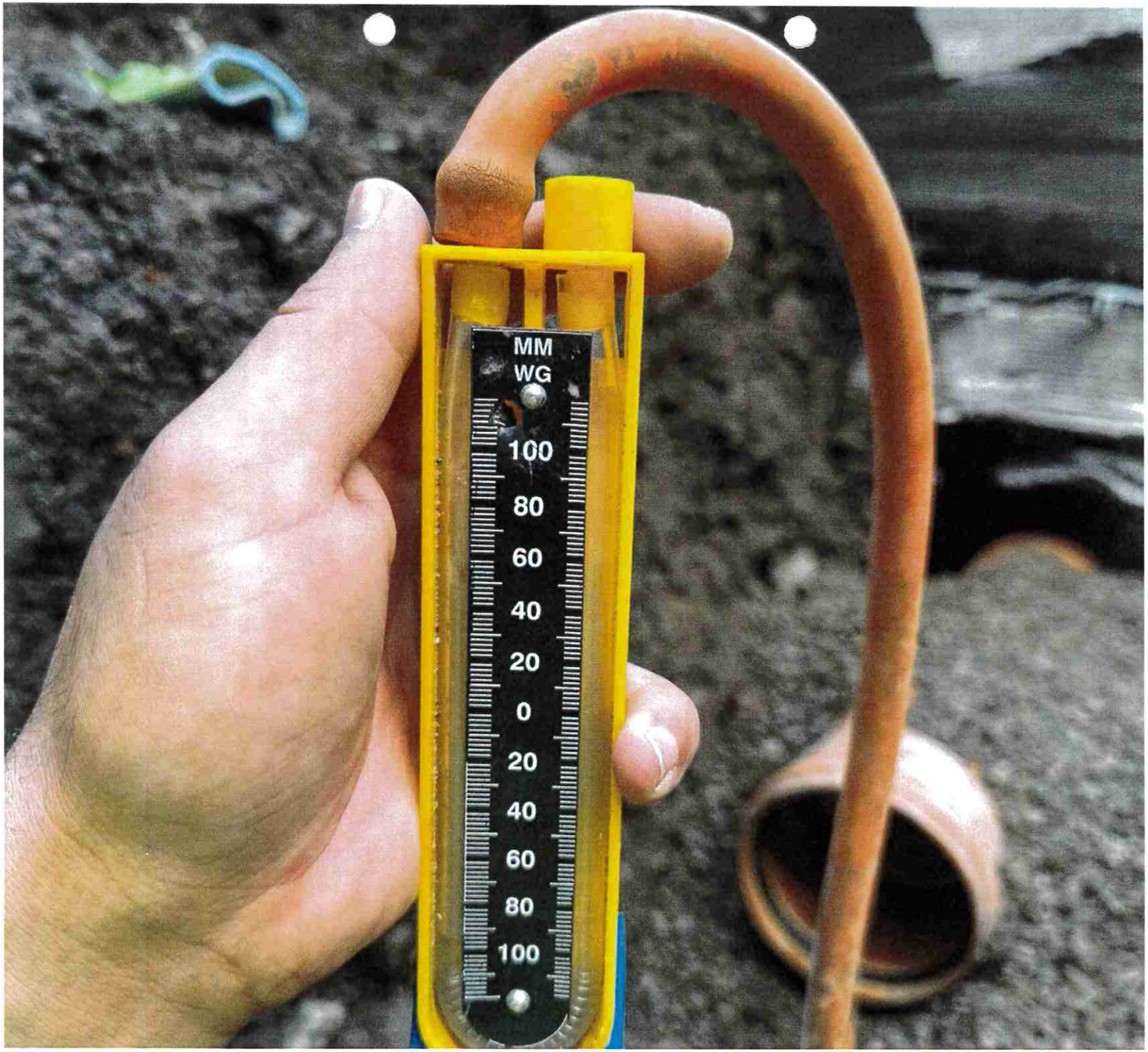



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Drainage and Manholes

CHECKSHEET

Contract:	**One Victoria**	Contract no.:	**204**		**QA5**
Inspection details					
Description:	Foul F203 Drainage Runs				
Check sheet details					
Drawing references used:	**204-CIV-00-XX-DR-C-30001**				
Has setting out check sheet been signed off?	Yes	☒			
Details of drainage and manholes to be installed:					
Material:	Foul Pipe			Size:	**150/100**
Excavation support method:			**N/A Trench To Be Stepped**		
Concrete grade where applicable			GEN3N / mm2		
Where special installation instructions are to be followed, particularly for interceptors, give brief details. :			N/A		
All materials and plant available on site?			Yes	☒	
Area released for construction:	Initials:	J.W	Date:	**15.08.23**	

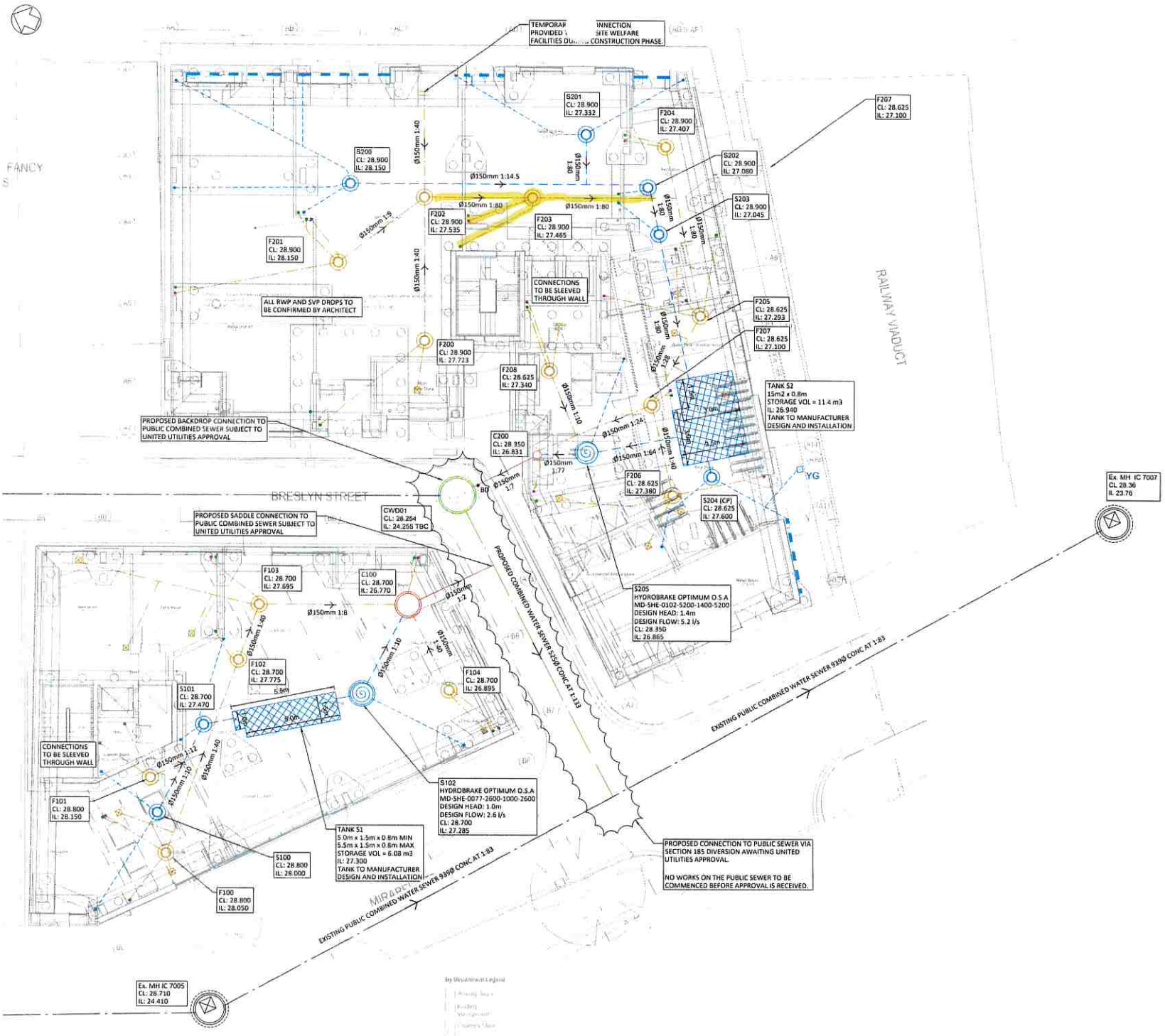
Drainage pipes laid to correct depth and gradient?	Yes	☒	No	☐
Correct P Gravel installed as per specification?	Yes	☒	No	☐
Concrete base installed to specification?	Yes	☐	N/A	☒
Channels / branches / haunching to specification?	Yes	☒	N/A	☐
M/H rings / concrete surround or poly chamber or brickwork to specification?	Yes	☒	N/A	☐
Step irons / ladder rung irons / ladder to specification?	Yes	☐	N/A	☒
Air/ water test carried out to specification?	Yes	☒	No	☐
Inspection carried out by Building Control?	Yes	☒	No	☐
Area correctly backfilled?	Yes	☒	N/A	☐
Actual installed position recorded for as-built drawing?	Yes	☒	N/A	☐
Manhole / chamber / interceptor clean and cover(s) installed at correct level?	Yes	☐	N/A	☐

Area released for next activity:

This check sheet has been issued with the purpose to progress 'the works'.
All work is subject to a final inspection and customer approval at the date of project handover.
This checklist is flexible to allow full checking process by all parties.

Drainage and Manholes checked, approved and released for next activity:

PRINT NAME	COMPANY NAME Torsion, Sub-contractor or third party sign off (delete as applicable)	PRINT JOB TITLE:	SIGNATURE:	DATE:
Aiden Bougourd	**Torsion**	**Engineer**		18.08.23
Jaiden Watts	**Spencer's**	**Engineer**		18.08.23
Ben Foil	**LPC Building Control**	**Engineer**		18.08.23



HEALTH & SAFETY: THE WORKS SHALL BE CARRIED OUT BY SPECIALIST COMPETENT AND EXPERIENCED CONTRACTORS. ALL OPERATIVES SHALL HAVE RECEIVED FULL AND APPROPRIATE TRAINING WITH APPROPRIATE QUALIFICATIONS FOR THE OPERATIONS THEY ARE REQUIRED TO UNDERTAKE. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT HEALTH & SAFETY REGULATIONS.

DRAINAGE NOTES

ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER FOR ACTION PRIOR TO CONSTRUCTION.

ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY AND IN CONJUNCTION WITH ALL RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND 'DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS' AND ADDENDUMS AS APPROPRIATE.
ALL DRAINAGE SHALL COMPLY WITH THE TYPICAL DRAINAGE CONSTRUCTION DETAILS AND THE REQUIREMENTS OF BS EN 752.

ACCESS COVERS AND FRAMES SHALL COMPLY WITH THE LOADINGS SPECIFIED AND TO BS EN 124 AND KITEMARKED OR IF RECESSED COVERS ARE SPECIFIED THEN IN ACCORDANCE WITH FACTA ASSOCIATION EQUIVALENT.

ALL INTERNAL COVERS TO BE DOUBLE SEALED RECESSED COVERS TO ACCEPT PROPOSED FLOOR FINISHES.

THE PROPOSED BUILDING OUTLINES SHOWN ON THIS DRAWING ARE FOR INFORMATION ONLY. REFER TO ARCHITECTS PLANS FOR SETTING OUT INFORMATION AND DETAILS.

FOR SETTING OUT DIMENSIONS OF SS'S, SVP'S, RWP'S, FLOOR GULLY & OTHER DRAINAGE 'POP UP' LOCATIONS, REFER TO ARCHITECTS OR MECHANICAL & ELECTRICAL ENGINEERS DRAWINGS. LOCATION OF EXTERNAL CHANNEL DRAINS AND GULLY LOCATIONS / REQUIREMENTS TO BE CONFIRMED BY ARCHITECT.
ALL DRAINAGE PIPEWORK SHOWN SHALL BE 100MM DIAMETER FOR FOUL AND 150MM FOR SURFACE WATER UNLESS NOTED OTHERWISE.
ALL DRAINAGE PIPEWORK SHALL BE LAID SOFFIT TO SOFFIT UNLESS NOTED OTHERWISE.

ALL UNDERSLAB DRAINAGE SHALL BE LAID AT GRADIENTS OF 1:80 MIN. FOR FOUL PIPEWORK AND 1:100 MIN. FOR SURFACE WATER UNLESS NOTED OTHERWISE. ALL UNDERSLAB DRAINAGE SHALL BE CLEAR OF FOUNDATIONS UNLESS SHOWN OTHERWISE.
ALL BENDS IN PIPEWORK TO BE AS LARGE A RADIUS AS POSSIBLE (EXCLUDING CONNECTIONS TO CHAMBERS) TO ENSURE FREE FLOW. SHORT RADIUS BENDS TO BE AGREED WITH DRAINAGE ENGINEER.

ALL SURFACE WATER DROP DOWN POSITIONS SHALL HAVE A BEND SET AT INVERT LEVEL NO GREATER THAN 1.3M BELOW FINISH FLOOR LEVEL.

AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FOUL RUN SHALL BE VENTED TO THE ATMOSPHERE. ALL SVPS, SSS AND RWP DOWNPIPES SHALL BE ACCESSIBLE AT GROUND LEVEL FOR RODDING PURPOSES.

COVER LEVELS SHOWN ON THIS DRAWING ARE APPROXIMATE AND SHALL BE ADJUSTED TO SUIT LEVELS ON SITE BY CONTRACTOR. COVERS SHALL BE ORIENTATED TO SUIT PAVEMENT FINISHES WHERE APPROPRIATE.
ALL COVER LEVELS ARE TO BE CONFIRMED BY THE ARCHITECT

ALL PRIVATE DRAINAGE PIPEWORK FOR FOUL AND SURFACE WATER SYSTEMS HAVE BEEN DESIGNED ON THE BASIS OF UPVC TO BS EN 1401-1, UNLESS NOTED OTHERWISE.

CONCRETE ENCASEMENT OF THE PIPEWORK SHALL BE REQUIRED WHERE VERTICAL CLEARANCE BETWEEN TWO PIPES CROSSING IS LESS THAN 300MM.
WHERE NEW DRAINAGE IS SITUATED WITHIN 5 METRES OF NEW OR EXISTING TREES THE PIPEWORK SHALL BE ENCASED IN CONCRETE TO REDUCE THE RISK OF ROOT INGRESS.

ALL DRAINAGE CONNECTING TO THE PUBLIC SEWER NETWORK SHALL NOT COMMENCE UNTIL RECEIPT OF THE APPROVAL FROM THE DRAINAGE AUTHORITY AND SHALL COMPLY WITH REQUIREMENTS USING VITRIFIED CLAY PIPEWORK TO BS EN 295 WITH PLAIN SLEEVED OR SOCKETED FLEXIBLE JOINTS SUBJECT TO APPROVAL.

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PRIOR TO CONSTRUCTION THE FLOW CONTROL MANUFACTURER'S DRAWING AND HYDRAULIC TABLE SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL

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Standard Notes

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Notes and Keys

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS RECEIVED ON: 07.09.22 DRG NO: 41020MCLS-01

ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL RWP AND SVP DROPS TO BE CONFIRMED BY ARCHITECT

ALL POP UP REST BENDS ARE SET MIN 450mm BELOW SSL

WHERE POP UPS ARE LOCATED ON PILECAPS / GROUND BEAMS AND A CONTINUOUS GRADE CANNOT BE ACHIEVED PIPE SHOULD BE SET AT A MIN 1:40 GRADIENT UNTIL CLEAR OF PILECAP FOOTPRINT WITH A BEND TO ALLOW FOR STEEP GRADIENT CONNECTION TO DOWNSTREAM INSPECTION CHAMBER. REFER TO TYPICAL DETAIL ON DRAWING C-31001

- FOUL SEWER 100mm DIAMETER UNLESS OTHERWISE NOTED
- STORM SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- COMBINED SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- EXISTING PUBLIC COMBINED SEWER
- PROPOSED S185 CW SEWER DIVERSION
- FOUL SEWER INSPECTION CHAMBER 450mm DIAMETER
- STORM SEWER INSPECTION CHAMBER 450mm DIAMETER
- CP SW INSPECTION CHAMBER CATCHPIT WITH 300mm SUMP
- SW FLOW CONTROL CHAMBER
- COMBINED SEWER INSPECTION CHAMBER / MANHOLE
- STUB STACK
- SVP
- RWP
- FLOOR GULLY
- SLOT DRAIN ACO M100D WITH BRICKSLOT ST GRATING
- YG YARD GULLY

Date	Rev	Description	Drawn	Chkd
11.07.23	C01	ISSUED FOR CONSTRUCTION	ZG	CK
08.12.22	P07	RWP ADDED/LAYOUT AMENDED	CD	ZG
29.11.22	P06	DRAINAGE UPDATED	CD	CK
25.11.22	P05	DRAINAGE UPDATED	ZG	CK
02.11.22	P04	DRAINAGE UPDATED	CD	CK
18.10.22	P03	UPDATED FFL AND DRAINAGE	CD	CK
12.09.22	P02	COORDINATED WITH M&E DESIGN	ZG	CK
04.07.22	P01	FOR INFORMATION	CD	CK

Civic Engineers

Project

ONE VICTORIA
MANCHESTER

Title

DRAINAGE GENERAL ARRAGEMENT

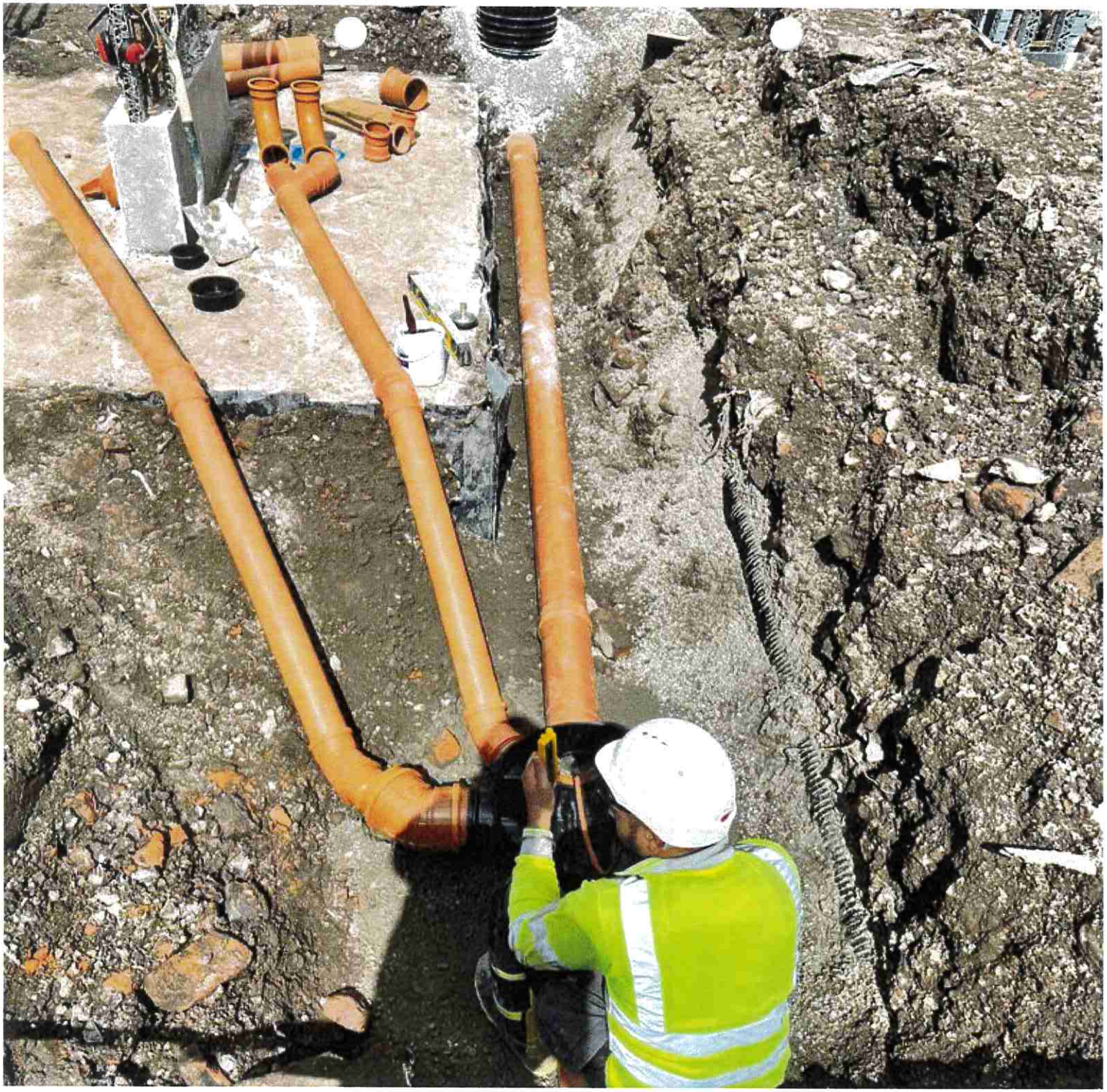
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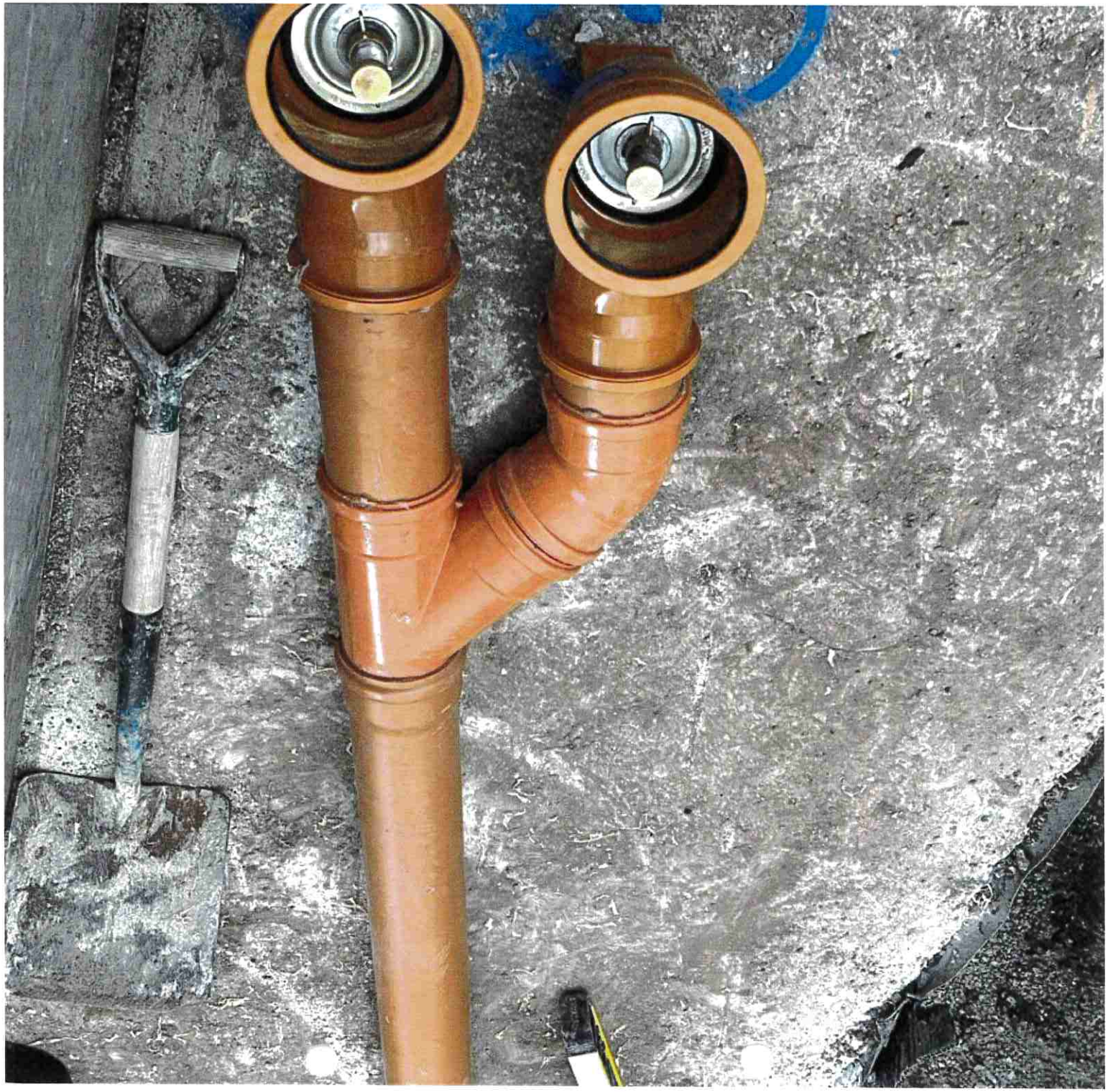
CONSTRUCTION

Project Number	Scale @ A1	Date Created	Drawn	Checked	Suitable
756-02	1:100	04.07.22	CD	CK	----

Drawing Number: 204-CIV-00-XX-DR-C-30001

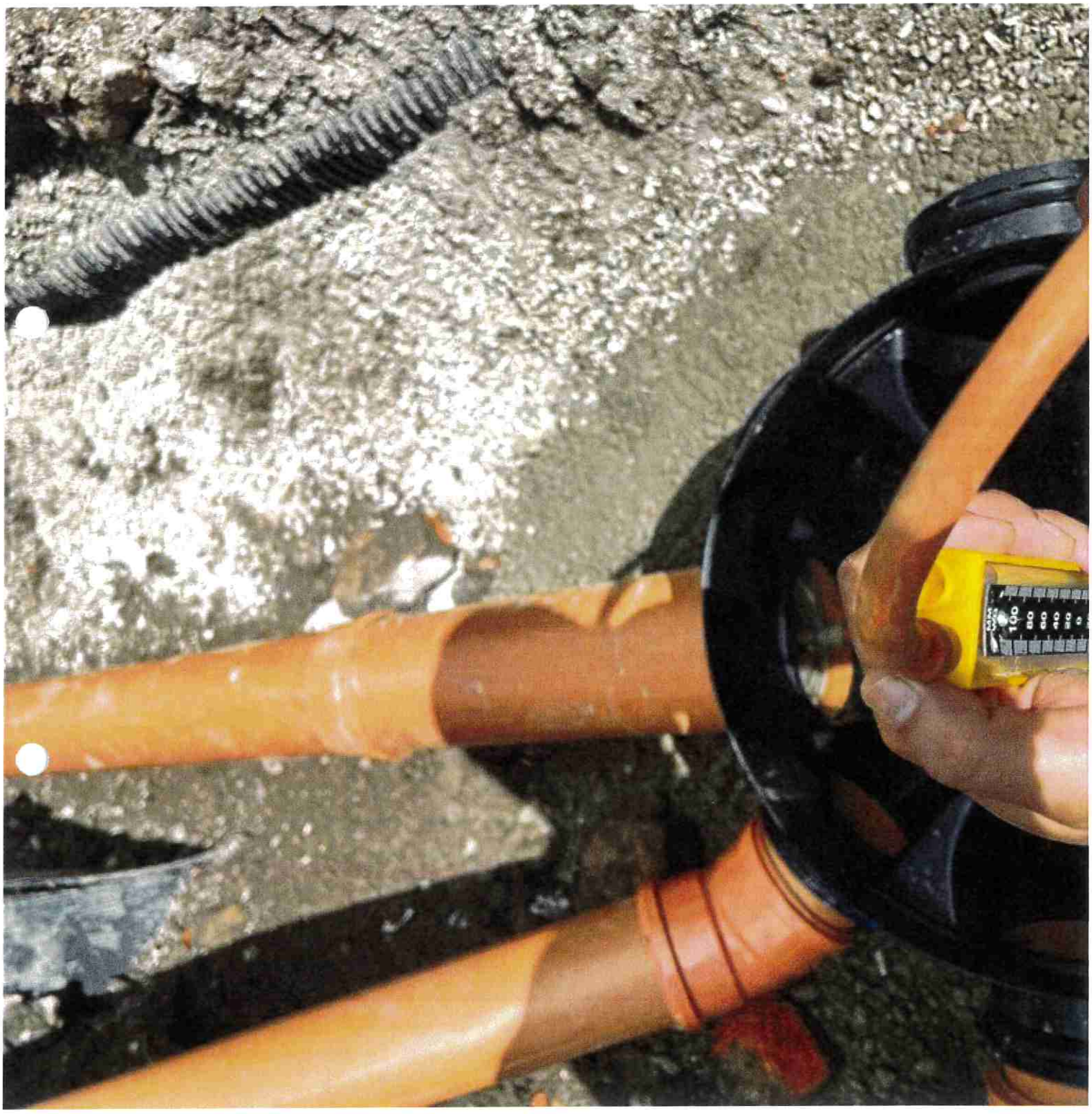
Revision: C01












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Drainage and Manholes

CHECKSHEET

Contract:	**One Victoria**	Contract no.:	**204**		**QA4**
Inspection details					
Description:	Foul F202 - Temp Stub Connection				
Check sheet details					
Drawing references used:	**204-CIV-00-XX-DR-C-30001**				
Has setting out check sheet been signed off?	Yes ☒				
Details of drainage and manholes to be installed:					
Material:	Foul Pipe		Size:	**150**	
Excavation support method:	**N/A Trench To Be Stepped**				
Concrete grade where applicable	GEN3N / mm2				
Where special installation instructions are to be followed, particularly for interceptors, give brief details. :	N/A				
All materials and plant available on site?	Yes ☒				
Area released for construction:	Initials:	J.W	Date:	**15.08.23**	

Drainage pipes laid to correct depth and gradient?	Yes	☒	No	☐
Correct P Gravel installed as per specification?	Yes	☒	No	☐
Concrete base installed to specification?	Yes	☐	N/A	☒
Channels / branches / haunching to specification?	Yes	☒	N/A	☐
M/H rings / concrete surround or poly chamber or brickwork to specification?	Yes	☒	N/A	☐
Step irons / ladder rung irons / ladder to specification?	Yes	☐	N/A	☒
Air/ water test carried out to specification?	Yes	☒	No	☐
Inspection carried out by Building Control?	Yes	☒	No	☐
Area correctly backfilled?	Yes	☒	N/A	☐
Actual installed position recorded for as-built drawing?	Yes	☒	N/A	☐
Manhole / chamber / interceptor clean and cover(s) installed at correct level?	Yes	☐	N/A	☒

Area released for next activity:

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This checklist is flexible to allow full checking process by all parties.

Drainage and Manholes checked, approved and released for next activity:

PRINT NAME	COMPANY NAME Torsion, Sub-contractor or third party sign off (delete as applicable)	PRINT JOB TITLE:	SIGNATURE:	DATE:
Aiden Bougourd	**Torsion**	**Engineer**		18.08.23
Jaiden Watts	**Spencer's**	**Engineer**		18.08.23
Ben Foil	**LPC Building Inspector**	**Engineer**		18.08.23



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CONTRACTOR TO ENSURE THAT THE DRAINAGE SYSTEM IS FULLY OPERATIONAL, FREE OF EXCESS DEBRIS/SILT AND ALL IDENTIFIED FAULTS RECTIFIED.

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2. This drawing should not be scaled.
3. All dimensions are to be verified by the contractor on site.
4. All discrepancies should be reported to the C.A. prior to the commencement of the works.

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Notes and Keys

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS RECEIVED ON: 07.09.22 DRG NO: 41020MCLS-01

ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL RWP AND SVP DROPS TO BE CONFIRMED BY ARCHITECT

ALL POP UP REST BENDS ARE SET MIN 450mm BELOW SSL

WHERE POP UPS ARE LOCATED ON PILECAPS / GROUND BEAMS AND A CONTINUOUS GRADE CANNOT BE ACHIEVED PIPE SHOULD BE SET AT A MIN 1:40 GRADIENT UNTIL CLEAR OF PILECAP FOOTPRINT WITH A BEND TO ALLOW FOR STEEP GRADIENT CONNECTION TO DOWNSTREAM INSPECTION CHAMBER.
REFER TO TYPICAL DETAIL ON DRAWING C-31001

- FOUL SEWER 100mm DIAMETER UNLESS OTHERWISE NOTED
- STORM SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- COMBINED SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- EXISTING PUBLIC COMBINED SEWER
- PROPOSED S185 CW SEWER DIVERSION
- FOUL SEWER INSPECTION CHAMBER 450mm DIAMETER
- STORM SEWER INSPECTION CHAMBER 450mm DIAMETER
- CP SW INSPECTION CHAMBER CATCHPIT WITH 300mm SUMP
- SW FLOW CONTROL CHAMBER
- COMBINED SEWER INSPECTION CHAMBER / MANHOLE
- STUB STACK
- SVP
- RWP
- FLOOR GULLY
- SLOT DRAIN ACO M100D WITH BRICKSLOT ST GRATING
- YG YARD GULLY

Date	Rev	Description	Drawn	Chkd
11.07.23	C01	ISSUED FOR CONSTRUCTION	ZG	CK
06.12.22	P07	RWP ADDED/LAYOUT AMENDED	CD	ZG
29.11.22	P06	DRAINAGE UPDATED	CD	CK
23.11.22	P05	DRAINAGE UPDATED	ZG	CK
02.11.22	P04	DRAINAGE UPDATED	CD	CK
18.10.22	P03	UPDATED M&E AND DRAINAGE	CD	CK
12.09.22	P02	COORDINATED WITH M&E DESIGN	ZG	CK
04.07.22	P01	FOR INFORMATION	CD	CK

Civic Engineers

Project
ONE VICTORIA MANCHESTER

Title
DRAINAGE GENERAL ARRAGEMENT

Status
CONSTRUCTION

Project Number	Scale @ A1	Date Created	Drawn	Checked	Suitable
756-02	1:100	04.07.22	CD	CK	----

Drawing Number: 204-CIV-00-XX-DR-C-30001
Revision: C01






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Drainage and Manholes

CHECKSHEET

Contract:	**One Victoria**	Contract no.:	**204**		**QA3**
Inspection details					
Description:	Foul F202-F200 Drainage Runs				
Check sheet details					
Drawing references used:	**204-CIV-00-XX-DR-C-30001**				
Has setting out check sheet been signed off?	Yes ☐				
Details of drainage and manholes to be installed:					
Material:	F Pipe	Size:	**100/150**		
Excavation support method:	**N/A Trench To Be Stepped**				
Concrete grade where applicable	GEN3N / mm2				
Where special installation instructions are to be followed, particularly for interceptors, give brief details. :	N/A				
All materials and plant available on site?	Yes ☐				
Area released for construction:	Initials:	J.W	Date:	**14.08.23**	

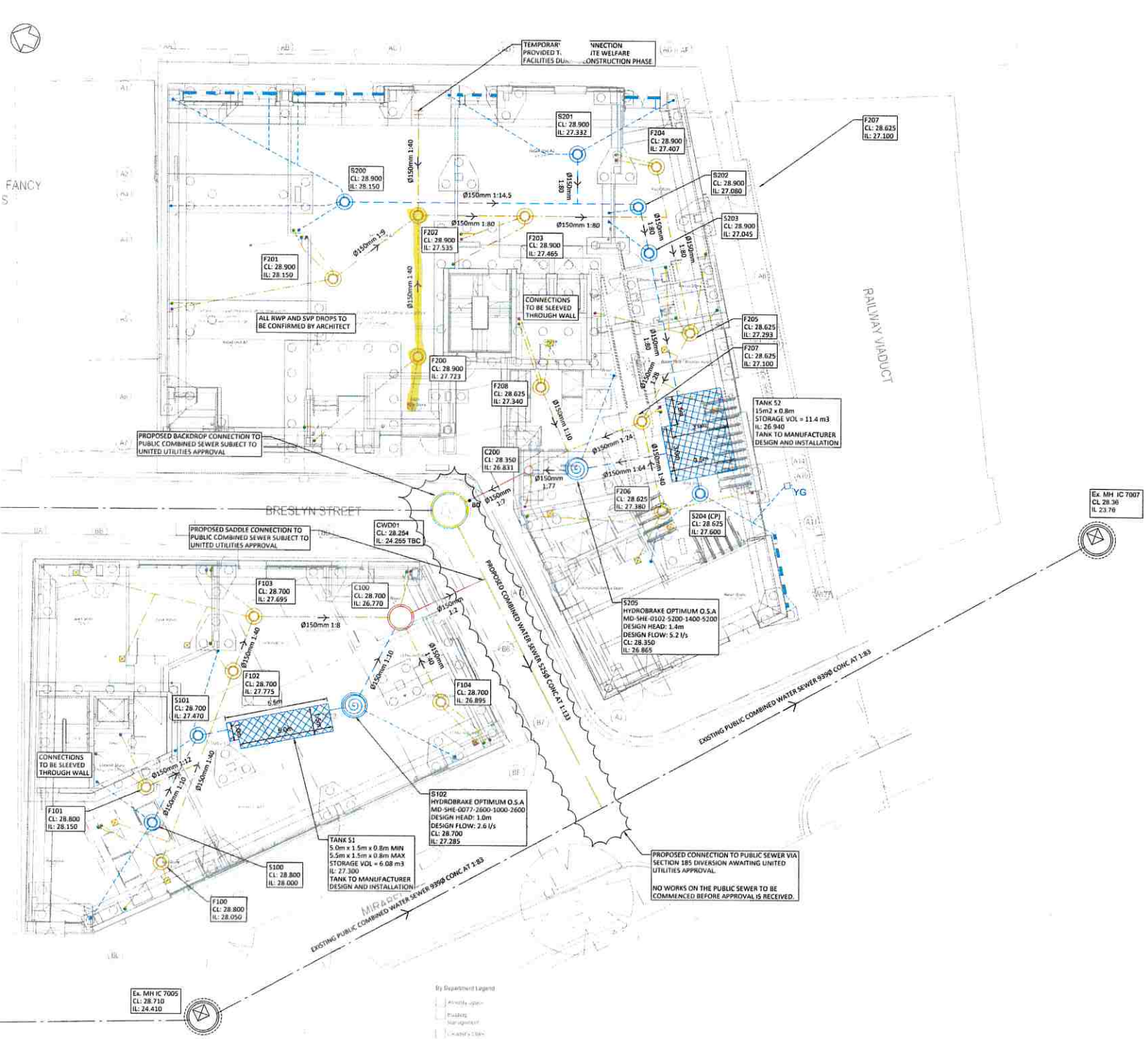
Drainage pipes laid to correct depth and gradient?	Yes ☐	No ☐		
Correct P Gravel installed as per specification?	Yes ☐	No ☐		
Concrete base installed to specification?	Yes ☐	N/A ☐		
Channels / branches / haunching to specification?	Yes ☐	N/A ☐		
M/H rings / concrete surround or poly chamber or brickwork to specification?	Yes ☐	N/A ☐		
Step irons / ladder rung irons / ladder to specification?	Yes ☐	N/A ☐		
Air/ water test carried out to specification?	Yes ☐	No ☐		
Inspection carried out by Building Control?	Yes ☐	No ☐		
Area correctly backfilled?	Yes ☐	N/A ☐		
Actual installed position recorded for as-built drawing?	Yes ☐	N/A ☐		
Manhole / chamber / interceptor clean and cover(s) installed at correct level?	Yes ☐	N/A ☐		

Area released for next activity:

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PRINT NAME	COMPANY NAME Torsion, Sub-contractor or third party sign off (delete as applicable)	PRINT JOB TITLE:	SIGNATURE:	DATE:
Aiden Bougourd	**Torsion**	**Engineer**		18.08.23
Jaiden Watts	**Spencer's**	**Engineer**		18.08.23
Ben Foil	**LBC Building Control**	**Engineer**		18.08.23



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ALL DRAINAGE PIPEWORK SHOWN SHALL BE 100MM DIAMETER FOR FOUL AND 150MM FOR SURFACE WATER UNLESS NOTED OTHERWISE.
ALL DRAINAGE PIPEWORK SHALL BE LAID SOFFIT TO SOFFIT UNLESS NOTED OTHERWISE.

ALL UNDERSLAB DRAINAGE SHALL BE LAID AT GRADIENTS OF 1:80 MIN. FOR FOUL PIPEWORK AND 1:100 MIN. FOR SURFACE WATER UNLESS NOTED OTHERWISE. ALL UNDERSLAB DRAINAGE SHALL BE CLEAR OF FOUNDATIONS UNLESS SHOWN OTHERWISE.
ALL BENDS IN PIPEWORK TO BE AS LARGE A RADIUS AS POSSIBLE (EXCLUDING CONNECTIONS TO CHAMBERS) TO ENSURE FREE FLOW. SHORT RADIUS BENDS TO BE AGREED WITH DRAINAGE ENGINEER.

ALL SURFACE WATER DROP DOWN POSITIONS SHALL HAVE A BEND SET AT INVERT LEVEL NO GREATER THAN 1.3M BELOW FINISH FLOOR LEVEL.

AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FOUL RUN SHALL BE VENTED TO THE ATMOSPHERE. ALL SVPS, SSS AND RWP DOWNPIPES SHALL BE ACCESSIBLE AT GROUND LEVEL FOR RODDING PURPOSES.

COVER LEVELS SHOWN ON THIS DRAWING ARE APPROXIMATE AND SHALL BE ADJUSTED TO SUIT LEVELS ON SITE BY CONTRACTOR. COVERS SHALL BE ORIENTATED TO SUIT PAVEMENT FINISHES WHERE APPROPRIATE.
ALL COVER LEVELS ARE TO BE CONFIRMED BY THE ARCHITECT

ALL PRIVATE DRAINAGE PIPEWORK FOR FOUL AND SURFACE WATER SYSTEMS HAVE BEEN DESIGNED ON THE BASIS OF UPVC TO BS EN 1401-1, UNLESS NOTED OTHERWISE.

CONCRETE ENCASEMENT OF THE PIPEWORK SHALL BE REQUIRED WHERE VERTICAL CLEARANCE BETWEEN TWO PIPES CROSSING IS LESS THAN 300MM.
WHERE NEW DRAINAGE IS SITUATED WITHIN 5 METRES OF NEW OR EXISTING TREES THE PIPEWORK SHALL BE ENCASED IN CONCRETE TO REDUCE THE RISK OF ROOT INGRESS.

ALL DRAINAGE CONNECTING TO THE PUBLIC SEWER NETWORK SHALL NOT COMMENCE UNTIL RECEIPT OF THE APPROVAL FROM THE DRAINAGE AUTHORITY AND SHALL COMPLY WITH REQUIREMENTS USING VITRIFIED CLAY PIPEWORK TO BS EN 295 WITH PLAIN SLEEVED OR SOCKETED FLEXIBLE JOINTS SUBJECT TO APPROVAL.

WHERE DRAINAGE WORKS ARE CARRIED OUT IN THE PUBLIC HIGHWAY THE RELEVANT NECESSARY APPROVALS AND ROAD OPENING NOTICES SHALL BE OBTAINED FROM THE HIGHWAY AUTHORITY AND UTILITY COMPANIES.

PRIOR TO CONSTRUCTION THE FLOW CONTROL MANUFACTURER'S DRAWING AND HYDRAULIC TABLE SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL

PRIOR TO CONSTRUCTION THE ATTENUATION TANK MANUFACTURER'S DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL

UPON COMPLETION ALL NEW DRAINAGE INSTALLATION TOGETHER WITH ANY EXISTING DRAINAGE RETAINED SHALL BE JETTED AND CCTV SURVEYED UPON COMPLETION. CONTRACTOR TO ENSURE THAT THE DRAINAGE SYSTEM IS FULLY OPERATIONAL, FREE OF EXCESS DEBRIS/SILT AND ALL IDENTIFIED FAULTS RECTIFIED.

Standard Notes

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2. This drawing should not be scaled.
3. All dimensions are to be verified by the contractor on site.
4. All discrepancies should be reported to the C.A. prior to the commencement of the works.

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Notes and Keys

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS. RECEIVED ON: 07.09.22 DRG NO: 41020MCLS-01

ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL RWP AND SVP DROPS TO BE CONFIRMED BY ARCHITECT

ALL POP UP REST BENDS ARE SET MIN 450mm BELOW SSL

WHERE POP UPS ARE LOCATED ON PILECAPS / GROUND BEAMS AND A CONTINUOUS GRADE CANNOT BE ACHIEVED PIPE SHOULD BE SET AT A MIN 1:40 GRADIENT UNTIL CLEAR OF PILECAP FOOTPRINT WITH A BEND TO ALLOW FOR STEEP GRADIENT CONNECTION TO DOWNSTREAM INSPECTION CHAMBER. REFER TO TYPICAL DETAIL ON DRAWING C-31001

- FOUL SEWER 100mm DIAMETER UNLESS OTHERWISE NOTED
- STORM SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- COMBINED SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- EXISTING PUBLIC COMBINED SEWER
- PROPOSED S185 CW SEWER DIVERSION
- FOUL SEWER INSPECTION CHAMBER 450mm DIAMETER
- STORM SEWER INSPECTION CHAMBER 450mm DIAMETER
- CP SW INSPECTION CHAMBER CATCHPIT WITH 300mm SUMP
- SW FLOW CONTROL CHAMBER
- COMBINED SEWER INSPECTION CHAMBER / MANHOLE
- STUB STACK
- SVP
- RWP
- FLOOR GULLY
- SLOT DRAIN ACO M100D WITH BRICKSLOT ST GRATING
- YG YARD GULLY

Date	Rev	Description	Drawn	Chkd
11.07.22	C01	ISSUED FOR CONSTRUCTION	ZG	CK
08.12.22	P07	RWP ADDED/LAYOUT AMENDED	CD	ZG
29.11.22	P06	DRAINAGE UPDATED	CD	CK
23.11.22	P05	DRAINAGE UPDATED	ZG	CK
02.11.22	P04	DRAINAGE UPDATED	CD	CK
18.10.22	P03	UPDATED FFLs AND DRAINAGE	CD	CK
12.09.22	P02	COORDINATED WITH M&E DESIGN	ZG	CK
04.07.22	P01	FOR INFORMATION	CD	CK

Civic Engineers

Project
ONE VICTORIA MANCHESTER

Title
DRAINAGE GENERAL ARRAGEMENT

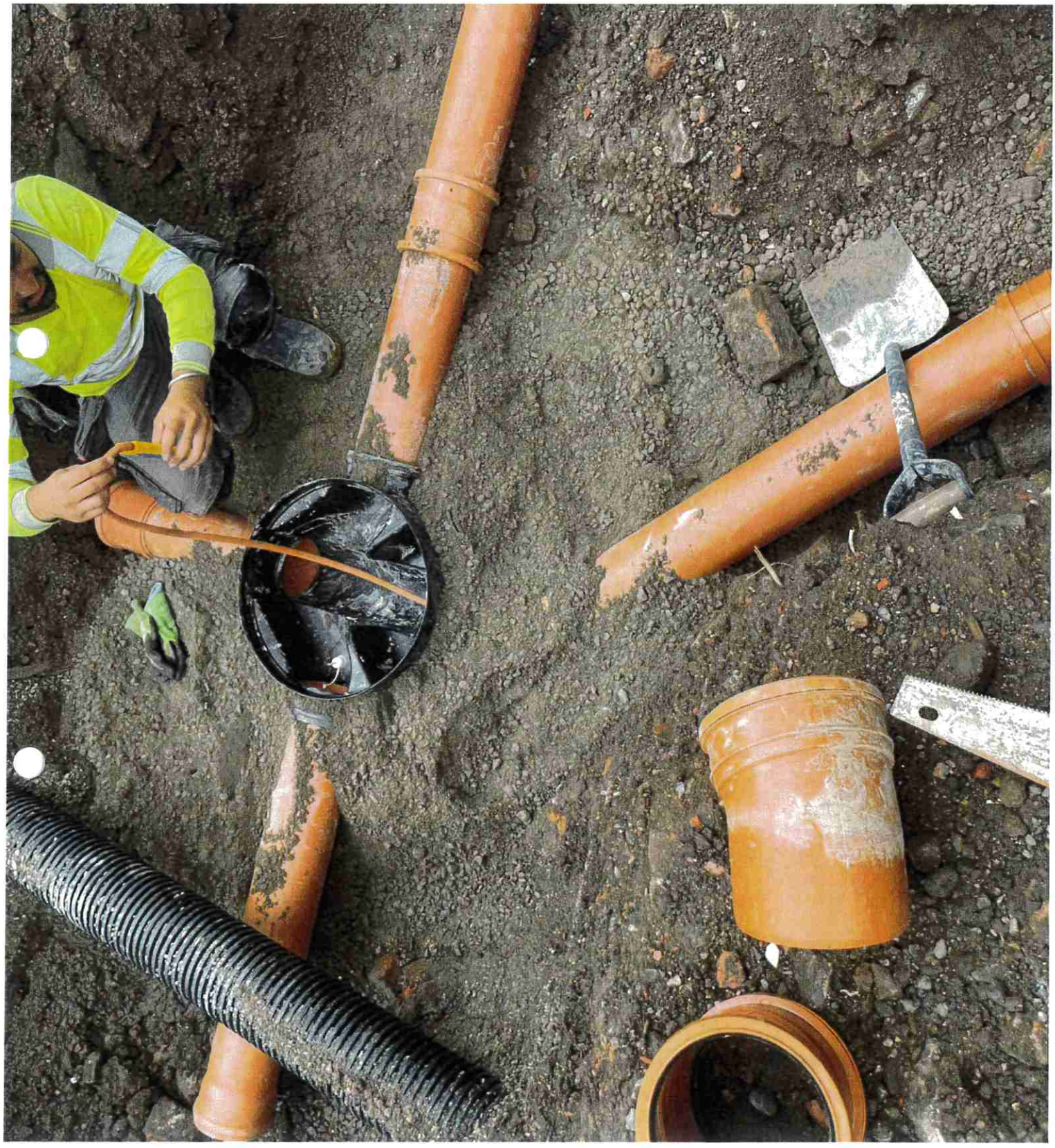
Status
CONSTRUCTION

Project Number	Scale @ A1	Date Created	Drawn	Checked	Symbol
756-02	1:100	04.07.22	CD	CK	----

Drawing Number: 204-CIV-00-XX-DR-C-30001
Revision: C01




ENERGY
T: 5213333

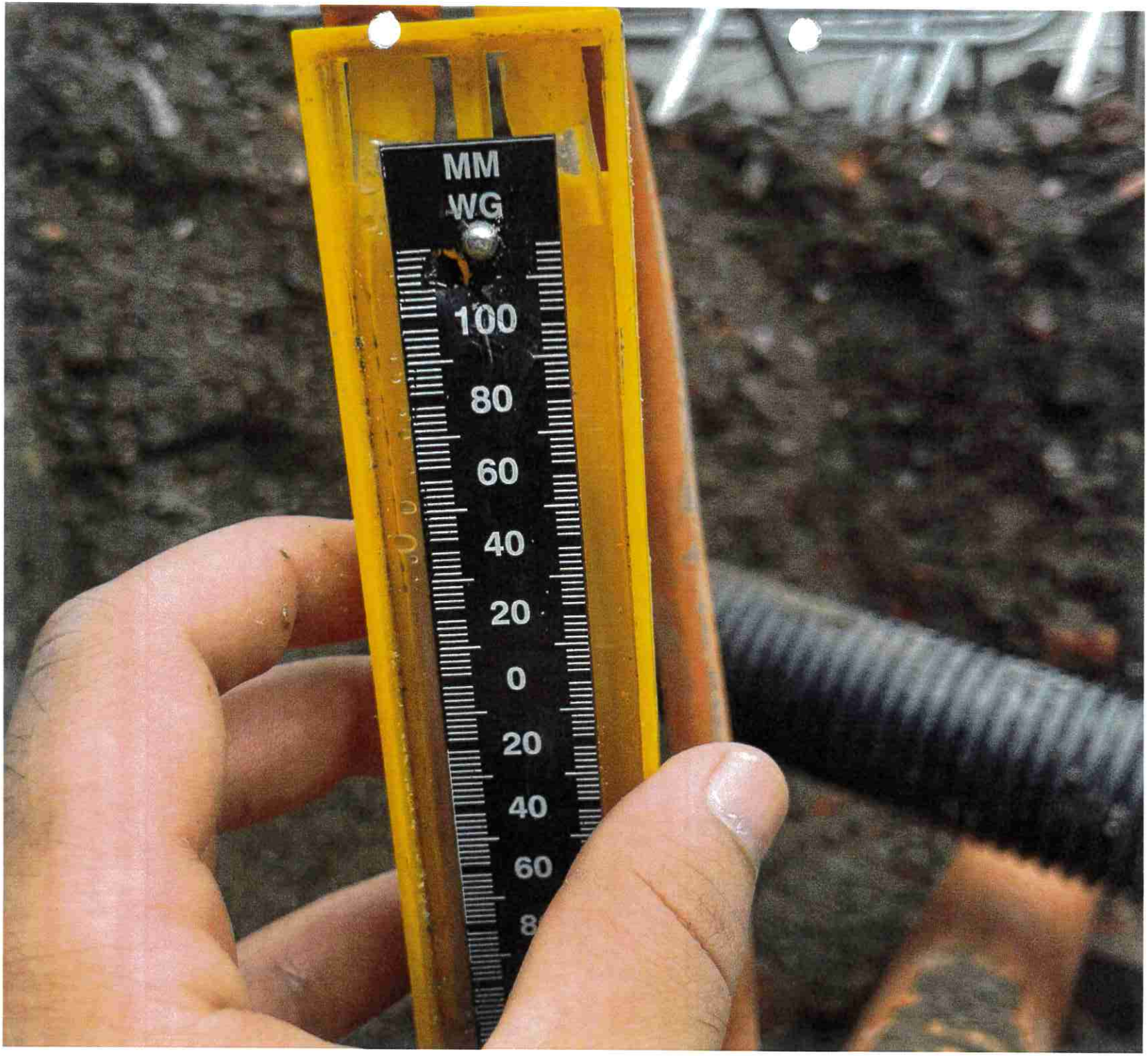





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Drainage and Manholes

CHECKSHEET

Contract:	**One Victoria**	Contract no.:	**204**		**QA2**
Inspection details					
Description:	Foul F201 Drainage Runs				
Check sheet details					
Drawing references used:	**204-CIV-00-XX-DR-C-30001**				
Has setting out check sheet been signed off?	Yes	☒			
Details of drainage and manholes to be installed:					
Material:	F Pipe		Size:	**100/150**	
Excavation support method:	**N/A Trench To Be Stepped**				
Concrete grade where applicable	GEN3N / mm2				
Where special installation instructions are to be followed, particularly for interceptors, give brief details. :	N/A				
All materials and plant available on site?	Yes	☒			
Area released for construction:	Initials:	J.W	Date:	**10.08.23**	

Drainage pipes laid to correct depth and gradient?	Yes	☒	No	☐
Correct P Gravel installed as per specification?	Yes	☒	No	☐
Concrete base installed to specification?	Yes	☐	N/A	☒
Channels / branches / haunching to specification?	Yes	☒	N/A	☐
M/H rings / concrete surround or poly chamber or brickwork to specification?	Yes	☐	N/A	☒
Step irons / ladder rung irons / ladder to specification?	Yes	☐	N/A	☒
Air/ water test carried out to specification?	Yes	☒	No	☐
Inspection carried out by Building Control?	Yes	☐	No	☒
Area correctly backfilled?	Yes	☒	N/A	☐
Actual installed position recorded for as-built drawing?	Yes	☒	N/A	☐
Manhole / chamber / interceptor clean and cover(s) installed at correct level?	Yes	☐	N/A	☐

Area released for next activity:

This check sheet has been issued with the purpose to progress 'the works'.
All work is subject to a final inspection and customer approval at the date of project handover.
This checklist is flexible to allow full checking process by all parties.

Drainage and Manholes checked, approved and released for next activity:

PRINT NAME	COMPANY NAME Torsion, Sub-contractor or third party sign off (delete as applicable)	PRINT JOB TITLE:	SIGNATURE:	DATE:
Aiden Bougourd	**Torsion**	**Engineer**		18.08.23
Jaiden Watts	**Spencer's**	**Engineer**		18.08.23
Ben Foil	**LPC Building Control**	**Engineer**		18.08.23



HEALTH & SAFETY: THE WORKS SHALL BE CARRIED OUT BY SPECIALIST COMPETENT AND EXPERIENCED CONTRACTORS. ALL OPERATIVES SHALL HAVE RECEIVED FULL AND APPROPRIATE TRAINING WITH APPROPRIATE QUALIFICATIONS FOR THE OPERATIONS THEY ARE REQUIRED TO UNDERTAKE. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT HEALTH & SAFETY REGULATIONS.

DRAINAGE NOTES

ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER FOR ACTION PRIOR TO CONSTRUCTION.

ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY AND IN CONJUNCTION WITH ALL RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND 'DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS' AND ADDENDUMS AS APPROPRIATE.
ALL DRAINAGE SHALL COMPLY WITH THE TYPICAL DRAINAGE CONSTRUCTION DETAILS AND THE REQUIREMENTS OF BS EN 752.

ACCESS COVERS AND FRAMES SHALL COMPLY WITH THE LOADINGS SPECIFIED AND TO BS EN 124 AND KITEMARKED OR IF RECESSED COVERS ARE SPECIFIED THEN IN ACCORDANCE WITH FACTA ASSOCIATION EQUIVALENT.

ALL INTERNAL COVERS TO BE DOUBLE SEALED RECESSED COVERS TO ACCEPT PROPOSED FLOOR FINISHES.

THE PROPOSED BUILDING OUTLINES SHOWN ON THIS DRAWING ARE FOR INFORMATION ONLY. REFER TO ARCHITECTS PLANS FOR SETTING OUT INFORMATION AND DETAILS.

FOR SETTING OUT DIMENSIONS OF SS'S, SVP'S, RWP'S, FLOOR GULLY & OTHER DRAINAGE 'POP UP' LOCATIONS, REFER TO ARCHITECTS OR MECHANICAL & ELECTRICAL ENGINEERS DRAWINGS. LOCATION OF EXTERNAL CHANNEL DRAINS AND GULLY LOCATIONS / REQUIREMENTS TO BE CONFIRMED BY ARCHITECT.
ALL DRAINAGE PIPEWORK SHOWN SHALL BE 100MM DIAMETER FOR FOUL AND 150MM FOR SURFACE WATER UNLESS NOTED OTHERWISE.
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ALL SURFACE WATER DROP DOWN POSITIONS SHALL HAVE A BEND SET AT INVERT LEVEL NO GREATER THAN 1.3M BELOW FINISH FLOOR LEVEL.

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ALL DRAINAGE CONNECTING TO THE PUBLIC SEWER NETWORK SHALL NOT COMMENCE UNTIL RECEIPT OF THE APPROVAL FROM THE DRAINAGE AUTHORITY AND SHALL COMPLY WITH REQUIREMENTS USING VITRIFIED CLAY PIPEWORK TO BS EN 295 WITH PLAIN SLEEVED OR SOCKETED FLEXIBLE JOINTS SUBJECT TO APPROVAL.

WHERE DRAINAGE WORKS ARE CARRIED OUT IN THE PUBLIC HIGHWAY THE RELEVANT NECESSARY APPROVALS AND ROAD OPENING NOTICES SHALL BE OBTAINED FROM THE HIGHWAY AUTHORITY AND UTILITY COMPANIES.

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UPON COMPLETION ALL NEW DRAINAGE INSTALLATION TOGETHER WITH ANY EXISTING DRAINAGE RETAINED SHALL BE JETTED AND CCTV SURVEYED UPON COMPLETION. CONTRACTOR TO ENSURE THAT THE DRAINAGE SYSTEM IS FULLY OPERATIONAL, FREE OF EXCESS DEBRIS/SILT AND ALL IDENTIFIED FAULTS RECTIFIED.

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Notes and Keys

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS. RECEIVED ON: 07.09.22 DRG NO: 41020MCLS-01

ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL RWP AND SVP DROPS TO BE CONFIRMED BY ARCHITECT

ALL POP UP RES BENDS ARE SET MIN 450mm BELOW SSL

WHERE POP UPS ARE LOCATED ON PILECAPS / GROUND BEAMS AND A CONTINUOUS GRADE CANNOT BE ACHIEVED PIPE SHOULD BE SET AT A MIN 1:40 GRADIENT UNTIL CLEAR OF PILECAP FOOTPRINT WITH A BEND TO ALLOW FOR STEEP GRADIENT CONNECTION TO DOWNSTREAM INSPECTION CHAMBER. REFER TO TYPICAL DETAIL ON DRAWING C-31001

- FOUL SEWER 100mm DIAMETER UNLESS OTHERWISE NOTED
- STORM SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- COMBINED SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- EXISTING PUBLIC COMBINED SEWER
- PROPOSED S185 CW SEWER DIVERSION
- FOUL SEWER INSPECTION CHAMBER 450mm DIAMETER
- STORM SEWER INSPECTION CHAMBER 450mm DIAMETER
- CP SW INSPECTION CHAMBER CATCHPIT WITH 300mm SUMP
- SW FLOW CONTROL CHAMBER
- COMBINED SEWER INSPECTION CHAMBER / MANHOLE
- STUB STACK
- SVP
- RWP
- FLOOR GULLY
- SLOT DRAIN ACO M100D WITH BRICKSLOT ST GRATING
- YG YARD GULLY

Date	Rev	Description	Drawn	Chkd
11.07.23	C01	ISSUED FOR CONSTRUCTION	ZG	CK
06.12.22	P07	RWP ADDED/LAYOUT AMENDED	CD	ZG
29.11.22	P06	DRAINAGE UPDATED	CD	CK
25.11.22	P05	DRAINAGE UPDATED	ZG	CK
02.11.22	P04	DRAINAGE UPDATED	CD	CK
28.10.22	P03	UPDATED FILL AND DRAINAGE	CD	CK
12.09.22	P02	COORDINATED WITH M&E DESIGN	ZG	CK
04.07.22	P01	FOR INFORMATION	CD	CK

Civic Engineers

Project
ONE VICTORIA
MANCHESTER

Title
DRAINAGE GENERAL ARRAGEMENT

Status
CONSTRUCTION

Project Number	Scale @ A1	Date Created	Drawn	Checked	Suitable
756-02	1:100	04.07.22	CD	CK	----

Drawing Number: 204-CIV-00-XX-DR-C-30001
Revision: C01








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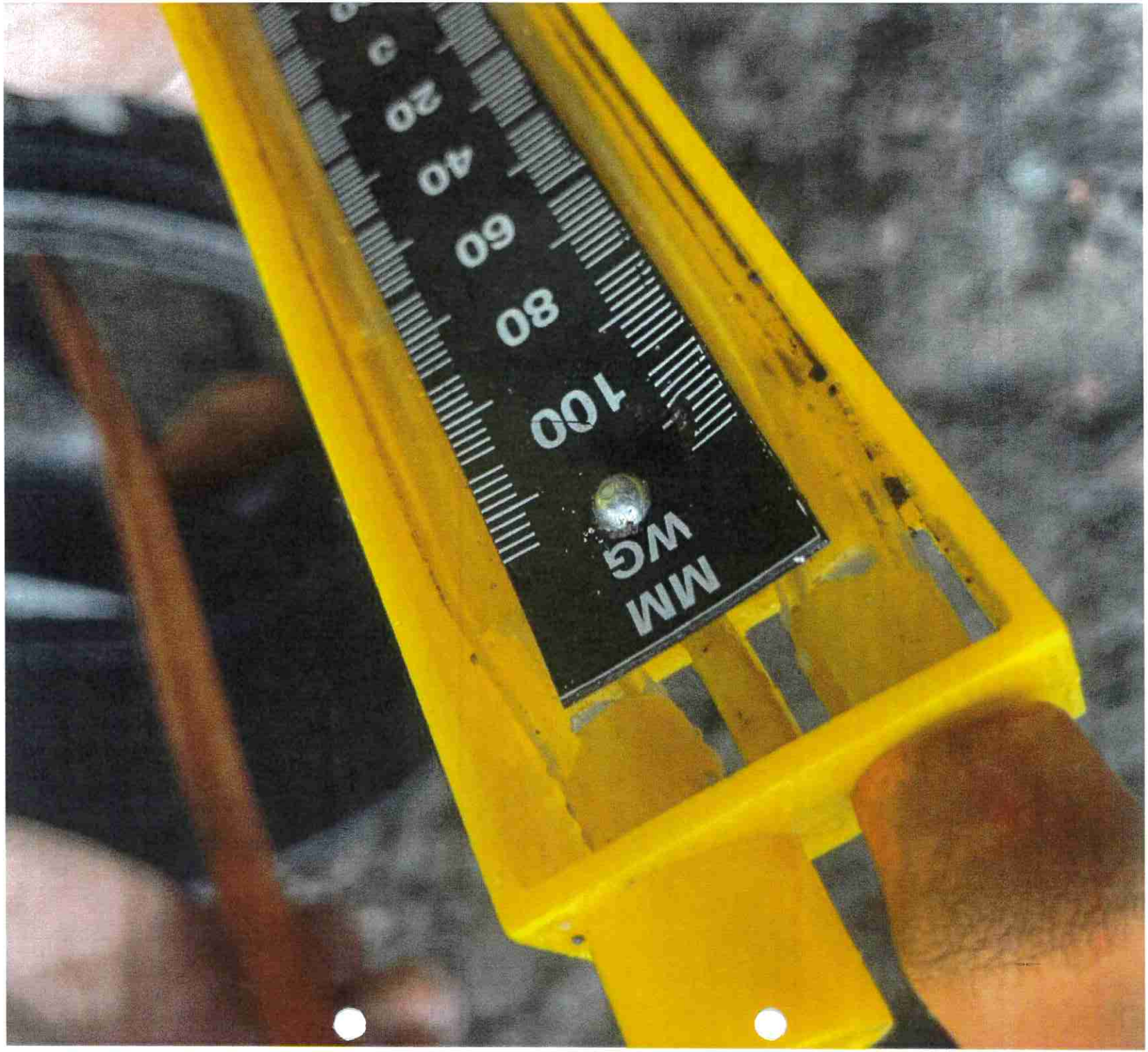

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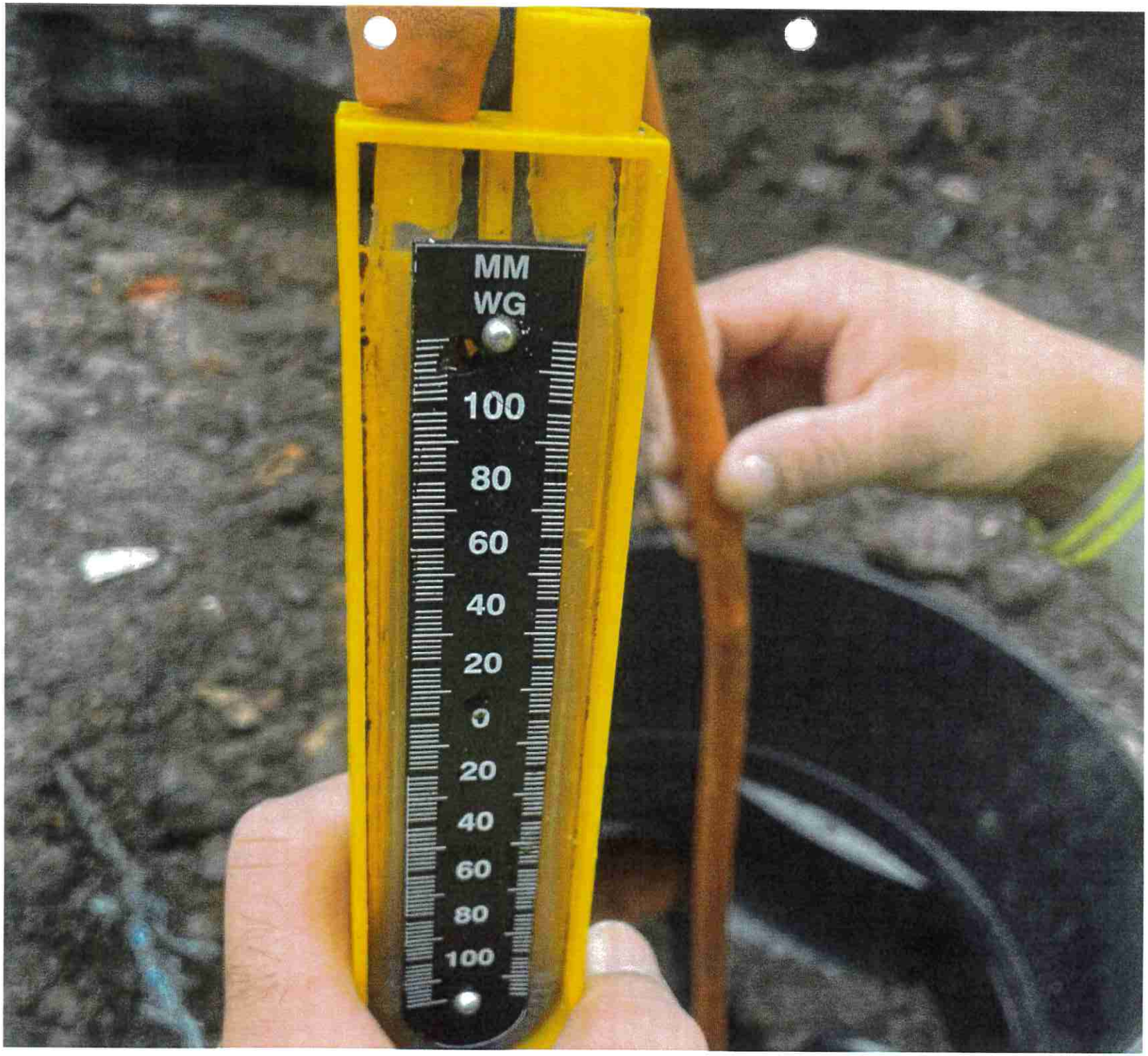

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Drainage and Manholes

CHECKSHEET

Contract:	**One Victoria**	Contract no.:	**204**		**QA1**
Inspection details					
Description:	Surface Water MH Run Between 200-201-202				
Check sheet details					
Drawing references used:	**204-CIV-00-XX-DR-C-30001**				
Has setting out check sheet been signed off?	Yes	☒			
Details of drainage and manholes to be installed:					
Material:	SW Pipe			Size:	**100/150**
Excavation support method:			**N/A Trench To Be Stepped**		
Concrete grade where applicable			GEN3N / mm2		
Where special installation instructions are to be followed, particularly for interceptors, give brief details. :			N/A		
All materials and plant available on site?			Yes	☒	
Area released for construction:	Initials:	J.W	Date:	**10.08.23**	

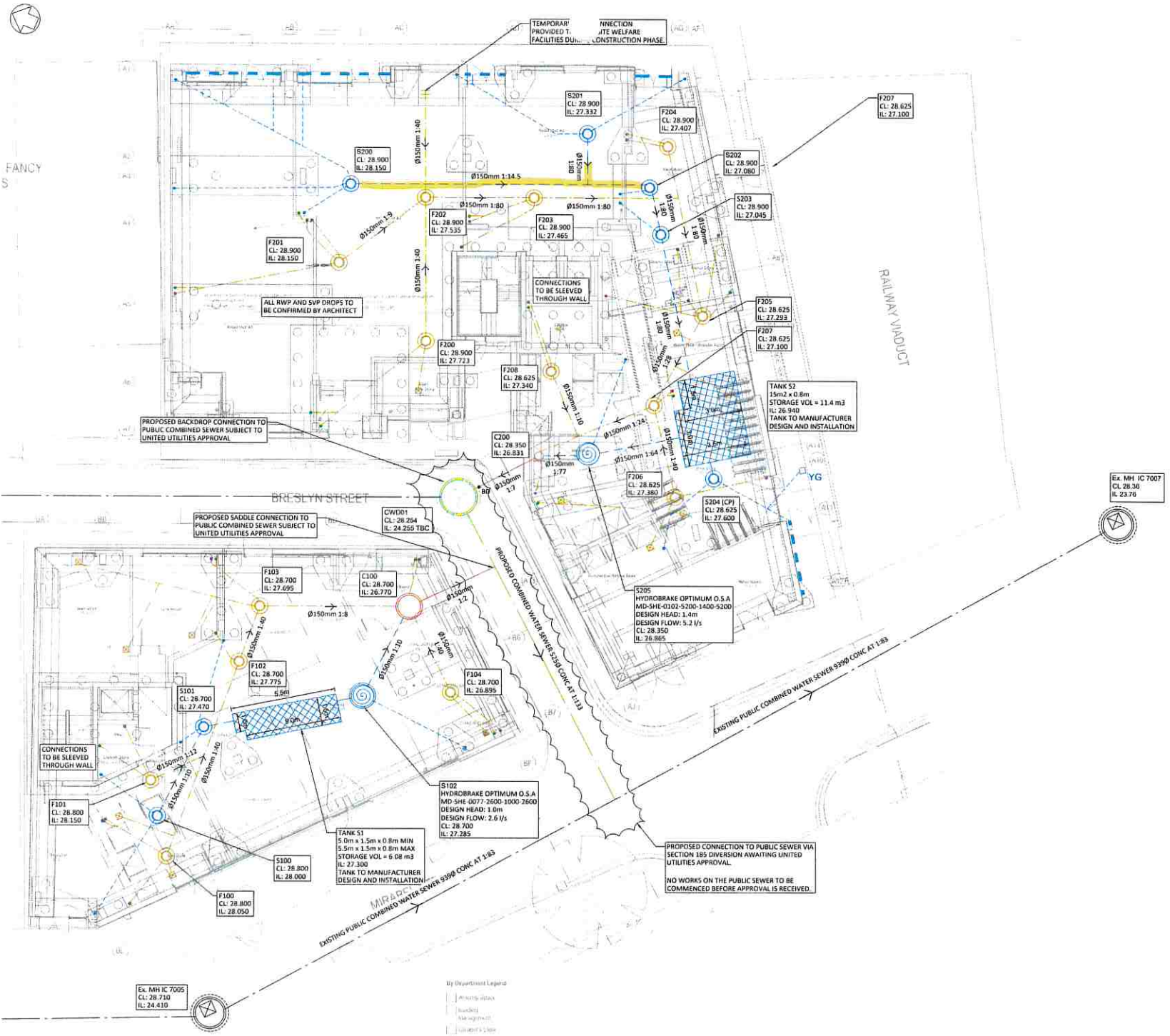
Drainage pipes laid to correct depth and gradient?	Yes	☒	No	☐
Correct P Gravel installed as per specification?	Yes	☒	No	☐
Concrete base installed to specification?	Yes	☐	N/A	☒
Channels / branches / haunching to specification?	Yes	☒	N/A	☐
M/H rings / concrete surround or poly chamber or brickwork to specification?	Yes	☒	N/A	☐
Step irons / ladder rung irons / ladder to specification?	Yes	☐	N/A	☒
Air/ water test carried out to specification?	Yes	☒	No	☐
Inspection carried out by Building Control?	Yes	☒	No	☐
Area correctly backfilled?	Yes	☒	N/A	☐
Actual installed position recorded for as-built drawing?	Yes	☒	N/A	☐
Manhole / chamber / interceptor clean and cover(s) installed at correct level?	Yes	☐	N/A	☐

Area released for next activity:

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Drainage and Manholes checked, approved and released for next activity:

PRINT NAME	COMPANY NAME Torsion, Sub-contractor or third party sign off (delete as applicable)	PRINT JOB TITLE:	SIGNATURE:	DATE:
Aiden Bougourd	**Torsion**	**Engineer**		18.08.23
Jaiden Watts	**Spencer's**	**Engineer**		18.08.23
Ben Foil	**LPC Building Control**	**Engineer**		18.08.23



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ALL SURFACE WATER DROP DOWN POSITIONS SHALL HAVE A BEND SET AT INVERT LEVEL NO GREATER THAN 1.3M BELOW FINISH FLOOR LEVEL.

AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FOUL RUN SHALL BE VENTED TO THE ATMOSPHERE. ALL SVPS, SSS AND RWP DOWNPIPES SHALL BE ACCESSIBLE AT GROUND LEVEL FOR RODDING PURPOSES.

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Notes and Keys

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS RECEIVED ON: 07.09.22 DRG NO: 41020MCLS-01

ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL RWP AND SVP DROPS TO BE CONFIRMED BY ARCHITECT

ALL POP UP REST BENDS ARE SET MIN 450mm BELOW SSL

WHERE POP UPS ARE LOCATED ON PILECAPS / GROUND BEAMS AND A CONTINUOUS GRADE CANNOT BE ACHIEVED PIPE SHOULD BE SET AT A MIN 1:40 GRADIENT UNTIL CLEAR OF PILECAP FOOTPRINT WITH A BEND TO ALLOW FOR STEEP GRADIENT CONNECTION TO DOWNSTREAM INSPECTION CHAMBER. REFER TO TYPICAL DETAIL ON DRAWING C-31001

- FOUL SEWER 100mm DIAMETER UNLESS OTHERWISE NOTED
- STORM SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- COMBINED SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- EXISTING PUBLIC COMBINED SEWER
- PROPOSED S185 CW SEWER DIVERSION
- FOUL SEWER INSPECTION CHAMBER 450mm DIAMETER
- STORM SEWER INSPECTION CHAMBER 450mm DIAMETER
- CP SW INSPECTION CHAMBER CATCHPIT WITH 300mm SUMP
- SW FLOW CONTROL CHAMBER
- COMBINED SEWER INSPECTION CHAMBER / MANHOLE
- STUB STACK
- SVP
- RWP
- FLOOR GULLY
- SLOT DRAIN ACO M100D WITH BRICKSLOT ST GRATING
- YG YARD GULLY

Date	Rev	Description	Drawn	Chkd
11.07.23	C01	ISSUED FOR CONSTRUCTION	ZG	CK
08.12.22	P07	RWP ADDED/LAYOUT AMENDED	CD	ZG
29.11.22	P06	DRAINAGE UPDATED	CD	CK
25.11.22	P05	DRAINAGE UPDATED	ZG	CK
02.11.22	P04	DRAINAGE UPDATED	CD	CK
18.10.22	P03	UPDATED FFLs AND DRAINAGE	CD	CK
12.09.22	P02	COORDINATED WITH M&E DESIGN	ZG	CK
04.07.22	P01	FOR INFORMATION	CD	CK

Civic Engineers

Project
ONE VICTORIA
MANCHESTER

Title
DRAINAGE GENERAL ARRAGEMENT

Status
CONSTRUCTION

Project Number	Scale @ A1	Date Created	Drawn	Checked	Suitable
756-02	1:100	04.07.22	CD	CK	----

Drawing Number: 204-CIV-00-XX-DR-C-30001
Revision: C01



