Title: **QUALITY AUDIT**

INCLUDING

Stage 1 Road Safety Audit, Access Audit, Cycle Audit, Walking Audit & Non Motorised User Audit.

For:

Public Realm Improvements for a Pedestrianised New Street

Client: **Fingal County Council**

Report reference: **1652R01**

VERSION: **FINAL (14-11-2022)**

Prepared By:

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1.0 Introduction

This report was prepared in response to a request from Mr. Paul Casey, PUNCH Consulting Engineers, for a Quality Audit of the Public Realm Improvements for a Pedestrianised New Street.

The Quality Audit 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 updated in June 2019.

This portion of the Quality Audit is a design stage audit and includes a Stage 1 Road Safety Audit (in accordance with TII Publication GE-DTY-01024, dated December 2017), an access audit, a walking audit, a cycling audit and a non motorised user audit, i.e. aspects of a quality Audit carried out independent of the Design Team and generally included as appendices to the overall Audit.

The Road Safety and Quality Audit Team comprised of:

Team Leader:	**Norman Bruton,** BE CEng FIEI, Cert Comp RSA.
	TII Road safety Auditor approval number: NB 168446
Team Member:	**Owen O'Reilly**, B.SC. Eng Dip Struct. Eng NCEA Civil Dip Civil. Eng CEng MIEI
	TII Auditor Approval no. OO 1291756

This portion of the Quality Audit involved the examination of drawings and other material and a site visit by the Audit Team, on the 26th of October 2022. The weather at the time of the site visit was dry and the road surface was damp.

The problems raised in this Quality Audit may belong to more than one of the categories of Audit named above. A table has been provided at the start of Section 3 of this report detailing which category of audit each problem is associated with.

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.**

The feedback form is contained in **Appendix B.**

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

2.0 Background

The proposed development comprises of public realm improvements for a pedestrianised New Street in Malahide, Fingal.

The street runs in a north-south alignment and is perpendicular to Strand Street in the north and Main Street to the south. Currently the street functions predominantly as a pedestrian zone, with vehicle access restricted to 7am – 11am daily and two-way vehicular access available to Ross Cottages on the east side at all times. A footpath of varying widths runs the full length of the street between the kerb and buildings lines, with mature trees growing at intervals in the footpath. The street is composed of a mix of predominantly commercial and some residential properties, most of which front directly onto the public footpath. The roof line is fairly consistent for the length of the street and the height of all the buildings remains at two storeys, with some minor deviation in the eaves height from ground level. The street runs in an even gradient from the southern end (9.13OD) to the northern end (2.88OD) with a level difference of approx. 6m between the two ends. The character of the street is one of a busy neighbourhood commercial zone with mixed product and service offerings.

The proposed layout for the development is detailed in the series of drawings by DFLA Landscape Architects and PUNCH Consulting Engineers.

The site location map is shown below.

Site Location Map – image courtesy of openstreetmap.org

The Road Safety Authority's website did not provide collision data at the time of writing of this report due to an ongoing review of policy with regard to making such information available publicly.

3.0 Issues Identified in this Quality Audit

Summary Table of Problem Categories

Problem Reference	Access Audit	Walking Audit	Cycling Audit	Non-Motorised User Audit	Road Safety Audit	Quality Audit
3.1		✓		✓		✓
3.2			✓	✓	✓	✓
3.3		✓		✓	✓	✓
3.4	✓	✓		✓		✓
3.5	✓			✓		✓
3.6		✓		✓	✓	✓
3.7		✓		✓		✓
3.8	✓			✓		✓

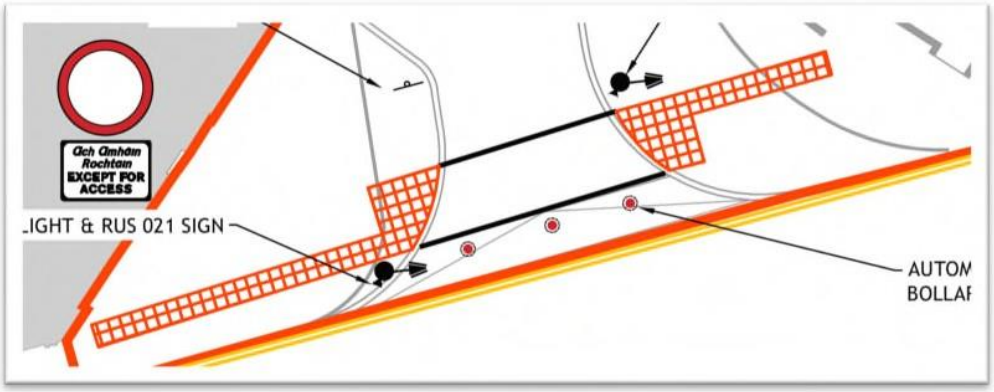
3.1 Problem – Pedestrian Crossing

LOCATION

Drawing 222126-PUNCH-XX-XX-DR-C-0450 P01, Pedestrian crossing at southern end of New Street.

ISSUE

It is proposed to provide a signalised controlled pedestrian crossing at the top of New Street. Access to the street is to be very restricted for vehicles and when the bollards are up pedestrians will not need signal control. It is felt by the Audit Team that the signals may not be required and if provided will be mainly ignored by pedestrians.



RECOMMENDATION

It is recommended that the need for signals be assessed and the possibility of a courtesy crossing system be provided whereby vehicles will wait for a gap in pedestrian activity to cross and that the bollards movement will signal the upcoming hazard for pedestrians.

3.2 Problem – Cyclist Use

LOCATION

Drawing 222126-PUNCH-XX-XX-DR-C-0450 P01, Cyclists.

ISSUE

It is unclear if the scheme is to be two-way for cyclists and if southbound cycling is to be permitted how cyclists can turn right at The Mall to travel towards the train station.

RECOMMENDATION

A lack of provision for southbound cyclists will result in possible pedestrian/cyclists collisions where space is limited and possible vehicle cyclist collisions at the Mall/Main Street junction.

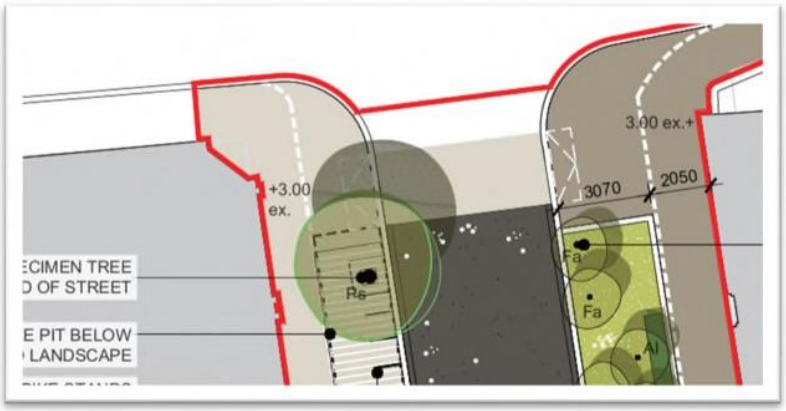
3.3 Problem – Visibility Splay

LOCATION

Drawing Fc.03-DR-2001 Rev B DFLA, Specimen Tree.

ISSUE

It is proposed to provide a specimen tree at either end of the street. There is a risk that the northern tree could block a drivers visibility of the traffic signal head. This could result in collisions with crossing pedestrians.



RECOMMENDATION

It is recommended that the tree and signal pole be located where visual obstruction to the signal head does not occur.

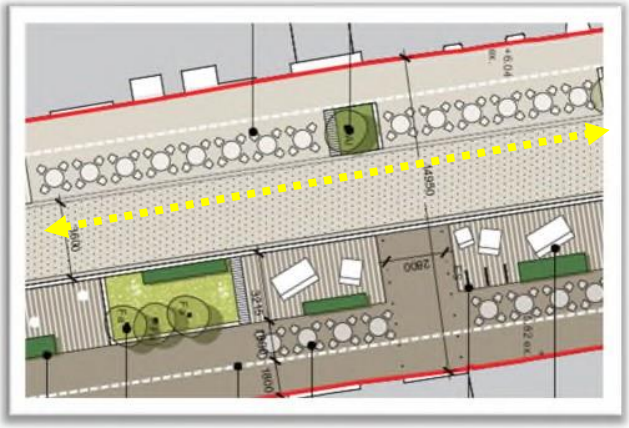
3.4 Problem – Pedestrian Permeability

LOCATION

Drawing Fc.03-DR-2001 Rev B DFLA, Seating and dining areas.

ISSUE

Although the seating and dining areas are shown indicatively there is a risk that they may be continuous over long lengths leading of a lack of permeability for pedestrians from one side of New Street to the other.



RECOMMENDATION

It is recommended that planned permeability gaps be provided.

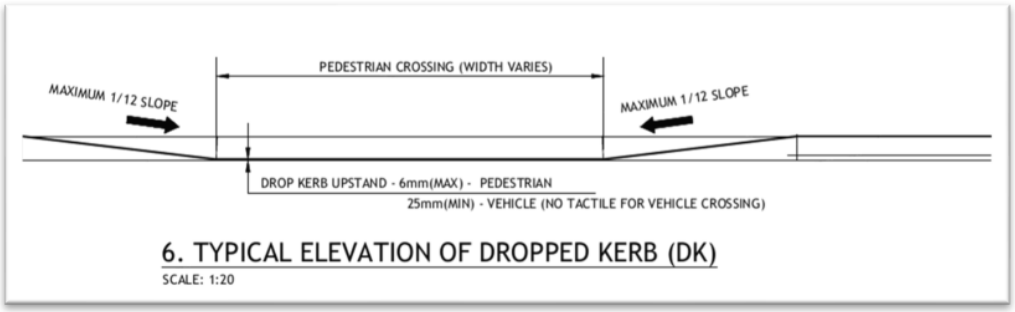
3.5 Problem – Risk of Compound Gradient

LOCATION

Drawing 222126-PUNCH-XX-XX-DR-C-0550 P01, Dropped kerbs

ISSUE

There is a relatively steep longitudinal fall on New Street. At proposed dropped kerb locations there could be a compound gradient which may lead to inaccessibility for some mobility impaired users.



RECOMMENDATION

It is recommended that shallower gradients be used where there is an existing longfall to avoid a cumulative gradient effect or that the alternative of raised or partially crossings be provided.

3.6 Problem – Footpath Width at Loading Bay

LOCATION

Drawing Fc.03-DR-2001 Rev B DFLA, Loading bay at northern end.

ISSUE

It is proposed to provide a loading bay at the northern end of the scheme that will be of similar construction to the carriageway. The loading bay will be restricted to 4 hours use per day from 7am to 11am.

The footpath to the rear of the loading bay is to be 1.8m wide but with a smaller effective width given the kerb boundary with the loading bay and the building on the inside. During busy periods this may be restrictive and lead to pedestrians entering the carriageway area.

RECOMMENDATION

It is recommended that the loading bay be used as a footpath outside loading hours, that no height difference be provided and that the bay be subtly marked as a loading area through slight colour contrast.

3.7 Problem – Right Turning Lane at the Diamond

LOCATION

Drawing 222126-PUNCH-XX-XX-DR-C-0450 P01, The Mall.

ISSUE

There is an existing right turning lane and right turning pocked on the Mall to turn onto New Street with detector loops. This lane will no longer be widely used and the loop could be triggered unnecessarily.

RECOMMENDATION

It is recommended that an assessment on the need for a right turning lane be carried out and if not additional footpath space could be provided to pedestrians on the Mall.

3.8 Problem – Building Access

LOCATION

Throughout the scheme, steps into retail units.

ISSUE

There are steps into some of the existing retail units. This may limit access for some mobility impaired pedestrians.

RECOMMENDATION

It is recommended that the proposed levels be flush with the doors of these premises to allow access for all. This may require additional drainage features to avoid dampness.

4.0 Observations

4.1 Observation – Tree at HSE Centre

It is assumed that the existing tree adjacent to the disabled parking space beside the HSE centre is to be removed and will not be a hazard for exiting vehicle occupants.

5.0 Quality Audit Statement

This portion of the 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:** 

(Quality Audit Team Leader) **Dated: 14-11-2022**

Owen O'Reilly **Signed:** 

(Quality Audit Team Member) **Dated: 14-11-2022**

Appendix A

List of Material Supplied for this Quality Audit;

Drawing 222126-PUNCH-XX-XX-DR-C-0100
Drawing 222126-PUNCH-XX-XX-DR-C-0150
Drawing 222126-PUNCH-XX-XX-DR-C-0350
Drawing 222126-PUNCH-XX-XX-DR-C-0450
Drawing 222126-PUNCH-XX-XX-DR-C-0480
Drawing 222126-PUNCH-XX-XX-DR-C-0500
Drawing 222126-PUNCH-XX-XX-DR-C-0501
Drawing 222126-PUNCH-XX-XX-DR-C-0502
Drawing 222126-PUNCH-XX-XX-DR-C-0503
Drawing 222126-PUNCH-XX-XX-DR-C-0550
Drawing 222126-PUNCH-XX-XX-DR-C-0600
Drawing 222126-PUNCH-XX-XX-DR-C-0601
Drawing 222126-PUNCH-XX-XX-DR-C-0602
Drawing 222126-PUNCH-XX-XX-DR-C-0603
Drawing 222126-PUNCH-XX-XX-DR-C-0604
Drawing 222126-PUNCH-XX-XX-DR-C-0625
Drawing 222126-PUNCH-XX-XX-RG-C-001
Drawing 222126-PUNCH-XX-XX-RG-C-200
Report 222126-PUNCH-XX-XX-RP-C-0005Traffic and Transport Assessment
Drawing Fc.03_2401 Landscape Sections 1 Rev A
Drawing Fc.03_2402 Landscape Sections 2
Drawing Fc.03_2500 Typical Landscape Details
Drawing Fc.03_2000 Site Location Map
Drawing Fc.03_2001 Public Realm Plan Rev B
Drawing NSM-X-X-DR-AXE-EE-60101

Appendix B

Feedback Form

QUALITY AUDIT FORM – FEEDBACK ON QUALITY AUDIT REPORT

Scheme: New Street, Malahide
Quality Audit
Date Audit (site visit) Completed, 26-10-2022

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)
3.1	Yes	Yes		
3.2	No	No	The section of New Street between The Diamond and Ross Cottages will be designated as a Destination Street (a node), and not a cycling street. Cyclists utilising the pedestrianised section of New Street will need to dismount. This is in line with the modal hierarchy and Active Travel principles. In accordance with the Fingal Development Plan 2017-2023, cyclist access to the Dart Station from New Street is to be facilitated via westbound on the Strand, southbound along Old Street and westward on Railway Avenue.	Yes
3.3	No	No	The proposed location of the signal head is north of the pedestrian crossing point, remote from the proposed specimen tree. The proposed specimen tree is 'Pinus Sylvestris' and the associated foliage is not anticipated to obscure the visibility of the signal head to road users. Furthermore, there is an additional signal head at the other side of the junction to provide further guidance to traffic.	Yes
3.4	Yes	Yes		
3.5	Yes	No	The only dropped kerb locations are at the pedestrian crossings at the extreme northern and southern	Yes

			extents of New Street. These locations (particularly the northern end) coincide with flat topography and are unaffected by the compound gradient effect outlined in the audit observation. Particular attention will be brought to the detailed design of these dropped kerb locations to ensure that the issue of compound gradient does not adversely impact on accessibility.	
3.6	Yes	Yes		
3.7	No	No	This right turning facility will remain in place to facilitate delivery vehicles between 07:00 and 11:00 each day approaching the Diamond junction from the east.	Yes
3.8	Yes	Yes	Each threshold will be examined at detail design stage to review if improved access can be provided.	Yes

Signed…… **Date** 11/11/2022
Design Team Leader

Signed…… **Date**: …14/11/2022……
Audit Team Leader

Appendix C

Problem Location Plan.


STRAND STREET
PROPOSED SMALL TREES IN BIORETENTION AREAS ON EAST SIDE OF STREET
PROPOSED LOCATION FOR ART/PLAY FEATURE
PROPOSED ELECTRIC BIKE STAND
PROPOSED BIKE STANDS
PROPOSED AREA FOR OUTDOOR DINING (TABLE NUMBERS AND ARRANGEMENT SHOWN INDICATIVELY
PROPOSED CARGO BIKE PARKING
PROPOSED DISHED FOOTPATH AT ENTRANCE TO ROSS COTTAGES
RETRACTABLE BOLLARDS
PROPOSED PUBLIC SEATING
PROPOSED HEDGE PLANTING
PROPOSED SMALL INGROUND FOUNTAIN
PROPOSED LITTER BIN LOCATION
EXISTING ANTIQUE KERB, RETAINED, PROTECTED AND RELAID
PROPOSED DISABLED PARKING SPACE
PROPOSED LOADING BAY
3.1
3.2
3.3
3.4
3.5 example
3.6
3.7
3.8 example