adjoining road network may potentially lead to non-motorised users entering the carriageway at an inappropriate location or time and coming into conflict with motorised traffic.

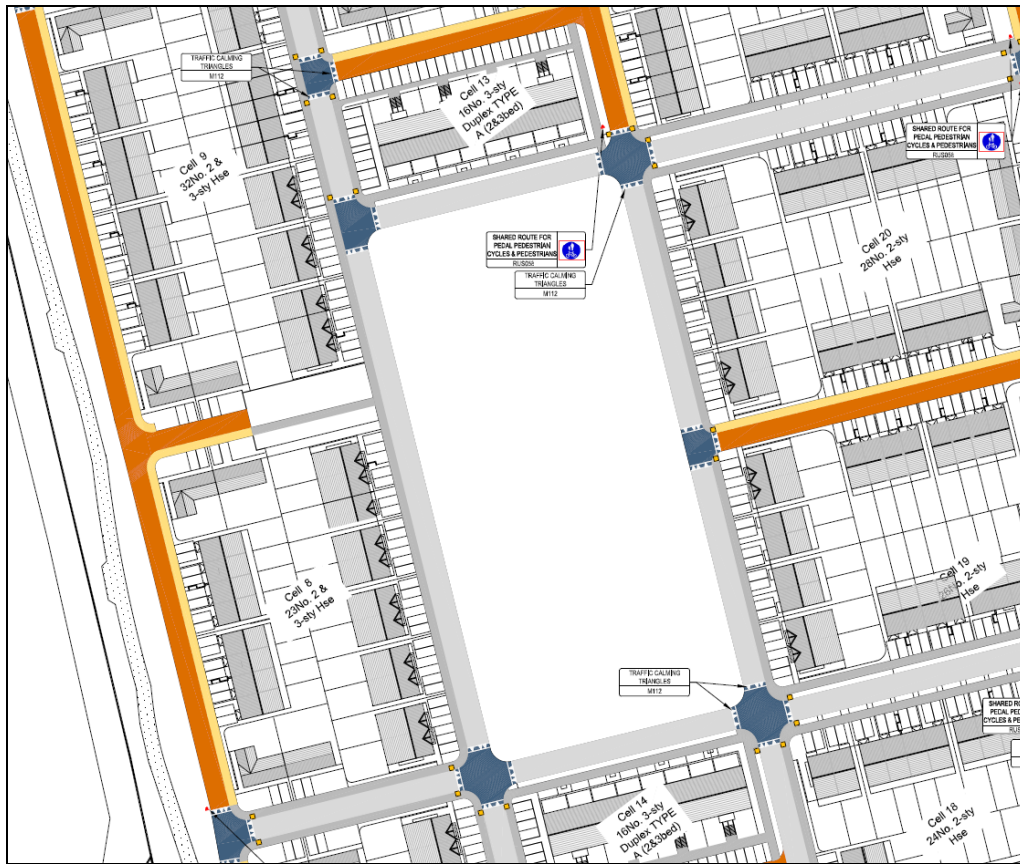
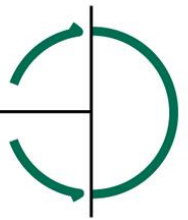


Figure 4.1: Proposed Open Space Area and Adjoining Road Network (Source: JOR Drawing Road Signage & Markings Layout Plan Sheet 1 of 3, ref. 032, rev. 3)

Recommendation 4.1.6

It is recommended that the design team ensures that appropriate pedestrian facilities are provided within and around the proposed Open Space area.

Problem 4.1.7

The drawings provided for audit include a street linking the permitted Phase 1a and currently proposed Phase 1b developments (refer Figure 4.2). This street includes cycle tracks on both sides of the carriageway to the northern end, but only appears to include a one-way cycle track on the western side to the southern end near the interface with the Phase 1a development with no corresponding cycle track proposed on the opposite side of the road. This may lead to cyclists opting to travel southbound along this street using the currently proposed northbound one-way cycle track, possibly due to perceived advantages in terms of safety and / or convenience, in lieu of travelling on-line along the southbound carriageway. This presents a potential risk of conflict with other road users who may not anticipate or expect cyclists to be travelling southbound along the northbound cycle track.

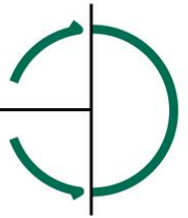


Figure 4.2: Proposed Street Linking Permitted Phase 1a and Proposed Phase 1b Developments (Source: JOR Drawing Road Signage & Markings Layout Plan Sheet 2 of 3, ref. 033, rev. 3)

Recommendation 4.1.7

It is recommended that the design team ensures that appropriate on-line or off-line cycle facilities are provided to serve the anticipated need in both directions of travel. It is further recommended that the design team ensures that the currently proposed northbound cycle track facilities have appropriate road markings and / or signage in place to warn all road users of the specified direction of travel of the cycle track and to deter cyclists from traveling along the cycle track in the opposite direction of that specified.

Problem 4.1.8

The information provided for audit does not show how the proposed footways and cycle tracks to the immediate west of the proposed creche and retail units will connect beyond the southern boundary of the proposed development to the wider network within the permitted Phase 1a development. Without appropriate connections vulnerable road users may be confused as to how or where to continue their journey safely, potentially leading to conflict with other road users.

Recommendation 4.1.8

It is recommended that the design team ensures that the proposed cycle and footway facilities connect to the wider network and that where they terminate appropriate provision is made to inform the road user of how they should continue their journey safely.



Problem 4.1.9

The information provided for audit does not show how the proposed east-west greenway (off-road ped / cycle track) will connect beyond the western boundary of the proposed development to the wider network linking to Dunshaughlin town centre. Without appropriate connections vulnerable road users may be confused as to how or where to continue their journey safely, potentially leading to conflict with other road users.

Recommendation 4.1.9

It is recommended that the design team ensures that the proposed cycle and footway facilities connect to the wider network and that where they terminate appropriate provision is made to inform the road user of how they should continue their journey safely.



5 COMMENTS

It is recommended that the full proposals are subject to a standalone Stage 2 Road Safety Audit at detailed design stage and prior to commencement of the development on site.



6 CONCLUSIONS

It is considered that the site, as currently proposed, is generally conducive to safe access and egress by all forms of road user. It is recommended however that the specific issues raised in this report be taken into account and that appropriate measures be put in place where practicable to mitigate the concerns raised.

This Stage 1-2 Road Safety Audit Report recommends various actions, which should be considered for inclusion in the detailed design process. Where recommendations are not incorporated into the design this should be documented in an Exception Report and forwarded to the ILTP Road Safety Audit Team. The Design Team should document and provide the rationale for incidences where the audit recommendations have not been incorporated or where alternatives are put forward.

The Design Team should respond to all issues raised in this Stage 1-2 Road Safety Audit Report through returning a signed copy of the Road Safety Audit Feedback Form.



7 ROAD SAFETY AUDIT TEAM STATEMENT

7.1 Statement

We certify that the drawings and documents provided with the Audit Brief have been examined. The examination has been carried out with the sole purpose of identifying any features of the scheme that could be improved or modified in order to improve the safety of the scheme. The problems that we have identified have been noted in the report, together with suggestions for improvement, which we recommend should be considered for implementation.

7.2 Signatures

7.2.1 Audit Team Leader Signature

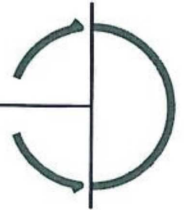
Name: Ken Swaby
Position: Transport Engineer
Date: 4 / 12 / 2018
Organisation: ILTP Consulting

Signed:

7.2.2 Audit Team Member Signature

Name: Mark Andrews
Position: Transport Engineer
Date: 4 / 12 / 2018
Organisation: ILTP Consulting

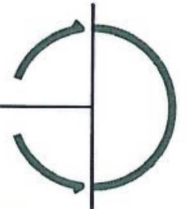
Signed:



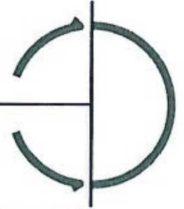
APPENDIX A ROAD SAFETY AUDIT FEEDBACK FORM

Road Safety Audit Reference RSA Dunshaughlin S1-2 KS 289
Audit Stage Stage 1-2
Date Road Safety Audit Completed 4th December 2018

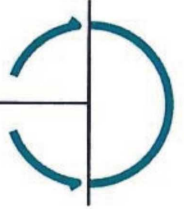
Para No. in Report	Problem Accepted (Y/N)	Recommendation Accepted (Y/N)	Comments / Alternative Measures (Describe)	Alternative Measures Accepted by Auditor? (Y/N)
4.1.1	Y	Y	The design team agree with the recommendations. Landscaping/ street furniture will be located to ensure visibility splays are kept clear.	Y
4.1.2	Y	Y	The design team agree with the recommendations. An initial assessment of the sight lines for vehicles exiting onto to the proposed Distributor/ Outer Relief Road has been undertaken.	Y
4.1.3	Y	Y	The design team agree with the recommendations. An initial assessment to illustrate that both emergency vehicles and refuse trucks can safely navigate all areas of the site (or otherwise noted) and perform turnabout manoeuvres within the confines of the carriageway has been undertaken.	Y
4.1.4	Y	Y	The design team agree with the recommendations. An initial assessment to illustrate that both emergency vehicles and refuse trucks can safely navigate all areas of the site (or otherwise noted) and perform turnabout manoeuvres within the confines of the carriageway has been undertaken. The design team consider that cul de sacs to road 11 and road 13 require hammer heads.	Y



Para No. in Report	Problem Accepted (Y/N)	Recommendation Accepted (Y/N)	Comments / Alternative Measures (Describe)	Alternative Measures Accepted by Auditor? (Y/N)
4.1.5	Y	Y	<p>The design team agree with the recommendations.</p> <p>The precise location of pedestrian/ cycle crossing facilities on the Distributor/ Outer relief road between the R147 and most southerly developed access road will be agreed with Meath Co. Council.</p>	Y
4.1.6	Y	Y	<p>The design team agree with the recommendations.</p> <p>Pedestrian facilities linking the proposed open space area and adjoining road network will be incorporated in the scheme.</p>	Y
4.1.7	Y	Y	<p>The design team agree with the recommendations.</p> <p>A two way cycle track on the western side at this location is proposed.</p> <p>The design team will ensure that appropriate cycle track markings and signage will be included.</p>	Y
4.1.8	Y	Y	<p>The design team agree with the recommendations.</p> <p>Cyclists can travel south via:</p> <ul style="list-style-type: none"> - A two way cycle track on the western side of the Central Boulevard link street to the proposed transport hub on the R147 or alternatively travel along the - East-west greenway to link to the R147 <p>Pedestrian footways are proposed both sides of the Central Boulevard link street</p>	Y



Para No. in Report	Problem Accepted (Y/N)	Recommendation Accepted (Y/N)	Comments / Alternative Measures (Describe)	Alternative Measures Accepted by Auditor? (Y/N)
			providing access to the wider network within the permitted Phase 1a, 1b and 1c development or alternatively pedestrians can travel along the east-west greenway to link to the R147.	
4.1.9	Y	Y	The design team agree with the recommendations. The proposed east-west greenway will navigate along the western side of the Phase 1C development towards the R147 allowing pedestrians/ cyclists connect to the wider network and linking to Dunshaughlin town centre.	Y



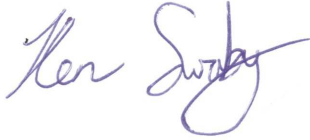
Signed 

Design Team Leader

Date 11/12/18

(Please Complete and return to the Auditor)

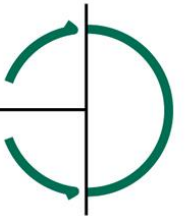
Safety Audit Signed Off;



Road Safety Audit Team Leader

Date 12/12/2018

Joseph M. O'Reilly
Consulting Engineers Limited
B.Sc.(Eng.), DIP.ENG., C.ENG., M.I.E.I.
Unit 1 St. Therese's Place, Flower Hill
Navan, Co. Meath
Telephone: (046) 9077032 Fax: (046) 9077932
E-MAIL: mail@jor.ie



APPENDIX B DESIGN TEAM DRAWINGS SUBMITTED FOR QUALITY / ROAD SAFETY AUDIT (AS LISTED UNDER PARAGRAPH 1.7 ABOVE)



LEGEND:

- ROAD SURFACE
- SHARED SURFACE (VEHICULAR)
- SHARED SURFACE (PEDESTRIAN)
- FOOTPATH SURFACE
- CYCLETRACK SURFACE
- BUS STOP SURFACE
- CYCLE TRACK HAZARD WARNING
- GREENWAY SHARED SURFACE
- RAISED ROAD SURFACE
- TACTILE PAVING
- CORDONARY HAZARD WARNING SURFACE
- PEDESTRIAN/CYCLIST SHARED AREA
- ROAD SIGN
- ROAD MARKING

ISSUED FOR
PLANNING

NOTES

REV	DATE	DETAILS
3	20/11/18	REVISED AS PER DISCUSSIONS WITH RLP
2	16/11/18	Revised for Road Safety Audit
1	15/11/18	ISSUED FOR ROAD SAFETY AUDIT

Joseph O'Reilly
Consulting Civil & Structural Engineers

Tel: 046 9077332 Fax: 046 9077332
Email: mail@jor.ie Web: www.jor.ie

Unit 1, St. Therese's Place, Flowerhill, Navan, Co. Meath

CLIENT Rockture Limited	TITLE Road Layout Sheet 1 of 2
PROJECT Proposed Strategic Housing Development at Dunshaughlin East	SCALE 1:500 @ A0
JOB No. J18-001	DATE OCTOBER 2018
DRAWING No. 030	DRAWN BY: DH
	CHECKED BY: HS
	REV 3



NOTES

REV	DATE	DETAILS
3	20/11/18	REVISED AS PER DISCUSSIONS WITH LTP
2	16/11/18	Revised For Road Safety Audit
1	15/11/18	Issued For Road Safety Audit

CLIENT Rockture Limited	TITLE Road Layout Sheet 2 of 2
PROJECT Proposed Strategic Housing Development at Dunshaughlin East	SCALE 1:500 @ A0
JOB No. J18-001	DATE OCTOBER 2018
DRAWING No. 031	DRAWN BY: DH
	CHECKED BY: HS
	REV 3



LEGEND:

- ROAD SURFACE
- SHARED SURFACE (VEHICULAR)
- SHARED SURFACE (PEDESTRIAN)
- FOOTPATH SURFACE
- CYCLETRACK SURFACE
- BUS STOP SURFACE
- CYCLE TRACK HAZARD WARNING
- GREENWAY SHARED SURFACE
- RAISED ROAD SURFACE
- TACTILE PAVING
- CORRIDOR HAZARD WARNING SURFACE
- PEDESTRIAN/CYCLIST SHARED AREA
- ROAD SIGN
- ROAD MARKING

DIMENSIONS
 Figured dimensions only to be taken from this drawing. All dimensions to be checked on site. Architects to be informed immediately of any discrepancies before work proceeds.

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ISSUED FOR PLANNING

REV	DATE	DETAILS
3	20/11/18	REVISED AS PER DISCUSSIONS WITH BLP
2	16/11/18	REVISED FOR ROAD SAFETY AUDIT
1	15/11/18	ISSUED FOR ROAD SAFETY AUDIT

jor Joseph O'Reilly
 Consulting Civil & Structural Engineers

Tel: 046 9077332 Fax: 046 9077332
 Email: mail@jor.ie Web: www.jor.ie

Unit 1, St. Theresa's Place, Flowerhill, Navan, Co. Meath

CLIENT
 Rockturf Limited

PROJECT
 Proposed Strategic Housing Development at Dunshaughlin East

TITLE
 Road Signage & Markings Layout Plan Sheet 1 of 3

SCALE: 1:500 @ A0
 DATE: NOVEMBER 2018
 DRAWN BY: SC
 CHECKED BY: NS

JOB No. J18-001
 DRAWING No. 032
 REV 3



LEGEND:

- ROAD SURFACE
- SHARED SURFACE (VEHICULAR)
- SHARED SURFACE (PEDESTRIAN)
- FOOTPATH SURFACE
- CYCLETRACK SURFACE
- BUS STOP SURFACE
- CYCLE TRACK HAZARD WARNING SURFACE
- GREENWAY SHARED SURFACE
- RAISED ROAD SURFACE
- TACTILE PAVING
- CONDUIT HAZARD WARNING SURFACE
- PEDESTRIAN/CYCLIST SHARED AREA
- ROAD SIGN
- ROAD MARKING

ISSUED FOR PLANNING

DIMENSIONS
 Figured dimensions only to be taken from this drawing. All dimensions to be checked on site. Architects to be informed immediately of any discrepancies before work proceeds.

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REV	DATE	DETAILS
3	20/11/18	REVISED AS PER DISCUSSIONS WITH LTP
2	16/11/18	REVISED FOR ROAD SAFETY AUDIT
1	15/11/18	ISSUED FOR ROAD SAFETY AUDIT

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Unit 1, St. Therese's Place, Flowerhill, Navan, Co. Meath

CLIENT
 Rockture1 Limited

PROJECT
 Proposed Strategic Housing Development at Dunshaughlin East

TITLE
 Road Signage & Markings Layout Plan Sheet 2 of 3

SCALE
 1:500 @ A0

DATE
 NOVEMBER 2018

DRAWN BY:
 SC

CHECKED BY:
 NS

JOB No.
 J18-001

DRAWING No.
 033

REV
 3



LEGEND:

- Site Boundary
- Proposed Storm Drainage
- Proposed Storm Manhole
- Proposed Headwall
- SEP
- H-B
- Proposed underground Attenuation tank (by stormloch or similar approved)
- Proposed Class 1 By-Pass Separator by Klargator or similar approved
- Proposed Flow Control Device (Hydrobrake or similar approved)

NOTES:

- 1) All Parking Bays to incorporate Permeable Paving Infiltration Filtration Systems (Refer to Drawing J18-001-20 for typical details)

ISSUED FOR DRAFT

REV	DATE	DETAILS
1	13/11/18	ISSUE FOR PLANNING

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 Email: mail@jor.ie Web: www.jor.ie
 Unit 1, St. Therese's Place, Flowerhill, Navan, Co. Meath

CLIENT
 Rocktore 1 Limited
 PROJECT
 Dunshaughlin East SHD
 Dublin Road, Dunshaughlin,
 Co. Meath

TITLE			
Site Services: Stormwater Drainage Layout Sheet 1			
SCALE	DATE	DRAWN BY:	SC
1:500 @ A0	NOVEMBER 2018	CHECKED BY:	MS
JOB No.	DRAWING No.	REV	
J18-001	012	1	



Attenuation System 3
 Effective Depth = 1.775m
 T.W.L = 97.820m
 I.L = 96.120m
 Capacity = 1650m³
 Discharge rate = 61.3 l/s

Attenuation System 2
 Effective Depth = 1.675m
 T.W.L = 99.350m
 I.L = 97.650m
 Capacity = 2368m³
 Discharge rate = 59.80 l/s

- LEGEND:**
- Site Boundary
 - Proposed Storm Drainage
 - Proposed Storm Manhole
 - Proposed Headwall
 - SEP
 - H-B

- NOTES:**
- Proposed underground Attenuation tank (by stormwater or similar approved)
 - Proposed Class 1 By-Pass Separator by Klargator or similar approved
 - Proposed Flow Control Device (Hydrobrake or similar approved)

1) All Parking Bays to incorporate Permeable Paving Infiltration/Filtration Systems (Refer to Drawing J18-001-20 for typical details)

ISSUED FOR DRAFT

REV	DATE	DETAILS
1	12/11/18	ISSUE FOR PLANNING

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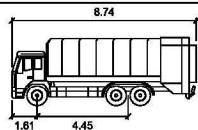
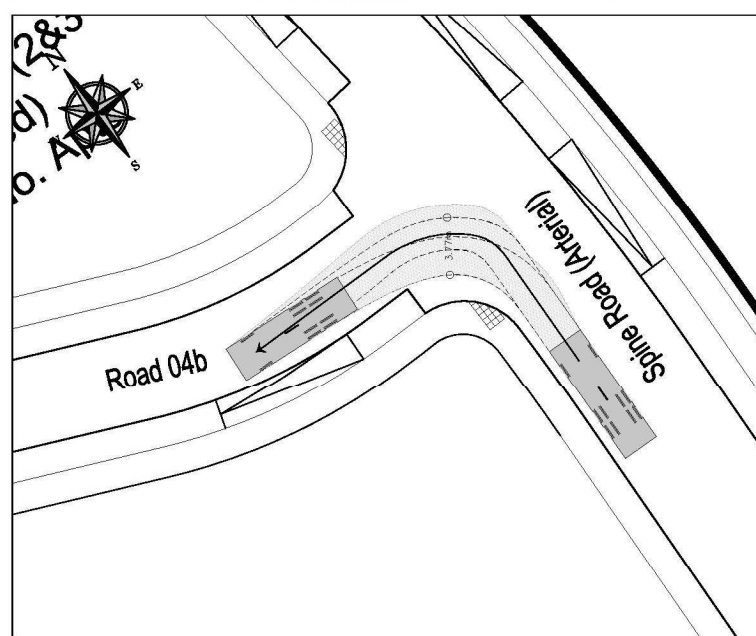
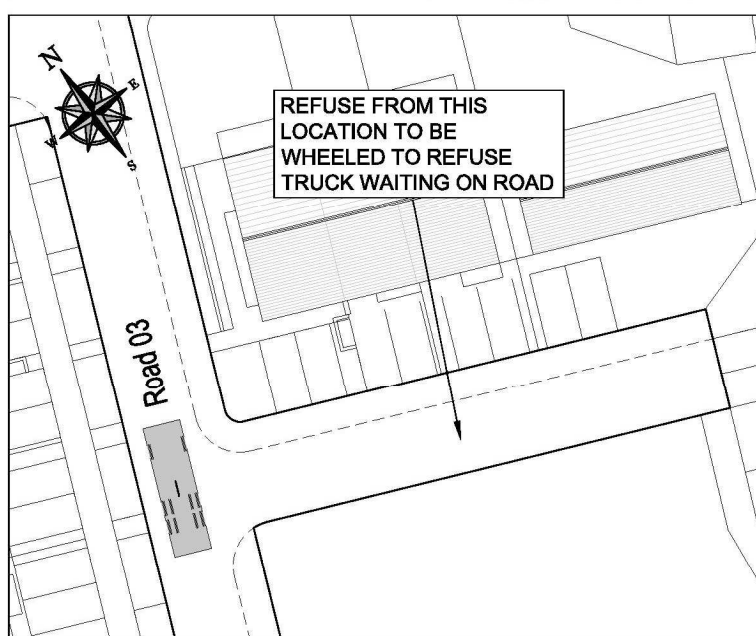
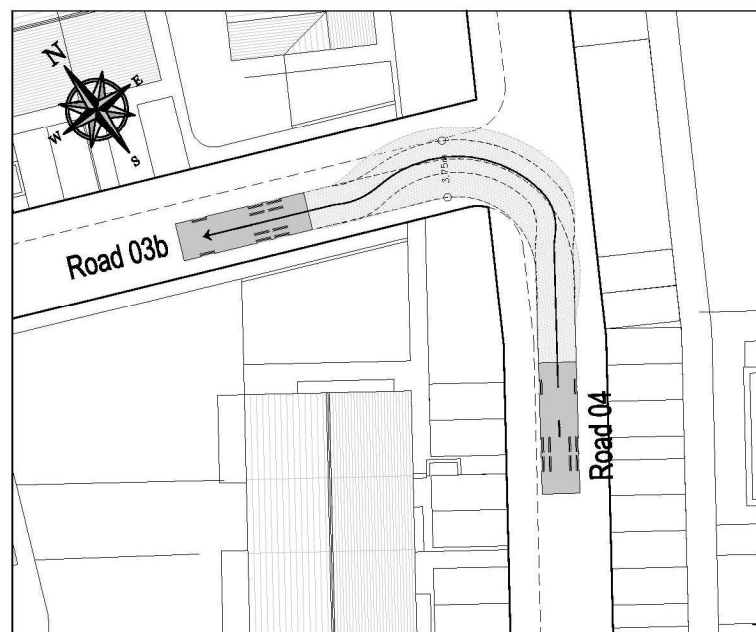
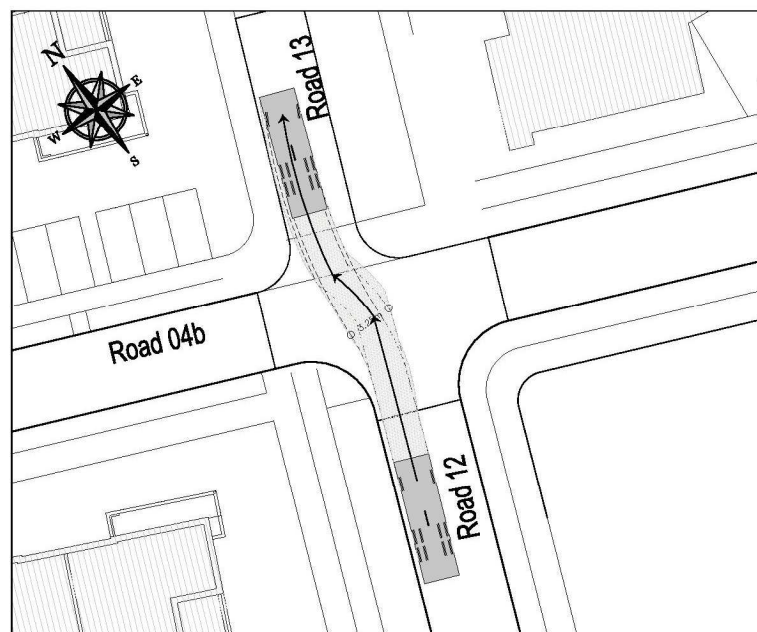
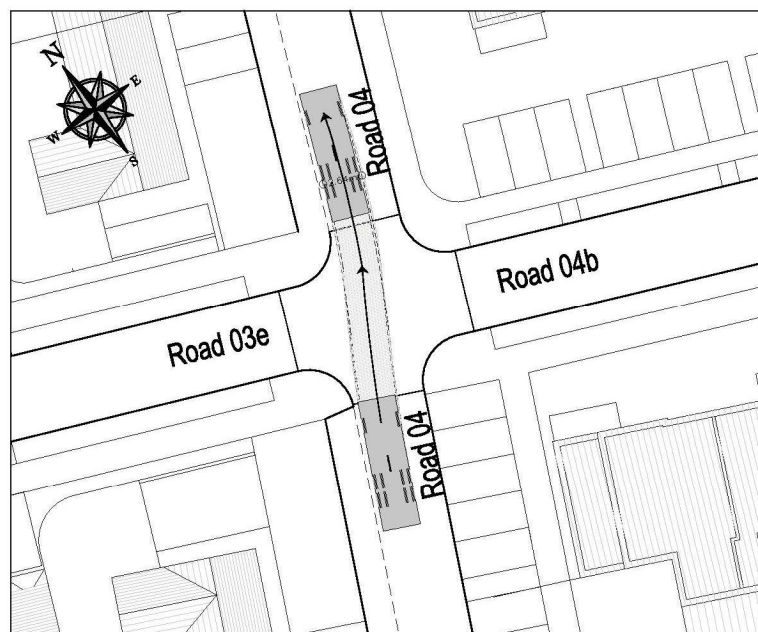
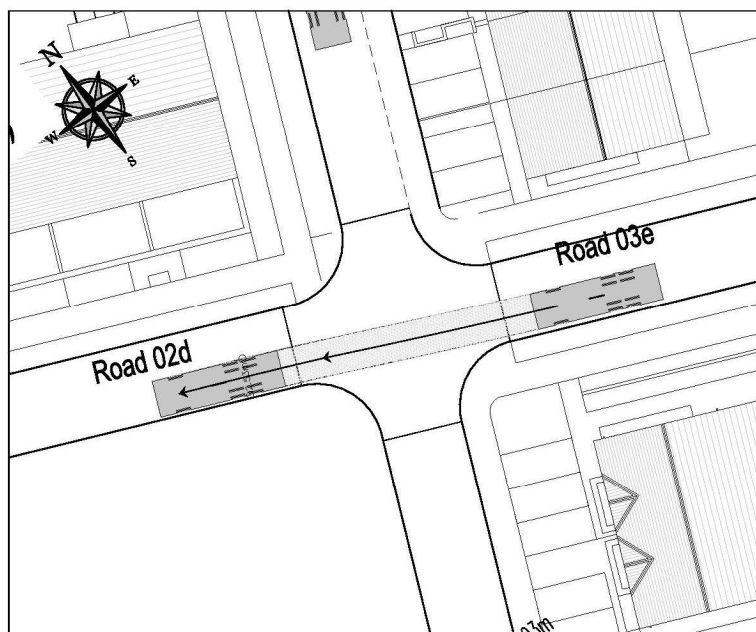
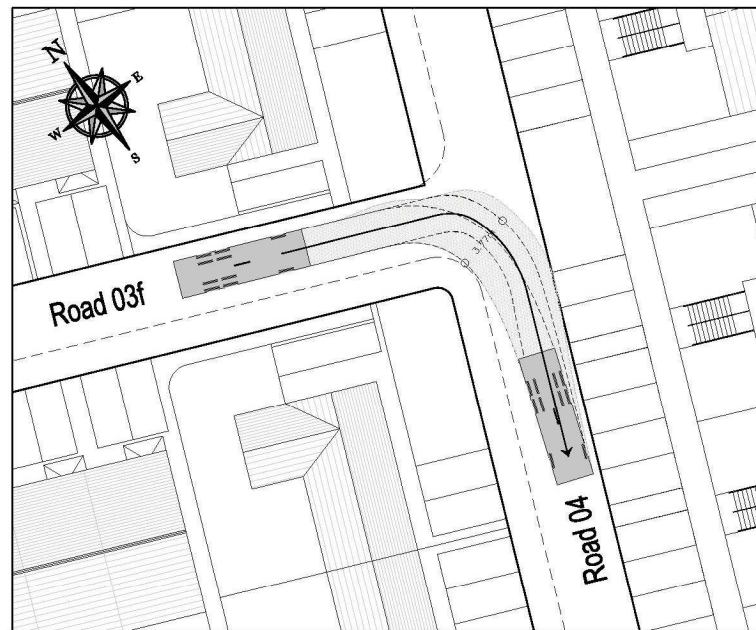
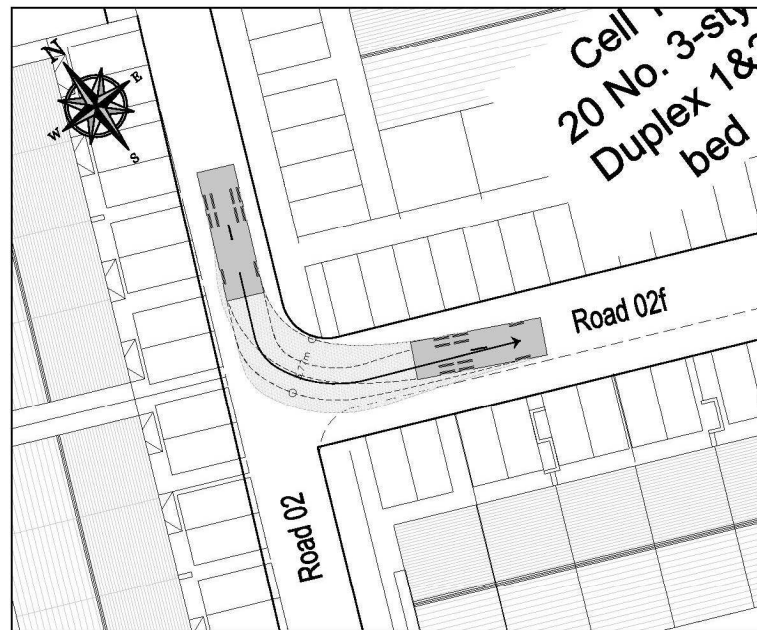
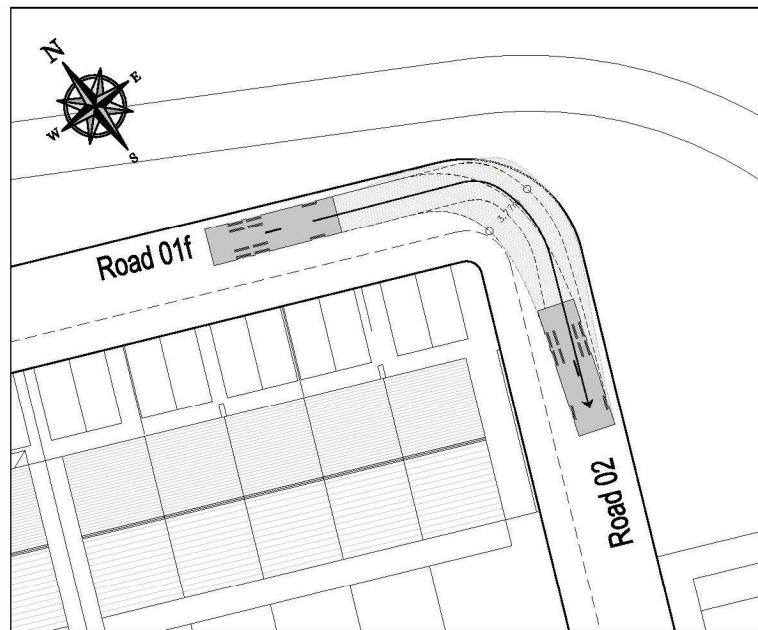
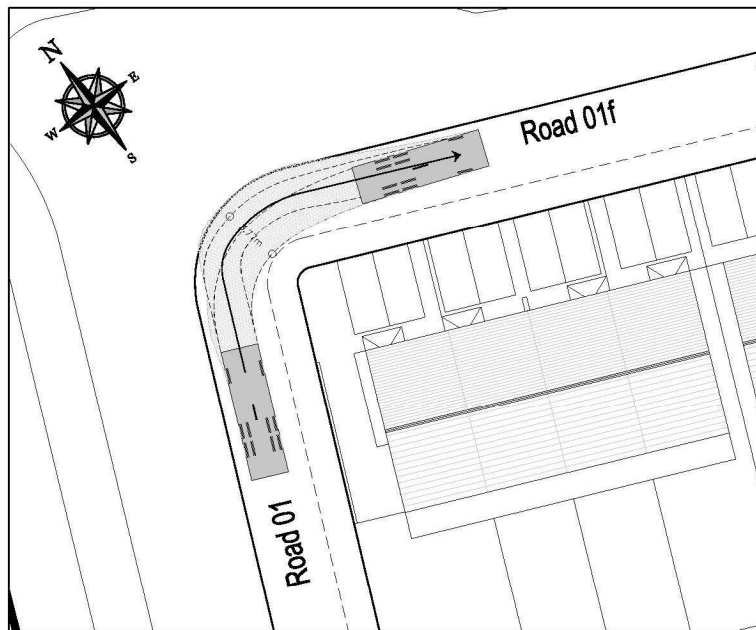
CLIENT
 Rocktore 1 Limited

PROJECT
 Dunshaughlin East SHD
 Dublin Road, Dunshaughlin,
 Co. Meath

TITLE
 Site Services:
 Stormwater Drainage Layout
 Sheet 2

SCALE	DATE	DRAWN BY	SC
1:500 @ A0	NOVEMBER 2018	CHECKED BY:	MS

JOB No.	DRAWING No.	REV
J18-001	013	1

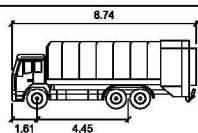
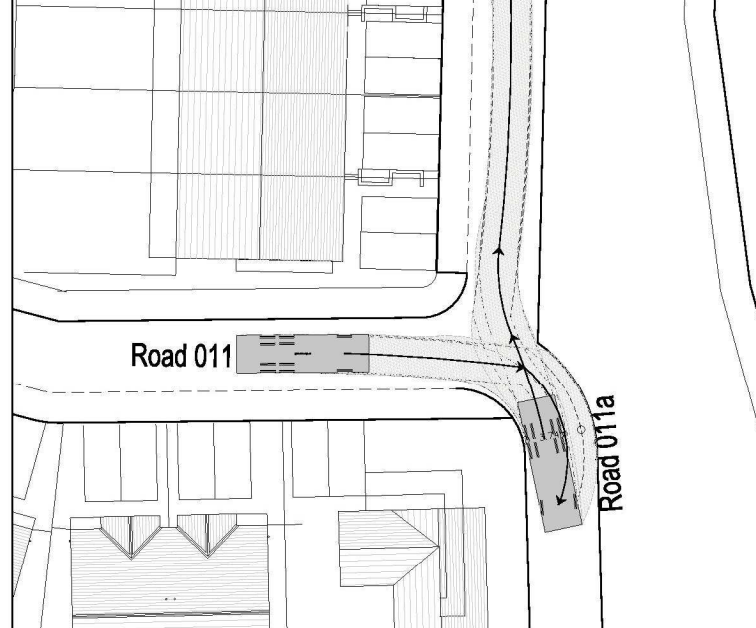
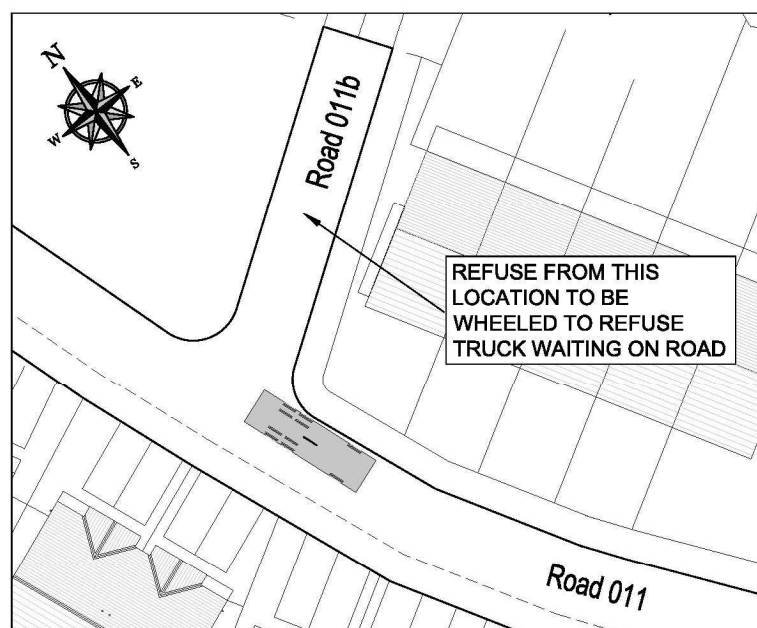
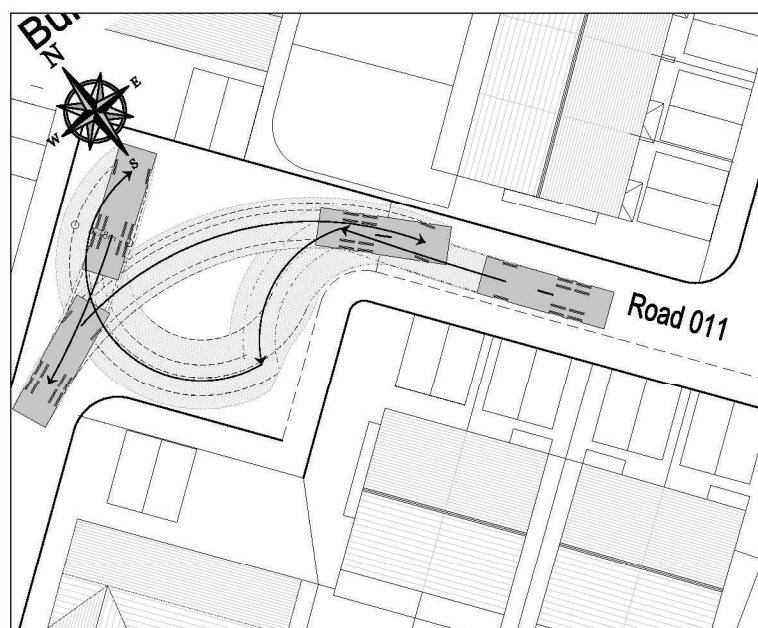
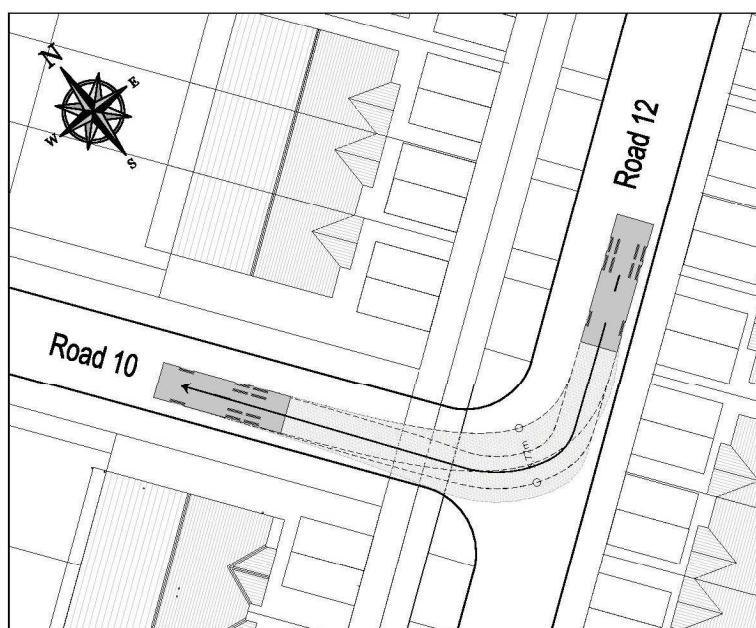
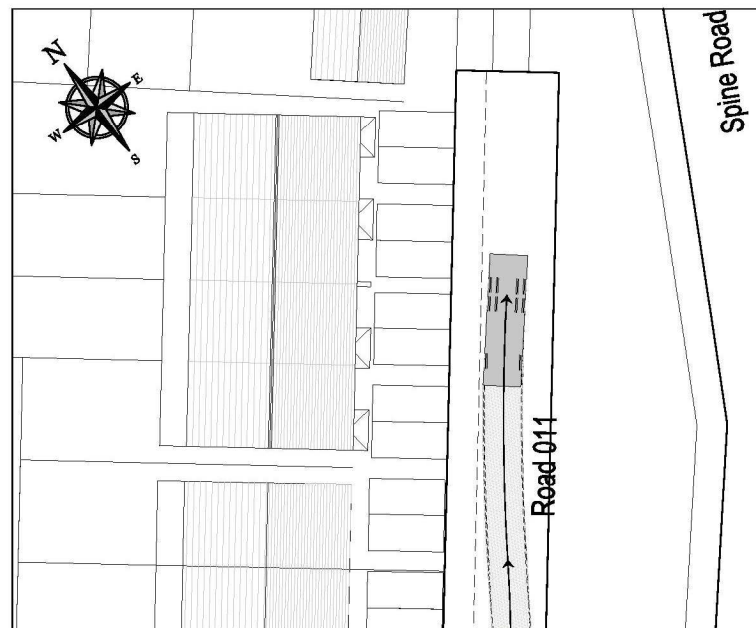
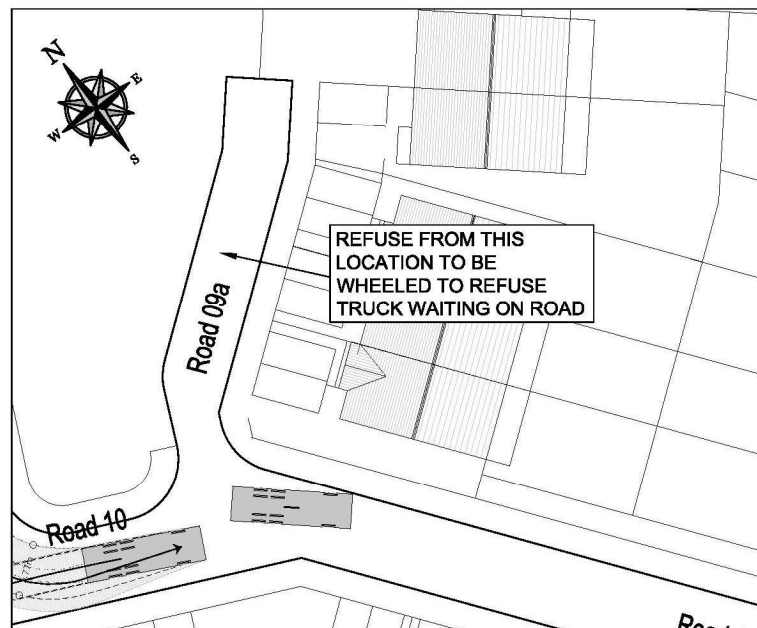
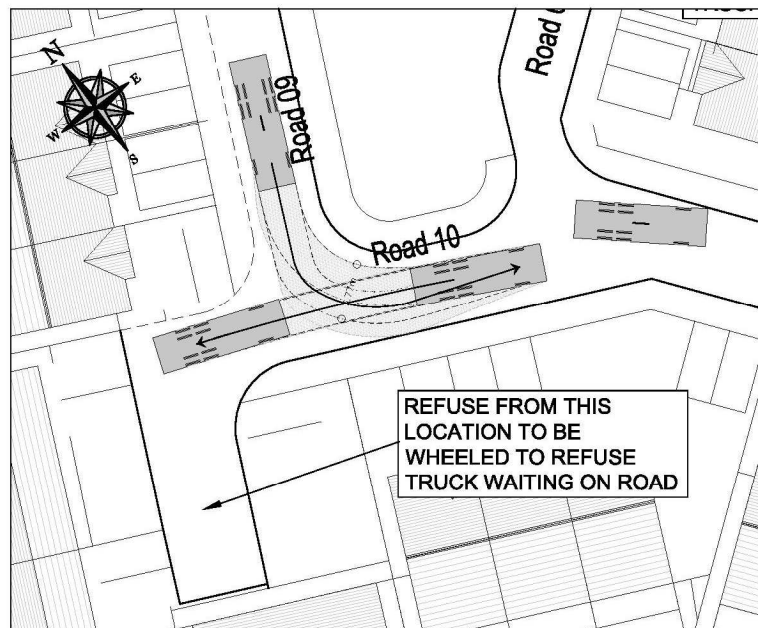
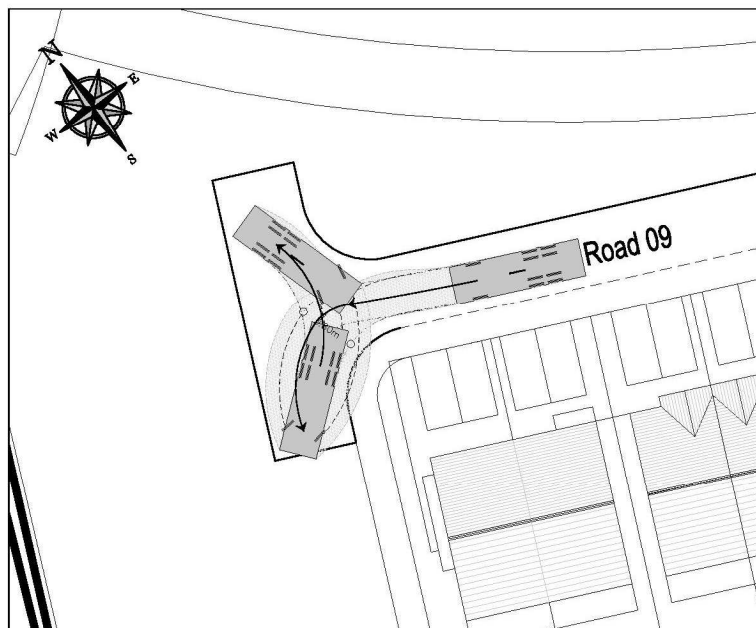
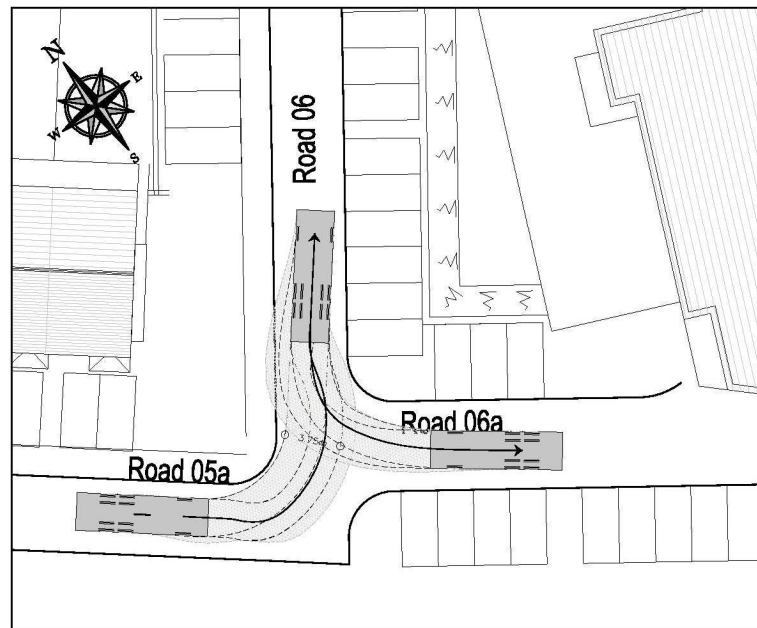
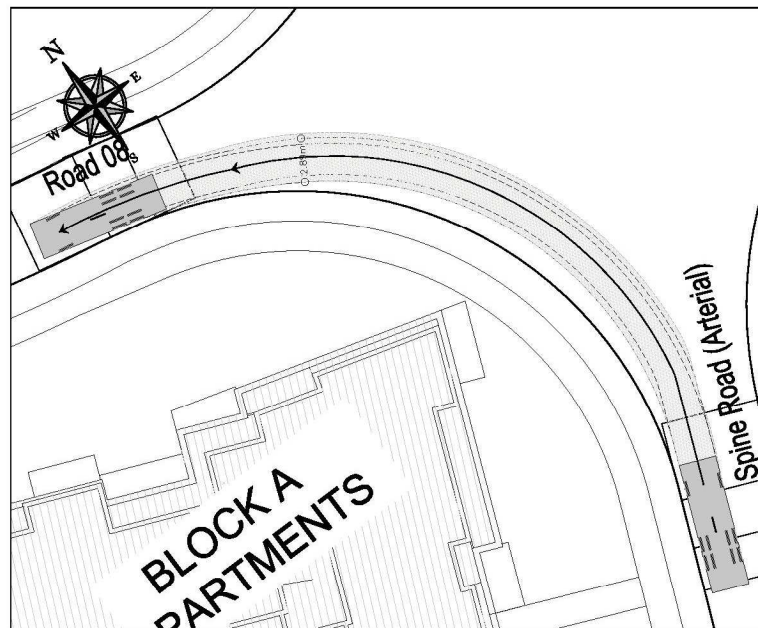
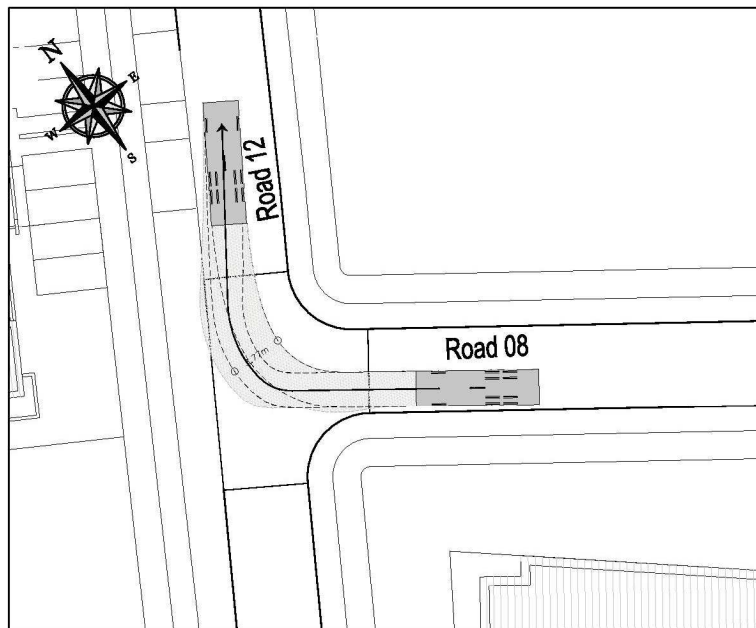


REFUSE 3AXLE meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 35.3

NOTES

REV	DATE	DETAILS
1	20/11/18	ISSUED FOR ROAD SAFETY AUDIT

CLIENT Rockture1 Limited		TITLE Autotruck Simulations Sheet 1 of 2	
PROJECT Proposed Strategic Housing Development at Dunshaughlin East	SCALE 1:250 @ A1	DATE OCTOBER 2018	DRAWN BY: LS CHECKED BY: MS
JOB No. J18-001	DRAWING No. 047	REV 1	



REFUSE 3AXLE meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 35.3

NOTES

REV	DATE	DETAILS
1	20/11/18	ISSUED FOR ROAD SAFETY AUDIT

CLIENT Rockture1 Limited	TITLE Autotrack Simulations Sheet 2 of 2		
PROJECT Proposed Strategic Housing Development at Dunshaughlin East	SCALE 1:250 @ A1	DATE OCTOBER 2018	DRAWN BY: LS CHECKED BY: MS
JOB No. J18-001	DRAWING No. 048	REV 1	

NOTES

01. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
02. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.
03. APPROXIMATE LOCATION OF EXISTING SITE BOUNDARY VIRGIN MEDIA CHAMBER
04. VIRGIN MEDIA SUPPLY ALL OF THE EQUIPMENT NEEDED FOR THE INSTALLATION OF VIRGIN MEDIA NETWORK - DUCT, CHAMBER COVERS, CABINETS, ETUS, TAP ENCLOSURES, OUTLET BOXES, INTERNAL TRIPLE SCREENED COAX CABLE.
05. THIS PROPOSAL IS SUBJECT TO APPROVAL FROM VIRGIN MEDIA REPRESENTATIVE & LOCAL AUTHORITY PLANNING DEPARTMENT.
06. TO BE READ IN CONJUNCTION WITH VIRGIN MEDIA FINAL DESIGN DRAWING.

LEGEND

- 2 x TWIN WALLED Ø110mm GREEN DUCT ON FOOTWAY TO VIRGIN MEDIA SPEC.
- Ø32mm HYDRODARE TO EACH HOUSE ETU TO VIRGIN MEDIA SPEC.
- INGROUND FOOTWAY CHAMBER TO VIRGIN MEDIA SPEC (FW3 TYPE).
- NODE 4 VIRGIN MEDIA CABINET - 1015mm(H) x 450mm(W) x 410mm(D)
- VIRGIN MEDIA ETU CABINET - 300 (h) x 220 (w) x 175mm DEEP

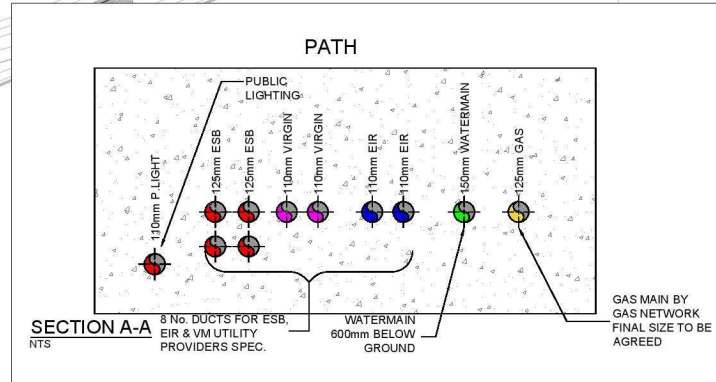
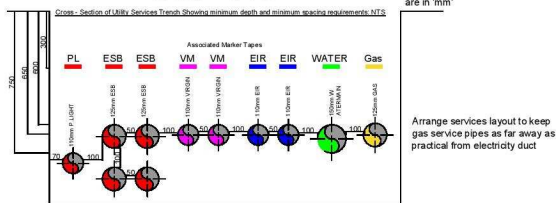


THIS IS NOT AN APPROVED VIRGIN MEDIA DESIGN DRAWING. INFORMATION ONLY

E	FOR PLANNING	PG	TMC	TMC	05/11/2018
D	FOR PLANNING	PG	TMC	TMC	06/03/2018
C	FOR PLANNING	PG	TMC	TMC	05/03/2018
B	FOR PLANNING	PG	TMC	TMC	27/02/2018
A	FOR PLANNING	PG	TMC	TMC	26/02/2018
ISSUE	DESCRIPTION	DRN	ORIG	APP	DATE

McElligott
CONSULTING ENGINEERS
H2a Centrepoint Business Park, Oak Road, Dublin 12
tel: +353 (0)1 424 3014 email: info@mcelligott.ie web: www.mcelligott.ie

CLIENT	GEM CONSTRUCTION				
PROJECT	THE WILLOWS				
TITLE	SHD VIRGIN MEDIA SERVICES LAYOUT				
SHEET	SCALE	PROJECT No.	DRAWING No.		
A1	1:1000	17008	E003 SHD		



THIS IS NOT AN APPROVED VIRGIN MEDIA DESIGN DRAWING. INFORMATION ONLY

Roundabout to be designed in accordance with DMURS and the National Cycle Manual

NOTES

01. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
02. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.
03. FINAL LOCATION OF MINIPILLARS & DUCTS TO BE AGREED WITH ESB SUPERVISOR PRIOR TO INSTALLATION.
04. PROVIDE FOR ESB METER CABINET, INTERNAL METER & BRACKETS, SURGE PROTECTION & CABLE TO PUMPING STATION CONTROL PANEL.
05. REFER TO ESB PUBLICATION ELECTRICAL SERVICES GUIDE BOOK FOR HOUSING SCHEMES FOR ALL INSTALLATION DETAILS.
06. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE NATIONAL CODE OF PRACTICE FOR CUSTOMER INTERFACE ISSUED BY ESB.
07. THIS PROPOSAL IS SUBJECT TO APPROVAL FROM THE LOCAL AUTHORITY & PLANNING PERMISSION.
08. ALL PUBLIC LIGHTING COLUMNS MUST BE A MINIMUM OF 800mm AWAY FROM THE KERB EDGE.
09. NO ACCOUNT IS TAKEN FOR THE BLOCKING EFFECT CAUSED BY BUILDINGS, TREES ETC. THE CALCULATION SHOWN BY THIS DRAWING ASSUMES THAT THE WHOLE AREA BEING CONSIDERED IS IN THE SAME PLANE, I.E. THERE ARE NO CHANGES IN GRADIENT OR ELEVATION.
10. ALL PUBLIC LIGHTING COLUMNS TO BE A MINIMUM OF 7M AWAY FROM ANY TREES.
11. WHERE ACCESS TO LIGHTING COLUMNS IS OBSTRUCTED BY PATHWAYS ETC A RAISE & LOWER TYPE COLUMN SHOULD BE USED.
12. THIS IS NOT AN APPROVED PUBLIC LIGHTING DESIGN DRAWING INFORMATION ONLY

LEGEND

- LIGHTING MICRO PILLAR (LOCATION AT LEAST 2 METERS FROM ESB MINI PILLAR)
- 2X6SQ NYCY CABLE LAID IN DUCTING TO ETCI 211.2003. SINGLE WALL DUCTING, COLOUR RED TO BE USED MANUFACTURED FROM HIGH DENSITY POLYETHYLENE (H.D.P.E.), 107MM EXTERNAL DIAMETER, HAVING A WALL THICKNESS OF 5MM. THIS DUCTING TO HAVE THE WORDS "STREET LIGHTING" STAMPED ON, LETTER SIZE 9MM AT 1M INTERVALS. THE LETTERING TO FACE UPPERMOST IN THE TRENCH. ALL WORKS TO LOCAL AUTHORITY SPECIFICATION. THIS IS A CIRCUIT LAYOUT AND NOT INDICATIVE OF WHERE DUCTS ARE TO BE LAID.

- P1A**
TYPE A COLUMN DETAILS
HEIGHT: 6m
BRACKET LENGTH: Post-top
INCLINATION: 5 Degree uplit
LANTERN DETAILS
LANTERN TYPE: 17w-LED
MAKE & MODEL: C.U. Phosco-P852-12-F4-NW-D0400-17W
- P1B**
TYPE B COLUMN DETAILS
HEIGHT: 6m
BRACKET LENGTH: Post-top
INCLINATION: 5 Degree uplit
LANTERN DETAILS
LANTERN TYPE: 17w-LED
MAKE & MODEL: C.U. Phosco-P852-12-F4-NW-F9000-17W
- P1C**
TYPE A COLUMN DETAILS
HEIGHT: 6m
BRACKET LENGTH: Post-top
INCLINATION: 5 Degree uplit
LANTERN DETAILS
LANTERN TYPE: 17w-LED
MAKE & MODEL: C.U. Phosco-P852-12-F4-NW-D0400-17W
- P1D**
TYPE B COLUMN DETAILS
HEIGHT: 6m
BRACKET LENGTH: Post-top
INCLINATION: 5 Degree uplit
LANTERN DETAILS
LANTERN TYPE: 21w-LED
MAKE & MODEL: C.U. Phosco-P852-12-F4-NW-D0600-21W

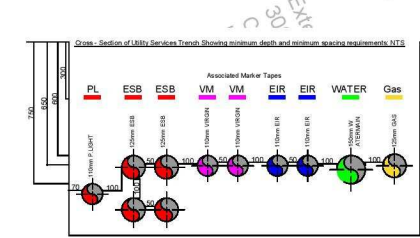
THIS IS A DRAFT PROGRESS LIGHTING LAYOUT THIS IS NOT AN OFFICIAL ISSUE



ISSUE	DESCRIPTION	DRN	ORIG	APP	DATE
B	INFORMATION ONLY DRAFT	RT	TMC	TMC	02/11/2018
A	INFORMATION ONLY DRAFT	PG	TMC	TMC	22/10/2018
C	FOR PLANNING	PG	TMC	TMC	05/03/2018
B	FOR PLANNING	PG	TMC	TMC	27/02/2018
A	FOR PLANNING	PG	TMC	TMC	26/02/2018

McElligott
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H2a Centrepoint Business Park, Oak Road, Dublin 12
Tel: +353 (0)1 424 3014 email: info@mcelligott.ie web: www.mcelligott.ie

CLIENT	GEM CONSTRUCTION				
PROJECT	THE WILLOWS				
TITLE	SHD PUBLIC LIGHTING LAYOUT				
SHEET	A1	SCALE	1:1000	PROJECT No.	17008
				DRAWING No.	E004 SHD



Note: All dimensions shown here are in 'mm'

