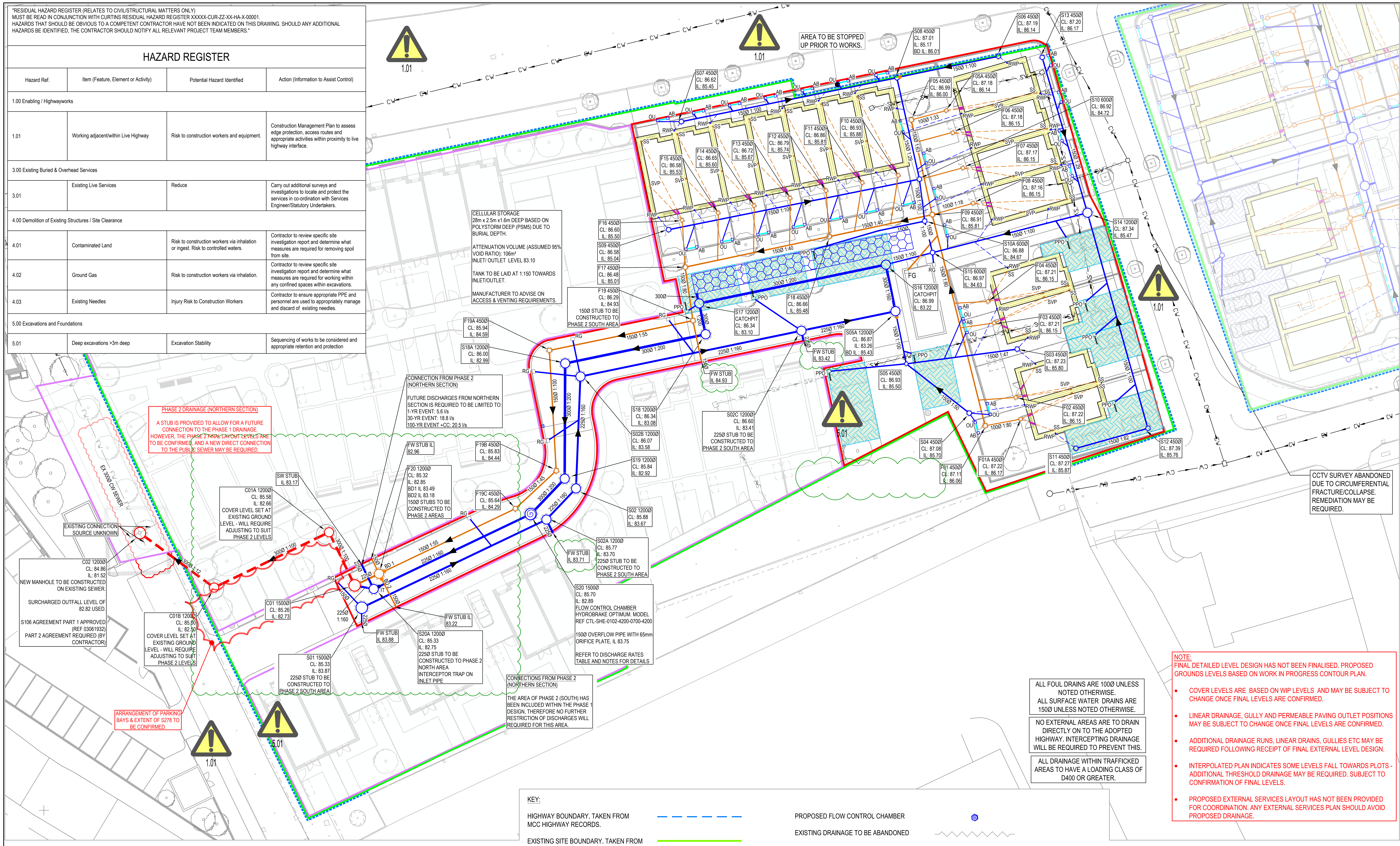
"RESIDUAL HAZARD REGISTER (RELATES TO CIVIL/STRUCTURAL MATTERS ONLY)
MUST BE READ IN CONJUNCTION WITH CURTINS RESIDUAL HAZARD REGISTER XXXXX-CUR-ZZ-XX-HA-X-00001.
HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR HAVE NOT BEEN INDICATED ON THIS DRAWING. SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED, THE CONTRACTOR SHOULD NOTIFY ALL RELEVANT PROJECT TEAM MEMBERS."

HAZARD REGISTER

Hazard Ref.	Item (Feature, Element or Activity)	Potential Hazard Identified	Action (Information to Assist Control)
1.00 Enabling / Highwayworks			
1.01	Working adjacent/within Live Highway	Risk to construction workers and equipment.	Construction Management Plan to assess edge protection, access routes and appropriate activities within proximity to live highway interface.
3.00 Existing Buried & Overhead Services			
3.01	Existing Live Services	Reduce	Carry out additional surveys and investigations to locate and protect the services in co-ordination with Services Engineer/Statutory Undertakers.
4.00 Demolition of Existing Structures / Site Clearance			
4.01	Contaminated Land	Risk to construction workers via inhalation or ingest. Risk to controlled waters.	Contractor to review specific site investigation report and determine what measures are required for removing spoil from site.
4.02	Ground Gas	Risk to construction workers via inhalation.	Contractor to review specific site investigation report and determine what measures are required for working within any confined spaces within excavations.
4.03	Existing Needles	Injury Risk to Construction Workers	Contractor to ensure appropriate PPE and personnel are used to appropriately manage and discard of existing needles.
5.00 Excavations and Foundations			
5.01	Deep excavations >3m deep	Excavation Stability	Sequencing of works to be considered and appropriate retention and protection



ALL FOUL DRAINS ARE 100Ø UNLESS NOTED OTHERWISE.
ALL SURFACE WATER DRAINS ARE 150Ø UNLESS NOTED OTHERWISE.

NO EXTERNAL AREAS ARE TO DRAIN DIRECTLY ON TO THE ADOPTED HIGHWAY. INTERCEPTING DRAINAGE WILL BE REQUIRED TO PREVENT THIS.

ALL DRAINAGE WITHIN TRAFFICKED AREAS TO HAVE A LOADING CLASS OF D400 OR GREATER.

NOTE:
FINAL DETAILED LEVEL DESIGN HAS NOT BEEN FINALISED. PROPOSED GROUNDS LEVELS BASED ON WORK IN PROGRESS CONTOUR PLAN.

- COVER LEVELS ARE BASED ON WIP LEVELS AND MAY BE SUBJECT TO CHANGE ONCE FINAL LEVELS ARE CONFIRMED.
- LINEAR DRAINAGE, GULLY AND PERMEABLE PAVING OUTLET POSITIONS MAY BE SUBJECT TO CHANGE ONCE FINAL LEVELS ARE CONFIRMED.
- ADDITIONAL DRAINAGE RUNS, LINEAR DRAINS, GULLIES ETC MAY BE REQUIRED FOLLOWING RECEIPT OF FINAL EXTERNAL LEVEL DESIGN.
- INTERPOLATED PLAN INDICATES SOME LEVELS FALL TOWARDS PLOTS - ADDITIONAL THRESHOLD DRAINAGE MAY BE REQUIRED. SUBJECT TO CONFIRMATION OF FINAL LEVELS.
- PROPOSED EXTERNAL SERVICES LAYOUT HAS NOT BEEN PROVIDED FOR COORDINATION. ANY EXTERNAL SERVICES PLAN SHOULD AVOID PROPOSED DRAINAGE.

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DESIGN BASED ON TOPOGRAPHICAL SURVEY AND CCTV SURVEY INFORMATION AVAILABLE AT THE TIME OF DESIGN.
3. ALL EXISTING SEWERS, CONNECTIONS, PIPE SIZES AND INVERT LEVELS TO BE CONFIRMED BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS TO ENSURE CONNECTIVITY. ANY VARIANCE FROM THE INFORMATION SHOWN SHOULD BE REPORTED TO THE ENGINEER FOR REVIEW.
4. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
5. ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.
6. WHERE EXISTING DRAINAGE IS BEING USED, ALLOWANCES SHOULD BE MADE TO REMEDIATE THIS DRAINAGE IN LINE WITH AVAILABLE CCTV SURVEY INFORMATION. IF NO SURVEY IS AVAILABLE, IT IS ADVISED TO OBTAIN ONE PRIOR TO COMMENCEMENT OF WORKS.
7. ALL EXISTING SERVICES TO BE LOCATED PRIOR TO COMMENCEMENT OF ANY DRAINAGE WORKS, AND WHERE NECESSARY PROTECTION OR DIVERSIONS TO BE UNDERTAKEN TO AVOID CONFLICT WITH THE PROPOSED WORK.
8. ALL RAINWATER AND FOUL POP UPS LOCATIONS AND SIZES TO BE CONFIRMED BY THE ARCHITECT AND M&E ENGINEER.
9. COVER LEVELS AND BUILDINGS LOCATION ARE APPROXIMATE AND SHALL BE CONFIRMED BY ARCHITECT/ LANDSCAPE ARCHITECT.
10. OUTFALL CONNECTION(S) SUBJECT TO AGREEMENT WITH THE APPROVING AUTHORITY.
11. ALL PROPOSED DRAINAGE IS TO REMAIN PRIVATE AND IS NOT TO BE ADOPTED.
12. ALL DRAINAGE TO BE CONFIRMED REDUNDANT PRIOR TO ANY WORKS
13. DRAINAGE ENGINEER TO BE MADE AWARE OF ANY EXISTING LIVE DRAINAGE WITHIN THE SITE BOUNDARY.
14. FOR DRAINAGE NOTES REFER TO DRAWING 074031-CUR-00-XX-DR-C-92512.

DRAWING BASED ON:

- TOPOGRAPHICAL SURVEY BY: SEP, SEP11190L, DATED NOVEMBER 2019.
- CCTV SURVEY BY: LAYER SURVEYS, LAY0243, DATED NOVEMBER 2019.
- UU RECORDS UU REF: UUPS-ORD-122012, DATED 06.09.19.
- LANDSCAPE EXTERNAL LEVELS: TPM LANDSCAPE, DRAWING REF 103 & 104, REV A DATED 09.11.20.
- ARCHITECT SITE LAYOUT: TP BENNETT, T8170W0410-P3. RECEIVED 27/02/22.

POPUP LOCATIONS BASED ON ARCHITECTS PLOT LAYOUTS:
- T8130G2100 REV T2
- T8130G4100 REV T2
- T8130G7100 REV C1

FOUNDATIONS: CURTINS,
- CUR-1B-FN-DR-S-16002 AND CUR-ZZ-FN-DR-S-16201 TO 16205, (ALL REV C03) BLOCK FOUNDATION GAs
- 074031-CUR-ZZ-FN-DR-S-21001 REV C04 HOUSE FOUNDATION DETAILS

KEY:

- HIGHWAY BOUNDARY. TAKEN FROM MCC HIGHWAY RECORDS.
- EXISTING SITE BOUNDARY. TAKEN FROM ARCHITECT DRAWING T8170-W-0-400-P1
- PHASE 1 BOUNDARY. TAKEN FROM ARCHITECT DRAWING T8170-W-0-400-P1 AND S38/S278 DRAWINGS
- PHASE 2 BOUNDARY. TAKEN FROM ARCHITECT DRAWING T8170-W-0-400-P1
- ALL BOUNDARIES ARE OFFSET FOR CLARITY AND THEREFORE INDICATIVE.
- EXISTING PRIVATE SURFACE WATER SEWER/DRAIN — SW
- EXISTING PRIVATE FOUL WATER SEWER/DRAIN — FW
- EXISTING PRIVATE COMBINED WATER SEWER/DRAIN — CW
- EXISTING COMBINED PUBLIC SEWER AND MANHOLE
- PROPOSED PRIVATE COMBINED DRAIN
- PROPOSED PRIVATE FOUL DRAIN
- PROPOSED PRIVATE SURFACE DRAIN
- PROPOSED ATTENUATION SYSTEM (TYPE TO BE CONFIRMED)
- PERMEABLE BLOCK PAVING
- PROPOSED FLOW CONTROL CHAMBER
- EXISTING DRAINAGE TO BE ABANDONED
- PROPOSED PRIVATE FOUL MANHOLE OR PPIC — F1
- PROPOSED PRIVATE SURFACE MANHOLE OR PPIC — S1
- PROPOSED PRIVATE COMBINED MANHOLE OR PPIC — C1
- SURFACE WATER POPUP & CONNECTION
- FOUL WATER POPUP & CONNECTION
- PIPE PASSES THROUGH STRIP FOOTING
- PROPOSED LINEAR DRAINAGE WITH ASSOCIATED ACCESS/OUTLET BOXES GATIC CASTSLOT TREADSAFE 100 OR SIMILAR APPROVED — AB / OB
- FOUL GULLY — FG
- ROAD GULLY — RG
- PERMEABLE PAVING OUTLET — PPO
- INTERCEPTOR TRAP — IT
- PROPOSED RODDING EYE 750mm DEPTH TO INVERT — RE
- BACKDROP
- PROPOSED FOUNDATION

PROPOSED FLOW RATES (50% EXISTING) AS AGREED UU/LLFA			
SITE	FLOW RATE 1:1 YEAR (L/S)	FLOW RATE 1:30 YEAR (L/S)	FLOW RATE 1:100 +40%CC YEAR (L/S)
PROPOSED SITE (SITE 1 + SITE 2)	15.3	42.2	52.4
SITE 1*	9.8	32.9	35.9
SITE 2	5.5	9.3	16.5

* SITE 1 ALLOWABLE DISCHARGE RATE IS SPLIT BETWEEN PHASE 1 AND PHASE 2 WORKS

TOTAL SITE 1 AREA IS 0.74 Ha
- PHASE 1 + PHASE 2 (SOUTH) AREA IS 0.43Ha
- PHASE 2 (NORTH) IS 0.31 Ha

PHASE 1 WORKS (INC P2 SOUTH) ARE 57% OF TOTAL AREA

THE DISCHARGE ALLOWANCE FOR PHASE 1 +PHASE 2(SOUTH) WAS CALCULATED USING THE PREVIOUS SITE PLAN CATCHMENT PROPORTIONS. THESE ALLOWANCES HAVE BEEN RETAINED FOR THE REVISED WORKS, ALTHOUGH PHASE 1 CATCHMENT NOW EXCEEDS PHASE 2 CATCHMENT PORTION.
THEREFORE, THE ALLOWABLE DISCHARGE RATES ARE:
- 1-YR 4.2 l/s
- 30-YR 13.8 l/s
- 100-YR+CC 15.4 l/s

Rev:	Description:	Date:	By:	Chkd:
C05	OUTFALL ARRANGEMENT AMENDED IN LINE WITH ON-SITE ADJUSTMENTS. STUB INVERTS ADDED	12/05/23	ATL	CG
C04	UPDATED IN LINE WITH REVISED SITE LAYOUT	24/03/23	ATL	CG
C03	STAGE 5 UPDATE	23/01/23	CS	CG
C02	STAGE 5 UPDATE	16/12/22	CS	CG
C01	STAGE 5 ISSUE	07/11/22	ATL	MW
P07	S14, S15 AND S5 CL AND IL UPDATED	11/02/22	CS	CG
P06	COVER AND INVERT LEVELS ADDED	28/01/22	TH	CG
P05	TANK UPDATED FOR FLOOD MITIGATION	13/01/22	CG	CG
P04	UPDATED WITH AGREED FLOW RATES	04/11/21	CG	CG
P03	STAGE 3 ISSUE	16/11/20	AH	CD
P02	ISSUED FOR PLANNING	24/01/20	AH	CD
P01	DRAFT ISSUE FOR COMMENT	17/01/20	AH	CD

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Status: CONSTRUCTION

Project: OLDHAM ROAD, NEWTON HEATH

Drg Title: DRAINAGE LAYOUT PHASE 1 - SITE 1

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	17/01/20	AH	AH	CD

Scale: 1:250

Project No: Originator: Volume: Level: Type: Role: Category / Number: Rev:
074031 - CUR - 00 - XX - DR - C - 92500 - C05

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