

28th November 2024



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For the attention of the Planning Officer to be reviewed by the Lead Local Flood Authority,

Re: 24/00962/DISCON LLFA Comments
MIRA Plot 44, Discharge Of Condition 29

This response has been prepared to respond to LLFA consultation prepared by Harvey Speed dated 22nd November 2024, reference 2024/0960/04/Fdis.

The strategy for plot 44 has been prepared in line with the Phase 1 Infrastructure FRA report. This document specifies that drainage will be restricted to greenfield runoff rates on a plot-by-plot basis (4.4) and that drainage infrastructure within the roads shall be sized to accommodate future attenuated flows from individual plots (4.7). The condition 28 discharged on 18th April 2023 under application reference 22/00889/DISCON aligns with its approach to outfall to a watercourse with all plots restricted to greenfield runoff rates. Within the Phase 1 infrastructure FRA report are catchment plans and the masterplan proposals relating specifically to Phase 1 of the site, in which Plot 44 is located.

FRA extracts

- 4.4. In accordance with the requirements of the Environment Agency surface water runoff from the MTP will be restricted to 5l/s/ha. To restrict surface water runoff from the MTP to 5l/s/ha, attenuation will be provided on a plot by plot basis for up to a 1 in 100 year (+20% for climate change) storm event. Attenuation could be provided using pervious surfaces, filter drains, filter strips, swales and ponds or if these features cannot provide the volume of attenuation required, attenuation would be provided using oversized pipes or underground tanks.
- 4.7. As part of the MTP Phase 1 Infrastructure works it is proposed to provide highway drainage and attenuation for the proposed access roads. In the future as the MTP comes online, attenuation will be provided for each plot individually, in isolation of the MTP Phase 1 Infrastructure works. However, any drainage installed as part of the MTP Phase 1 Infrastructure works shall be sized to accommodate future attenuated flows from plots identified in the masterplan for the MTP.

Whilst the masterplan has developed since the FRA, the principle of the overall strategy remains the same. It's understood that catchment 3 (land to the North of existing road infrastructure) outfalls directly to the road surface water sewer (as the Technology building approved planning, 14/00661/CONDIT) whilst catchment 5 (land related to future Southern plots) will outfall to the cascading ponds mentioned, in-line with the topographical falls of the wider site. Plot 44 has been considered a part of the Northern catchment and therefore is intended to outfall into the sewer network within the roads.

Plot 44 water treatment has been considered on-plot through SuDS methods such as permeable paved parking bays and filter drains. A further measure included is an interceptor that will assist in pollution control for the concrete yard.

Regarding the southern ponds, these will still be implemented on the site keeping in-line with the agreed masterplan strategy (22/00889/DISCON) for future southern plots (catchment 5). They will provide on-plot attenuation, but the final design of these will not be confirmed until the detailed design of the future plots to suit water storage requirements, earthworks and the phasing of works.

Information referred to in this response (2 & 3 attached):

- 1) MIRA Technology Park – Phase 1 Infrastructure (Ground Conditions & Land Contamination, Flood Risk, Surface Water & Foul Drainage, Nov 2014)
- 2) MTP Phase 1 Infrastructure Proposed Surface Water Drainage Strategy (CIV16092_C_SA_92_0002 P01, Aug 2014)
- 3) Masterplan Surface Water Drainage Strategy (CIV16092_C_SA_92_004 P01, Nov 2014)

Yours faithfully
for **BCAL Consulting**
Jake Heyworth
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KEY:-

PROPOSED SW CARRIER DRAIN

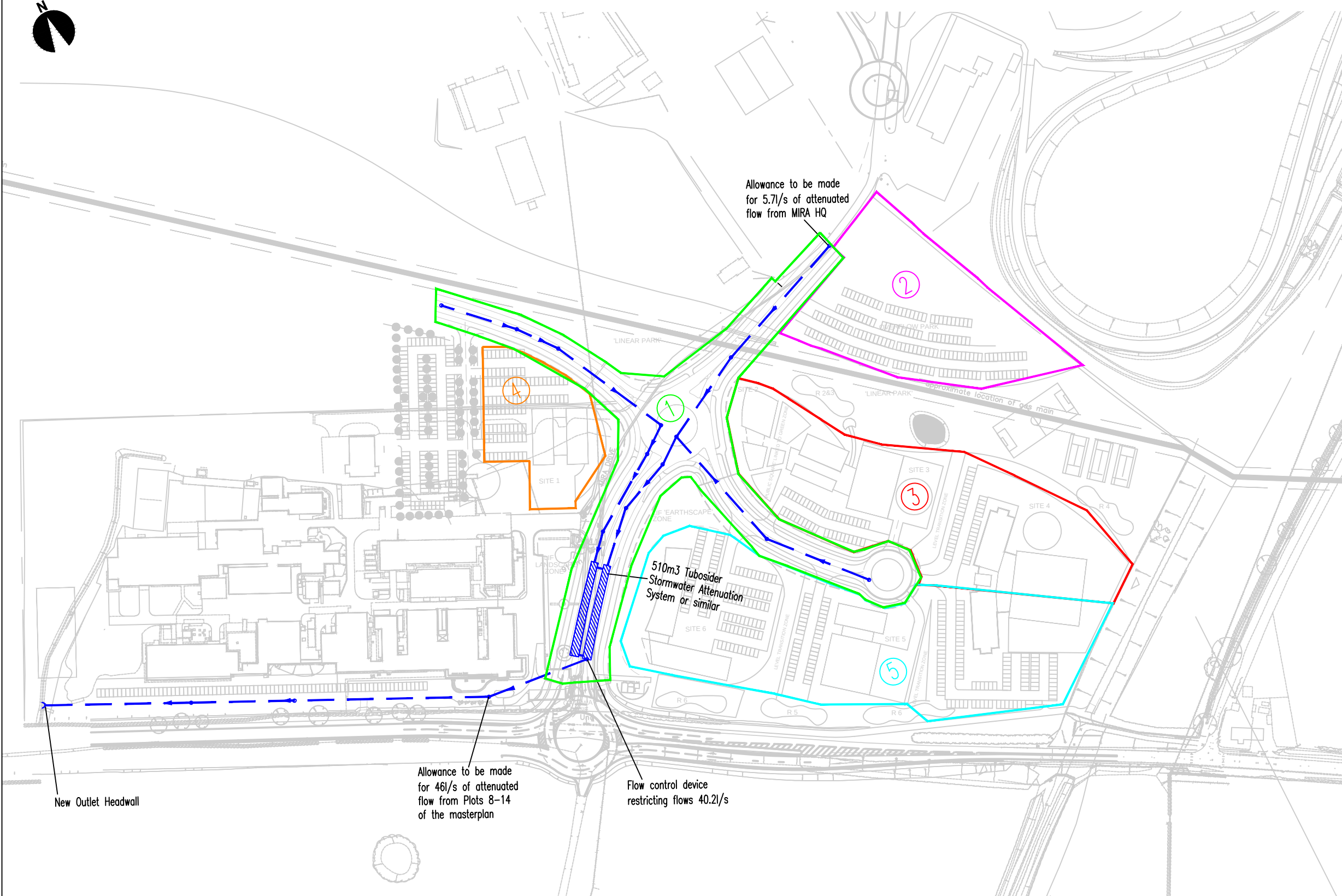
PROPOSED SW MH

PROPOSED SURFACE WATER ATTENUATION

PROPOSED SW HEADWALL

MTP PHASE 1 INFRASTRUCTURE - CATCHMENTS, ALLOWABLE DISCHARGE RATES & ATTENUATION VOLUMES				
COLOUR	CATCHMENT	IMP AREA (Ha)	ATTENUATED DISCHARGE RATE (l/s)	ATTENUATION VOLUME (m ³)
	CATCHMENT 1 (MIRA LIF 1 ROAD)	1.58	7.9	510*
	CATCHMENT 2 (OVERFLOW CAR PARK)	1.00	5.0	780
	CATCHMENT 3 (SITE 2, SITE 3 & SITE 4 NORTH)	1.44	7.2	1125
	CATCHMENT 4 (SITE 1)	0.50	5.0	325
	CATCHMENT 5 (SITE 6, SITE 5 & SITE 4 SOUTH)	1.87	9.4	1460

*MIRA LIF 1 Road attenuation to be provided for up to a 1 in 30 year storm event in accordance with the 6Cs design guide and Sewers For Adoption 7th Edition. Development plots attenuation to be provided for up to a 1 in 100 year (+20% for climate change) storm event in accordance with EA requirements



This drawing should not be scaled. Dimensions to be verified on site. Any discrepancies should be referred to the Engineer prior to work being put in hand.

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GENERAL NOTES

1. PROPOSED LAYOUT SHOWN BASED ON GEDDES ARCHITECTS DRAWING NO: 13.014 (SK) 300
2. THIS DRAWING SHOULD BE VIEWED IN CONJUNCTION WITH WATERMAN TECHNICAL NOTE CIV16092 DR 001
3. DRAINAGE TO BE DESIGNED IN ACCORDANCE WITH THE 6C'S DESIGN GUIDE AND SEWERS FOR ADOPTION 7TH EDITION.
4. ATTENUATION FOR FUTURE PLOTS AND CATCHMENTS WILL BE PROVIDED INDIVIDUALLY IN ISOLATION OF THE MIRA LIF 1 WORKS.
5. THE MIRA LIF 1 DRAINAGE DESIGN SHALL ACCOUNT FOR ATTENUATED FLOWS FROM FUTURE PLOTS AND CATCHMENTS OF THE MASTERPLAN
6. SURFACE WATER RUNOFF FROM THE SITE SHALL BE RESTRICTED TO 5l/s/Ha AGREE WITH EA. WHERE A PLOT OR CATCHMENT IS <1Ha A DISCHARGE RATE OF 5l/s SHALL BE USED AS THIS IS LOWEST PRACTICAL DISCHARGE RATE FROM A FLOW CONTROL DEVICE
7. THIS DRAWING IS TO SHOW THE PRINCIPLES OF DRAINAGE ONLY. IT IS NOT TO BE USED FOR CONSTRUCTION.
8. DISCHARGE TO THE UNNAMED WATERCOURSE WILL REQUIRE A LAND DRAINAGE CONSENT FROM THE LEAD LOCAL FLOOD AUTHORITY.
9. APPROVAL FROM THE OWNER OF THE GAS MAIN REQUIRED TO HAVE DRAINAGE CROSSING THE GAS MAIN

Rev	Date	Description	By
P01	08.10.14	PLANNING ISSUE	PJ
A03	21.08.14	CARRIER DRAIN FOR MIRA HQ ROAD ADDED	PJ
A02	05.08.14	PIPE SIZES & ATTENUATION TANK ADDED	PJ
A01	01.08.14	ISSUED	PJ

Amendments

Project

MIRA TECHNOLOGY PARK

Title

MTP PHASE 1 INFRASTRUCTURE
PROPOSED
SURFACE WATER
DRAINAGE STRATEGY

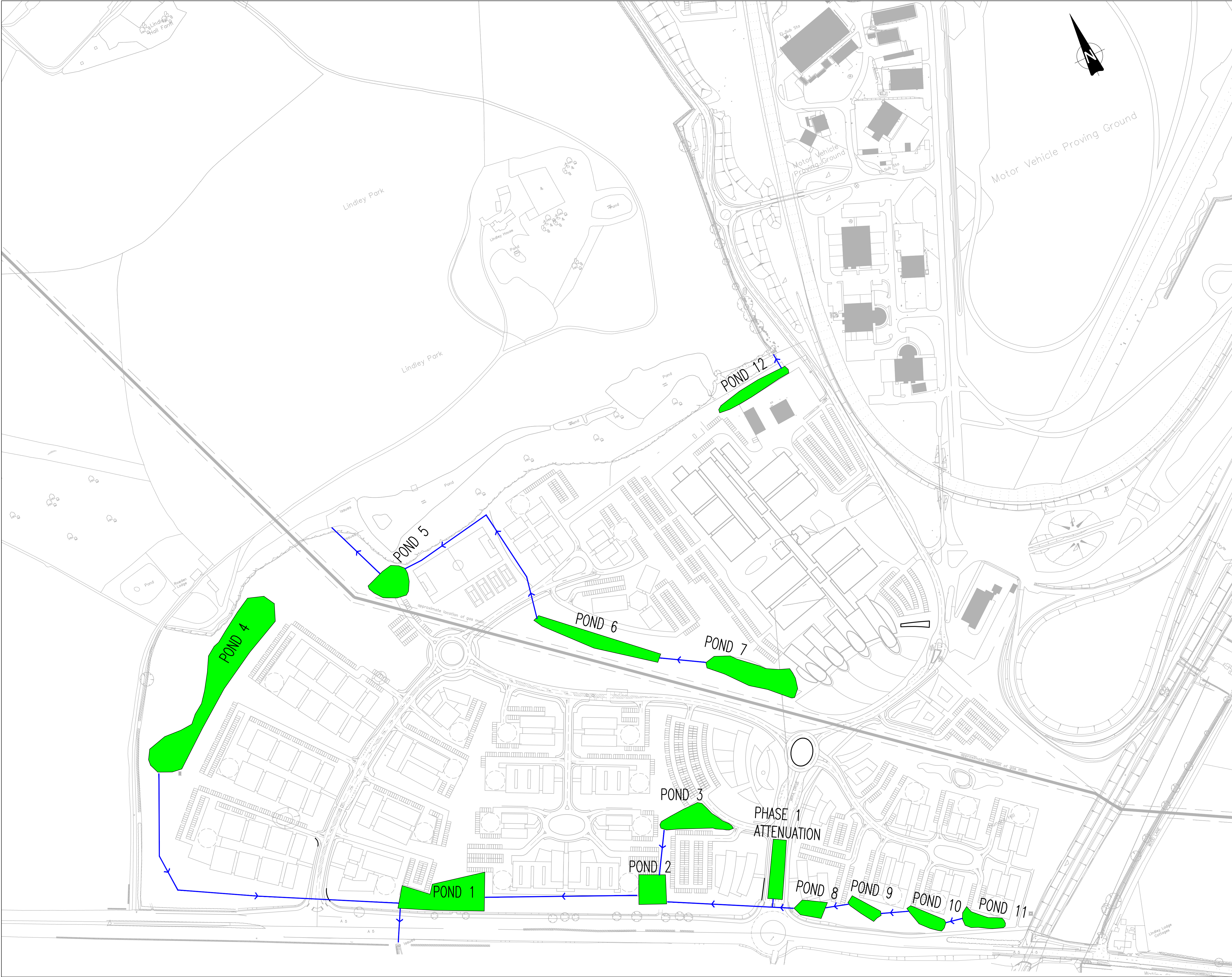
Client

MIRA LTD



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Drawing Status				
PLANNING				
Designed by	PJ	Checked by	MJN	Project No CIV16092
Drawn by	PJ	Date	AUG 2014	Computer File No CIV16092_C_SA_92_002 PHASE 1 SW DRAINAGE STRATEGY.dwg
Scales @ A3 work to figured dimensions only	1:2,500			
Publisher	Zone	Category	Number	Revision
C	SA	92	002	P01



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GENERAL NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEER'S, ARCHITECT'S OR OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
- ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARING ANY WORKING DRAWINGS OR COMMENCING ON SITE.
- THE CONTRACTOR MUST ENSURE AND WILL BE HELD RESPONSIBLE FOR THE OVERALL STABILITY OF THE BUILDING/STRUCTURE/EXCAVATION AT ALL STAGES OF THE WORK.
- ALL WORK BY THE CONTRACTOR MUST BE CARRIED OUT IN SUCH A WAY THAT ALL REQUIREMENTS UNDER THE HEALTH AND SAFETY AT WORK ACT ARE SATISFIED.
- ALL WORK IS TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENTS OF THE RELEVANT STATUTORY AUTHORITIES AND REGULATIONS.
- THIS DRAWING SHOULD BE VIEWED IN CONJUNCTION WITH THE WATERMAN REPORT 'MIRA TECHNOLOGY PARK – PHASE 1 INFRASTRUCTURE GROUND CONDITIONS & LAND CONTAMINATION, FLOOD RISK, SURFACE WATER AND FOUL DRAINAGE REF: CIV16092 GR 001 AND THE TRAIN & KEMP REPORT 'SITE SPECIFIC FLOOD RISK ASSESSMENT FOR MIRA TECHNOLOGY PARK REV 01 DATED MARCH 2011.
- THE PONDS & DRAINAGE STRATEGY SHOWN ARE AS PER TRAIN & KEMP DRAWING NO: 11240/P/01 REV P1. WATERMAN HAVE NEITHER CHECKED OR VERIFIED THE DESIGN OF THESE PONDS & DRAINAGE STRATEGY AND THEY ARE SHOWN FOR INFORMATION ONLY.
- THE MASTERPLAN SHOWN IS GEDDES ARCHITECTS DRAWING NO: 22-5.
- FOR DETAILS OF THE PHASE 1 INFRASTRUCTURE DRAINAGE STRATEGY PLEASE REFER TO WATERMAN DRAWING NO: CIV16092-C-SA-92-002.

P01	04:11:14	ISSUED	PJ
Rev	Date	Description	By
Amendments			
Project			
MIRA TECHNOLOGY PARK			
Title			
MASTERPLAN SURFACE WATER DRAINAGE STRATEGY			
Client			
MIRA LTD			

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Drawing Status				
PLANNING				
Designed by	PJ	Checked by	MN	Project No
Drawn by	JAG	Date	NOV 14	CIV16092
Scales @ A1		1:2,000	Computer File No	
work to figured dimensions only			CIV16092_C_SA_92_004 MASTERPLAN SW DRAINAGE STRATEGY	
Publisher	Zone	Category	Number	Revision
C	SA	92	004	P01

(P)002-MASTERPLAN 22-5, A1-Waterman-S