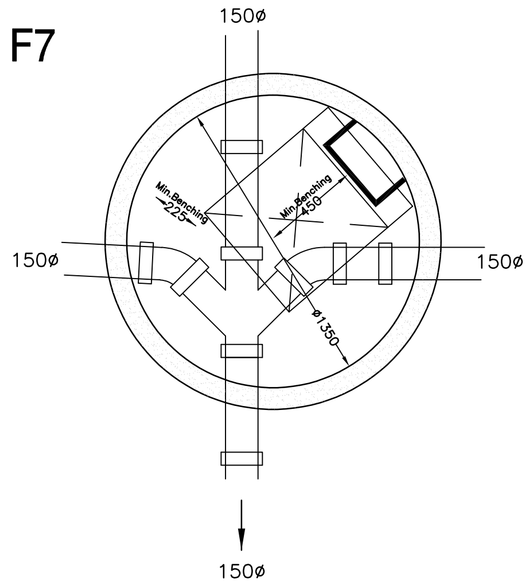
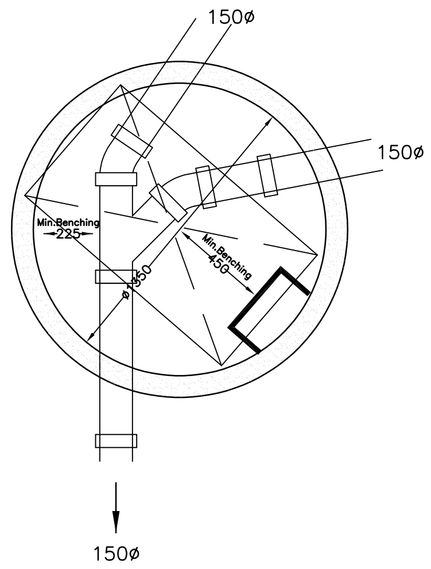
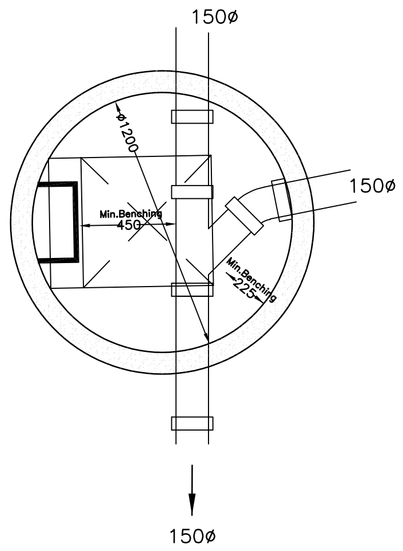
F7



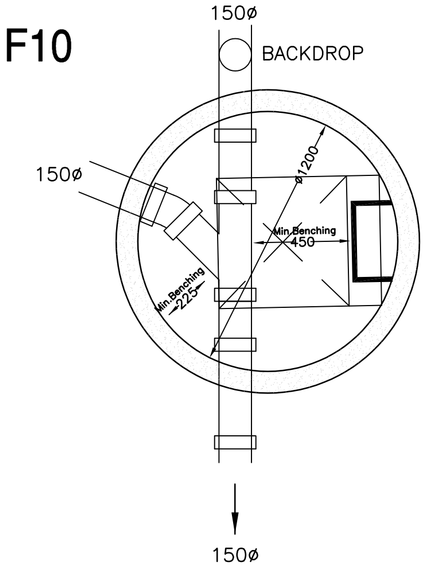
F8



F9

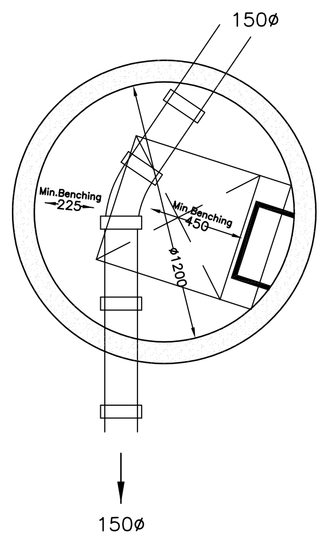


F10

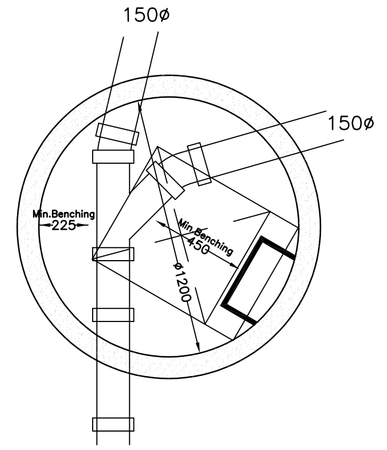


Manhole Number / Coordinates	Cover Level / Depth To Soffit	Connections		Pipe: Code	Pipe: Inverts	Pipe: Diams	Manhole Size	Types: Manhole	Types: Cover	Other Detail: Depth & Size (mm)	Means of Access	Safety Chains	Handrails	Invert Access Steps
F7	46.020	2	1	1.002	44.177	150				150				
			2	2.002	44.177	150				675 x 675				
	1.693	1					1350	TYPE B FIGURE B9	D400	675 x 675 COVER SLAB OPENING	Double Steps	No	No	No
E= 386150.186 N= 397056.797		0	0	1.003	44.177	150								
F8	45.580	1	1	1.003	43.981	150				150				
										1220 x 685				
	1.449	0					1350	TYPE C FIGURE B15	D400	1220 x 685 COVER SLAB OPENING	Double Steps	No	No	No
E= 386154.223 N= 397027.739			0	1.004	43.981	150								
F9	45.685	1	1	1.004	43.814	150				150				
										675 x 675				
	1.721	0					1200	TYPE B FIGURE B9	D400	675 x 675 COVER SLAB OPENING	Double Steps	No	No	No
E= 386170.495 N= 397008.669			0	1.005	43.814	150								
F10	45.817	1	1	1.005	43.646	150				150				
										675 x 675				
	3.367	0					1200	TYPE A2 FIGURE B6	D400	675 x 675 COVER SLAB OPENING	Ladder	No	No	No
E= 386187.594 N= 396990.063			0	1.006	42.300	150								
F11	45.224									150				
										675 x 675				
	2.374	0					1200	TYPE B FIGURE B9	D400	675 x 675 COVER SLAB OPENING	Double Steps	No	No	No
E= 386288.592 N= 396994.700			0	3.000	42.700	150								
F12	45.678	1	1	3.000	42.329	150				150				
										675 x 675				
	3.199	0					1200	TYPE A2 FIGURE B6	D400	675 x 675 COVER SLAB OPENING	Ladder	No	No	No
E= 386233.452 N= 396988.172			0	3.001	42.329	150								

F11



F12



MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION GUIDANCE - MAY 2021

MANHOLE LADDER TO BE CONSTRUCTED IN LINE WITH DESIGN AND CONSTRUCTION GUIDE CLAUSE DCG CLAUSE E2.37

ROCKER PIPES WILL BE USED IN LINE WITH DESIGN AND CONSTRUCTION GUIDANCE

NOTE ALL CONNECTIONS TO BE MADE SOFFIT LEVEL UNLESS INDICATED OTHERWISE

PLEASE NOTE THAT THIS DRAWING IS ISSUED FOR INFORMATION/TENDER PURPOSES ONLY UNTIL TECHNICAL APPROVAL HAS BEEN GRANTED. ANY WORK UNDERTAKEN PRIOR TO TECHNICAL APPROVAL BEING GRANTED IS AT THE CLIENTS RISK.

GENERAL

1. All adoptable sewers and associated works are to comply fully with "Design and Construction Guidance" & Local Practices
2. All highway works to be to adoptable standards and to to comply fully with the Local Authority specification.
3. All private drainage works are to comply fully with part H of the Building Regulations
4. All existing invert levels to be checked by the Contractor at the start of works and any discrepancies notified to REFA. All levels are based on topographical survey information provided by others.
5. All materials to bear the relevant B.S.Kitemark and comply fully with the specifications. All concrete & concrete products must use Sulphate resistant cement (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur)
6. All opening notices etc. as required under highways acts etc. are to be obtained prior to commencement of works. All works are to be inspected by L.A., NHBC or Relevant Water Authority as applicable.

C.D.M. REGULATIONS 2015

In line with the above regulations we are obliged to inform the Client of their responsibilities under section CDM 15/1, and residual risks that may be encountered in the construction of these works. All design work has been carried out with Health and Safety aspects given full consideration. Wherever possible risks have been eliminated from the design, however due to the very nature of this type of work it is not possible to remove all the risks from the design.
We would also respectfully remind the Client of his obligations to take all reasonable steps in ensuring that only competent Contractors who have a valid safety policy are employed.
They should also provide satisfactory responses at tender stage as to the manner in which they will deal with the elements of risk involved in this type of work and in particular those highlighted by REFA below:–

1. Support / treatment for ALL excavation work.
2. Guarding to edges of excavations to prevent people,materials and vehicles falling into excavation.
3. Guarding of excavations outside working hours to prevent unauthorised access.
4. Undermining to adjacent roads or structures.
5. Confined spoce operations.
6. Dealing with existing services.
7. Traffic management on existing highways.
8. Procedure to be followed in event of accident or emergency.
9. Method of working where contaminated ground is present on site.
10. Confirmation will be required that all operatives are adequately trained, copies of relevant training certificates to be supplied.

The above list is by no means exhaustive but it does highlight operations that present a risk to contractors and the general public.
For clarification on any item please contact REFA.

rev	Revision details	Rev.By	Date
D	COVER SIZES REVISED AS S104 COMMENTS	RF	25.05.23
C	SEWER DESIGN REVISED FOLLOWING UPDATED EXISTING SEWER INFORMATION	RF	06.04.23
B	TO LATEST DESIGN	AS	23.02.23
A	MINOR CHANGES TO F12 COVER LEVEL	RF	20.01.23

smas worksafe designer — www.smasltd.com — SSIP SAFETY SCHEMES IN PROCUREMENT

Drawing Stage		Drawing Status			
	Draft		Comments	●	Tender
●	Issued		Information		Construction
		●	Approval		As Built

Client
KELLEN HOMES LIMITED

Job title
BENNETT STREET MANCHESTER

Drawing title
MANHOLE SCHEMATICS DRG 2 - FW

REFA
45 Bridgeman Terrace
Wigan, Lancs
WN1 1TT
Tel:-(01942) 826020
Fax:-(01942) 230816
CONSULTING ENGINEERS
CIVIL, STRUCTURAL
GEOTECHNICAL, ENVIRONMENTAL

Date	Scale	Drawn
29.11.22	1:20	RF

DRAWING No 22122/109/2 Rev D

© This drawing is the property of REFA and should not be copied, used or its contents divulged without prior written consent.

A1 SHEET