

**Title: STAGE 1 ROAD SAFETY AUDIT INCLUDING
QUALITY AUDIT**

**For;
Newtownmoyaghy SHD, Kilcock.**

Client: DBFL

Date: November 2019

Report reference: 0679R01

VERSION: FINAL

Prepared By:

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1.0 Introduction

This report was prepared in response to a request from Mr. Dan Reilly, DBFL, Consulting Engineers, for a Stage 1 Road Safety Audit including Quality Audit of Newtownmoyaghy SHD residential development in Kilcock, Co. Kildare.

The Quality Audit aspect has been carried out in accordance with the guidance in the Design Manual for Urban Roads and Streets (DMURS), produced by Department of Transport Tourism and Sport in March 2013 and as revised in May 2019.

This portion of the Quality Audit includes an access audit, a walking audit, a cycle audit and a non-motorised user audit for the internal elements of the development.

The road safety audit has been carried out on the interventions on the Link Street including tie-in locations.

The Road Safety and Quality Audit Team comprised of;

Team Leader: **Norman Bruton**, BE CEng FIEI, Cert Comp RSA.

Team Member: **Jane Hennaghan** BEng (Hons), CEng MIEI

The Quality Audit and Road Safety Audit involved the examination of drawings and other material provided by DBFL and a site visit by the Audit Team, together, on 5th November 2019.

The weather at the time of the site visit was dry and the road surface was damp.

Recommendations have been provided to help improve the quality of the design with regard to the areas described above. A feedback form has also been provided for the designer to complete indicating whether or not he/she will accept those recommendations or provide alternative recommendations for implementation.

The information supplied to the Audit Team is listed in **Appendix A**.

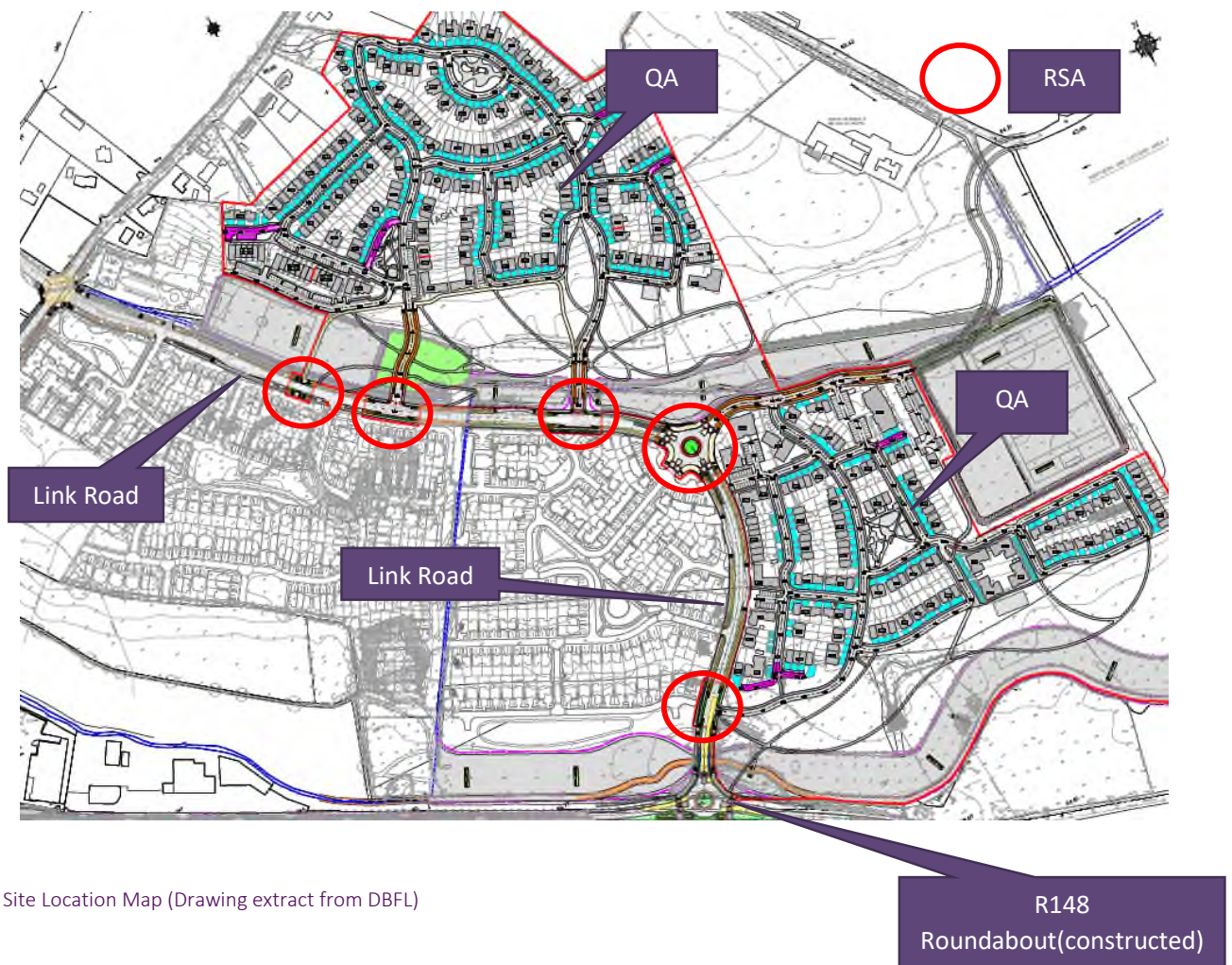
A feedback form for the Designer to complete is contained in **Appendix B**.

A plan drawing showing the problem locations is contained in **Appendix C**.

2.0 Background

It is proposed to develop the Newtownmoyaghy SHD in Kilcock. A Road Safety Audit including Quality Audit has been requested as part of the planning discussions that have taken place. The scope has been identified in Section 1.0 above. A map of the areas of concern is shown below. The roundabout onto the R148 regional road is already complete and was subject to a previous Road Safety Audit.

A site layout plan is shown below detailing the scope of the Audits



Site Location Map (Drawing extract from DBFL)

3.0 Road Safety Audit.

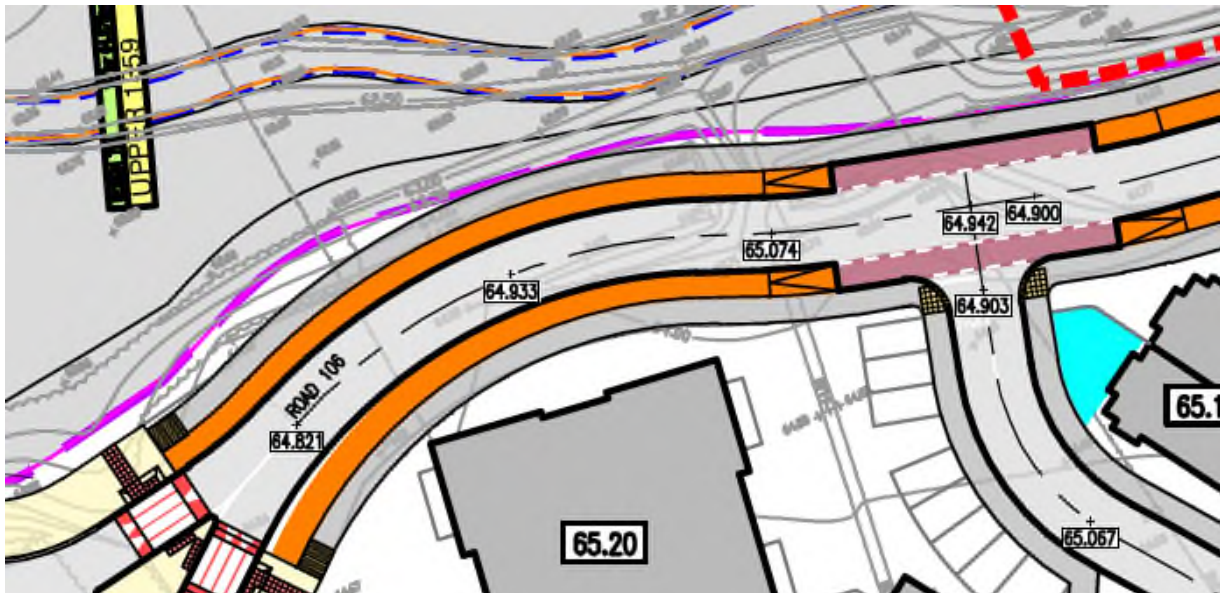
3.1 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

It is unclear on Road 106 to the East of the internal roundabout if the cycle track is to be vertically segregated from the footway between junctions. Without segregation pedestrian may stray into the footway and be at greater risk of being struck by cyclists.



RECOMMENDATION

It is recommended that the cycle track be vertically segregated and at the detailed design stage that the correct ladder and tramline tactile paving layout be provided at all areas where the two merge as a shared use area.

4.0 Quality Audit

4.1 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

There are proposed bus laybys on the Link Road between the R148 roundabout and the internal roundabout. There is a footpath from the eastern portion of Newtownmoyaghy SHD to the bus stop on that side and there is a pedestrian link from the cul-de-sac in the occupied Millerstown Development adjacent to the bus stop on that side. There is however no crossing point for pedestrians to get the bus on the opposite side of the road or to cross after getting off the bus.



RECOMMENDATION

It is recommended that an informal crossing be provided adjacent to the bus laybys.

4.2 Problem

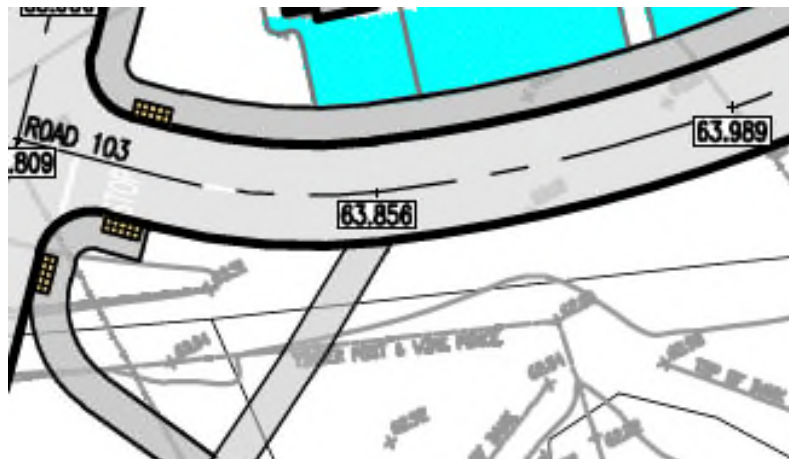
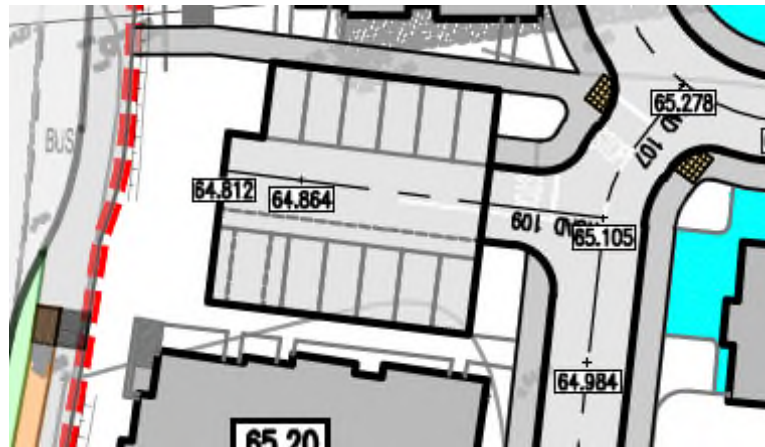
LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

No pedestrian crossing points have been provided at some footpath junctions. For example the junction of Road 109 and Road 107. This could lead to triops and falls for pedestrians.

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DBFL



RECOMMENDATION

It is recommended that dropped kerbs and tactile paving is provided at all internal pedestrian crossing points.

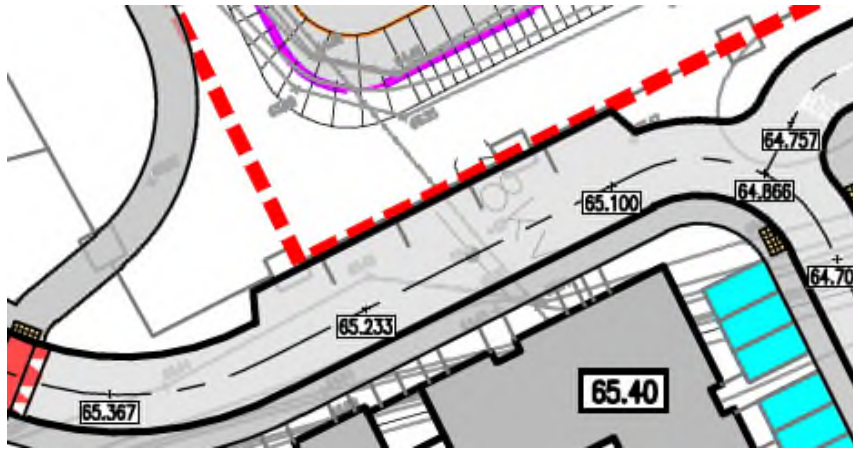
4.3 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

There is no hard standing to the rear of the parallel parking spaces on Road 105. This could lead to slips and falls for vehicle occupants leaving their vehicle on that side, especially during wet conditions.



RECOMMENDATION

It is recommended that a footpath be provided to the rear of the parking spaces.

4.4 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

Vehicles reversing out of the parking spaces on the end loop at road 105 will cross the dropped kerb and tactile paving on the footpath which is also part of a recreational walking route. This would increase the likelihood of a collision with a pedestrian and also lead to damage of the paving slabs which could then become trip hazards.



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RECOMMENDATION

It is recommended that the crossing point be relocated.

4.5 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

Drivers exiting the residential units opposite the chicane on Road 105 may find it difficult to undertake the manoeuvre due to the presence of the chicane. This could result in material damage to the chicane and the vehicles.



RECOMMENDATION

It is recommended that a swept path analysis be carried out to ensure the manoeuvre can be carried out easily by drivers of those units. A similar situation exists for the chicane on Road 102.

4.6 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

There are two disabled parking bays proposed at the GAA pitch car park. It is unclear where the entry to the pitch is for supporters. If the disabled parking bays are far away from the pitch entrance it may be an arduous journey for the mobility impaired.



RECOMMENDATION

It is recommended that the disabled bays be placed as close to the pitch entrance as practicable.

4.7 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

It is unclear how drivers will access the parking spaces for the units along the southern side of Road 106 given the presence of the raised cycle track.



RECOMMENDATION

It is recommended that the cycle track height be reduced so that vehicles can cross it.

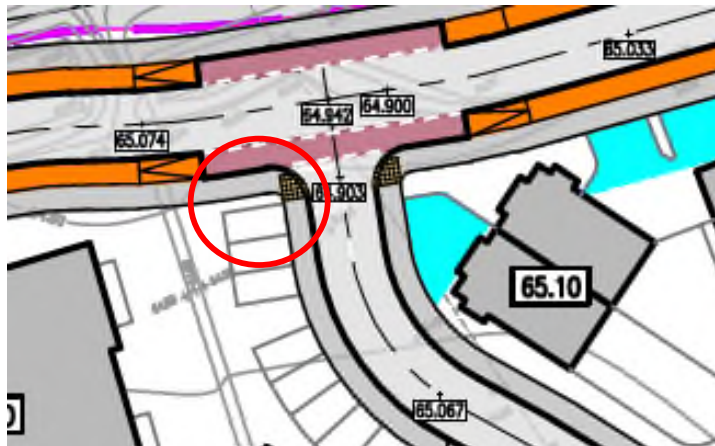
4.8 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

The first parking space on Road 101 at the junction with Road 106 is very close to the junction. A driver who is reversing out of this space will have to be alert of traffic turning from Road 106 and may not see a pedestrian behind the car.



RECOMMENDATION

It is recommended that the parking space be removed/relocated.

4.9 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

Road 101 has a large radius arc for most of its length and there is a risk that drivers may use it as a 'rat-run' from the R148 to the GAA pitch at peak times when traffic volumes are high. This would increase the likelihood of a collision with a vulnerable road user.

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DBFL



RECOMMENDATION

It is recommended that some traffic calming features are introduced along Road 101 after the initial sinusoidal portion of the alignment.

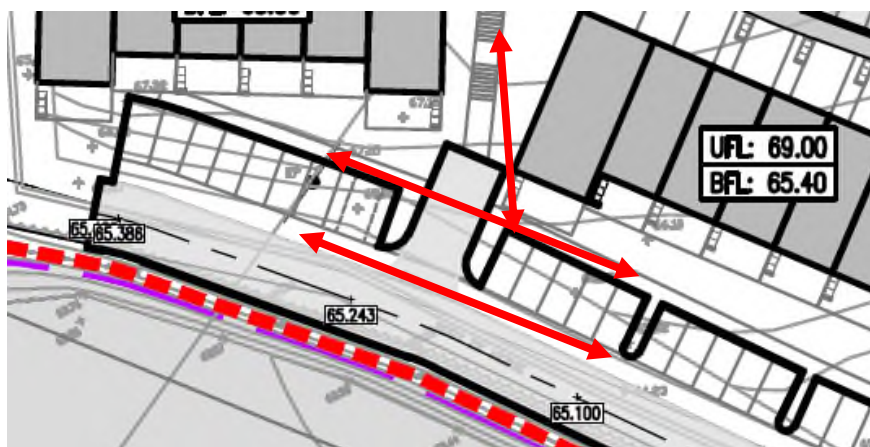
4.10 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

The footpaths on the northern side of Road 212 are not shaded. It is unclear if there are continuous pedestrian facilities along the front and rear of the perpendicular parking bays. The turning head may also truncate pedestrian routes.



RECOMMENDATION

It is recommended that the footpath network be clearly defined and that it is without discontinuities and pinch points.

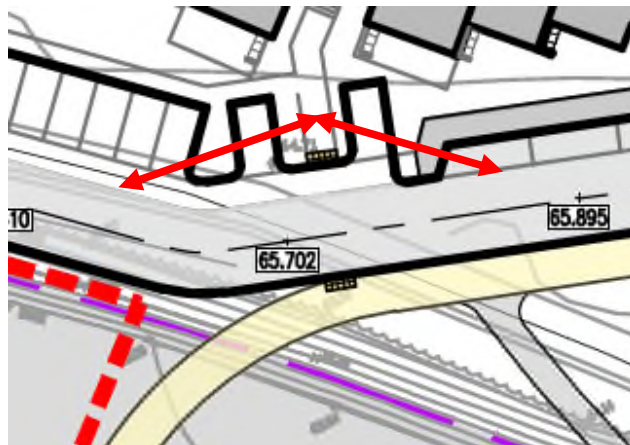
4.11 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

There may be a lack of inter-visibility between pedestrians and drivers at the informal crossing to the shared use track at Road 212 due to the presence of vehicles in the perpendicular parking spaces.



RECOMMENDATION

It is recommended that the visibility be checked and if necessary, the parking spaces be relocated.

4.12 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

There is no transition from on-road cycling to the shared use cycle track on Road 203. This could lead to cyclists mounting the kerb and losing control.



RECOMMENDATION

It is recommended that suitable entry points to the shared use facility be made for cyclists at locations with adequate visibility and with suitable warning for pedestrians.

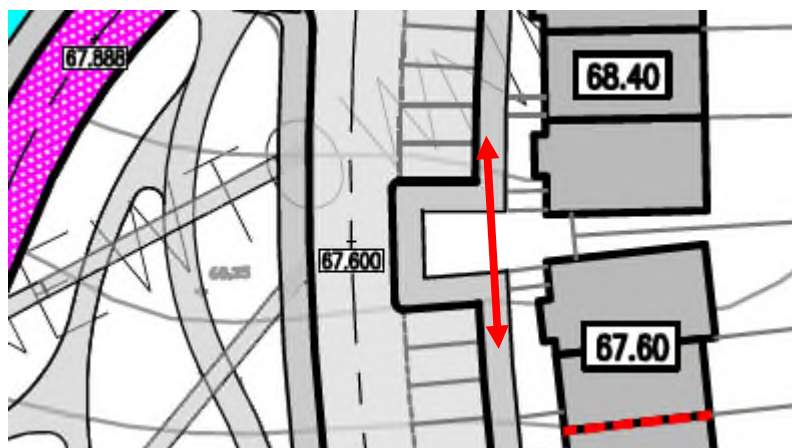
4.13 Problem

LOCATION

Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

PROBLEM

There is a footpath along the western side of Road 201 at a buildout between perpendicular car parking spaces that does not represent the desire lines for pedestrians. This will lead pedestrians to travel over the landscaped area instead.



RECOMMENDATION

It is recommended that the footpath be provided along the desire line.

5.0 Observations

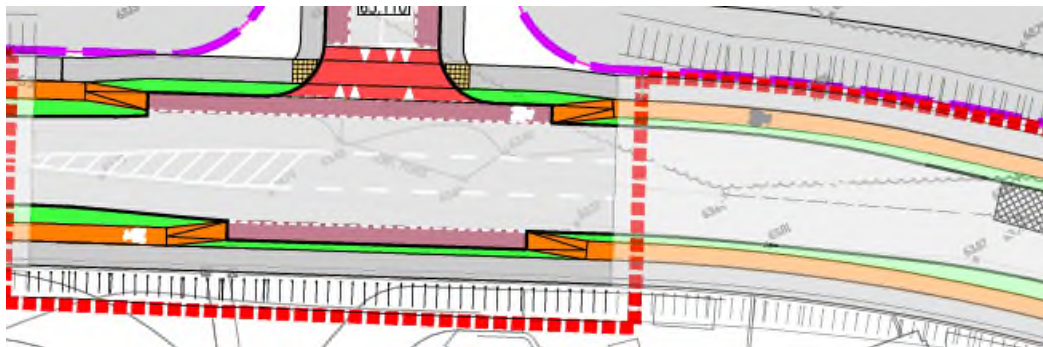
5.1 Observation

Signs and road markings would be reviewed at the detailed design stage. In particular a Stop sign and STOP road marking would be needed at the first junction to the West on the link Road which is currently the access to the occupied units. Drivers exiting this section have priority at present but no longer will once the link road is fully opened.



5.2 Observation

The development of the right turning lane on the Link road for the Road 201 junction has not been shown on the drawings. It is assumed that this will be developed at the detailed design stage.



5.3 Observation

Swept path analysis for refuse trucks and emergency vehicles have not been provided.

6.0 Quality Audit Statement

This quality Audit has been carried out in accordance with the guidance given in DMURS and takes into consideration the principles approaches and standards of that Manual.

The quality audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the Design Team.

Norman Bruton Signed: *Norman Bruton*
(Quality Audit Team Leader) Dated: 9/12/2019

Jane Hennaghan Signed: *Jane Hennaghan*
(Quality Audit Team Member) Dated: 9/12/2019

Appendix A

List of Material Supplied for this Quality Audit;

- Drawing 190009-DBFL-XX-XX-DR-C-2001 Rev –
- Drawing 190009-DBFL-XX-XX-DR-C-2002 Rev –
- Drawing 190009-DBFL-XX-XX-DR-C-2003 Rev -
- Drawing 190009-DBFL-XX-XX-DR-C-2004 Rev -

Appendix B

Feedback Form

QUALITY AUDIT FORM – FEEDBACK ON QUALITY AUDIT REPORT

Scheme: Newtownmoyaghy SHD

RSA & Quality Audit- Stage 1

 Date Audit (site visit) Completed: 5th November 2019

Paragraph No. in Quality Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
Road Safety Audit				
3.1	Y	Y		
Quality Audit				
4.1	Y	Y		
4.2	Y	Y		
4.3	Y	Y		
4.4	Y	Y		
4.5	Y	Y	Swept path analysis undertaken and landscape build-outs relocated accordingly	Yes
4.6	N	N	Disabled bays are located close to the pitch entrance	Yes
4.7	Y	Y		
4.8	Y	Y		
4.9	N	N	The Road R101 is self-regulating with speed reduction bends incorporated	Yes
4.10	Y	Y		
4.11	Y	Y		
4.12	Y	Y		
4.13	Y	Y		

Signed Pauline Hannigan
Design Team Leader

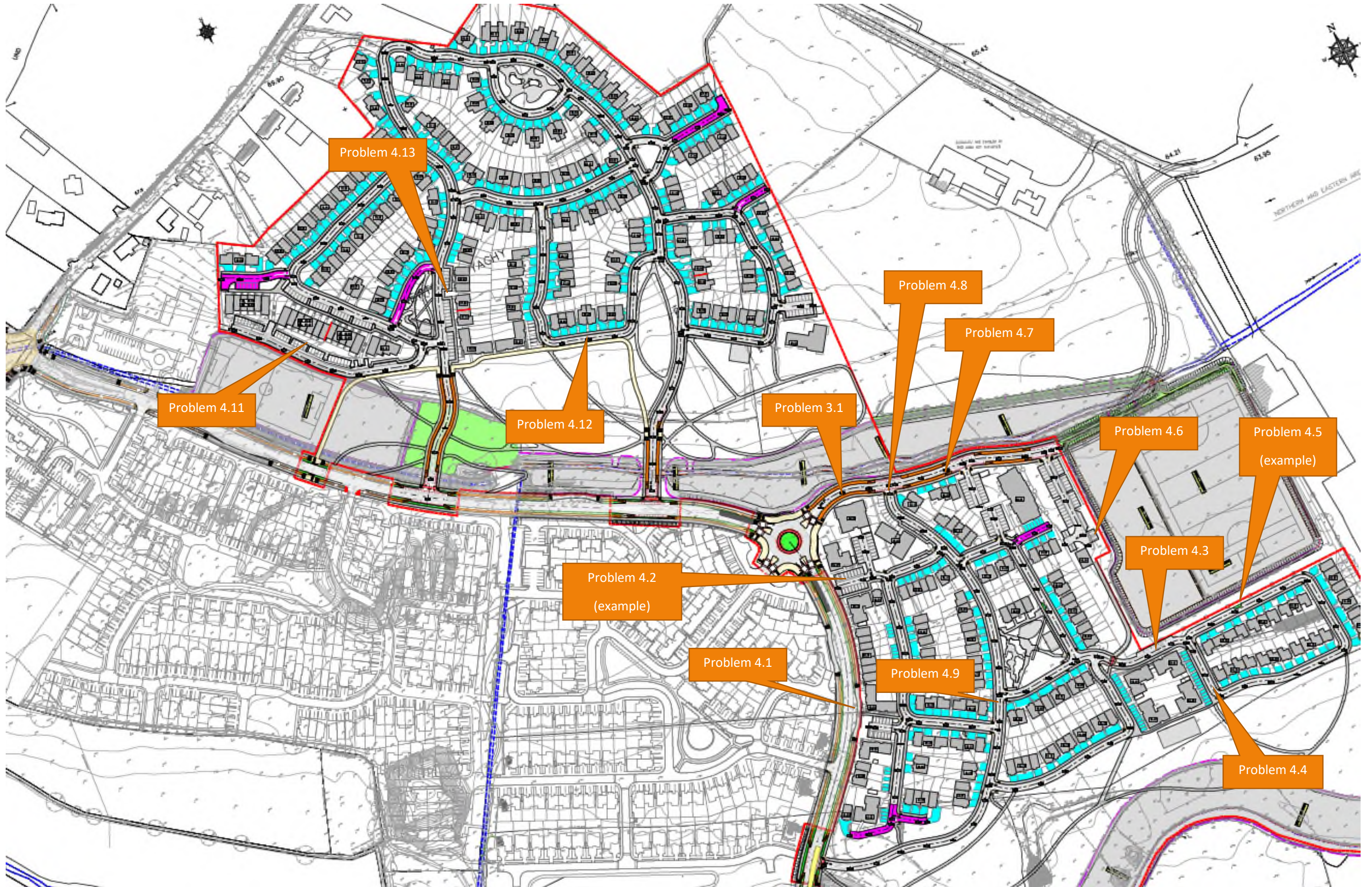
Date 09/12/2019

Signed Norman Bruton
Quality Audit Team Leader

Date: 6-12-2019

Appendix C

Problem Location Plan



Problem 4.13

Problem 4.11

Problem 4.12

Problem 3.1

Problem 4.8

Problem 4.7

Problem 4.6

Problem 4.5
(example)

Problem 4.3

Problem 4.2
(example)

Problem 4.1

Problem 4.9

Problem 4.4