Flood Consequence Assessment Addendum

Barry Waterfront School

Barry, Vale of Glamorgan

PREPARED BY:
Jubb Consulting Engineers Ltd.

FOR:
Galliford Try

DATE:
March 2021

REFERENCE:
C4294-JUBB-XX-XX-RP-CS-0510

Contents

1 Project Information

1.1 Project Information

Client	Galliford Try

1.2 Project Details

Project Name	Barry Waterfront School
Location	Barry, Vale of Glamorgan
Jubb Project Number	20111

1.3 Report Details

Version	V0
Status	Draft
Date	March 2021

1.4 Project Authorisation

ISSUE HISTORY:

Version	Date	Detail
V0	12.03.21	First Draft

AUTHORISATION:

Prepared By	Approved By
A Handley	G. Smith

2 Introduction

2.1 Preamble

Jubb have been instructed by Galliford Try to provide an addendum to the Flood Consequences Assessment (FCA) produced by CD Gray in November 2020 for a proposed school development within the Barry Waterfront. This addendum has been undertaken following the completion of the proposed layout for the site. It aims to update the original FCA in reference to this proposed layout and identify any potential changes to flood risk / guidance that have occurred in the interim.

The site is approximately 2ha in size and is located on National Grid Reference (ST) 11074 67358. The site is currently undeveloped and is part of the wider Barry Docks development, with a 2-form entry primary school for 420 pupils, a nursery for 96 pupils and associated sports pitches proposed. Barry Docks is approximately 170m away towards the east of the site. The site proposals can be seen in Appendix A.

The proposed school site is situated on an infill site that lies within the West Pond of the wider Barry Waterfront scheme to the west of Ffordd Y Mileniwm and southeast of Hood Road. A site location plan in relation to the wider regeneration area is illustrated in Figure 2.1 below:

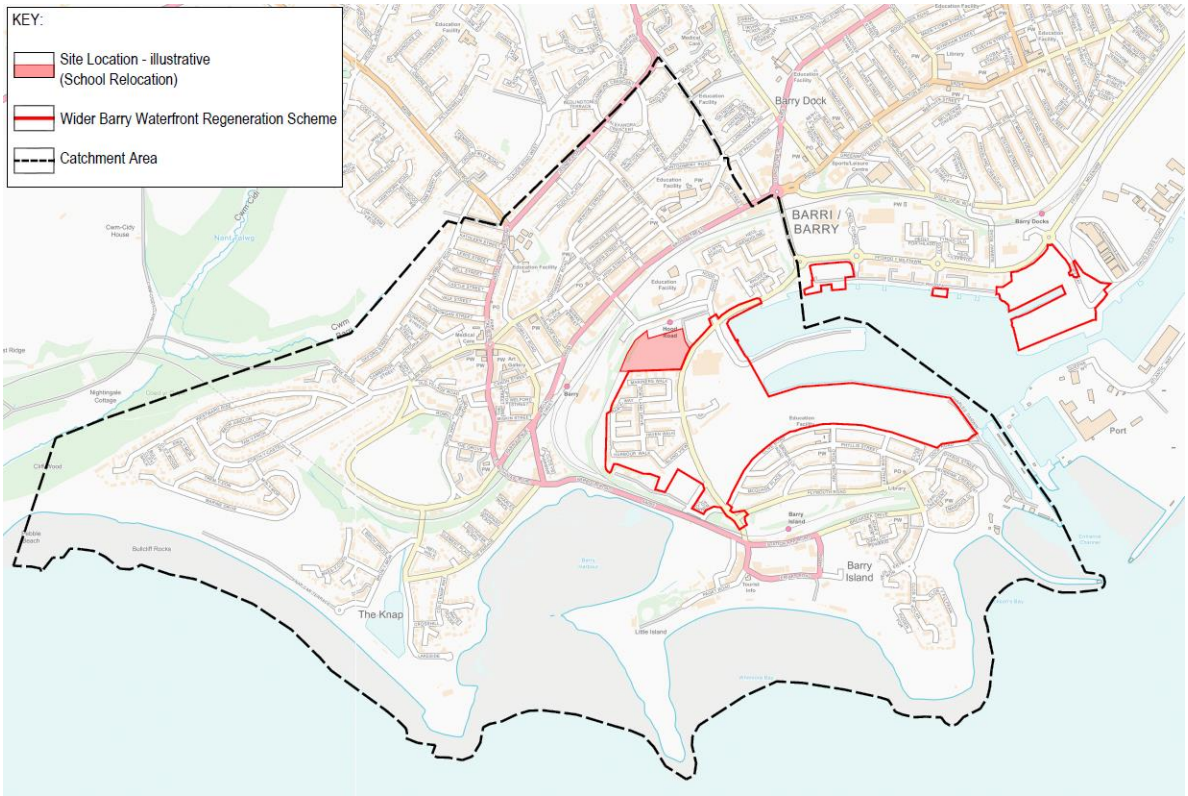

Figure 2.1 – Site Location Plan

3 CD Gray Flood Consequence Assessment (November 2020)

A Flood Consequence Assessment (FCA) has been completed for the proposed school by CD Gray & Associates LTD. Refer to report CDGA-9796-REP01-FCA-R2 dated November 2020. Below are extracts that are pertinent to the flood management design covered by this Addendum, please refer to the FCA for further details.

3.1 Tidal Flooding

The development is currently outside of the 1 in 200 year and 1 in 1000 year tidal flood extents and will therefore remain flood free in events of this magnitude at present day. However, when the effects of climate change are considered, the site may experience future flooding if sea levels increase in line with predictions and further interventions such as increasing flood defences are not sought.

Due to tidal flooding being the dominant source of flood risk to the site the FCA proposed a finished site level of min 9.13m AOD to satisfy TAN15's two design criterion in regards to tidal flood levels (i.e. flood free 1 in 200 year tidal event, and max depth of 600mm in 1 in 1000 year tidal event for the lifetime of the development). The level was based on the upper confidence tidal levels shown in the table below extracted from NRW's data set. A finished floor level of 9.4m AOD was recommended for the School to provide in excess of 300mm freeboard to the critical design 1 in 200 year tidal level for the presumed lifetime of the development, which was defined as 100 years in the FCA

	1 in 200			1 in 1000		
	2020	2095	2120	2020	2095	2120
Elevation, max (mAOD)	NULL	8.52	9.09	8.45	9.38	9.73

Table 3.1 – Extract of NRW Data 18 August 2020 – Table 6 - Interpolated Tidal Results 2016 (including upper confidence interval) Source: CD Gray report November 2020

3.2 Surface Water Flooding

NRW flood mapping indicates that the northern portion of the site could be impacted by surface water flooding at a greater chance than 3.3% AEP (1 in 30 year). The extent of surface water flooding has been estimated to a level of approximately 8.3m AOD representing a max depth of flood water of 300mm.

3.3 Displaced Water

Raising ground levels will protect the proposals from surface water and tidal flooding but compensatory storage will be required to ensure displaced surface water runoff does not cause detrimental impact to third party land. Compensatory storage is proposed by introducing an interception channel along the northern boundary and a lowered pitch area to achieve the storage volume of min **524m^3** at a flood level of **8.3m** AOD, adjusting the proposed layout according.

The design is to ensure floodwater is not obstructed along the northern boundary and is permitted to enter the school site. Positive drainage provision is to be considered for areas where flooding is permitted to drain down as floodwater recede.

3.4 Evacuation

Evacuation to be via the proposed new access directly off Ffordd y Mileniwm on the northeast corner of the car park. Minimal flooding identified but would remain passable throughout. Should climate change increase flooding as predicted safe refuge should be sought within the school site and emergency services used to support evacuation. Suitable evacuation plans will be required to support the planning application.

4 Natural Resources Wales Consultation

NRW provided a response to the Pre Application Consultation (PAC) dated February 2021 after considering the CD Gray Report. Extracts of the response pertinent to this Addendum are included below. Note the NRW covers Tidal and Fluvial flooding, and the Lead Local Flood Authority (LLFA) covers Surface Water flooding.

4.1 NRW PAC Response

The planning application defines a school as a 'highly vulnerable' development. Natural Resources Wales (NRW) Flood Risk Map confirms the site to be within Zone B of the Development Advice Map (DAM) contained in TAN15.

The Flood Risk Map provides a snapshot of flood risk in the current day. It does not reflect the effects of climate change in the future. TAN15 advises that a proposed development must provide a safe and secure living and/or working environment throughout its life and an assessment should include a flood event which has a 0.1% probability of occurrence in any year.

For the purpose of a school development the lifetime of the development is considered to be 75 years. Therefore, it is necessary to take account of the potential impact of climate change over the lifetime of development including a flood event, which has a 0.1% probability of occurrence.

4.2 Tidal Sources of Flooding

Table 5 of the NRW flood data, dated 18 August 2020, appended to the CD Gray FCA shows the site is predicted to be flood free in 1 in 200 year flood event over 75 years (i.e. flood free in the year 2095). During the 1 in 1000 year flood event in 2095, the predicted flood depth at the site is **8.52mAOD**.

	1 in 200			1 in 1000		
	2020	2095	2120	2020	2095	2120
Elevation, max (mAOD)	NULL	NULL	8.52	NULL	8.52	9.09

Table 4.1 - Extract of NRW Data 18 August 2020 - Table 5 - Interpolated Tidal Results 2016 (excluding upper confidence interval) Source: CD Gray report November 2020

5 Flood Management Proposals

The flood management proposals have been developed in line with CDGA-9796-REP01-FCA-R2 and the NRW PAC response.

5.1 Drawings / Documents

Design proposals are referenced in the drawings in Table 5.1 below.

Table 5.1 Drawings / Documents

Reference	Title	Revision
C4294-JUBB-XX-XX-DR-CS-0500	Proposed Drainage Layout	P2
C4294-JUBB-XX-XX-DR-CS-0601	Proposed Contours and Levels	P2

5.2 Levels (Tidal Flooding)

The proposed development has been designed in accordance with the proposed design levels put forward as part of the original FCA as stated in Section 3.1. The school building's Finished Floor Level is set at 9.55m AOD with the surrounding at 9.40m AOD, see Figure 5.1 below. It should be noted these levels were based on the upper confidence limits provided by NRW, which are normally utilised in testing the sensitivity of a site to flooding and not used to set design levels as they can be considered overtly conservative. Further to this, it was previously presumed that the design lifetime of the development was 100 years instead of 75 years, which has been confirmed as the appropriate lifetime of the development by the NRW. Based on the standard NRW data no onsite tidal flooding is predicted for the 1 in 200 year event, whilst a flood level of 8.52mAOD is predicted for the 1 in 1000 year event for the lifetime of the development (i.e. 75 years).

The areas below the 8.52m level are considered 'low vulnerability' uses and will be permitted to flood. These include portions of the U9 football pitch and drainage features (see sections 5.3 and 5.4 below). The entrance is restricted by tie in levels not within scope to amend. A predicted minimal depth of flooding here will still allow access and evacuation.

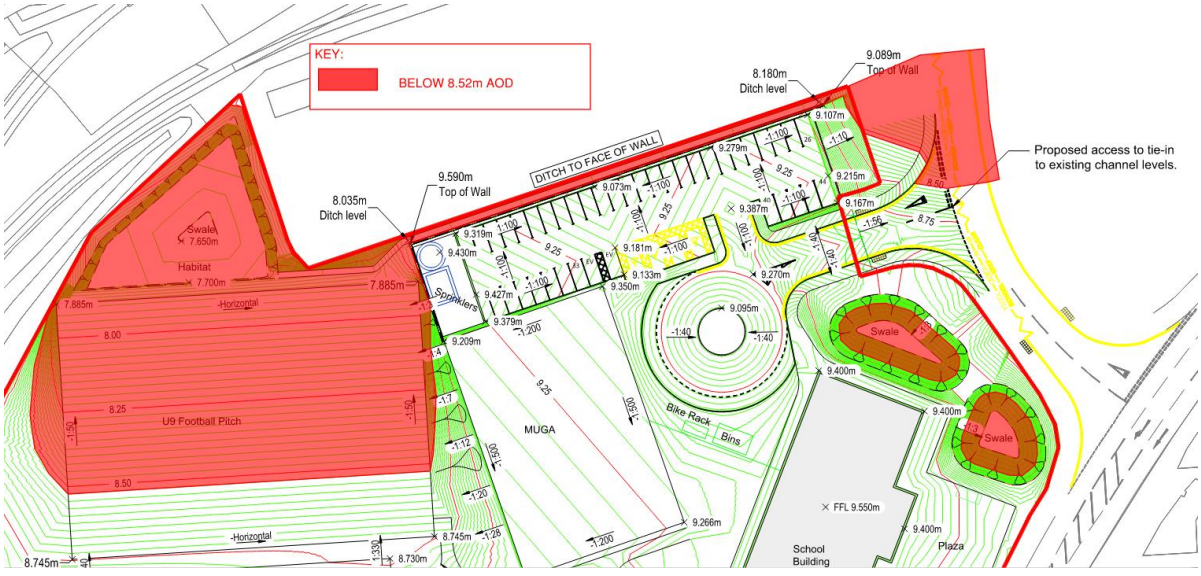

Figure 5.1 – Site Levels

Refer to drawing C4294-JUBB-XX-XX-DR-CS-0601 Proposed Contours and Levels for further details.

5.3 Displaced Water (Surface Water Flooding)

The proposed development raises site levels and therefore displaces surface water flooding. A minimum of 530m^3 compensatory flood storage is provided below the 8.3m AOD level. This is achieved by reducing levels to the U9 football pitch and providing a depression area to the northern corner. This area will form a detention basin. A ditch along the northern boundary will convey overland flow to the lowered area. This area will discharge to the drainage system following flood events to allow dissipation of flood waters. Refer to C4294-JUBB-XX-XX-DR-CS-0500 Proposed Drainage Layout for details found in Appendix B.

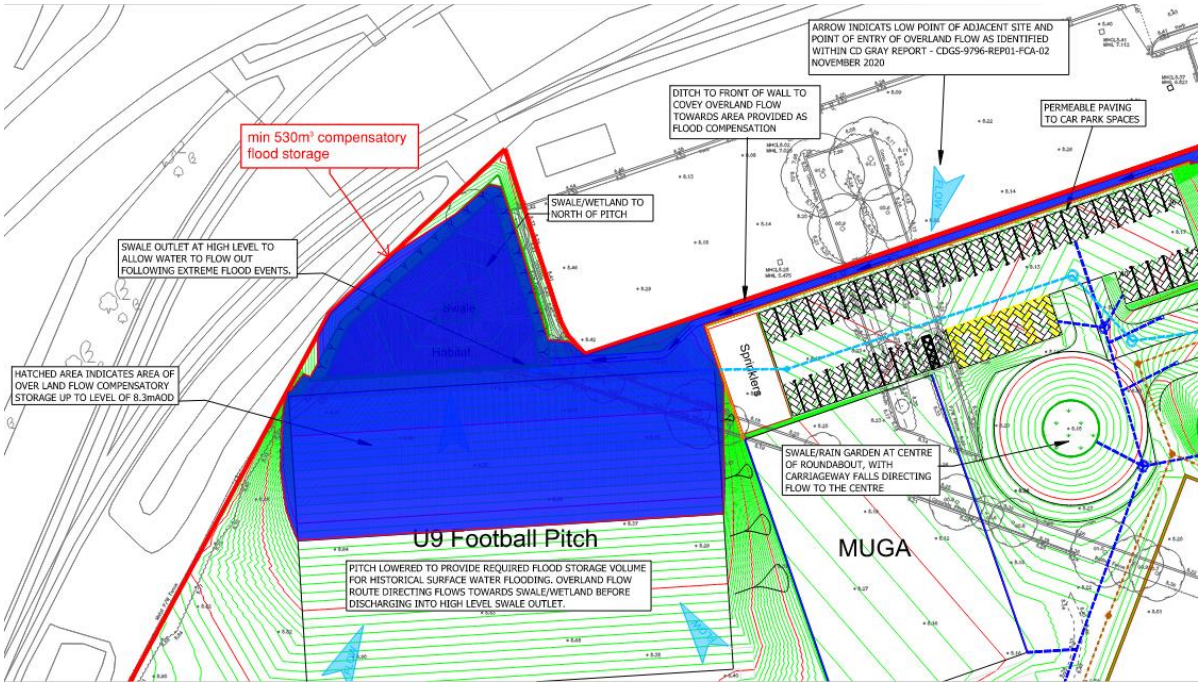

Figure 5.2 – Compensatory flood storage

5.4 Drainage

The proposed site will be positively drained, with the flood storage area to be drained following dissipation of flood waters. Refer to Drainage Layout (C4294-JUBB-XX-XX-DR-CS-0500) for further details of the proposed drainage.

Subject to SAB approval and agreement with DCWW, the proposed development will discharge to the existing 600Ø sewer which discharges to the nearby Barry docks. A system of SuDS features is proposed to treat surface water, utilising swales, basins, and permeable paving. The permitted rates of discharge are to be discussed and agreed in writing with VoG and DCWW as part of the SABs application process. As per discussions with DCWW, the detention basin and two basins at the eastern side of the side discharge via vortex flow controls limiting discharge flows to the downstream network.

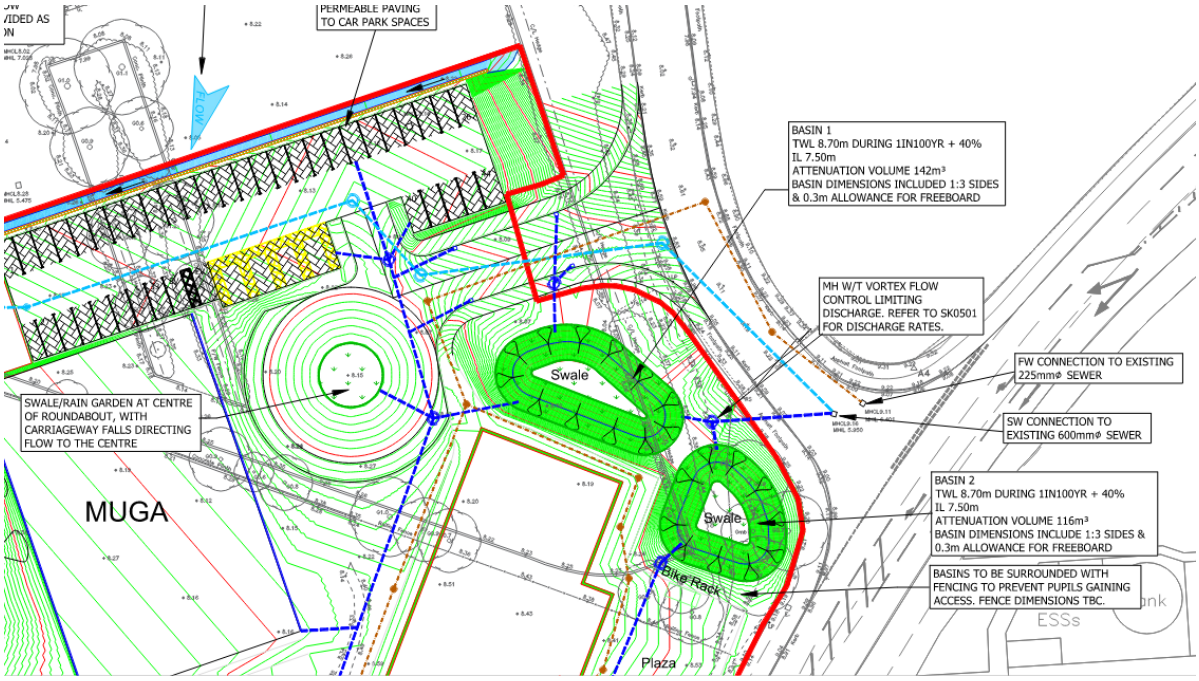

Figure 5.3 – Drainage

The drainage proposals for the School are subject to separate consultation and approval with the SAB. A SAB pre-application has been submitted, to be followed with a full application. This will incorporate details of the operation and maintenance of the proposed drainage features.

5.5 Evacuation

All future occupants of the property are strongly recommended to follow all guidance provided by both NRW and the Environment Agency (EA). During extreme flood events the wider area surrounding the site may be affected by flooding. Though the proposed site may not be inundated during a flood event, access to the property via local roads could be restricted. Due to the nature of the most at risk flood source (tidal flooding), flood water will rise at a relatively slow predictable rate, and it is therefore considered that the predicted flood scenario and peak flood conditions can be appropriately managed by the implementation of a number of mitigation measures which are identified as follows:

- Sign up to Met Office Flood Warnings
- Sign up to Floodline (tel: 03459881188) and complete an NRW Flood Plan
- With the time afforded by advance warning, evacuation of the school to safe egress and removal of valuables from buildings can be implemented. A detailed flood evacuation plan defining specific roles and potential evacuation routes/safe practices will be required.
- A well-walked means of safe access and egress from the site is likely to be afforded at all times prior to even partial flooding of the site and/or surrounding areas. It is crucial that all occupants of the site be aware of the inherent risk, and the planned evacuation route
- In the unlikely scenario that during a tidal event occupier remain on the site, it is advised that they stay within the school building until the NRW state that it is safe to exit. The school building lies safely above the future 1 in 1000 year tidal event (i.e. 9.55m AOD in comparison to the 8.52m AOD tidal level)

An appropriate evacuation route from the site is given below, should it be required:

1. Head to the car park & access road within the centre of the site.
2. Exit the site and turn right on to Ffordd Y Mileniwm.
3. Head north east, and then turn right on to Hood Road.
4. Head north until a safe flood free location is reached.

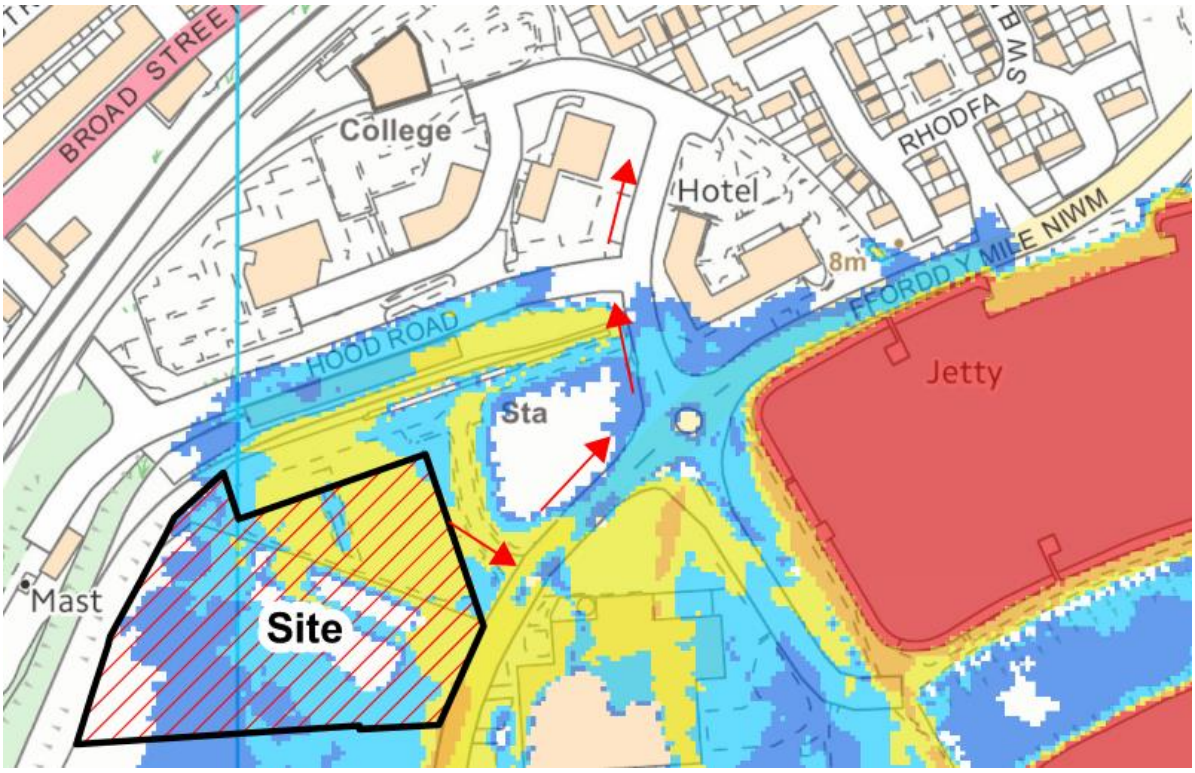

Figure 5.4 – Site Evacuation Route

As stated above the occupiers of the site must sign up to the 'Floodline Warnings Direct' scheme so that they receive advanced warning of potential flooding. This can be done by telephoning the NRW/EA on 0845 988 1188. Current flood warnings enforced can also be viewed online on NRW's home page at https://naturalresources.wales/

Both NRW & EA issue flood warnings using a four-stage system: -

1. Flood Alert
2. Flood Warning
3. Severe Flood Warning
4. Warnings No Longer in Force

For definitions of these warnings refer to NRW online advice at https://naturalresources.wales/flooding/flood-codes/?lang=en.

6 Conclusions

This Addendum to the FCA report CDGA-9796-REP01-FCA-R2 demonstrates the following recommendations identified have been accounted for in the design:

- The site levels have been raised, except where flooding will be permitted, to a finished site level of above the 1 in 1000 year event Tidal Flood Level of 8.52m AOD, with a Finished Floor Level of 9.55m AOD for the school.
- A compensatory storage volume has been designed to receive and store a minimum of 530m^3 flood waters in a surface water flood event. Surface waters will be conveyed to this storage volume via a ditch along the northern boundary.
- This will discharge to the proposed drainage network after the event as flood waters recede. The drainage proposals incorporate a serious of SuDS features and are subject to SAB and LLFA approval.
- Evacuation procedures have been proposed and it is recommended that this flood management and evacuation plan, form part of the forms school's emergency plans alongside appropriate procedures and responsibilities.

The FCA fully considered the effects of flood risk and this Addendum demonstrates that the proposals will effectively manage the impact / consequence of flooding over the lifetime of the development as described under TAN15.

Appendix A: Drawings

- C4294-JUBB-XX-XX-DR-CS-0500 Proposed Drainage Layout
- C4294-JUBB-XX-XX-DR-CS-0601 Proposed Contours and Levels

N

INDICATIVE NORTH

Health Centre

Tunnel

HOOD ROAD

ED Bdy

ED

Def

M

DETENTION BASIN FORMING FLOOD COMPENSATION STORAGE AREA IN CONJUNCTION WITH LOWERED PITCH

DRAINAGE DITCH TO CONVEY SURFACE WATER FLOOD FLOWS TOWARDS FLOOD COMPENSATION AREA

LOW POINT OF ADJACENT SITE AND POINT OF ENTRY OF OVERLAND FLOW OF SURFACE WATER FLOODING. REFER TO FCA AND ADDENDUM: CDGS-9796-REP01-FCA-02 C4294-JUBB-XX-XX-RP-CS-0510

HEADWALL 6
LOW LEVEL OUTLET TO ALLOW DISSIPATION FOLLOWING FLOOD EVENTS
IL 7.65

RIP RAP SCOUR PROTECTION

FLOW

STORM 2
CL 8.80
IL 6.82

Car Park 42 sp

SW2
CL 9.37
IL 8.10

Sprinklers

BASIN 1
TWL 8.70m DURING 1IN100YR + 40%
IL 7.50m
ATTENUATION VOLUME 142m³

SW4
CL 8.79
IL 8.00

STORM 2
CL 9.35
IL 7.19

RAINGARDEN

SW3
CL 9.40
IL 8.00

SW10
CL 9.15
IL 7.00

EX FW MH (225Ø)
CL 9.11
IL 6.40

EX SW MH (600Ø)
CL 9.16
IL 5.95

HATCH INDICATES EXTENT OF FLOOD COMPENSATORY STORAGE AREA. PITCH LOWERED TO PROVIDE REQUIRED STORAGE VOLUME UP TO THE LEVEL OF 8.3m AOD

CHAMBER WITH LOW LEVEL FLOW CONTROL LIMITING FLOWS TO 48l/s. HIGH LEVEL OVERFLOW IL 8.3m AOD

U9 Footbal

STORM 1
CL 9.22
IL 7.40

MUGA

HEADWALL 1, 2&3
IL 7.50

SW8
CL 9.30
IL 8.80

Bins

Bike

FLOW CONTROL CHAMBER LIMITING FLOWS TO 37l/s FOR ALL RETURN PERIODS UP TO AND INCLUDING 1:100yr+ 40% CC

SW9
CL 9.10
IL 7.90

HEADWALL 4 & 5
IL 7.50

Main Entrance Plaza

School Building

BASIN 2
TWL 8.70m DURING 1IN100YR + 40%
IL 7.50m
ATTENUATION VOLUME 116m³

Pedestrian Entrance

SW7
CL 9.28
IL 8.10

BASINS TO BE SURROUNDED BY FENCING TO PREVENT PUPILS GAINING ACCESS. FENCE DETAILS TBC - HEIGHT 1m

DETENTION BASIN TO BE SURROUNDED BY FENCING TO PREVENT PUPILS GAINING ACCESS. FENCE DETAILS TBC

TOPOGRAPHY DESIGNED TO DIRECT OVERLAND FLOW TOWARDS FLOOD COMPENSATION STORAGE AREA

SW1
CL 9.30
IL 8.80

SW6
CL 9.28
IL 8.35

U11 Football Pitch

U7 Football Pitch

SW5
CL 9.25
IL 8.75

Nursery Entrance

Existing Bus Cage

(Existing Provided)
N 167256115
E 311102904

Garage

Mast

Private Gardens

KEY

- PROPOSED FOUL MH
- PROPOSED FOUL NETWORK
- PROPOSED SURFACE WATER MH
- PROPOSED SW DRAINAGE RUN
- PROPOSED MANHOLE WITH FLOW CONTROL DEVICE
- PROPOSED STORM MH
- PROPOSED STORM DRAINAGE RUN
- LINED PERMEABLE PAVING WITH PERFORATED PIPE OUTLET
- PROPOSED SuDS BIORETENTION FEATURE SUCH AS RAINGARDEN/BASIN/SWALE
- PROPOSED FLOOD COMPENSATION AREA

SURFACE WATER (SW) DRAINAGE STRATEGY

1. PRIORITY LEVEL4; DISCHARGE TO SURFACE WATER SEWER; (*DESTINATION PRIORITY LEVELS AS PER STATUTORY SuDS STANDARDS FOR WALES 2018*) :-

   RUNOFF FROM PROPOSED IMPERMEABLE AREAS TO BE COLLECTED & TREATED IN LINE WITH THE CIRIA SUDS MANUAL C753 MITIGATION INDICES. A COMBINATION OF PERMEABLE PAVING, SWALE/RAIN GARDENS AND ATTENUATION BASINS ARE PROPOSED TO TREAT MEDIUM CONTAMINATED ROAD RUNOFF. ROOF RUNOFF IS CONSIDERED TO BE LOW POLLUTION AND TREATED VIA ATTENUATION BASIN ONLY. A VORTEX FLOW CONTROL IS PROPOSED TO LIMIT DISCHARGE. BASINS TO FEATURE SUITABLE MIXED PLANTING AT SURFACE (PLANTING TO ALSO DISCOURAGE ENTRY TO BASIN) AND SURROUNDED IN FENCING TO PREVENT ACCESS BY SCHOOL CHILDREN. A 0.3m FREEBOARD HAS BEEN ALLOWED FOR IN THE BASIN DESIGN.

2. JUBB ARE IN DISCUSSION WITH DCWW TO AGREE A DISCHARGE RATE FOR THE STORMWATER DRAINAGE NETWORK DISCHARGING INTO THEIR EXISTING SEWER NETWORK. THE FINAL DISCHARGE RATE WILL BE AGREED IN ADVANCE OF THE SUBMISSION OF THE FULL SAB APPLICATION TO VALE OF GLAMORGAN.

3. THE SPECIFICATION IN ALL RESPECTS SHALL BE IN ACCORDANCE WITH THE CURRENT VALE OF GLAMORGAN COUNCIL SPECIFICATION AND CONSTRUCTION PUBLICATIONS IN FORCE IN THE COUNTY AT THE TIME OF CONSTRUCTION.

NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEER'S & ARCHITECT'S DRAWINGS, TOGETHER WITH THEIR LATEST SPECIFICATIONS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER (JUBB) IMMEDIATELY
2. ALL EXISTING MANHOLE INVERTS TO BE CHECKED AND REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF DRAINAGE WORKS.
3. WHERE REQUIRED, EXISTING PIPE CONNECTIONS ARE TO BE CCTV SURVEYED AND INSPECTED BY THE ENGINEER AND LOCAL AUTHORITY. IF THE PIPE CONNECTION IS FOUND TO BE DAMAGED OR IN DISTRESS, THE CONTRACTOR IS TO CARRY OUT REMEDIAL WORKS OR PROVIDE A NEW CONNECTION TO THE EXISTING SEWER (PIPE SIZE AND GRADIENT TO BE DETERMINED BY THE ENGINEER
4. DEVELOPMENT SITE SUBJECT TO SAB APPROVAL PRIOR TO THE COMMENCEMENT OF WORKS.
5. MH COVERS AND FRAMES TO CONFORM TO BS EN 124. ALL TRAFFICKED COVERS TO CONFIRM TO C250 LOAD CLASS AND ALL NON-TRAFFICKED COVERS TO CONFORM TO B125.
6. PIPE WORK BEDDING; TYPE S BEDDING AND SURROUND TO ALL PIPES EXCEPT IN THE FOLLOWING CIRCUMSTANCES, IN WHICH TYPE Z BEDDING AND SURROUND ARE TO BE USED:-
   - 6.1. IN LANDSCAPED AREAS (INACCESSIBLE TO VEHICLES) WHERE DEPTH TO CROWN OF PIPE IS LESS THAN 0.35m
   - 6.2. IN AREAS OF SUBJECT TO POSSIBLE VEHICULAR LOADING (E.G. DRIVEWAYS OR ROADS) WHERE DEPTH IS LESS THAN 1.2m
7. ALL SURFACE WATER DRAINAGE TO BE MINIMUM, DN150mm TWINWALL AND MANUFACTURED TO BS-EN 1401 AND BS 4660 UNLESS NOTED OTHERWISE.
8. ALL RWPs TO BE FITTED WITH RODDABLE GULLIES AT JUNCTURE WITH GROUND
9. ALL PROPOSED DRAINAGE TO BE INSTALLED TO SEWERS FOR ADOPTION 7th EDITION STANDARD AND BUILDING REGULATIONS PART H REQUIREMENTS.
10. SuDS FEATURES TO BE DESIGNED, CONSTRUCTED & MAINTAINED IN LINE WITH GUIDANCE OF CIRIA REPORT C753 'THE SuDS MANUAL' & 'STATUTORY SuDS STANDARDS FOR WALES 2018'
11. ATTENUATION BASINS INCLUDE 1:3 SIDES & 0.3m ALLOWANCE FOR FREEBOARD

Rev	Date	Description	By	Apvd
P2	02.03.21	UPDATED LAYOUT	AH	GS
P1	21.01.21	Preliminary issue	ME	GS

PROJECT:
BARRY WATERFRONT SCHOOL

TITLE:
PROPOSED DRAINAGE LAYOUT

CLIENT:
GALLIFORD TRY CONSTRUCTION

SCALE@A1:
1:500

PROJECT REF: 20111
STATUS: S0
DRAWING No: C4294-JUBB-XX-XX-DR-CS-0500
REV: P2

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction

Bristol, Cardiff, Plymouth, Winchester
2A Oak Tree Court, Cardiff Gate Business Park, Cardiff
jubb.uk.com
+44(0)292 052 4444

N

INDICATIVE NORTH

Health Centre

Tunnel

HOOD ROAD

ED Bdy

Def

Garage

Mast

Tank

ESSs

DITCH TO FACE OF WALL

8.180m Ditch level

9.089m Top of Wall

8.035m Ditch level

9.590m Top of Wall

Proposed access to tie-in to existing channel levels.

U9 Football Pitch

U11 Football Pitch

U7 Football Pitch

MUGA

Car Park

Sprinklers

Bins

Bike

Bike Bike

School Building

FFL 9.550m

Main Entrance Plaza

Pedestrian Entrance

Nursery Entrance

Existing Bus Cage

Existing Attenuation Pond

Horizontal

(Existing Provided)
N 167256115
E 311102904

NOTES:

1) ALL LEVELS ARE IN METRES UNLESS STATED OTHERWISE.
2) ALL LEVELS TO TIE-IN TO EXISTING AT SITE BOUNDARY LOCATION.
3) MAXIMUM EARTHWORKS BATTER TO BE 1:3.
4) BUILDING FINISHED FLOOR LEVEL TO BE 9.550m WITH NOMINAL 150mm DOWNSTAND. LOCALISED RAMPS AT DOOR LOCATIONS.

KEY:

- SITE BOUNDARY
- MAJOR CONTOUR (0.25m)
- MINOR CONTOUR (0.025m)
- PROPOSED RETAINING WALL

Rev	Date	Description	By	Apvd
P2	12.03.21	SITE LAYOUT UPDATED	MB	GS
P1	21.01.21	PAC SUBMISSION	MB	GS

PROJECT:
BARRY WATERFRONT SCHOOL

TITLE:
PROPOSED CONTOURS AND LEVELS

CLIENT:
GALLIFORD TRY CONSTRUCTION

SCALE@A1:
1:500

PROJECT REF: 20111
STATUS: S3
DRAWING No: JUBB-XX-XX-DR-CS-601
REV: P2

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction

Jubb
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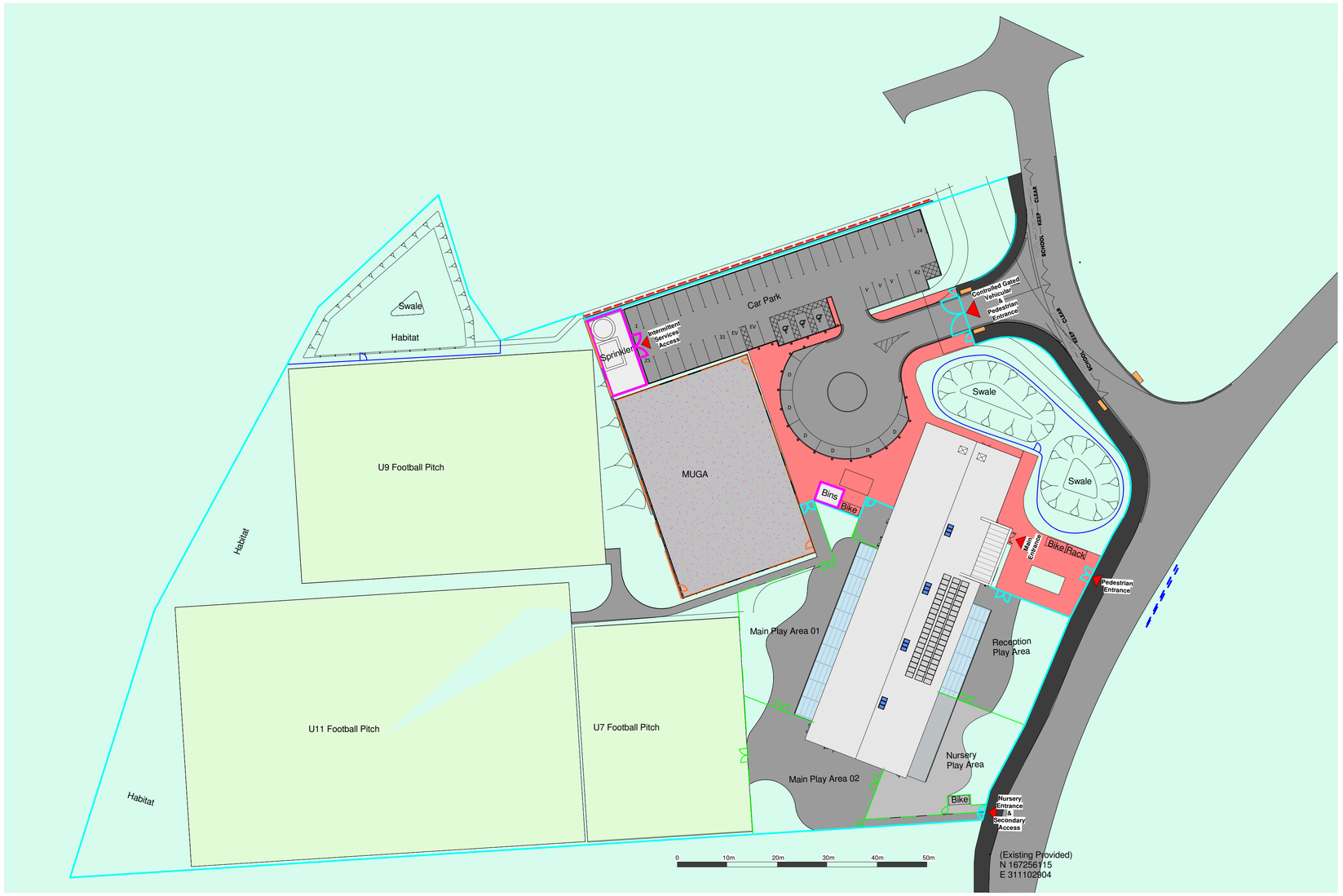
Appendix B: Architects Site Layout



Materials Key

- Tarmac
- Paviours
- Bitumen Softplay Surface
- MUGA
- Concrete Hard Standing
- Off SIte Public Footpath
- Type 01 - 2400mm high Secure Anti Climb Fencing (SBD compliant)
- Type 02 - 3000mm high sports pitch fencing
- Type 03 - 1800mm high timber hit and miss fence
- Type 04 - 1200mm high PPC bow top metal fence
- Type 05 - 1200mm high general purpose openmesh fencing
- Type 06 - Featheredge Timber Facing to Retaining Wall
- Textured paving crossing point with drop curbs

Refer to Civil Engineers drawings for all levels

N

1 Proposed Site Plan

1 : 500

Planning

This drawing must not be scaled.
Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

A1

Rev:		Chk'd:
A	Drawing Issued for Pre App — 01/10/2020	
B	Design Development — 18/12/2020	
C	Gen amends — 12/01/2021	
D	Issued For Inclusion in PAC — 25/01/2021	
E	Issued for Co Ordination — 09/03/21	
F	Issued For Planning Application — 12/03/2021	

STATUS
S3 - Issued for Comment

powelldobson ARCHITECTS
Cardiff . Swansea . London t +44 (0)33 33 201 001 www.powelldobson.com @PDArchitects

PDA Job No: 19128

C4328 - PDA - V1 - XX - DR - A - 05 - 1000 | F

(UPRN - ORGINATOR - VOLUME - LEVEL - DR TYPE - DIS CLASS - NUMBER | REV)

Contract: Barry Waterfront
Primary School, Vale of Glamorgan

Title: Proposed Site Plan

Scale: As indicated
Date: 01/10/20
Drawn: AH
Checked: RD

C:\Users\Tracy.Clarke\Documents\19128 Barry Waterfront Primary_CENTRAL FILE_tracy.clarke.rvt