

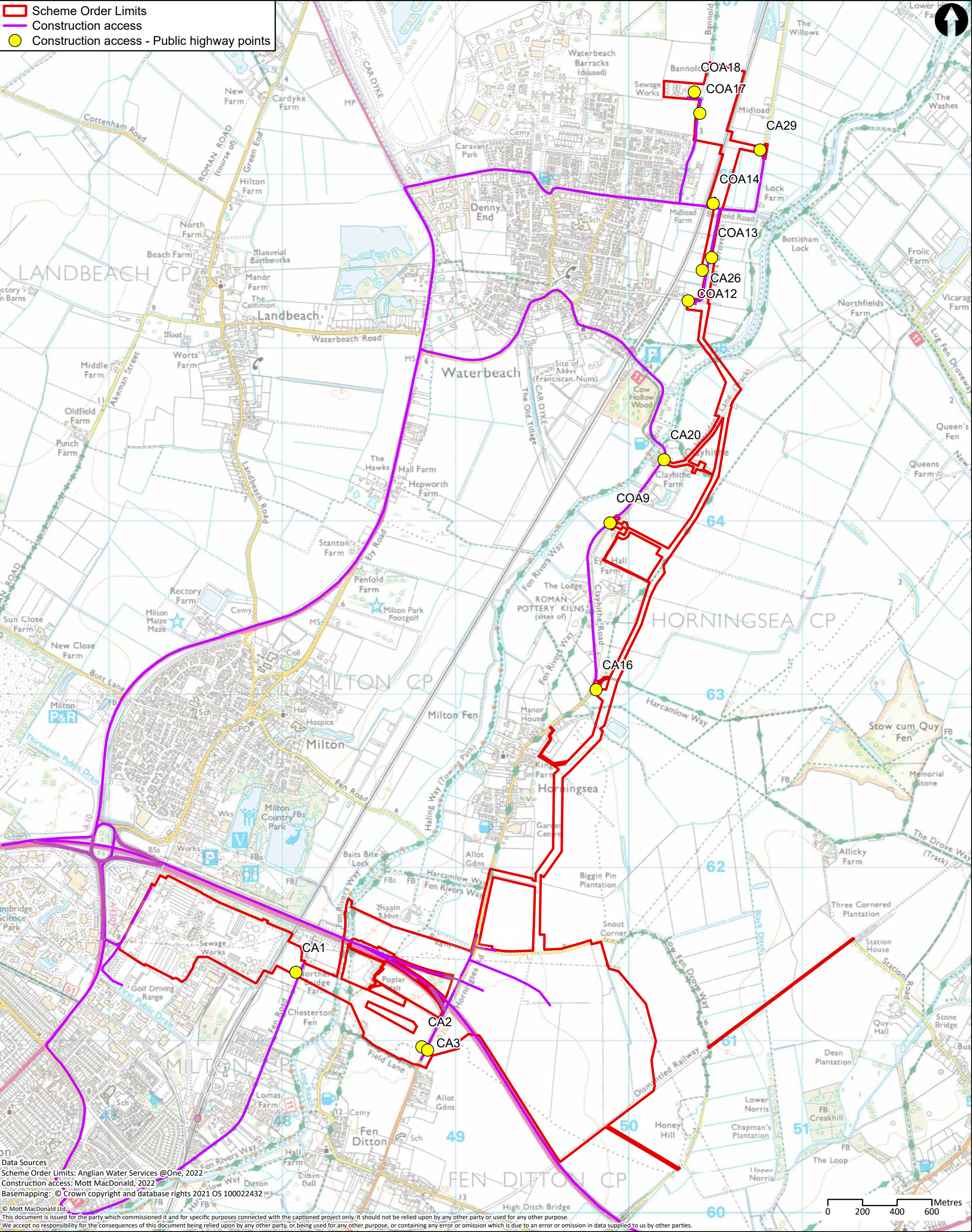
Cambridge Waste Water Treatment Plant Relocation Project
Anglian Water Services Limited

Appendix 19.3: Transport Assessment Part 2

Application Document Reference: 5.4.19.3
PINS Project Reference: WW010003
APFP Regulation No. 5(2)a

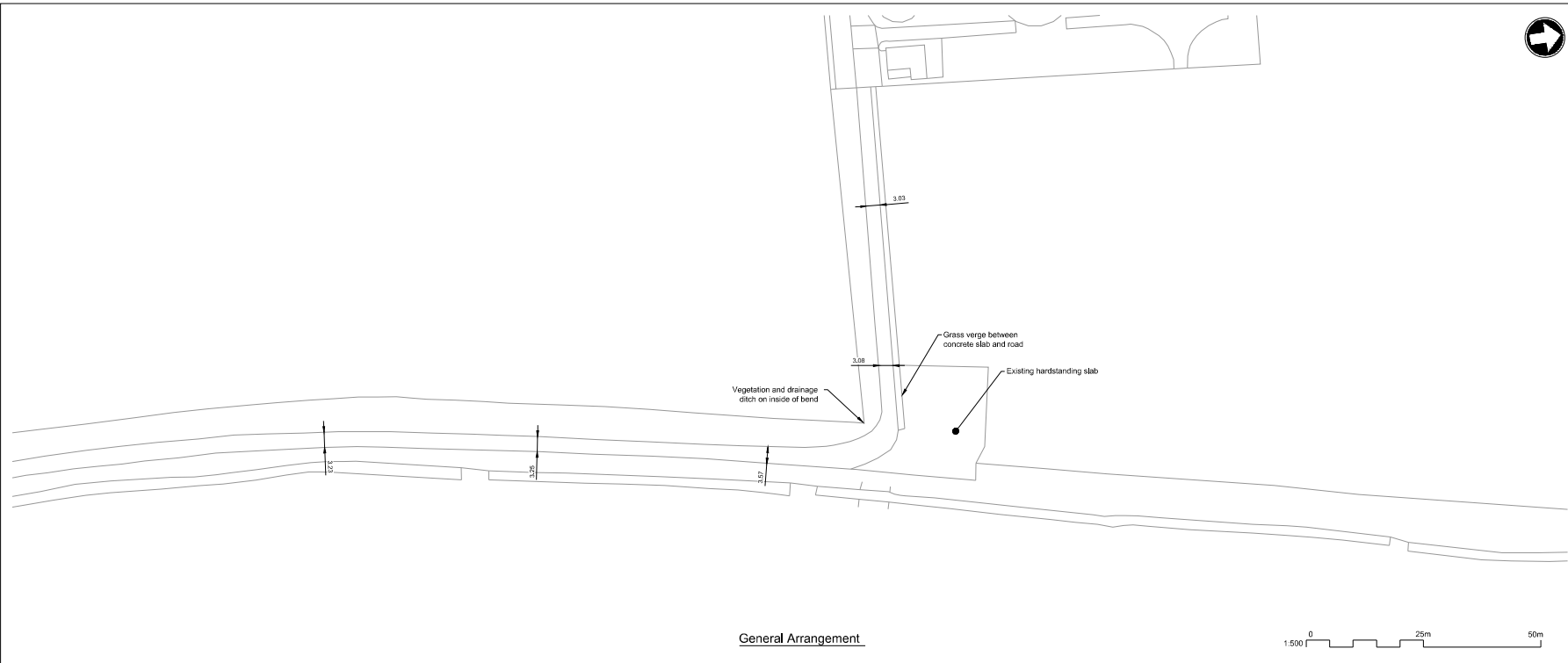
Appendix G: Swept Path Analysis

- Scheme Order Limits
- Construction access
- Construction access - Public highway points



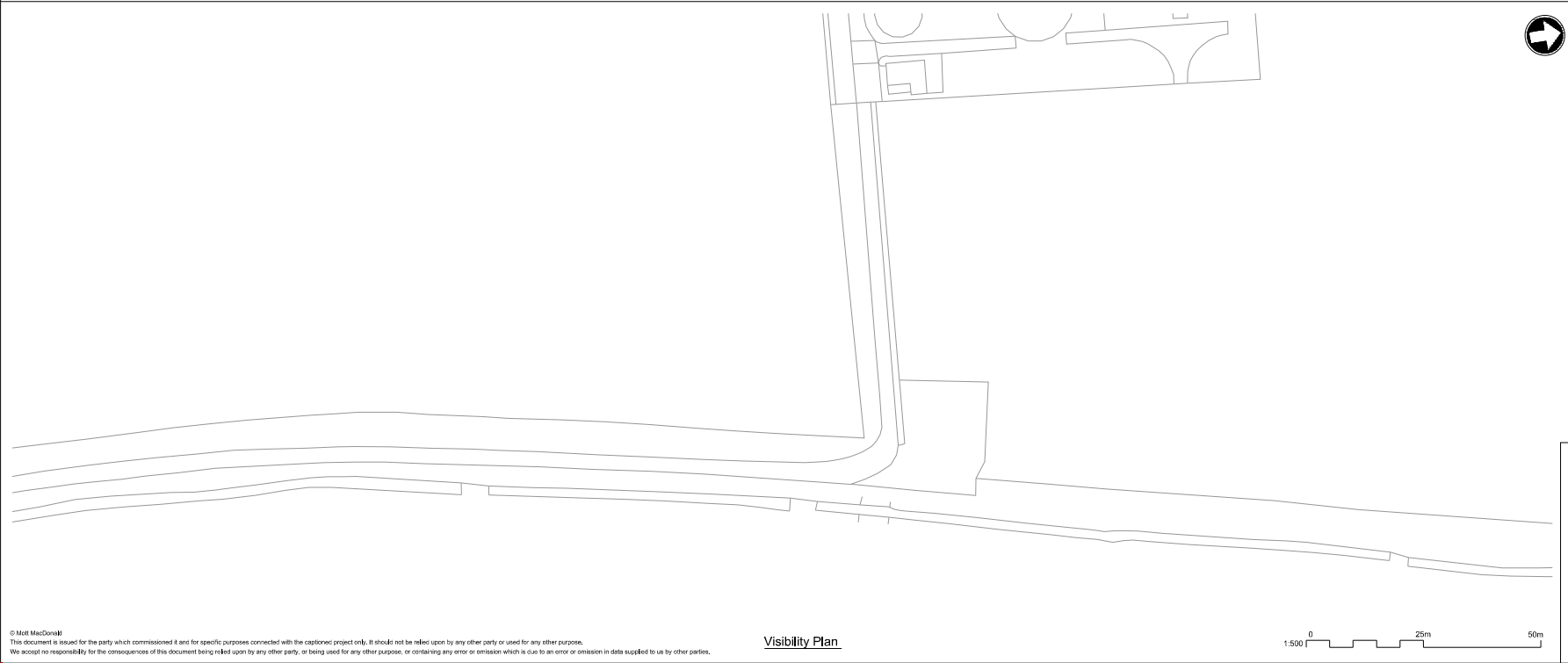
Data Sources
Scheme Order Limits: Anglian Water Services @One, 2022
Construction access: Mott MacDonald, 2022
Basemapping: © Crown copyright and database rights 2021 OS 100022432
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M M MOTT MACDONALD 22 Station Road Cambridge CB1 2JD United Kingdom T +44 (0)20 8774 2000 F +44 (0)20 8681 5706 W mottmac.com	Client love every drop anglianwater						Title Cambridge Waste Water Treatment Plant Relocation Project Transport Assessment Construction route and access points			Drawn KL		
										Checked WT		
										Approved CS		
										Scale at A3 1:20,000		
	Rev	Date	Drawn	Description	Ch'k'd	App'd	Drawing Number WW01003-CAMEST-MOT-05-XX-DR-X-0697			Security STD	Status PRE	Rev P3
	P1	31/10/22	KL	First Draft	WT	CS						
	P2	18/12/23	CC	Revision 01	WT	GW						
	P3	22/01/24	CC	Revision 02	WT	GW						



General Arrangement

0 25m 50m
1:500



Visibility Plan

0 25m 50m
1:500



Notes

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- Cambridge Waste Water Treatment Works Relocation is a brownfield site and any proposed land take is acceptable determined during future stages of the design development of this option.

15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo,

Vehicle Tracking - Key to Symbols

Vehicle Body

Vehicle Tracking - Vehicle Details

Low Loader	
Overall Length	16,630m
Overall Width	2,500m
Overall Body Height	3,360m
Max Track Width	2,500m
Kerb to Kerb Turning Radius	10,700m

Large Mobile Crane	
Overall Length	12,300m
Overall Width	2,430m
Overall Body Height	2,430m
Track Width	2,430m
Kerb to Kerb Turning Radius	10,000m

Vehicle Tracking - Risks & Compliance

High Risks

H1 Explanation of risk,

Vehicle Tracking - Notes

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P1	مراجعة	ADC	Draft for Discussion / Review.	ARX	ARX
Rev	Date	Drawn	Description		CWWTW

Client

Title

Cambridge Waste Water Treatment Works Relocation

Temporary Access Junctions

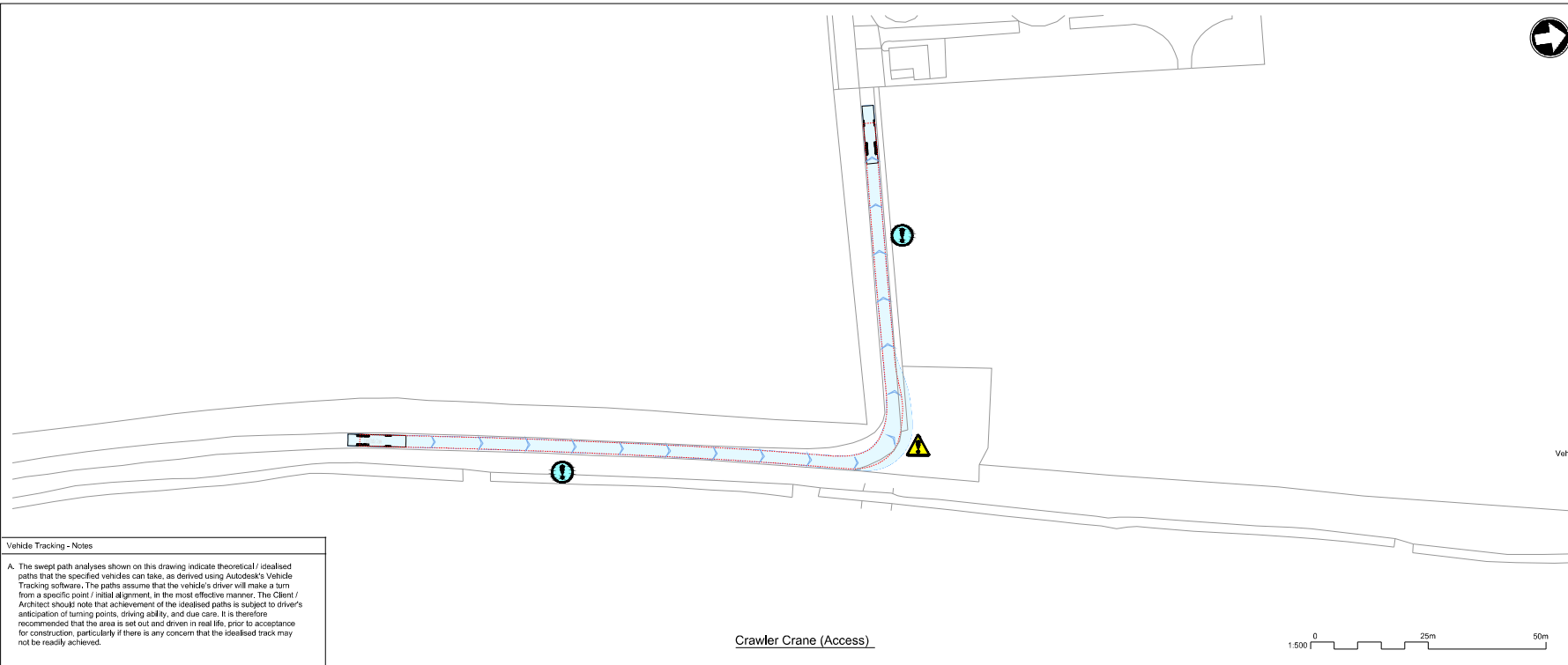
COA17 – COA18

Highways GA, Visibility Splay and

Vehicle Tracking

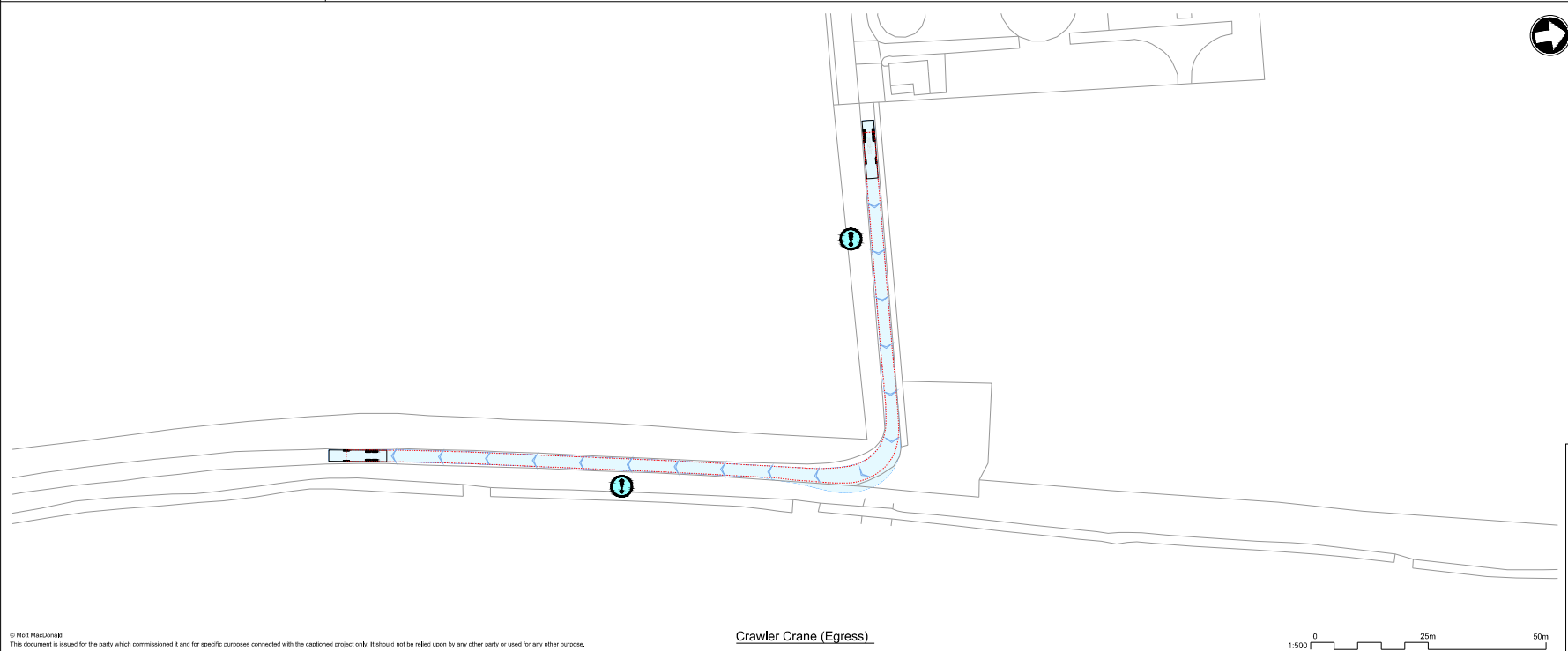
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Drawn	A.D.Castles	ADC	Coordination	E.Case	EC
Dwg check	-	-	Approved	A.M.Rawlings	AMR
Scale	1:500	Stat	PRE	Rev	P1
				Sec	STD

Drawing 102375-MMD-01-XX-DR-C-DRAFT



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Crawler Crane (Access)



Crawler Crane (Egress)

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Vehicle Tracking - Key to Symbols

Pink shade & symbol denote reverse direction
Blue shade & symbol denote forward direction
Gray dashed lines denote wing mirror & boat overhang paths
Dashed red lines denote wheel / track paths
Solid blue lines denote chassis paths

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Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	102375-MMD-01-XX-DR-C-DRAFT	Draft for Discussion / Review.	AKK	AKK
Rev	Date	Drawn	Description	Drawn

Client

Title

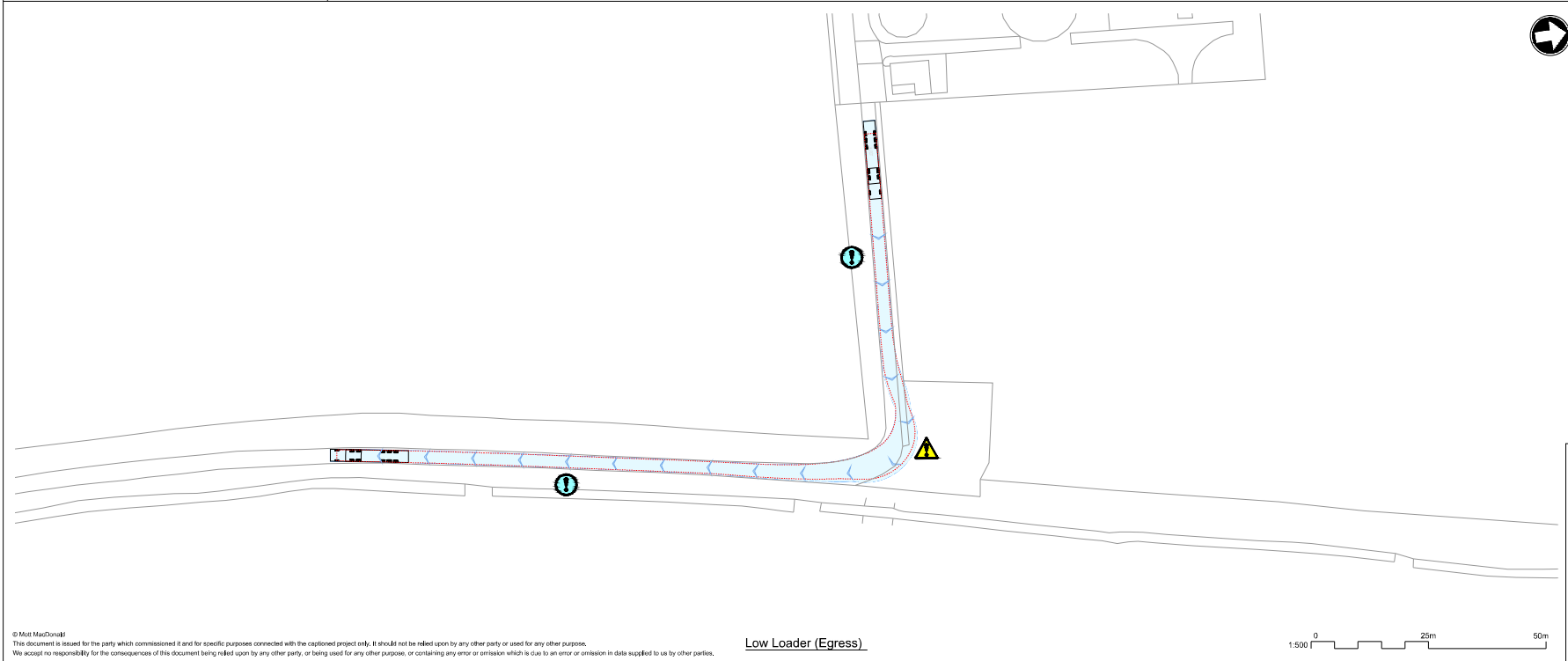
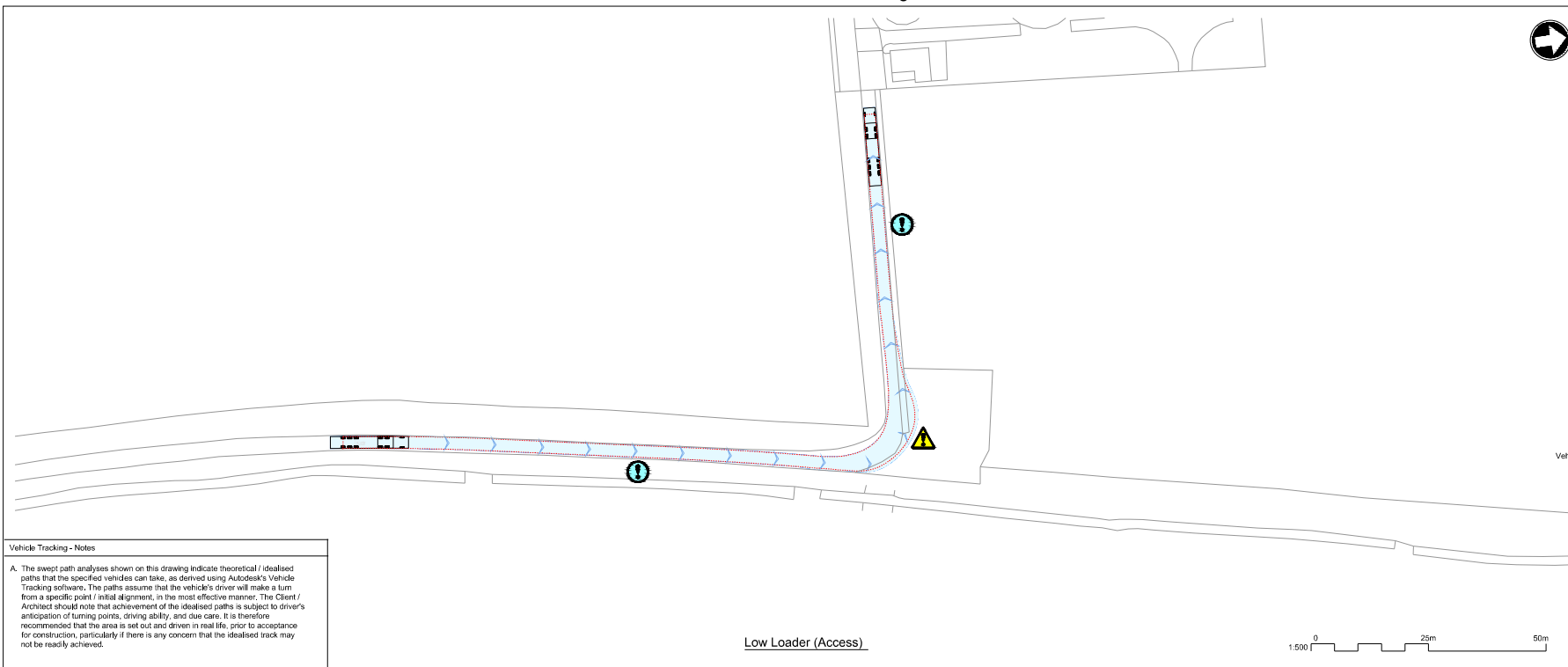
Cambridge Waste Water Treatment Works Relocation

COA17 – COA18

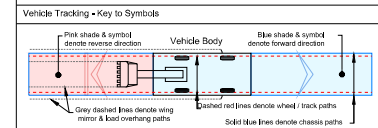
Highways GA, Visibility Splay and Vehicle Tracking

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Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR
Scale	1:500	Stat	PRE	P1	Sec STD

Drawing 102375-MMD-01-XX-DR-C-DRAFT



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- Cambridge Waste Water Treatment Works Relocation is a brownfield site, the proposed temporary access junction is located on the site boundary. The design is subject to change and additional land take is possible during future stages of the design development of this option.
- 15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo,**



Vehicle Tracking - Risks & Compliance

Risks	
	Kerb overrun
	Restrictive road width

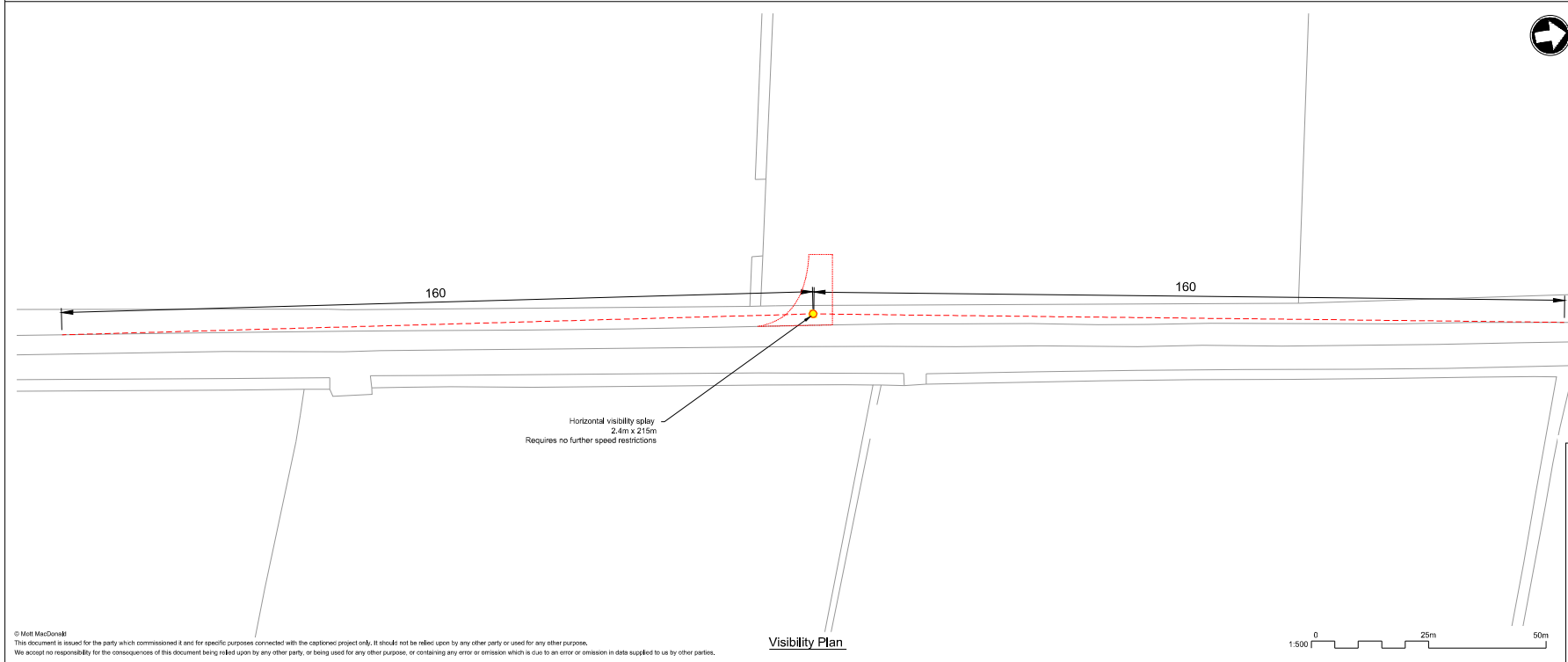
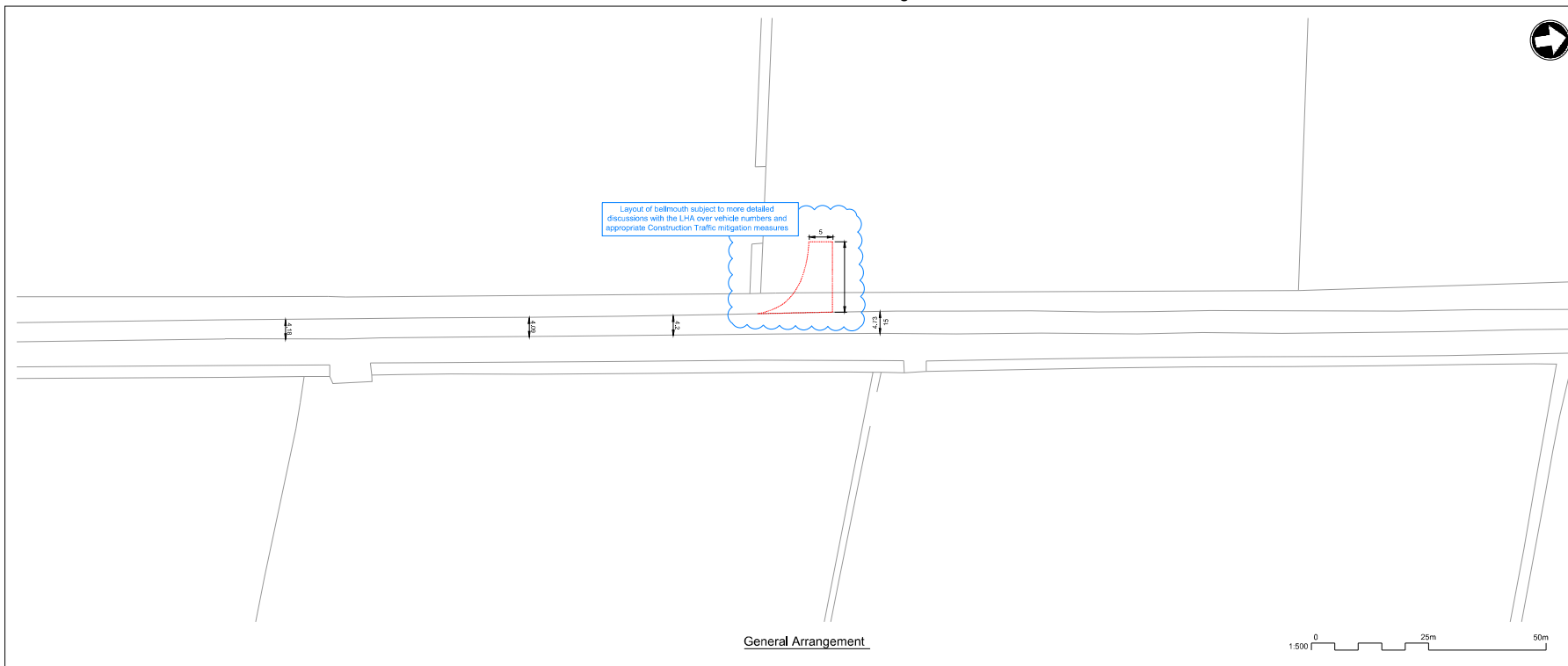
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Rev	Date	Drawn	Description



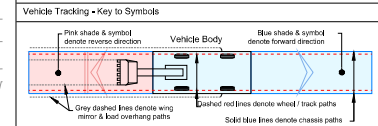
Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA17 – COA18
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	-	-	Coordination	A.M. Rawlings	AMR
Dwg check	-	-	Approved	-	-
Scale	1:500	Stat	PRE	Rev	P1
Section	4	Std	STD	Rev	STD

Drawing 102375-MMD-01-XX-DR-C-DRAFT



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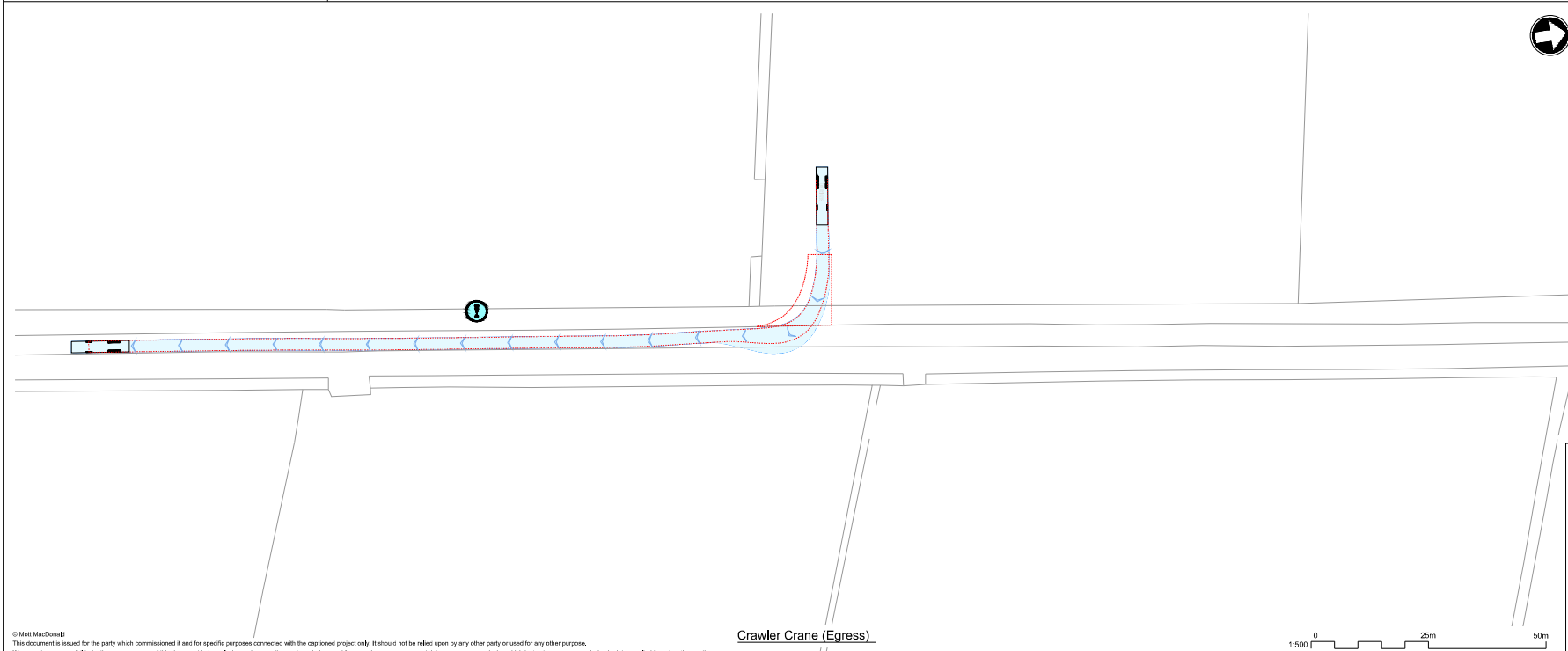
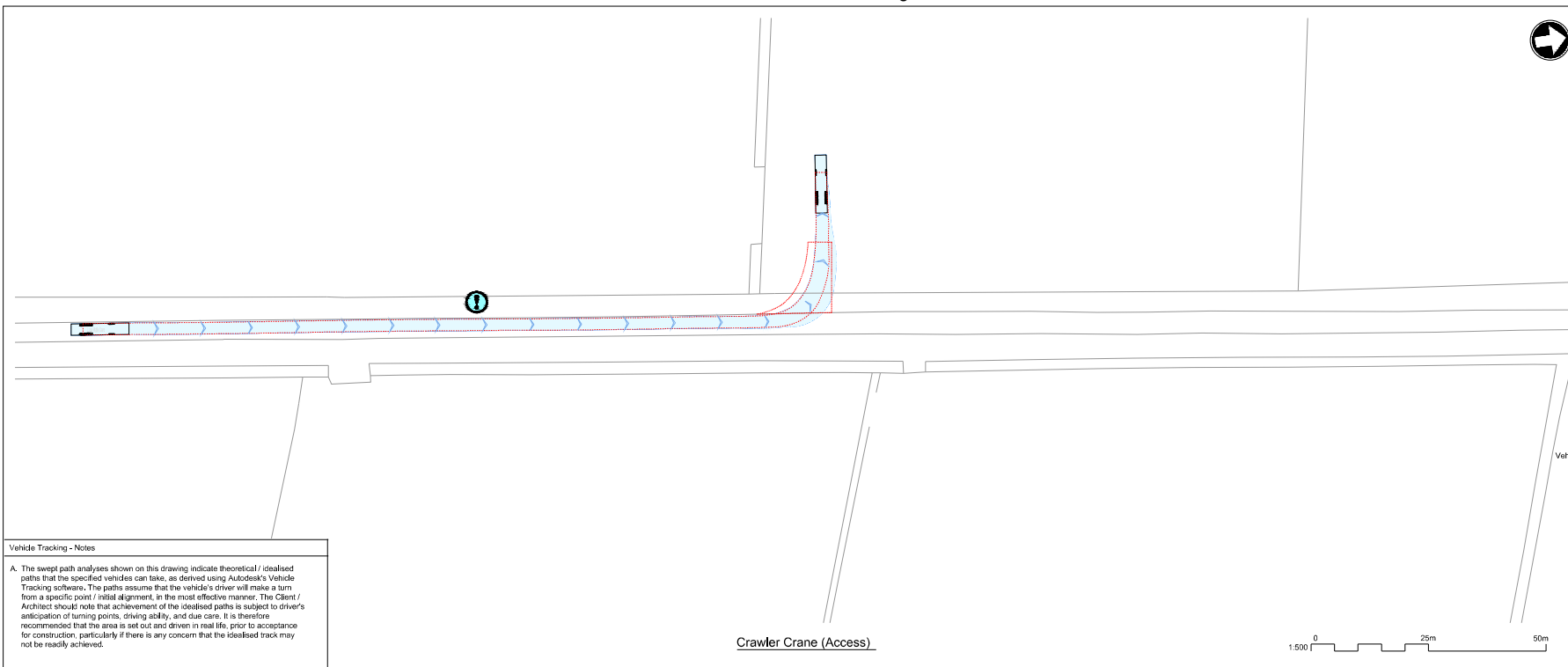
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Rev	Date	Drawn	Description	Drawn	Checked



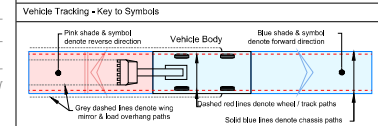
Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
CA29
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR
Scale	1:500	Status	PRE	Rev	P1
Scale	1:500	Status	PRE	Rev	P1
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Drawing No. 102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Risks & Compliance

Risks

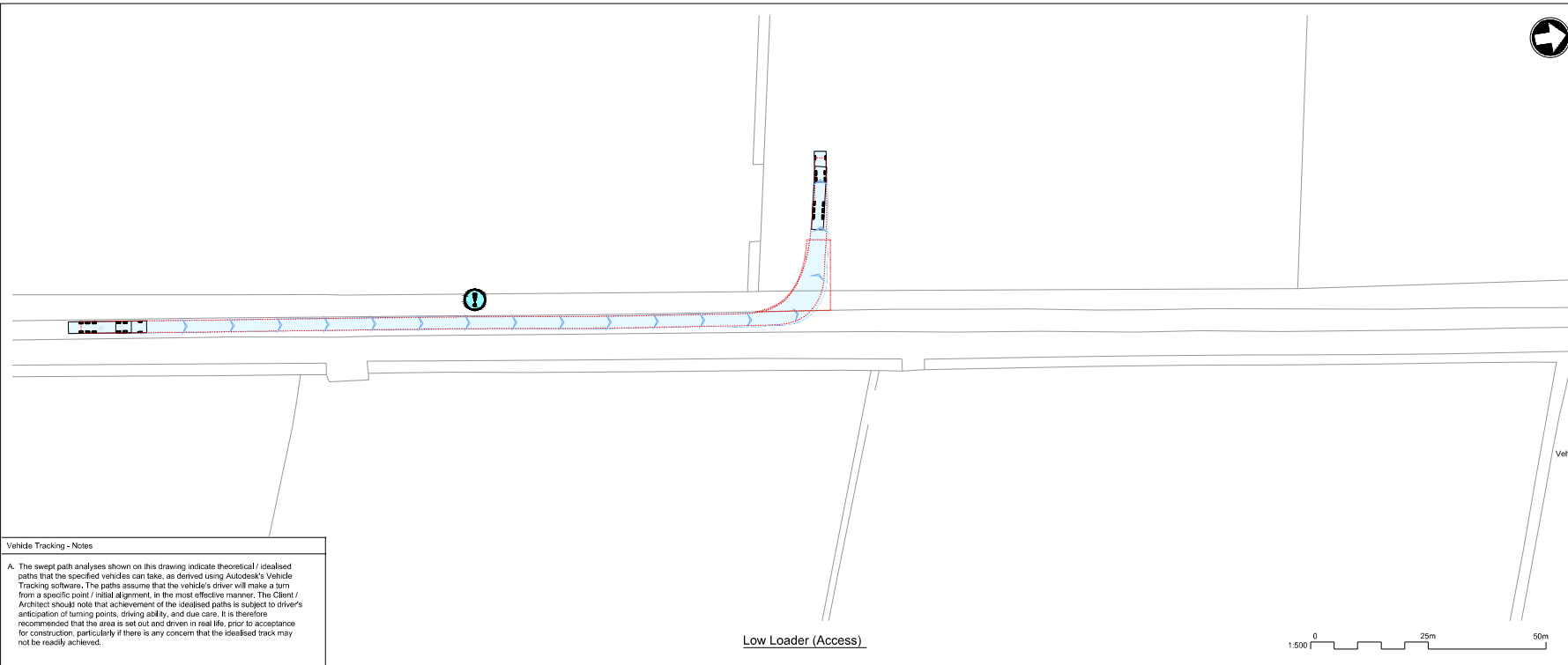
⚠️	Kerb overrun	
🚫	Restrictive road width	

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Rev	Date	Drawn	Description	Checked	Approved



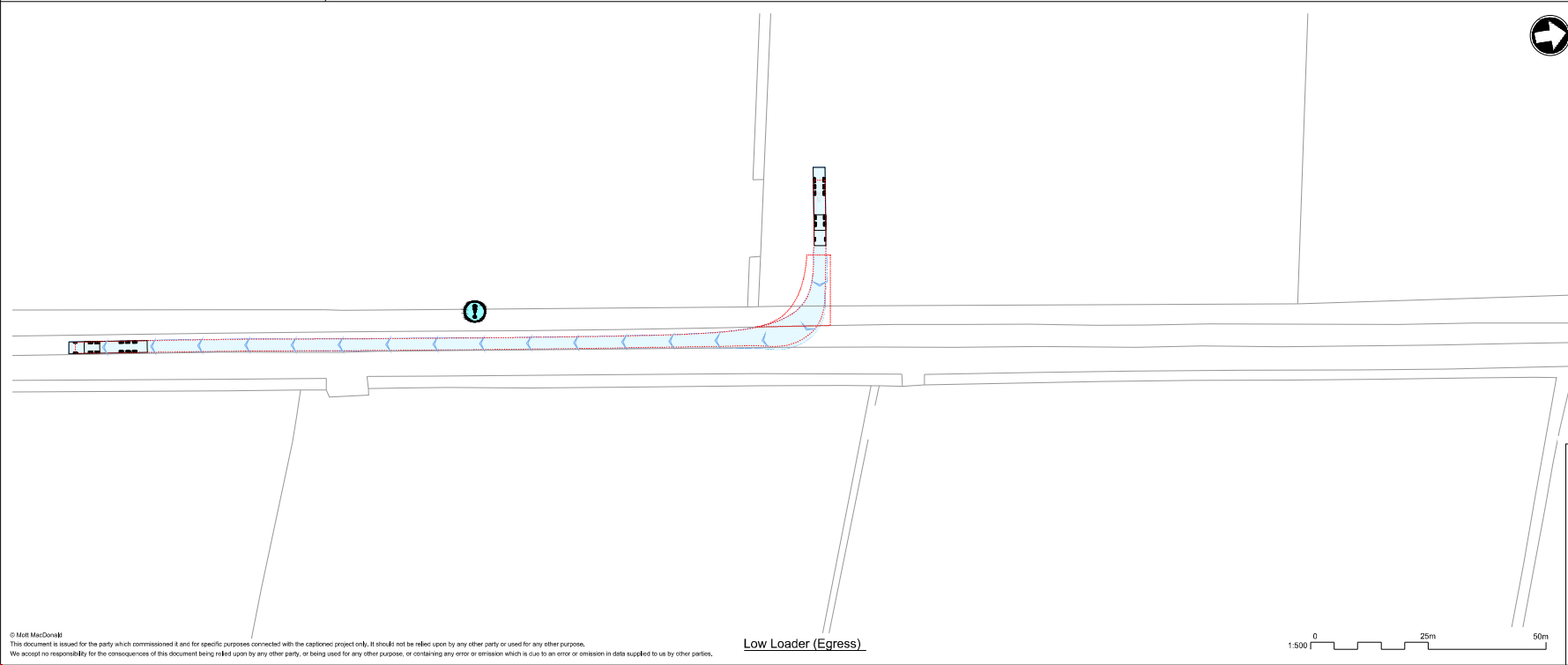
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Drawing 102375-MMD-01-XX-DR-C-DRAFT					

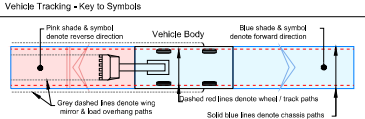


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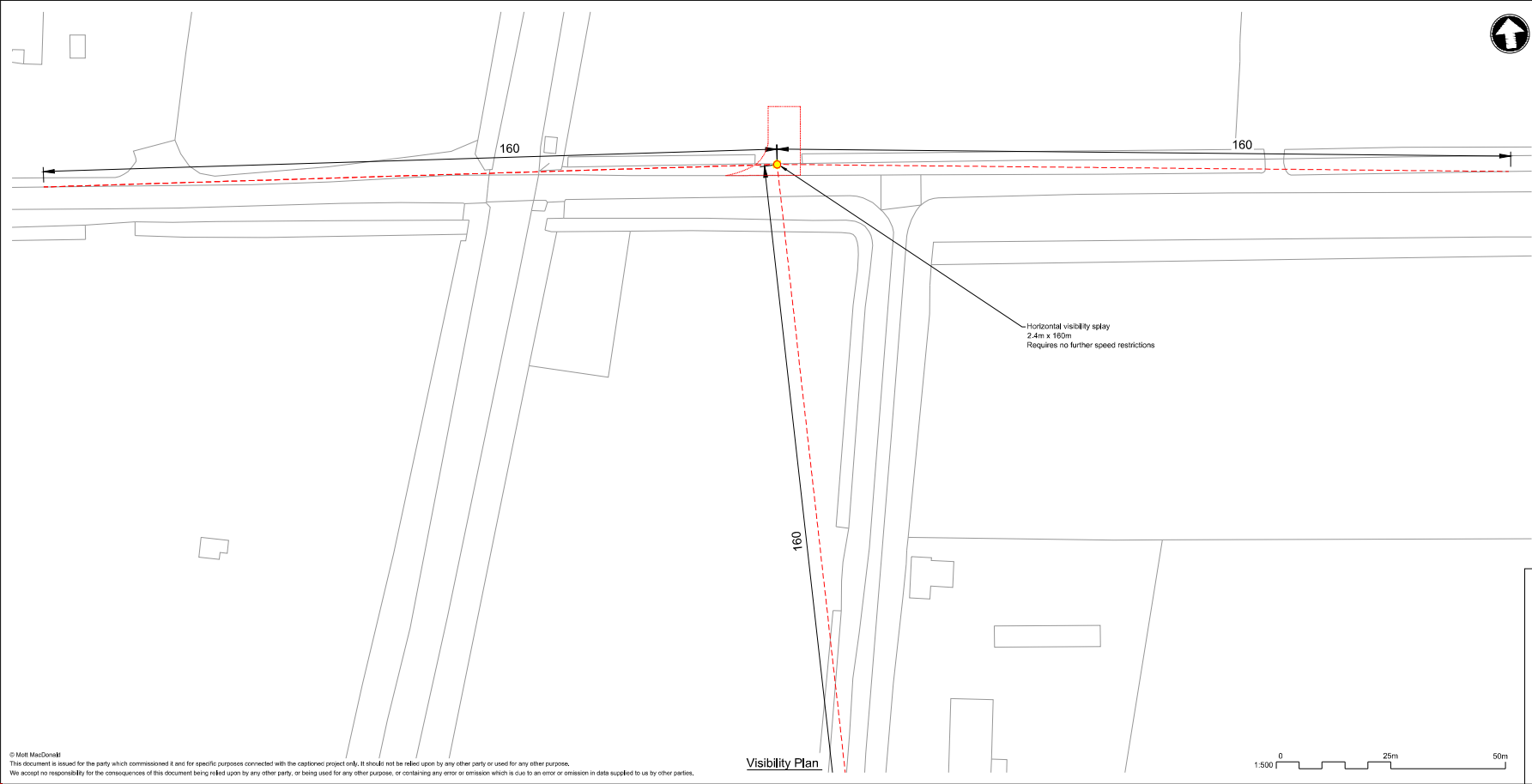
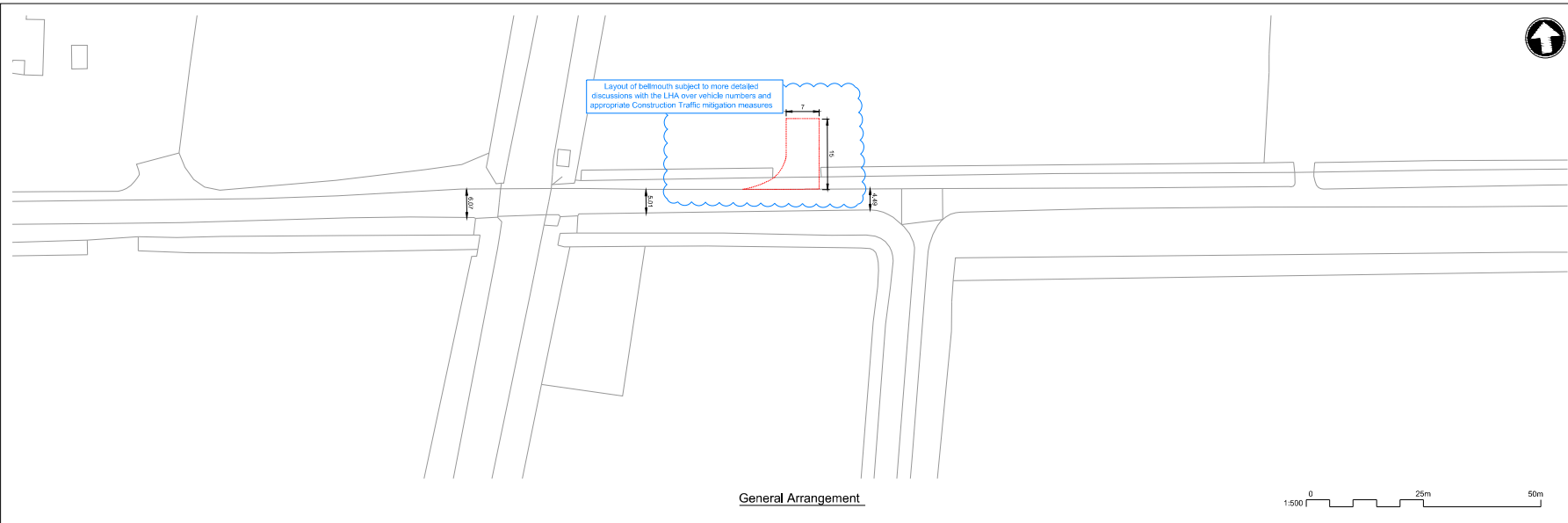
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- Vehicle Tracking - Risks & Compliance
- Risks**
- Kerb overrun
 - Restrictive road width

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Rev	Date	Drawn	Description	Drawn	Checked



Title Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions CA29 Highways GA, Visibility Splay and Vehicle Tracking					
Designed	A.D. Castles	ADC	Eng check	E. Case	EC
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Dwg check	-	-	Approved	A.M. Rawlings	AMR
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Drawing 102375-MMD-01-XX-DR-C-DRAFT					



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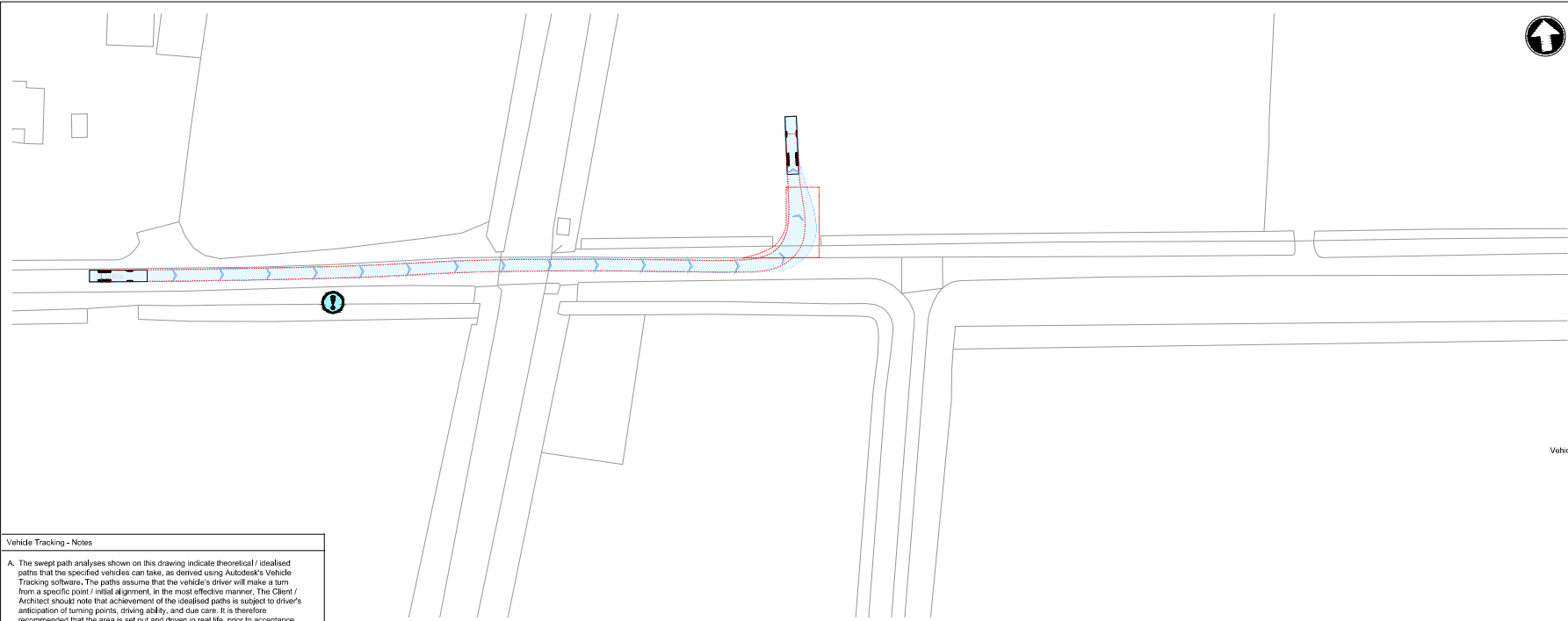
Client

love every drop
anglianwater

Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA14
Highways GA, Visibility Splay and
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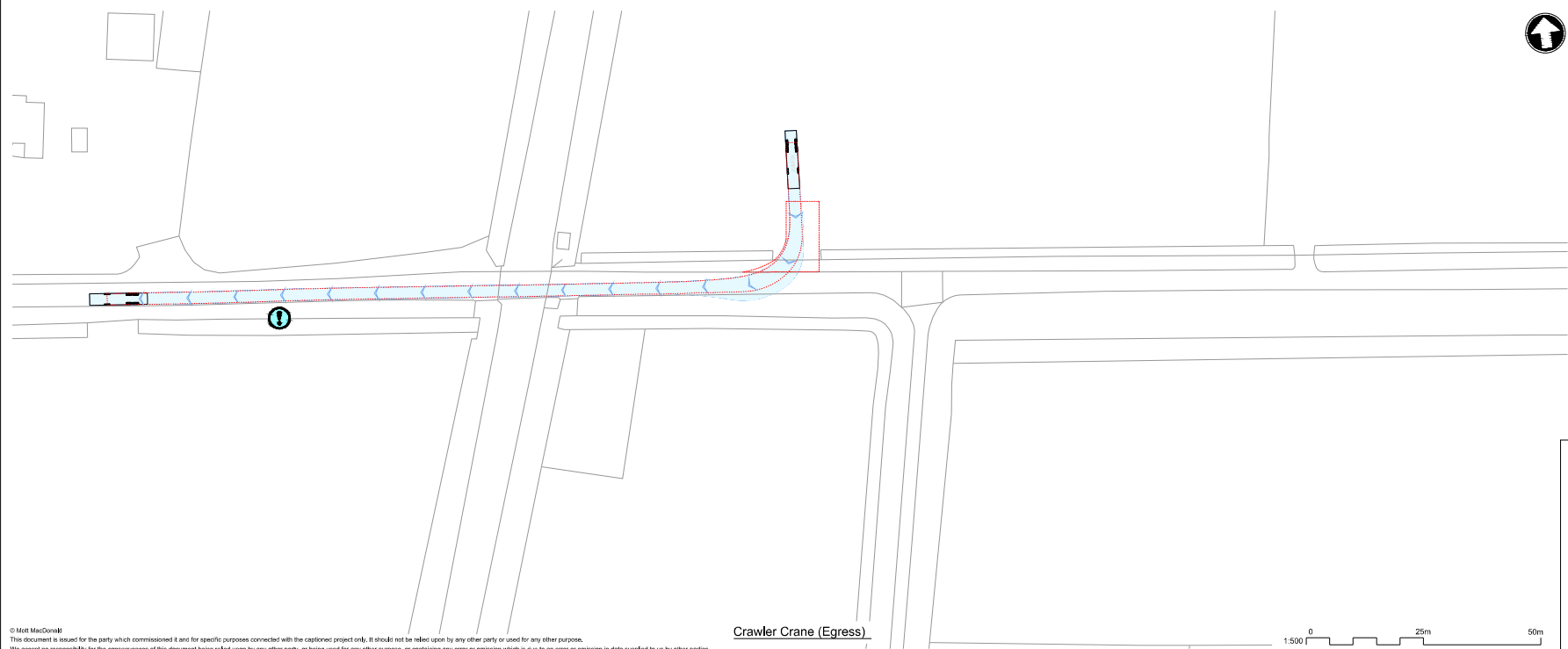
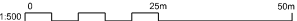
Drawing 102375-MMD-01-XX-DR-C-DRAFT



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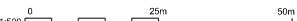
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Crawler Crane (Access)

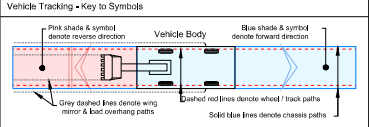


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We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

Crawler Crane (Egress)



- Notes
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 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 13. Cambridge Waste Water Treatment Works Relocation is a brownfield site and any proposed land take is acceptable determined during future stages of the design development of this option.
 14. Drawings are for information only and should not be used for construction.
 15. Drawings are for information only and should not be used for construction.



Vehicle Tracking - Vehicle Details



Low Loader

Overall Length	16.630m
Overall Width	2.500m
Overall Body Height	3.360m
Max Track Width	2.500m
Kerb to Kerb Turning Radius	16.760m

Large Mobile Crane

Overall Length	12.200m
Overall Width	2.450m
Overall Body Height	3.360m
Track Width	2.450m
Kerb to Kerb Turning Radius	10.000m

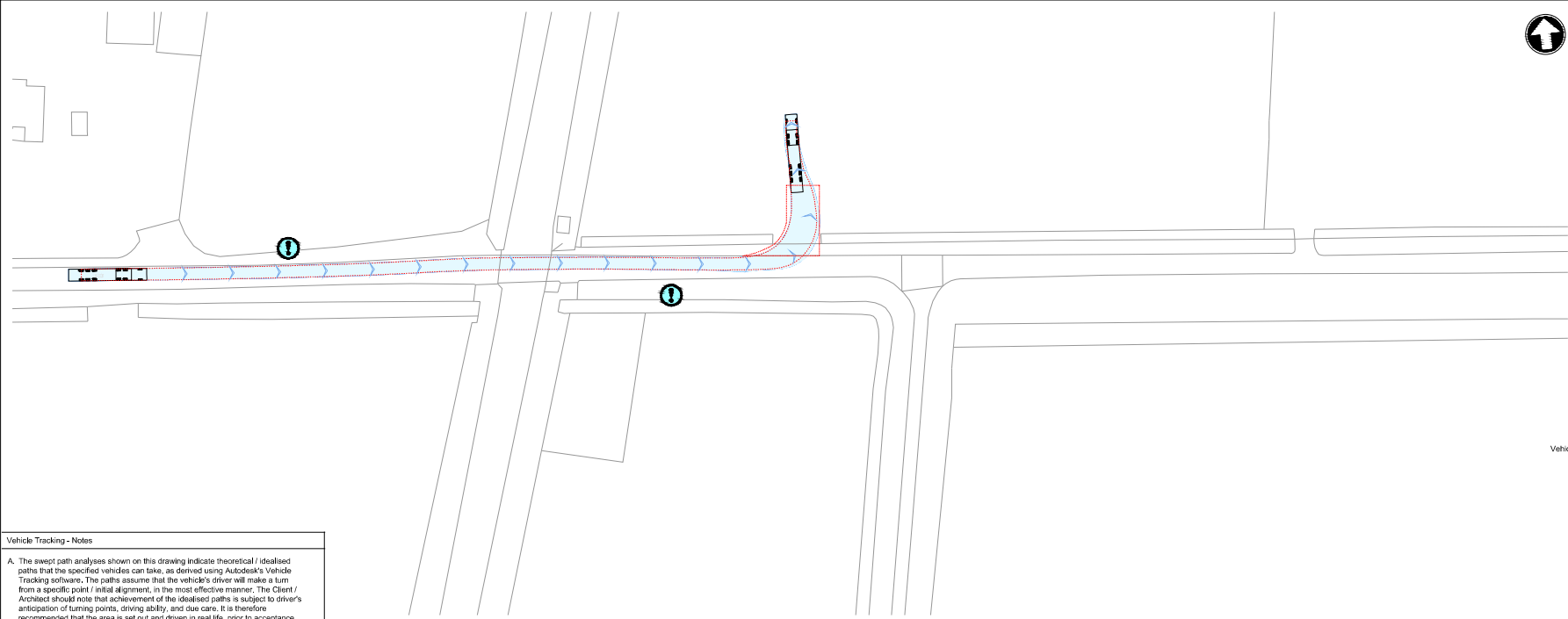
Vehicle Tracking - Risks & Compliance

Risks			
Kerb overrun			
Restrictive road width			
P1	102375-MMD-01-XX-DR-C-DRAFT	ADC	Draft for Discussion / Review.
Rev	Date	Drawn	Description



Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA14
Highways GA, Visibility Splay and Vehicle Tracking

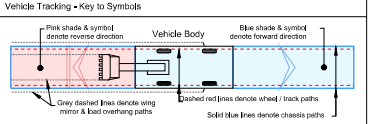
Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	-	-	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR
Scale	1:500	Stat	PRE	P1	Sec STD
Drawing 102375-MMD-01-XX-DR-C-DRAFT					



Vehicle Tracking - Notes

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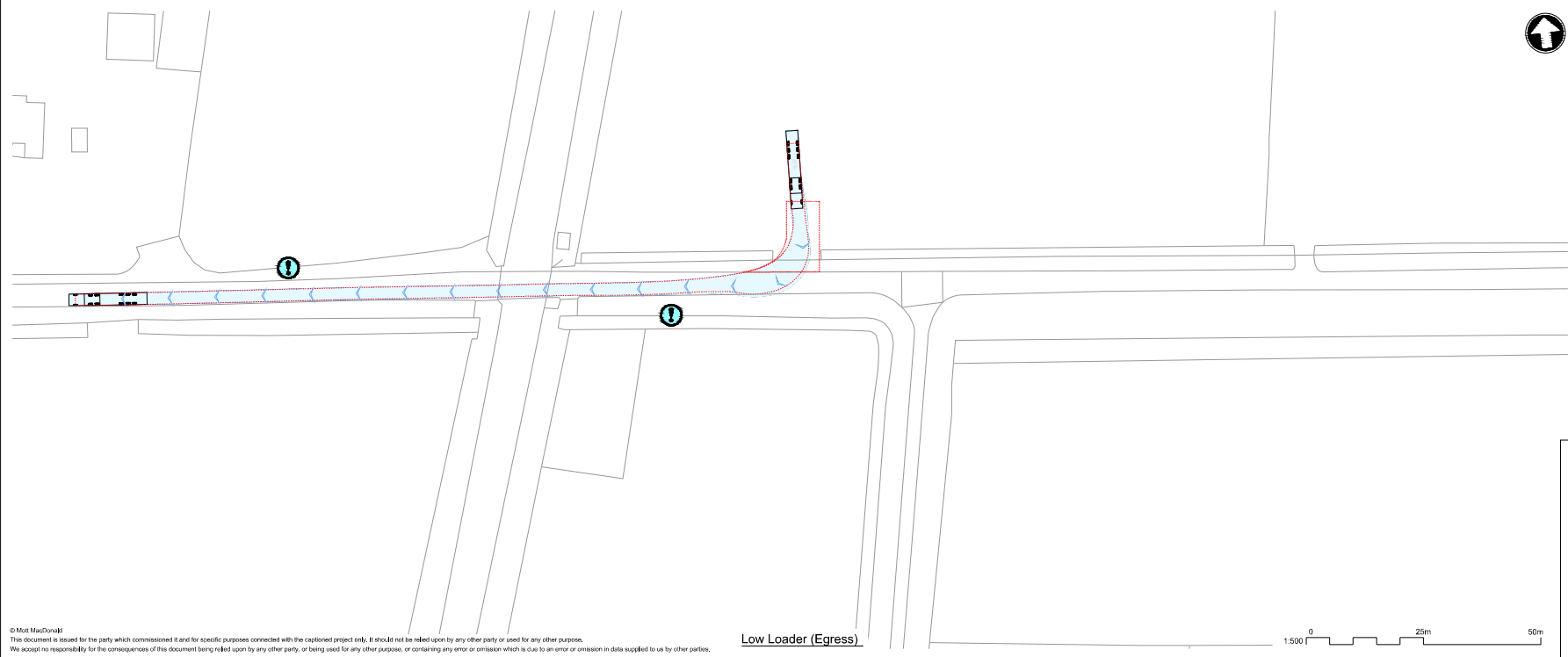
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- 15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo,**



Vehicle Tracking - Vehicle Data

	Low Loader
Overall Length	16.633m
Overall Width	2.500m
Overall Body Height	3.388m
Max Track Width	2.500m
Kerb to Kerb Turning Radius	16.700m

	Large Mobile Crane
Overall Length	12.300m
Overall Width	2.438m
Overall Body Height	2.438m
Track Width	2.438m
Kerb to Kerb Turning Radius	10.000m

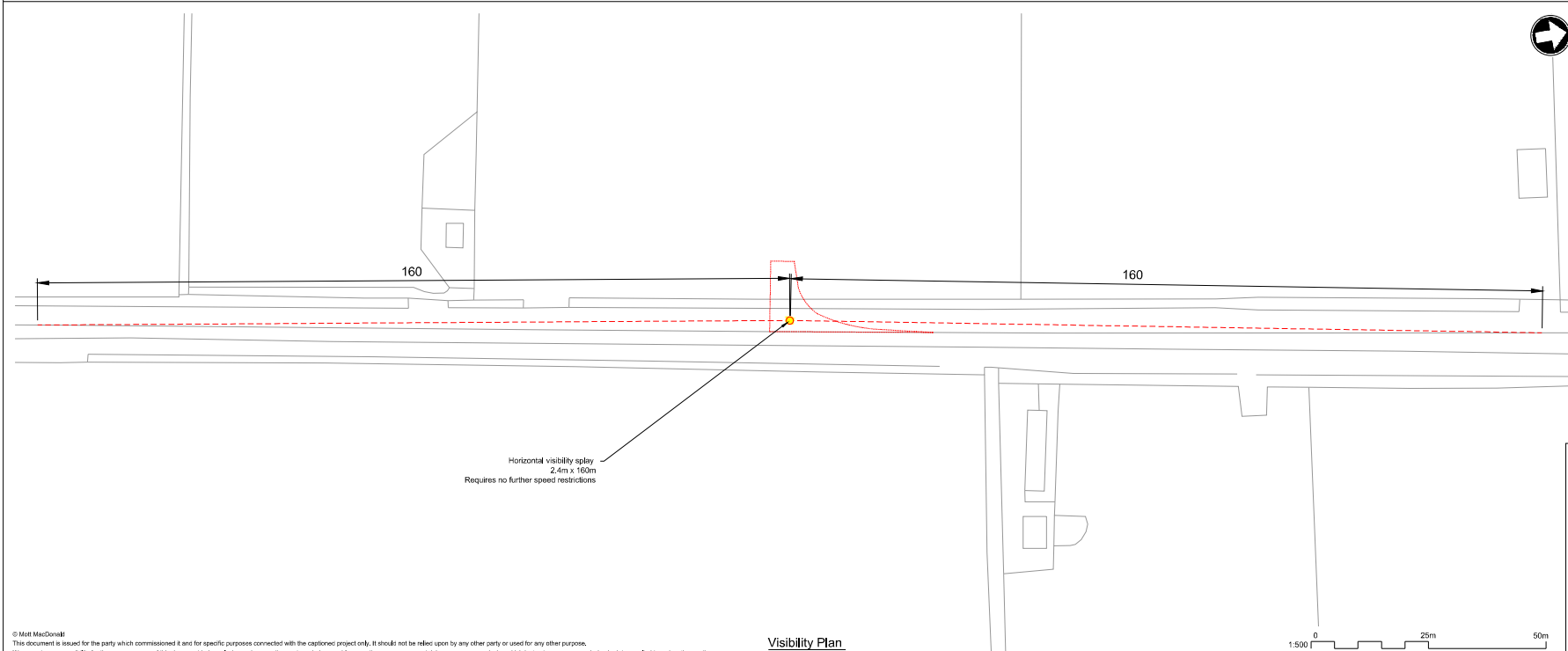
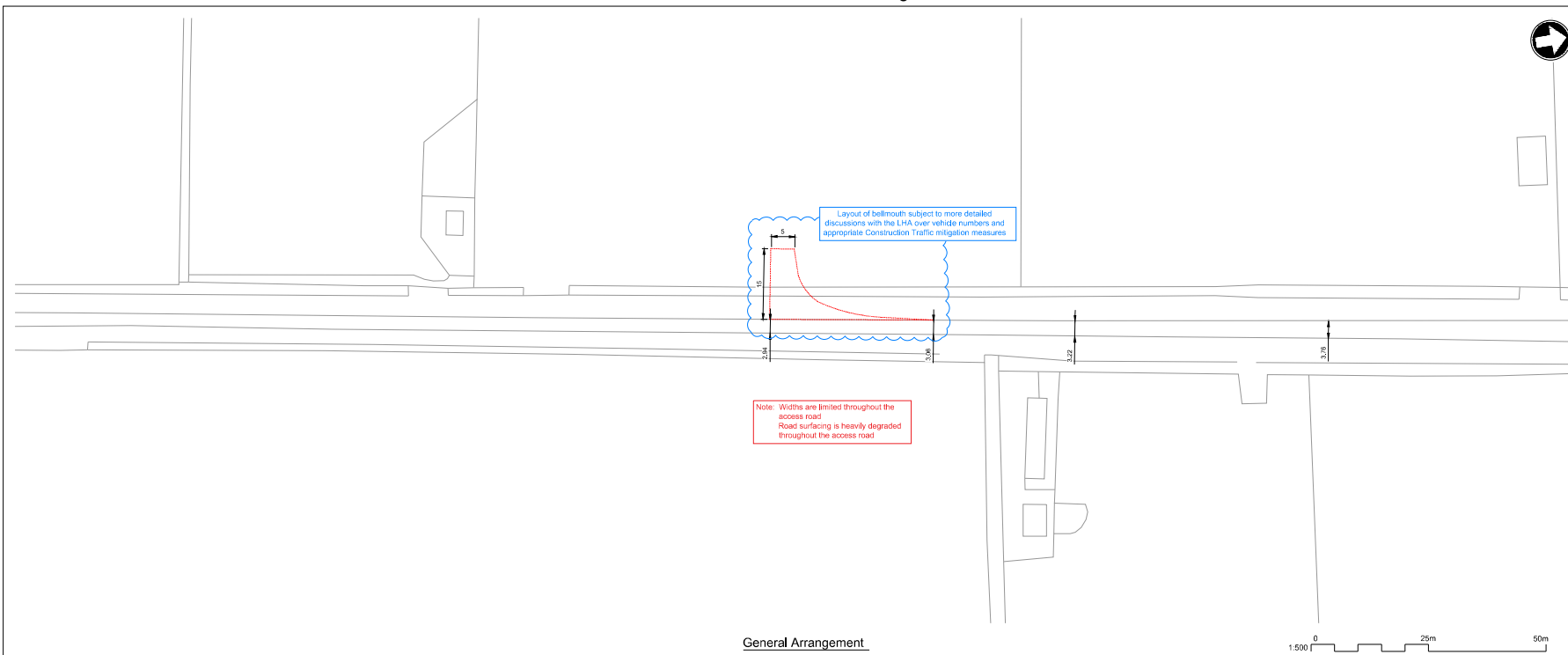


- Vehicle Tracking - Risks & Compliance
- Risks**
- Kerb overrun
 - Restrictive road width

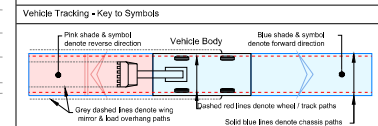
P1	ADC	Draft for Discussion / Review.	AKK	AKK
Rev	Date	Drawn	Description	Drawn



Title Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions COA14 Highways GA, Visibility Splay and Vehicle Tracking				
Designed	A.D. Castles	ADC	Eng check	E. Case
Drawn	-	-	Coordination	A.M. Rawlings
Dwg check	-	-	Approved	-
Scale	1:500	Status	PRE	Rev
Sheet	102375-MMD-01-XX-DR-C-DRAFT	Section	P1	Sec
Drawing 102375-MMD-01-XX-DR-C-DRAFT				



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15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo,



- Vehicle Tracking - Risks & Compliance
- High Risks**
- H1** Explanation of risk,

Vehicle Tracking - Notes

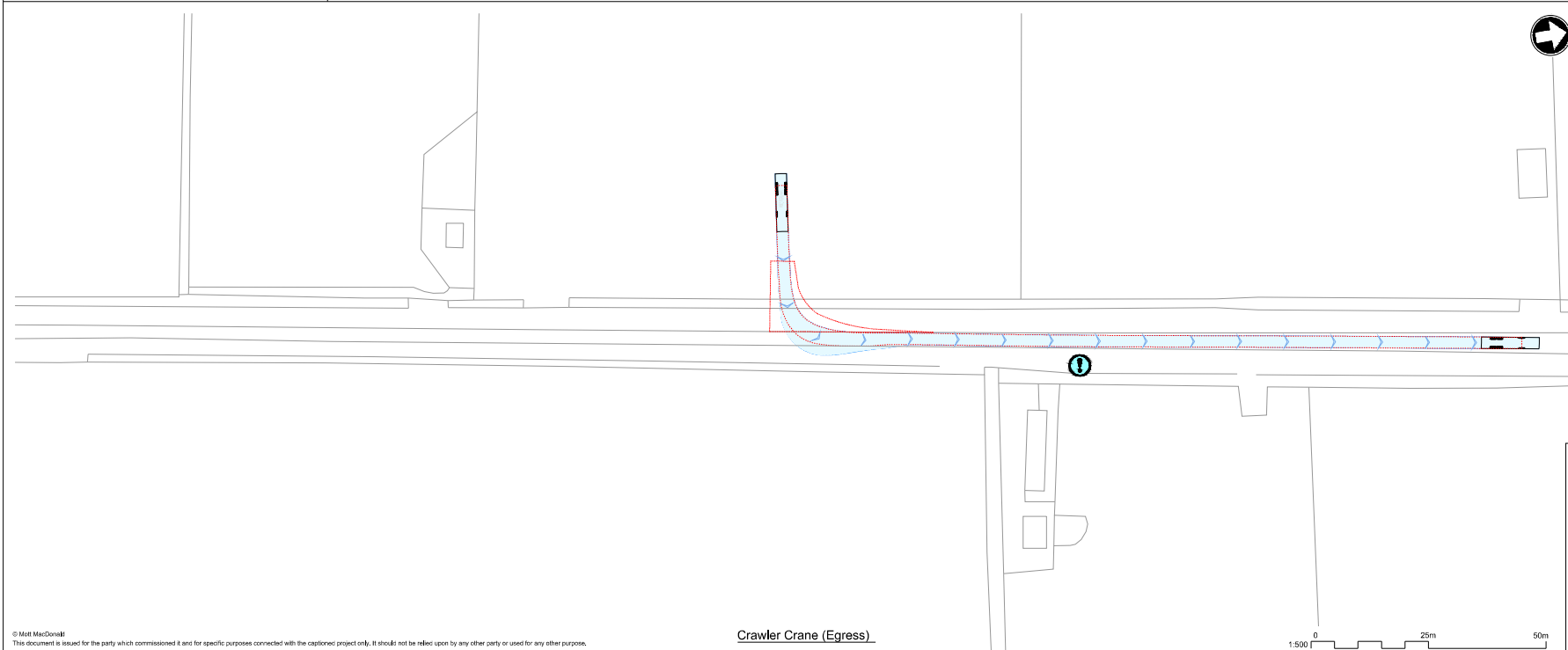
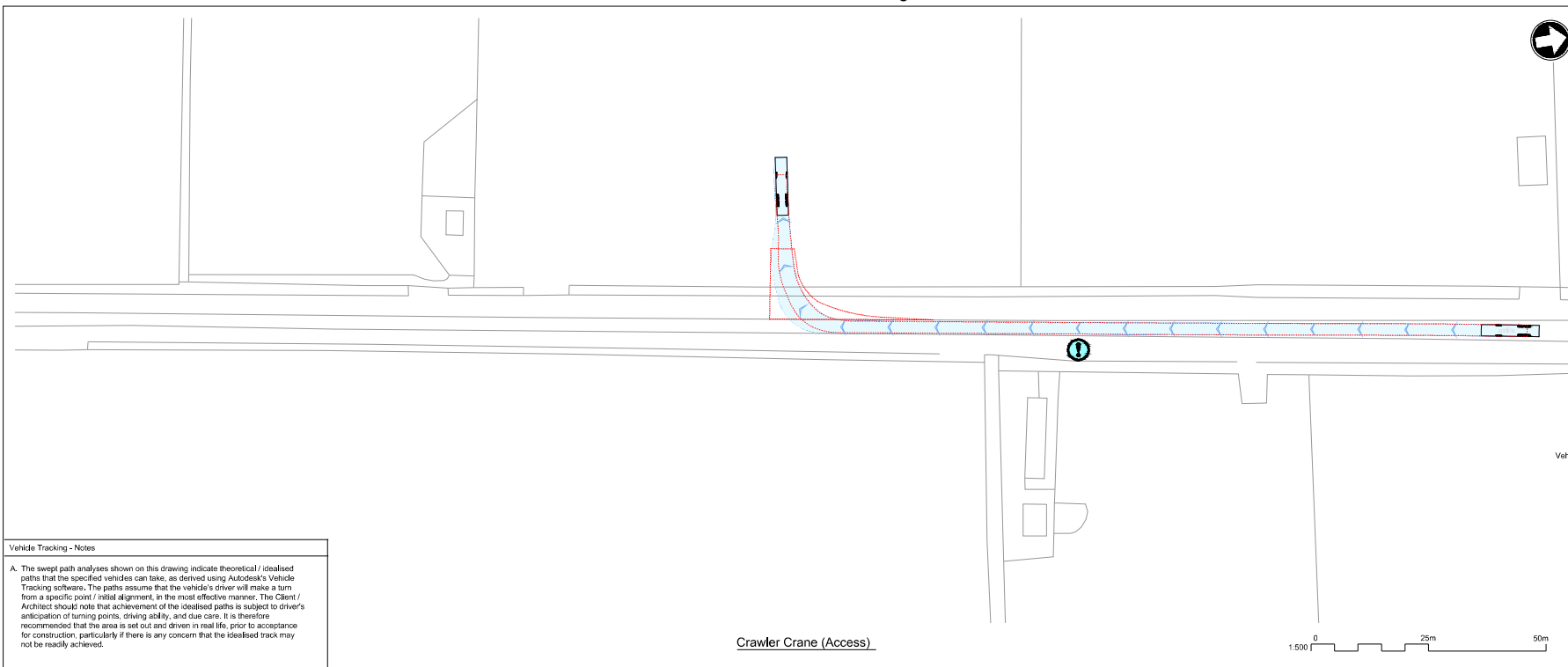
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P1	160	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Drawn	Checked

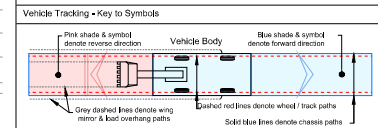


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
CA26
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR
Scale	1:500	Status	PRE	Rev	P1
Section	STD	Section	STD	Section	STD
Drawing No	102375-MMD-01-XX-DR-C-DRAFT	Revision	1	Revision	1



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Vehicle Tracking - Vehicle Details



Low Loader

Overall Length	16.630m
Overall Width	2.500m
Overall Body Height	3.360m
Max Track Width	2.500m
Kerb to Kerb Turning Radius	16.760m



Large Mobile Crane

Overall Length	12.200m
Overall Width	2.430m
Overall Body Height	3.360m
Track Width	2.430m
Kerb to Kerb Turning Radius	10.000m

Vehicle Tracking - Risks & Compliance

Risks

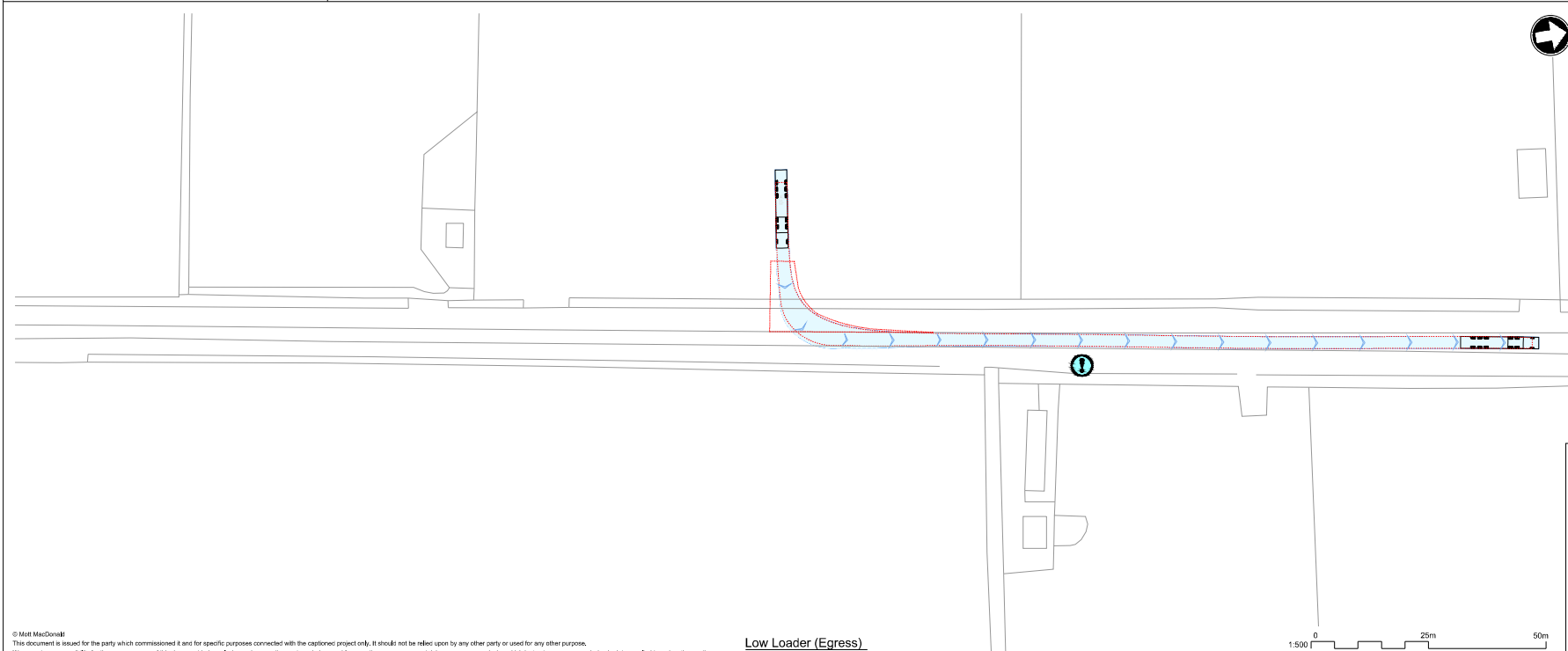
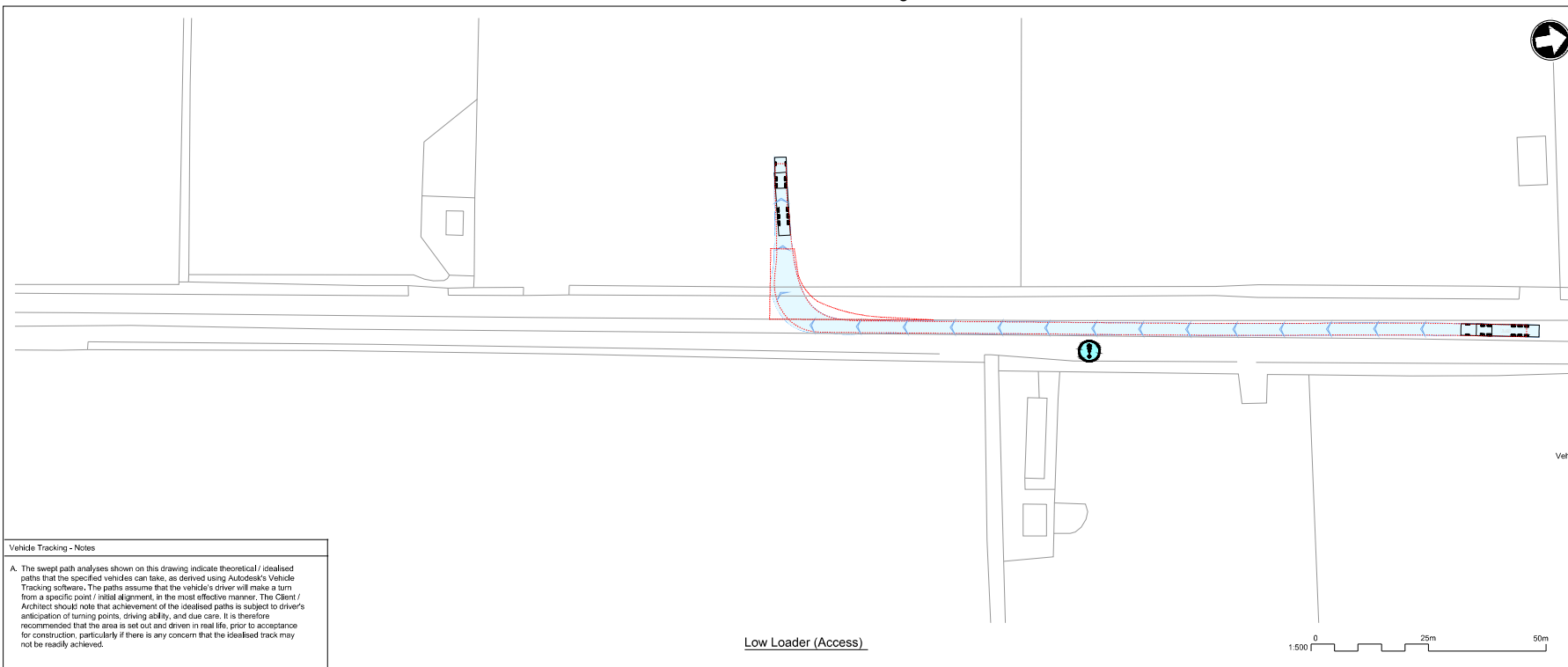
- Kerb overrun
- Restrictive road width

P1	10/23/25	ADC	Draft for Discussion / Review.	AKK	AKK
Rev	Date	Drawn	Description	Drawn	Checked

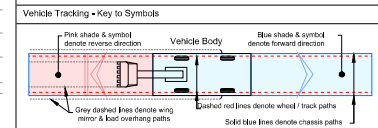


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
CA26
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR
Scale	1:500	Stat	PRE	P1	Sec STD
Drawn	10/23/25	MMD-01-XX-DR-C-DRAFT			



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Vehicle Tracking - Risks & Compliance

Risks	
	Kerb overrun
	Restrictive road width

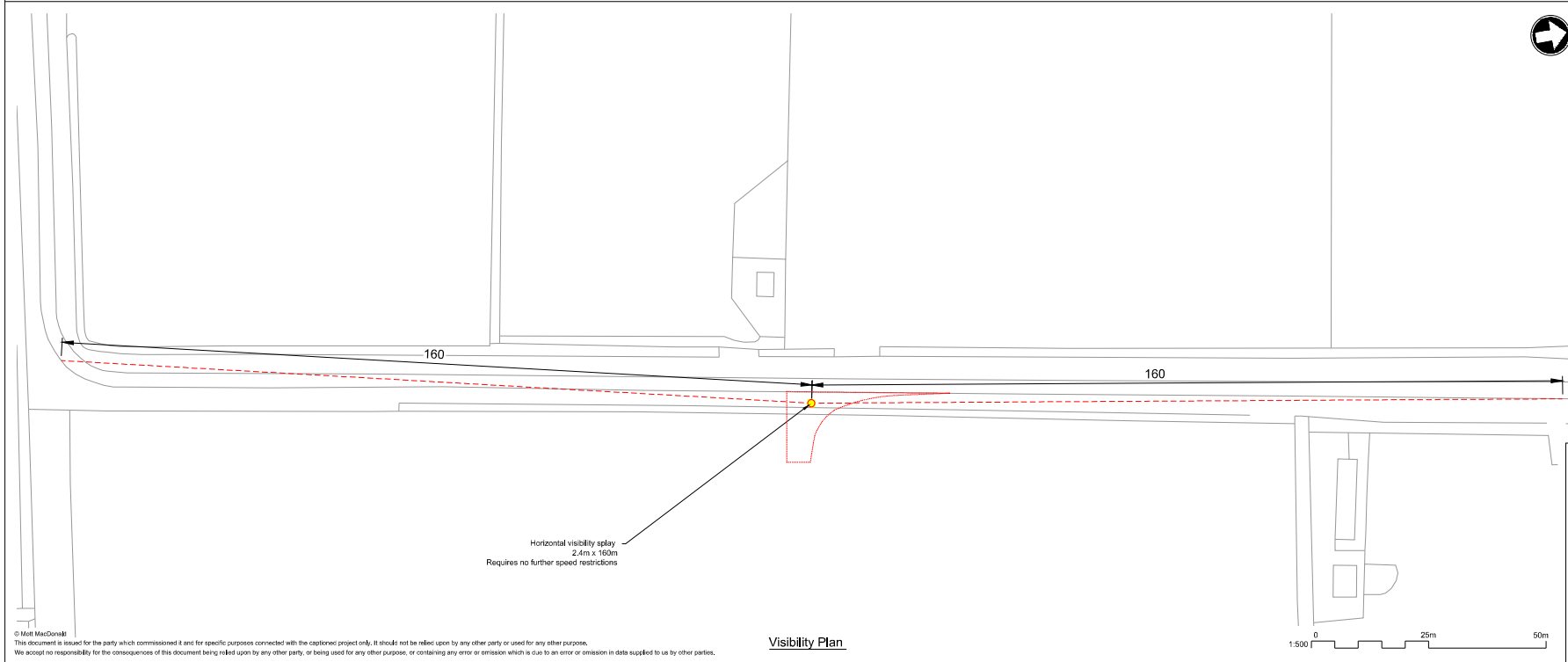
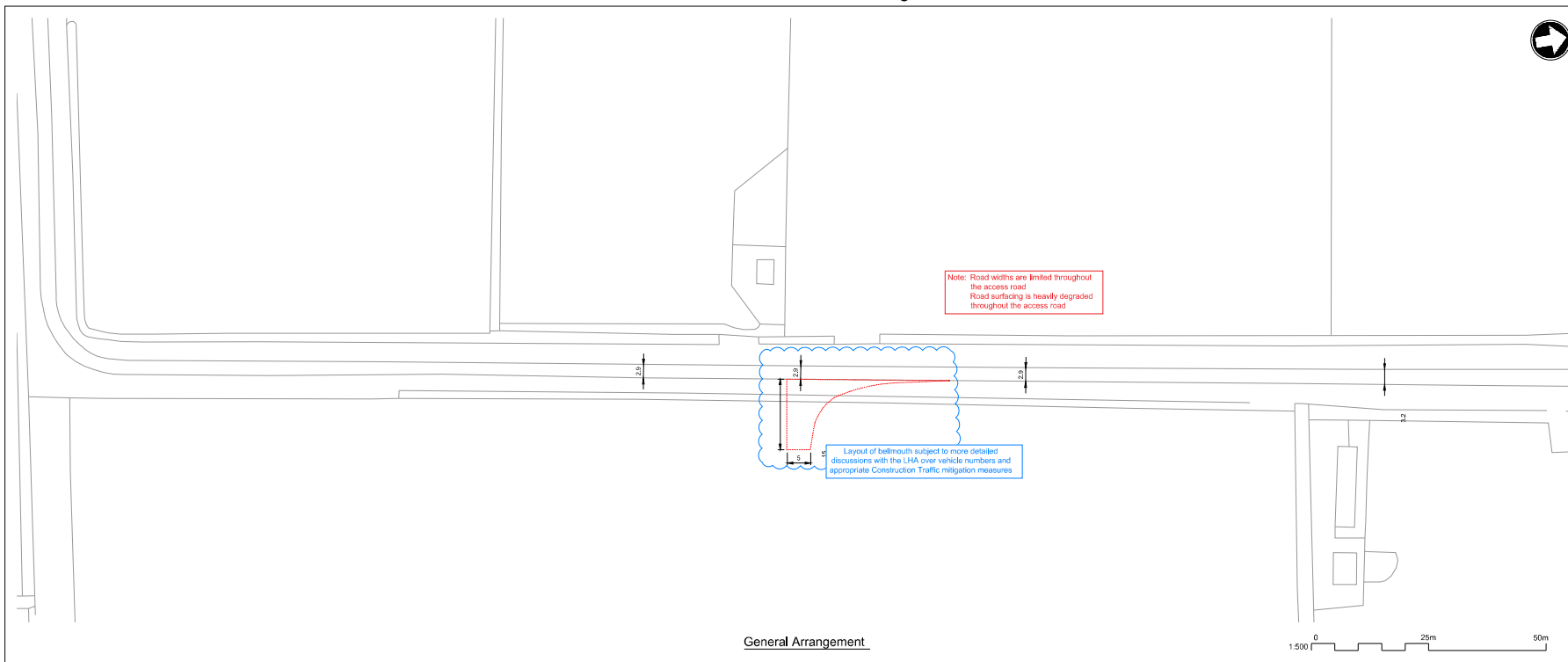
P1	10/23/25	ADC	Draft for Discussion / Review.	AKK	AKK
Rev	Date	Drawn	Description	Rev	Drawn



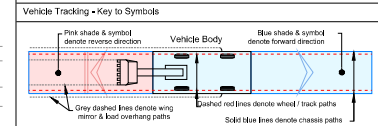
Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
CA26
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR
Scale	1:500	Status	PRE	Rev	P1
Section	STD	Rev	STD	Rev	STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Vehicle Details

Low Loader	
Overall Length	16.630m
Overall Width	2.500m
Overall Body Height	3.360m
Max Track Width	2.500m
Kerb to Kerb Turning Radius	16.700m

Large Mobile Crane	
Overall Length	12.300m
Overall Width	2.430m
Overall Body Height	2.430m
Track Width	2.430m
Kerb to Kerb Turning Radius	10.000m

Vehicle Tracking - Risks & Compliance

High Risks	
H1 Explanation of risk,	

Vehicle Tracking - Notes

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P1	15/05/2022	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Drawn	Checked

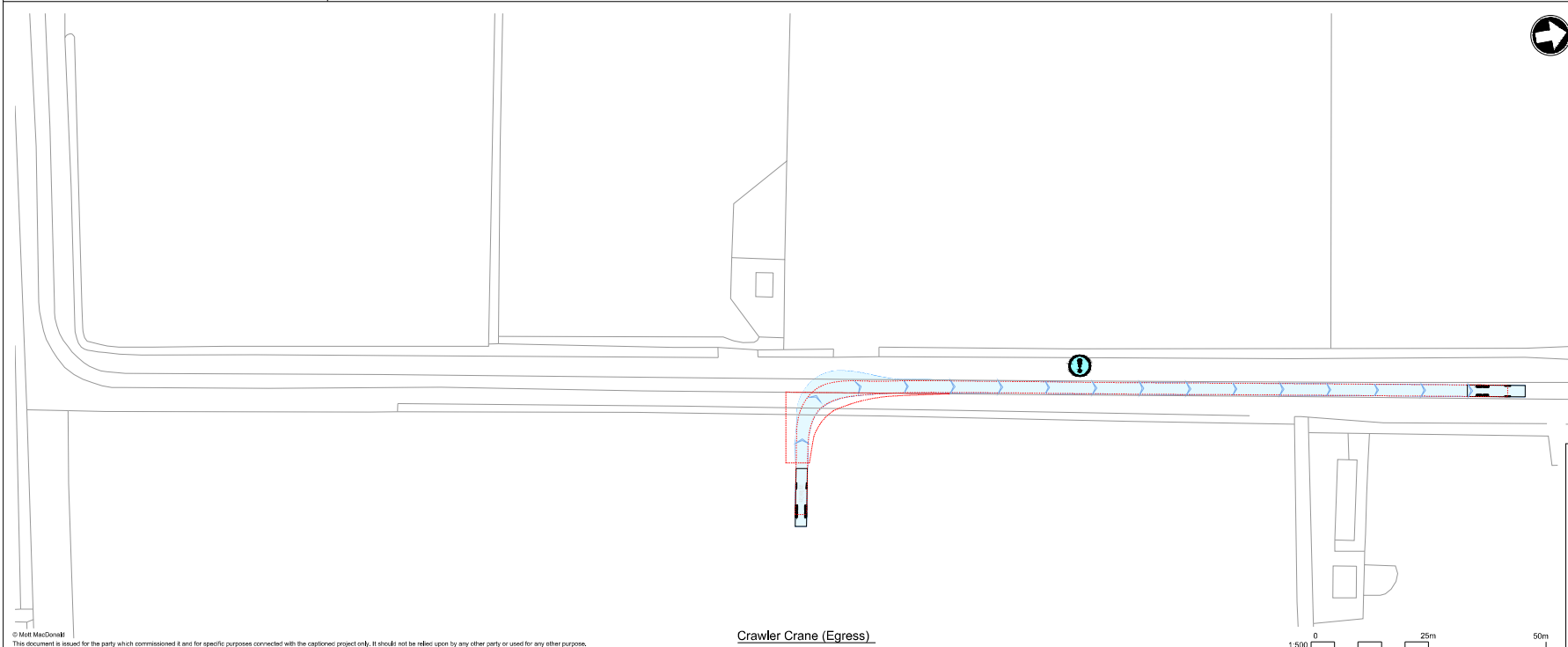
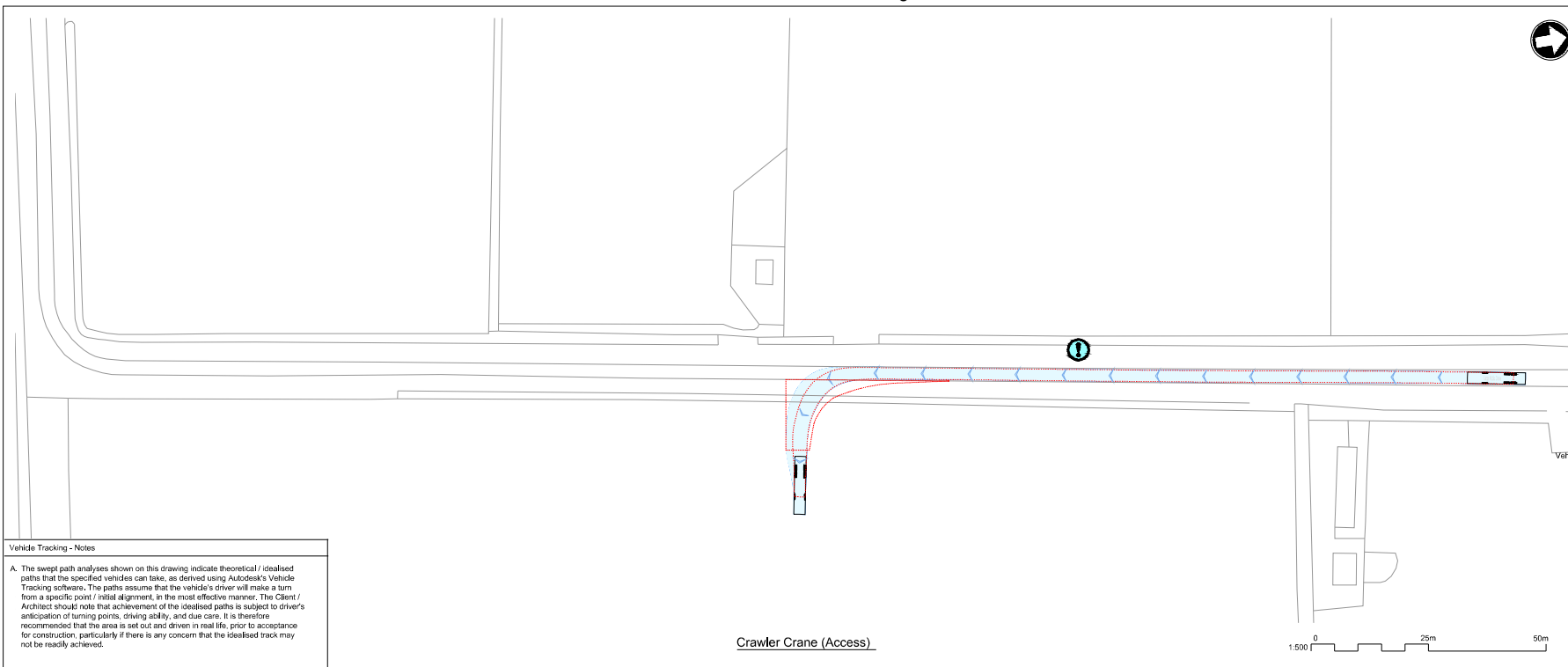


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA13
Highways GA, Visibility Splay and
Vehicle Tracking

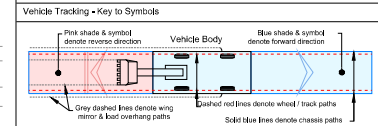
Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR

Scale	1:500	Status	PRE	Rev	P1	Sec	STD
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Drawing 102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Risks & Compliance

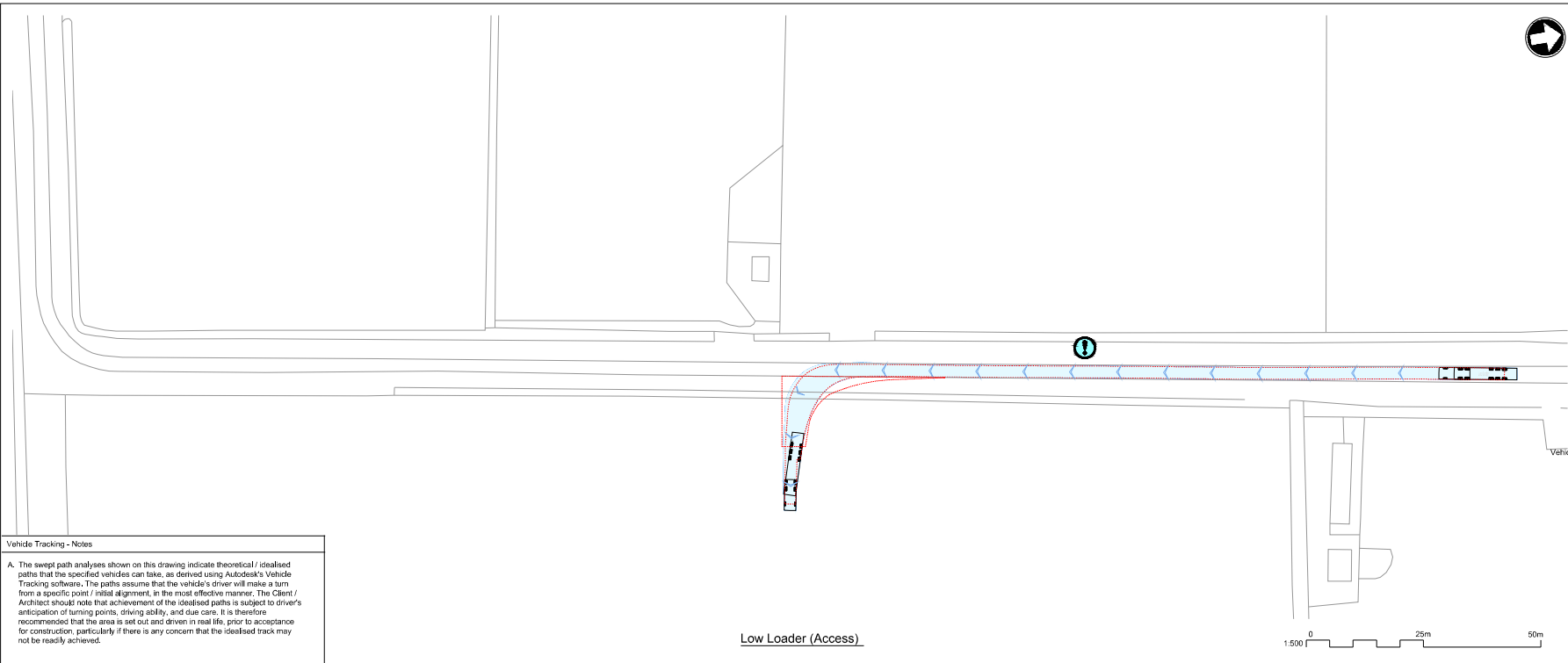
Risks			
Kerb overrun			
Restrictive road width			

P1	10/23/25	ADC	Draft for Discussion / Review.	AKK	AKK
Rev	Date	Drawn	Description	Checked	Drawn



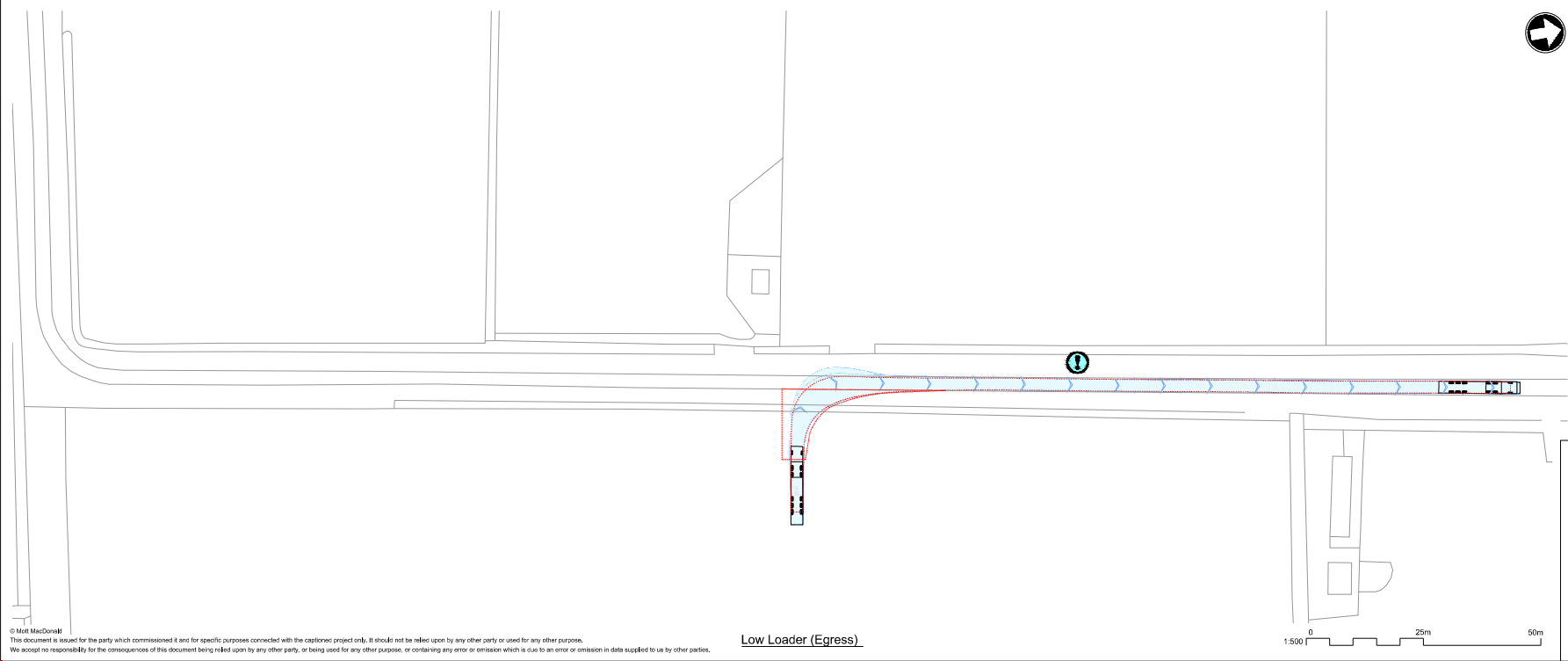
Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA13
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	Coordination	A.M. Rawlings	AMR
Dwg check			Approved		
Scale	1:500	Stat	PRE	P1	Sec STD
Drawing 102375-MMD-01-XX-DR-C-DRAFT					



Vehicle Tracking - Notes

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15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo,

Vehicle Tracking - Key to Symbols

Pink shade & symbol denote reverse direction
Blue shade & symbol denote forward direction
Gray dashed lines denote wing mirror & lost overhang paths
Dashed red lines denote wheel / track paths
Solid blue lines denote chassis paths

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

Client

Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA13
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	-	-	Coordination	A.M. Rawlings	AMR
Dwg check	-	-	Approved	-	-
Scale	1:500	Stat	PRE	P1	Sec STD

Drawing 102375-MMD-01-XX-DR-C-DRAFT

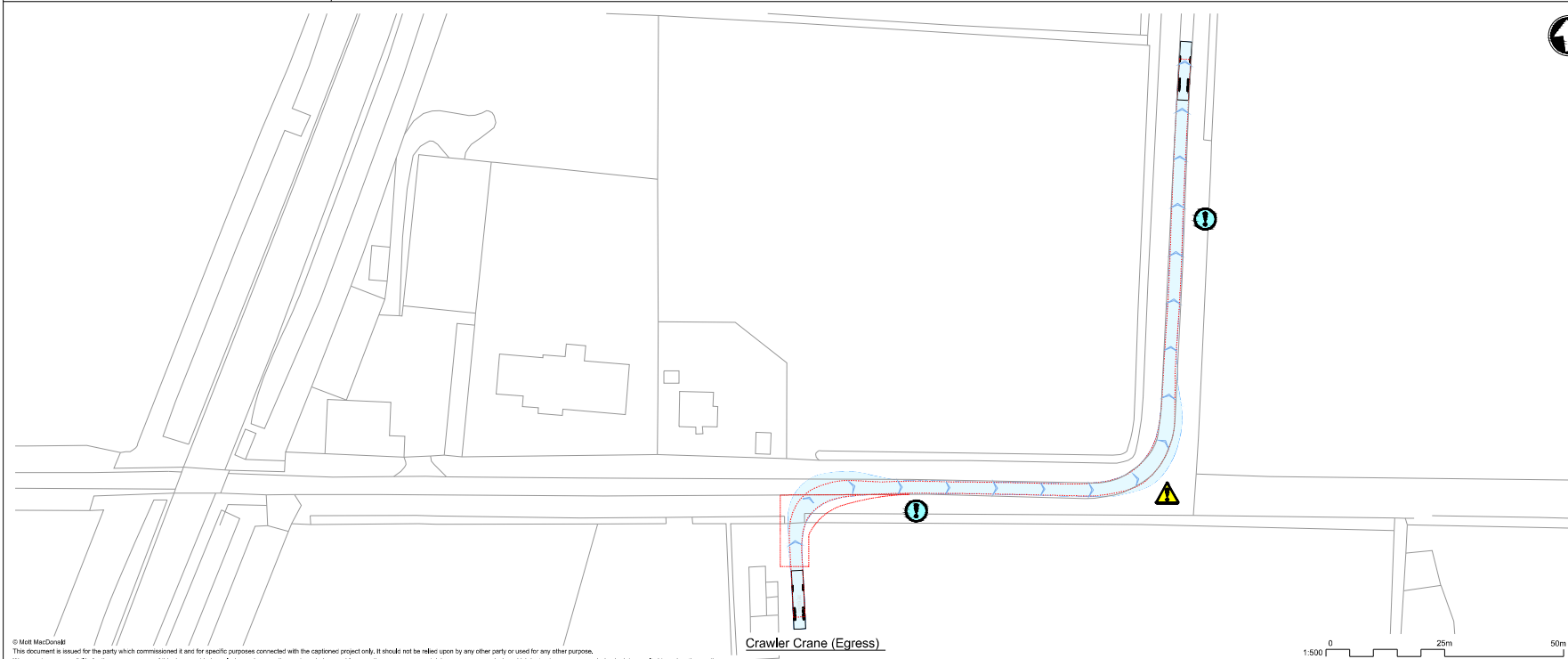
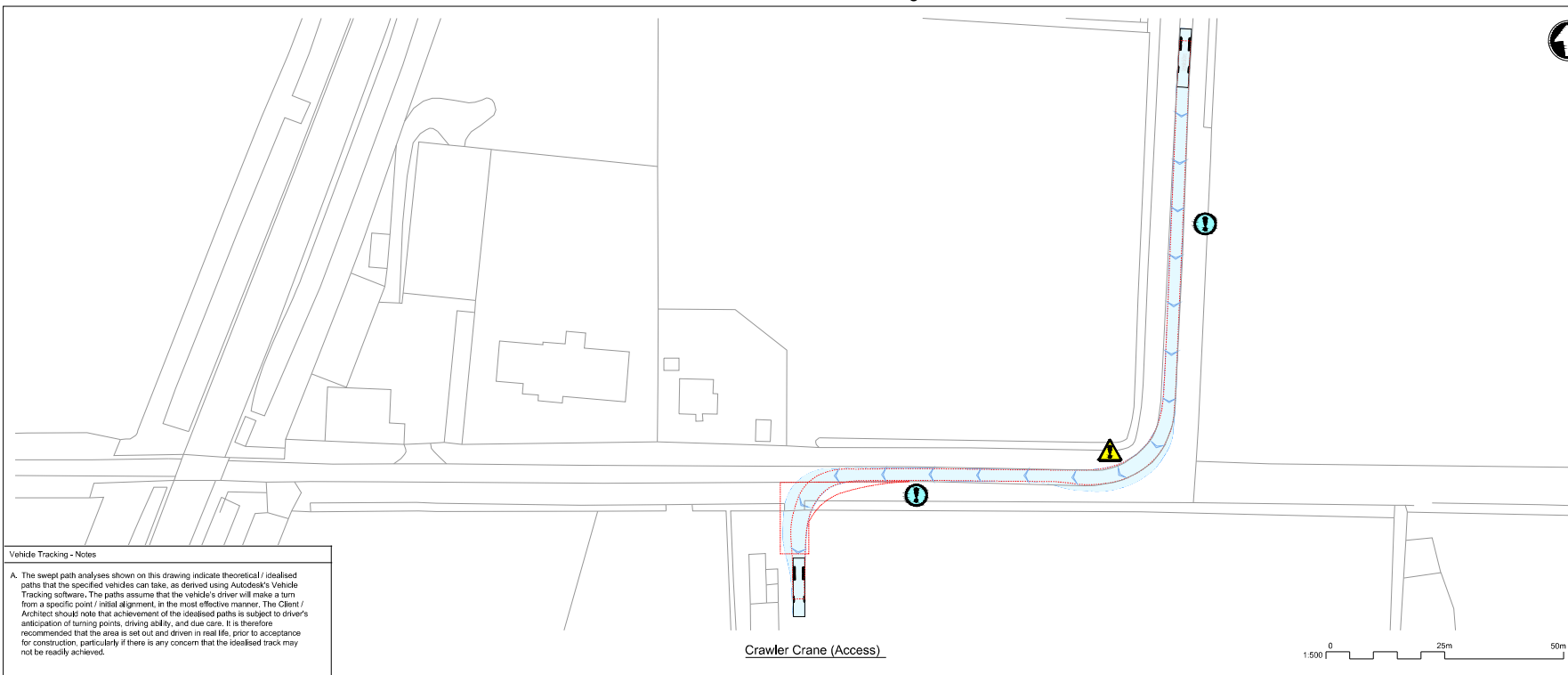


Large Mobile Crane	
Overall Length	12.300m
Overall Width	2.430m
Overall Body Height	3.386m
Track Width	2.430m
Kerb to Kerb Turning Radius	10.000m

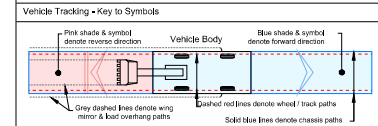
Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Drawing Number	100875-MMD-01-XX-DR-C-DRAFT		



- Notes**
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 - The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 - Cambridge Waste Water Treatment Works Relocation is a brownfield site and the design is subject to change during future stages of the design development of this option.
- 15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo,**



Vehicle Tracking - Risks & Compliance

Risks

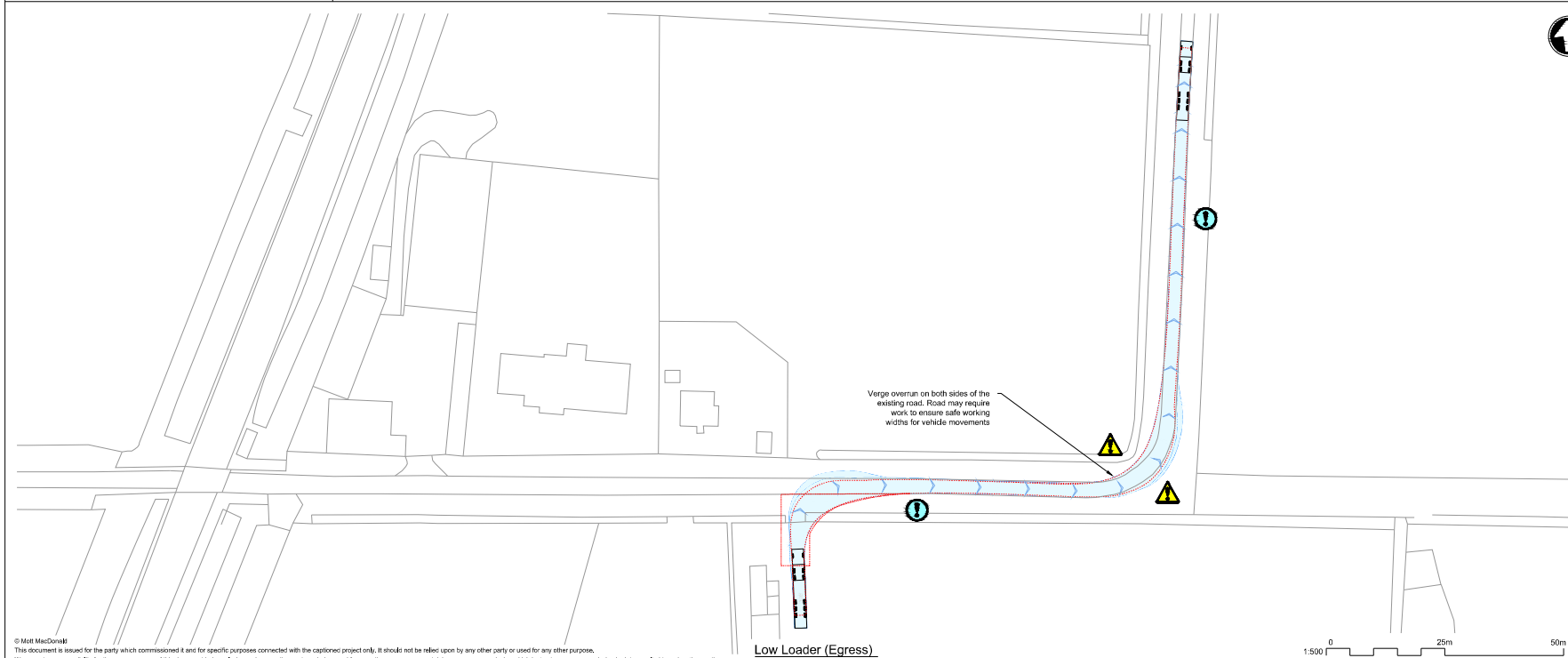
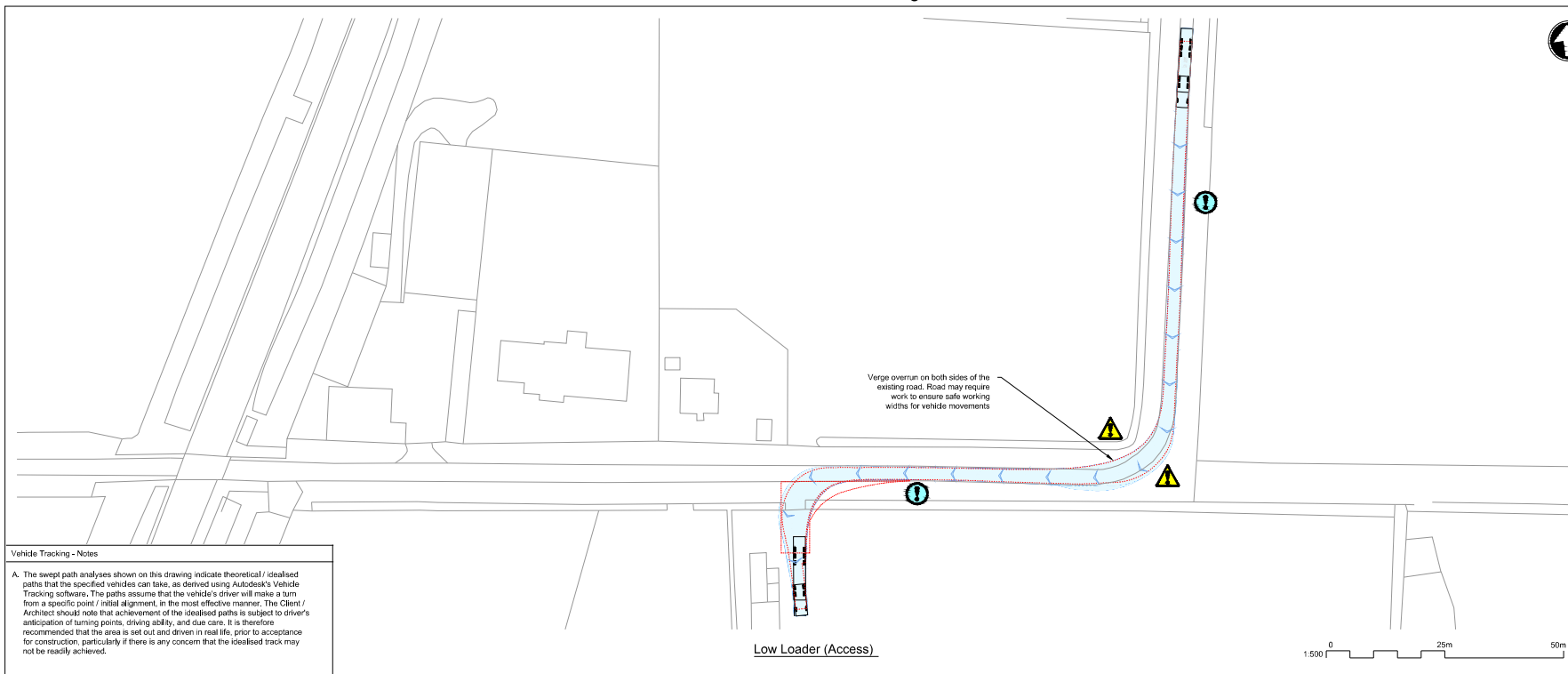
Warning sign symbol	Kerb overrun
Information sign symbol	Restrictive road width

P1	102375-MMD-01-XX-DR-C-DRAFT	ADC	Draft for Discussion / Review.	ARX	ARX
Rev	Date	Drawn	Description	Checked	Drawn



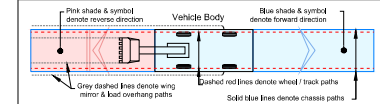
Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA12
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	-	ADC	Coordination	E. Case	EC
Dwg check	-	ADC	Approved	A.M. Rawlings	AMR
Scale	1:500	Status	PRE	Rev	P1
Section	STD	Sheet	102375-MMD-01-XX-DR-C-DRAFT	Drawn	102375-MMD-01-XX-DR-C-DRAFT



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- 15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo,**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Risks & Compliance

Risks



P1	15 May 2022	ADC	Draft for Discussion / Review.	AKK	AKK
Rev	Date	Drawn	Description	Rev	Drawn

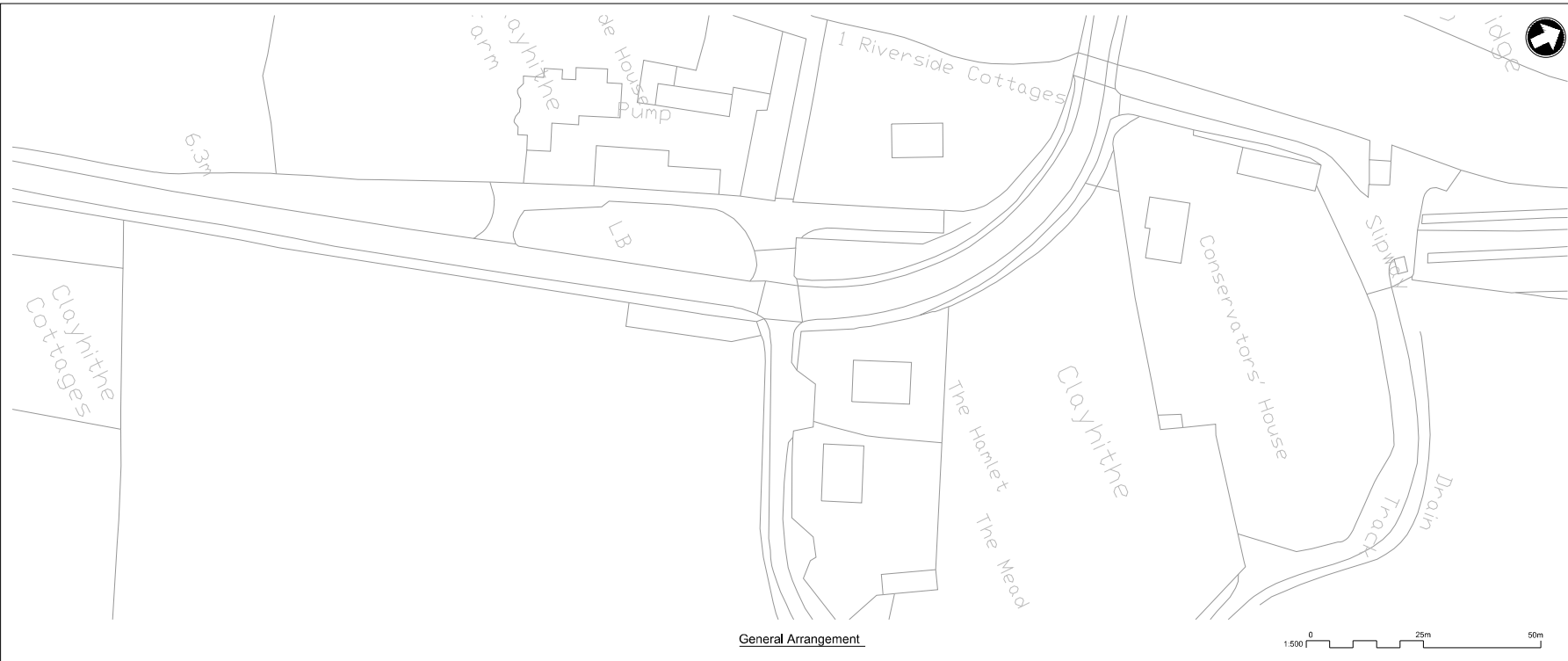


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA12
Highways GA, Visibility Splay and
Vehicle Tracking

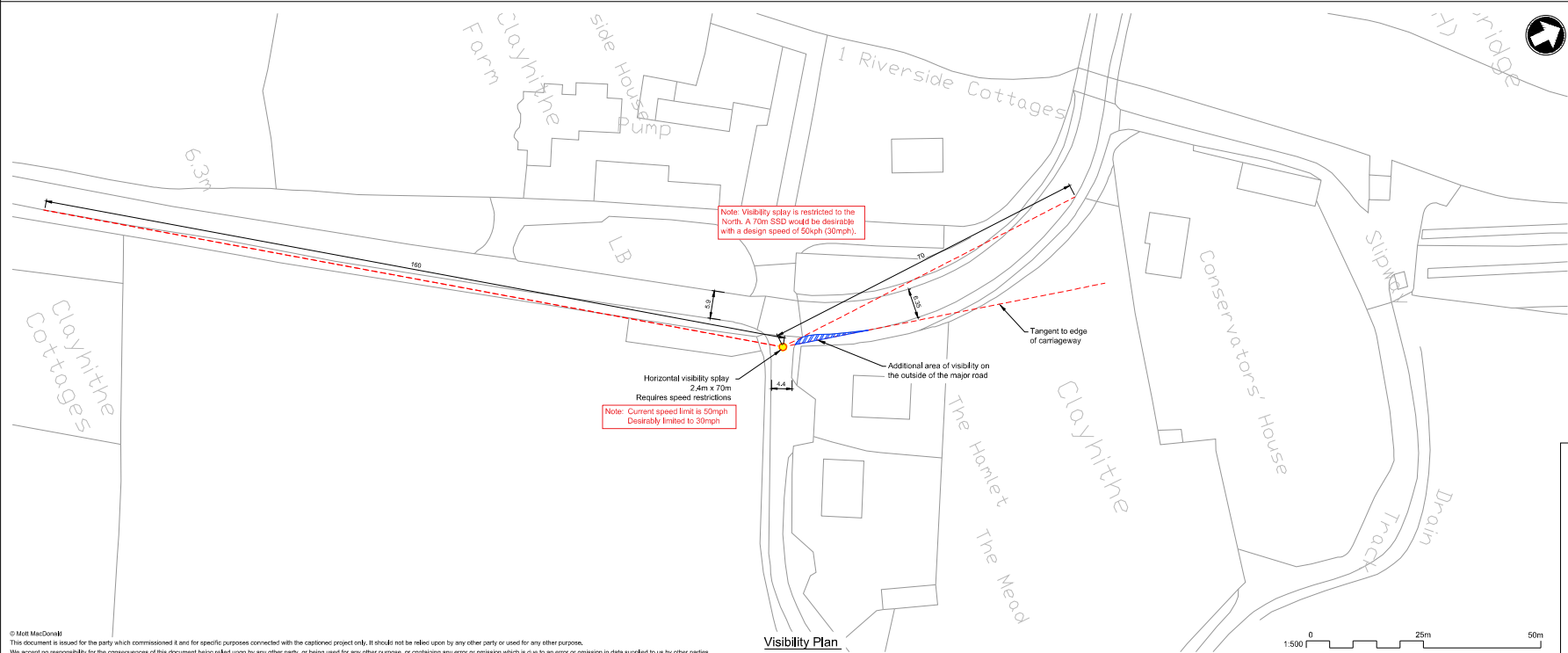
Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR

Scale: 1:500 Status: PRE Rev: P1 Sec: STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT



General Arrangement



Visibility Plan

Notes

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- The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
- The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
- The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
- Cambridge Waste Water Treatment Works Relocation is a brownfield site and the proposed land take is acceptable for the site.
- The design is subject to change and additional land take is acceptable for the site.

15. DRAWINGS MUST BE READ IN CONJUNCTION with the Technical Memo,

Vehicle Tracking - Key to Symbols

Gray dashed lines denote wing mirror & lost overhang paths
Dashed red lines denote wheel / track paths
Solid blue lines denote chassis paths

Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Body Height	Max Track Width	Kerb to Kerb Turning Radius
Low Loader	16.630m	2.500m	3.360m	2.500m	16.700m
Large Mobile Crane	12.300m	2.450m	2.450m	2.450m	10.000m

Vehicle Tracking - Risks & Compliance

High Risks
H1 Explanation of risk,

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

P1	ABC	ABC	ABC	ABC	ABC
Rev	Date	Drawn	Description	Rev	Date

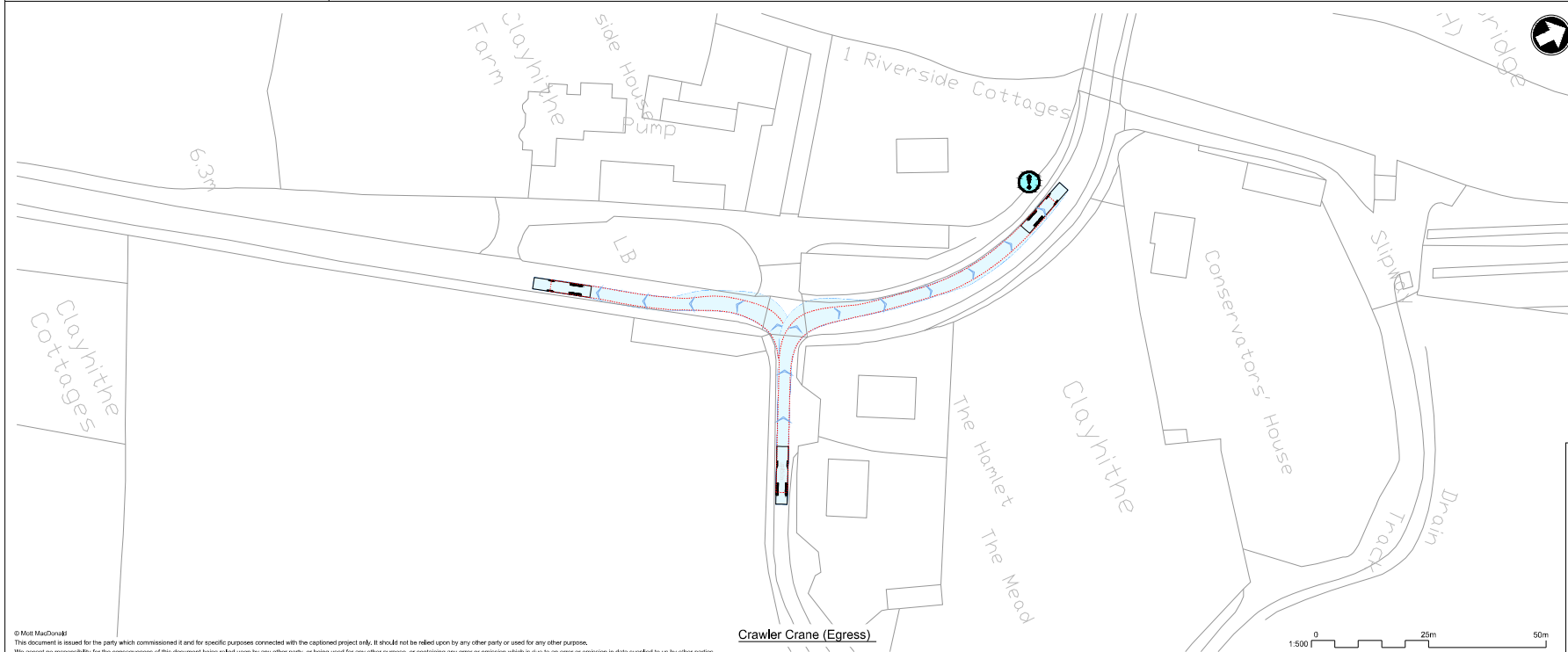
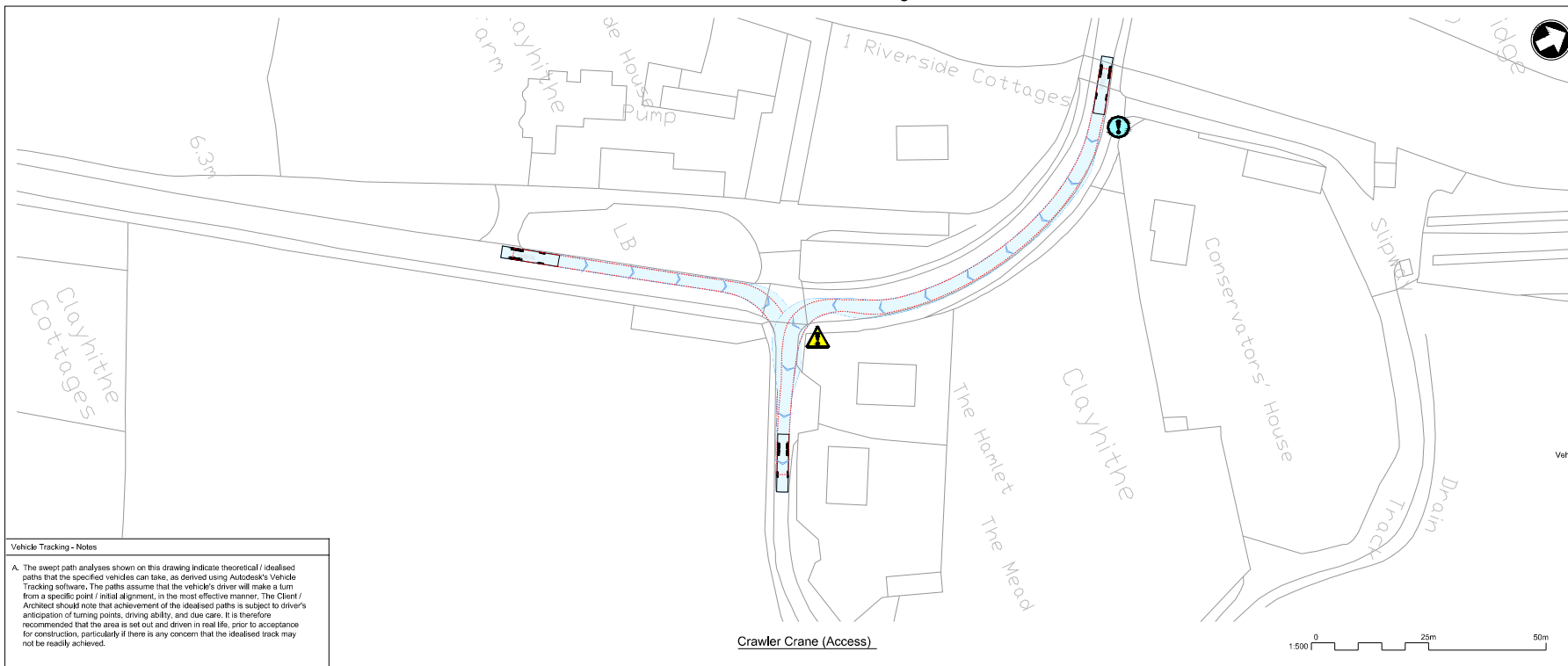
Client

Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA20
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ABC	Eng check	E Case	EC
Drawn	A.D. Castles	ABC <td>Coordination<td>E Case</td><td>EC</td></td>	Coordination <td>E Case</td> <td>EC</td>	E Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR

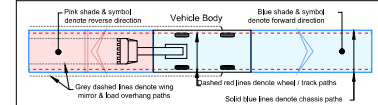
Scale: 1:500 Stat: PRE Rev: P1 Sec: STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT



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 5. The drawing is based on OS mapping information and LiDAR data.
 6. The information is preliminary and subject to further detailed design.
 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
 8. The drawing does not include any information on proposed highway drainage and associated SUBS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
- Cambridge Waste Water Treatment Works Relocation is a sensitive area, the proposed land take is a sensitive area and should be determined during future stages of the design development of this option.
- 15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo,**

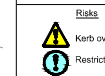
Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details



Vehicle Tracking - Risks & Compliance



P1	ADC	Draft for Discussion / Review.	AMK	AMK
Rev	Date	Drawn	Description	Drawn

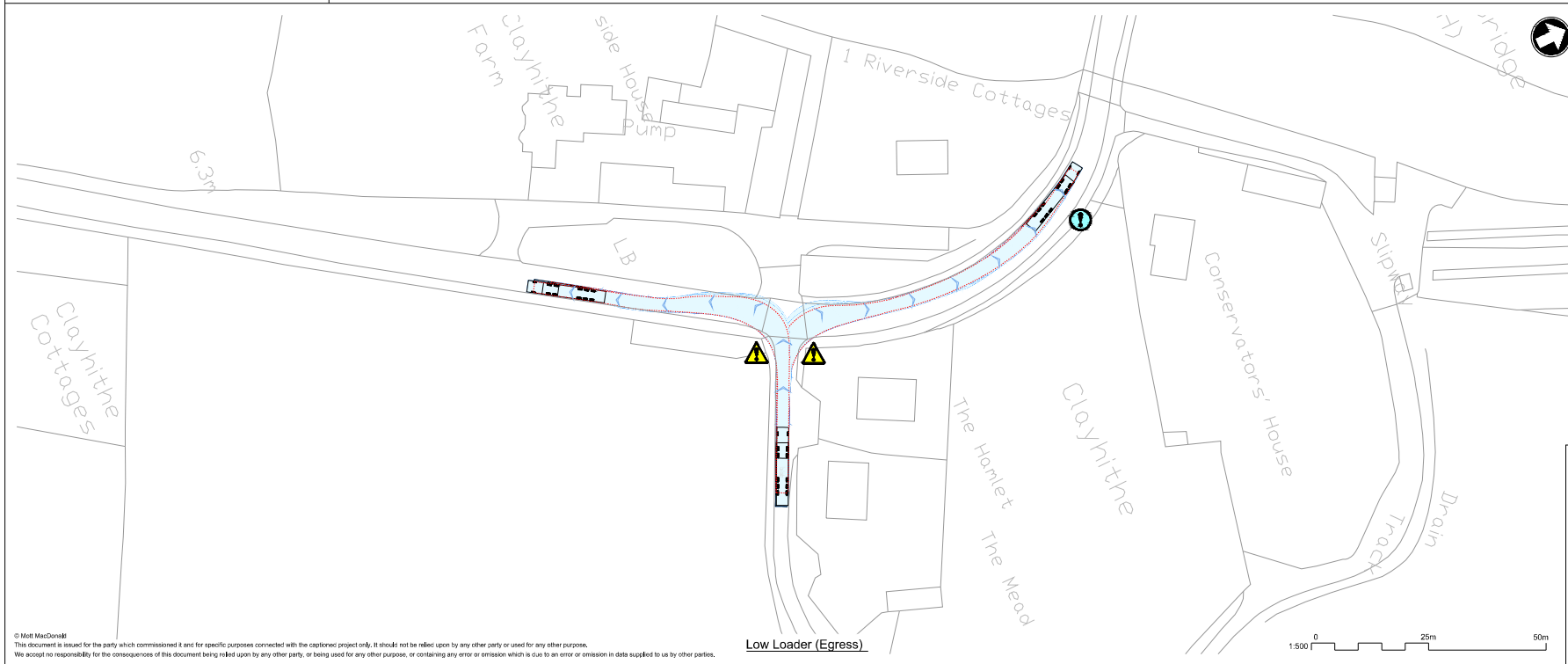
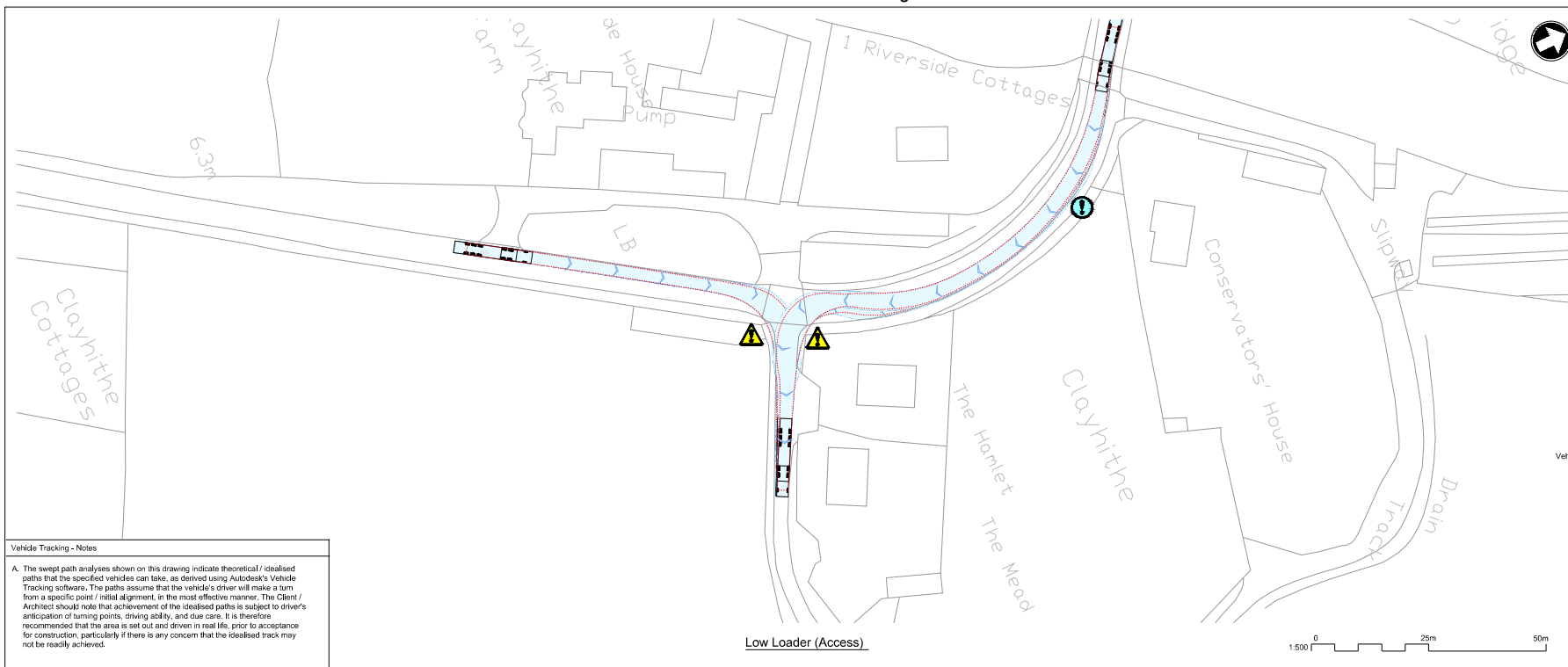
Client



Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA20
Highways GA, Visibility Splay and
Vehicle Tracking

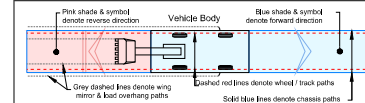
Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR
Scale	1:500	Status	PRE	Rev	P1
Section	4	Sheet	STD	Section	STD

Drawing 102375-MMD-01-XX-DR-C-DRAFT



- Notes**
1. Do not scale from this drawing.
 2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All elevations and levels should be checked on site.
Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald by email at the address below.
 3. This drawing has been prepared for the initial high-level engineering study for the COWHIV project.
 5. The drawing is based on OS mapping information and LIDAR data.
 6. The information is preliminary and subject to further detailed design.
 7. The design has not been submitted to the Highway Authority or Highway Engineer for technical review.
The drawing does not include any information on proposed highway drainage and flood risk issues, existing or proposed structures or other existing facilities that may need to be protected or diverted as part of the works.
 8. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and sectional level lanes.
 10. The drawings do not indicate any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:2 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste
~~Water Resources and Environment Ltd is not responsible for any errors or omissions in this document~~
the design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads. Cambridge Waste Water Resources and Environment Ltd is not responsible for any errors or omissions in this document
- 16. AN INFORMATION SHEET IN CONJUNCTION WITH THE TECHNICAL Memo**

Vehicle Tracking - Key to Symbols



Large Mobile Crane	
Overall Length	12.300m
Overall Width	2.430m
Overall Body Height	3.386m
Track Width	2.430m
Kerb to Kerb Turning Radius	10.000m

Vehicle Tracking - Risks & Compliance

Risks



P1		ADC	Draft for Discussion / Review.	AMR	AMR
Rev	Date	Drawn	Description	Chk'd	App'd

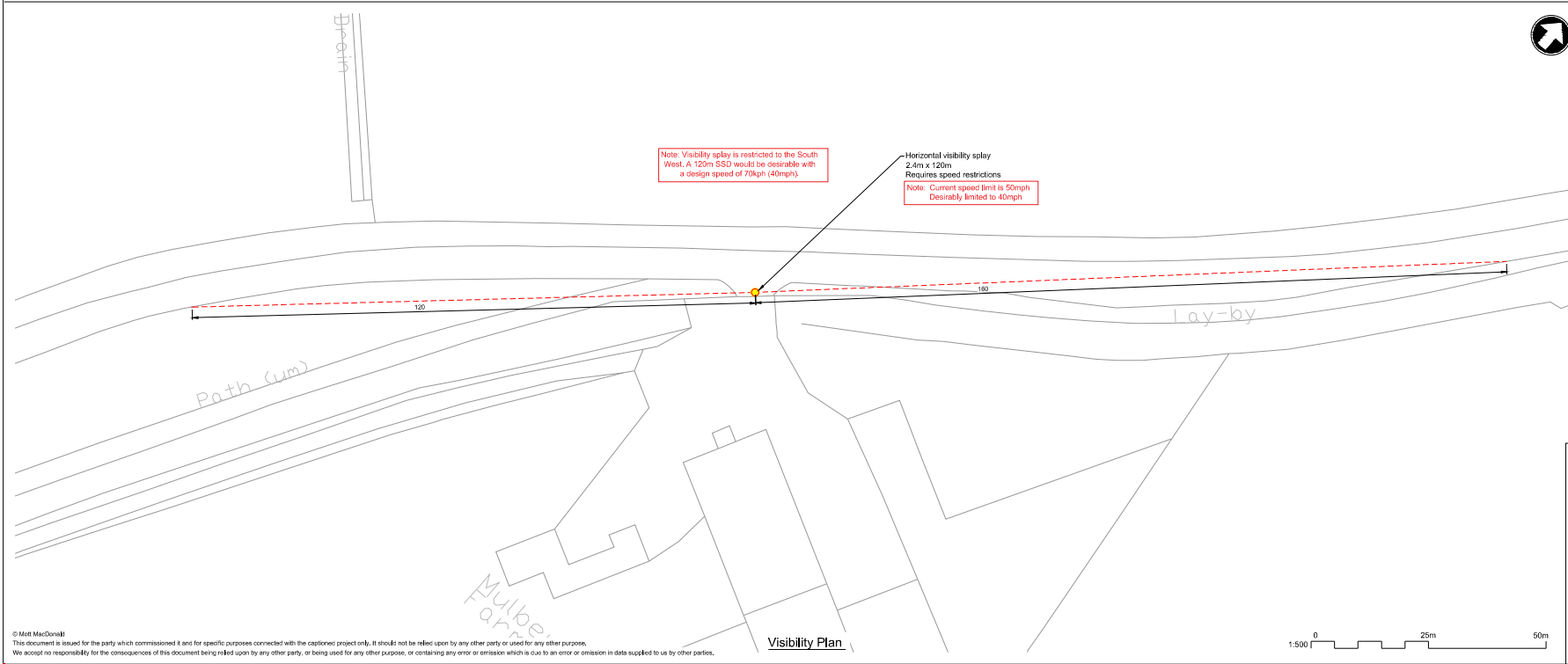
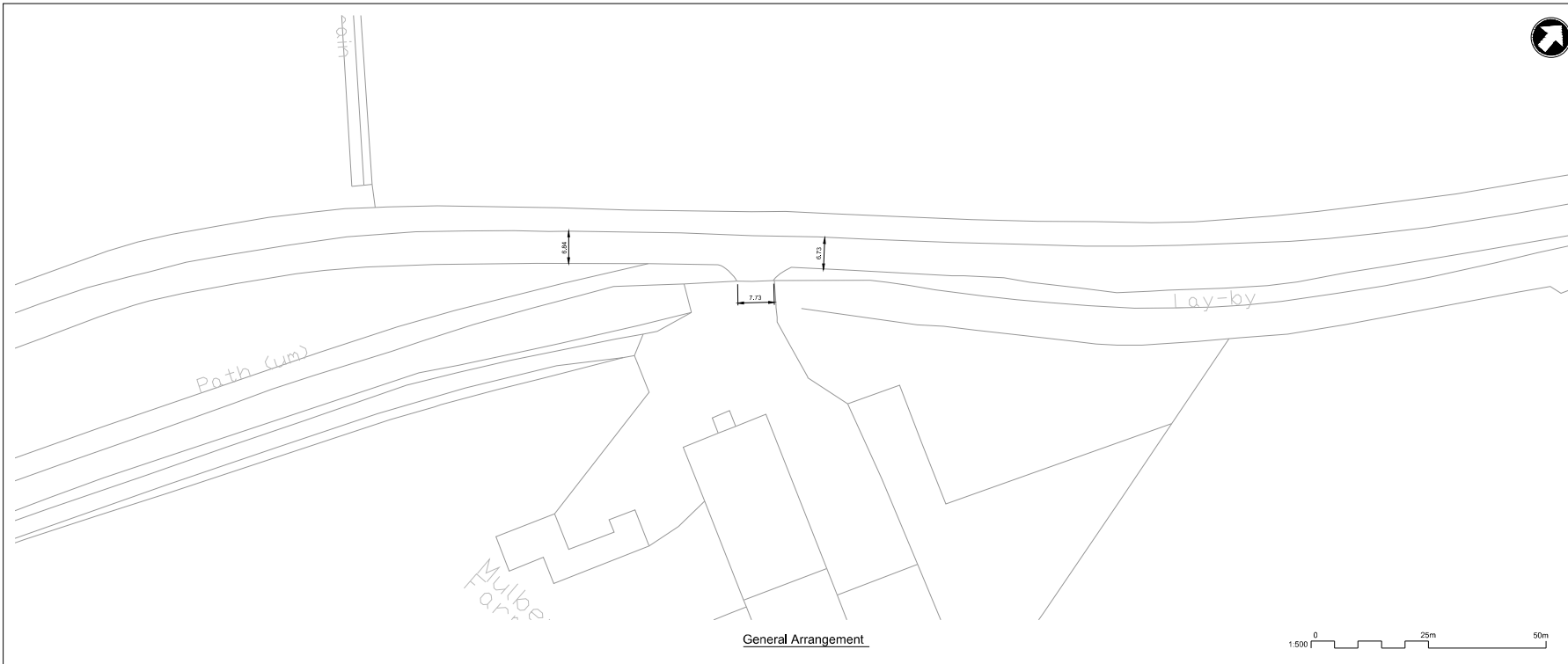
Client	
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Title Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions COA20 Highways GA, Visibility Splay and Vehicle Tracking

	A.D.Castles	<i>ADC</i>		F Case	<i>FC</i>
Designed	A.D.Castles	<i>ADC</i>	Eng check	F Case	<i>FC</i>
Drawn	-	-	Coordination	A.M.Rawlings	<i>AMR</i>
Dwg check			Approved		
Scale 1:500	Status	PRE	Rev	P1	Sec 1 STD

Drawing Number 102875-MMD-01-XX-DR-C-DRAFT



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- Cambridge Waste Water Treatment Works Relocation is a brownfield site and any proposed land take is acceptable during future stages of the design development of this option.
15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo.

Vehicle Tracking - Key to Symbols

Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Body Height	Max Track Width	Kerb to Kerb Turning Radius
Low Loader	16.630m	2.500m	3.360m	2.500m	16.700m
Large Mobile Crane	12.300m	2.430m	2.430m	2.430m	10.000m

Vehicle Tracking - Risks & Compliance

High Risks

H1 Explanation of risk,

Vehicle Tracking - Notes

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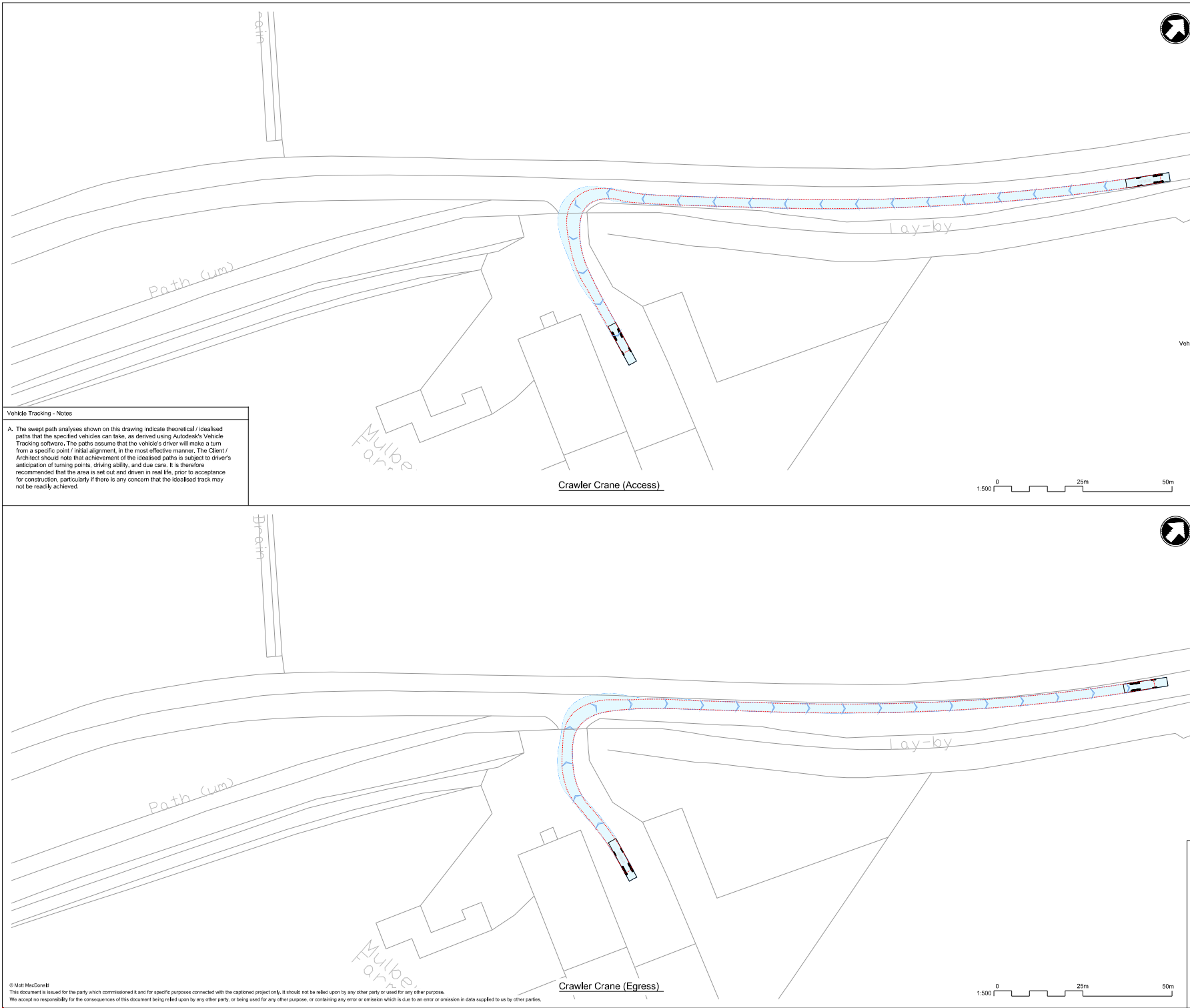
P1	Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Client

Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
COA9
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC		
Drawn	-	-	Coordination	A.M. Rawlings	AMR		
Dwg check	-	-	Approved	-	-		
Scale	1:500	Stat	PRE	Rev	P1	Sec	STD

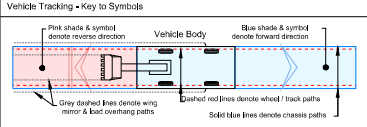
Drawing 102375-MMD-01-XX-DR-C-DRAFT



Vehicle Tracking - Notes

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- 15. DRAWINGS TO BE READ IN CONJUNCTION with the Technical Memo,**



Vehicle Tracking - Vehicle Details

	Low Loader	
Overall Length	16.630m	
Overall Width	2.500m	
Overall Body Height	3.360m	
Max Track Width	2.500m	
Kerb to Kerb Turning Radius	16.760m	

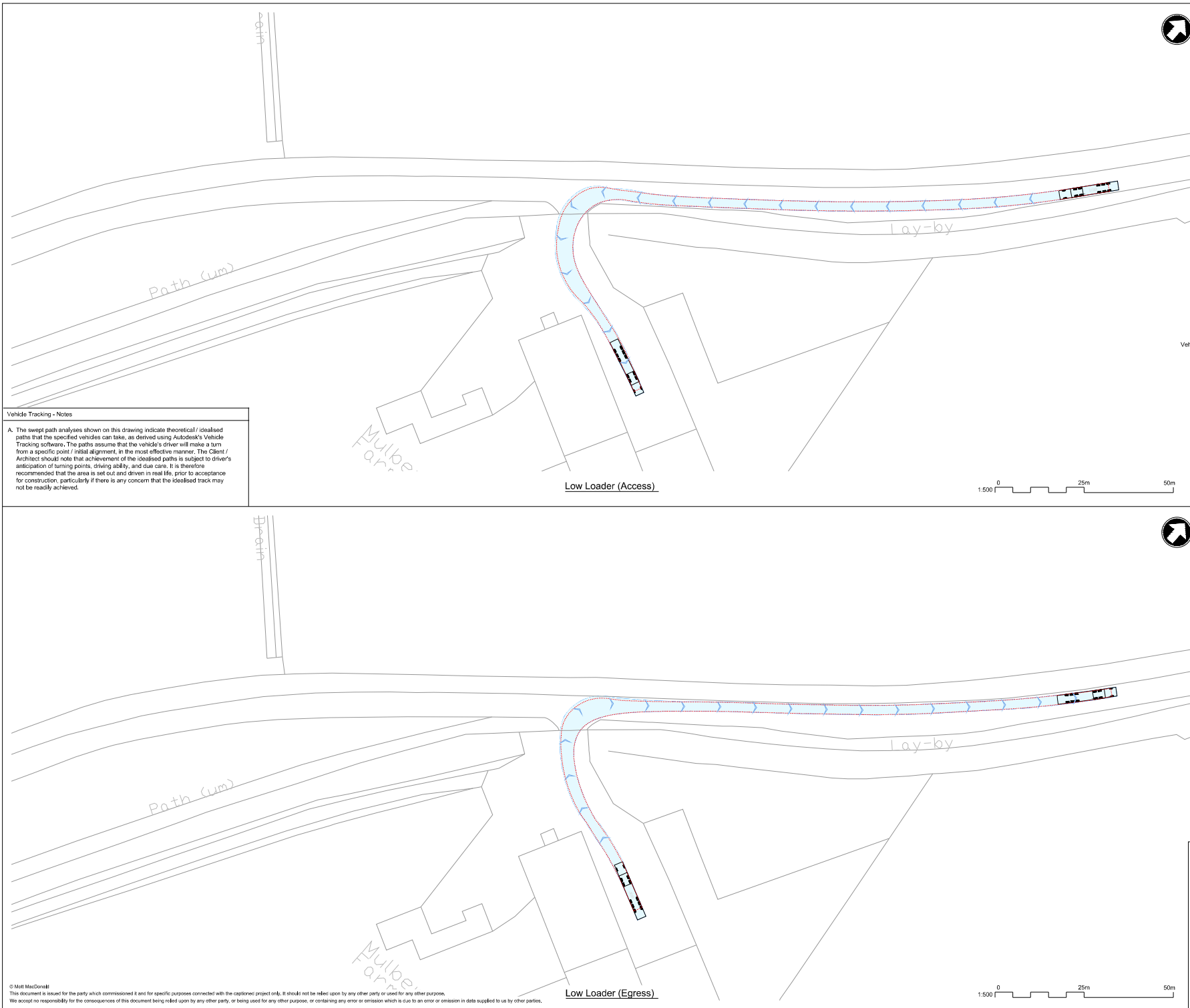
	Large Mobile Crane	
Overall Length	12.200m	
Overall Width	2.450m	
Overall Body Height	3.360m	
Track Width	2.450m	
Kerb to Kerb Turning Radius	10.000m	

- Vehicle Tracking - Risks & Compliance**
- Risks**
- Kerb overrun
 - Restrictive road width

P1	102375-MMD-01-XX-DR-C-DRAFT	ADC	Draft for Discussion / Review.	ARK	ARK
Rev	Date	Drawn	Description		



Title Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions COA9 Highways GA, Visibility Splay and Vehicle Tracking					
Designed	A.D.Castles	ADC	Eng check	E.Case	EC
Drawn	-	-	Coordination	E.Case	EC
Dwg check	-	-	Approved	A.M.Rawlings	AMR
Scale	1:500	Stat	PRE	P1	Sec STD
Drawing 102375-MMD-01-XX-DR-C-DRAFT					



Notes

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15. DRAWINGS BE READ IN CONJUNCTION with the Technical Memo,

Vehicle Tracking - Key to Symbols

Pink shade & symbol denote reverse direction

Vehicle Body

Blue shade & symbol denote forward direction

Gray dashed lines denote wing mirror & load overhang paths

Dashed red lines denote wheel / track paths

Solid blue lines denote chassis paths

Low Loader

Overall Length16.630m

Overall Width2.500m

Overall Body Height3.360m

Track Width2.500m

Kerb to Kerb Turning Radius16.760m

Large Mobile Crane

Overall Length12.200m

Overall Width2.450m

Overall Body Height3.360m

Track Width2.450m

Kerb to Kerb Turning Radius10.000m

Vehicle Tracking - Risks & Compliance

Risks

Kerb overrun

Restrictive road width

P1

102375-MMD-01-XX-DR-C-DRAFT

ADC

Draft for Discussion / Review.

AMR

AMR

Rev

Date

Drawn

Description

AMR

AMR

Client

love every drop

anglianwater

Title

Cambridge Waste Water Treatment Works Relocation

Temporary Access Junctions

COA9

Highways GA, Visibility Splay and

Vehicle Tracking

A.D. Castles

ADC

Eng check

E Case

EC

Designed

A.D. Castles

ADC

Coordination

E Case

EC

Dwg check

-

-

Approved

A.M. Rawlings

AMR

Scale

1:500

Status

PRE

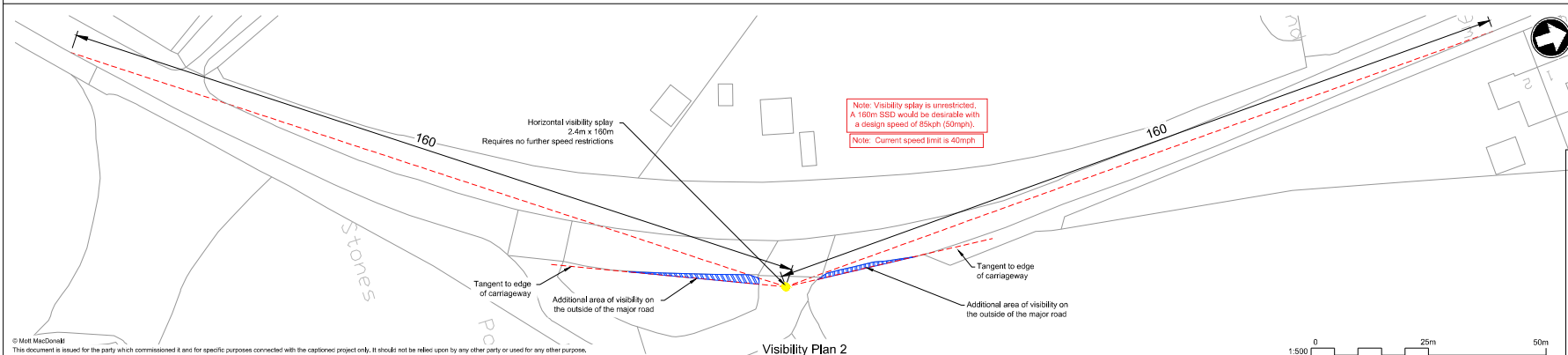
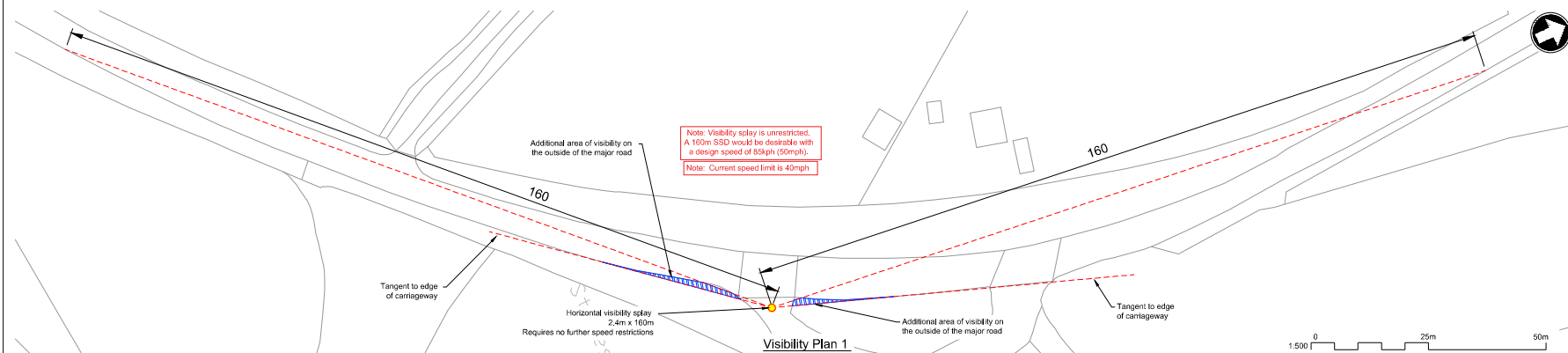
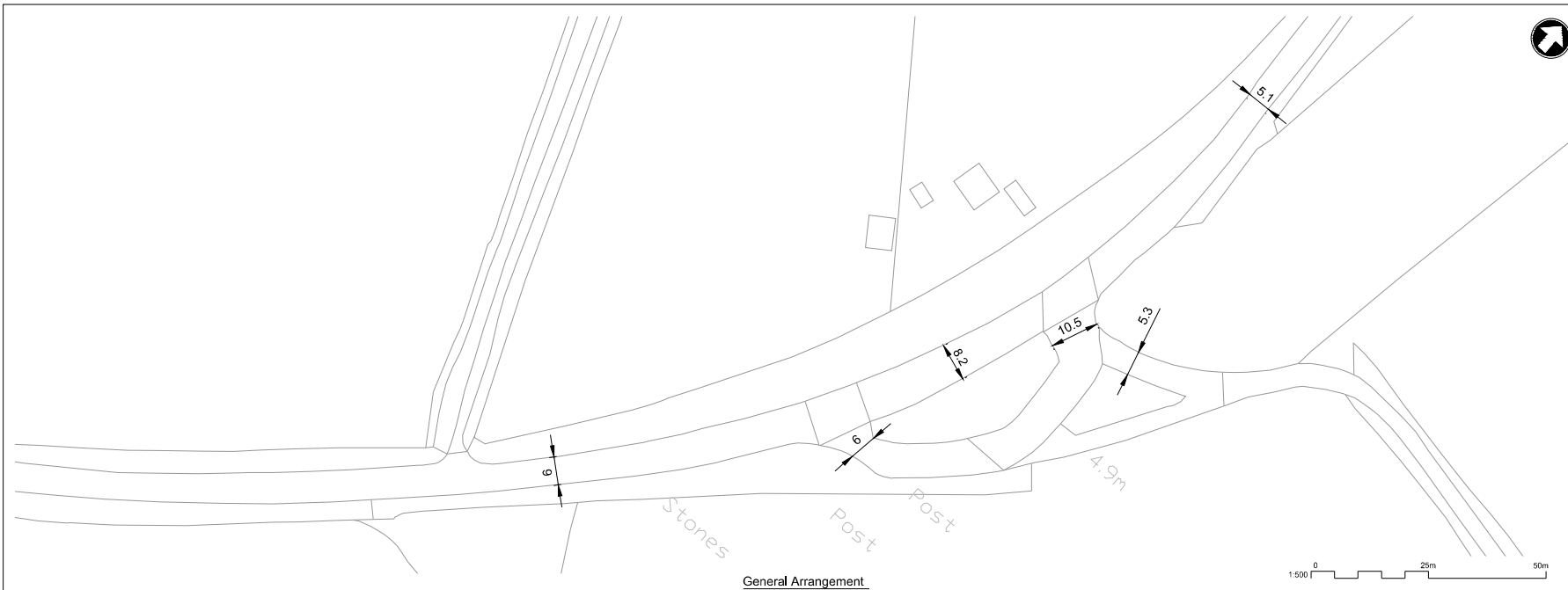
Rev

P1

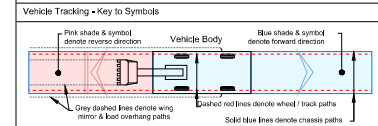
Sec

STD

Drawing: 102375-MMD-01-XX-DR-C-DRAFT



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 - The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 - The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 - The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 - The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 - The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 - Cambridge Waste Water Treatment Works Relocation CA16
 - Highways GA, Visibility Splay and Vehicle Tracking
 - 15.04.2023



Vehicle Tracking - Vehicle Details



Vehicle Tracking - Risks & Compliance

- High Risks**
- H1** Explanation of risk,

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

P1	15.04.2023	ADC	Draft for Discussion / Review.	AKK	AKK
Rev	Date	Drawn	Description		Drawn by



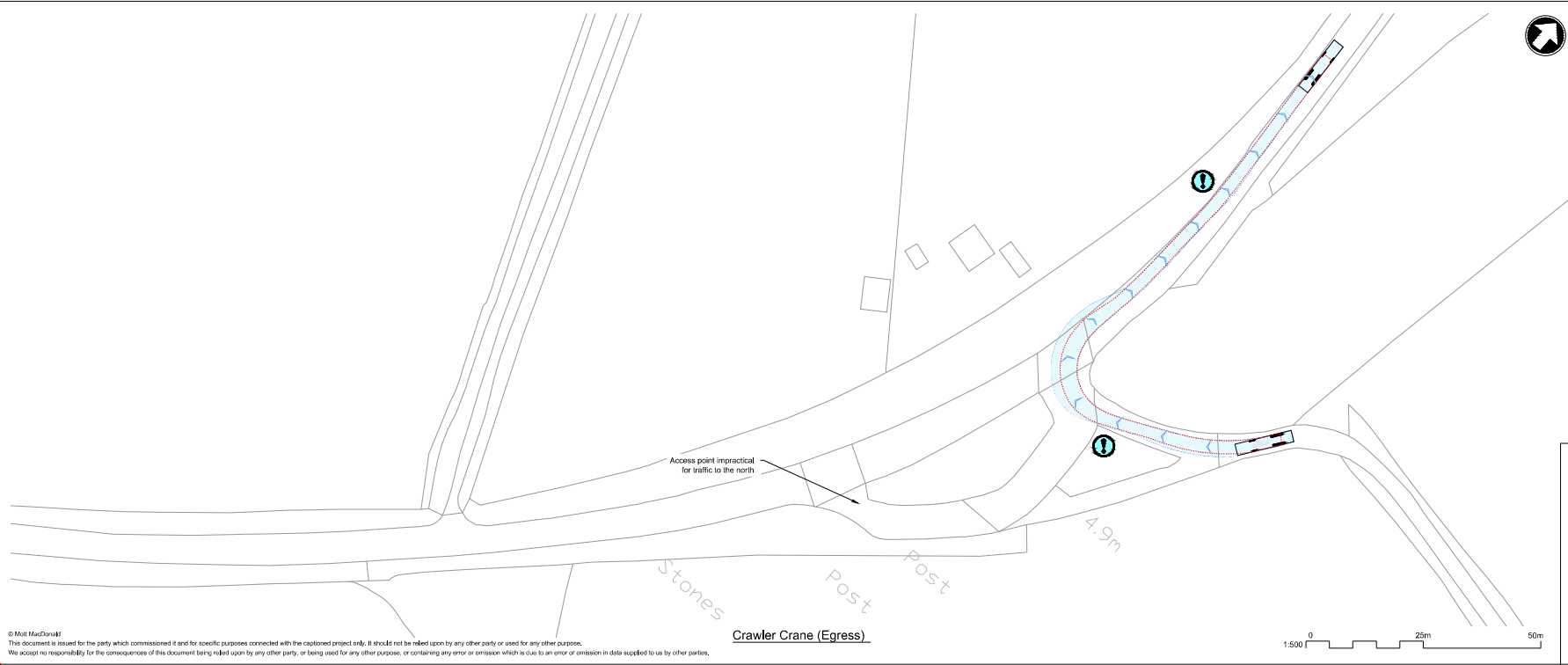
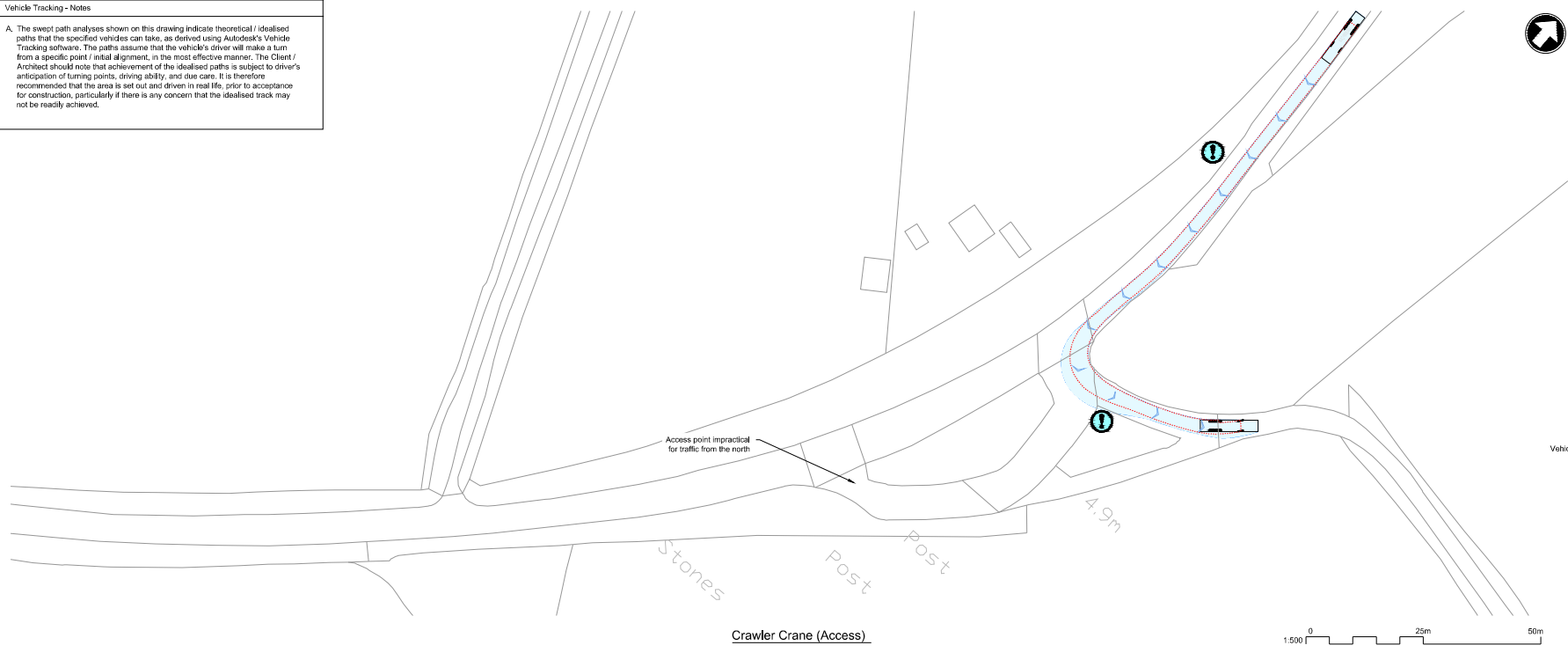
Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
CA16
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	E. Case	EC	EC
Dwg check	-	-	Coordination	A.M. Rawlings	AMR
Approved					
Scale	1:500	Status	PRE	Rev	P1
Sheet					Sec STD

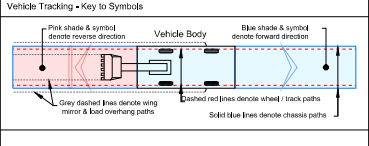
Drawing 102375-MMD-01-XX-DR-C-DRAFT

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.



- Notes**
1. Do not scale from this drawing.
 2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
 3. Any drawing errors or discrepancies should be brought to the attention of Matt MacDonald at the address shown in the title block.
 4. This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
 5. The drawing is based on OS mapping information and LiDAR data.
 6. The information is preliminary and subject to further detailed design.
 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
 8. The drawing does not include any information on proposed highway drainage and associated SUBS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 13. Cambridge Waste Water Treatment Works Relocation is a sensitive area, any proposed access point take is subject to assessment during future stages of the design development of this option.
 14. Drawings are for information only and should not be used for construction.
 15. Drawings are for information only and should not be used for construction.



Vehicle Tracking - Vehicle Details

	Low Loader	
Overall Length	16.633m	
Overall Width	2.500m	
Overall Body Height	3.380m	
Max Track Width	2.500m	
Kerb to Kerb Turning Radius	16.700m	

	Large Mobile Crane	
Overall Length	12.300m	
Overall Width	2.430m	
Overall Body Height	2.430m	
Track Width	2.430m	
Kerb to Kerb Turning Radius	10.000m	

Vehicle Tracking - Risks & Compliance

Risks			
P1	ADC	Draft for Discussion / Review.	
Rev	Date	Drawn	Description



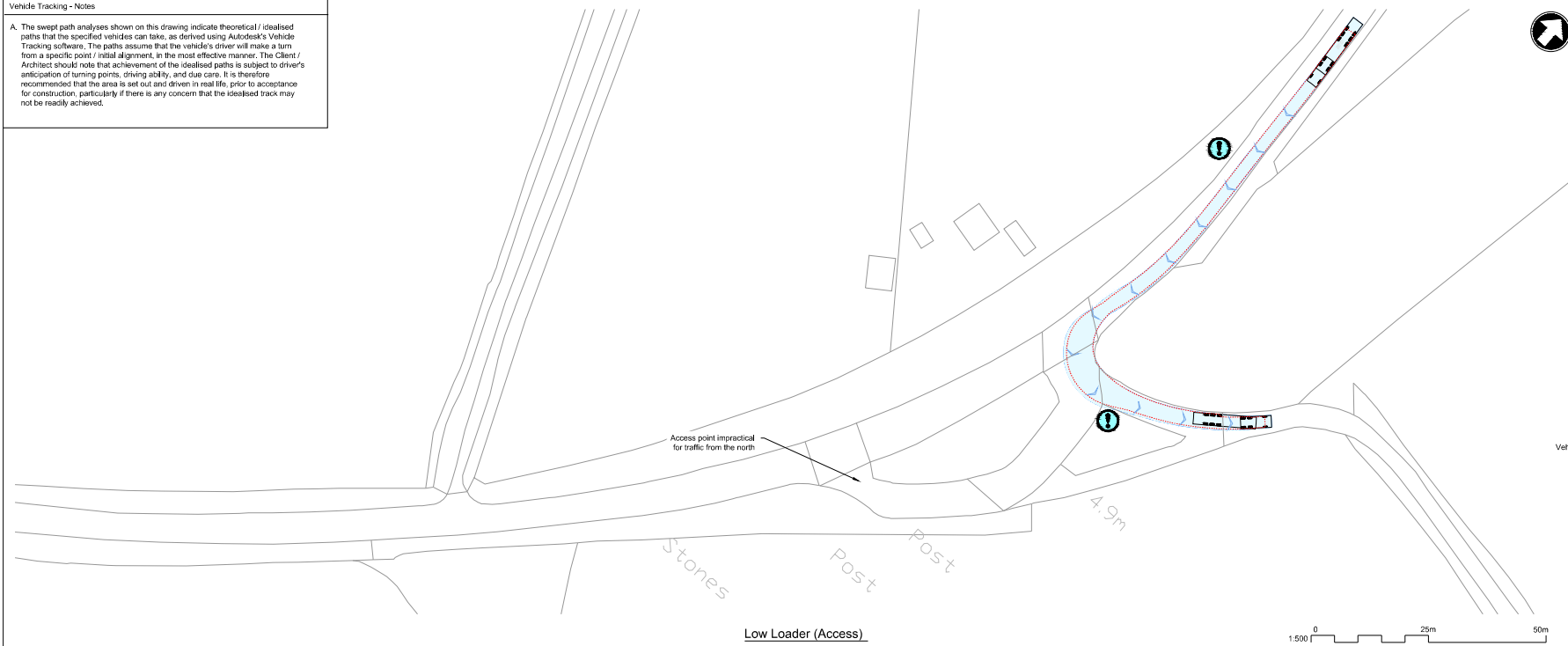
Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
CA16
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR
Scale	1:500	Status	PRE	Rev	P1
Sheet	102375-MMD-01-XX-DR-C-DRAFT	Section	STD		

Drawing 102375-MMD-01-XX-DR-C-DRAFT

Vehicle Tracking - Notes

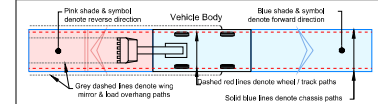
A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.



	Notes
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1. Do not scale in metres.
2. All dimensions are in feet unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). Dimensions & levels should be checked on site.
3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
4. This drawing has been prepared using the latest available geospatial data for the CCWVIT project.
5. The drawing is based on OS mapping information and LIDAR data.
6. The information is preliminary and subject to further detailed design.
7. The design has not been submitted to the Highways Authority or Highways England for approval.
8. The drawing does not include any information on proposed highway drainage and associated SUDs, existing or proposed utilities or other existing assets that may need to be protected or diverted at a particular location.
9. The design requires works to the public highway and would require further discussions with the relevant statutory authorities.
10. The drawings do not include any street lighting or other overhead infrastructure which may be required as part of the overall scheme design.
11. The design assumptions are based on the information available and are acceptable to the relevant stakeholders.
12. The design is based on the requirements of DMRB. Manual for Streets has been adopted for some elements of the proposed access roads. *Cambridge Waste Recycling* ~~has been used in the design of the proposed access roads~~ *has been used in the design of the proposed access roads*
13. ~~Any proposed works to the public highway should be discussed with the relevant statutory authorities.~~
14. ~~The design is based on the requirements of DMRB. Manual for Streets has been adopted for some elements of the proposed access roads.~~
15. ~~Any proposed works to the public highway should be discussed with the relevant statutory authorities.~~

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Risks & Compliance

Risks



P1		ADC	Draft for Discussion / Review.	AMR	AMR
Rev	Date	Drawn	Description	Checked	App'd

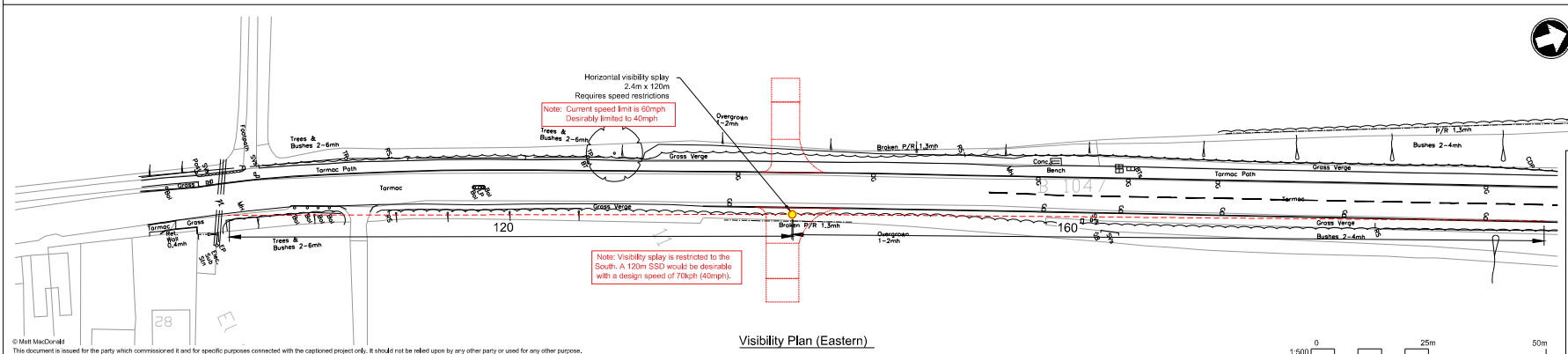
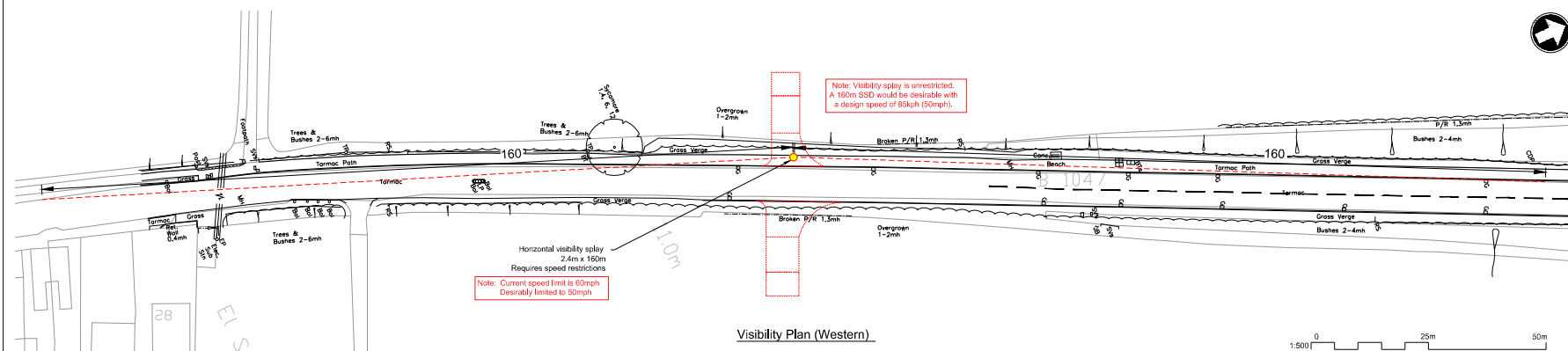
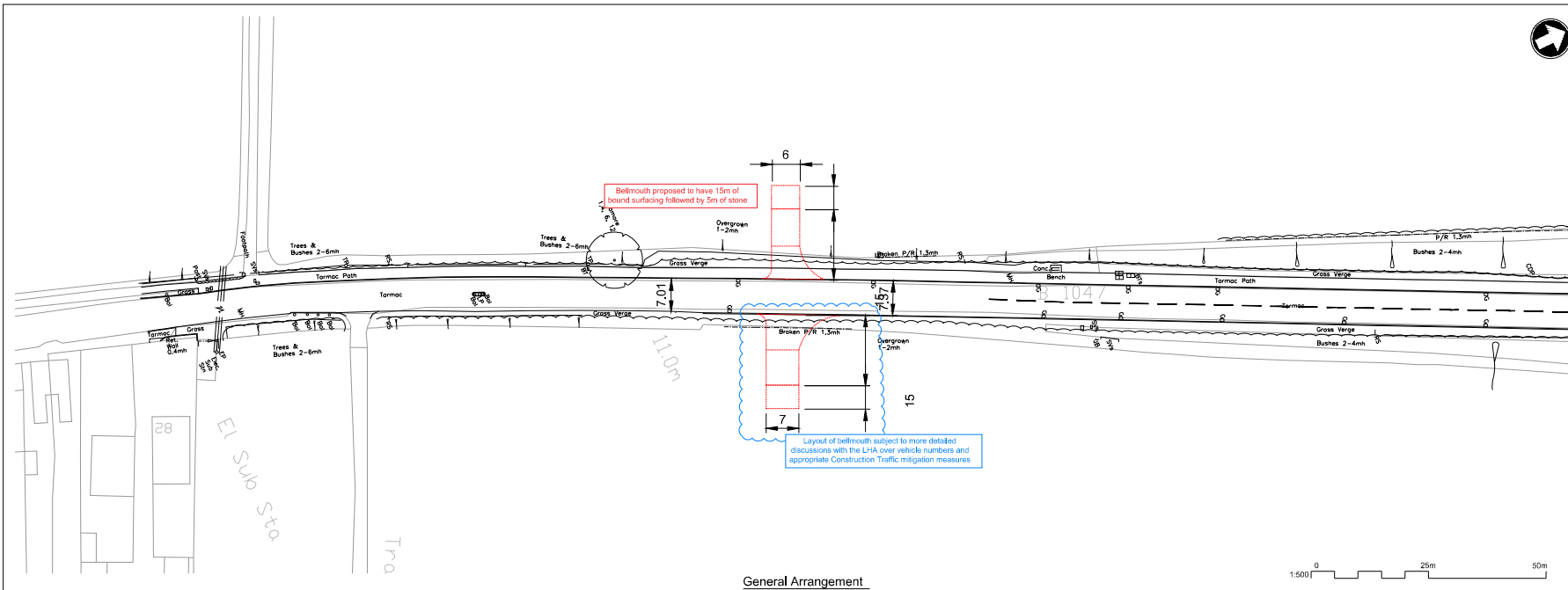
Client



Title
 Cambridge Waste Water Treatment Works Relocation
 Temporary Access Junctions
 CA16
 Highways GA, Visibility Splay and
 Vehicle Tracking

A.D.Castles		ADG	F Case		FC
Designed	A.D.Castles	ADG	Eng check	F Case	FC
Drawn	-	-	Coordination	A.M.Rawlings	AHR
Dwg check			Approved		
Scale	1:500	Status	PRE	Rev	P1
				Security	STD

Drawing Number	102375-MMD-01-XX-DR-C-DRAFT
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Notes

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3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
4. This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
5. The drawing is based on OS mapping information and LiDAR data.
6. The information is preliminary and subject to further detailed design.
7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extent of the proposed access roads.
13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
14. This drawing should be read in conjunction with the Technical Memo.

Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols

Pink shade & symbol denote vehicle direction
Blue shade & symbol denote forward direction
Gray dashed lines denote wing mirror & load overhanging paths
Dashed red lines denote wheel / track paths
Solid blue lines denote chassis paths

Vehicle Tracking - Vehicle Details

Add relevant vehicle profile details to your legend under the above title 'Vehicle Swept Paths - Vehicle Details'

Vehicle Tracking - Risks & Compliance

High Risks
H1 Explanation of risk.

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Reference drawings

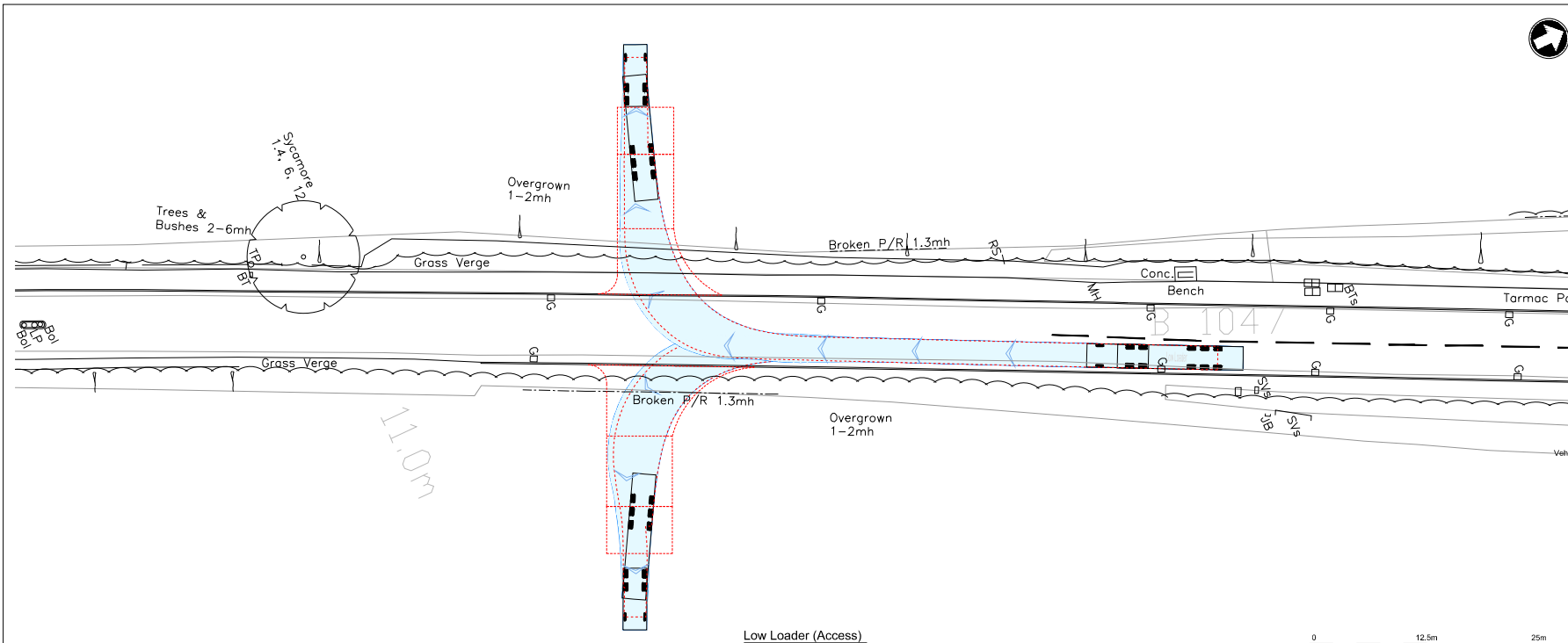
P1	ADC	Draft for Discussion / Review.	ARX	ARX
Rev	Date	Drawn	Description	Drawn

Client

love every drop
anglianwater

Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
CA2 / CA3
Highways GA, Visibility Splay and
Vehicle Tracking

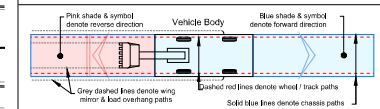
Designed	A.D. Castles	ADC	Eng check	E. Case	EC
Drawn	-	-	Coordination	A.M. Rawlings	AHR
Dwg check	-	-	Approved	-	-
Scale	1:500	Status	PRE	P1	Section
Drawing	102375-MMD-01-XX-DR-C-DRAFT				



- Notes
1. Do not scale from this drawing.
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 3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
 4. This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
 5. The drawing is based on OS mapping information and LIDAR data.
 6. The information is preliminary and subject to further detailed design.
 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
 8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB. Manual for Streets has been adopted for some elements of the proposed access roads.
 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
 14. This drawing should be read in conjunction with the Technical Memo.
- Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Risks & Compliance



H1 Explanation of risk.

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Reference drawings

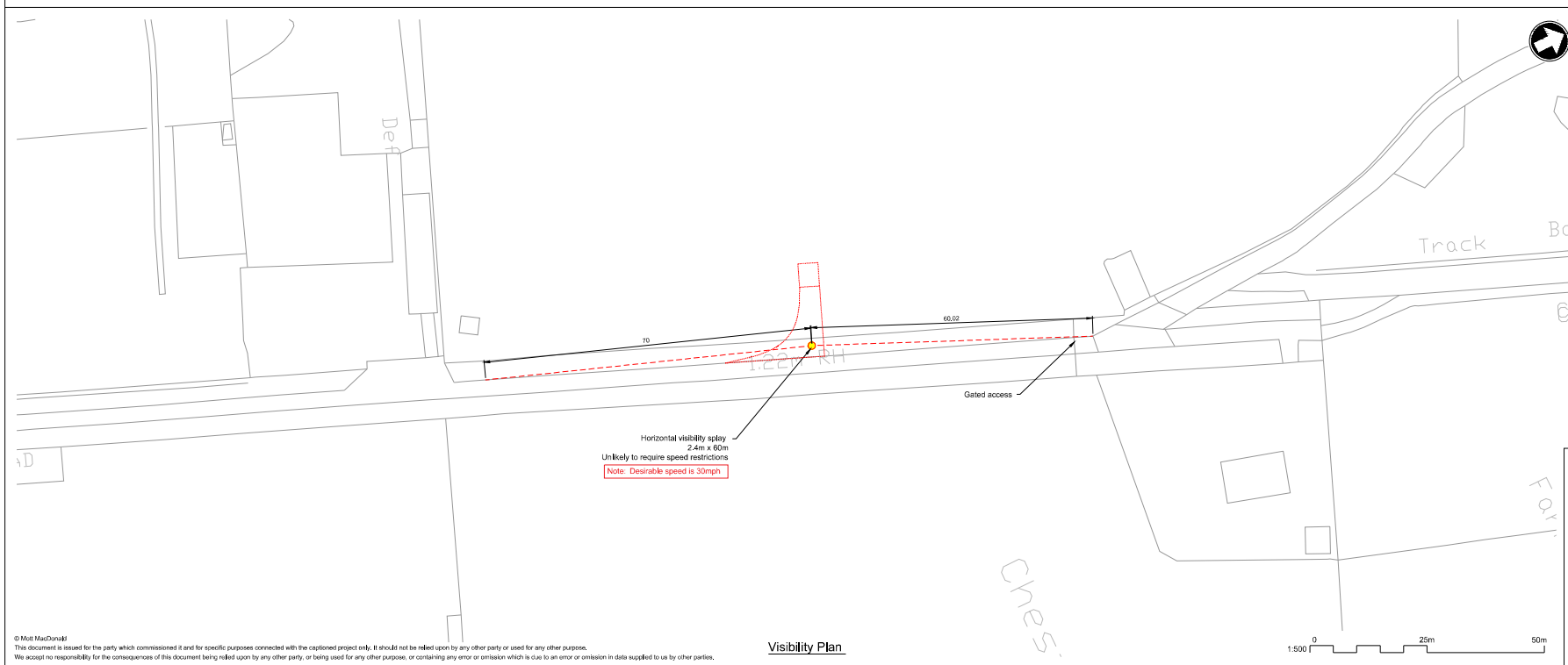
P1	102375-MMD-01-XX-DR-C-DRAFT	ADC	Draft for Discussion / Review.	AWK	AWK
Rev	Date	Drawn	Description	Drawn	Checked



Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
CA2 / CA3
Highways GA, Visibility Splay and
Vehicle Tracking

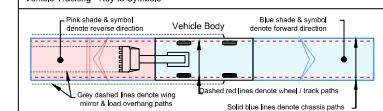
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Drawn	A.D. Castles	ADC	Coordination	E. Case	EC
Dwg check	-	-	Approved	A.M. Rawlings	AMR
Scale	1:250	Status	PRE	Rev	P1
Section	STD				

Drawing 102375-MMD-01-XX-DR-C-DRAFT



- Notes
1. Do not scale from this drawing.
2. All dimensions are in metres unless otherwise specified. All levels are in metres above Ordnance datum (AOD). All levels and levels should be checked on site.
3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
4. This drawing has been prepared for the final high level optioneering study for the CWWTV project.
5. The drawing is based on OS mapping information and LIDAR data.
6. The information is preliminary in subject to further detailed design.
7. The design has not been submitted to the Highway Authority or Highways England for technical review.
8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or avoided as part of the proposed scheme.
9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
10. The drawings do not include any detail lighting or other highway infrastructure which may be required as part of the overall scheme design.
11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
12. The design is based on the requirements of DMRB, Manual for Streets has been adopted to some extent of the proposed access details. Cambridge Waste & Resource Recovery (Camwaste) Ltd is a separate entity. The proposed land take is anticipated during future stages of the design development of this option.
15. **KNOWHORN WASTE RECOVERY IN CONJUNCTION** with the Technical Manual.

Vehicle Tracking ■ Key to Symbols

[illegible]

	Kerb to Kerb Turning Radius	10.2
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A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may

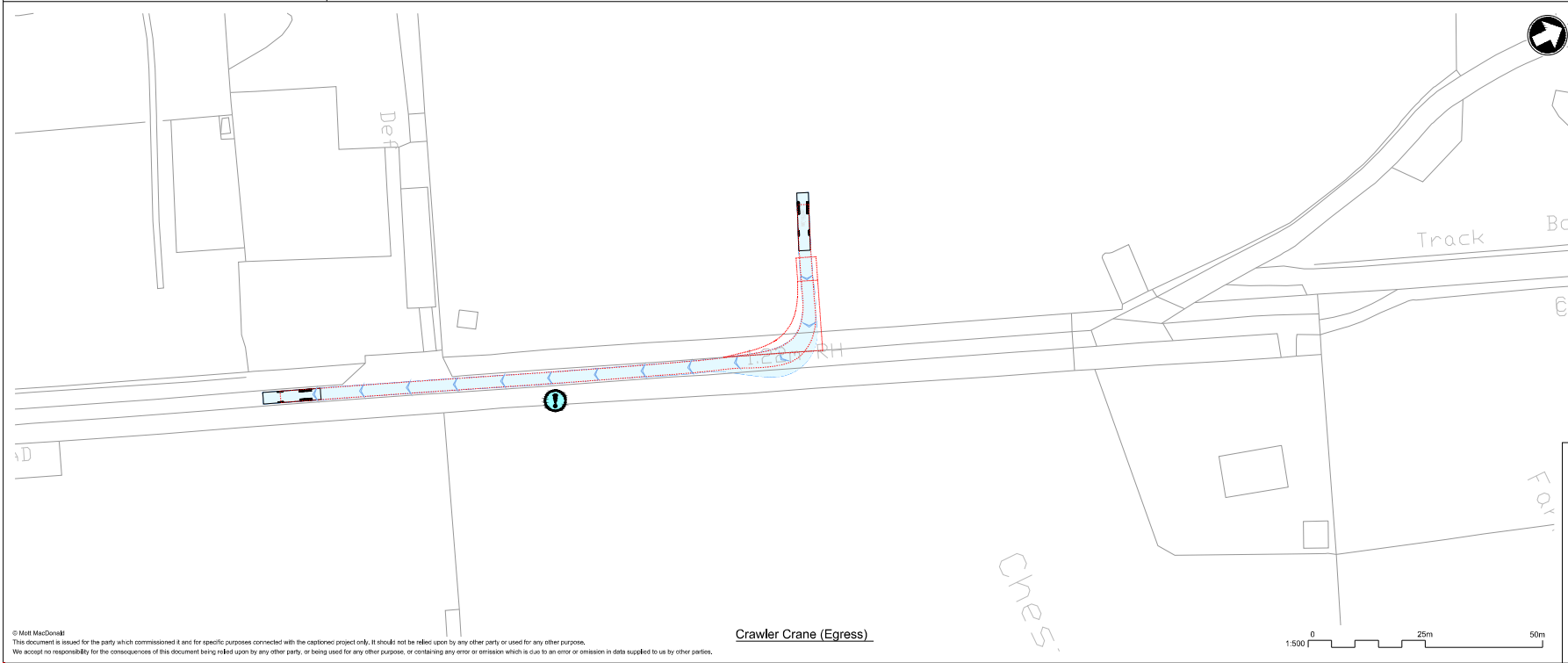
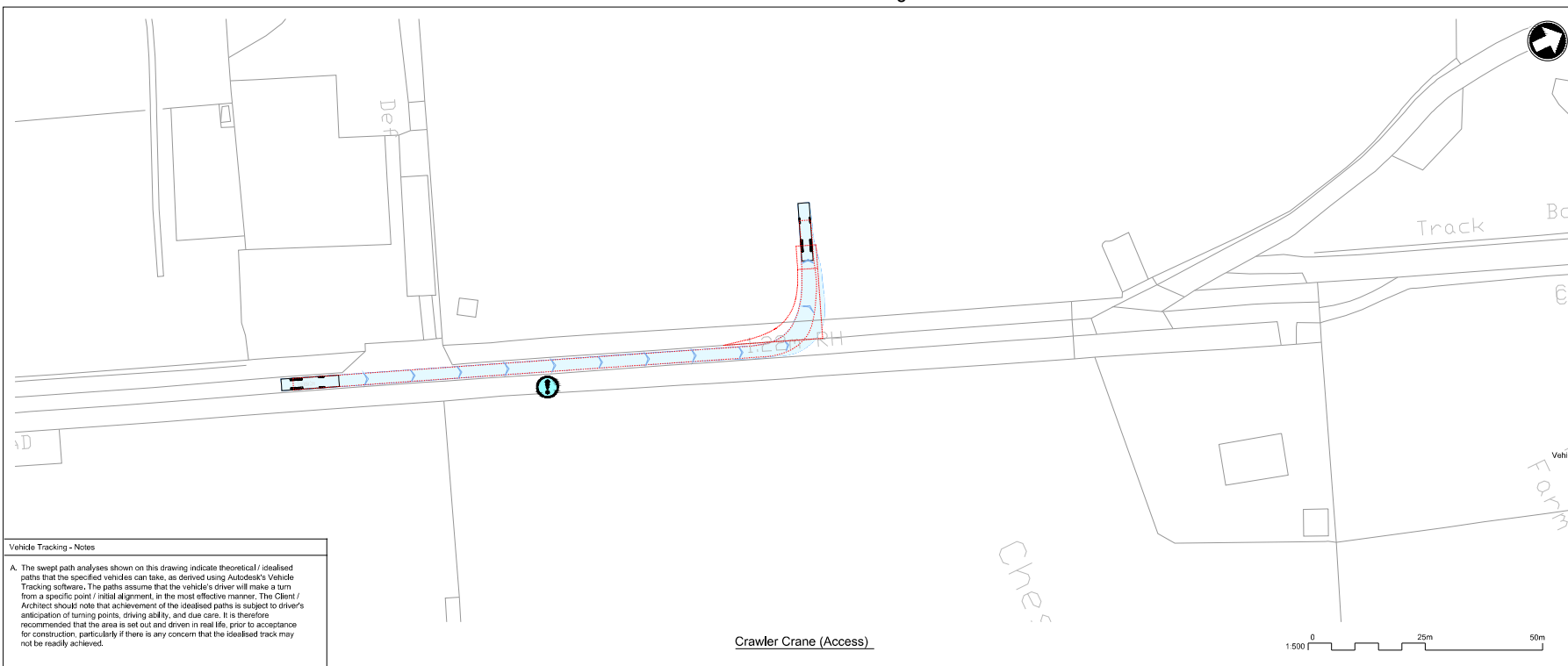
P1	not be readily achieved.	ADC	Draft for Discussion / Review.	AMR	AMR
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Client

love every drop
anglianwater

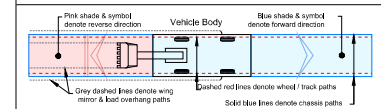
	^{Title} Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions CA1 Highways GA, Visibility Splay and Vehicle Tracking
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Vehicle Tracking			
	A.D.Casles	<i>ABC</i>	E.Case <i>EC</i>
Designed	A.D.Casles	Eng check	E.Case <i>EC</i>
Drawn	-	Coordination	A.M.Randall <i>AMR</i>
Dwg check	-	Approved	
Scale	1/500	Status	PRE
		Rev	P1
			Second
STD			
Drawing No. 102375-MMD-01-XX-DR-C-DRAFT			



- Notes**
1. Do not scale in this drawing.
 2. All dimensions are in metres unless otherwise stated. All levels are in metres above Ordnance Datum (AOD).
 3. All levels above 100m shall be checked on site.
 4. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
 5. This drawing has been prepared for the real time level optimisation study for the CWMVW project.
 6. The drawing is based on OS mapping information and LIDAR data.
 7. The information is preliminary and subject to further detailed design.
 8. The design has not been submitted to the Highway Authority or Highways England for technical review.
 9. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted past the proposed scheme.
 10. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 11. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 12. The design assumes an embankment slope of 1:3 as acceptable to the relevant stakeholders.
 13. The design is based on the requirements of DMRB, Manual for Streets has been taken into account to the extent of the proposed access roads.
 14. **Camrönde Waste**
 15. **DRAINAGE REQUIREMENTS READ IN CONJUNCTION WITH THE Technical Memo.**
- Camrönde Waste** **DRAINAGE REQUIREMENTS READ IN CONJUNCTION WITH THE Technical Memo.** **Camrönde Waste** **DRAINAGE REQUIREMENTS READ IN CONJUNCTION WITH THE Technical Memo.**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details



Vehicle Tracking - Risks & Compliance

	<u>Risks</u>
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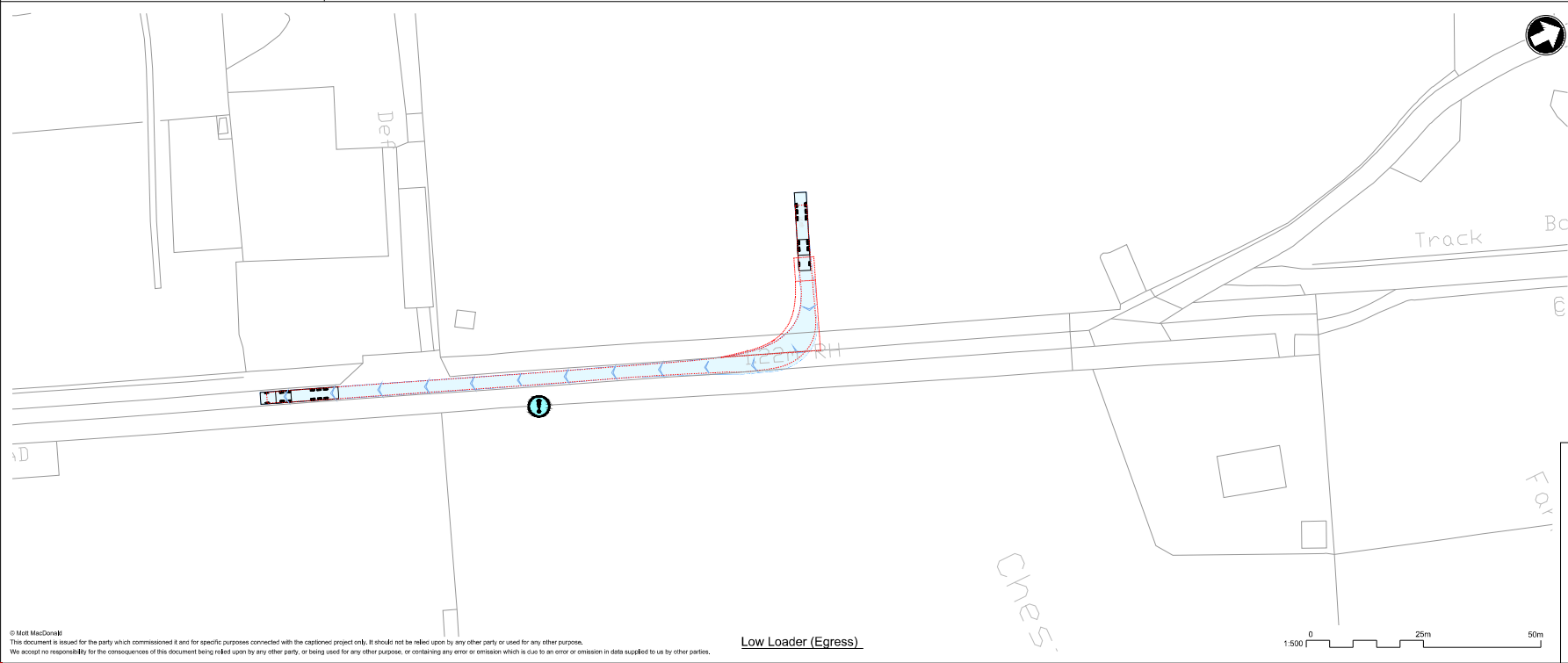
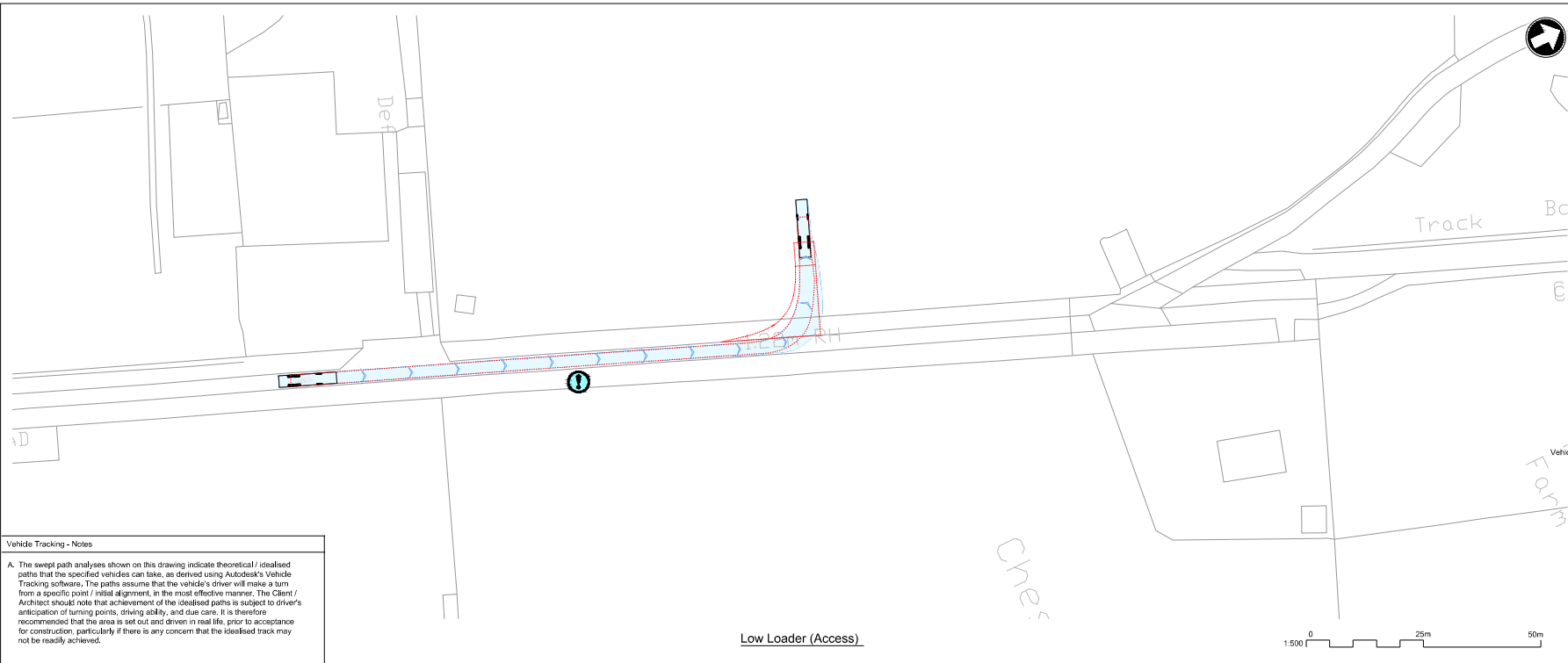
P1	<u>ADC</u>	ADC	Draft for Discussion / Review.	AMR	AMR
Rev	Date	Drawn	Description	Checked	Approved

Client 

Title Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions CA1 Highways GA, Visibility Splay and Vehicle Tracking

Designed	A D Castles	ADC	Eng check	F Case	EC
Drawn	A D Castles	ADC	Coordination	F Case	EC
Dwg check	-	-	Approved	A M Rawlings	AMR
Scale	1:500	Status	PRE	Rev	P1
				Security	STD

Drawing Number: 102375-MMD-01-XX-DR-C-DRAFT



Notes

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- This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
- The drawing is based on OS mapping information and LIDAR data.
- The information is preliminary and subject to further detailed design.
- The design has not been submitted to the Highway Authority or Highways England for their technical review.
- The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
- The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
- The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
- The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
- The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
- Cambridge Waste Water Treatment Works Relocation is a brownfield site and any proposed land take is to be determined during future stages of the design development of this option.
- NO DRAWINGS TO BE READ IN OCCURRENCE WITH THE TECHNICAL MEMO.**

Vehicle Tracking - Key to Symbols

Pink shade & symbol denote reverse direction

Vehicle Body

Blue shade & symbol denote forward direction

Gray dashed lines denote wing mirror & lost overhang paths

Dashed red lines denote wheel / track paths

Solid blue lines denote chassis paths



Low Loader

Overall Length	16.630m
Overall Width	2.500m
Overall Body Height	3.360m
Max Track Width	2.500m
Kerb to Kerb Turning Radius	16.760m



Large Mobile Crane

Overall Length	12.200m
Overall Width	2.450m
Overall Body Height	3.360m
Track Width	2.450m
Kerb to Kerb Turning Radius	16.000m

Vehicle Tracking - Risks & Compliance

Risks



Kerb overrun



Restrictive road width

P1	ملاحظات	ADC	Draft for Discussion / Review.	ARX	ARX
Rev	Date	Drawn	Description		CHW/pd

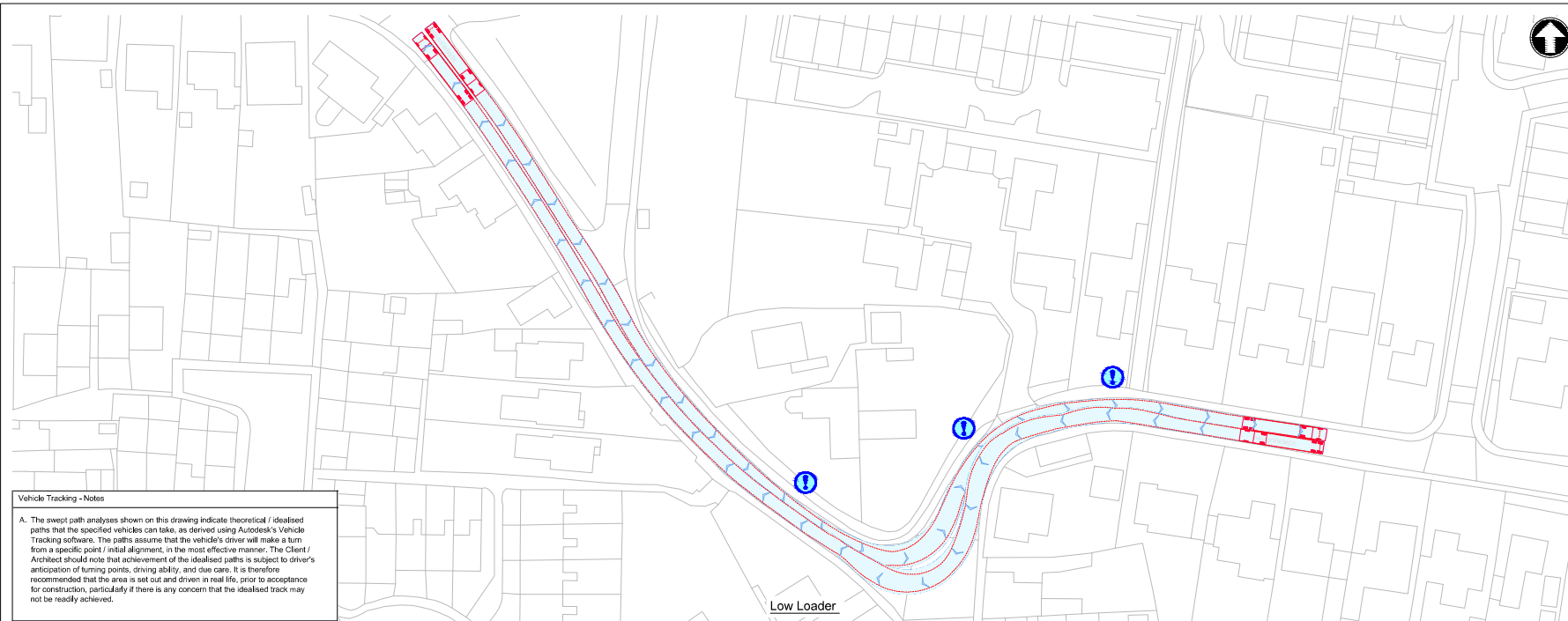
Client



Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
CA1
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	A.D.Castles	ADC	Eng check	E.Castle	EC
Drawn	-	ADC	Coordination	E.Castle	EC
Dwg check	-	-	Approved	A.M.Rawlings	AMR
Scale	1:500	Stat	PRE	Rev	P1
Section	STD				

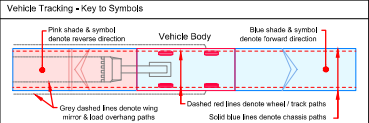
Drawing 102375-MMD-01-XX-DR-C-DRAFT



Vehicle Tracking - Notes

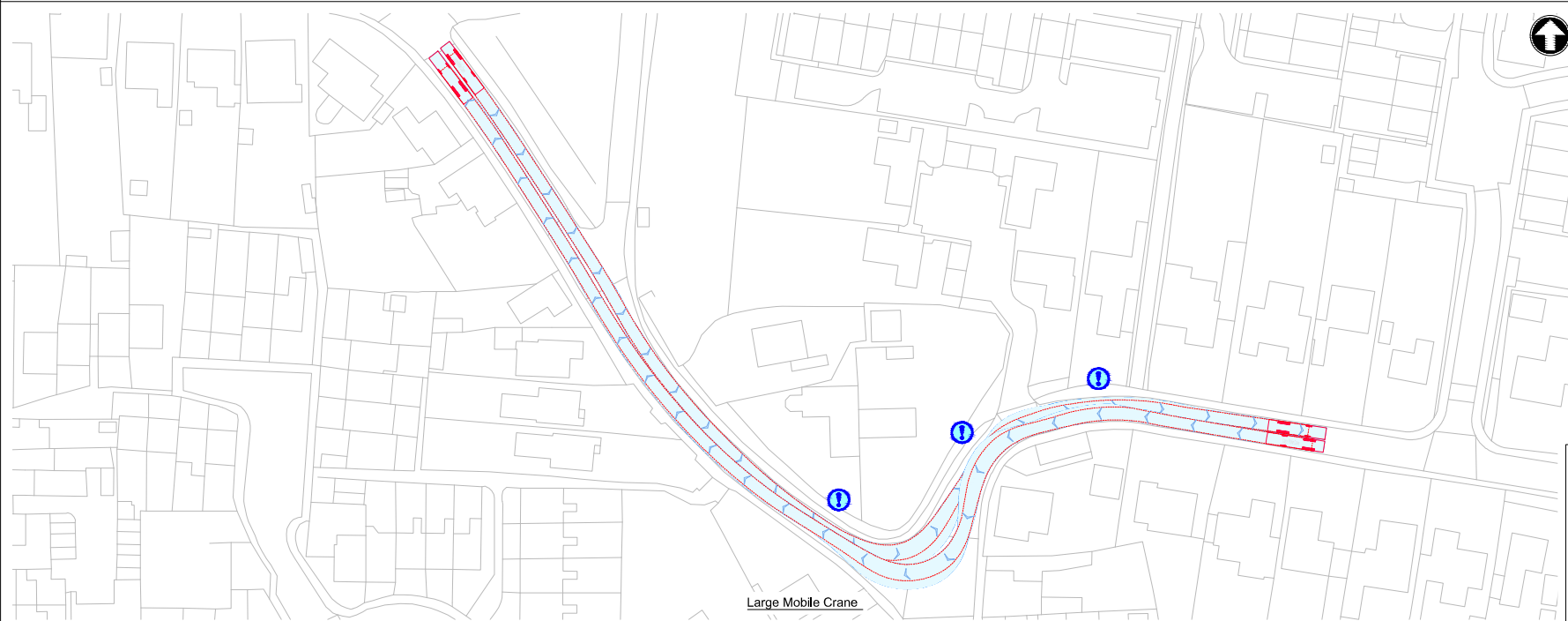
A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

- Notes**
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 8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
 14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.
 15. **DRAWING MUST BE READ IN COLOUR**



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
Low Loader	12.00m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m
Large Tipper	12.00m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.80m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m



Vehicle Tracking - Risks & Compliance

Risks	Rev	Appr
Kerb overrun		
Restrictive road width		

P1	Rev	Appr
Rev	Date	Description



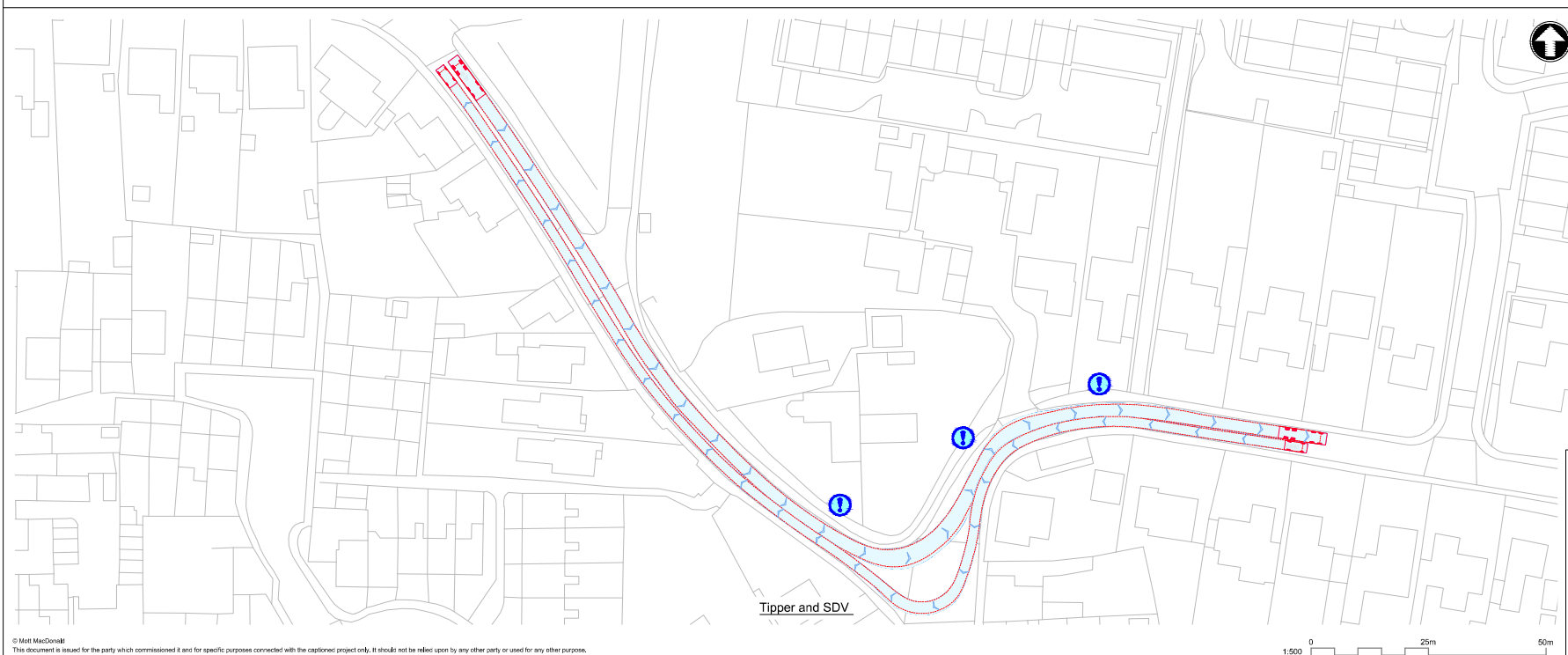
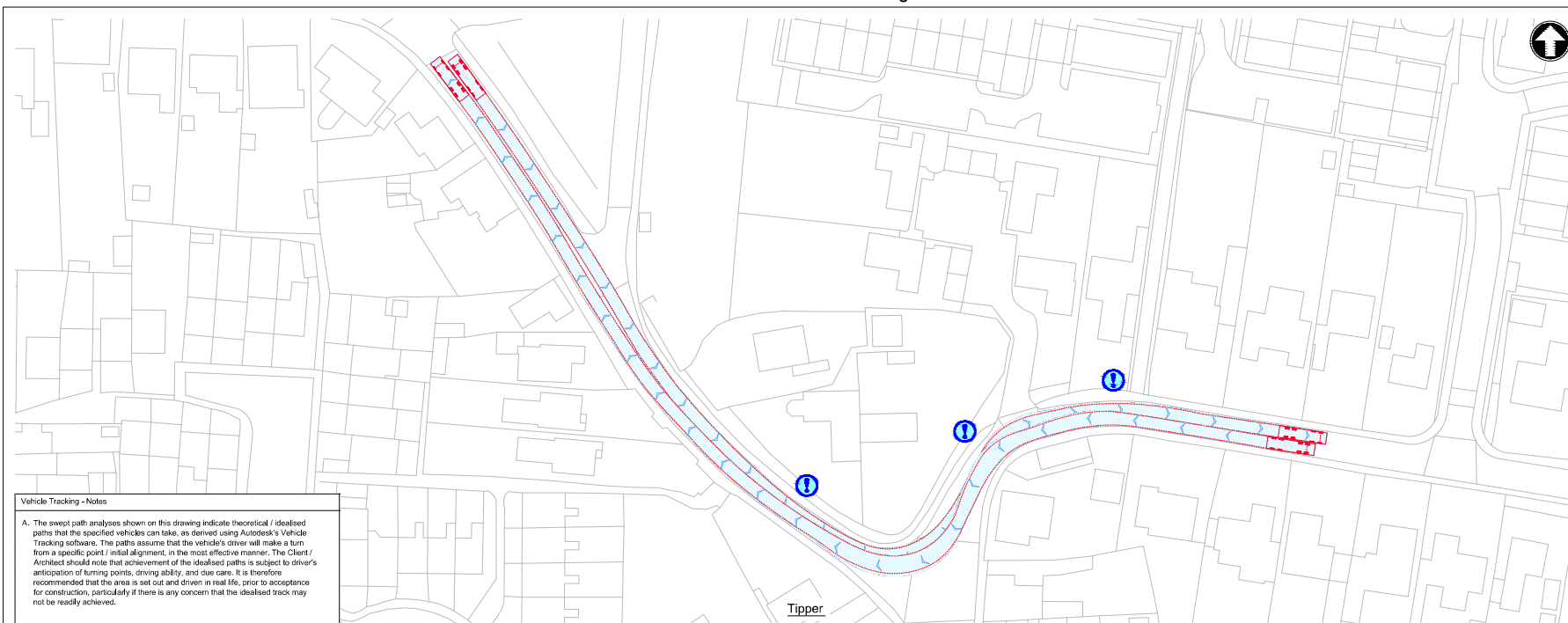
Title

Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Denny End Rd - Bannold Rd
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-
Drawn	M Fonseca	Rev	Coordination	-
Dwg check	-	Approved	-	-

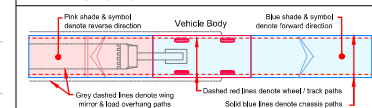
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1:500	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT

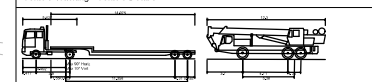


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 4. This drawing has been prepared for the initial high level optioneering study for the M20 project.
 5. The drawing is based on OS mapping information and LIDAR data.
 6. The information is preliminary and subject to further detailed design.
 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
 8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing drainage or other existing assets which may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders.
 10. The design is subject to change and additional land take.
 11. The drawings do not include any street lighting or other infrastructure which may be required as part of the overall scheme design.
 12. The design assumes an embankment slope of 1:1.5 acceptable to the relevant stakeholders.
 13. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extent of the proposed access roads.
 14. The proposal requires that party land to be constructed. The extent of the land take is to be determined during later stages of the design development of this option.
 15. This drawing should not be used in conjunction with the Technical Memo, Cambridge Waste Water Treatment Works Relocation EIA assessment and selling of proposed site access options.
- 15. DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details



Genieco Low Loader with Trailer Steering (18.0m)	17.818m	Large Mobile Crane	12.300m
Overall Length	2.540m	Overall Length	2.430m
Overall Width	0.410m	Overall Width	1.310m
Overall Body Height	0.330m	Overall Body Height	0.260m
Min Body Ground Clearance	2.520m	Min Body Ground Clearance	2.430m
Max Track Width	6.020m	Track Width	6.000m
Lock to lock time	6.350m	Lock to lock time	10.000m
Kerb to Kerb Turning Radius		Kerb to Kerb Turning Radius	



Large Tipper	10.201m	Standard Design Vehicle (SDV)	4.800m
Overall Length	2.295m	Overall Length	2.000m
Overall Width	2.930m	Overall Width	2.350m
Min Body Ground Clearance	0.341m	Overall Body Height	0.950m
Track Width	2.471m	Min Body Ground Clearance	0.100m
Lock to Lock time	6.00s	Track Width	2.000m
Kerb to Kerb Turning Radius	11.550m	Lock to Lock time	4.00s
		Wall to Wall Turning Radius	6.000m

Vehicle Tracking - Risks & Compliance

Risks



P1	—/—	MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	Chk'd	App

Client	
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Title	Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions Denny End Rd - Bannold Rd Highways GA, Visibility Splay and Vehicle Tracking
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Designed	M Fonseca	<i>MF</i>	Eng check	-	
Drawn	M Fonseca	<i>MF</i>	Coordination	-	
Dwg check	-		Approved	-	
Scale at A1	Status	Rev	Security		
1:500	PRE	P1	STD		

Drawing Number
100235 MMD 01 XY DB C DRAFT



Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Low Loader (entry)

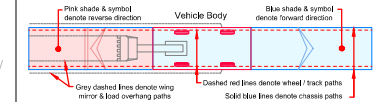
0 25m 50m
1:500

Low Loader (egress)

0 25m 50m
1:500

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 15. **DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Max Body Ground Clearance	Max Body Ground Clearance	Max Body Ground Clearance	Max Body Ground Clearance
General Low Loader with Trailer (18.2m)	18.2m	2.40m	3.00m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	3.00m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.00m	2.40m	3.00m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m

Vehicle	Overall Length	Overall Width	Overall Height	Max Body Ground Clearance	Max Body Ground Clearance	Max Body Ground Clearance	Max Body Ground Clearance
General Low Loader with Trailer (18.2m)	18.2m	2.40m	3.00m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	3.00m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.00m	2.40m	3.00m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

Rev	Date	Drawn	Description	Rev	App'd
P1	2022-07-10	M/F	Draft for Discussion / Review	M/F	M/F

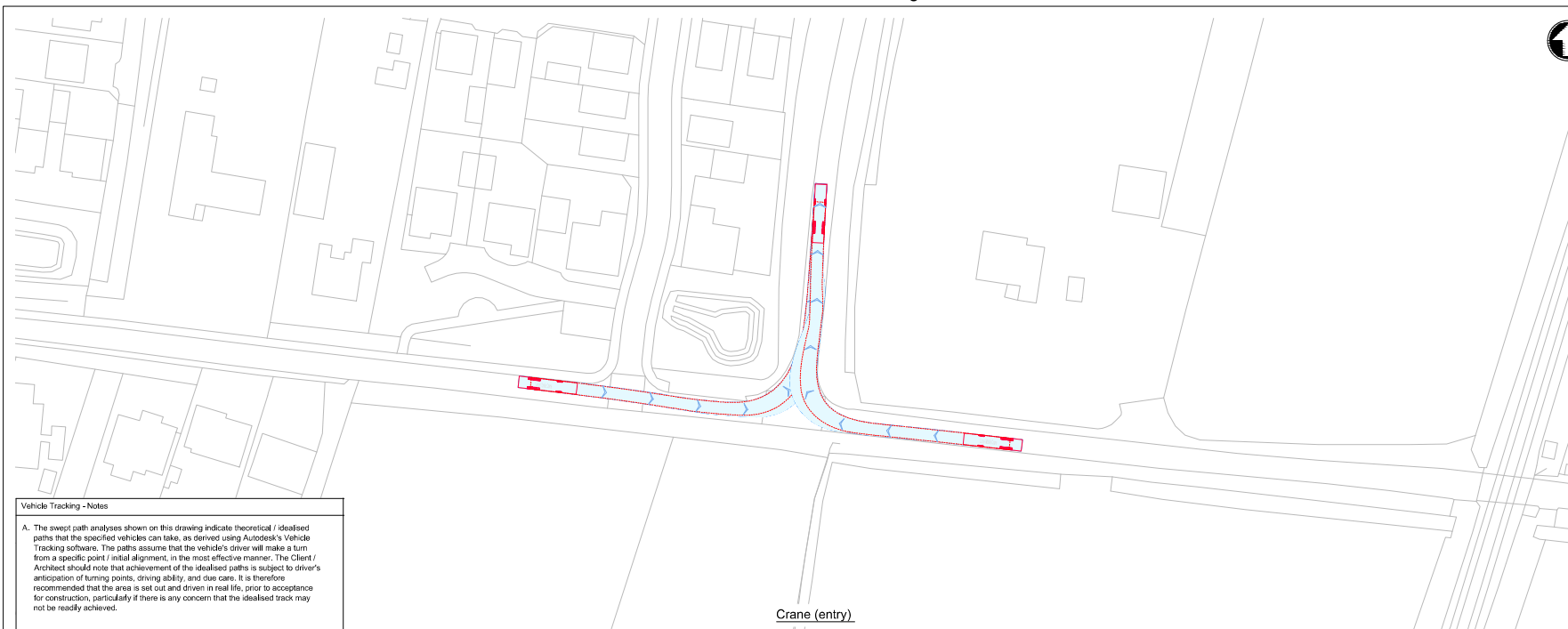


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Bannold Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-	
Drawn	M Fonseca	M/F	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

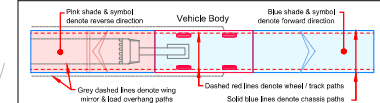
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



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15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Max Body Ground Clearance	Lock to Lock time	Kerb to Kerb Turning Radius
Control Line Loader with Trailer (18.2m)	17.91m	2.64m	3.40m	0.30m	0.40m	6.07m	6.53m
Large Mobile Crane	12.30m	2.43m	3.38m	0.30m	0.40m	6.07m	6.53m

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Max Body Ground Clearance	Lock to Lock time	Kerb to Kerb Turning Radius
Large Tipper	10.20m	2.48m	3.31m	0.30m	0.40m	6.07m	6.53m
Standard Design Vehicle (SDV)	4.60m	2.00m	1.90m	0.30m	0.40m	6.07m	6.53m



Vehicle Tracking - Risks & Compliance

Risks



P1	Rev	Date	Drawn	Description	Rev	Appr

Client

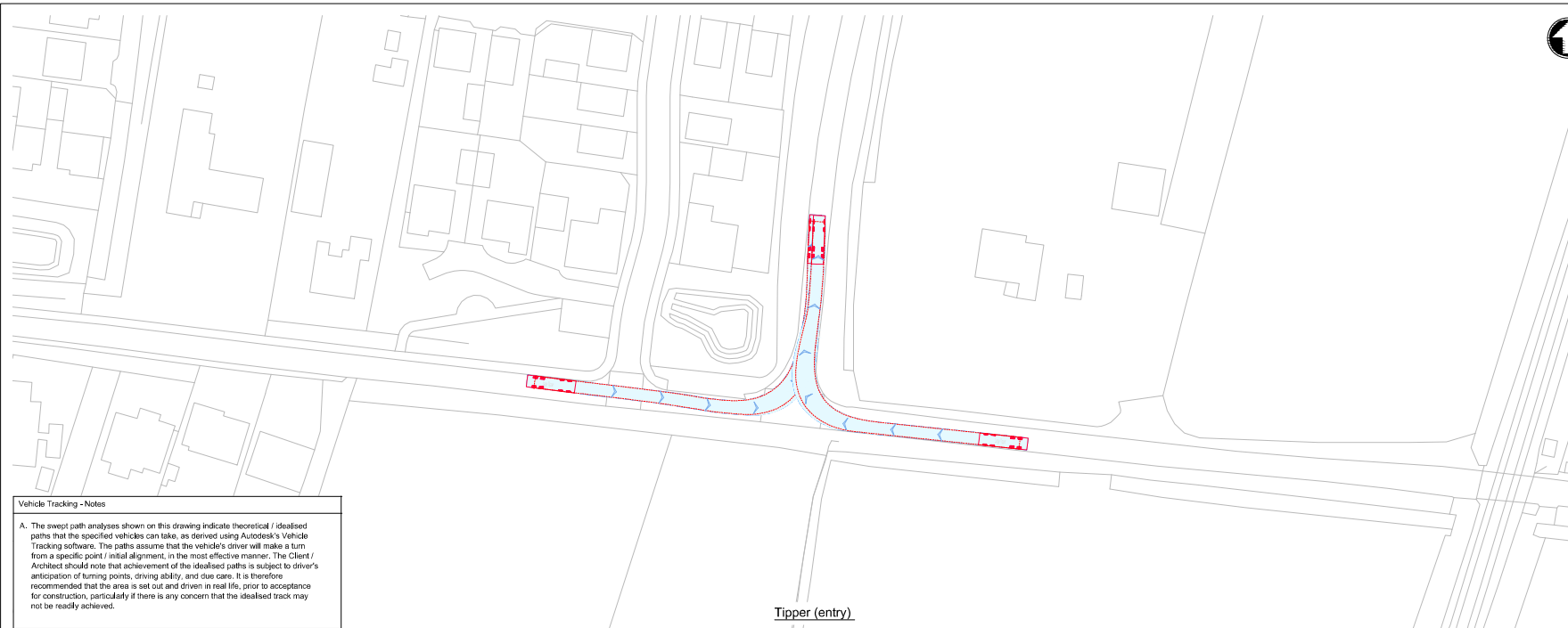


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Bannold Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

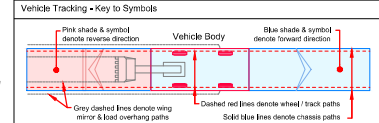
Drawing Number
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Vehicle Tracking - Notes

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Vehicle Tracking - Vehicle Details

	Large Tipper	Large Mobile Crane
Overall Length	7.310m	12.300m
Overall Width	2.460m	2.430m
Overall Body Height	3.430m	3.360m
Min Body Ground Clearance	0.320m	0.300m
Max Body Height	6.07m	6.07m
Lock to Lock time	6.530m	6.07m
Kerb to Kerb Turning Radius	11.550m	11.000m

Large Tipper	12.300m	Standard Design Vehicle (SDV)	4.600m
Overall Width	2.460m	Overall Width	2.050m
Overall Body Height	3.430m	Overall Body Height	2.050m
Min Body Ground Clearance	0.320m	Min Body Ground Clearance	0.300m
Max Body Height	6.07m	Max Body Height	6.07m
Lock to Lock time	6.530m	Lock to Lock time	6.07m
Kerb to Kerb Turning Radius	11.550m	Kerb to Kerb Turning Radius	6.000m



Vehicle Tracking - Risks & Compliance

Risks	
	Kerb overrun
	Restrictive road width

P1	مخطط	REV	Draft for Discussion / Review	REV	APR
Rev	Date	Drawn	Description	CHK'd	App'd



Title

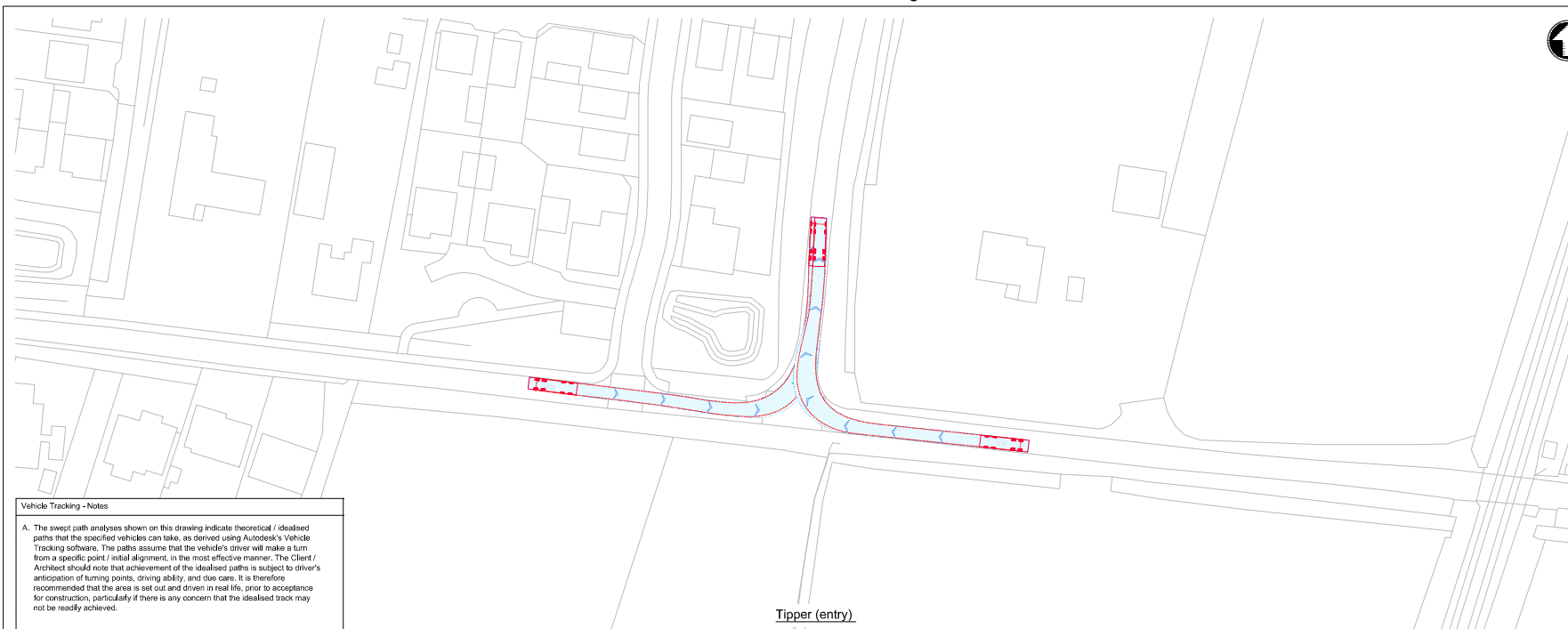
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Bannold Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	REV	Eng check	-	
Drawn	M Fonseca	REV	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

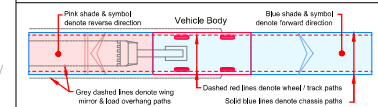
Drawing Number

102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Dimensions
Garrett Low Loader with Trailer (18.2m)	Overall Length: 17.31m Overall Width: 2.46m Overall Body Height: 3.43m Min Body Ground Clearance: 0.32m Max Body Height: 6.07m Lock to Lock time: 6.53sec Kerb to Kerb Turning Radius: 10.00m	Large Mobile Crane Overall Length: 12.00m Overall Width: 2.43m Overall Body Height: 3.38m Min Body Ground Clearance: 0.32m Max Body Height: 6.07m Lock to Lock time: 6.07m Kerb to Kerb Turning Radius: 10.00m

Vehicle	Dimensions	Dimensions
Large Tipper	Overall Length: 10.20m Overall Width: 2.45m Overall Body Height: 3.31m Min Body Ground Clearance: 0.32m Max Body Height: 6.07m Lock to Lock time: 11.55m	Standard Design Vehicle (SDV) Overall Length: 4.60m Overall Width: 2.00m Overall Body Height: 1.98m Min Body Ground Clearance: 0.32m Max Body Height: 6.07m Lock to Lock time: 4.00m Kerb to Kerb Turning Radius: 5.00m

Vehicle Tracking - Risks & Compliance

Risks



P1	Rev	Date	Drawn	Description	Rev	Appr

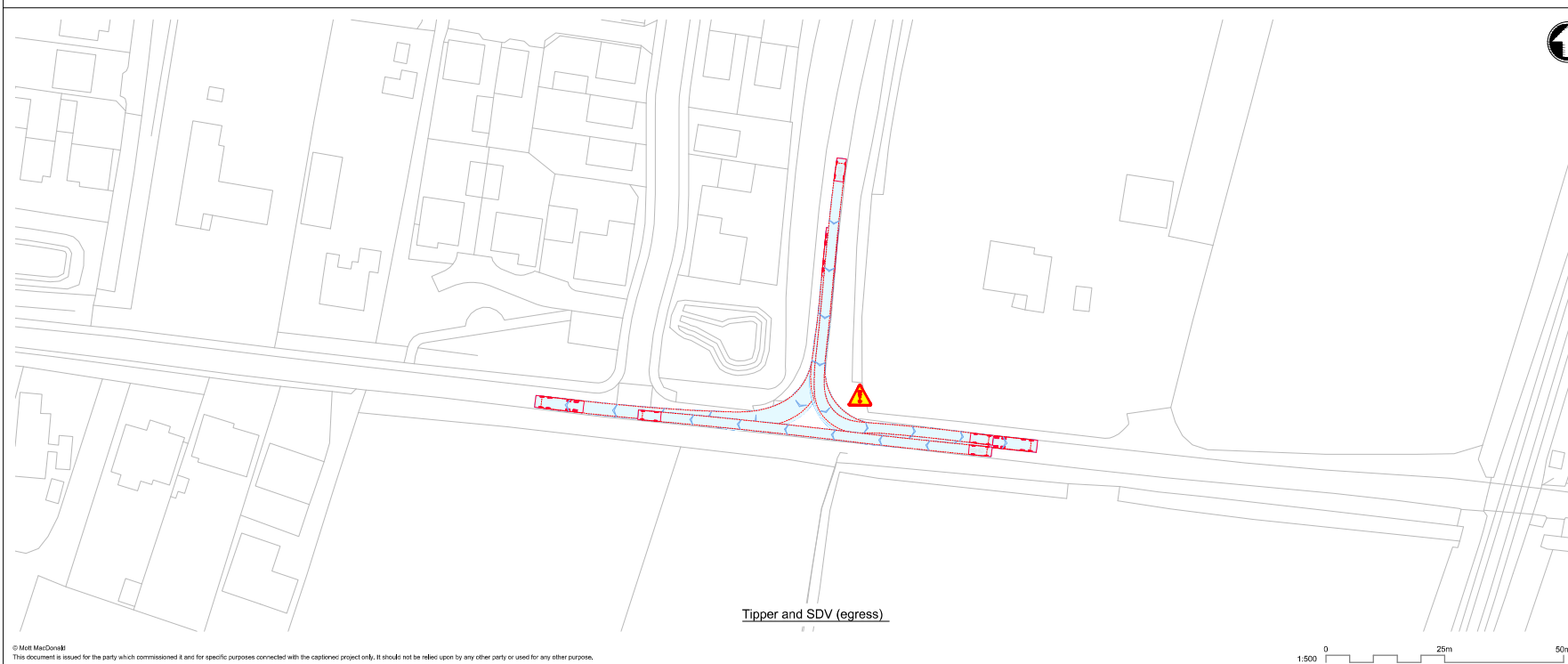
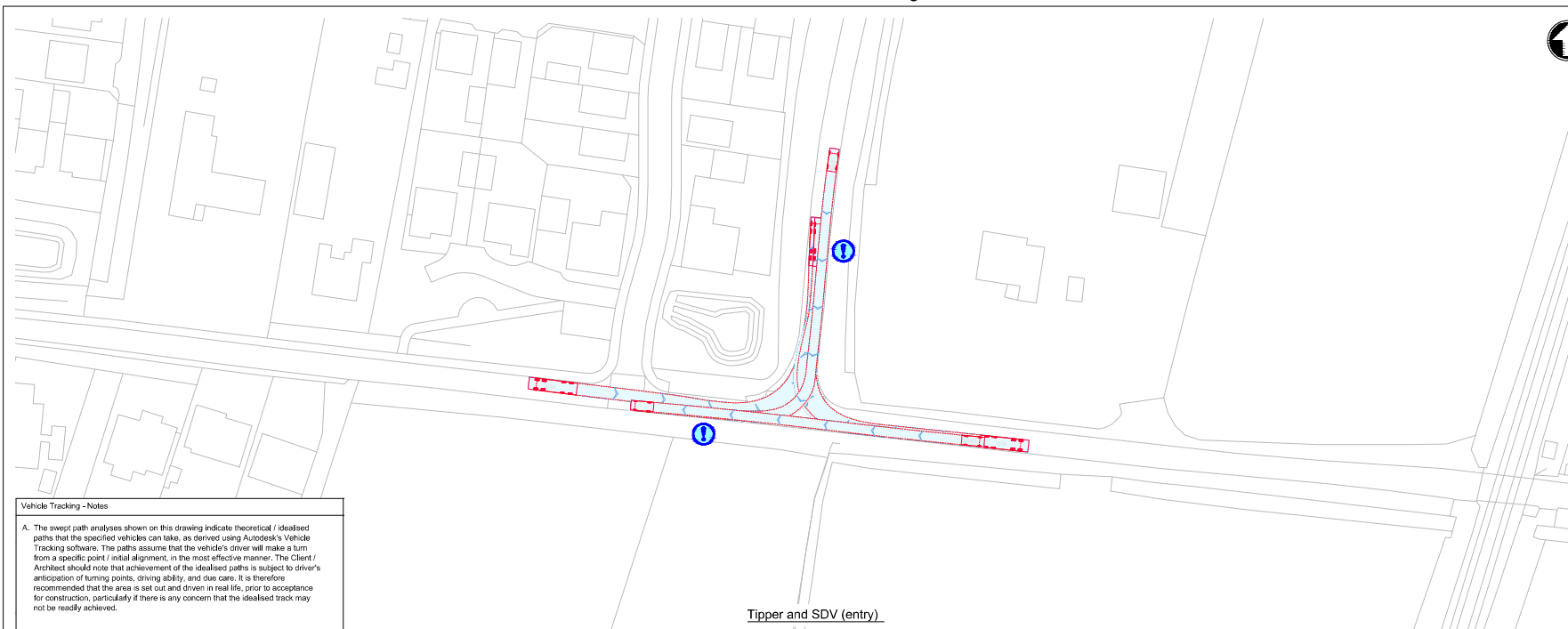


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Bannold Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

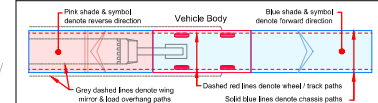
Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Vehicle	Dimensions
Garrett Low Loader with Trailer (18.2m)	Overall Length: 17.91m Overall Width: 2.64m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 2.32m Lock to Lock time: 6.07m Kerb to Kerb Turning Radius: 6.53m	Large Mobile Crane	Overall Length: 12.30m Overall Width: 2.43m Overall Body Height: 3.38m Min Body Ground Clearance: 0.30m Max Body Height: 2.21m Lock to Lock time: 6.07m Kerb to Kerb Turning Radius: 10.00m

Vehicle	Dimensions	Vehicle	Dimensions
Large Tipper	Overall Length: 10.20m Overall Width: 2.85m Overall Body Height: 3.31m Min Body Ground Clearance: 0.27m Max Body Height: 11.55m Lock to Lock time: 11.55m	Standard Design Vehicle (SDV)	Overall Length: 4.60m Overall Width: 2.00m Overall Body Height: 1.98m Min Body Ground Clearance: 0.10m Max Body Height: 2.00m Lock to Lock time: 4.00m Kerb to Kerb Turning Radius: 5.00m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	Appr



Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Bannold Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-	
Drawn	M Fonseca	Rev	Coordination	-	
Dwg check	-	Rev	Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

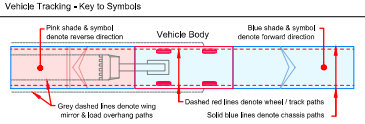
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



Vehicle Tracking - Notes

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 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
 8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
 14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.
- 15. DRAWING MUST BE READ IN COLOUR**



Vehicle Tracking - Vehicle Details

Low Loader	Large Mobile Crane
Overall Length 12.00m	Overall Length 12.00m
Overall Width 2.40m	Overall Width 2.40m
Overall Body Height 3.00m	Overall Body Height 3.00m
Min Body Ground Clearance 0.30m	Min Body Ground Clearance 0.30m
Max Body Height 3.00m	Max Body Height 3.00m
Lock to Lock time 6.00m	Lock to Lock time 6.00m
Arch to Kerb Turning Radius 6.00m	Kerb to Kerb Turning Radius 10.00m

Large Tipper	Standard Design Vehicle (SDV)
Overall Length 10.00m	Overall Length 4.80m
Overall Width 2.40m	Overall Width 2.00m
Overall Body Height 3.00m	Overall Body Height 2.00m
Min Body Ground Clearance 0.30m	Min Body Ground Clearance 0.30m
Max Body Height 3.00m	Max Body Height 2.00m
Lock to Lock time 6.00m	Lock to Lock time 4.00m
Kerb to Kerb Turning Radius 6.00m	Kerb to Kerb Turning Radius 4.00m

Vehicle Tracking - Risks & Compliance

Risks			
Kerb overrun			
Restrictive road width			

P1	مراجعة	RF	Draft for Discussion / Review.	RF	RF
Rev	Date	Drawn	Description	CHK'd	App'd



Title

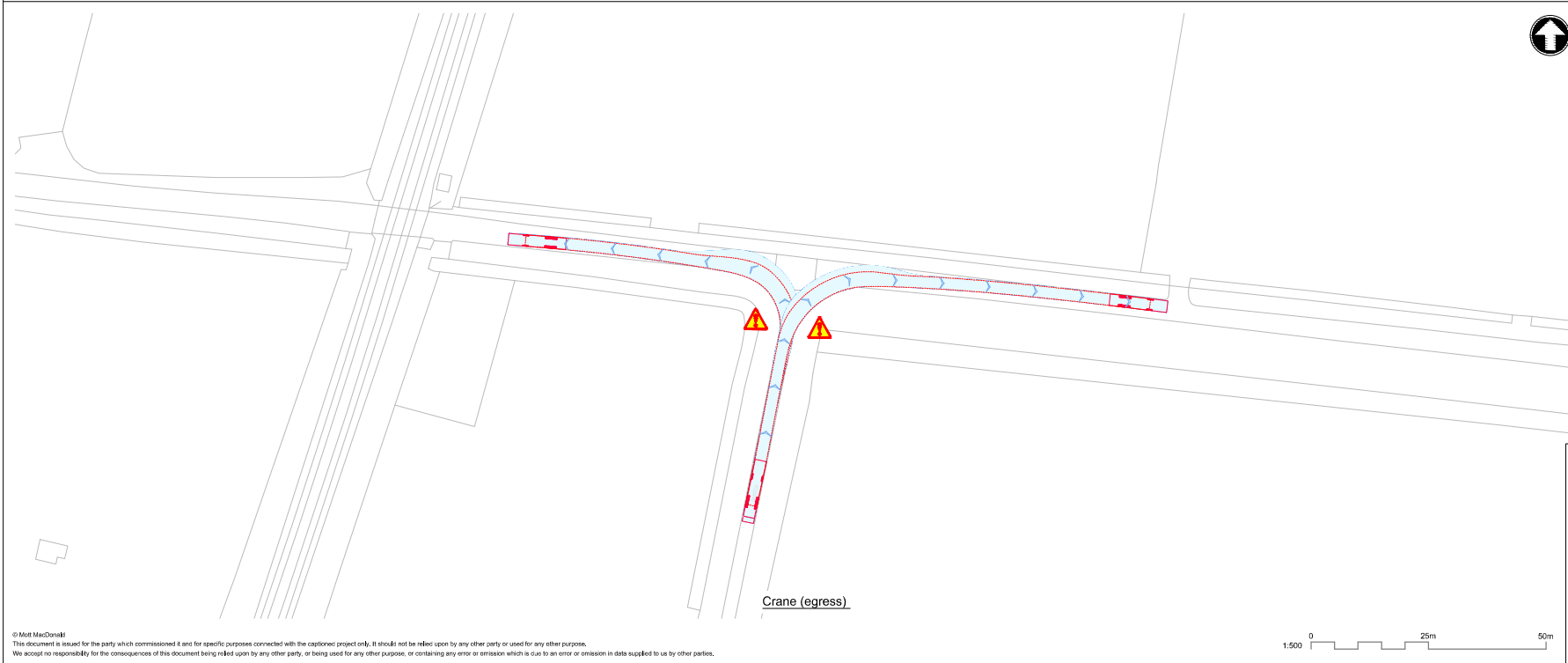
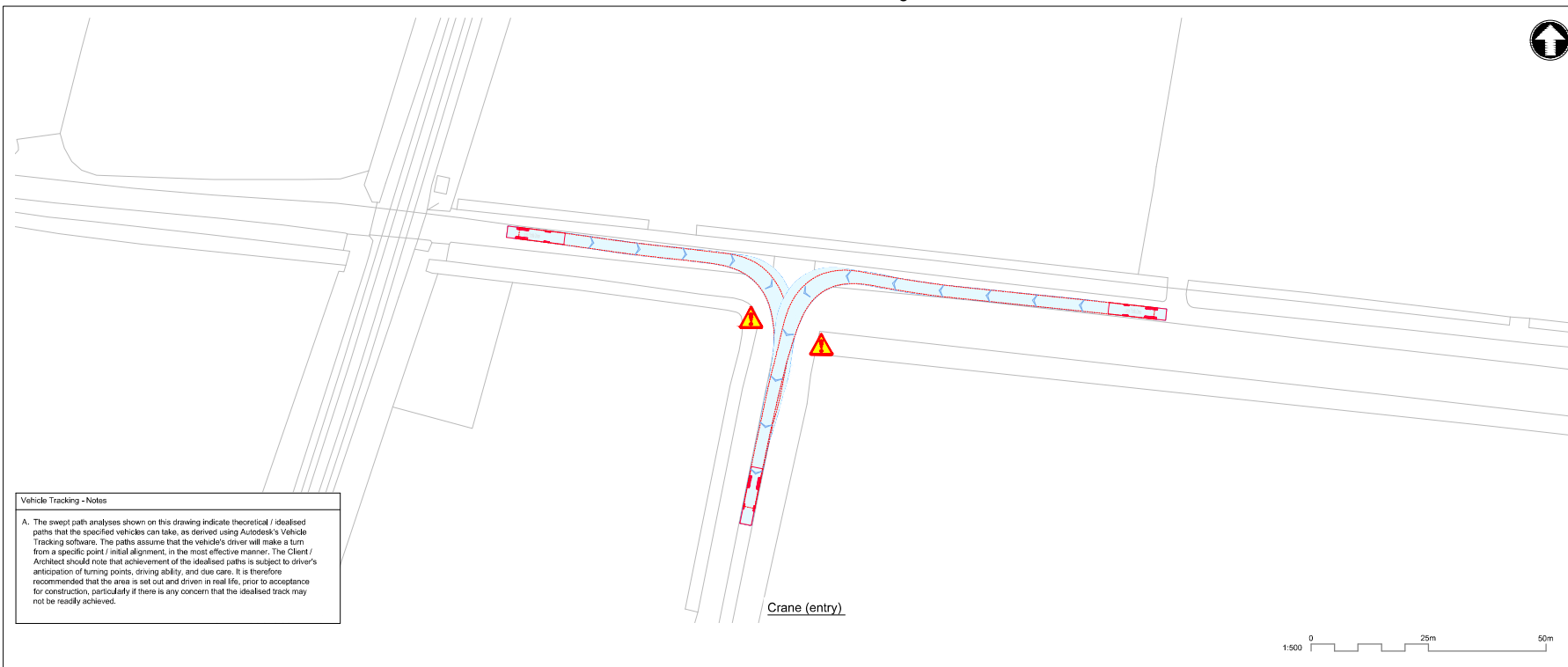
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Burgess's Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	RF	Eng check	-	
Drawn	M Fonseca	RF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

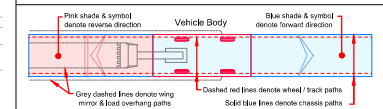
Drawing Number

102375-MMD-01-XX-DR-C-DRAFT

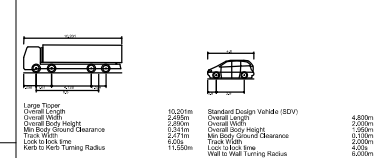
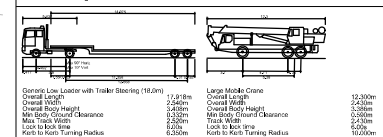


- Notes
- 1. Do not scale from this drawing.
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 - 3. Any drawings, plans or documents of any kind that are not part of this project must be destroyed. Do not photocopy or otherwise reproduce any part of this project.
 - 4. This drawing has been prepared for the initial high level consultation study for the COWIT project.
 - 5. The drawing is based on OS mapping information and LIDAR data.
 - 6. The information is preliminary and subject to further detailed design.
 - 7. COW design has not been submitted to the Highway Authority or Highway England for their technical review.
 - 8. The drawing does not include any information on proposed highway drainage and flood protection. See, existing or permitted, or any other existing aspects that may need to be protected or diverted as part of the works.
 - 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is of a change and additional land take.
 - 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme.
 - 11. The design assumes an embankment depth of 1.5 is acceptable to the relevant stakeholders.
 - 12. The design is based on the requirements of DWfB. Manual for Streets has been adopted for some extents of the proposed access roads.
 - 13. The proposal requires their party land to be constructed. The extent of the land take is to be determined during the detailed design stage. This drawing is for this purpose.
 - 14. This drawing should be read in conjunction with the Technical Memo, Cambridge Water Treatment Works Relocation Early assessment and siting of proposed site access options.
- 15. DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details



Vehicle Tracking - Risks & Compliance

Risks



P1		<i>MF</i>	Draft for Discussion / Review.	<i>MF</i>	<i>MF</i>
Rev	Date	Drawn	Description	Chk'd	App'd

	Client
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Title	Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions Bannold Rd - Burgess's Drove Highways GA, Visibility Splay and Vehicle Tracking
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Designed	M Fonseca	<i>MF</i>	Eng check	-	
Drawn	M Fonseca	<i>MF</i>	Coordination	-	
Dwg check	-		Approved	-	
Scale at A1	Status		Rev	Security	
1:500	PRE		P1	STD	

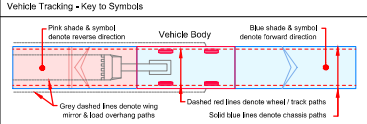
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

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 3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
 4. This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
 5. The drawing is based on OS mapping information and LIDAR data.
 6. The information is preliminary and subject to further detailed design.
 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
 8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
 14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.
- 15. DRAWING MUST BE READ IN COLOUR**



Vehicle Tracking - Vehicle Details

Standard Low Loader with Trailer Steering (18.2m)	Large Mobile Crane
Overall Length 17.918m	Overall Length 12.300m
Overall Width 2.460m	Overall Width 2.430m
Overall Body Height 3.430m	Overall Body Height 3.300m
Min Body Ground Clearance 0.320m	Min Body Ground Clearance 0.300m
Max Body Height 6.07m	Max Body Height 6.07m
Lock to lock time 6.53sec	Lock to lock time 6.07m
Arch to Kerb Turning Radius 6.53m	Kerb to Kerb Turning Radius 10.00m

Large Tipper	Standard Design Vehicle (SDV)
Overall Length 10.200m	Overall Length 4.600m
Overall Width 2.485m	Overall Width 2.000m
Overall Body Height 3.371m	Overall Body Height 2.000m
Min Body Ground Clearance 0.271m	Min Body Ground Clearance 0.100m
Max Body Height 6.07m	Max Body Height 2.000m
Lock to lock time 11.550m	Lock to lock time 4.00m
Kerb to Kerb Turning Radius 11.550m	Weld to Wall Turning Radius 6.000m

Vehicle Tracking - Risks & Compliance

Risks			
Kerb overrun			
Restrictive road width			
P1	مراجعة	APF	Draft for Discussion / Review
Rev	Date	Drawn	Description

Client

Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Burgess's Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	APF	Eng check	-	
Drawn	M Fonseca	APF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



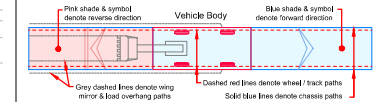
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15. **DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
Concrete Lorry Loader with Trailer (18.2m)	18.2m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.80m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
Large Tipper	10.00m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.80m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	App'd

Client



Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Burgess's Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-	
Drawn	M Fonseca	Rev	Coordination	-	
Dwg check	-	Approved	-		

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

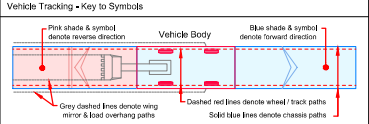
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



Vehicle Tracking - Notes

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 15. **DRAWING MUST BE READ IN COLOUR**



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
General Low Loader with Trailer (18.2m)	18.2m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m

Overall Length: 18.2m, Overall Width: 2.40m, Overall Height: 3.40m, Min Body Ground Clearance: 0.30m, Min Body Ground Clearance: 0.30m, Min Body Ground Clearance: 0.30m, Min Body Ground Clearance: 0.30m

Overall Length: 12.00m, Overall Width: 2.40m, Overall Height: 3.40m, Min Body Ground Clearance: 0.30m, Min Body Ground Clearance: 0.30m, Min Body Ground Clearance: 0.30m, Min Body Ground Clearance: 0.30m

Overall Length: 4.60m, Overall Width: 2.00m, Overall Height: 2.00m, Min Body Ground Clearance: 0.30m, Min Body Ground Clearance: 0.30m, Min Body Ground Clearance: 0.30m, Min Body Ground Clearance: 0.30m

Vehicle Tracking - Risks & Compliance

Risks

⚠	Kerb overrun
⚠	Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	App'd



Title

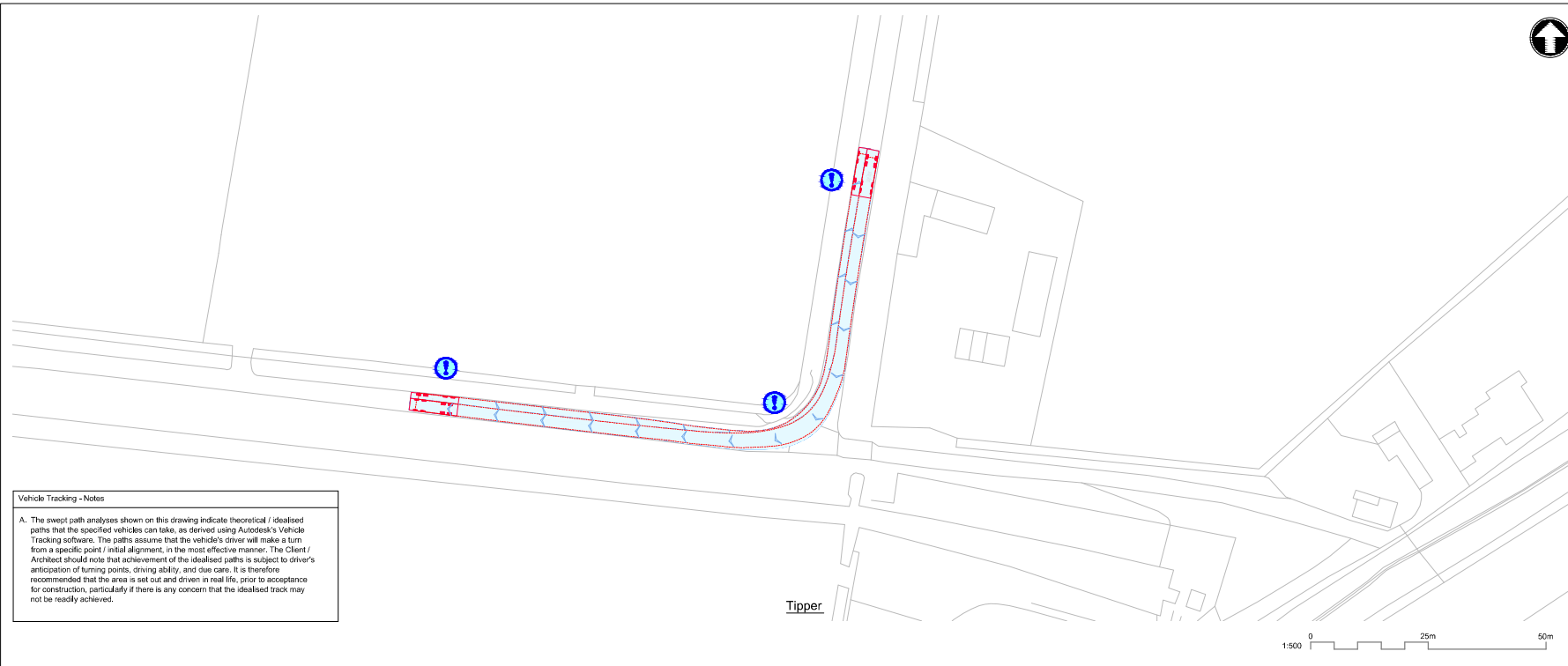
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Long Drive
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

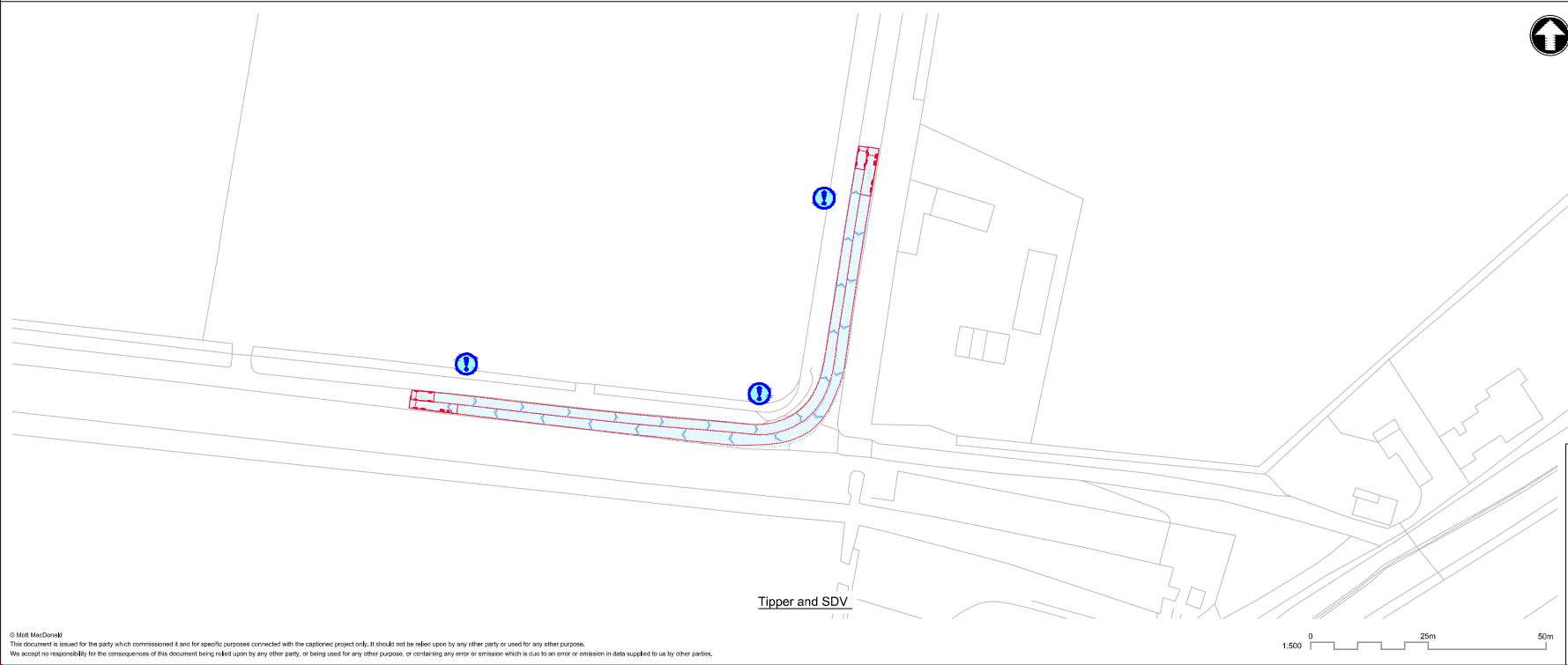
Drawing Number

102375-MMD-01-XX-DR-C-DRAFT



Vehicle Tracking - Notes

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15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols

Pink shade & symbol denote reverse direction
Vehicle Body
Blue shade & symbol denote forward direction
Grey dashed lines denote wing mirror & load overhang paths
Dashed red lines denote wheel / track paths
Solid blue lines denote chassis paths

Vehicle Tracking - Vehicle Details

General Low Loader with Trailer (Steering 18.2m)	Large Mobile Crane	12,300mm	
Overall Length	7,318mm	Overall Length	2,430mm
Overall Width	2,460mm	Overall Width	2,430mm
Overall Body Height	4,430mm	Overall Body Height	3,300mm
Min Body Ground Clearance	2,320mm	Min Body Ground Clearance	2,300mm
Max Body Height	6,070mm	Max Body Height	6,070mm
Lock to Lock time	6.07m	Lock to Lock time	6.07m
Lock to Kerb Turning Radius	6.07m	Lock to Kerb Turning Radius	6.07m

Large Tipper	10,200mm	Standard Design Vehicle (SDV)	4,600mm
Overall Length	2,460mm	Overall Length	2,930mm
Overall Width	2,460mm	Overall Width	2,930mm
Overall Body Height	4,430mm	Overall Body Height	4,430mm
Min Body Ground Clearance	2,320mm	Min Body Ground Clearance	2,300mm
Max Body Height	6,070mm	Max Body Height	6,070mm
Lock to Lock time	6.07m	Lock to Lock time	6.07m
Lock to Kerb Turning Radius	6.07m	Lock to Kerb Turning Radius	6.07m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	مراجعة	REV	Draft for Discussion / Review.	REV	REV
Rev	Date	Drawn	Description	CHK'd	App'd

Client

Title

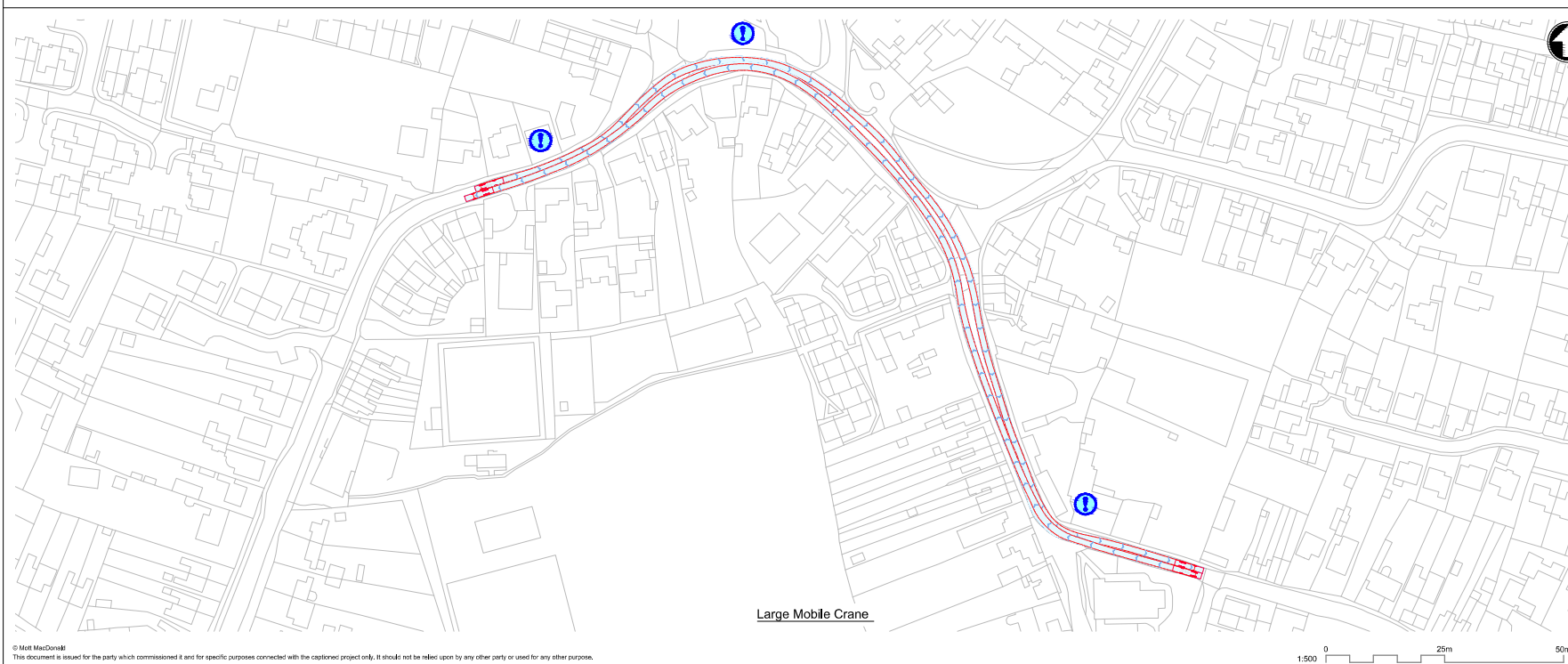
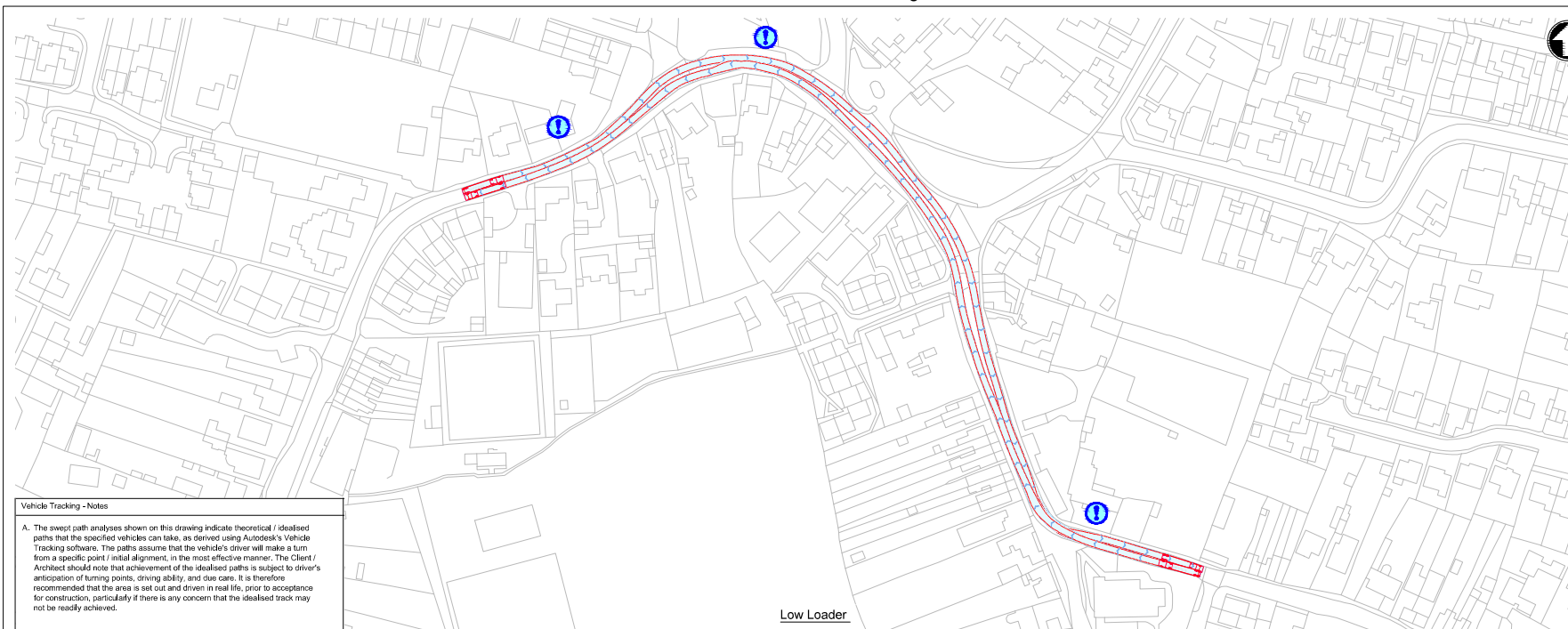
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Long Drive
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	REV	Eng check	-	
Drawn	M Fonseca	REV	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

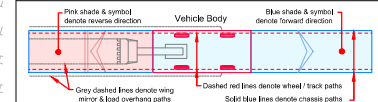
Drawing Number

102375-MMD-01-XX-DR-C-DRAFT



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- 15.DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Dimensions
Control Low Loader with Trailer (Steering 18.2m)	Overall Length: 24.6m Overall Width: 2.46m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 11.50m	Overall Length: 12.20m Overall Width: 2.46m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 11.50m

Vehicle	Dimensions	Dimensions
Large Tipper	Overall Length: 10.20m Overall Width: 2.46m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 11.50m	Overall Length: 4.60m Overall Width: 2.46m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 11.50m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	App'd

Client

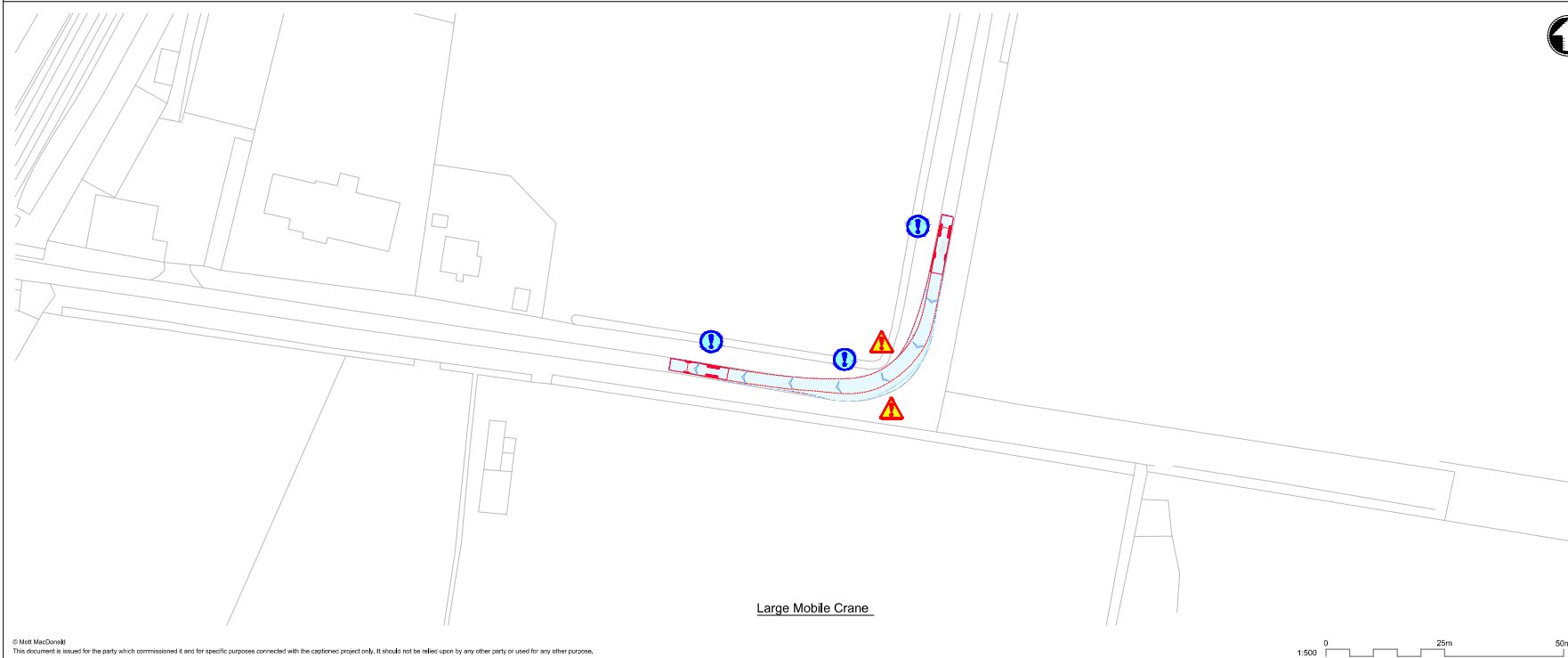
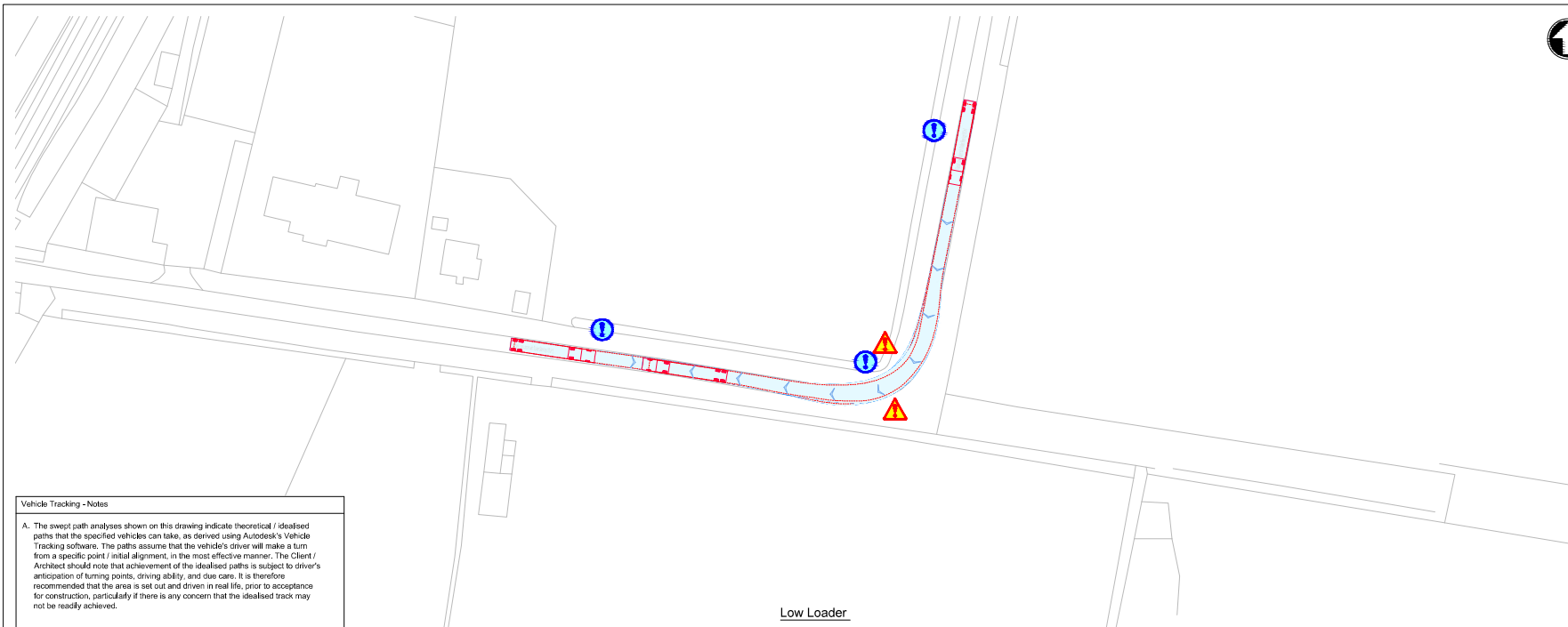


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Cambridge Rd - Chapel St - Station Rd
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	
Scale at A1	1:500	Status	PRE	Rev	P1
Drawing Number	102375-MMD-01-XX-DR-C-DRAFT	Security	STD		

P1	الموافق	BSF	Draft for Discussion / Review.	BSF	BSF
Rev	Date	Drawn	Description	Chk'ds	App'd

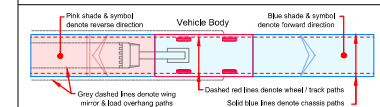
Drawing Number
102375-MMD-01-XX-DB-C-DRAFT



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15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Max Body Ground Clearance	Max Body Height	Lock to Lock Time	Kerb to Kerb Turning Radius
General Low Loader with Trailer (18.2m)	17.91m	2.46m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.30m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Max Body Ground Clearance	Max Body Height	Lock to Lock Time	Kerb to Kerb Turning Radius
Large Tipper	10.20m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	Appr

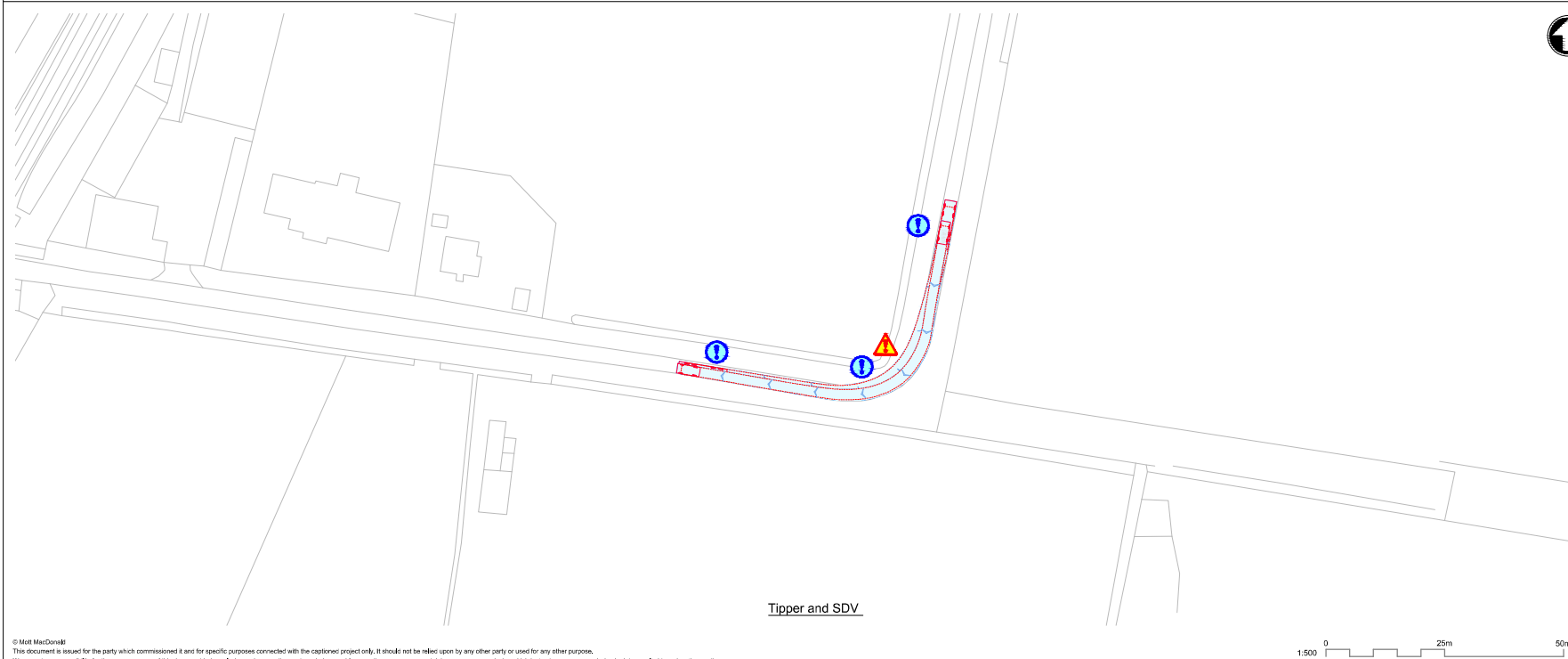
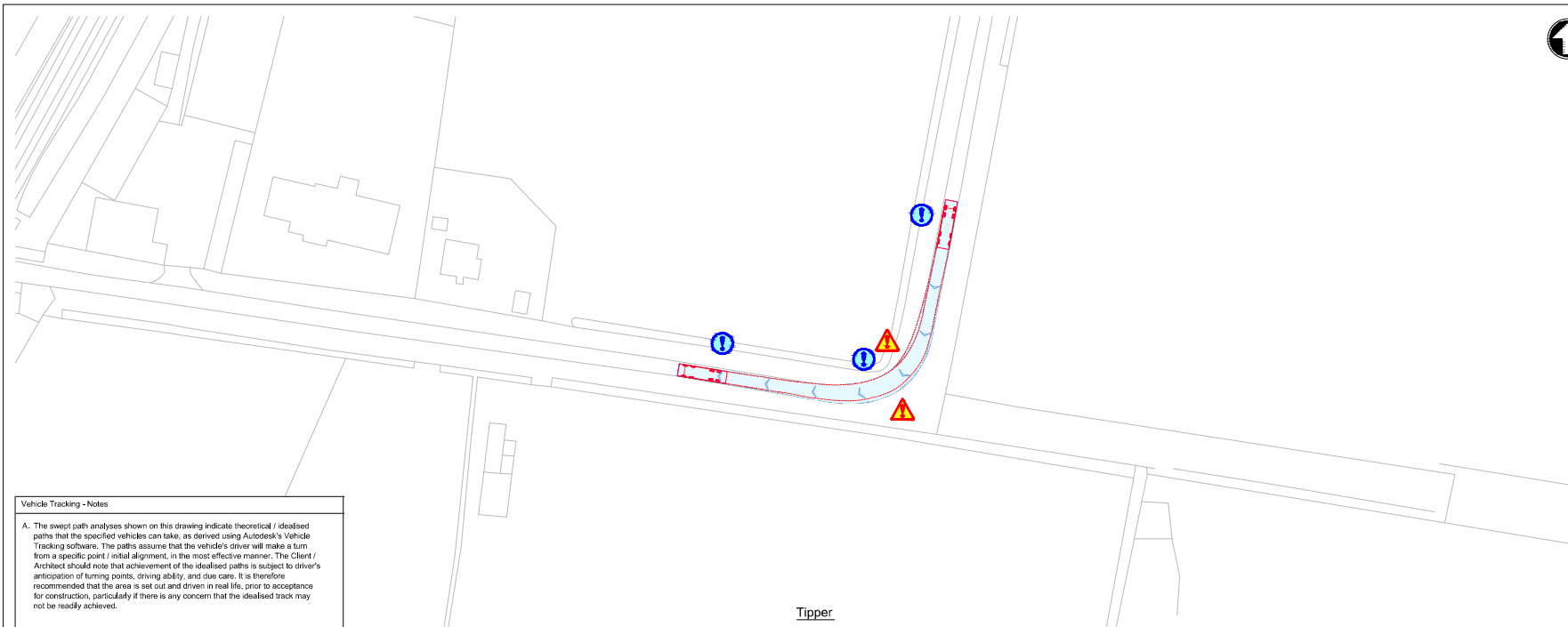


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Burgess's Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

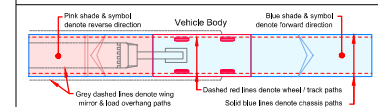
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



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15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Vehicle	Dimensions
General Low Loader with Trailer (Steering 18.20m)	Overall Length: 7.318m Overall Width: 2.460m Overall Body Height: 3.400m Min Body Ground Clearance: 0.300m Max Body Height: 6.00m Lock to Lock time: 6.500m Kerb to Kerb Turning Radius: 6.500m	Large Mobile Crane	Overall Length: 12.300m Overall Width: 2.400m Overall Body Height: 3.300m Min Body Ground Clearance: 0.300m Max Body Height: 6.00m Lock to Lock time: 6.00m Kerb to Kerb Turning Radius: 10.000m

Vehicle	Dimensions	Vehicle	Dimensions
Large Tipper	Overall Length: 10.200m Overall Width: 2.450m Overall Body Height: 3.300m Min Body Ground Clearance: 0.300m Max Body Height: 6.00m Lock to Lock time: 11.500m Kerb to Kerb Turning Radius: 11.500m	Standard Design Vehicle (SDV)	Overall Length: 4.600m Overall Width: 2.000m Overall Body Height: 1.900m Min Body Ground Clearance: 0.300m Max Body Height: 2.200m Lock to Lock time: 4.00m Kerb to Kerb Turning Radius: 4.00m



Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	App'd

Client

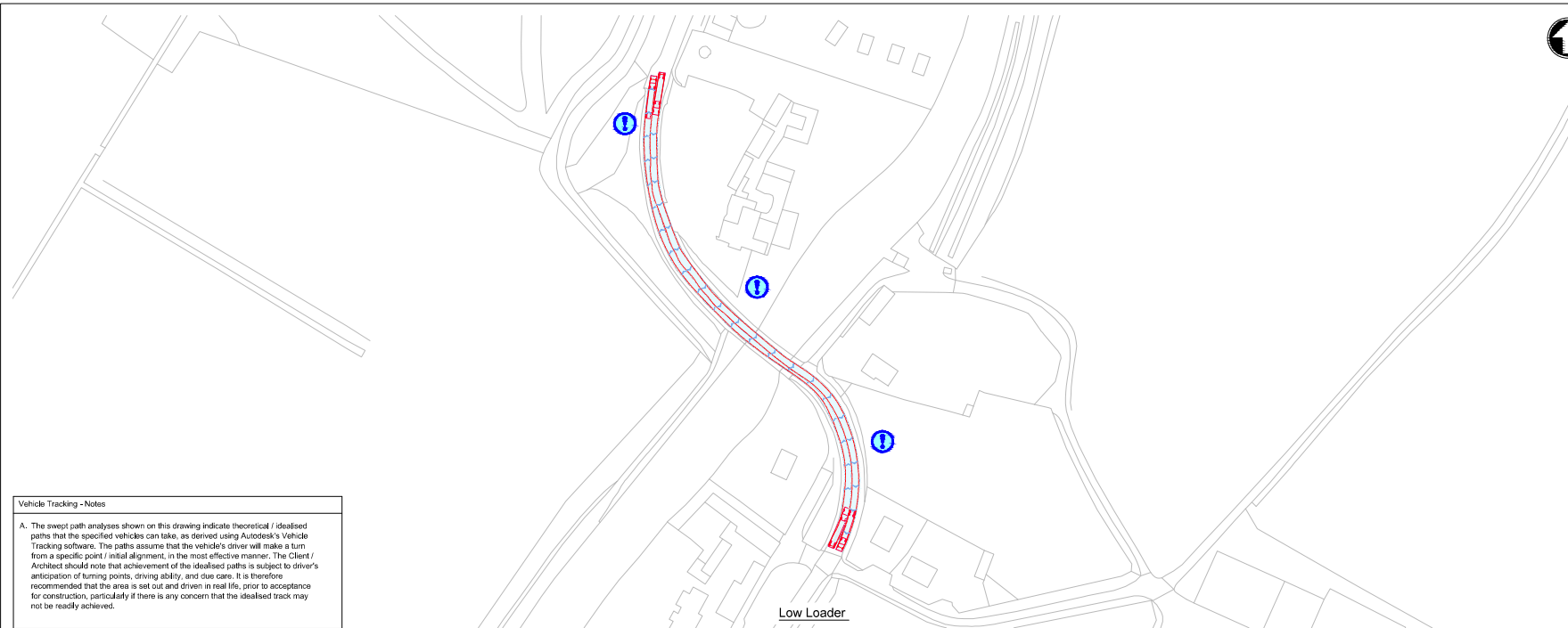


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Burgess's Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

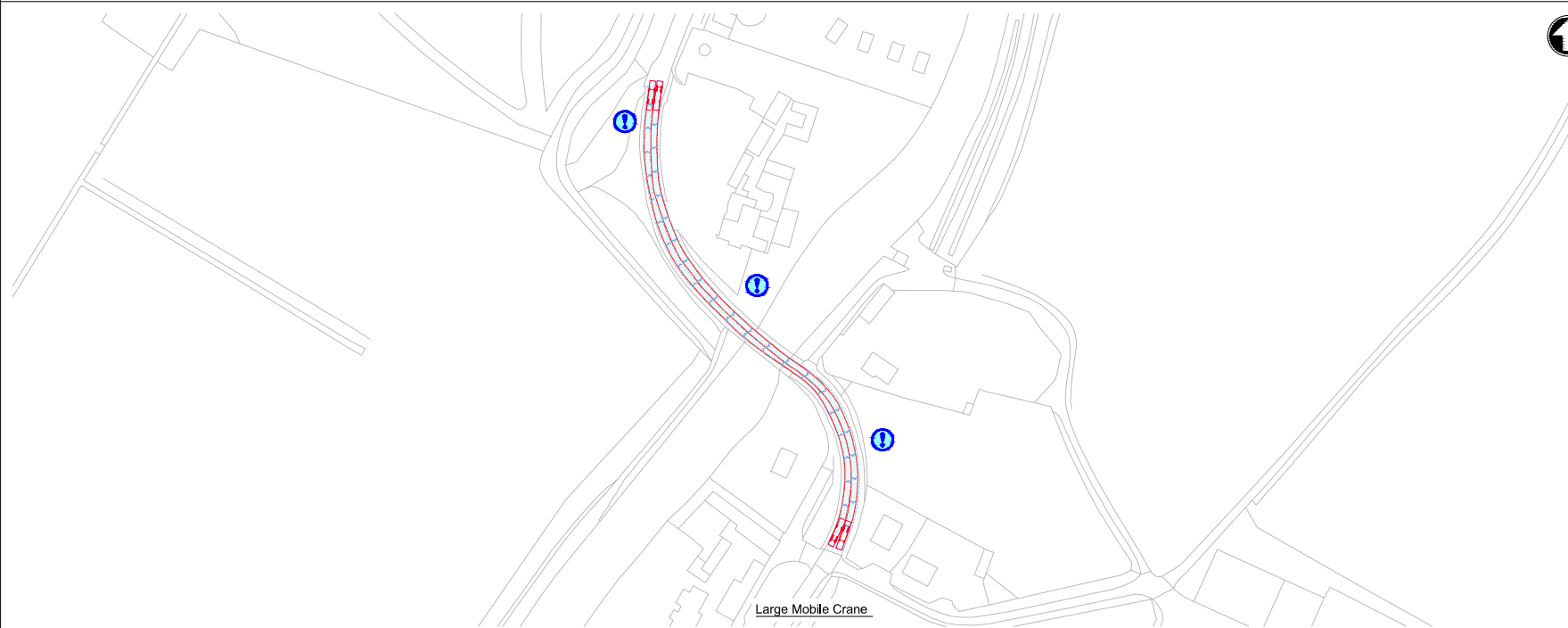
Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT

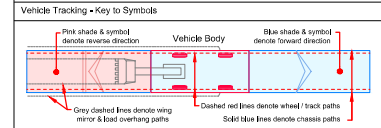


Vehicle Tracking - Notes

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Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Max Body Height	Lock to Lock Time	Kerb to Kerb Turning Radius
Standard Low Loader with Trailer (18.2m)	18.2m	2.40m	4.00m	0.30m	4.00m	6.0m	6.0m
Large Mobile Crane	12.00m	2.40m	4.00m	0.30m	4.00m	6.0m	6.0m
Large Tipper	10.00m	2.40m	4.00m	0.30m	4.00m	6.0m	6.0m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	2.00m	6.0m	6.0m

Vehicle Tracking - Risks & Compliance

Risks			
 Kerb overrun			
 Restrictive road width			

P1	Rev	Date	Description	Rev	Date	Description

Client



Title

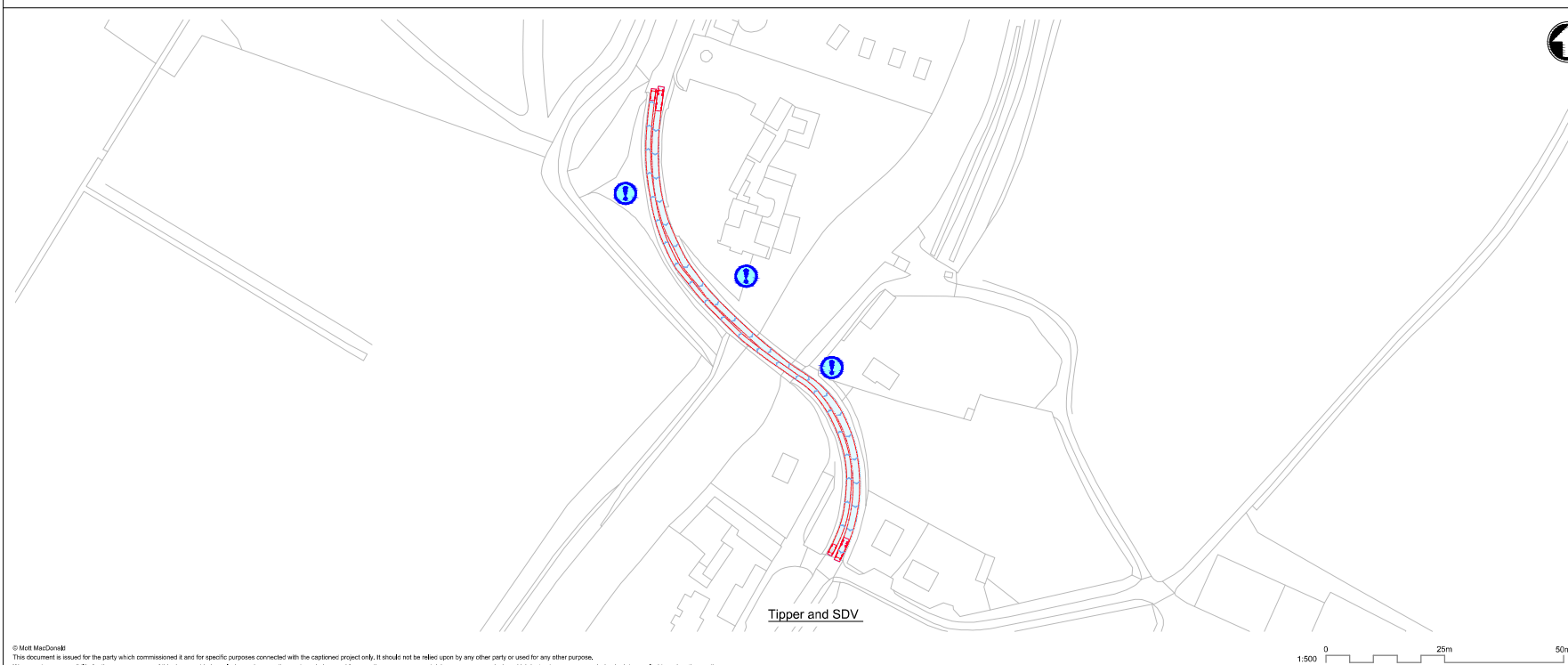
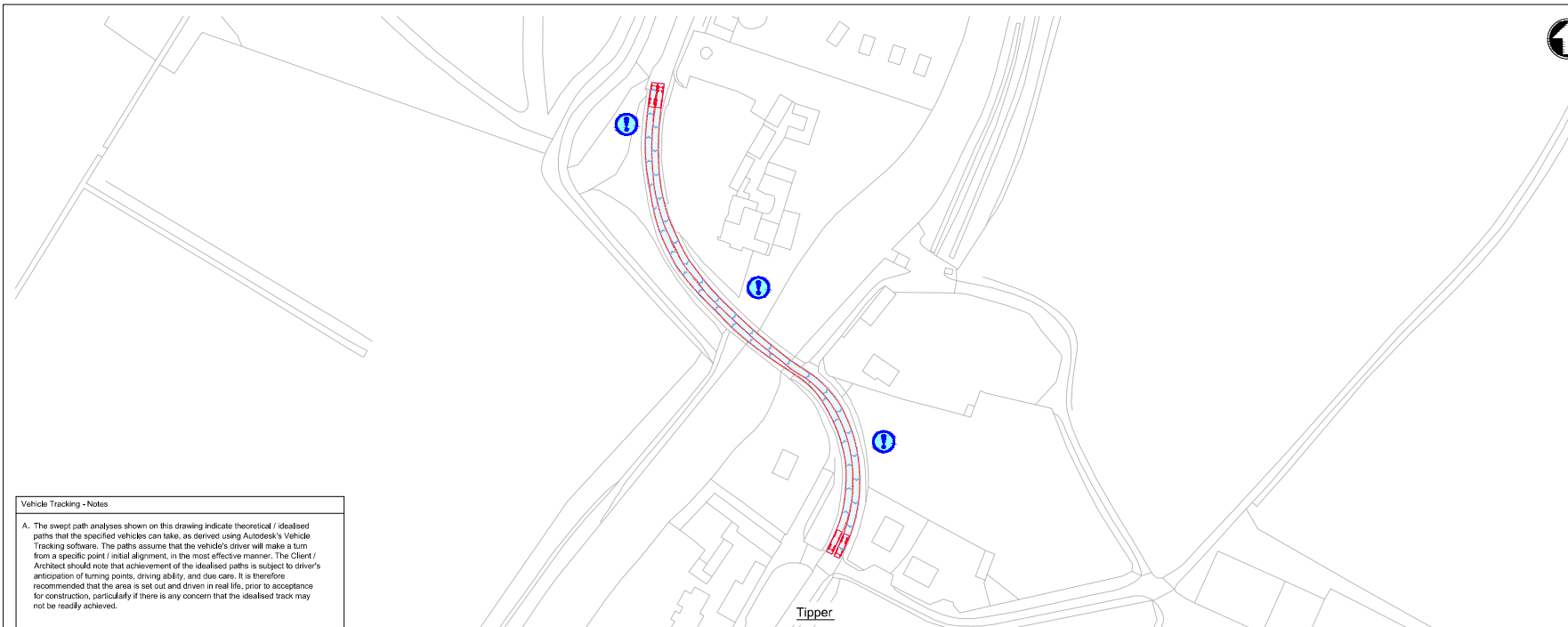
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Claythorpe Bridge
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-	
Drawn	M Fonseca	Rev	Coordination	-	
Dwg check	-		Approved	-	

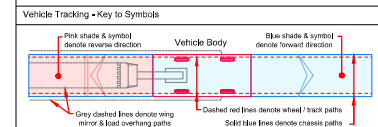
Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number

102375-MMD-01-XX-DR-C-DRAFT



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 15. **DRAWING MUST BE READ IN COLOUR**



Vehicle Tracking - Vehicle Details

Compact Low Loader with Trailer (Steering 18.2m)	Large Mobile Crane	Large Tipper
Overall Length	7.318m	Overall Length
Overall Width	2.640m	Overall Width
Overall Body Height	3.430m	Overall Body Height
Min Body Ground Clearance	0.320m	Min Body Ground Clearance
Max Body Height	6.07m	Max Body Height
Lock to Lock Time	6.530m	Lock to Lock Time
Kerb to Kerb Turning Radius	11.020m	Kerb to Kerb Turning Radius

Large Tipper	Standard Design Vehicle (SDV)
Overall Length	10.200m
Overall Width	2.480m
Overall Body Height	3.310m
Min Body Ground Clearance	0.320m
Max Body Height	6.07m
Lock to Lock Time	6.07m
Kerb to Kerb Turning Radius	11.020m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	Date



Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Claythorpe Bridge
Highways GA, Visibility Splay and
Vehicle Tracking

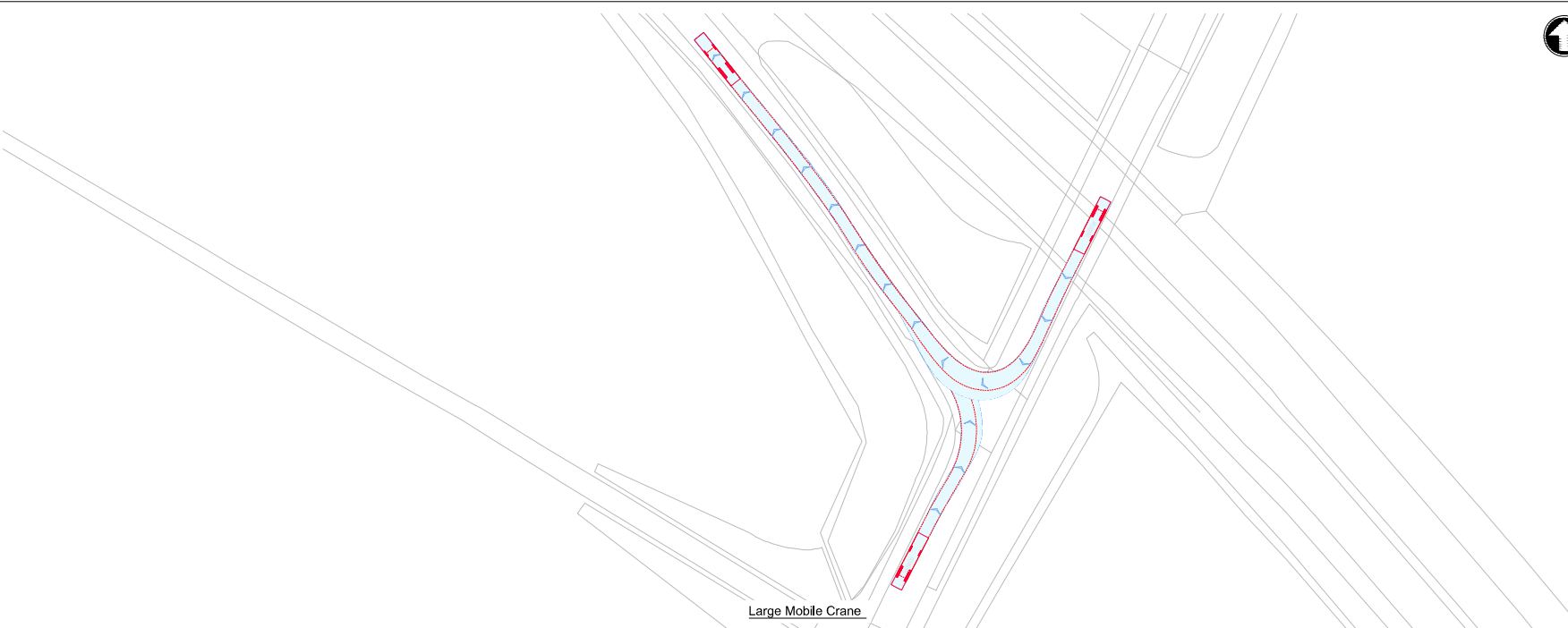
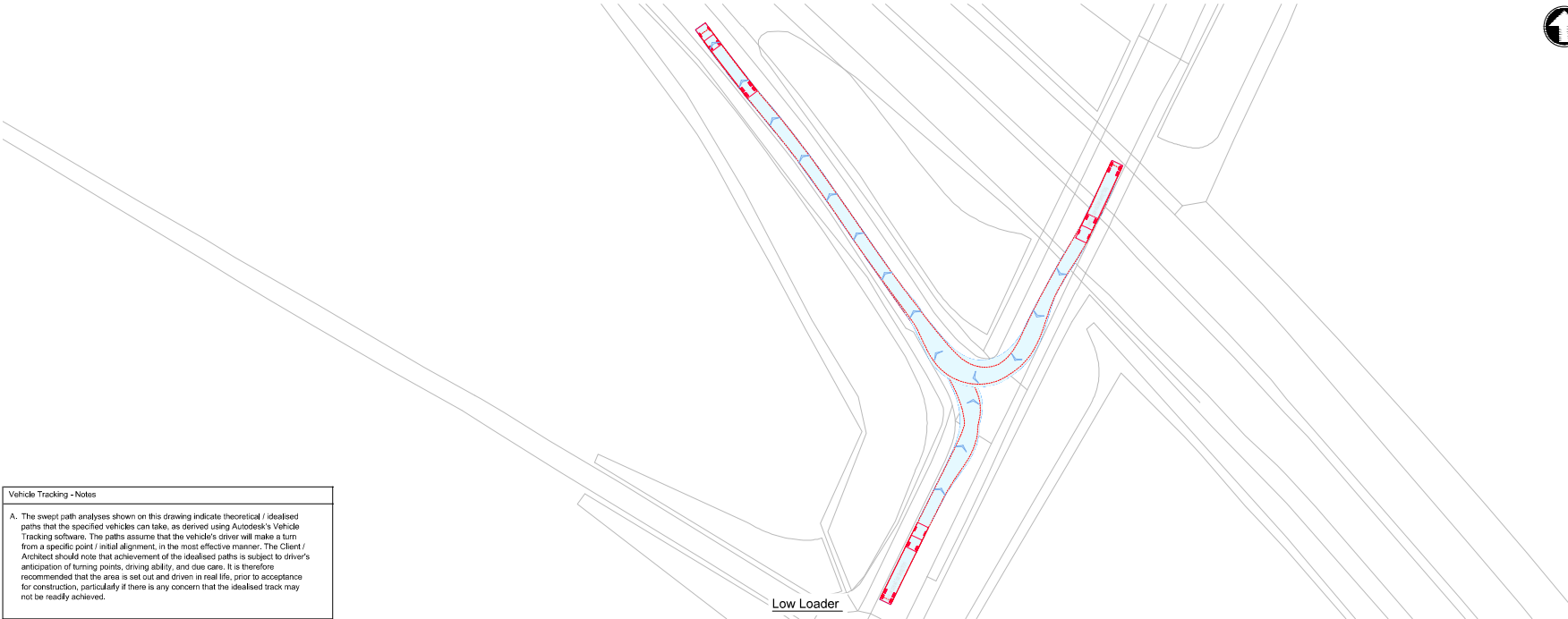
Designed	M Fonseca	Rev	Eng check	-
Drawn	M Fonseca	Rev	Coordination	-
Dwg check	-	Approved	-	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

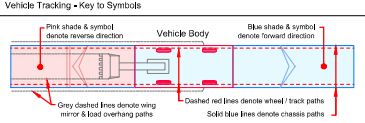
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT

Vehicle Tracking - Notes

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Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
General Low Loader with Trailer (18.2m)	18.2m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.00m	2.40m	3.40m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m

Overall Length	18.2m	Overall Length	12.00m	Overall Length	10.00m	Overall Length	4.60m
Overall Width	2.40m	Overall Width	2.40m	Overall Width	2.40m	Overall Width	2.00m
Overall Height	3.40m	Overall Height	3.40m	Overall Height	3.40m	Overall Height	3.40m
Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m
Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m
Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m
Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m
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Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m
Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m	Min Body Ground Clearance	0.30m

Vehicle Tracking - Risks & Compliance

- Risks**
- Kerb overrun
 - Restrictive road width

P1	مراجعة	RF	Draft for Discussion / Review.	RF	RF
Rev	Date	Drawn	Description	CHK'd	App'd

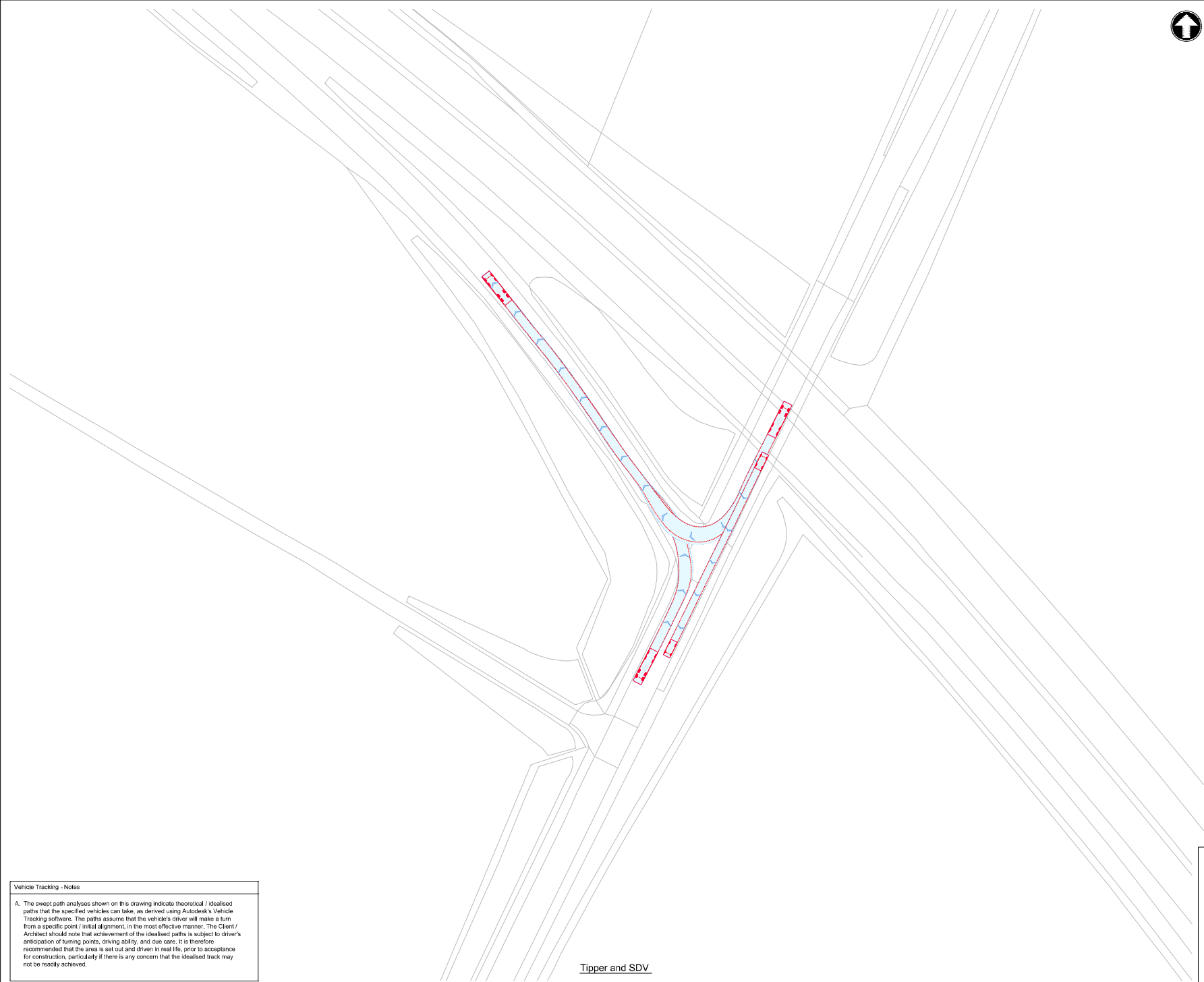


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
B1047 - A14 Junction 34
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	RF	Eng check	-	
Drawn	M Fonseca	RF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



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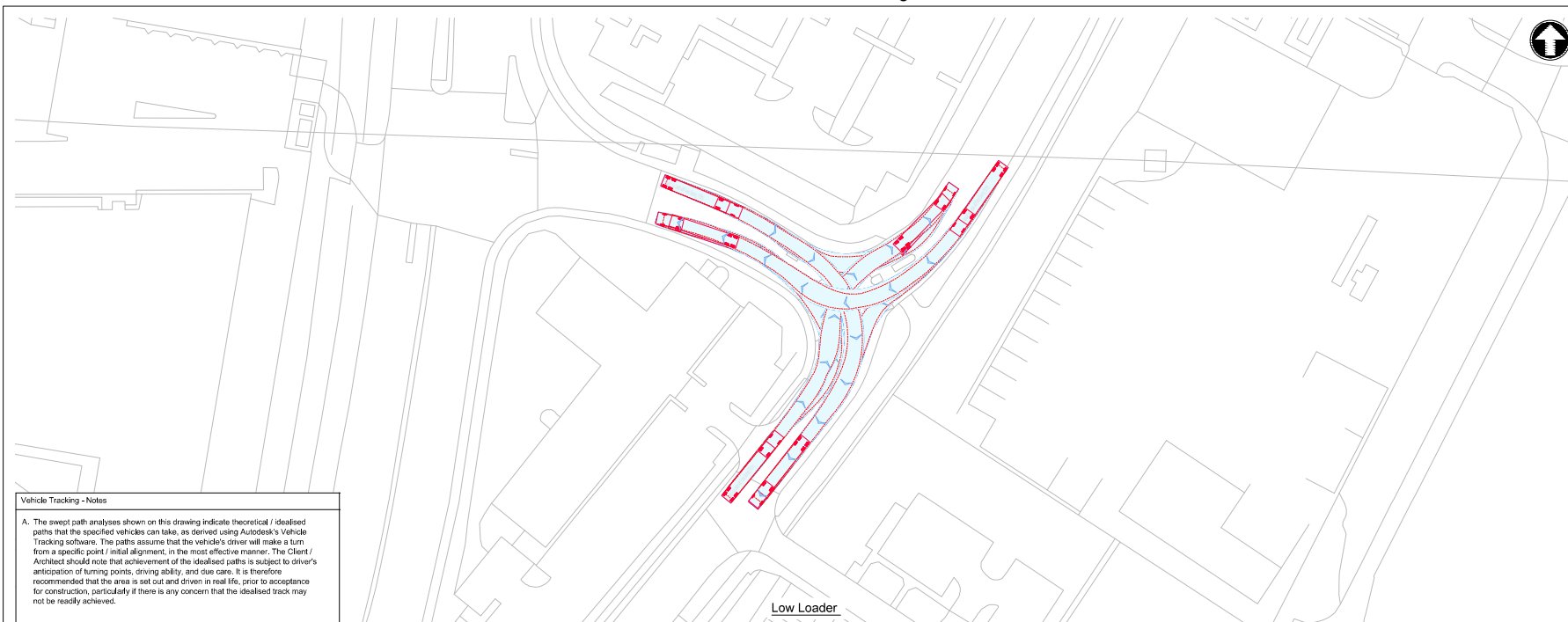
Vehicle Tracking - Key to Symbols
Pink shade & symbol denote reverse direction Vehicle Body Blue shade & symbol denote forward direction Dashed red lines denote wheel / track paths Solid blue lines denote chassis paths Grey dashed lines denote wing mirror & load overhang paths

Vehicle Tracking - Vehicle Details
General Low Loader with Trailer (Steering 18.2m) Overall Length 17.31m Overall Width 2.46m Overall Body Height 3.43m Min Body Ground Clearance 0.32m Max Body Width 2.52m Lock to Lock time 6.07m Kerb to Kerb Turning Radius 6.53m Large Mobile Crane Overall Length 12.30m Overall Width 2.43m Overall Body Height 3.38m Min Body Ground Clearance 0.31m Max Body Width 2.51m Lock to Lock time 6.07m Kerb to Kerb Turning Radius 6.53m Large Tipper Overall Length 10.20m Overall Width 2.45m Overall Body Height 3.37m Min Body Ground Clearance 0.31m Max Body Width 2.51m Lock to Lock time 6.07m Kerb to Kerb Turning Radius 6.53m Standard Design Vehicle (SDV) Overall Length 4.60m Overall Width 2.05m Overall Body Height 2.05m Min Body Ground Clearance 0.25m Max Body Width 2.05m Lock to Lock time 4.05m Kerb to Kerb Turning Radius 4.05m

Vehicle Tracking - Risks & Compliance							
<u>Risks</u>							
 Kerb overrun							
 Restrictive road width							
P1	مراجعة	AP	Draft for Discussion / Review.			AP	AP
Rev	Date	Drawn	Description			CHK'd	App'd



Title
Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions B1047 - A14 Junction 34 Highways GA, Visibility Splay and Vehicle Tracking
Designed M Fonseca <i>MF</i> Eng check -
Drawn M Fonseca <i>MF</i> Coordination -
Dwg check - Approved -
Scale at A1 1:500 Status PRE Rev P1 Security STD
Drawing Number 102375-MMD-01-XX-DR-C-DRAFT



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Low Loader

1:500 0 25m 50m



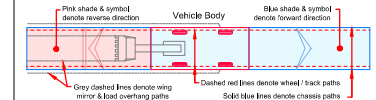
Large Mobile Crane

1:500 0 25m 50m

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15.DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Vehicle	Dimensions
Low Loader with Trailer (18.2m)	Overall Length: 18.2m Overall Width: 2.40m Overall Body Height: 2.40m Min Body Ground Clearance: 0.30m Track Width: 2.2m Lock to Lock time: 6.0m Kerb to Kerb Turning Radius: 6.50m	Large Mobile Crane	Overall Length: 12.00m Overall Width: 2.40m Overall Body Height: 3.50m Min Body Ground Clearance: 0.30m Track Width: 2.2m Lock to Lock time: 6.0m Kerb to Kerb Turning Radius: 10.00m

Vehicle	Dimensions	Vehicle	Dimensions
Large Tipper	Overall Length: 10.00m Overall Width: 2.40m Overall Body Height: 3.50m Min Body Ground Clearance: 0.30m Track Width: 2.2m Lock to Lock time: 6.0m Kerb to Kerb Turning Radius: 11.50m	Standard Design Vehicle (SDV)	Overall Length: 4.60m Overall Width: 2.00m Overall Body Height: 2.00m Min Body Ground Clearance: 0.30m Track Width: 2.00m Lock to Lock time: 4.00m Kerb to Kerb Turning Radius: 5.00m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

Rev	Date	Drawn	Description	Rev	App'd
P1	2022	M/F	Draft for Discussion / Review	M/F	M/F

Client

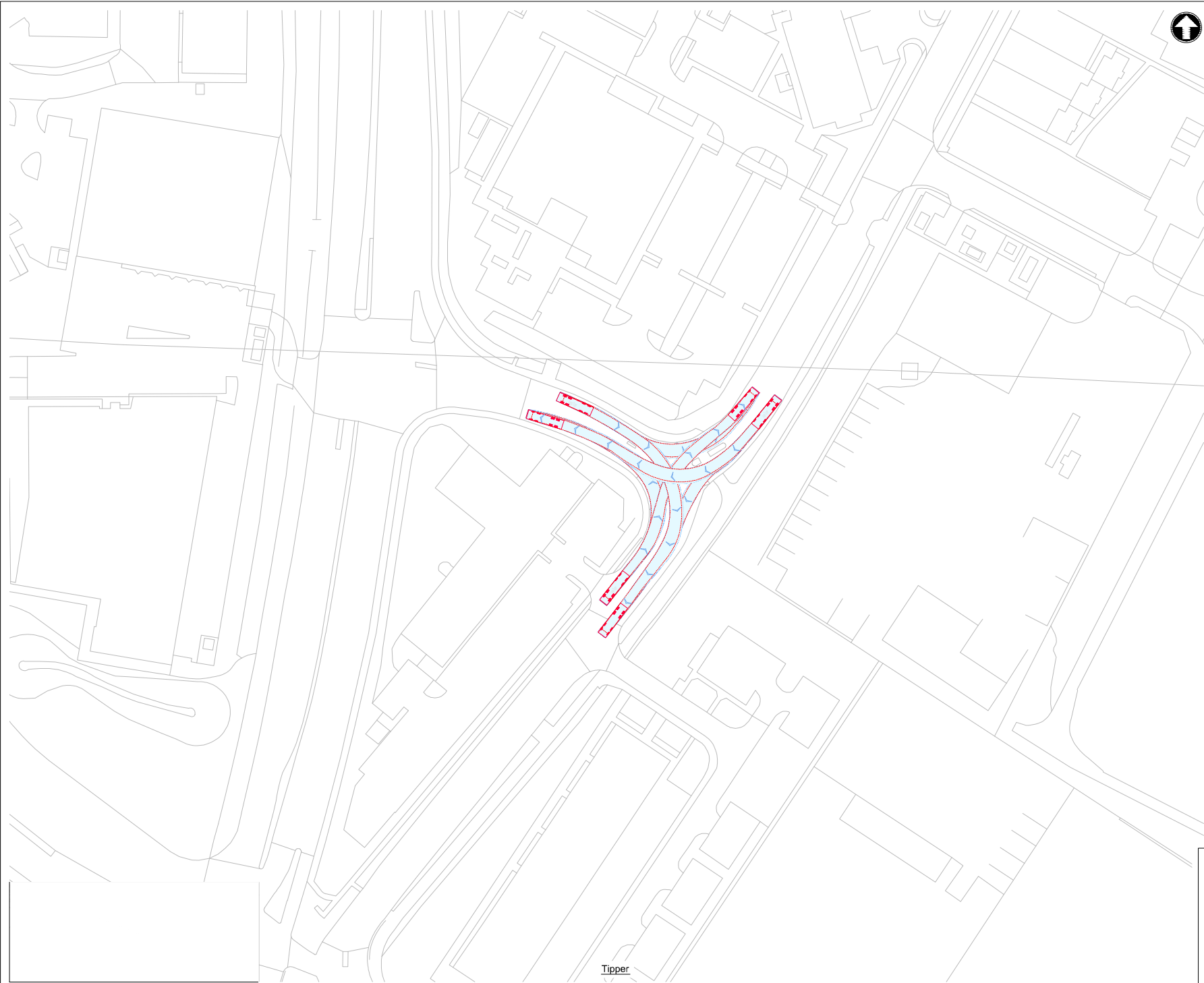


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Cowley Rd Junction
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	M/F	Eng check	-	
Drawn	M Fonseca	M/F	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



Notes

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15. **DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols

Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Max Body Height	Min Body Ground Clearance	Max Body Height	Lock to Lock Time	Kerb to Kerb Turning Radius
General Low Loader with Trailer Stacking (18.2m)	24.6m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	11.250m
Large Mobile Crane	12.300m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	11.250m
Large Tipper	10.200m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	11.250m
Standard Design Vehicle (SDV)	4.600m	2.000m	2.000m	2.000m	2.000m	2.000m	2.000m	2.000m	4.000m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	مخطط	REV	Draft for Discussion / Review.		REV	REV
Rev	Date	Drawn	Description		CHK'd	App'd

Client

Title

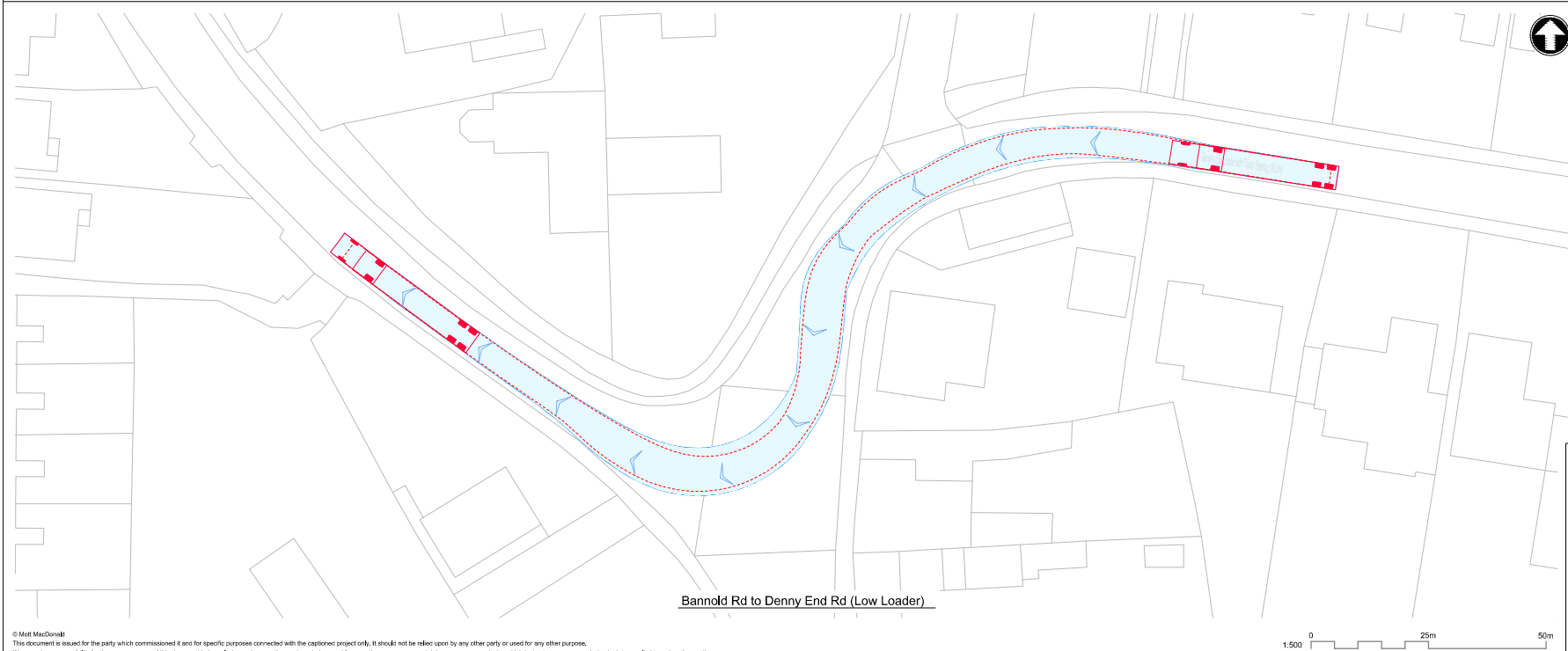
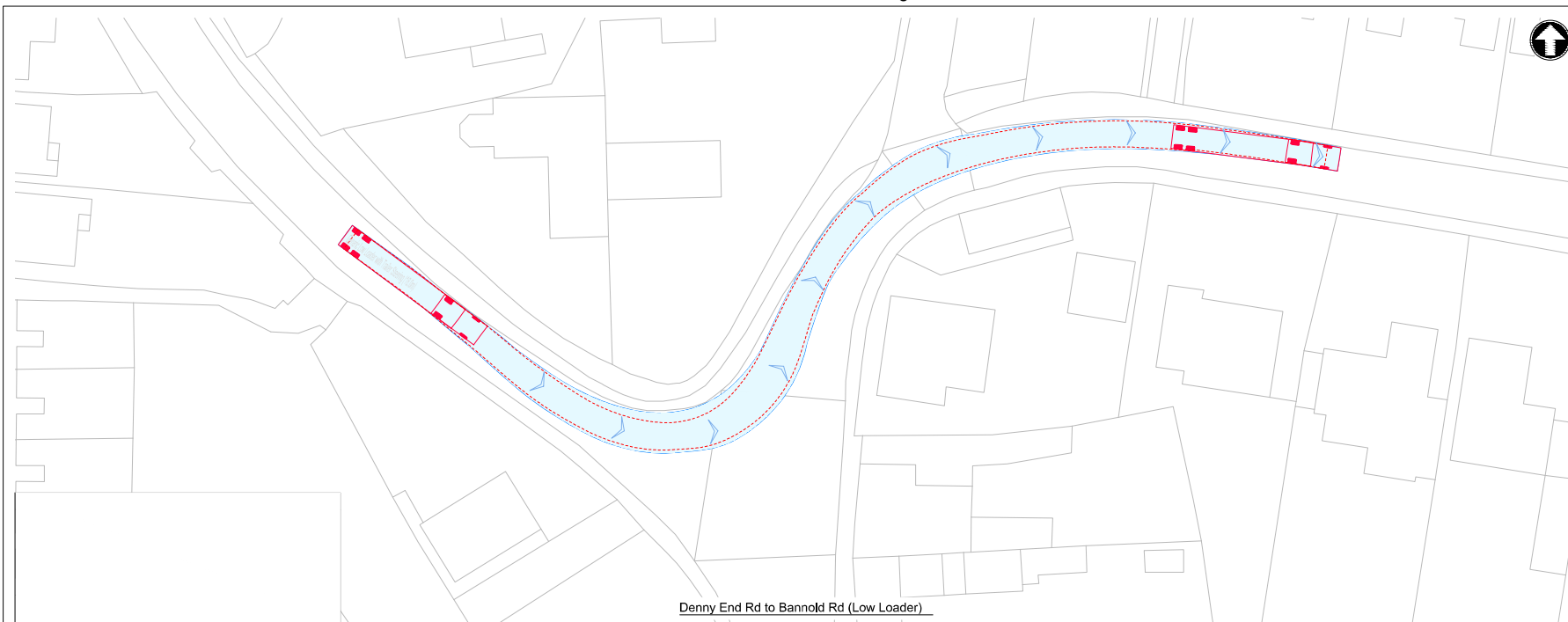
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Cowley Rd Junction
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	REV	Eng check	-	
Drawn	M Fonseca	REV	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

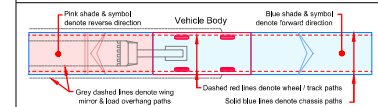
Drawing Number

102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Vehicle	Dimensions
Conventional Low Loader with Trailer (Steering 18.2m)	Overall Length: 24.6m Overall Width: 2.46m Overall Body Height: 4.00m Min. Body Ground Clearance: 2.30m Max. Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 6.00m	Large Mobile Crane	Overall Length: 12.00m Overall Width: 2.40m Overall Body Height: 3.50m Min. Body Ground Clearance: 2.30m Max. Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 6.00m

Vehicle	Dimensions	Vehicle	Dimensions
Large Tipper	Overall Length: 10.20m Overall Width: 2.40m Overall Body Height: 3.50m Min. Body Ground Clearance: 2.30m Max. Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 6.00m	Standard Design Vehicle (SDV)	Overall Length: 4.60m Overall Width: 2.00m Overall Body Height: 1.90m Min. Body Ground Clearance: 0.10m Max. Body Height: 2.00m Lock to Lock Time: 4.00m Kerb to Kerb Turning Radius: 4.00m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	مراجعة	RF	Draft for Discussion / Review.	RF	RF
Rev	Date	Drawn	Description	CHK'd	App'd

Client

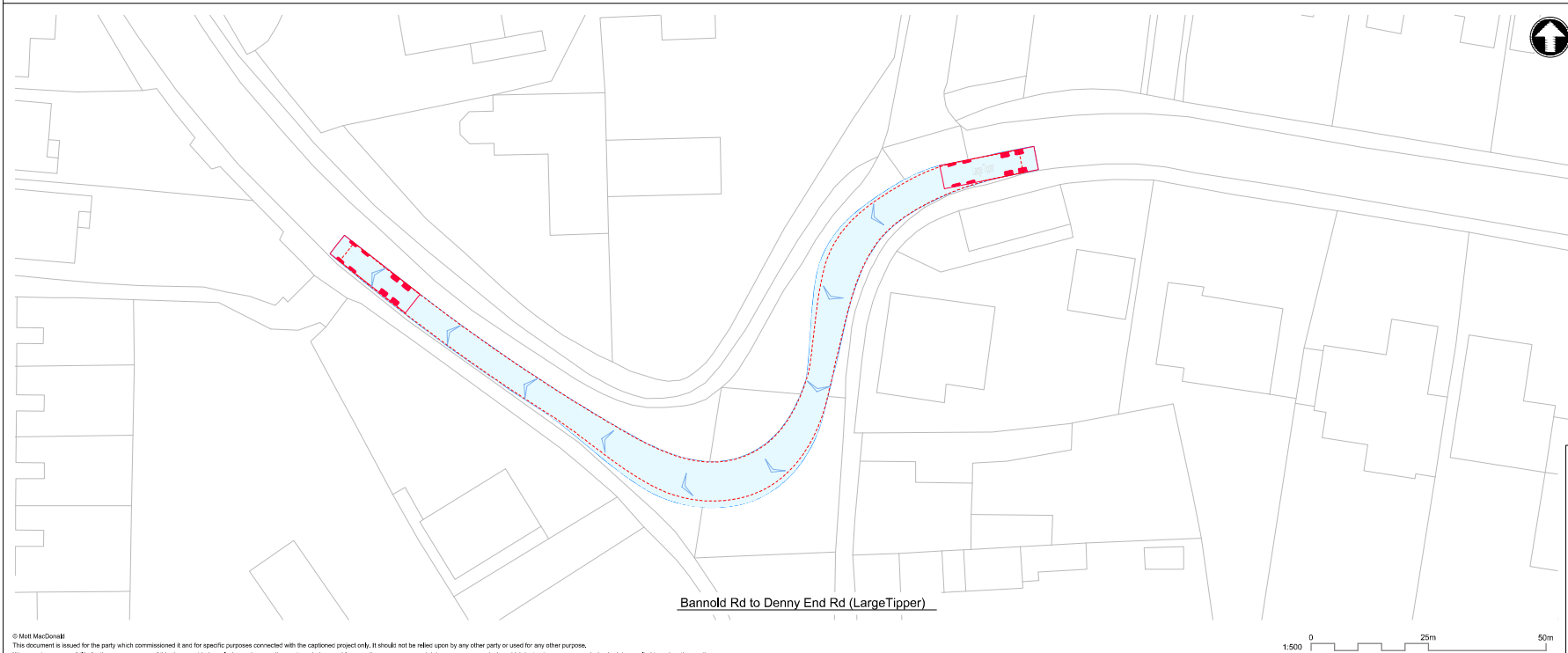
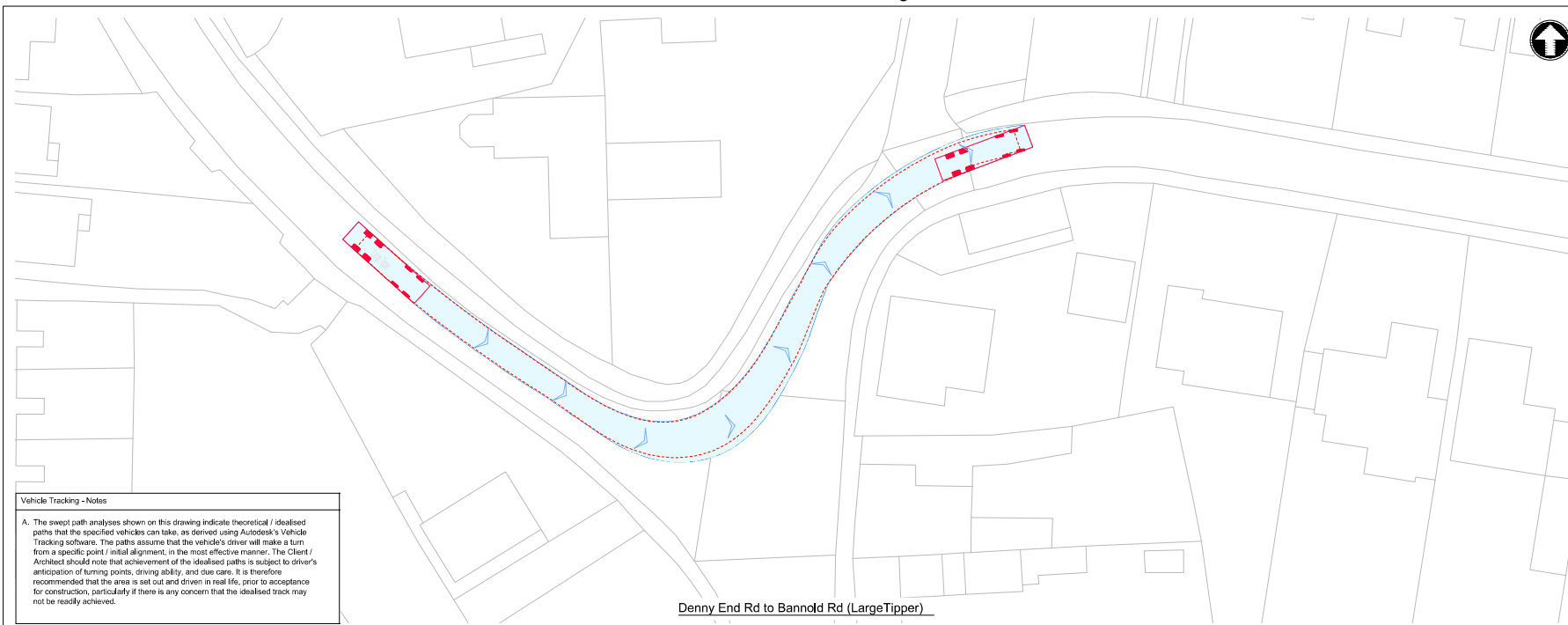


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Denny End Rd - Bannold Rd
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	RF	Eng check	-	
Drawn	M Fonseca	RF	Coordination	-	
Dwg check	-		Approved	-	

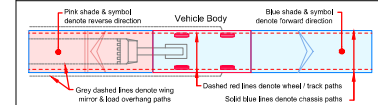
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1:250	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions (mm)	Dimensions (mm)
Concrete Lorry with Trailer (18.2m)	Overall Length: 18,200mm Overall Width: 2,440mm Overall Body Height: 4,000mm Min Body Ground Clearance: 2,300mm Max Body Height: 6,000mm Lock to Lock time: 6.00m Kerb to Kerb Turning Radius: 6.500m	Large Mobile Crane Overall Length: 12,300mm Overall Width: 2,440mm Overall Body Height: 3,500mm Min Body Ground Clearance: 2,300mm Max Body Height: 6,000mm Lock to Lock time: 6.00m Kerb to Kerb Turning Radius: 10,000mm

Vehicle	Dimensions (mm)	Dimensions (mm)
Large Tipper	Overall Length: 10,200mm Overall Width: 2,480mm Overall Body Height: 3,500mm Min Body Ground Clearance: 2,300mm Max Body Height: 6,000mm Lock to Lock time: 11.500m Kerb to Kerb Turning Radius: 11.500m	Standard Design Vehicle (SDV) Overall Length: 4,600mm Overall Width: 2,000mm Overall Body Height: 1,900mm Min Body Ground Clearance: 1,000mm Max Body Height: 2,000mm Lock to Lock time: 4.00m Kerb to Kerb Turning Radius: 4.000m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	App'd

Client

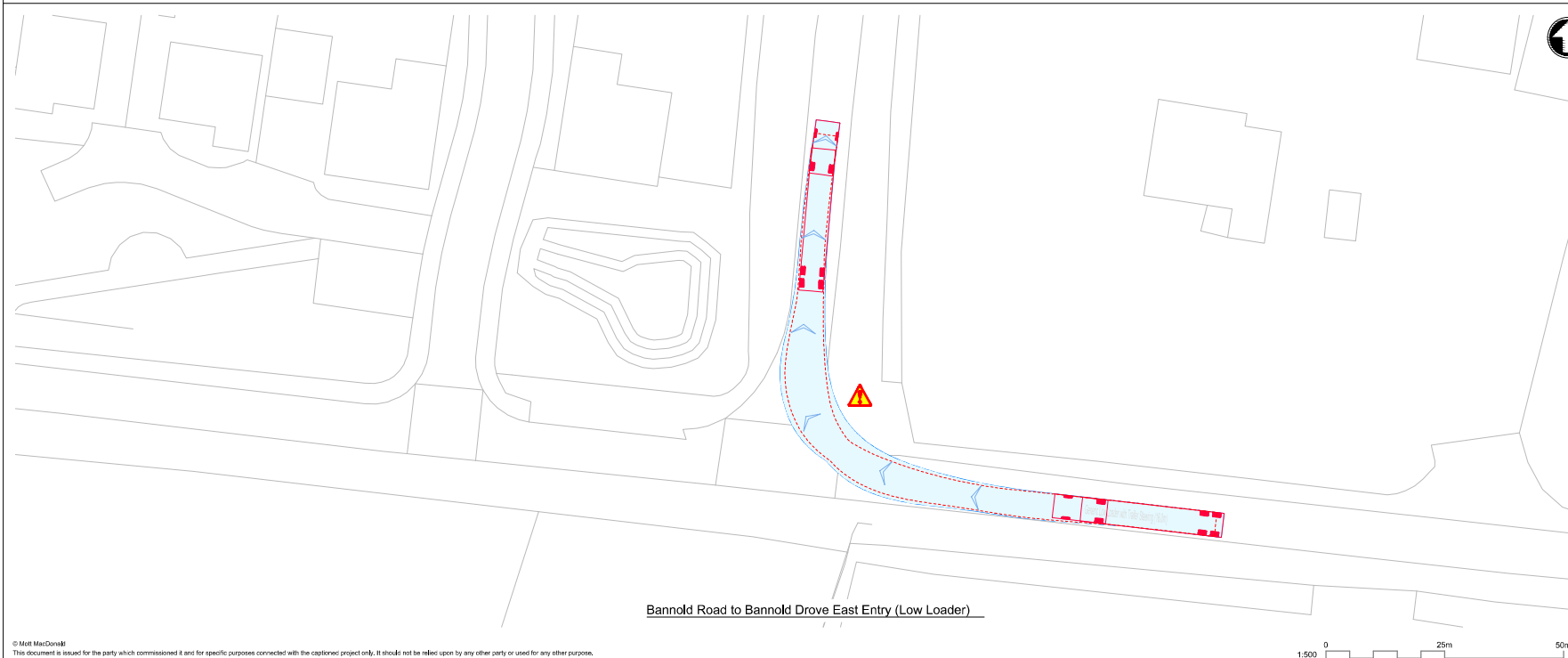
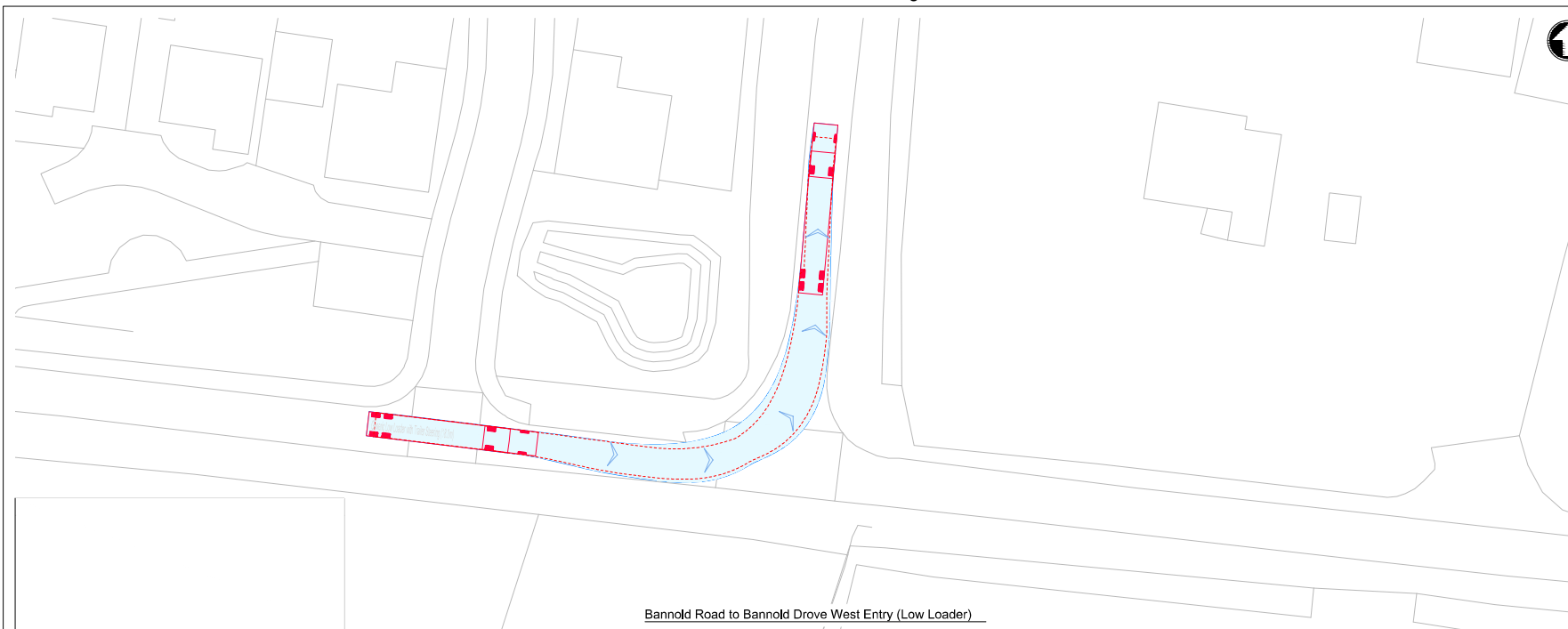


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Denny End Rd - Bannold Rd
Highways GA, Visibility Splay and
Vehicle Tracking

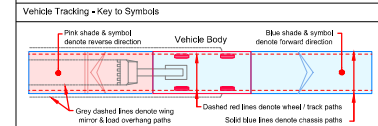
Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Vehicle Details

Vehicle Type	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
Standard Low Loader with Trailer Stacking (18.2m)	18.2m	2.45m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.45m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.20m	2.45m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle Type	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
Large Tipper	10.20m	2.45m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle Tracking - Risks & Compliance

Risks

Risk	Severity	Frequency	Control Measures
Kerb overrun	High	Low	Restrictive road width

Rev | **Date** | **Drawn** | **Description** | **Rev** | **Date** | **Drawn** | **Description**



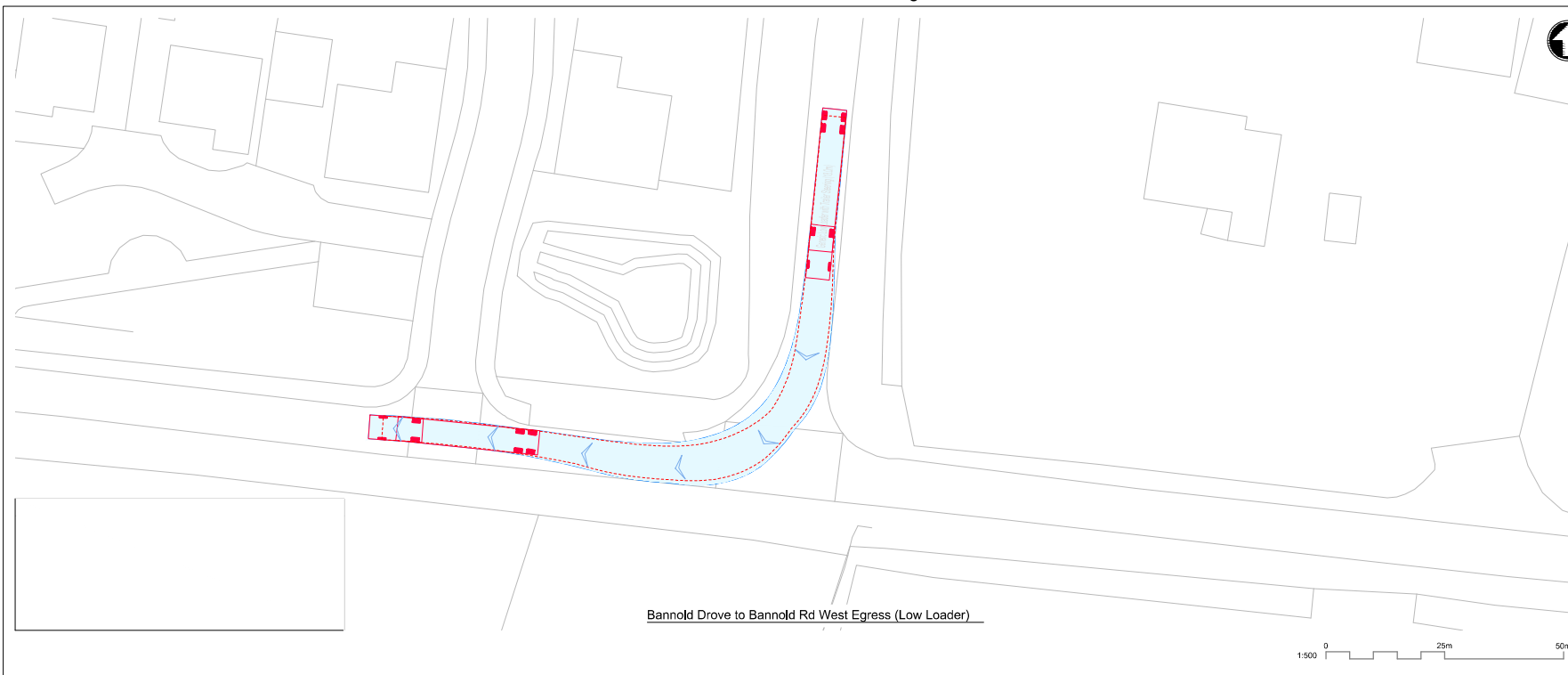
Title

Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Bannold Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

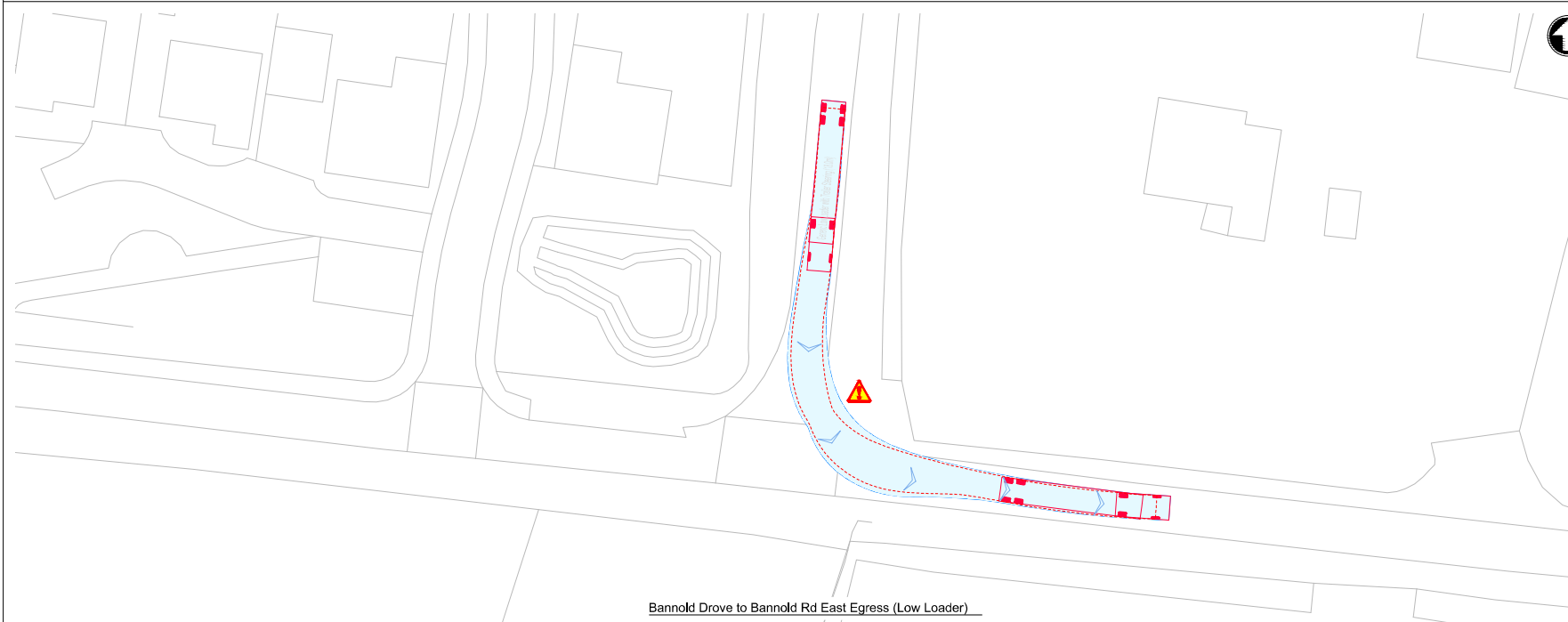
Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



Bannold Drove to Bannold Rd West Egress (Low Loader)

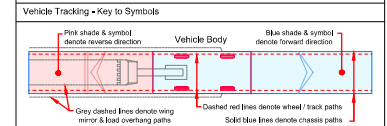
1:500 0 25m 50m



Bannold Drove to Bannold Rd East Egress (Low Loader)

1:500 0 25m 50m

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Vehicle Tracking - Vehicle Details

Vehicle Type	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Max Body Ground Clearance	Lock to Lock Time	Kerb to Kerb Turning Radius
Garage Low Loader with Trailer (18.2m)	17.31m	2.46m	3.40m	0.30m	0.30m	6.00m	6.00m
Large Mobile Crane	12.20m	2.46m	3.40m	0.30m	0.30m	6.00m	6.00m

Vehicle Type	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Max Body Ground Clearance	Lock to Lock Time	Kerb to Kerb Turning Radius
Large Tipper	10.20m	2.46m	3.40m	0.30m	0.30m	6.00m	6.00m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	4.00m	4.00m

Vehicle Tracking - Risks & Compliance

Risks	Rev	Appr
Kerb overrun		
Restrictive road width		

Rev	Date	Drawn	Description	Rev	Appr
P1			Draft for Discussion / Review		

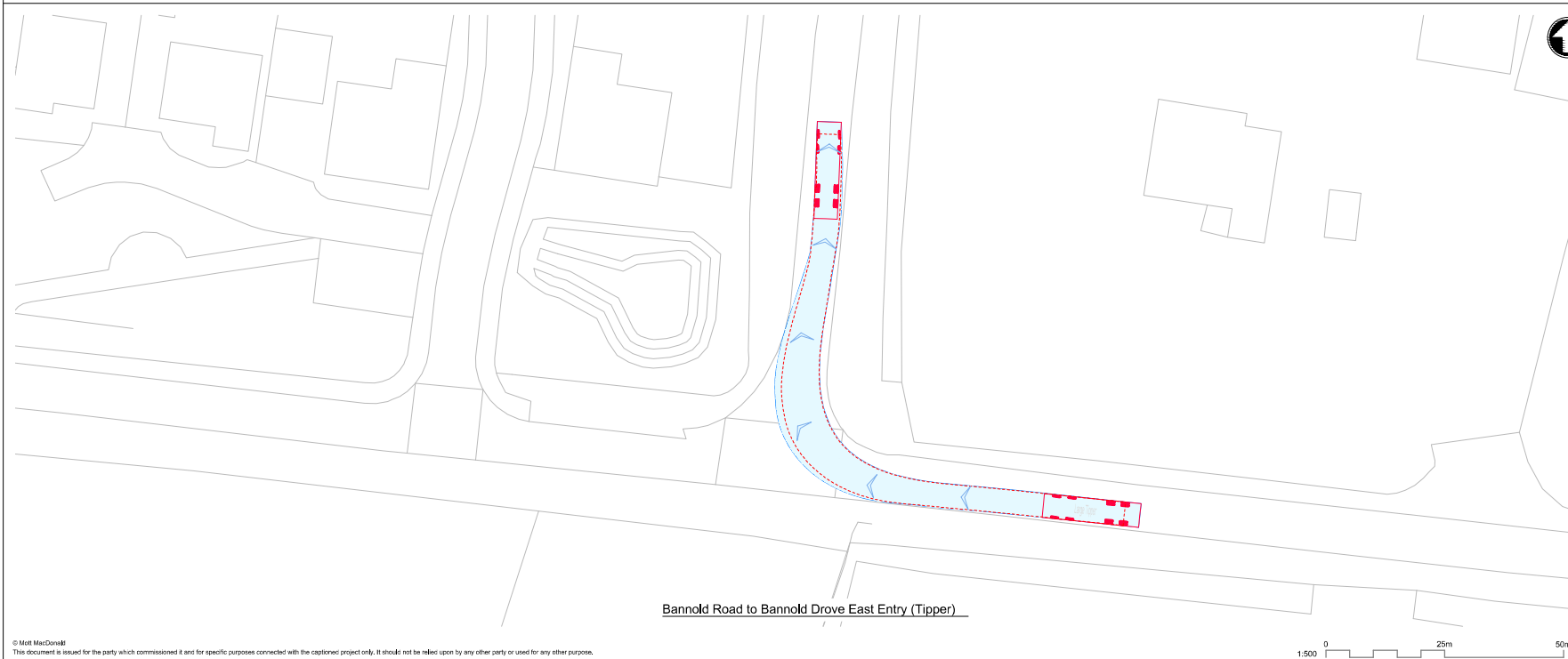
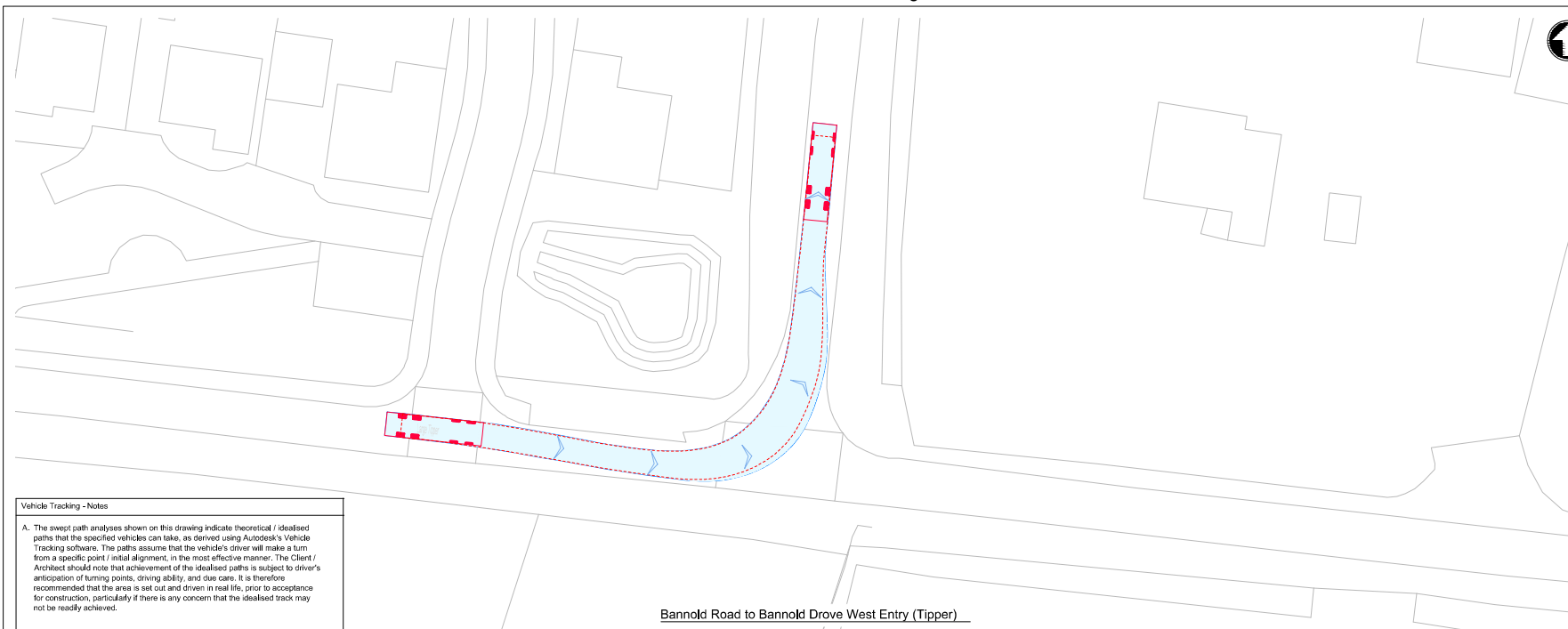


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Bannold Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

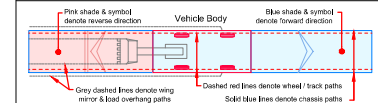
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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
General Low Loader with Trailer (Steering 18.2m)	7.31m	2.46m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.20m	2.46m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.20m	2.46m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
General Low Loader with Trailer (Steering 18.2m)	7.31m	2.46m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.20m	2.46m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.20m	2.46m	3.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle Tracking - Risks & Compliance

Risks



P1	Rev	Date	Drawn	Description	Rev	Rev

Client



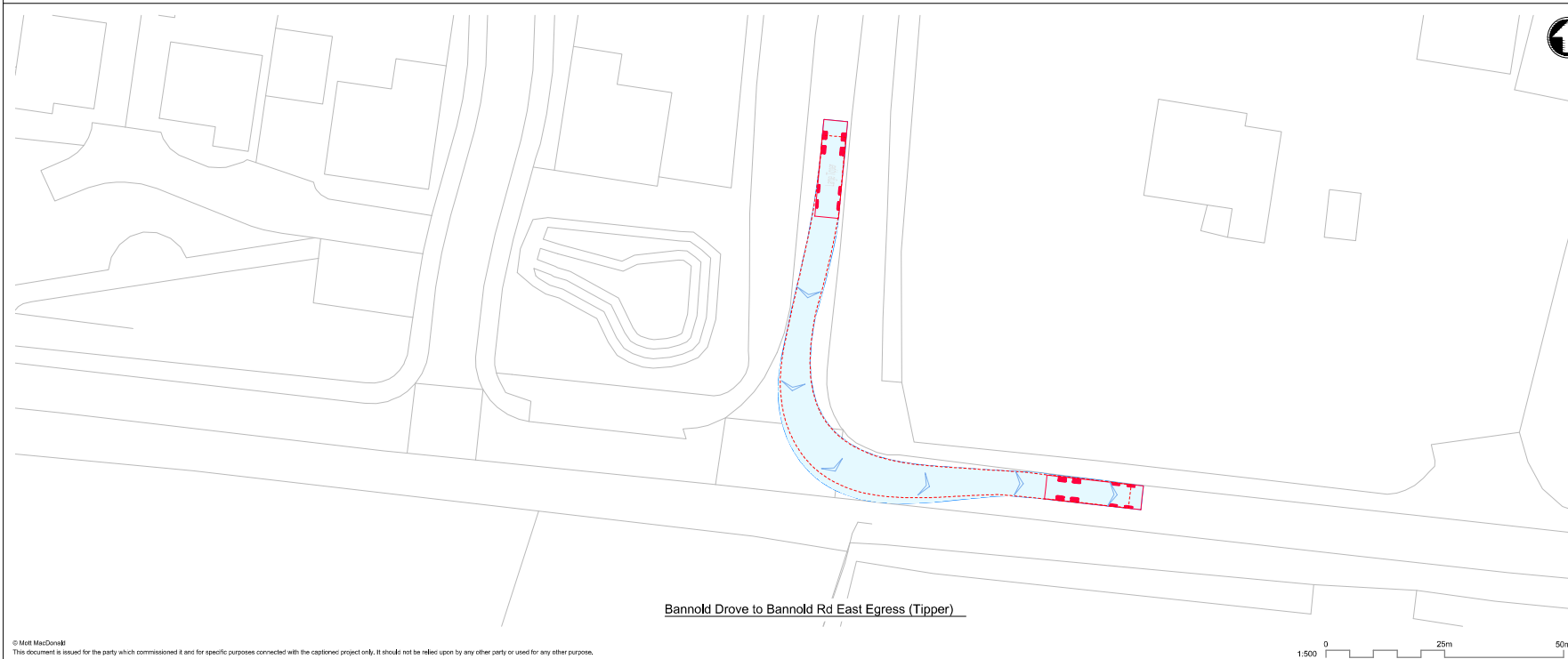
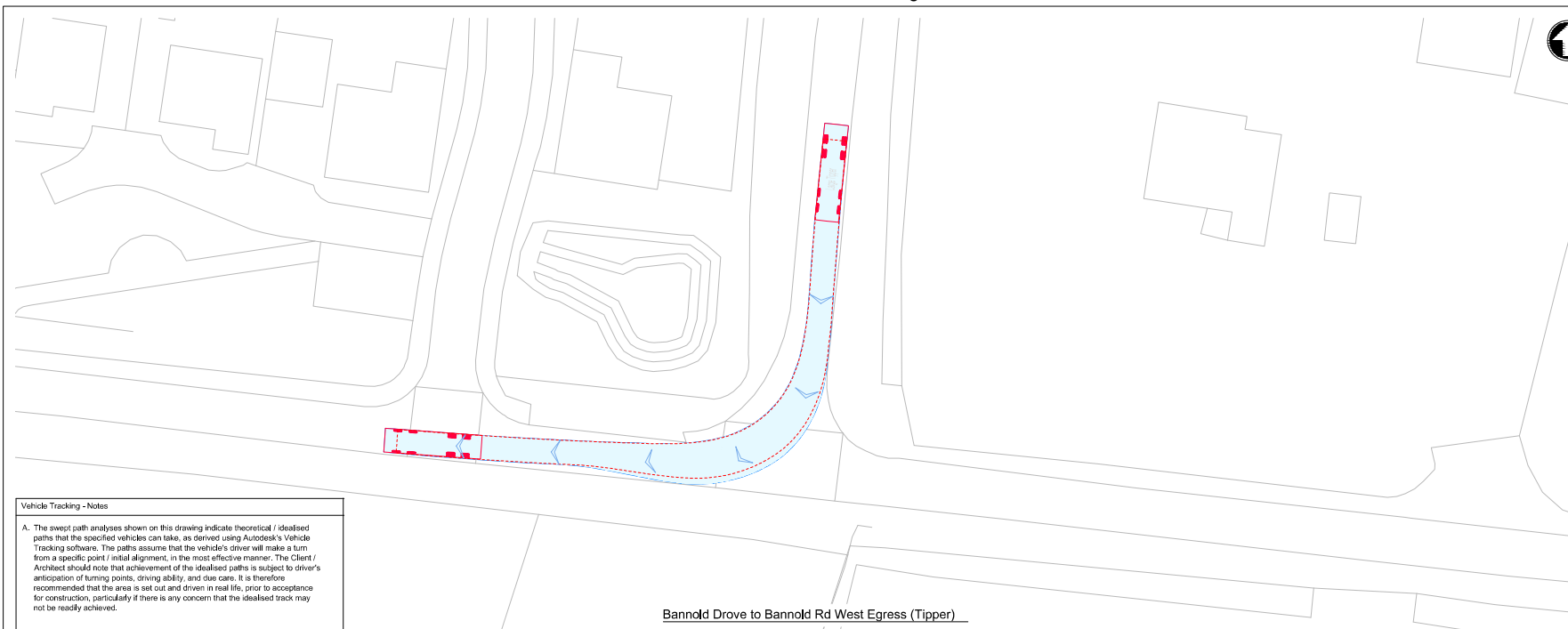
Title

Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Bannold Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

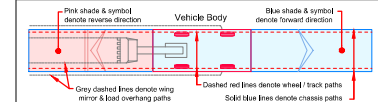
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 14. This drawing should be read in conjunction with the Technical Memo. Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.
 15. **DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Vehicle	Dimensions
Control Line Loader with Trailer (Steering 18.2m)	Overall Length: 7.918m Overall Width: 2.640m Overall Body Height: 3.430m Min Body Ground Clearance: 0.320m Max Body Ground Clearance: 2.320m Lock to Lock time: 6.07m Kerb to Kerb Turning Radius: 6.530m	Large Mobile Crane	Overall Length: 12.300m Overall Width: 2.430m Overall Body Height: 3.300m Min Body Ground Clearance: 0.300m Max Body Ground Clearance: 2.300m Lock to Lock time: 6.07m Kerb to Kerb Turning Radius: 10.000m

Vehicle	Dimensions	Vehicle	Dimensions
Large Tipper	Overall Length: 10.200m Overall Width: 2.485m Overall Body Height: 3.310m Min Body Ground Clearance: 0.270m Max Body Ground Clearance: 11.550m Lock to Lock time: 6.07m Kerb to Kerb Turning Radius: 11.550m	Standard Design Vehicle (SDV)	Overall Length: 4.600m Overall Width: 2.050m Overall Body Height: 1.980m Min Body Ground Clearance: 0.100m Max Body Ground Clearance: 2.050m Lock to Lock time: 4.00m Kerb to Kerb Turning Radius: 4.000m

Vehicle Tracking - Risks & Compliance

Risks



P1	Rev	Date	Drawn	Description	Rev	App'd

Client

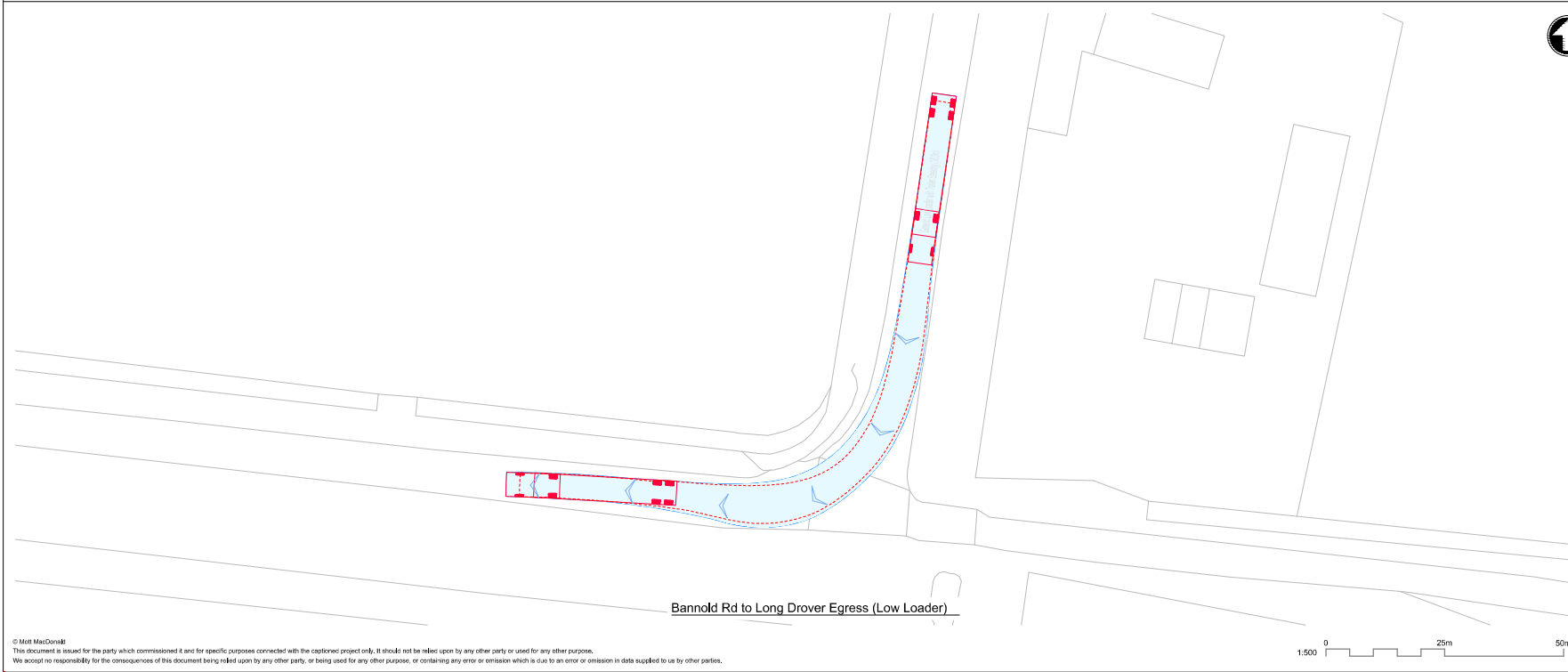
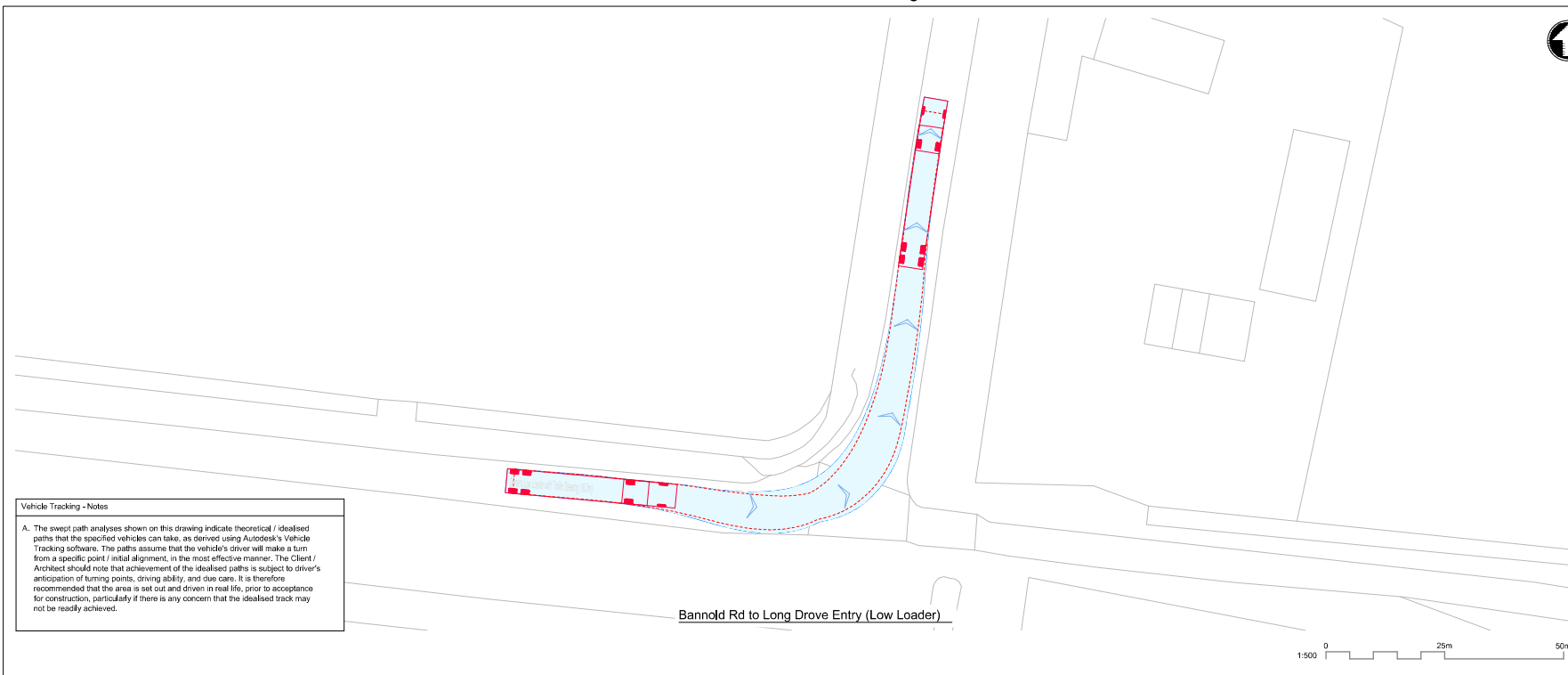


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Bannold Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

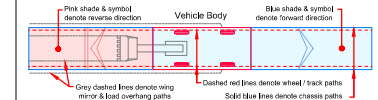
Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
General Low Loader with Trailer (18.2m)	18.2m	2.40m	4.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	4.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.00m	2.40m	4.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.80m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
General Low Loader with Trailer (18.2m)	18.2m	2.40m	4.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	4.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.00m	2.40m	4.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.80m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle Tracking - Risks & Compliance

Risks



P1	Rev	Date	Drawn	Description	Rev	App'd

Client

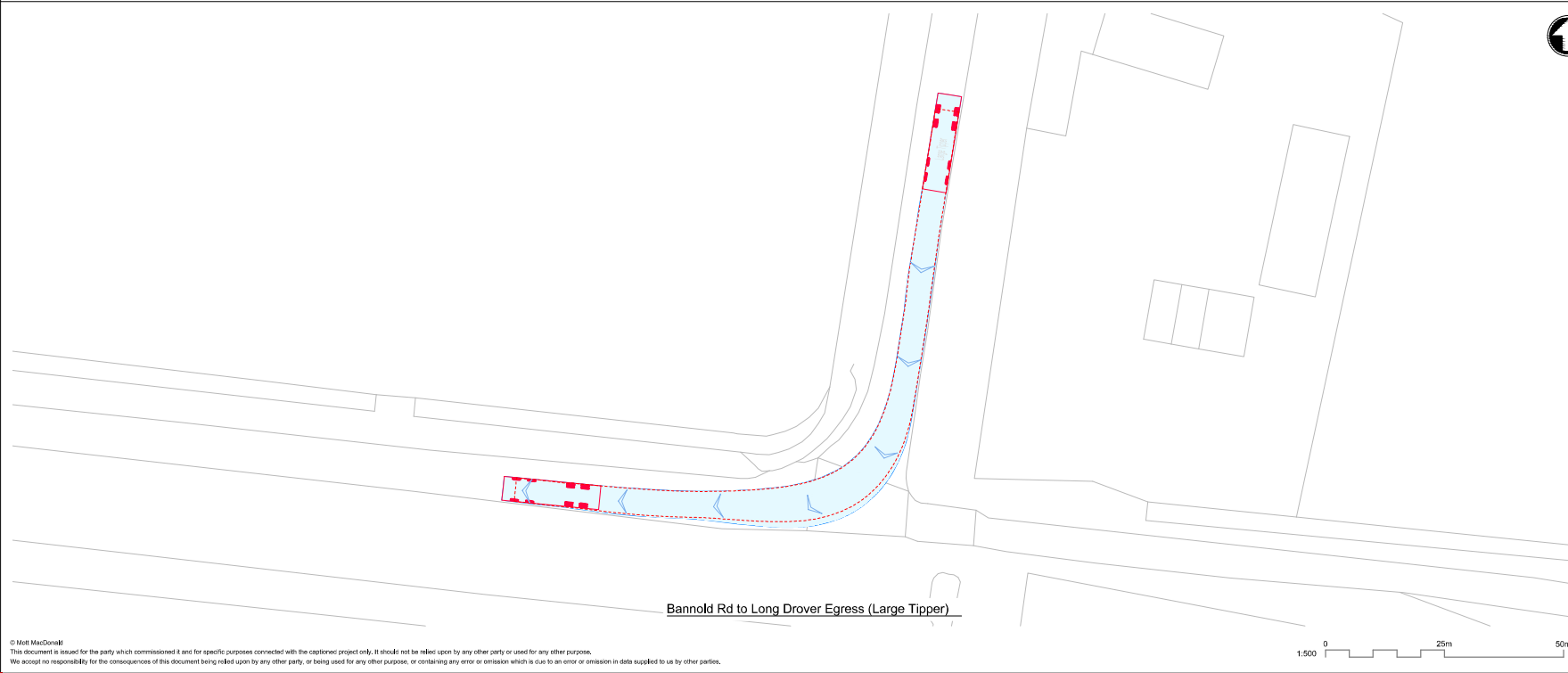
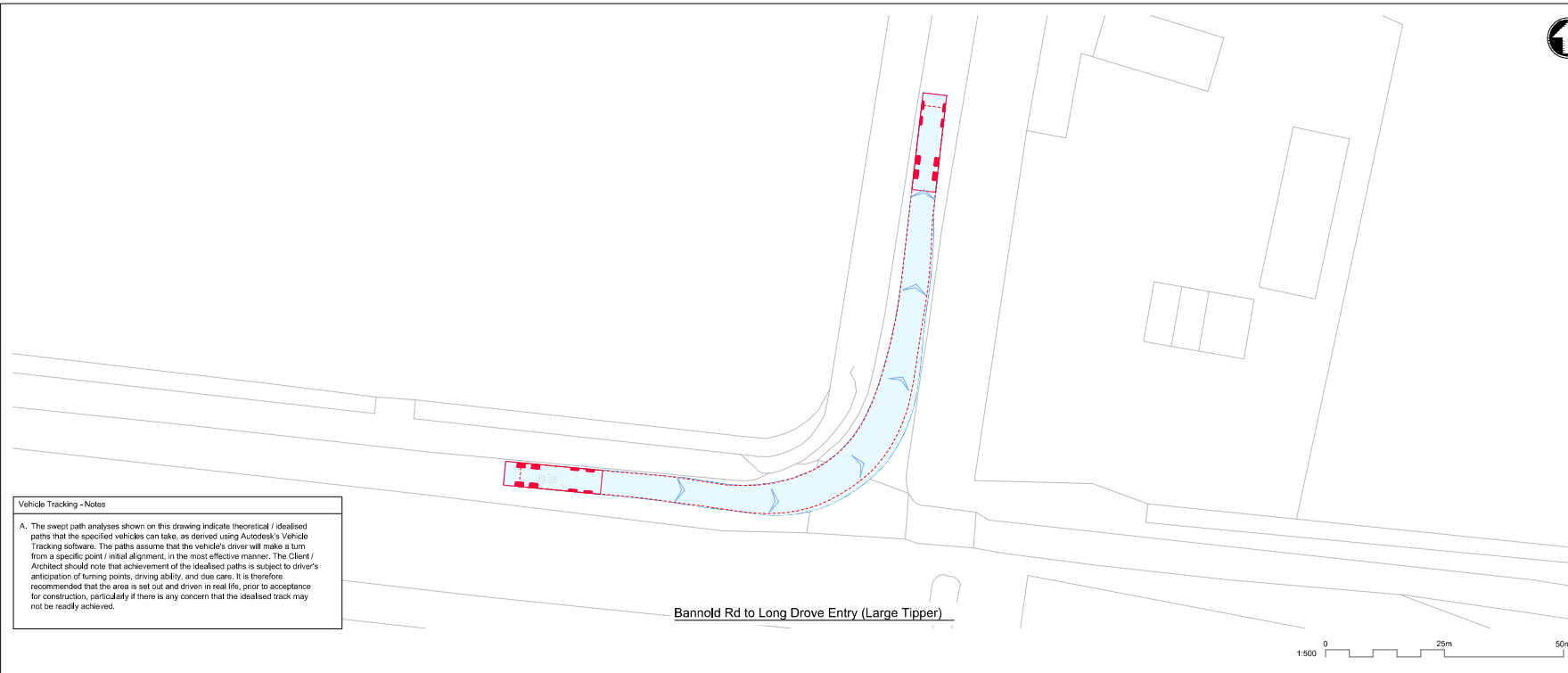


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
Bannold Rd - Long Drove
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

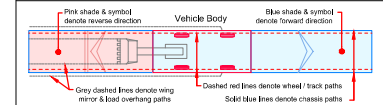
Scale at A1	Status	Rev	Security
1:250	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Vehicle	Dimensions
General Low Loader with Trailer (Steering 18.2m)	Overall Length: 17.91m Overall Width: 2.46m Overall Body Height: 4.40m Min Body Ground Clearance: 0.30m Max Body Ground Clearance: 2.30m Lock to Lock time: 6.07m Kerb to Kerb Turning Radius: 6.53m	Large Mobile Crane	Overall Length: 12.30m Overall Width: 2.43m Overall Body Height: 3.30m Min Body Ground Clearance: 0.30m Max Body Ground Clearance: 2.30m Lock to Lock time: 6.07m Kerb to Kerb Turning Radius: 10.00m

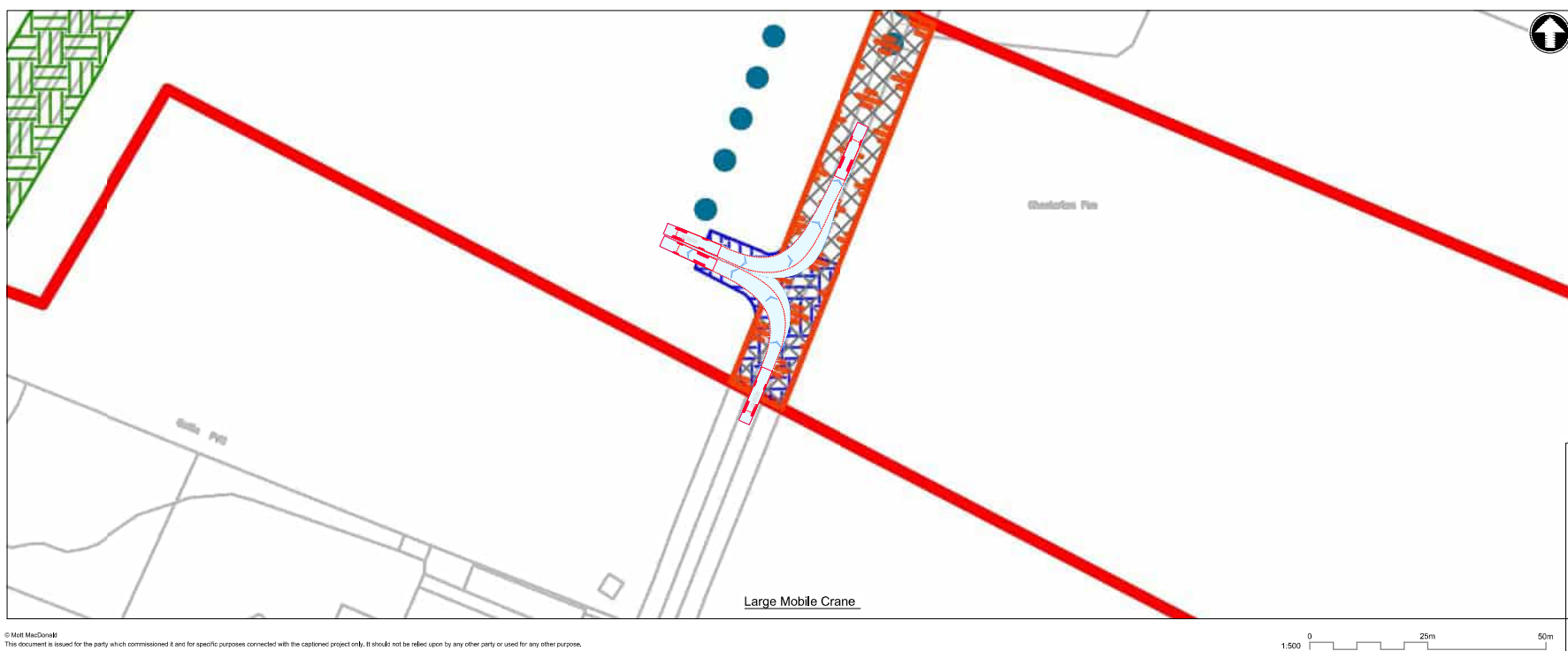
Vehicle	Dimensions	Vehicle	Dimensions
Large Tipper	Overall Length: 10.20m Overall Width: 2.45m Overall Body Height: 3.31m Min Body Ground Clearance: 0.30m Max Body Ground Clearance: 2.30m Lock to Lock time: 11.55m Kerb to Kerb Turning Radius: 11.55m	Standard Design Vehicle (SDV)	Overall Length: 4.60m Overall Width: 2.00m Overall Body Height: 1.90m Min Body Ground Clearance: 0.30m Max Body Ground Clearance: 2.30m Lock to Lock time: 4.00m Kerb to Kerb Turning Radius: 4.00m

Vehicle Tracking - Risks & Compliance

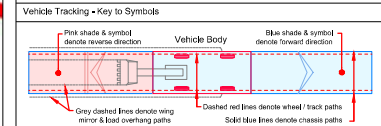
Risks
Kerb overrun
Restrictive road width
P1 15/16 Draft for Discussion / Review
Rev Date Drawn Description
CHYs App'd



Title
Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions Bannold Rd - Long Drove Highways GA, Visibility Splay and Vehicle Tracking
Designed M Fonseca 15/16 Eng check -
Drawn M Fonseca 15/16 Coordination -
Dwg check - Approved -
Scale at A1 1:250 Status PRE Rev P1 Security STD
Drawing Number 102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
General Low Loader with Trailer (Steering 18.2m)	12.00m	2.40m	3.00m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m
Large Mobile Crane	12.00m	2.40m	3.00m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m
Large Tipper	10.00m	2.40m	3.00m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m
Standard Design Vehicle (SDV)	4.80m	2.00m	2.00m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
Large Tipper	10.00m	2.40m	3.00m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m	0.25m
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Vehicle Tracking - Risks & Compliance

Risks

Risk	Severity	Frequency	Control Measures
Kerb overrun	High	Low	Restrictive road width

P1 Draft for Discussion / Review
 Rev Date Drawn Description



Title

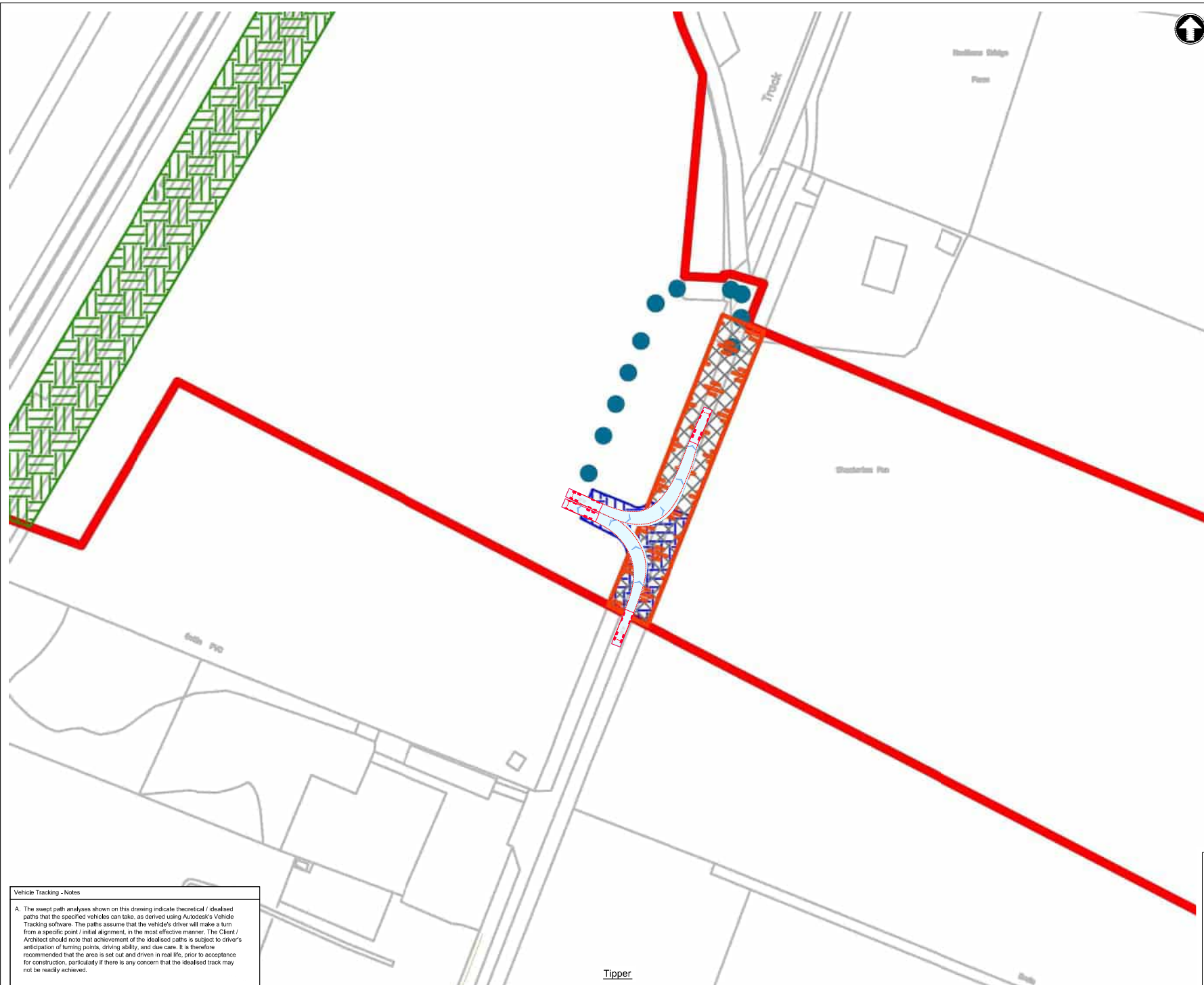
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
9012
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-
Drawn	M Fonseca	MF	Coordination	-
Dwg check	-	-	Approved	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number

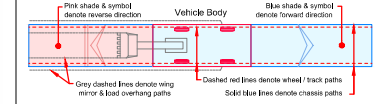
102375-MMD-01-XX-DR-C-DRAFT



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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Max Body Height	Min Body Ground Clearance	Max Body Height	Min Body Ground Clearance	Max Body Height
General Low Loader with Trailer (18.2m)	18.2m	2.40m	2.40m	0.30m	2.40m	0.30m	2.40m	0.30m	2.40m
Large Mobile Crane	12.00m	2.40m	2.40m	0.30m	2.40m	0.30m	2.40m	0.30m	2.40m
Large Tipper	10.00m	2.40m	2.40m	0.30m	2.40m	0.30m	2.40m	0.30m	2.40m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	2.00m	0.30m	2.00m	0.30m	2.00m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description
P1			Draft for Discussion / Review				

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

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Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

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Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

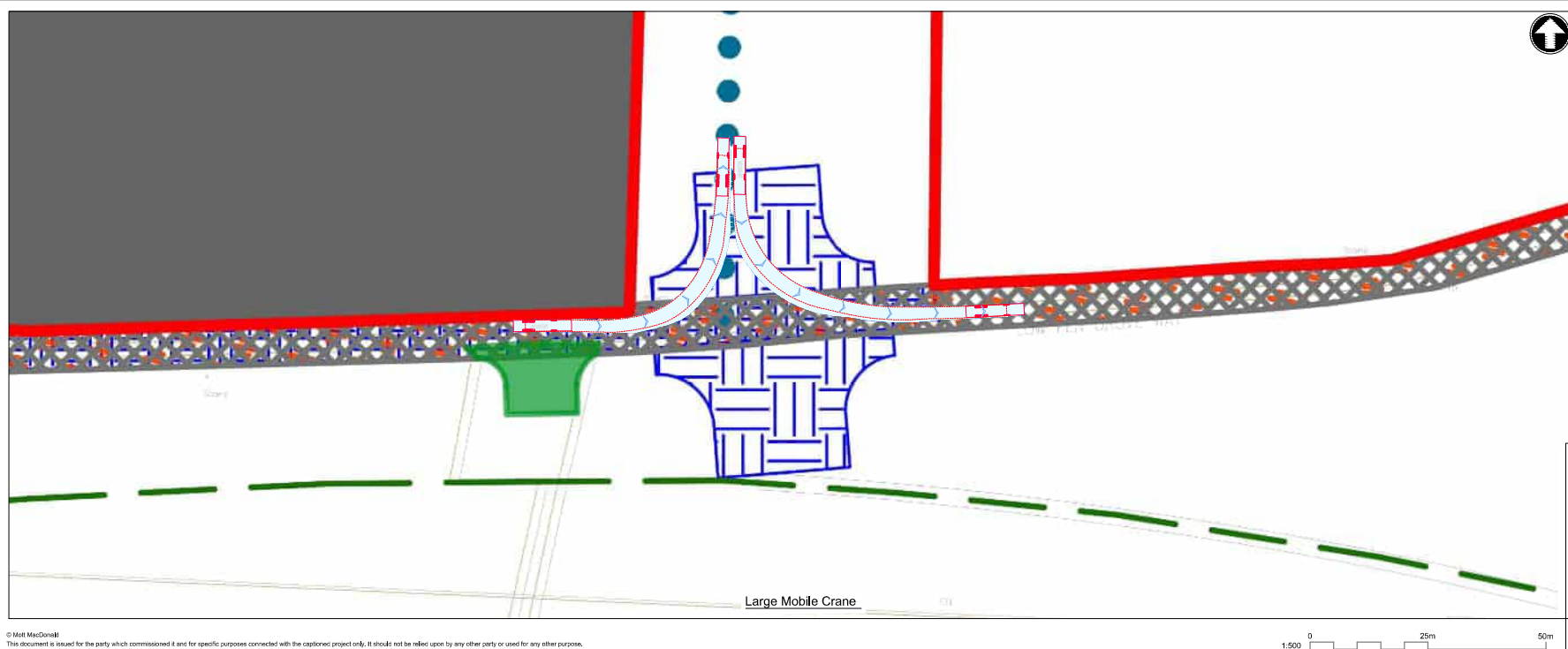
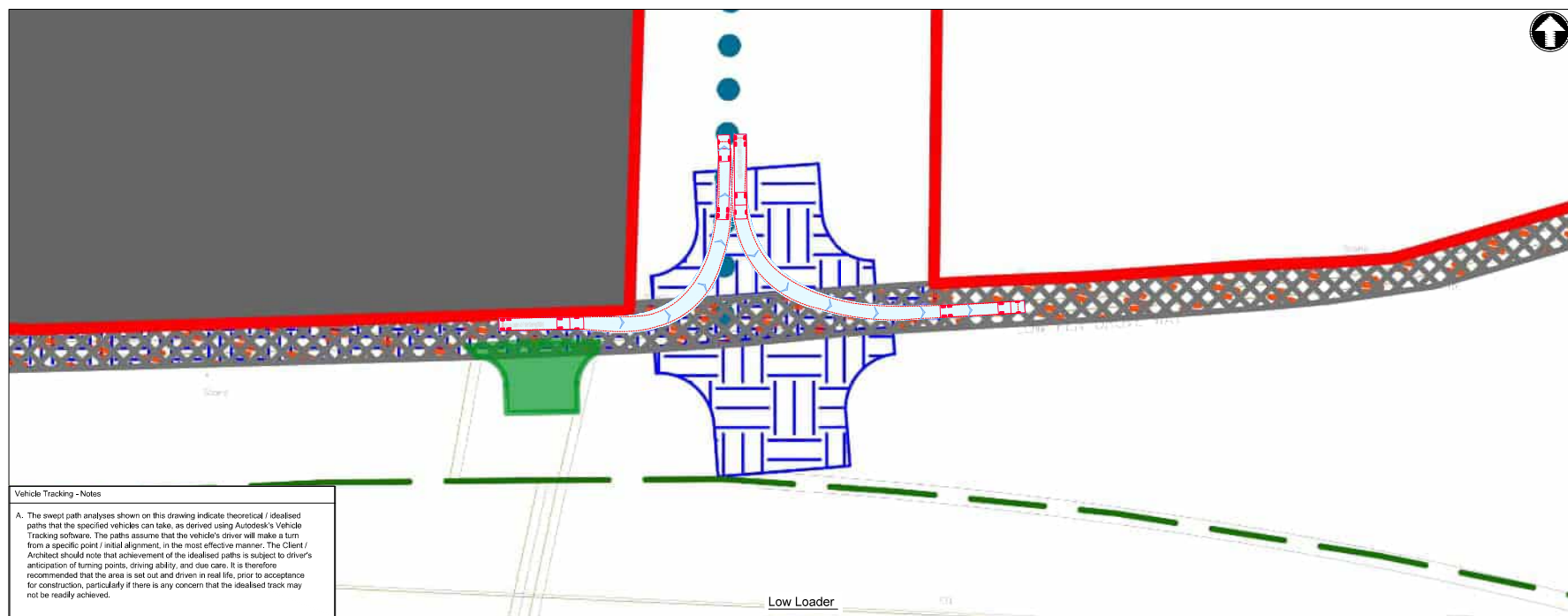
Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

Rev	Date	Drawn	Description	Rev	Date	Drawn	Description

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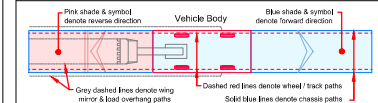
Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.



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Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle Type	Overall Length	Overall Width	Overall Height	Min. Body Ground Clearance	Min. Body Ground Clearance	Min. Body Ground Clearance	Min. Body Ground Clearance	Min. Body Ground Clearance	Min. Body Ground Clearance
Standard Low Loader with Trailer (Steering 18.2m)	24.6m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m
Large Mobile Crane	12.20m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m
Standard Design Vehicle (SDV)	4.80m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m

Vehicle Type	Overall Length	Overall Width	Overall Height	Min. Body Ground Clearance	Min. Body Ground Clearance	Min. Body Ground Clearance	Min. Body Ground Clearance	Min. Body Ground Clearance	Min. Body Ground Clearance
Large Tipper	10.20m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m
Standard Design Vehicle (SDV)	4.80m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m	2.46m

Vehicle Tracking - Risks & Compliance

Risks	Rev	Appr
Kerb overrun		
Restrictive road width		
P1	Rev	Appr
Rev	Date	Description



Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
9013
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-	
Drawn	M Fonseca	Rev	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

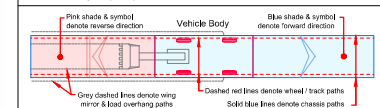
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



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 6. The information is preliminary and subject to further detailed design.
 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
 8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
 14. This drawing should be read in conjunction with the Technical Memo. Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Height	Min Body Ground Clearance	Min Body Height	Min Body Ground Clearance	Min Body Height
General Low Loader with Trailer (Steering 18.2m)	17.31m	2.46m	2.46m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.30m	2.46m	2.46m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.20m	2.46m	2.46m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Height	Min Body Ground Clearance	Min Body Height	Min Body Ground Clearance	Min Body Height
General Low Loader with Trailer (Steering 18.2m)	17.31m	2.46m	2.46m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.30m	2.46m	2.46m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.20m	2.46m	2.46m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

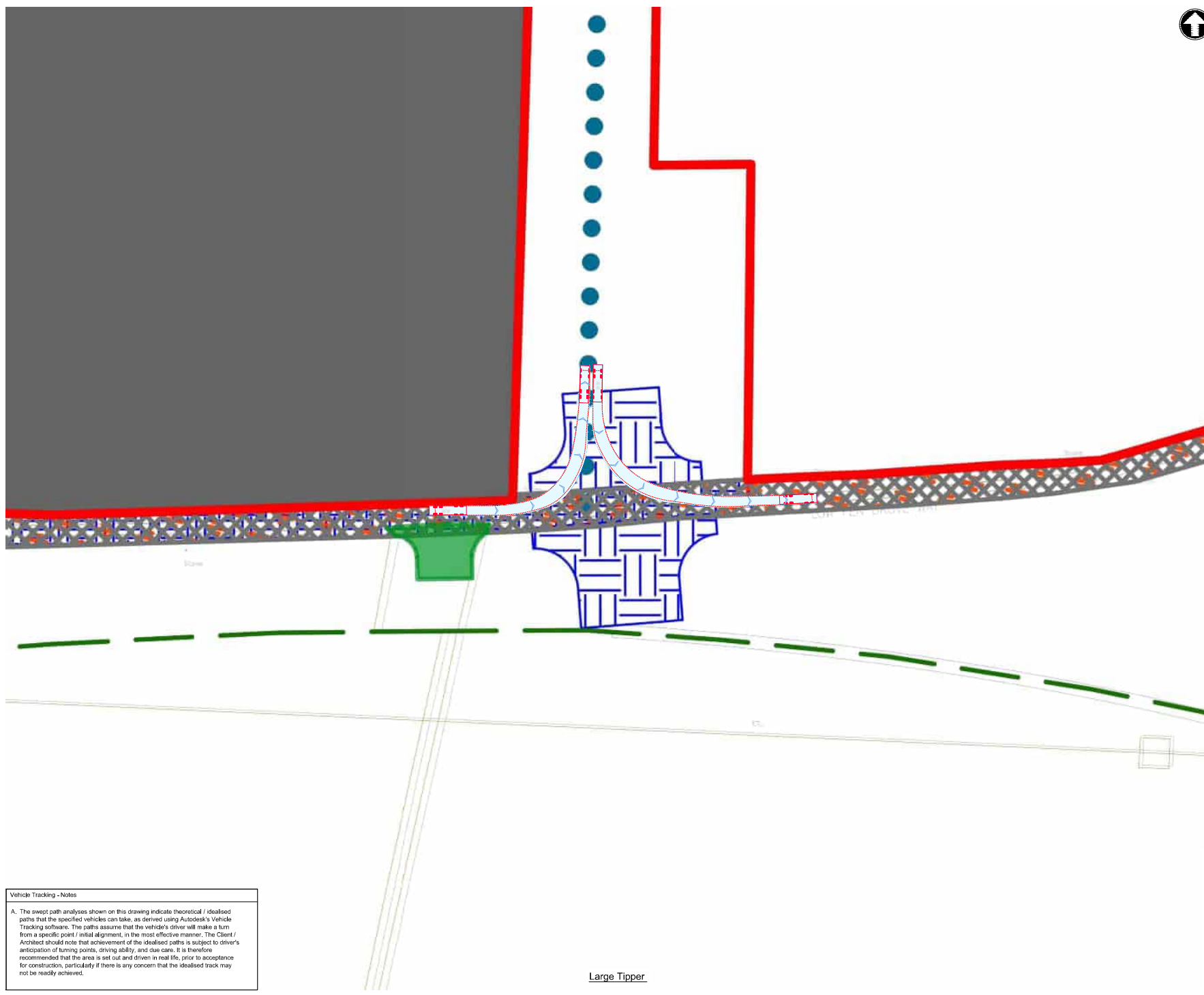
Rev	Date	Drawn	Description	Rev	App'd
P1	13/07/2022	MF	Draft for Discussion / Review	MF	MF



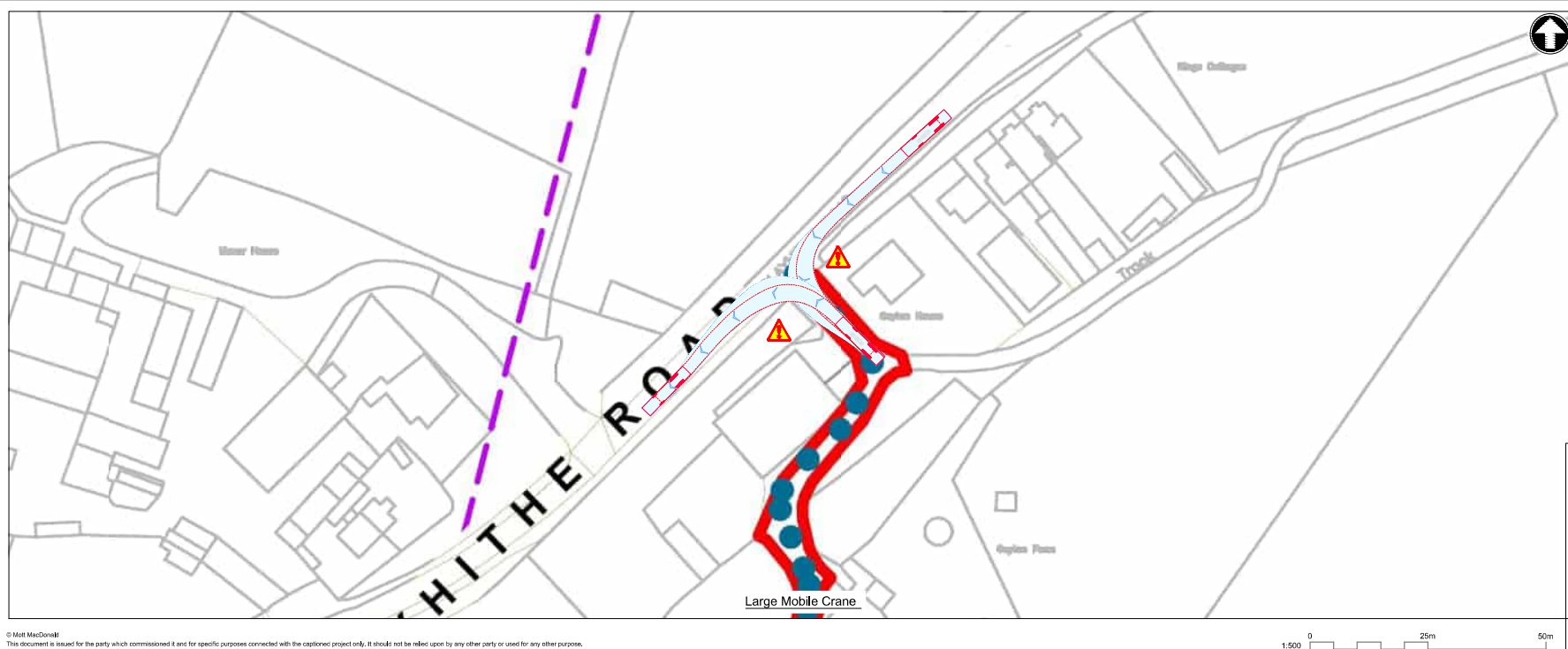
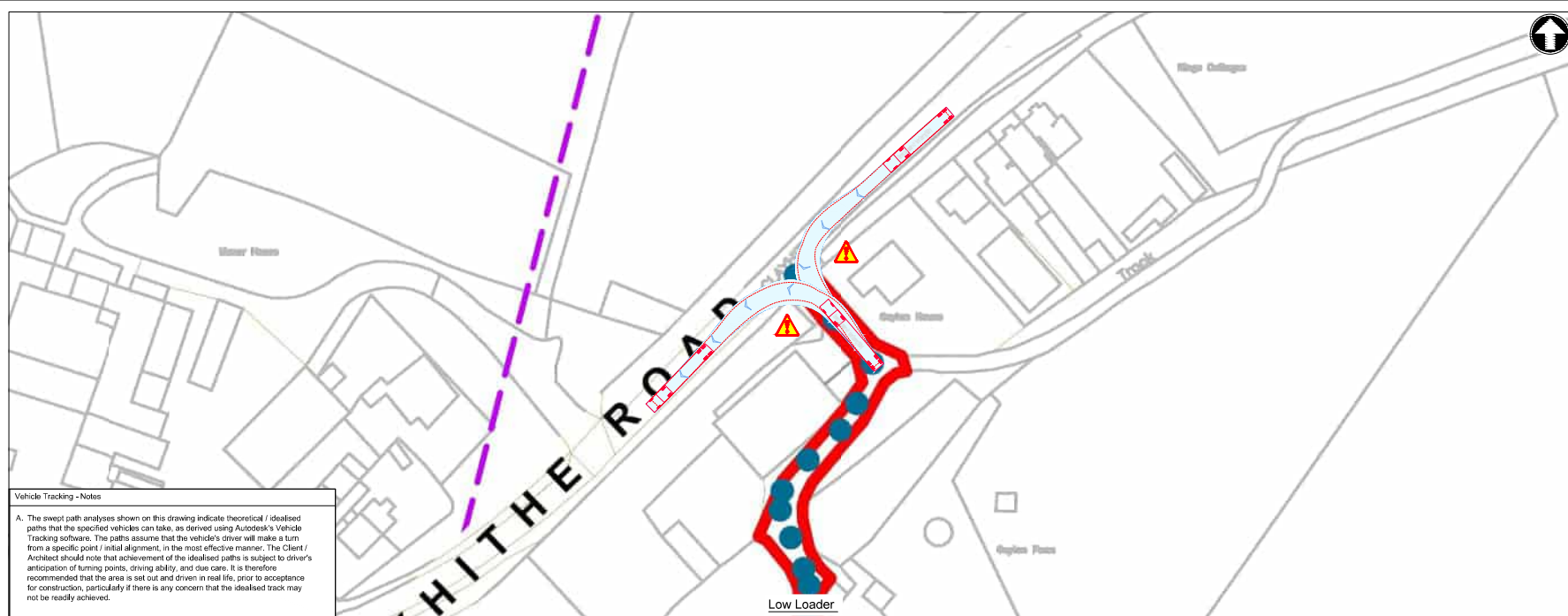
Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
9013
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	
Scale at A1	1:500	Status	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



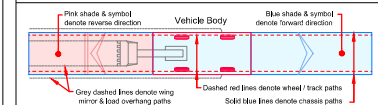
Vehicle Tracking - Notes
A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.



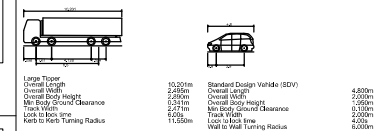
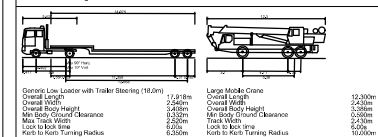
- Notes
- 1. Do not scale from this drawing.
- 2. All dimensions are as metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
- 3. Any drawings or parts or discrepancies should be referred to the attention of Mr MacDonald at the address shown in the title block.
- 4. This drawing has been prepared for the initial high level optioneering study for the COWIT project.
- 5. The drawing is based on OS mapping information and LAND data.
- 6. The information is preliminary and subject to further detailed design.
- 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
- 8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing drainage or other existing assets that may need to be protected or diverted as part of the works.
- 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is for a change and additional land take.
- 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
- 11. The design assumes an embankment grade of 1:3 is acceptable to the relevant stakeholders.
- 12. The design is based on the requirements of DMRB. Manual for Streets has been adopted for some extented roads.
- 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during later stages of the design development of this option.
- 14. The drawing should be read in conjunction with the Technical Memo Cambridge Wastewater Treatment Works Relocation EIA assessment and listing of proposed site access options.
- 15. **DRAWING MUST BE READ IN COLOUR**

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details



Vehicle Tracking - Risks & Compliance

Risks



P1		MF	Draft for Discussion / Review.	MF	MF
Rev	Date	Drawn	Description	Chk'd	App'd

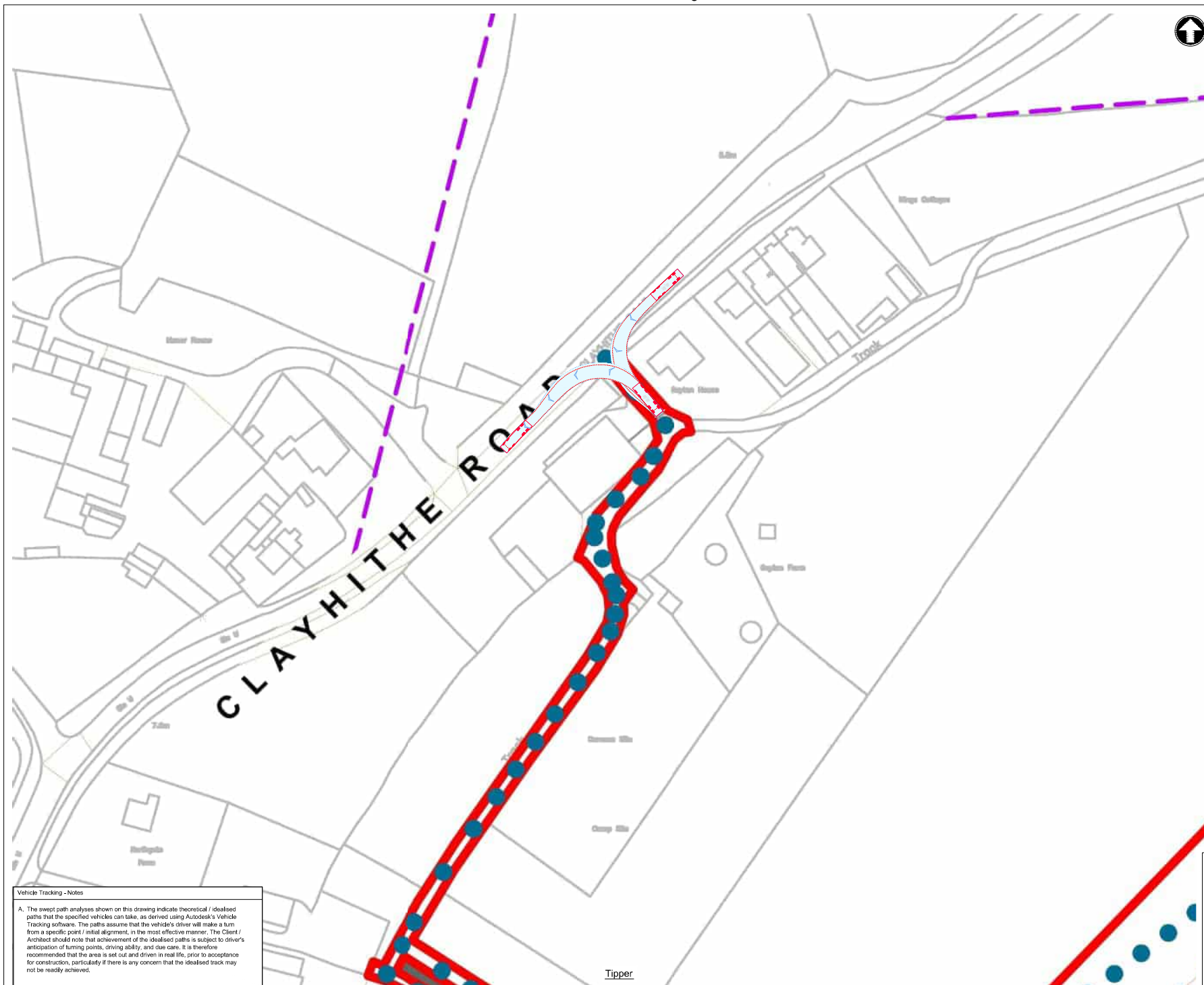
Client	
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Title	Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions 9016 Highways GA, Visibility Splay and Vehicle Tracking
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Designed	M Fonseca	<i>MF</i>	Eng check	-	
Drawn	M Fonseca	<i>MF</i>	Coordination	-	
Dwg check	-		Approved	-	
Scale at A1		Status	Rev	Security	
1:500		PRE	P1	STD	

Drawing Number	102375-MMD-01-XX-DR-C-DRAFT
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Vehicle Tracking - Notes	
A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.	

Notes

1. Do not scale from this drawing.

2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.

3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.

4. This drawing has been prepared for the initial high level optioneering study for the CWWTW project.

5. The drawing is based on OS mapping information and LIDAR data.

6. The information is preliminary and subject to further detailed design.

7. The design has not been submitted to the Highway Authority or Highways England for their technical review.

8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.

9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.

10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.

11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.

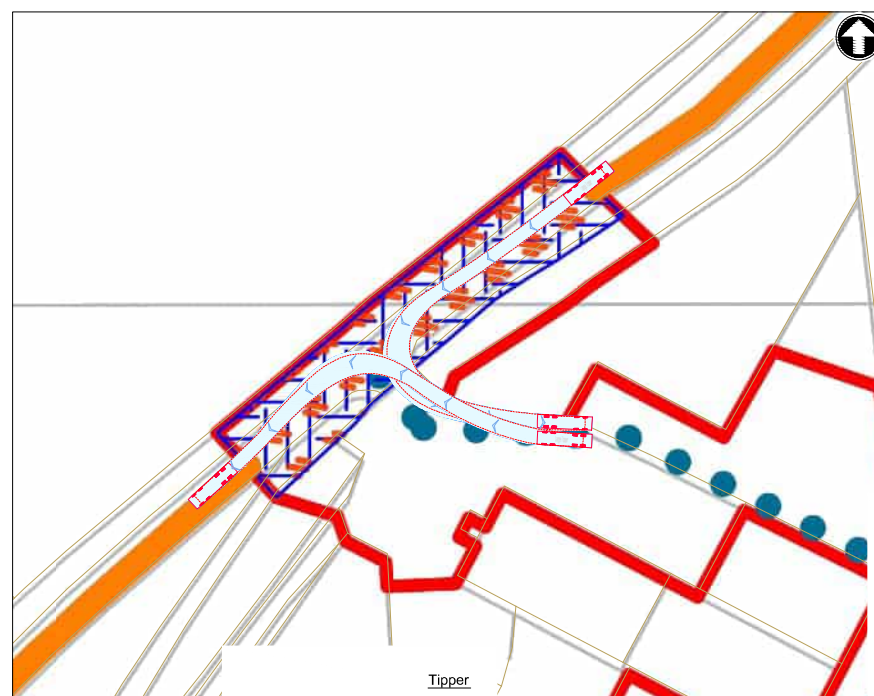
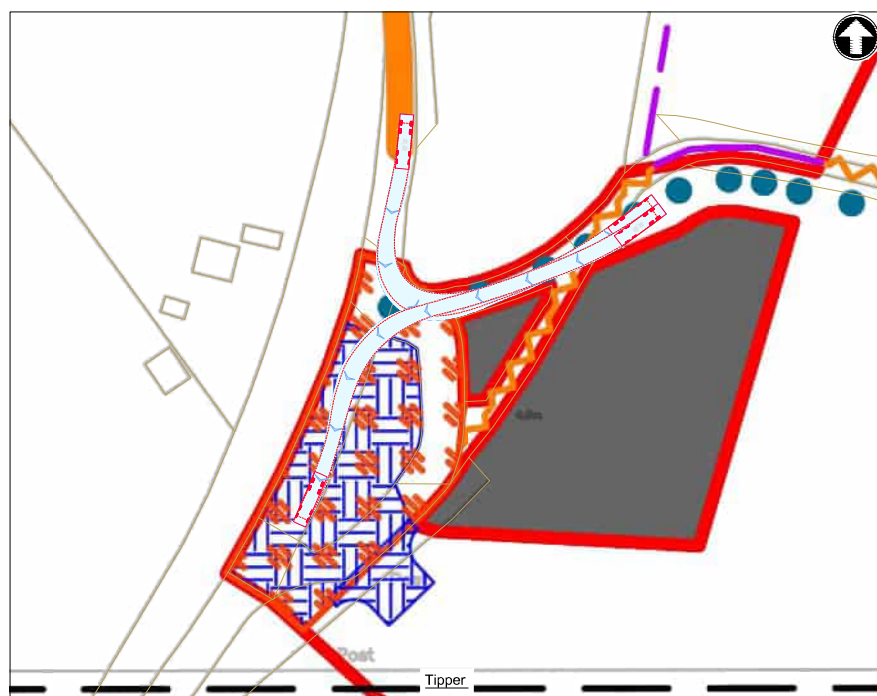
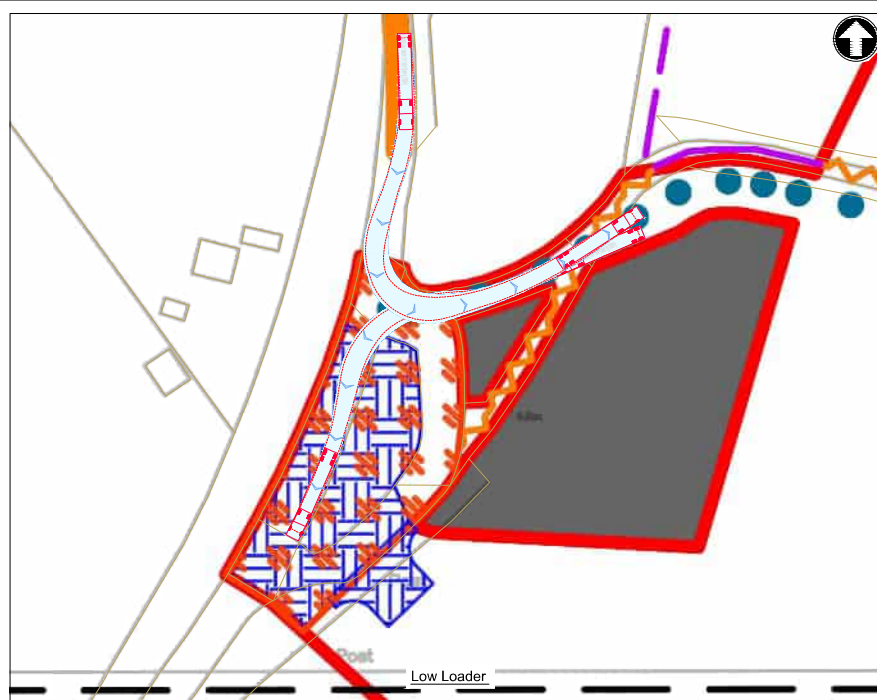
12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.

13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.

14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.

15.DRAWING MUST BE READ IN COLOUR

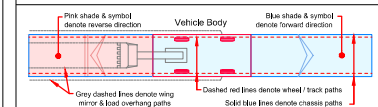
Vehicle Tracking - Key to Symbols



- Notes
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 14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Max Body Ground Clearance	Max Body Width	Lock to Lock Time	Lock to Lock Radius
Concrete Low Loader with Trailer (18.2m)	18.2m	2.40m	2.40m	0.30m	0.30m	2.40m	6.0m	10.0m
Large Mobile Crane	12.00m	2.40m	2.40m	0.30m	0.30m	2.40m	6.0m	10.0m

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Max Body Ground Clearance	Max Body Width	Lock to Lock Time	Lock to Lock Radius
Large Tipper	10.00m	2.40m	2.40m	0.30m	0.30m	2.40m	6.0m	10.0m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	0.30m	2.00m	6.0m	10.0m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	Rev

Client

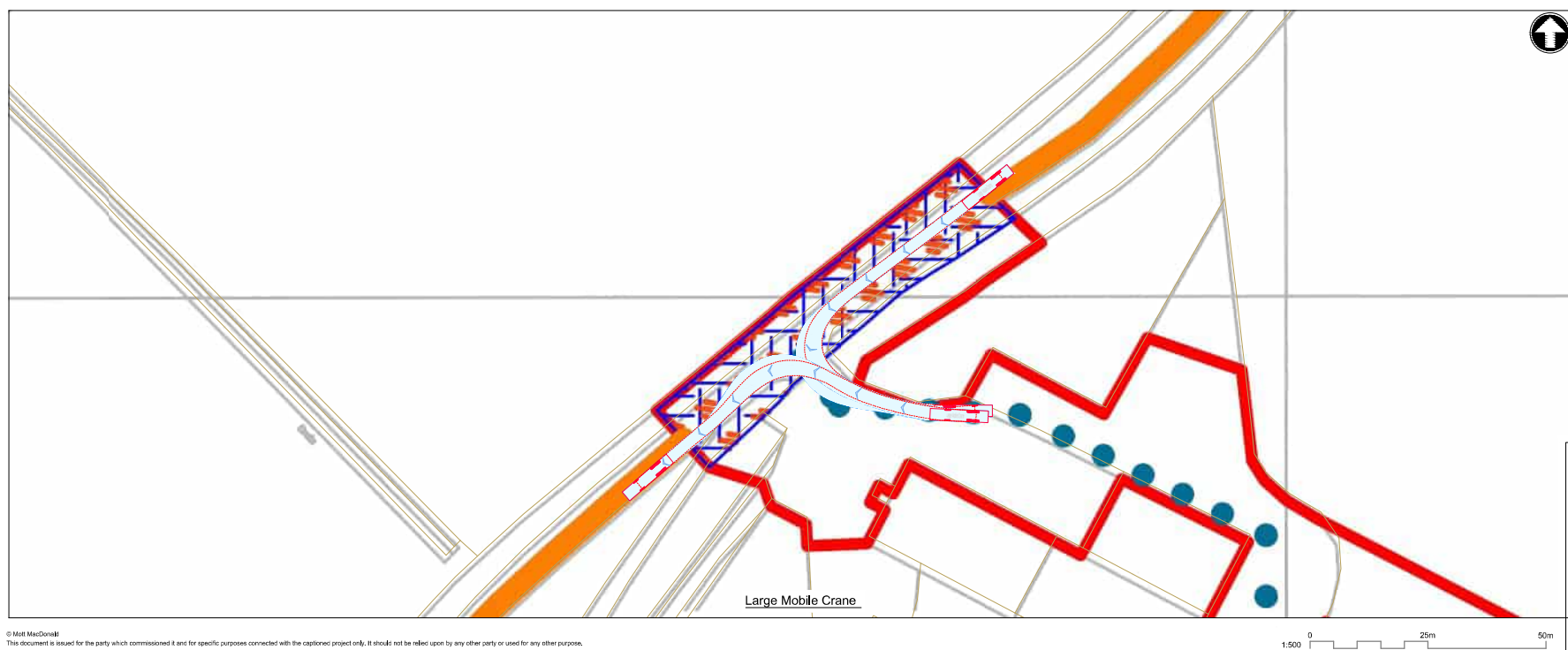
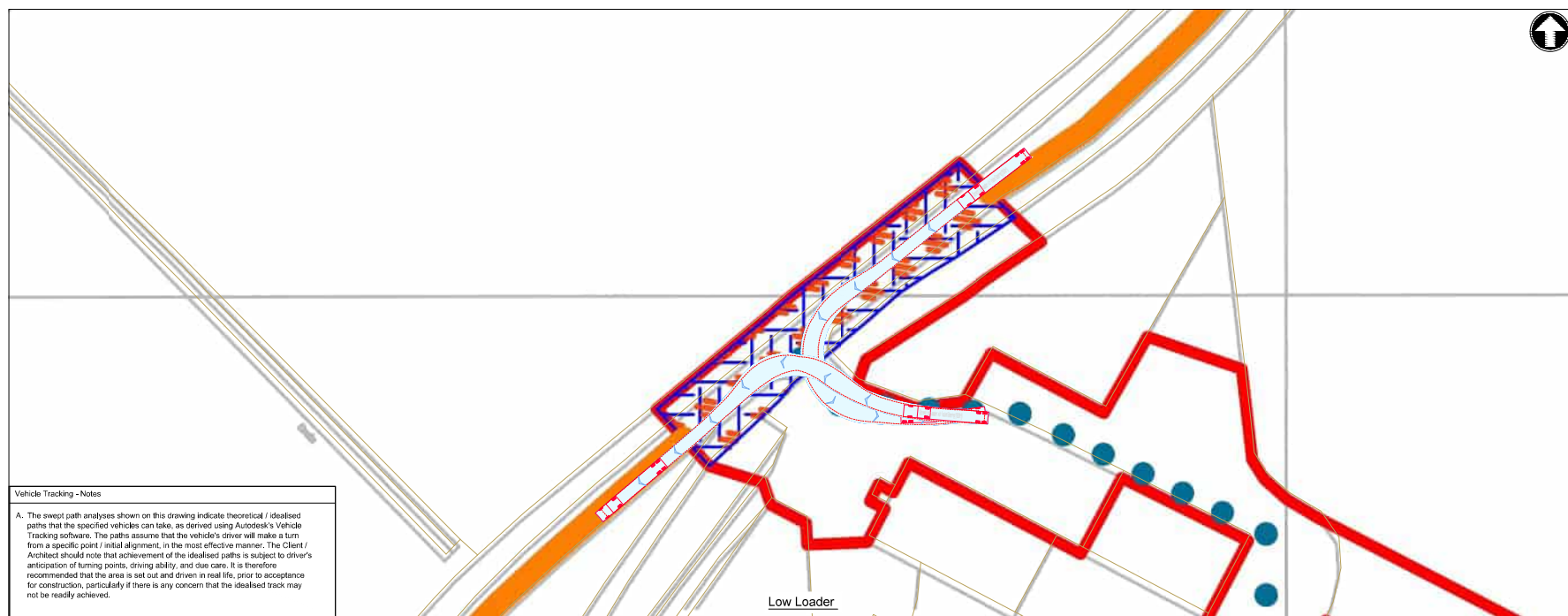


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
9017
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-
Drawn	M Fonseca	Rev	Coordination	-
Dwg check	-	Approved	-	-

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

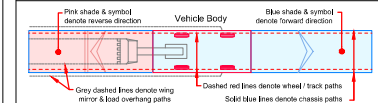
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



- Notes**
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15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Vehicle	Dimensions
Control Low Loader with Trailer (Steering 18.2m)	Overall Length: 24.6m Overall Width: 2.40m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 6.00m	Large Mobile Crane	Overall Length: 12.00m Overall Width: 2.40m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 6.00m

Vehicle	Dimensions	Vehicle	Dimensions
Large Tipper	Overall Length: 10.00m Overall Width: 2.40m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 6.00m	Standard Design Vehicle (SDV)	Overall Length: 4.60m Overall Width: 2.00m Overall Body Height: 2.00m Min Body Ground Clearance: 0.30m Max Body Height: 2.00m Lock to Lock Time: 2.00m Kerb to Kerb Turning Radius: 2.00m

Vehicle Tracking - Risks & Compliance

Risks



P1	Rev	Date	Drawn	Description	Rev	Appr

Client

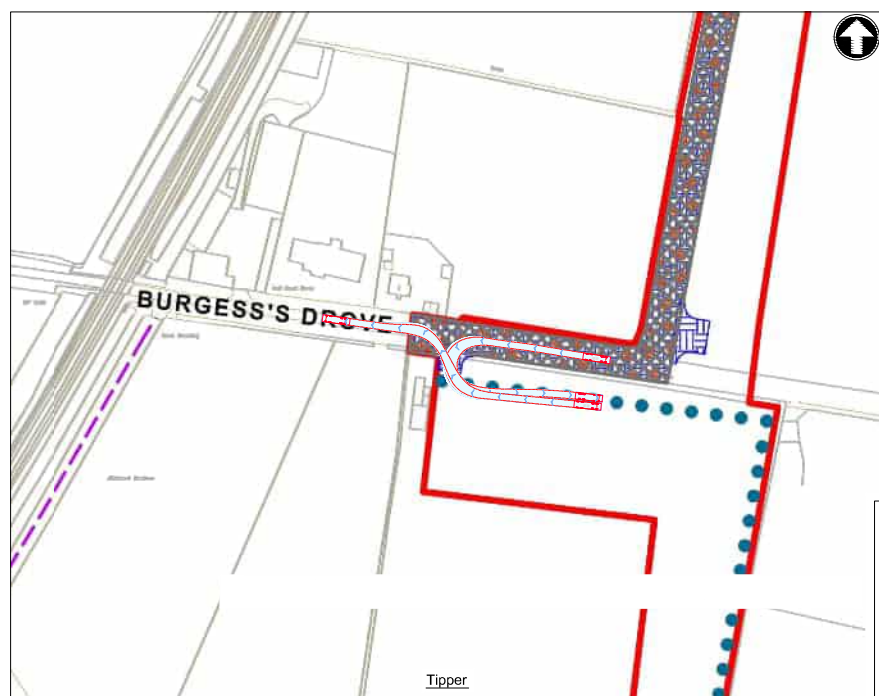
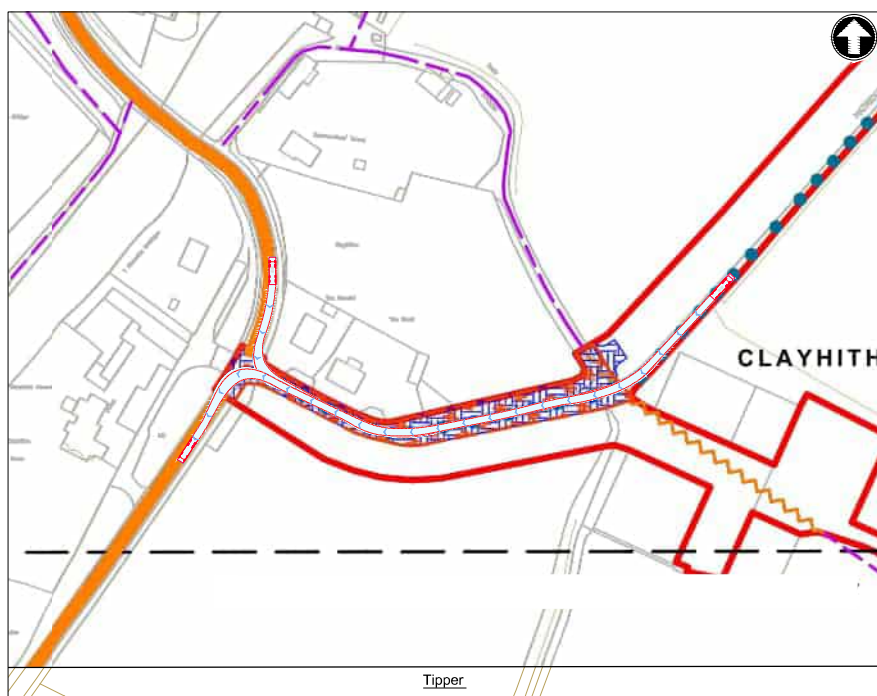
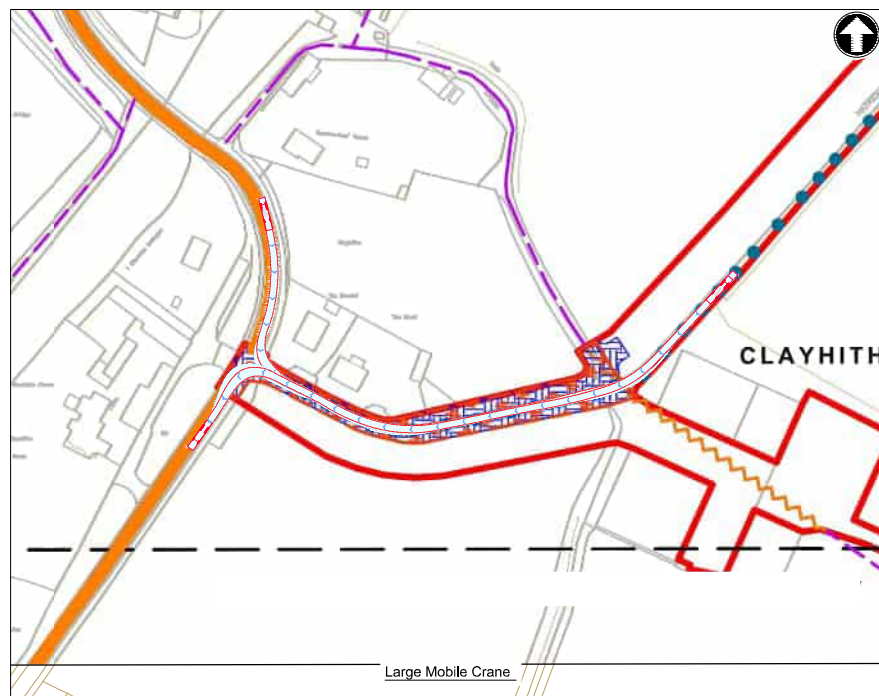
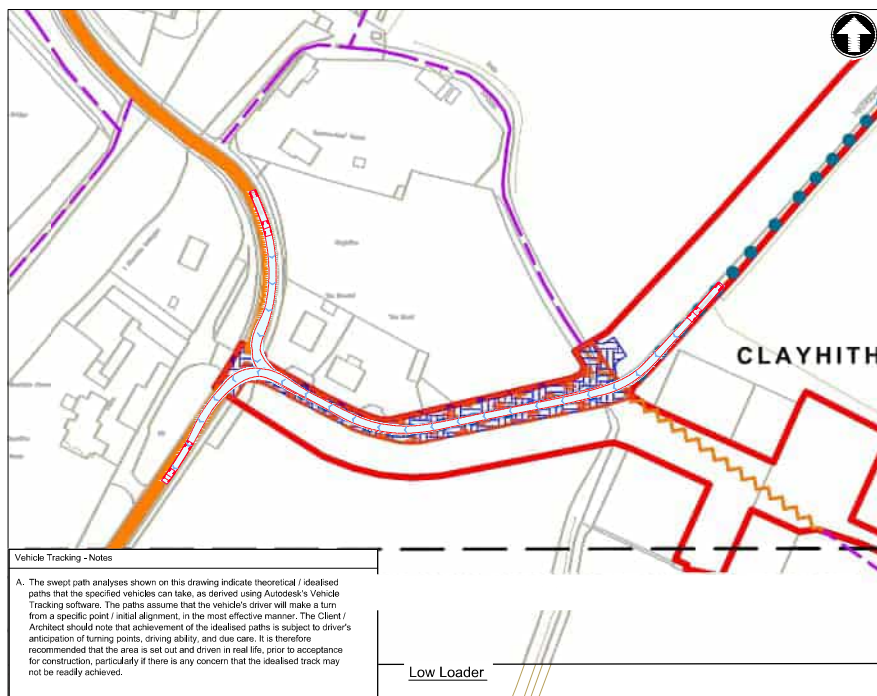


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
9017
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-	
Drawn	M Fonseca	Rev	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

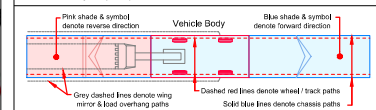
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



- Notes**
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 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
 14. This drawing should be read in conjunction with the Technical Memo, Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
Control Low Loader with Trailer (16.2m)	16.2m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.20m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.80m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance	Min Body Ground Clearance
Control Low Loader with Trailer (16.2m)	16.2m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Mobile Crane	12.00m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Large Tipper	10.20m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m
Standard Design Vehicle (SDV)	4.80m	2.40m	2.40m	0.30m	0.30m	0.30m	0.30m	0.30m	0.30m

Vehicle Tracking - Risks & Compliance

Risks



P1	Rev	Date	Drawn	Description	Rev	Rev

Client

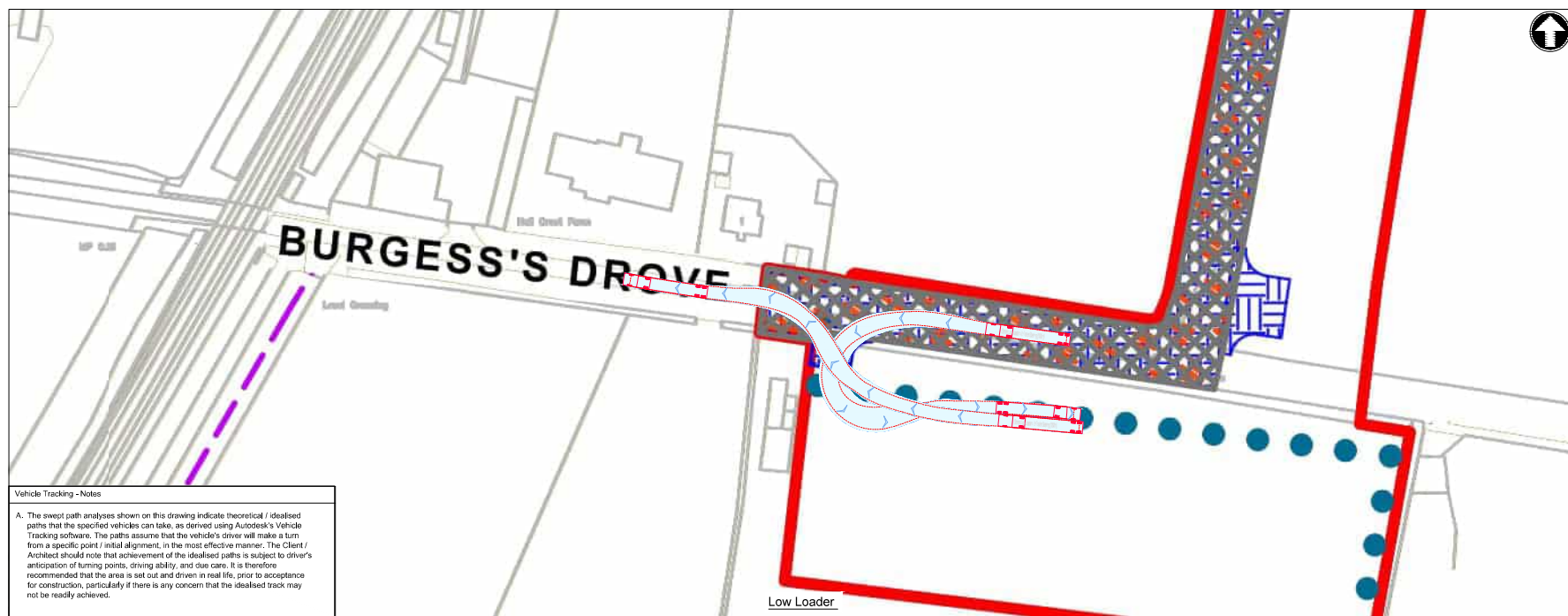


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
9018
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-	
Drawn	M Fonseca	Rev	Coordination	-	
Dwg check	-		Approved	-	

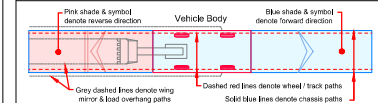
Scale at A1	Status	Rev	Security
1:1000	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



- Notes**
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 14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.
- 15. DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Dimensions	Vehicle	Dimensions
General Low Loader with Trailer (18.2m)	Overall Length: 24.6m Overall Width: 2.40m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 6.00m	Large Mobile Crane	Overall Length: 12.00m Overall Width: 2.40m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 6.00m

Vehicle	Dimensions	Vehicle	Dimensions
Large Tipper	Overall Length: 10.20m Overall Width: 2.40m Overall Body Height: 3.40m Min Body Ground Clearance: 0.30m Max Body Height: 6.00m Lock to Lock Time: 6.00m Kerb to Kerb Turning Radius: 6.00m	Standard Design Vehicle (SDV)	Overall Length: 4.60m Overall Width: 2.00m Overall Body Height: 1.90m Min Body Ground Clearance: 0.10m Max Body Height: 2.00m Lock to Lock Time: 4.00m Kerb to Kerb Turning Radius: 4.00m



Vehicle Tracking - Risks & Compliance

Risks



P1	Rev	Date	Drawn	Description	Rev	Appr

Client



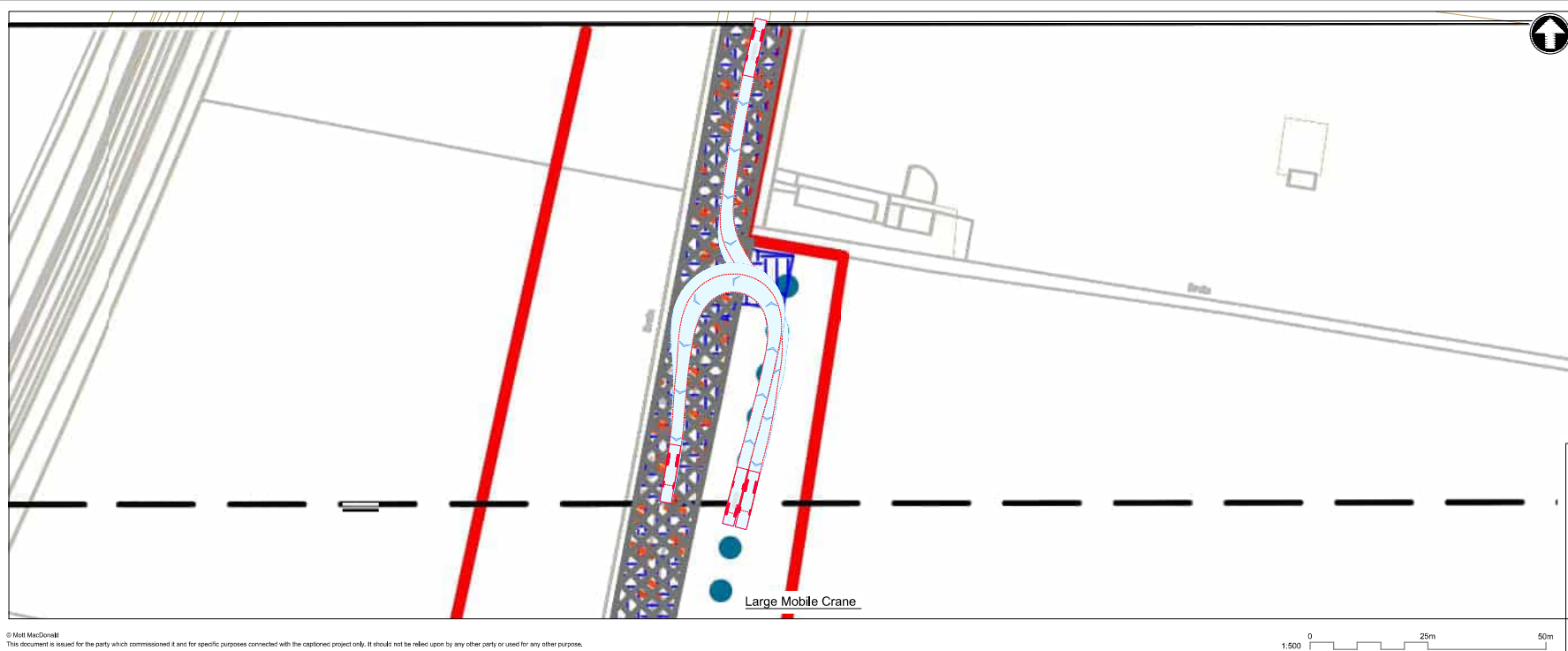
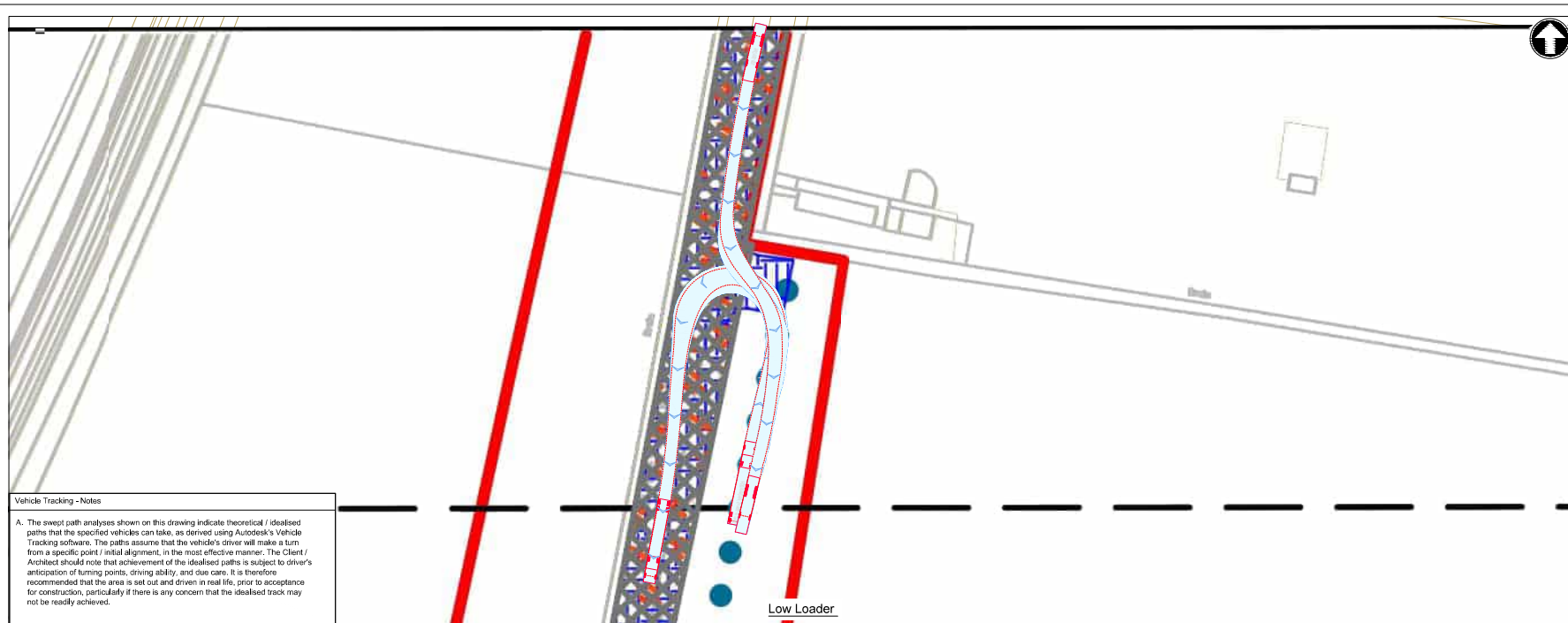
Title

Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
9018
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-	
Drawn	M Fonseca	Rev	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

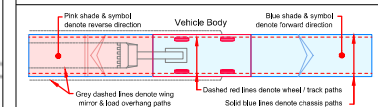
Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



- Notes**
1. Do not scale from this drawing.
 2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
 3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
 4. This drawing has been prepared for the initial high level optioneering study for the CWWTW project.
 5. The drawing is based on OS mapping information and LIDAR data.
 6. The information is preliminary and subject to further detailed design.
 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
 8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
 14. This drawing should be read in conjunction with the Technical Memo - Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Track Width	Lock to Lock time	Axis to Kerb Turning Radius
Compact Low Loader with Trailer (Steering 18.2m)	24.6m	2.46m	2.46m	0.30m	2.46m	6.0m	6.0m
Large Mobile Crane	12.00m	2.46m	2.46m	0.30m	2.46m	6.0m	6.0m

Vehicle	Overall Length	Overall Width	Overall Height	Min Body Ground Clearance	Track Width	Lock to Lock time	Axis to Kerb Turning Radius
Large Tipper	10.20m	2.46m	2.46m	0.30m	2.46m	6.0m	6.0m
Standard Design Vehicle (SDV)	4.60m	2.00m	2.00m	0.30m	2.00m	6.0m	6.0m

Vehicle Tracking - Risks & Compliance

Risks

- Kerb overrun
- Restrictive road width

P1	Rev	Date	Drawn	Description	Rev	Appr

Client

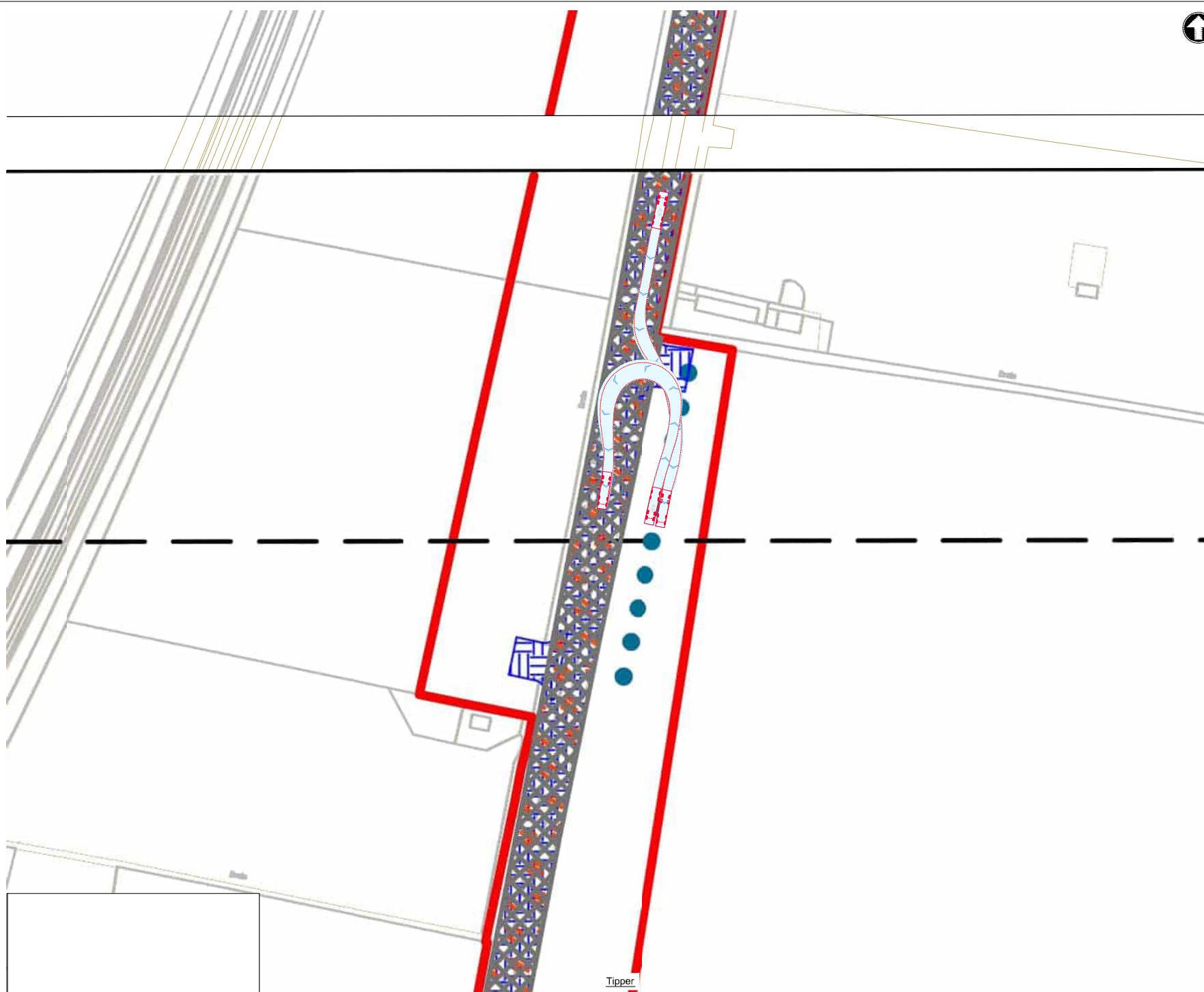


Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
9018
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	Rev	Eng check	-	
Drawn	M Fonseca	Rev	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT



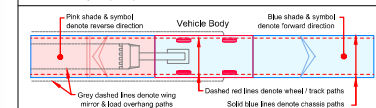
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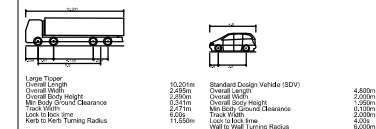
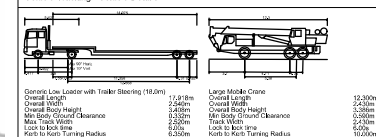
\\Users\DEB100078\OneDrive - Matt MacDonald\Documents\PA Projects\N2-Vehicle Tracking\CA-CWTPRR\02_06_22MA-Kroutie\102376-01\000-MS-C-DRAFT Operational 2 (req. - Jul 13, 2022 - 2:40PM - DEB100078

- Notes
- 1. Do not scale from this drawing.
- 2. All dimensions are in metres unless otherwise shown. All levels are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
- 3. Any drawing errors or discrepancies should be brought to the attention of Most Reverend Bishop of the diocese at the address shown in the title block.
- 4. This drawing has been prepared for the initial high level optioneering study for the CWSW project.
- 5. The drawing is based on OS mapping information and LIDAR data.
- 6. The information is preliminary and subject to further detailed design.
- 7. The drawing has not been submitted to the Highway Authority or Highways England for their technical review.
- 8. The drawing does not include any information on proposed highway drainage and associated structures, existing drainage or other existing assets that may need to be protected or diverted as part of the works.
- 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take may be required.
- 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
- 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
- 12. The design is based on the requirements of DMRB: Manual for Streets has been adopted for the purposes of the proposed access road.
- 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this project.
- 14. This drawing has been prepared for the Technical Meeting: Cambridge Waste Water Treatment Works Rehabilitation Early assessment and setting of proposed site access options.

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details



Vehicle Tracking - Risks & Compliance

	Risks
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P1	<u>LL</u>	<u>MF</u>	Draft for Discussion / Review.	<u>MF</u>	<u>MF</u>
Rev	Date	Drawn	Description	Chk'd	App'd

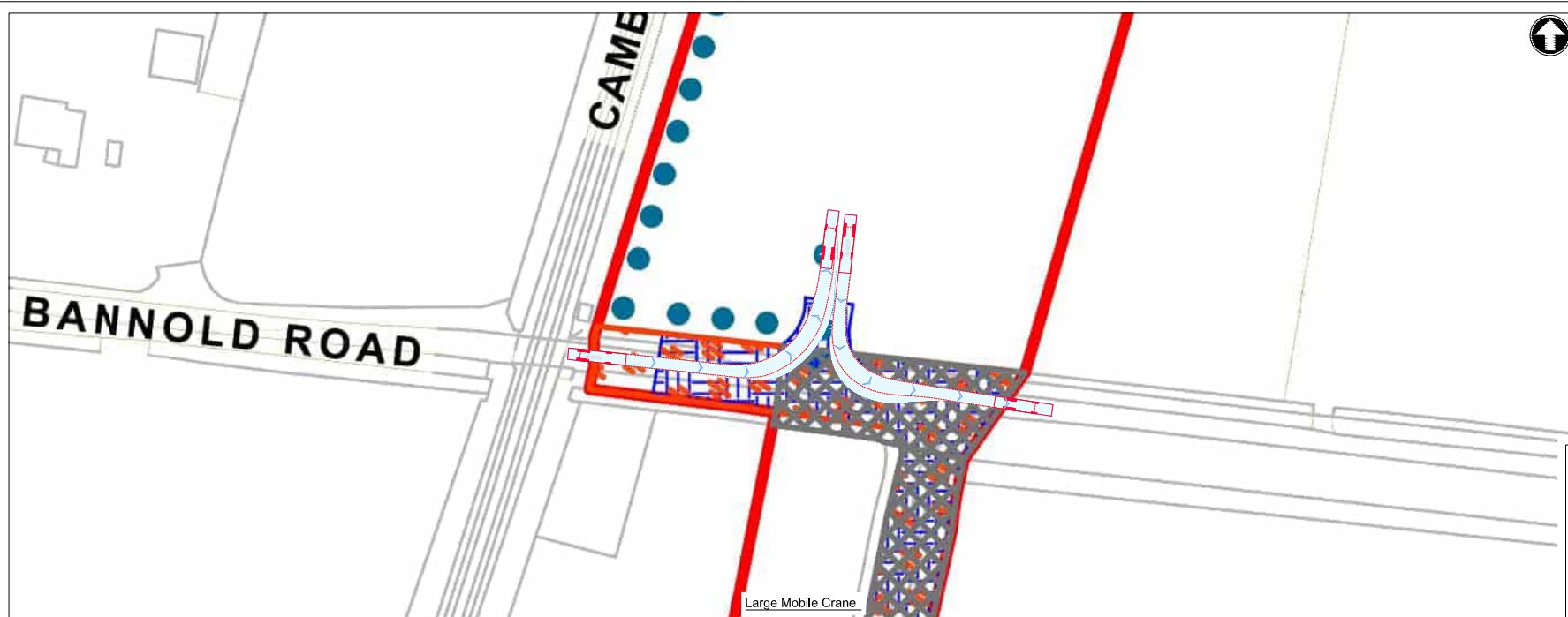
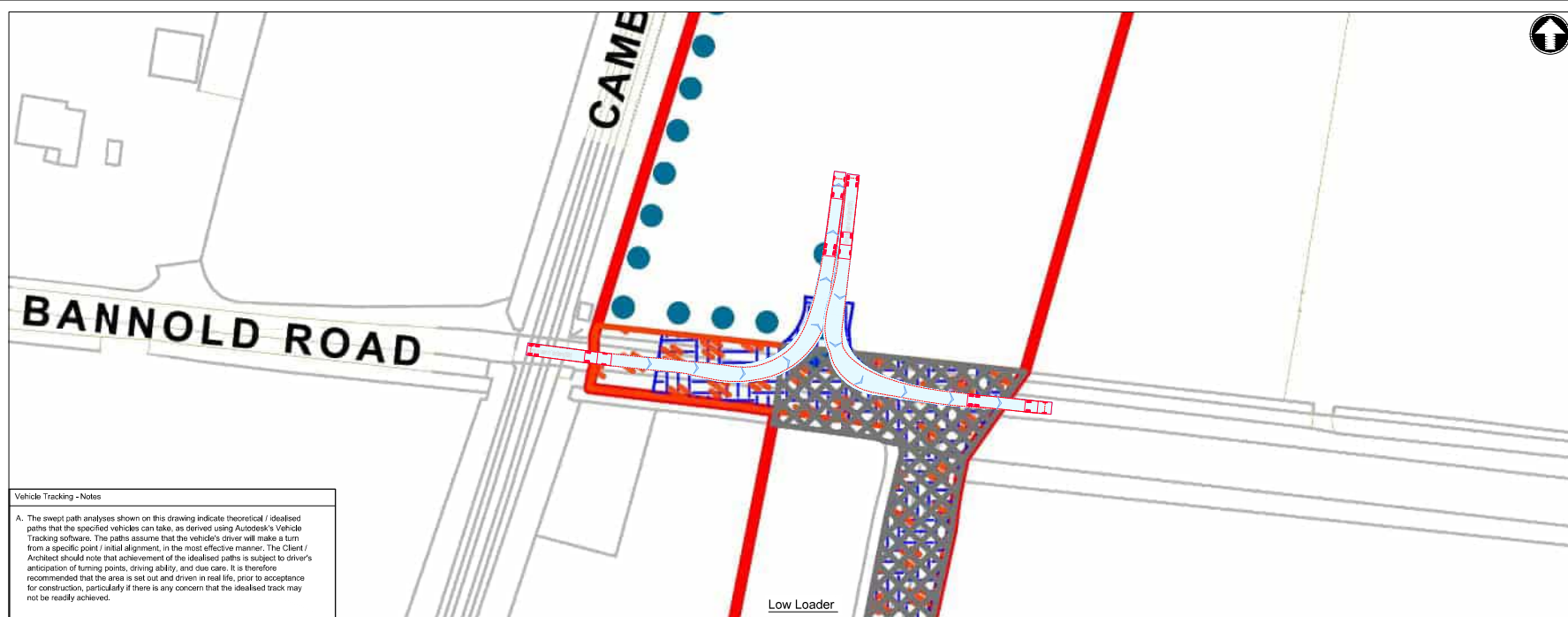
Client



Title	Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions 9018 Highways GA, Visibility Splay and Vehicle Tracking
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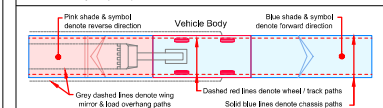
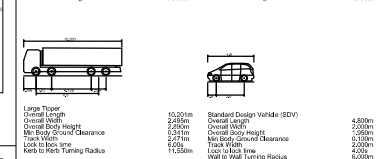
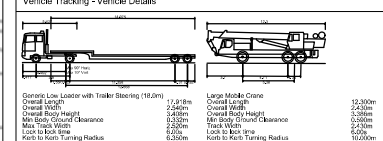
Designed	M Fonseca	<i>MF</i>	Eng check	-	
Drawn	M Fonseca	<i>MF</i>	Coordination	-	
Dwg check	-		Approved	-	
Scale at A1	Status	Rev	Security		
1:500	PRE	P1	STD		

Drawing Number
102375 MMD 01 XY DB C DRAFT



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2. All dimensions are in metres unless otherwise shown. All Joints are in metres above Ordnance Datum (AOD). All dimensions & levels should be checked on site.
3. Any drawings or notes or omissions should be referred to the attention of Mr MacDonalld at the address shown in the title block.
4. This drawing has been prepared for the initial high level optimising study for the COWIT project.
5. The drawing is based on OS mapping information and LANDat data.
6. The information is preliminary and subject to further detailed design.
7. CD design has not been submitted to the Highway Authority or Highways England for their technical review.
8. The drawing does not include any information on proposed highway drainage and flood protection. SEAS existing flood levels are 2nd order orange assets that may need to be protected or diverted as part of the works.
9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is a 2nd order orange asset.
10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme.
11. The design assumes an embankment depth of 1.5 is acceptable to the relevant stakeholders.
12. The design is based on the requirements of DMRB. Manual for Streets has been adopted for access extents of the proposed access roads.
13. The proposal requires their party land to be constructed. The extent of the land take is to be determined during the detailed design stage.
14. This drawing should be read in conjunction with the Technical Memo. Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.
15. **DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols

[illegible]

Vehicle Tracking - Risks & Compliance

Rieke



P1		<i>MF</i>	Draft for Discussion / Review.	<i>MF</i>	<i>MF</i>
Rev	Date	Drawn	Description	Ch'k'd	App'd

Client

love every drop
anglianwater

Title	Cambridge Waste Water Treatment Works Relocation Temporary Access Junctions 9019 Highways GA, Visibility Splay and Vehicle Tracking
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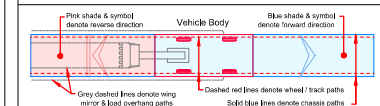
Designed	M Fonseca	<i>MF</i>	Eng check	-	
Drawn	M Fonseca	<i>MF</i>	Coordination	-	
Dwg check	-		Approved	-	
Scale at A1	Status	Rev	Security		
1:500	PRE	P1	STD		



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 3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
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 5. The drawing is based on OS mapping information and LIDAR data.
 6. The information is preliminary and subject to further detailed design.
 7. The design has not been submitted to the Highway Authority or Highways England for their technical review.
 8. The drawing does not include any information on proposed highway drainage and associated SUDS, existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 9. The design requires works to the public highway and would require further discussions with the relevant stakeholders. The design is subject to change and additional land take.
 10. The drawings do not include any street lighting or other highway infrastructure which may be required as part of the overall scheme design.
 11. The design assumes an embankment slope of 1:3 is acceptable to the relevant stakeholders.
 12. The design is based on the requirements of DMRB, Manual for Streets has been adopted for some extents of the proposed access roads.
 13. The proposal requires third party land to be constructed. The extent of the land take is to be determined during future stages of the design development of this option.
 14. This drawing should be read in conjunction with the Technical Memo, Cambridge Waste Water Treatment Works Relocation Early assessment and siting of proposed site access options.

15. DRAWING MUST BE READ IN COLOUR

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

Vehicle	Overall Length	Overall Width	Overall Body Height	Min Body Ground Clearance	Max Body Ground Clearance	Max Body Width	Lock to Lock Time	Kerb to Kerb Turning Radius
Concrete Line Loader with Trailer (Steering 18.2m)	7.31m	2.46m	2.46m	0.30m	0.30m	2.46m	6.0m	6.0m
Large Mobile Crane	12.30m	2.46m	2.46m	0.30m	0.30m	2.46m	6.0m	6.0m
Large Tipper	10.20m	2.46m	2.46m	0.30m	0.30m	2.46m	6.0m	6.0m
Standard Design Vehicle (SDV)	4.80m	2.00m	2.00m	0.30m	0.30m	2.00m	6.0m	6.0m

Vehicle Tracking - Risks & Compliance

Risks



Rev	Date	Drawn	Description	CHK'd	App'd
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Client



Title
Cambridge Waste Water Treatment Works Relocation
Temporary Access Junctions
9019
Highways GA, Visibility Splay and
Vehicle Tracking

Designed	M Fonseca	MF	Eng check	-	
Drawn	M Fonseca	MF	Coordination	-	
Dwg check	-		Approved	-	

Scale at A1	Status	Rev	Security
1:500	PRE	P1	STD

Drawing Number
102375-MMD-01-XX-DR-C-DRAFT

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.



The ExA:

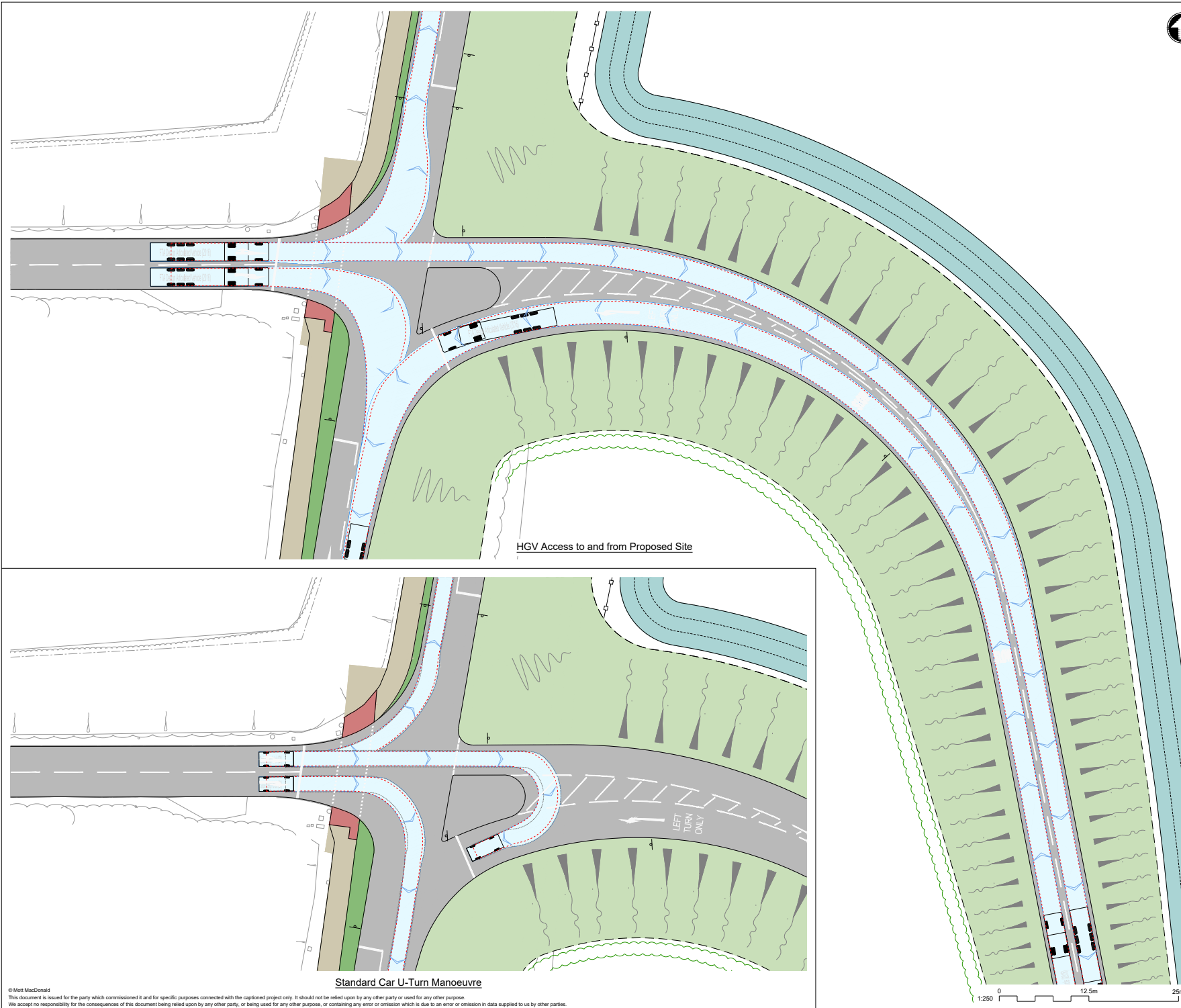
Construction traffic routes – safety

At Appendix G of the TA [AS-108] there are swept path analyses of the J34 on-slip. Please provide:

- a. a swept path analysis for the off-slip junction with the A14 overbridge, including for tipper trucks; and
- b. commentary on whether construction vehicles would be able to safely turn left or right from the J34 off-slip in the event that southbound queuing to the J34 on-slip extends close to or beyond (to the north of) the junction of the J34 off-slip and the A14 overbridge (for example when concrete pouring / directional drilling works take place during the peak periods).

The Applicant has produced these drawings. The Applicant's commentary for these swept paths is as follows:

There are no issues noted for an articulated vehicle (maximum vehicle size expected at site) to complete the left and right turn from the offslip onto Horningsea Road. It is noted that for both manoeuvres, articulated vehicles would need to encroach slightly into the opposite lane to complete the manoeuvres. In spite of this, there is no risk of collision with vehicles from opposite lanes when turning from the offslip as the traffic signal sequence at the junction ensures that when the traffic signals on the offslip are green, traffic signals on other arms would be red. In the event that southbound queuing on A14 overbridge from the on-slip extends close to or beyond the junction of the J34 offslip and the A14 overbridge, articulated vehicles would not be able to complete the right turn from the offslip due to lack of space. The left turn from the offslip onto Horningsea Road northbound north of J34 can be completed as vehicles are not expected to queue in front of the stop line on Horningsea Road southbound leading towards the offslip/A14 overbridge. Therefore, even if an articulated vehicle were to encroach on the opposite lane, there would be no traffic present on that lane owing to the location of the stop line.

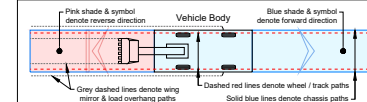


- Notes
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 3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
 4. This drawing has been prepared in initial technical audit and Road Safety Audit Stage 1 by Cambridgeshire County Council.
 5. The drawing is based on OS mapping and topographic survey information.
 6. The information is preliminary and subject to further detailed design.
 7. The drawing does not include any information on existing or proposed utilities or other existing assets that may need to be protected or diverted as part of the works.
 8. The proposal requires third party land to be constructed. The extent of the land take is to be determined during detailed design development.
 9. The design is based on the requirements of DMRB.
 10. The design assumes an embankment slope of 1:2 is acceptable to the relevant stakeholders.
 11. The design is based on the requirements of DMRB.
 12. Street lighting on Homingssea Road to remain as existing with minor changes to the locations of the lamp columns due to the reconfigured 'off-slip' junction and the realignment of Homingssea Road.
 13. **DRAWING MUST BE READ IN COLOUR**

Key to Symbols

- Carriageway
- Footway
- Tactile Paving (Buff - Uncontrolled)
- Tactile Paving (Red - Controlled)
- Verge
- Reprofiled Embankments
- Swale

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details

FTA Design Articulated Vehicle (1998)	Standard Design Vehicle (From ICE Car Park Designers' Handbook)
Overall Length 16.480m	Overall Length 4.800m
Chassis Width 2.950m	Chassis Width 2.200m
Overall Width inc. Wing Mirrors 3.150m	Overall Width inc. Wing Mirrors 2.300m
Overall Body Height 3.870m	Overall Body Height 2.000m
Max Track Width 2.470m	Track Width 2.000m
Kerb to Kerb Turning Radius 6.950m	Wail to Wail Turning Radius 6.000m

Reference drawings

P2	14.12.23	LJR	HGV viewpoint adjusted to include Northern stop line.	WJT	dwl
P1	05.07.22	LJR	Preliminary Issue.	JR	AMR
Rev	Date	Drawn	Description	Checked	App'd

M
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MACDONALD

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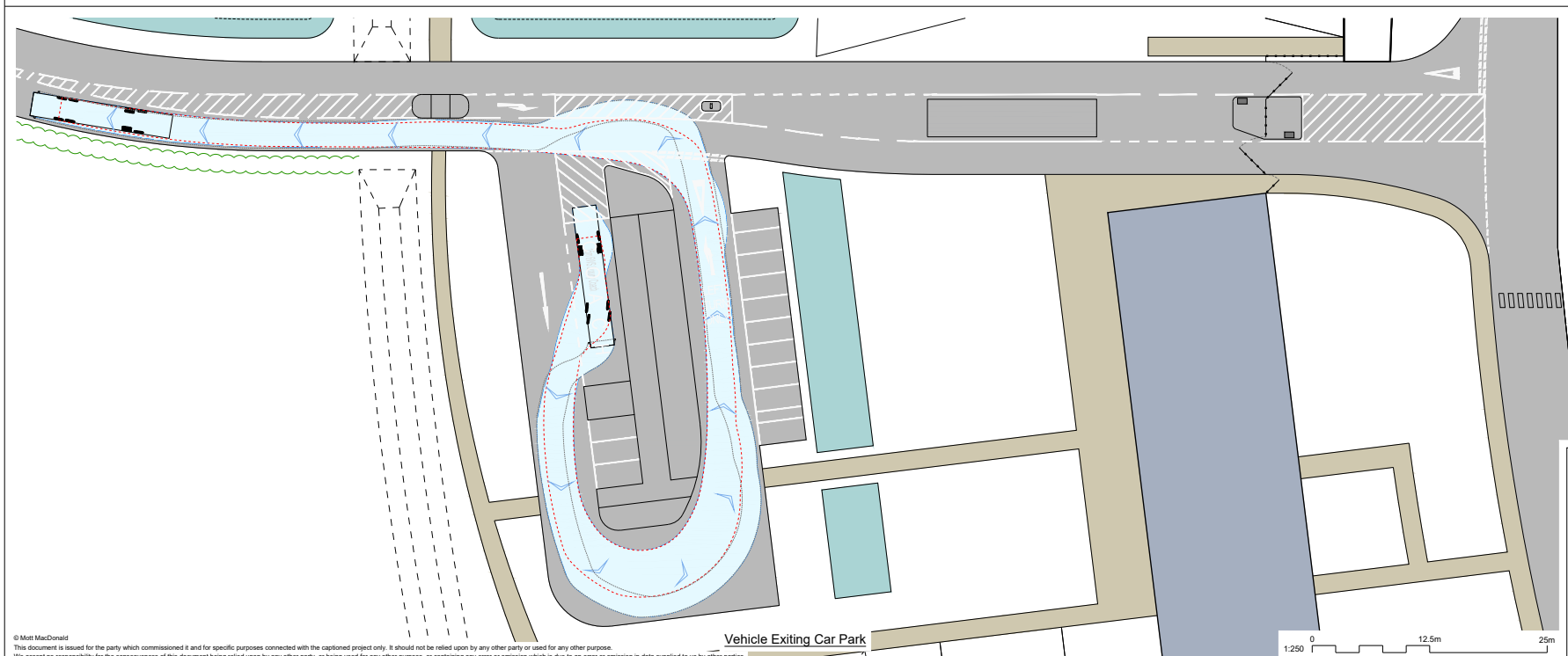
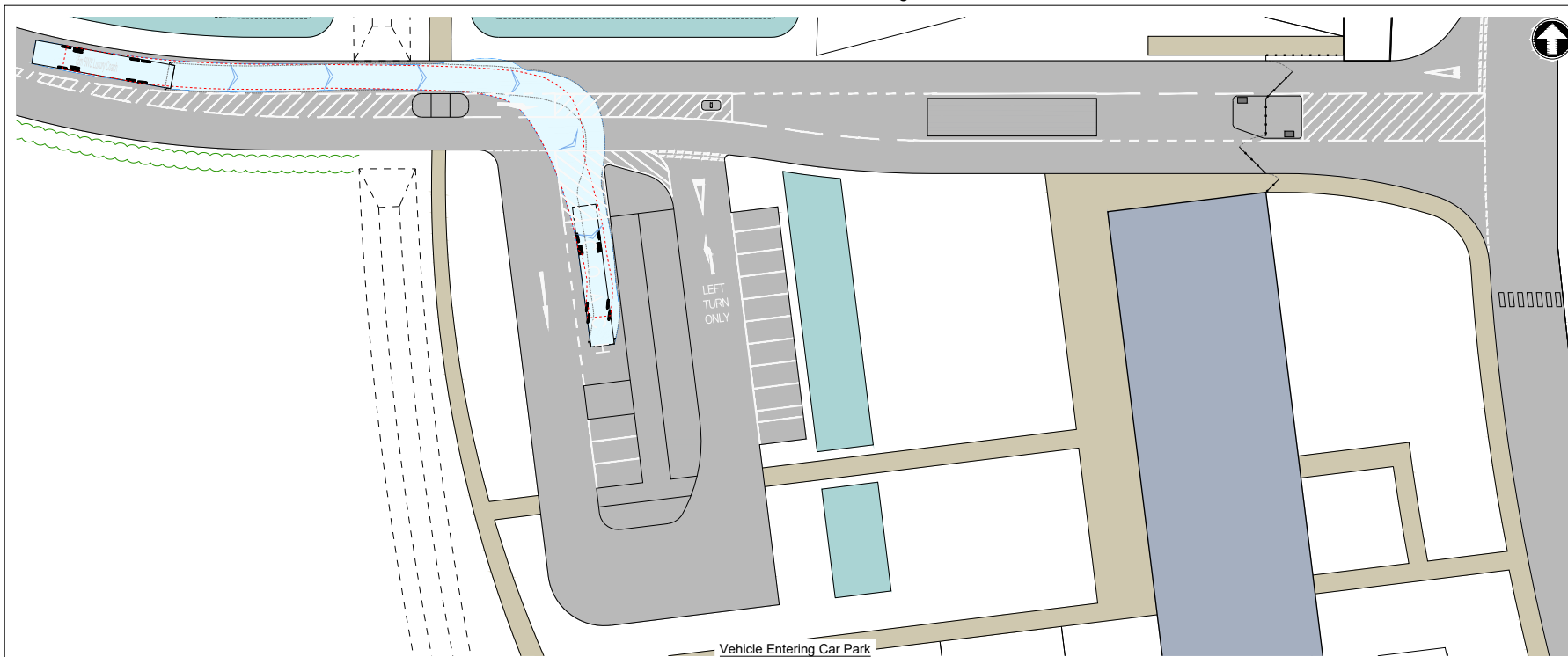
Client



Title
**Cambridge Waste Water Treatment Works Relocation
Vehicle Tracking
Homingssea Road Junction**

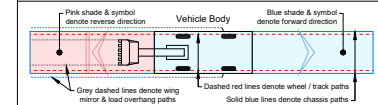
Designed	J.Reeve	JJR	Eng check	W.Tong	WJT
Drawn	L.W.Russell	LJR	Coordination	A.M.Rawlings	AMR
Dwg check	J.D.Seaton	JDS	Approved	G.Wicks	GW
Scale at A1	Status	Rev	Security		
1:250	PRE	P2	STD		

Drawing Number
102375-MMD-01-XX-DR-C-1121



- Notes
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 3. Any drawing errors or discrepancies should be brought to the attention of Mott MacDonald at the address shown in the title block.
 4. **DRAWING MUST BE READ IN COLOUR**

Vehicle Tracking - Key to Symbols



Vehicle Tracking - Vehicle Details



Luxury Coach (Neoplan Megaliner)

Overall Length 15.000m
Overall Width 2.500m
Overall Body Height 4.157m
Track Width 2.500m
Kerb to Kerb Turning Radius 9.773m

Note: This vehicle incorporates rear steering.

Vehicle Tracking - Risks & Compliance



Moderate Risks

M1 Vehicle must overrun opposite lane to exit car park.

Vehicle Tracking - Notes

A. The swept path analyses shown on this drawing indicate theoretical / idealised paths that the specified vehicles can take, as derived using Autodesk's Vehicle Tracking software. The paths assume that the vehicle's driver will make a turn from a specific point / initial alignment, in the most effective manner. The Client / Architect should note that achievement of the idealised paths is subject to driver's anticipation of turning points, driving ability, and due care. It is therefore recommended that the area is set out and driven in real life, prior to acceptance for construction, particularly if there is any concern that the idealised track may not be readily achieved.

Reference drawings

P1	14.12.23	LM/R	Preliminary Issue	W/T	GW
Rev	Date	Drawn	Description	Checked	App'd



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22 Station Road
Cambridge, CB1 2JD
United Kingdom
T +44 (0)1223 463 500
F +44 (0)1223 461 007
W mottmac.com

Client



Title
Cambridge Waste Water Treatment Works Relocation
Site Access and Visitor Car Park
Coach Access to Visitor's Car Park

Designed	J.Reeve	JR	Eng check	W.Tong	W/T
Drawn	L.W.Russell	LM/R	Coordination	A.M.Rawlings	AMR
Dwg check	J.D.Seaton	JDS	Approved	G.Wicks	GW
Scale at A1	1:250	PRE	Rev	P1	STD

Drawing Number

102375-MMD-01-XX-DR-C-1142

Appendix H: Discovery Centre TRICS® Data

Calculation Reference: AUDIT-704113-220804-0830

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
 Category : I - ART GALLERIES/MUSEUMS/EXHIBITIONS
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

16 ULSTER (REPUBLIC OF IRELAND)
 DN DONEGAL 1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
 Actual Range: 750 to 750 (units: sqm)
 Range Selected by User: 200 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 23/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Wednesday 1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town Centre 1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

High Street 1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

F1(c) 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*Population within 5 miles:

5,001 to 25,000 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*Car ownership within 5 miles:

0.6 to 1.0 1 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*Travel Plan:

No 1 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*PTAL Rating:

No PTAL Present 1 days

This data displays the number of selected surveys with PTAL Ratings.

Mott MacDonald Fleet Place London

Licence No: 704113

LIST OF SITES relevant to selection parameters

1 DN-07-I-02 COUNTY MUSEUM DONEGAL
 HIGH ROAD
 LETTERKENNY
 BALLYBOE GLENCAR
 Edge of Town Centre
 High Street
 Total Gross floor area: 750 sqm
 Survey date: WEDNESDAY 10/10/18 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DU-07-I-01	Location unsuitable
ES-07-I-01	Location unsuitable

Mott MacDonald Fleet Place London

Licence No: 704113

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.88

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.267	1	750	0.133	1	750	0.400
10:00 - 11:00	1	750	0.000	1	750	0.133	1	750	0.133
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.133	1	750	0.000	1	750	0.133
13:00 - 14:00	1	750	0.133	1	750	0.133	1	750	0.266
14:00 - 15:00	1	750	0.400	1	750	0.267	1	750	0.667
15:00 - 16:00	1	750	0.533	1	750	0.267	1	750	0.800
16:00 - 17:00	1	750	0.133	1	750	0.667	1	750	0.800
17:00 - 18:00	1	750	0.000	1	750	0.133	1	750	0.133
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.599			1.733			3.332

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	750 - 750 (units: sqm)
Survey date range:	01/01/14 - 23/11/19
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.267	1	750	0.133	1	750	0.400
10:00 - 11:00	1	750	0.000	1	750	0.133	1	750	0.133
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.133	1	750	0.000	1	750	0.133
13:00 - 14:00	1	750	0.267	1	750	0.133	1	750	0.400
14:00 - 15:00	1	750	0.533	1	750	0.533	1	750	1.066
15:00 - 16:00	1	750	0.933	1	750	0.533	1	750	1.466
16:00 - 17:00	1	750	0.133	1	750	0.800	1	750	0.933
17:00 - 18:00	1	750	0.000	1	750	0.133	1	750	0.133
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.266			2.398			4.664

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

Mott MacDonald Fleet Place London

Licence No: 704113

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.000	1	750	0.000	1	750	0.000
10:00 - 11:00	1	750	0.400	1	750	0.400	1	750	0.800
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.000	1	750	0.000	1	750	0.000
13:00 - 14:00	1	750	0.400	1	750	0.133	1	750	0.533
14:00 - 15:00	1	750	0.000	1	750	0.000	1	750	0.000
15:00 - 16:00	1	750	0.000	1	750	0.267	1	750	0.267
16:00 - 17:00	1	750	0.000	1	750	0.000	1	750	0.000
17:00 - 18:00	1	750	0.000	1	750	0.000	1	750	0.000
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.800			0.800			1.600

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

Mott MacDonald Fleet Place London

Licence No: 704113

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.88

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.267	1	750	0.133	1	750	0.400
10:00 - 11:00	1	750	0.400	1	750	0.533	1	750	0.933
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.133	1	750	0.000	1	750	0.133
13:00 - 14:00	1	750	0.667	1	750	0.267	1	750	0.934
14:00 - 15:00	1	750	0.533	1	750	0.533	1	750	1.066
15:00 - 16:00	1	750	0.933	1	750	0.800	1	750	1.733
16:00 - 17:00	1	750	0.133	1	750	0.800	1	750	0.933
17:00 - 18:00	1	750	0.000	1	750	0.133	1	750	0.133
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.066			3.199			6.265

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS

MULTI-MODAL CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	750	0.267	1	750	0.133	1	750	0.400
10:00 - 11:00	1	750	0.000	1	750	0.133	1	750	0.133
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.133	1	750	0.000	1	750	0.133
13:00 - 14:00	1	750	0.133	1	750	0.133	1	750	0.266
14:00 - 15:00	1	750	0.400	1	750	0.267	1	750	0.667
15:00 - 16:00	1	750	0.533	1	750	0.267	1	750	0.800
16:00 - 17:00	1	750	0.133	1	750	0.667	1	750	0.800
17:00 - 18:00	1	750	0.000	1	750	0.133	1	750	0.133
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.599			1.733			3.332

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRICS 7.9.2**Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: TOTAL VEHICLES

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0.267	1	750	0.133	1	750	0.4
10:00-11:00	1	750	0	1	750	0.133	1	750	0.133
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0.133	1	750	0	1	750	0.133
13:00-14:00	1	750	0.133	1	750	0.133	1	750	0.266
14:00-15:00	1	750	0.4	1	750	0.267	1	750	0.667
15:00-16:00	1	750	0.533	1	750	0.267	1	750	0.8
16:00-17:00	1	750	0.133	1	750	0.667	1	750	0.8
17:00-18:00	1	750	0	1	750	0.133	1	750	0.133
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			1.599			1.733			3.332

TRICS 7.9.2**Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: VEHICLE OCCUPANTS

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0.267	1	750	0.133	1	750	0.4
10:00-11:00	1	750	0	1	750	0.133	1	750	0.133
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0.133	1	750	0	1	750	0.133
13:00-14:00	1	750	0.267	1	750	0.133	1	750	0.4
14:00-15:00	1	750	0.533	1	750	0.533	1	750	1.066
15:00-16:00	1	750	0.933	1	750	0.533	1	750	1.466
16:00-17:00	1	750	0.133	1	750	0.8	1	750	0.933
17:00-18:00	1	750	0	1	750	0.133	1	750	0.133
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			2.266			2.398			4.664

TRICS 7.9.2**Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: PEDESTRIANS

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0	1	750	0	1	750	0
10:00-11:00	1	750	0.4	1	750	0.4	1	750	0.8
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0	1	750	0	1	750	0
13:00-14:00	1	750	0.4	1	750	0.133	1	750	0.533
14:00-15:00	1	750	0	1	750	0	1	750	0
15:00-16:00	1	750	0	1	750	0.267	1	750	0.267
16:00-17:00	1	750	0	1	750	0	1	750	0
17:00-18:00	1	750	0	1	750	0	1	750	0
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.8			0.8			1.6

TRICS 7.9.2**Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: TOTAL PEOPLE

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0.267	1	750	0.133	1	750	0.4
10:00-11:00	1	750	0.4	1	750	0.533	1	750	0.933
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0.133	1	750	0	1	750	0.133
13:00-14:00	1	750	0.667	1	750	0.267	1	750	0.934
14:00-15:00	1	750	0.533	1	750	0.533	1	750	1.066
15:00-16:00	1	750	0.933	1	750	0.8	1	750	1.733
16:00-17:00	1	750	0.133	1	750	0.8	1	750	0.933
17:00-18:00	1	750	0	1	750	0.133	1	750	0.133
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			3.066			3.199			6.265

TRICS 7.9.2**Trip Rate Parameter: Gross floor area**

TRIP RATE for Land Use 07 - LEISURE/I - ART

GALLERIES/MUSEUMS/EXHIBITIONS

Calculation Factor: 100 sqm

Count Type: CARS

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00	1	750	0.267	1	750	0.133	1	750	0.4
10:00-11:00	1	750	0	1	750	0.133	1	750	0.133
11:00-12:00	1	750	0	1	750	0	1	750	0
12:00-13:00	1	750	0.133	1	750	0	1	750	0.133
13:00-14:00	1	750	0.133	1	750	0.133	1	750	0.266
14:00-15:00	1	750	0.4	1	750	0.267	1	750	0.667
15:00-16:00	1	750	0.533	1	750	0.267	1	750	0.8
16:00-17:00	1	750	0.133	1	750	0.667	1	750	0.8
17:00-18:00	1	750	0	1	750	0.133	1	750	0.133
18:00-19:00									
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			1.599			1.733			3.332

TRICS 7.9.2**Trip Rate Parameter: Gross floor area****Mode split**

Mode	Total number of trips	Mode split
Taxis	0	0.0%
OGVs	0	0.0%
PSVs	0	0.0%
LGVs	0	0.0%
Cars	7	34.7%
Cyclists	0	0.0%
Pedestrians	13	65.3%
Bus	0	0.0%
Rail	0	0.0%
Motorcycles	0	0.0%
Total	20	100.0%

Total people**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site1	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip Rate2
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
10:00-11:00	1	750	0.4	1	1	750	0.533	1	1	750	0.933	2
11:00-12:00	1	750	0	0	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0.133	0	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.667	1	1	750	0.267	1	1	750	0.934	2
14:00-15:00	1	750	0.533	1	1	750	0.533	1	1	750	1.066	2
15:00-16:00	1	750	0.933	2	1	750	0.8	2	1	750	1.733	4
16:00-17:00	1	750	0.133	0	1	750	0.8	2	1	750	0.933	2
17:00-18:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			3.066	6			3.199	7			6.265	13

Total proposed
floorspace (sqm)

209

100sqm
conversion
factor

2.09

Total vehicles**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip Rate2
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
10:00-11:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
11:00-12:00	1	750	0	0	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0.133	0	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.133	0	1	750	0.133	0	1	750	0.266	1
14:00-15:00	1	750	0.4	1	1	750	0.267	1	1	750	0.667	1
15:00-16:00	1	750	0.533	1	1	750	0.267	1	1	750	0.8	2
16:00-17:00	1	750	0.133	0	1	750	0.667	1	1	750	0.8	2
17:00-18:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			1.599	3			1.733	4			3.332	7

Total proposed
floorspace (sqm)
100sqm
conversion
factor

209**2.09**

Taxis**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site22
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

Total proposed
floorspace (sqm) **209**
100sqm
conversion **2.09**
factor

Vehicle occupants

Calculation factor: 100sqm

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip Rate2
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
10:00-11:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
11:00-12:00	1	750	0	0	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0.133	0	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
14:00-15:00	1	750	0.533	1	1	750	0.533	1	1	750	1.066	2
15:00-16:00	1	750	0.933	2	1	750	0.533	1	1	750	1.466	3
16:00-17:00	1	750	0.133	0	1	750	0.8	2	1	750	0.933	2
17:00-18:00	1	750	0	0	1	750	0.133	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			2.266	5			2.398	5			4.664	10

Total proposed
floorspace (sqm) 209
100sqm
conversion
factor 2.09

Cars**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0.267	1	1	750	0.133	0	1	750	0.4	1
10:00-11:00	1	750	0	1	1	750	0.133	0	1	750	0.133	0
11:00-12:00	1	750	0	1	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0.133	1	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.133	1	1	750	0.133	0	1	750	0.266	1
14:00-15:00	1	750	0.4	1	1	750	0.267	1	1	750	0.667	1
15:00-16:00	1	750	0.533	1	1	750	0.267	1	1	750	0.8	2
16:00-17:00	1	750	0.133	1	1	750	0.667	1	1	750	0.8	2
17:00-18:00	1	750	0	1	1	750	0.133	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			1.599	3			1.733	4			3.332	7

Total proposed
floorspace (sqm) 209

100sqm
conversion 2.09

factor

Pedestrians**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA2	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA3	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00	1	750	0	0	1	750	0	0	1	750	0.4	1
10:00-11:00	1	750	0.4	1	1	750	0.4	1	1	750	0.933	2
11:00-12:00	1	750	0	0	1	750	0	0	1	750	0	0
12:00-13:00	1	750	0	0	1	750	0	0	1	750	0.133	0
13:00-14:00	1	750	0.4	1	1	750	0.133	0	1	750	0.934	2
14:00-15:00	1	750	0	0	1	750	0	0	1	750	1.066	2
15:00-16:00	1	750	0	0	1	750	0.267	1	1	750	1.733	4
16:00-17:00	1	750	0	0	1	750	0	0	1	750	0.933	2
17:00-18:00	1	750	0	0	1	750	0	0	1	750	0.133	0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			0.8	2			0.8	2			6.265	13

Total proposed
floorspace (sqm) **209**
100sqm
conversion factor **2.09**

OGVs**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

Total proposed
floorspace (sqm)
100sqm
conversion
factor

209

2.09

PSVs**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0			0	0				0

Total proposed
floorspace (sqm) **209**
100sqm
conversion **2.09**
factor

LGVs**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

Total proposed
floorspace (sqm)
100sqm
conversion
factor

209**2.09**

Bus passengers**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA2	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA3	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

**Total proposed
floorspace (sqm)
100sqm
conversion
factor**

0

Cyclists**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA3	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA4	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

Total proposed
floorspace (sqm) **209**
100sqm
conversion **2.09**
factor

Motorcyclists**Calculation factor: 100sqm**

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA2	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA3	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00				0				0				0
06:00-07:00				0				0				0
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00				0				0				0
20:00-21:00				0				0				0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

Total proposed
floorspace (sqm)
100sqm
conversion
factor

209**2.09**

Rail passengers

Calculation factor: 100sqm

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Trip rate for site	No. Days2	Ave. GFA2	Trip Rate3	Trip rate for site2	No. Days3	Ave. GFA3	Trip Rate2	Trip rate for site3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00				0				0				0
08:00-09:00				0				0				0
09:00-10:00				0				0				0
10:00-11:00				0				0				0
11:00-12:00				0				0				0
12:00-13:00				0				0				0
13:00-14:00				0				0				0
14:00-15:00				0				0				0
15:00-16:00				0				0				0
16:00-17:00				0				0				0
17:00-18:00				0				0				0
18:00-19:00				0				0				0
19:00-20:00												
20:00-21:00												
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0				0				0

Total proposed
floorspace (sqm)
100sqm
conversion
factor

0

Appendix I: MCC and ATC comparisons

Document Control

Document title	5.4.19.13 ATC to MCC Comparison
Version No.	1
Date Approved	17 October 2022
Date 1st Issued	

Version History

Version	Date	Author	Checked	Approved	Description of change
1		—	—	—	Final

Contents

1	Sites surveyed	1
1.1	Overview	1
1.2	ATC Site – Denny End Road	2
1.3	ATC Site 2 – Car Dyke Road	3
1.4	ATC Site 3 – Clayhithe Road	3
1.5	ATC Site 4 – Clayhithe Road	3
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1.8	ATC Site 7 – Fen Road.....	4
1.9	ATC Site 8 – Green End Road	4
1.10	ATC Site 9 – Water Street.....	5

Tables

Table 1.1:	Summary of sites surveyed	1
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1 Sites surveyed

1.1 Overview

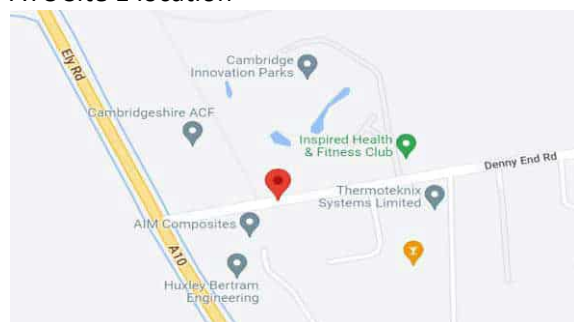
Table 1.1: Summary of sites surveyed

Site number	Road name	% difference	Summary
Site 1	Denny End Road	8.0%	ATC is around 8% higher than MCC counts in both AM and PM peak. A possible explanation for the higher ATC figures than MCC is that the ATC captures traffic accessing and egressing the construction site access point along Denny End Lane at the Cambridgeshire Army Cadets Force from the Waterbeach direction whereas the MCC does not as the MCC is placed at the A10/Denny End Lane junction. Traffic could choose to egress from the construction site by turning left as there are queues on the right hand turn towards the A10 from the site construction access point and the MCC would not capture this movement.
Site 2	Car Dyke Road	1.1%	MCC is 10% higher than ATC in AM Peak, However ATC is 7% higher than MCC in the PM peak
Site 3	Clayhithe Road	Comparable location not available	N/A
Site 4	Bannold Road	3.5%	ATC is 2% higher than MCC in AM Peak and around 5% higher in the PM peak
Site 5	Horningsea Road	1.0%	MCC is around 109% higher than ATC counts in AM peak and 91% higher in PM peak
Site 6	Miltom Road	0.4%	MCC is 4% higher than ATC counts in AM peak, however ATC is 3% higher in PM peak
Site 7	Fen Road	Comparable location not available	N/A
Site 8	Green End Road	3.1%	MCC is 11% higher than ATC counts in AM peak, however ATC is 5% higher in PM peak
Site 9	Water Street	10.5%	MCC is around 14% higher than ATC counts in AM peak and around 8% higher in PM peak
Average		3.9%	

1.2 ATC Site – Denny End Road

3-day Average (Tue-Thur)				Summary
	ATC	MCC	Percentage Difference	
7000-1000	1472	1359	8.3%	ATC is around 8% higher than MCC counts in both AM and PM peak. A possible explanation for the higher ATC figures than MCC is that the ATC captures traffic accessing and egressing the construction site access point along Denny End Lane at the Cambridgeshire Army Cadets Force from the Waterbeach direction whereas the MCC does not as the MCC is placed at the A10/Denny End Lane junction. Traffic could choose to egress from the construction site by turning left as there are queues on the right hand turn towards the A10 from the site construction access point and the MCC would not capture this movement.
1600-1800	1494	1388	7.6%	
Total	2966	2747	8.0%	

ATC Site 1 location



ATC location



MCC location



1.3 ATC Site 2 – Car Dyke Road

	3-day Average (Tue-Thur)			Summary
	ATC	MCC	Percentage difference	
7000-1000	1067	1176	10.2%	MCC is 10% higher than ATC in AM Peak, However ATC is 7% higher than MCC in the PM peak
1600-1800	1205	1121	7.4%	
Total	2272	2297	1.1%	

1.4 ATC Site 3 – Clayhithe Road

	3-day Average (Tue-Thur)		
	ATC	MCC	Percentage difference
7000-1000	908	NA	
1600-1800	1025	NA	
Total	1933	0	Comparable location not available

1.5 ATC Site 4 – Clayhithe Road

	3-day Average (Tue-Thur)			Summary
	ATC	MCC	Percentage difference	
7000-1000	628	615	2.1%	ATC is 2% higher than MCC in AM Peak and around 5% higher in the PM peak
1600-1800	722	689	4.7%	
Total	1350	1304	3.5%	

1.6 ATC Site 5 – Horningsea Road

	3-day Average (Tue-Thur)			Summary
	ATC	MCC	Percentage difference	
				MCC is around 109% higher than ATC counts in AM peak and 91% higher in PM peak
7000-1000	1108	1147	3.5%	
1600-1800	1206	1144	5.4%	
Total	2314	2291	1.0%	

1.7 ATC Site 6 - Milton Road

	3-day Average (Tue-Thur)			Summary
	ATC	MCC	Percentage difference	
7000-1000	4369	4542	4.0%	MCC is 4% higher than ATC counts in AM peak, however ATC is 3% higher in PM peak
1600-1800	4269	4132	3.3%	
Total	8639	8674	0.4%	

1.8 ATC Site 7 – Fen Road

	3-day Average (Tue-Thur)		
	ATC (Fen Road)	MCC (Water Lane)	Percentage Difference
7000-1000		521	
1600-1800		600	
Total		1121	Comparable location not available

1.9 ATC Site 8 – Green End Road

	3-day Average (Tue-Thur)			Summary
	ATC (Green End Road)	MCC (Green End Road) (NE)	Percentage Difference	
7000-1000	1848	2055	11.2%	MCC is 11% higher than ATC counts in AM peak, however ATC is 5% higher in PM peak
1600-1800	1862	1768	5.3%	
Total	3710	3823	3.1%	

1.10 ATC Site 9 – Water Street

	3-day Average (Tue-Thur)			Summary
	ATC (Water Street)	MCC (Site 20 Water Lane) (SE)	Percentage difference	MCC is around 14% higher than ATC counts in AM peak and around 8% higher in PM peak
7000- 1000	998	1135	13.7%	
1600- 1800	1100	1183	7.6%	
Total	2098	2318	10.5%	

Appendix J: Consultation 2 Stakeholder Feedback

Date	Consultee	Points raised	How and where addressed
18/08/21	Cambridge Past, Present & Future (CPPF)	The main area of uncertainty is the vehicle access. CPPF strongly objects to any proposals to provide vehicular access into the site from the farm access bridge at Honey Hill via Junction 35 (Option 2).	Option 2 was not selected, the access within the Proposed Development is Option 1b, which does not interact directly with Junction 35. The selection of vehicle access and consideration of all options is discussed further within Chapter 3: Site Selection and Alternatives (Application Document Reference 5.2.3). The assessment provided in Section 4 (Assessment of Effects) of this chapter assesses Option 1b.
12 August 2021	National Highways	Access option 1a remains National Highways' preferred option, closely followed by Option 1b. Access option 3 would be contrary to policy 'The Strategic Road Network and the delivery of sustainable development' and therefore National Highways object to this proposal.	Option 3 has not been selected on account of technical issues around creating a new junction off the A14 based on National Highways' feedback – the access is Option 1b. The selection of vehicle access and consideration of all options is discussed in further within Chapter 3: Alternatives Considered. The assessment provided in Section 4 (Assessment of Effects) of this chapter assesses Option 1b.
12 August 2021	National Highways	The TA should also consider any other development that makes up part of the application, such as the proposed recreation facilities.	Noted and accepted. The Transport Assessment Application Document Reference 5.4.19.3) covers all aspects of Proposed Development, including the proposed visitor centre.
13 August 2021	East Cambridge District Council	Most acceptable options are options 1a and 1b. To create an additional access from the A14 is unlikely to be acceptable.	The preferred access option is Option 1b.
18 August 2021	Urban and Civic	U&C offers a preliminary view that a new junction off the A14 appears, without the benefit of the detailed assessments that will follow, to be preferable and justified given the strategic importance of the proposed facility.	Noted. Option 3 has not been selected on account of technical issues around creating a new junction off the A14 based feedback provided by National Highways– the access is Option 1b. The selection of vehicle access and consideration of all options is discussed in further detail within Chapter 3: Site Selection and Alternatives (Application Document Reference 5.2.3). The assessment provided in Section 4 (Assessment of Effects) of this chapter assesses Option 1b.
16 August 2021	Natural England	Access assessment needs to include air quality assessment. A CEMP is also needed.	Noted. An air quality assessment has been undertaken as part of Chapter 7: Air Quality (Application Document Reference 5.2.7). The CoCP Part A and B (Application Document Reference. 5.4.2.1, 5.4.2.2) requires a CEMP to be produced prior to any works commencing on site.

Date	Consultee	Points raised	How and where addressed
17 August 2021	Cambridgeshire County Council	Cambridgeshire County Council (CCC) has worked with the applicant to ensure that this junction (junction 34 of the A14) has been modelled in accordance with CCC requirements and the modelling done so far shows that this junction will operate within capacity. This is subject to further work on the flows and so is the preliminary findings of the modelling. The assessment will need to include the construction traffic as well as the operational, and visitor traffic once built. Improvements are proposed to the cycle and pedestrian route on the north and south of the proposed Waste Water Treatment Plant site access. The Applicant is asked to continue to ensure that the drawings for this area are coordinated with the Greater Cambridge Partnership and the Horningsea Greenway project.	Noted and accepted. As stated, Junction 34 of the A14 has been modelling in accordance with CCC requirements, whereby preliminary findings show that the junction works within capacity. The Transport Assessment (Application Document Reference. 5.4.19.3) includes information on modelling during construction, operation (including visitor traffic) and decommissioning. Mitigation proposals and drawings for Horningsea Road have taken into account the Horningsea Greenway project.
17 August 2021	South Cambridge District Council	If Option 1b remains, the District Council will expect to see within the DCO, carefully detailed designs for the junction and details of control systems to prevent vehicles travelling to and from the site using any access routes other than the A14 during the construction and operation stages. Given the rationale presented by Anglian Water for the choice of Option 1b, the District Council's recommendation again if this remains the proposed option, it should also deliver enhanced pedestrian and cycle access, cycling facilities. Importantly, details indicating how access to the site would not compromise cycling safety along Horningsea Road, in the vicinity of the new junction/4th arm will be required as part of the DCO. In addition, the District Council considers that measures to avoid traffic queuing/congestion on Denny End Road and Bannold Road need to be incorporated into the DCO proposals as this route is prone to congestion. The District Council remains of the opinion that direct access from the A14 would be the preferred option rather than Option 1b and asks Anglian Water to reconsider.	Option 1b-has been selected and taken forward into the Proposed Development. Option 3 has not been selected on account of technical issues around creating a new junction off the A14 based on feedback provided by National Highways. The Transport Assessment (Application Document Reference.- 5.4.19.3) provides details on the mitigation measures on Horningsea Road, which is also summarised in the section 2.8 of this chapter. These mitigation measures ensure that access to the site does not compromise safety along Horningsea Road. The Transport Assessment Application Document Reference. 5.4.19.3) includes a review of the junctions with the A10 / Denny End Road and A10 / Car Dyke Lane to assess capacity and delay during the construction works. Bannold Road at its junction with Denny End Road is noted as narrow (Application Document Reference. 5.4.19.3) and mitigation will be in place to prevent parking on that corner to minimise traffic conflicts. The CTMP (Application Document Reference. 5.4.19.7) and CoCP (Application Document Reference. 5.4.2.1, 5.4.2.2) set out the construction route to and from the proposed WWTP site.

Date	Consultee	Points raised	How and where addressed
17 August 2021	Fen Ditton Parish Council	FDPC considers extra mitigation is required and should include: Commitment to model overall traffic performance with historic data as a baseline and not rely on AWS surveys since these were at a time when traffic into Cambridge was below historic levels.	The modelling approach and use of survey information has been discussed and agreed with CCC. This includes checks to ensure survey results provided by AWS are not abnormal due to the Covid-19 pandemic. The Transport Assessment (Application Document Reference.- 5.4.19.3) is supported by additional surveys completed to verify the data used.
24 August 2021	Horningsea Parish Council	HPC is not aware of any evaluation assessment material being published by AWS and would like to request this information to allow HPC a full understanding of the relevant facts. We also request a copy of the determination by Highways that found it was not possible to access the site from the A14, Option 3.	Chapter 3: Site Selection and Alternatives (Application Document Reference 5.2.3) provides details of the access options considered for the project. Option 3 has not been selected on account of technical issues around creating a new junction off the A14 based on feedback from National Highways.
24 August 2021	Horningsea Parish Council	We fear that the traffic volume has been underestimated. We would like to see this analysis including all of the access routes into the site; including A14 westbound and A14 eastbound.	The modelling approach and use of survey information has been discussed and agreed with CCC. This includes checks to ensure that survey results provided by AWS are not abnormal due to the Covid-19 pandemic. The Transport Assessment (Application Document Reference. 5.4.19.3) is supported by additional surveys completed to verify the data used.
24 August 2021	Horningsea Parish Council	HPC also supports reduced speed limits on Horningsea Road. Suggest reduce to 30mph and 20mph in the village and enforce with speed cameras and traffic calming measures. We also want confirmation that this mitigation is within the control of AWS.	A set of mitigation measures for Horningsea Road have been included in the design and are outlined in mitigation measures adopted as part of the Proposed Development.
24 August 2021	Horningsea Parish Council	It is a significant concern that we believe AWS has failed to factor in the cumulative traffic impact of previous recorded congestion at junction 34, reduction in traffic flows (due to Covid) during the 2021 AWS surveys, CWWTP Construction traffic, CWWTP operational traffic, the proposed additional J34 arm, Waterbeach New Town, Marleigh, development at Fulbourn, dualling of the A10, general traffic growth and the pending development of the airport site.	The modelling approach and use of survey information has been discussed and agreed with CCC. This includes checks to ensure survey results provided by the Applicant are not abnormal due to the Covid-19 pandemic. The Transport Assessment (Document Reference.- 5.4.19.3) is supported by additional surveys completed to verify the data used. Impacts associated with committed developments in the area are accounted for within the TEMPro growth factors used, which has been agreed with CCC.
24 August 2021	Horningsea Parish Council	We request forecast operational HGV movements. Most of the movements are liquid sludge imports and septic tank	The Transport Assessment (Application Document Reference. 5.4.19.3) provides information on operational HGV movements. The routing of

Date	Consultee	Points raised	How and where addressed
		movements, why are these being trucked here from destinations such as Ely and Huntingdon? We request forecast for operational HGV movements and an alternative plan for the movement of sludge lorries to more appropriate sites.	HGVs in operation has been based on sludge imports at the existing Cambridge WWTP. A technical note (Appendix C, Application Document Ref: 5.4.19.3) outlines the origins of sludge imports during operation in 2020 at the existing Cambridge WWTP.

Appendix K: TEMPro Growth Factor Technical Note

Document Control

Document title	Technical Note: Modelling Overview and TEMPro Growth Factor
Version No.	1
Date Approved	
Date 1st Issued	12/01/2022

Version History

Version	Date	Author	Description of change
0	12/01/2022	-	Technical note at PEI.
1	15/02/2024	-	Revisions to TEMPro growth factors following modelling review and formatting updates.

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1 Technical Note: Modelling overview and TEMPro growth factors

1.1 Preliminary Modelling Overview

- 1.1.1 Each option has been assessed using the industry-standard software of either Junctions 9 (PICADY) or LinSig (Version 3) to anticipate if the proposed junction designs would be predicted to operate within capacity.
- 1.1.2 Junctions9 software measures performance as the ratio of flow to capacity (RFC). An RFC value is greater than one means that a turning movement has a higher level of traffic flow than its theoretical capacity. As a result, queues may occur. An RFC below 0.85 is considered acceptable as there is still scope to accommodate future growth.
- 1.1.3 LinSig is a computer software package for assessing and designing traffic signal junctions either individually or as a network comprised of several junctions. It is used by traffic engineers to construct a model of the junction or network which can then be used to assess different designs and methods of operation. LinSig v3 software measures performance as the degree of saturation (DoS). A DoS value of greater than 100% means that a lane movement has a higher level of traffic flow than its theoretical capacity. As a result, queues may occur. A DoS below 90% is considered acceptable as there is still scope to accommodate future growth.

1.2 Survey and TEMPro growth factors

- 1.2.1 Survey (December 2021) data has been used to inform the base years. To estimate the future 2025 base, a TEMPro 7.2 growth factors for South Cambridgeshire have been applied to the base flows. The applied factors are outlined in Table 1-1 below:

Table 1-1: TEMPro growth factors

Base Year to Scenario Year	TEMPro growth factors
2021 – 2026	1.060
2021 – 2028	1.082
2021 – 2033	1.1362
2021 – 2038	1.1857

- 1.2.2 To predict future growth as accurate as possible, TEMPro 7.2 reflects all planned growth in the area. TEMPro 7.2 growth factors are in line with the most recent Road Traffic Forecast (2018). However, as land use developments are a source of uncertainty, TEMPro 7.2 growth factors are blanket, and they do not predict where exactly growth will appear.

- 1.2.3 It is suggested to apply unadjusted growth factors to estimate the future base as the Cambridge Wastewater Treatment plant will not generate a significant number of homes or jobs in the area.
- 1.2.4 However, if any significant developments appear in the area, forecasted trips could be excluded from the growth to avoid double counting. In this case, the developments and the number of excluded trips should be agreed with CCC.

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You can view all our DCO application documents and updates on the application on The Planning Inspectorate website:

<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/cambridge-waste-water-treatment-plant-relocation/>