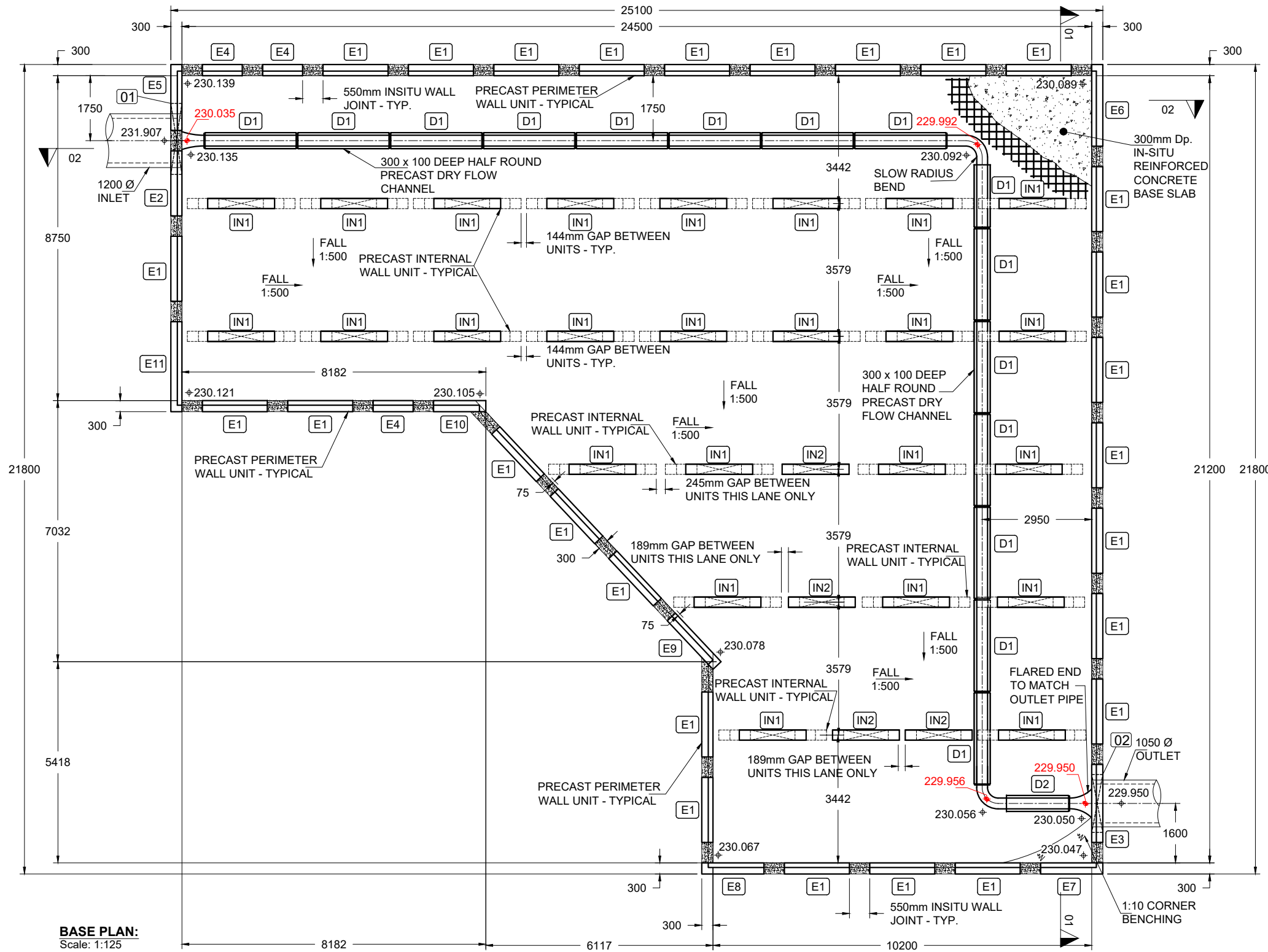


Drawn By:	TH	Rev.	Date.	Comments.
Chkd By:	PL	A	03-11-25	INLET PIPE SIZE REVISED. TANK LEVELS AND COVER LEVELS REVISED
Date:	23-09-25	B	14-11-25	ISSUED FOR CONSTRUCTION
Drng No.:	STS3623-301	C	01-12-25	INLET PIPE NOW ENTERS THE TANK PERPENDICULARLY

DRAWING TITLE: MILLER HOMES
BLACKMOORFOOT, HUDDERSFIELD - TANK 3
3.0m DEEP ATTENUATION TANK
BASE LAYOUT

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION]. THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED



BASE PLAN:
Scale: 1:125

00.000 + = DENOTES INVERT LEVEL IN DRY FLOW CHANNEL
00.000 ⊕ = DENOTES STRUCTURAL SLAB LEVEL

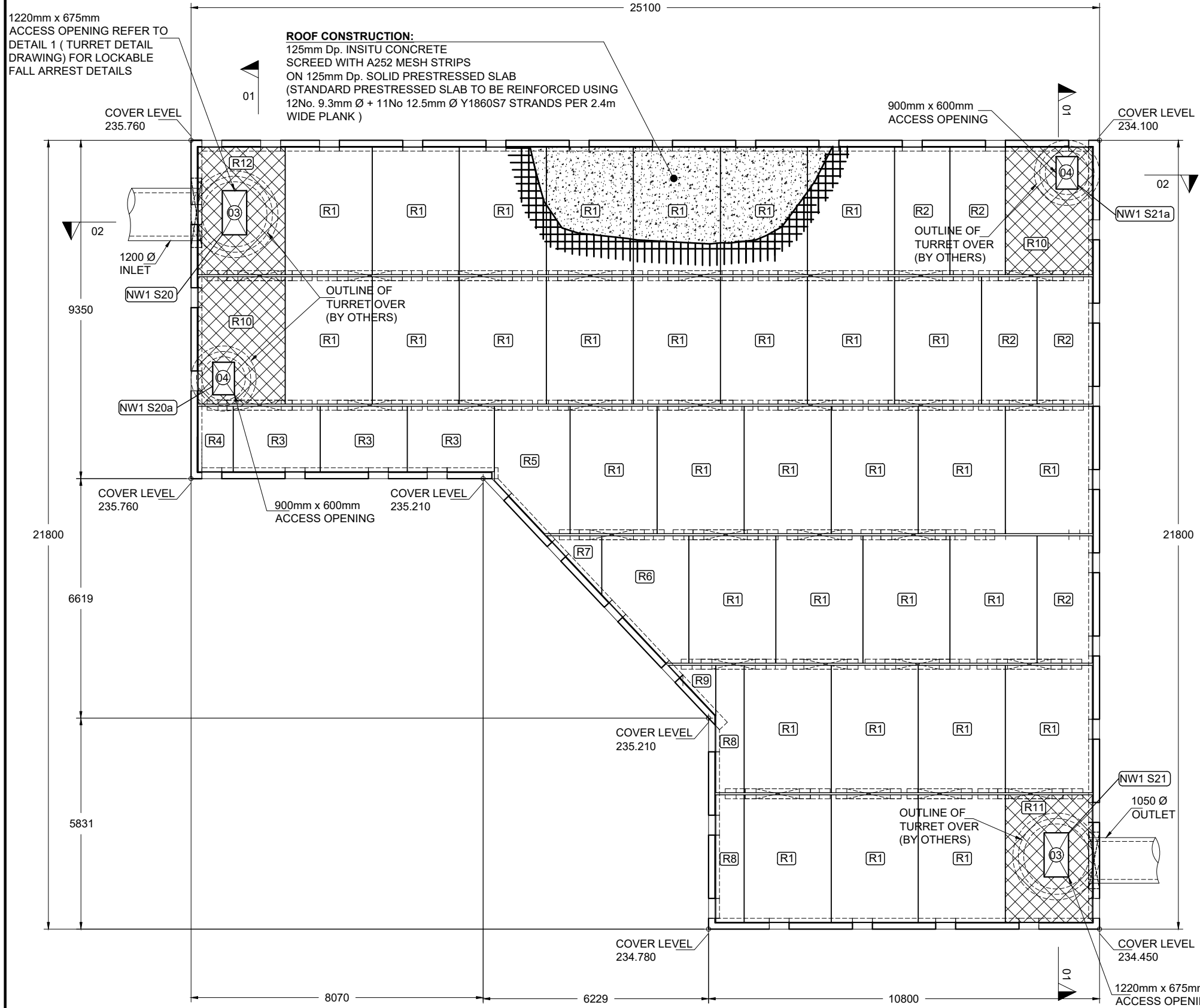
STORAGE VOLUME: 1064m³

ISSUED FOR CONSTRUCTION

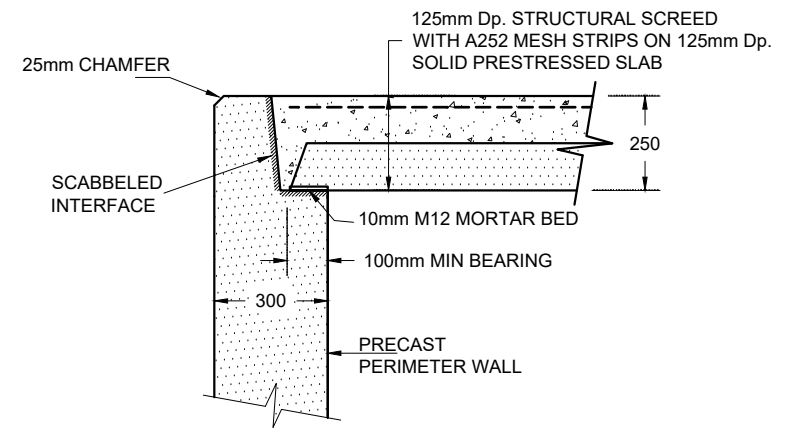
Drawn By:	TH	Rev.	Date.	Comments.
Chkd By:	PL	A	03-11-25	INLET PIPE SIZE REVISED. TANK LEVELS AND COVER LEVELS REVISED
Date:	23-09-25	B	14-11-25	ISSUED FOR CONSTRUCTION
Drg No.:	STS3623-302	C	01-12-25	INLET PIPE NOW ENTERS THE TANK PERPENDICULARLY

DRAWING TITLE: MILLER HOMES
BLACKMOORFOOT, HUDDERSFIELD - TANK 3
3.0m DEEP ATTENUATION TANK
ROOF LAYOUT

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION]. THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED



ISSUED FOR CONSTRUCTION



PERIMETER WALL - TOP OF WALL DETAIL:
SCALE: 1:20

ROOF PLAN:
Scale: 1:125

NOTE:
10mm M12 MORTAR BED TO BE PLACED BENEATH ALL ROOF SLABS

NOTE:
RISER SHAFTS AND COVERS (BY OTHERS)

1220mm x 675mm ACCESS OPENING REFER TO DETAIL 1 (TURRET DETAIL DRAWING) FOR LOCKABLE FALL ARREST DETAILS

DRAWING TITLE:	MILLER HOMES BLACKMOORFOOT, HUDDERSFIELD - TANK 3 3.0m DEEP ATTENUATION TANK	Drawn By: TH	Rev.	Date.	Comments.
	NOTES	Chkd By: PL	A	03-11-25	INLET PIPE SIZE REVISED. TANK LEVELS AND COVER LEVELS REVISED
		Date: 23-09-25	B	14-11-25	ISSUED FOR CONSTRUCTION
		Drg No.: STS3623-303	C	01-12-25	INLET PIPE NOW ENTERS THE TANK PERPENDICULARLY

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION]. THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED

PRECAST CONCRETE SPECIFICATION	
CONCRETE GRADE:	C40/50
EXPOSURE CLASS:	XD2 / XC2
DESIGN CHEMICAL CLASS:	DC-2z
MIN CEMENT CONTENT:	380 kg/m ³
CEMENT TYPE:	CEM IIB-S
GGBS CONTENT:	25%
MAX WATER / CEMENT RATIO:	0.45
AGGREGATE TYPE:	LIMESTONE
MAX AGGREGATE SIZE:	14mm
SLUMP CLASS:	N/A

INSITU CONCRETE SPECIFICATION GENERAL	
CONCRETE GRADE:	C35/45
EXPOSURE CLASS:	XD2 / XC2
DESIGN CHEMICAL CLASS:	DC-2z
MIN CEMENT CONTENT:	360 kg/m ³
MAX CEMENT CONTENT:	400 kg/m ³
CEMENT TYPE:	CEM IIIA + SR
GGBS CONTENT:	50%
MAX WATER / CEMENT RATIO:	0.45
AGGREGATE TYPE:	LIMESTONE
MAX AGGREGATE SIZE:	20mm
SLUMP CLASS:	SEE NOTE 1

INSITU CONCRETE SPECIFICATION WALL JOINTS AND ROOF SCREED	
CONCRETE GRADE:	C35/45
EXPOSURE CLASS:	XD2 / XC2
DESIGN CHEMICAL CLASS:	DC-2z
MIN CEMENT CONTENT:	380 kg/m ³
MAX CEMENT CONTENT:	400 kg/m ³
CEMENT TYPE:	CEM IIIA + SR
GGBS CONTENT:	50%
MAX WATER / CEMENT RATIO:	0.45
AGGREGATE TYPE:	LIMESTONE
MAX AGGREGATE SIZE:	10mm
SLUMP CLASS:	SEE NOTE 1
NOTE 1:	PUMP MIX 120mm TARGET SLUMP (TOLERANCE -10mm, +40mm)

NOMINAL COVER	
PRECAST:	45mm
INSITU:	50mm
BASE SLAB BOTTOM STEEL :	50mm

SURFACE FINISHES	
ROOF SCREED:	WOOD FLOAT
BASE SLAB:	STEEL TROWEL
INTERNAL SURFACE:	FAIR WORKED
EXTERNAL SURFACE:	FAIR

ISSUED FOR CONSTRUCTION

ESTIMATED MORTAR REQUIRED	
M12 MORTAR	0.7m ³
ESTIMATED VOLUMES INCLUDE A 5% ALLOWANCE FOR SITE DEVIATION	

ESTIMATED INSITU CONCRETE VOLUMES	
INSITU CONCRETE BLINDING	36.0m ³
BASE SLAB	117.0m ³
ROOF SCREED	50.5m ³
INSITU WALL JOINTS	22.0m ³
BENCHING	0.3m ³
ESTIMATED VOLUMES INCLUDE A 5% ALLOWANCE FOR SITE DEVIATION	

KEY TO WALL OPENING TYPES			
	QUANTITY	DESCRIPTION	INVERT
01	1	1925mm x 1760mm OPENING FOR 1200 Ø CONCRETE PIPE	231.907
02	1	1560mm x 1500mm OPENING FOR 1050 Ø CONCRETE PIPE	229.950

KEY TO ROOF SLAB TYPES						
UNIT	DESCRIPTION	WIDTH	LENGTH	DEPTH	WEIGHT	QUANTITY
R1	SOLID PRESTRESSED SLAB	2.400m	3.520m	125mm	2.48t	32
R2	NARROW SOLID PRESTRESSED SLAB	1.525m	3.520m	125mm	1.58t	5
R3	SOLID PRESTRESSED SLAB	2.400m	1.805m	125mm	1.27t	3
R4	NARROW SOLID PRESTRESSED SLAB	0.960m	1.805m	125mm	0.51t	1
R5	CUSTOM SOLID PRESTRESSED SLAB	2.085m	3.520m	125mm	1.85t	1
R6	CUSTOM SOLID PRESTRESSED SLAB	2.400m	3.520m	125mm	2.00t	1
R7	CUSTOM SOLID PRESTRESSED SLAB	1.525m	1.615m	125mm	0.35t	1
R8	CUSTOM SOLID PRESTRESSED SLAB	0.780m	3.520m	125mm	0.81t	2
R9	CUSTOM SOLID PRESTRESSED SLAB	1.305m	1.385m	125mm	0.26t	1
R10	CUSTOM SLAB WITH OPENING	2.400m	3.520m	150mm	2.91t	2
R11	CUSTOM SLAB WITH OPENING	2.400m	3.520m	150mm	2.80t	1
R12	CUSTOM SLAB WITH OPENING	2.400m	3.520m	150mm	2.80t	1

NOTE: STANDARD PRESTRESSED SLAB TO BE REINFORCED USING 12No. 9.3mm Ø + 11No 12.5mm Ø Y1860S7 STRANDS PER 2.4m WIDE PLANK

KEY TO ROOF OPENING TYPES		
	QUANTITY	DESCRIPTION
03	2	1220mm x 675mm ROOF OPENING
04	2	900mm x 600mm ROOF OPENING

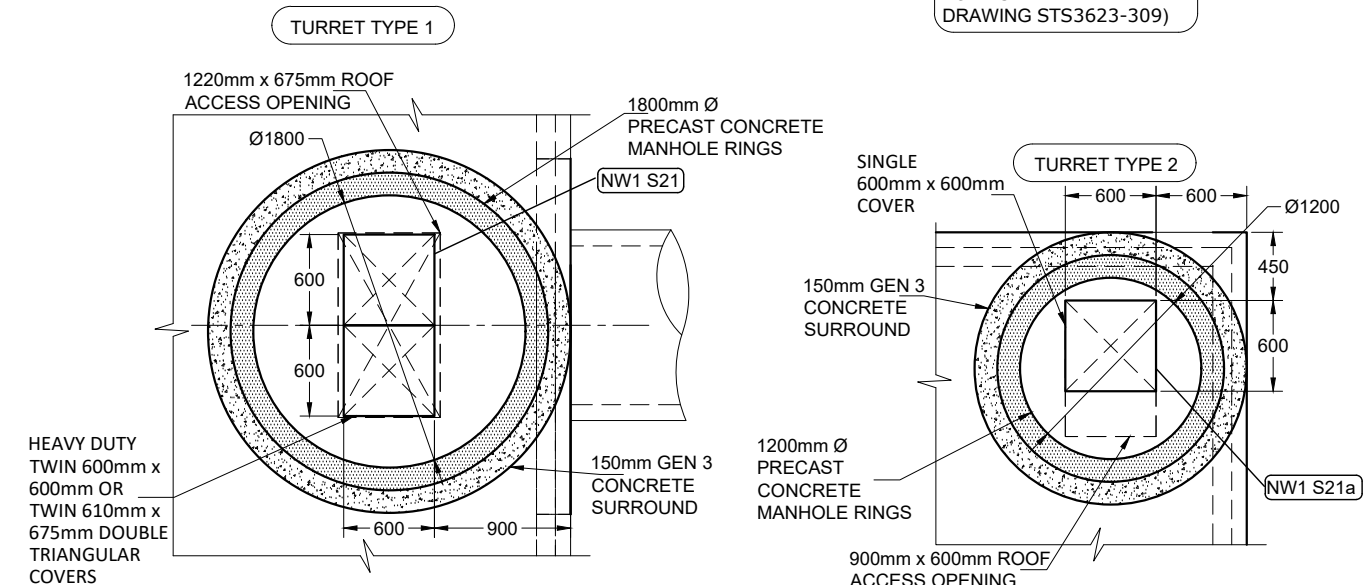
DESIGN ASSUMPTIONS	
DESIGN LIFE:	120 YEARS
DESIGN EXPOSURE CLASSIFICATION:	XD2 / XC2
DESIGN CHEMICAL CLASS:	DC-2z
TIGHTNESS CLASS:	CLASS 1
IMPOSED LOAD ON COVER SLAB:	MORE ONEROUS OF 10 kn/m ² UDL OR 40t HGV AXLE LOADING
IMPOSED SURCHARGE LOAD ON WALLS:	TRAFFIC SURCHARGE TO BS EN 1991-2
MAXIMUM COVER LEVEL:	+235.760m (2.389m OVERBURDEN)
MINIMUM COVER LEVEL:	+234.100m (0.761m OVERBURDEN)
ASSUMED INTERNAL WATER LEVEL:	TOP OF TANK LEVEL
ASSUMED GROUND WATER LEVEL (FLOATATION):	+232.750m
ASSUMED GROUND WATER LEVEL (ULS):	SURFACE LEVEL
ASSUMED GROUND WATER LEVEL (SLS):	TOP OF TANK LEVEL
ASSUMED ALLOWABLE BEARING PRESSURE	>300 kn/m ² (BEARING ON SANDSTONE BEDROCK)

KEY TO PRECAST WALL TYPES					
TYPE	DESCRIPTION	QUANTITY	HEIGHT	WIDTH	WEIGHT
E1	STANDARD EXTERNAL WALL	27	3.55m	1.75m	4.69t
E2	STANDARD EXTERNAL WALL WITH OPENING	1	3.55m	1.75m	3.82t
E3	STANDARD EXTERNAL WALL WITH OPENING	1	3.55m	2.10m	3.80t
E4	CUSTOM EXTERNAL WALL	3	3.55m	1.075m	2.88t
E5	CUSTOM EXTERNAL WALL WITH OPENING	1	3.55m	1.775m	3.76t
E6	CUSTOM EXTERNAL WALL	1	3.55m	2.20m	5.90t
E7	CUSTOM EXTERNAL WALL	1	3.55m	1.675m	4.49t
E8	CUSTOM EXTERNAL WALL	1	3.55m	1.675m	4.49t
E9	CUSTOM EXTERNAL WALL	1	3.55m	1.795m	4.81t
E10	CUSTOM EXTERNAL WALL	1	3.55m	1.405m	3.77t
E11	CUSTOM EXTERNAL WALL	1	3.55m	2.425m	6.50t
IN1	STANDARD INTERNAL WALL	25	2.99m	2.90m	2.13t
IN2	MODIFIED STANDARD INTERNAL WALL	4	2.99m	1.80m	1.86t
D1	STANDARD PRECAST DRY FLOW CHANNEL (2.50m LONG)	14	0.100m	0.30m	0.43t
D2	STANDARD PRECAST DRY FLOW CHANNEL (1.70m LONG)	2	0.100m	0.30m	0.29t

NOTE: CHAMBER RINGS TO THE CARLOW TANK MUST NOT OVERHANG THE CARLOW TANK ROOF SLAB

NOTE: RISER SHAFTS AND COVERS (BY OTHERS)

FOR TURRET DETAILS SEE DRAWING STS3623-309)

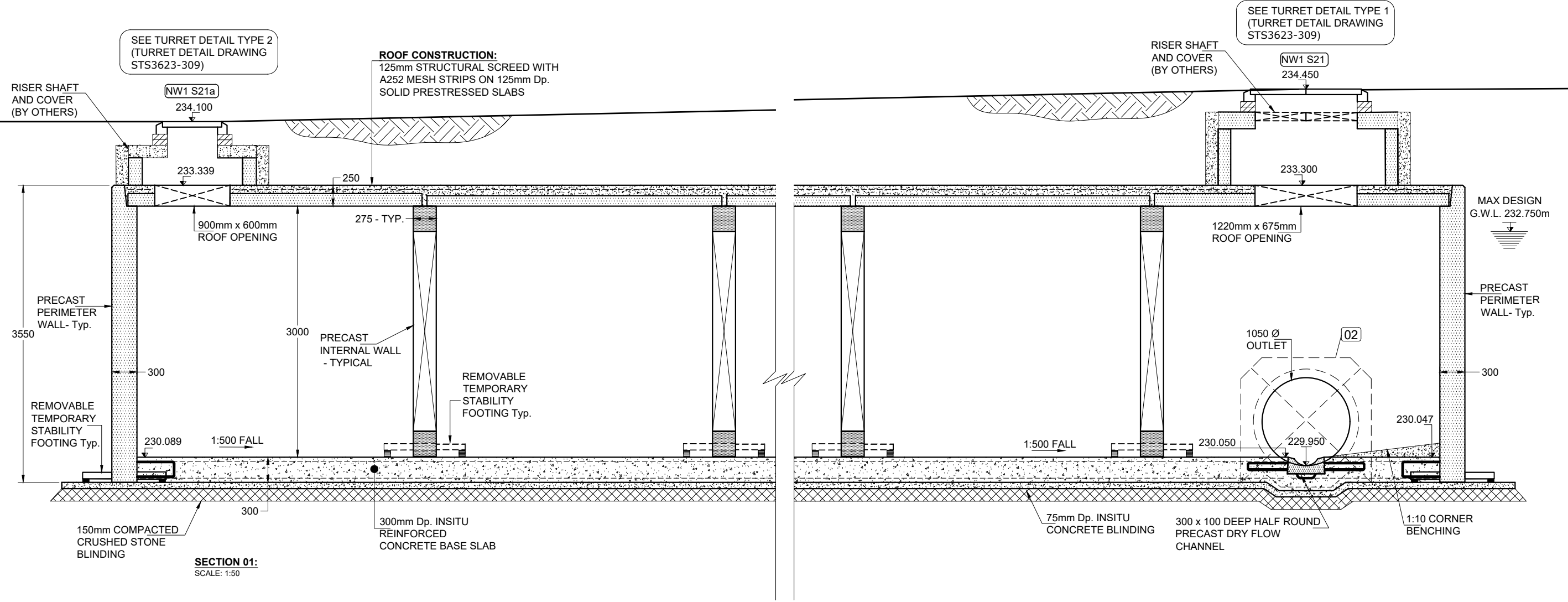


TYPICAL ROOF TURRET TYPE 1 & 2 PLAN:
Scale: 1:50

Drawn By:	TH	Rev.	Date.	Comments.
Chkd By:	PL	A	03-11-25	INLET PIPE SIZE REVISED. TANK LEVELS AND COVER LEVELS REVISED
Date:	23-09-25	B	14-11-25	ISSUED FOR CONSTRUCTION
Drg No.:	STS3623-304	C	01-12-25	INLET PIPE NOW ENTERS THE TANK PERPENDICULARLY

DRAWING TITLE: MILLER HOMES
BLACKMOORFOOT, HUDDERSFIELD - TANK 3
3.0m DEEP ATTENUATION TANK
SECTIONS SHEET 1

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION], THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED



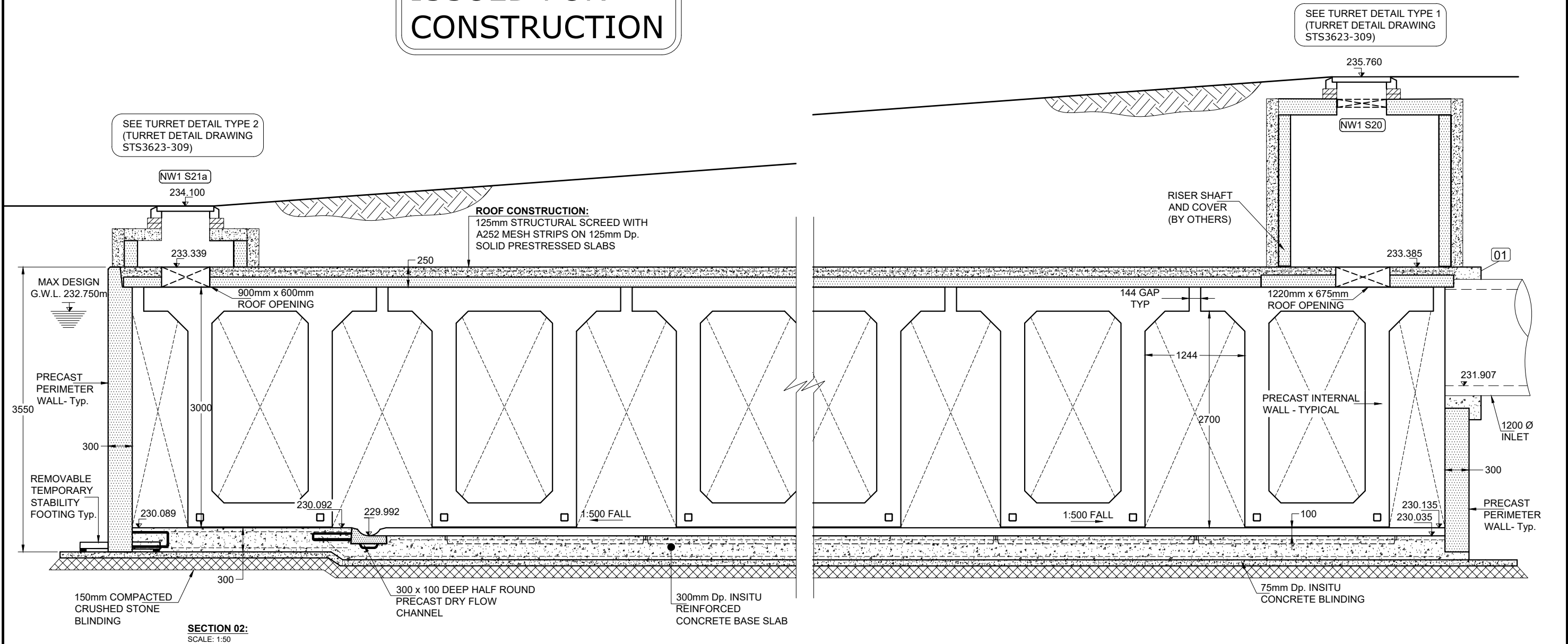
ISSUED FOR CONSTRUCTION

Drawn By:	TH	Rev.	Date.	Comments.
Chkd By:	PL	A	03-11-25	INLET PIPE SIZE REVISED. TANK LEVELS AND COVER LEVELS REVISED
Date:	23-09-25	B	14-11-25	ISSUED FOR CONSTRUCTION
Drg No.:	STS3623-305	C	01-12-25	INLET PIPE NOW ENTERS THE TANK PERPENDICULARLY

DRAWING TITLE: MILLER HOMES
BLACKMOORFOOT, HUDDERSFIELD - TANK 3
3.0m DEEP ATTENUATION TANK
SECTIONS SHEET 2

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION]. THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED

ISSUED FOR CONSTRUCTION

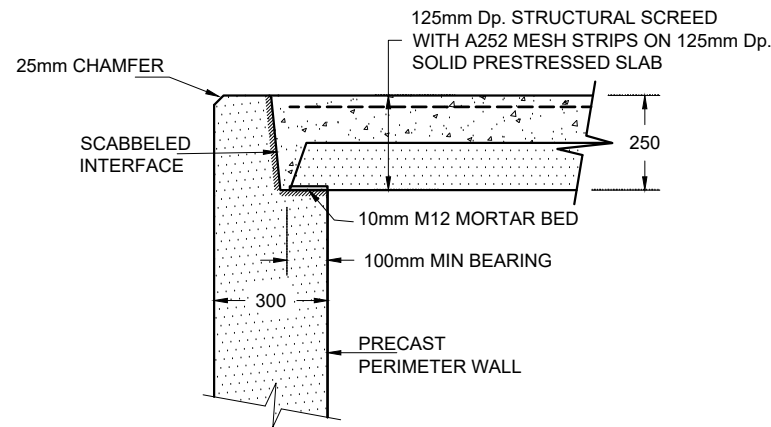


SECTION 02:
SCALE: 1:50

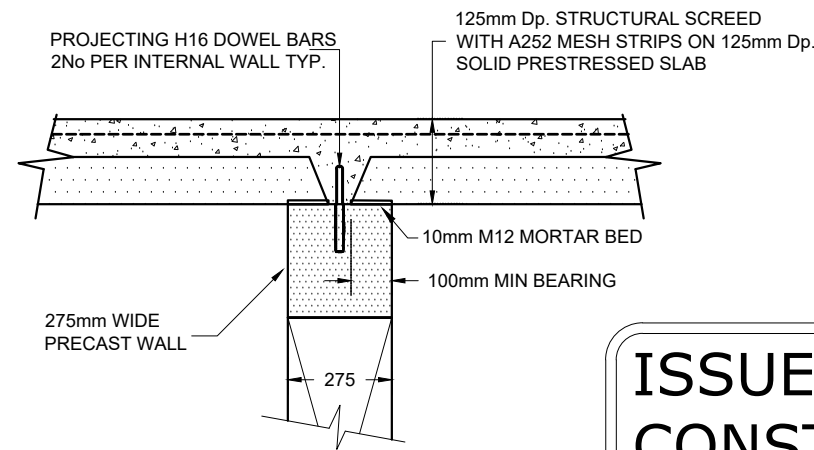
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Chkd By:	PL	A	03-11-25	INLET PIPE SIZE REVISED. TANK LEVELS AND COVER LEVELS REVISED
Date:	23-09-25	B	14-11-25	ISSUED FOR CONSTRUCTION
Drg No.:	STS3623-306	C	01-12-25	INLET PIPE NOW ENTERS THE TANK PERPENDICULARLY

DRAWING TITLE: MILLER HOMES
BLACKMOORFOOT, HUDDERSFIELD - TANK 3
3.0m DEEP ATTENUATION TANK
DETAILS SECTIONS

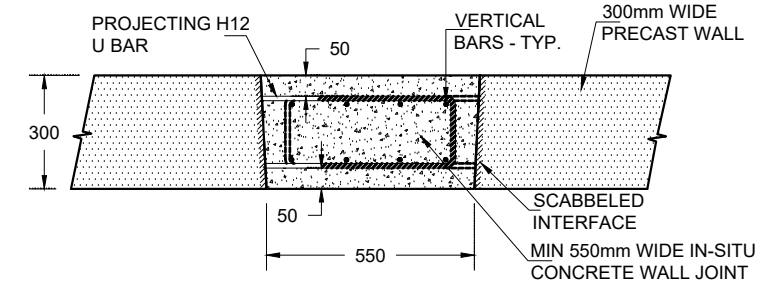
ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION]. THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED



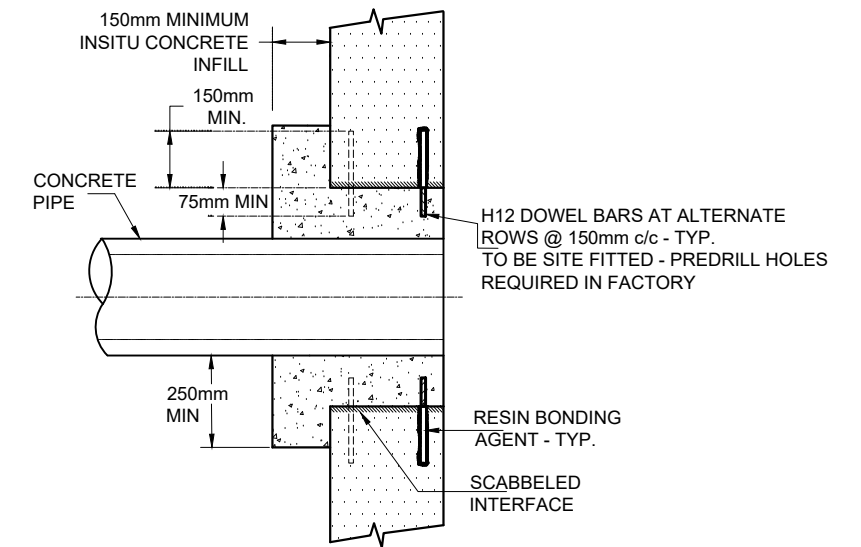
PERIMETER WALL - TOP OF WALL DETAIL:
SCALE: 1:20



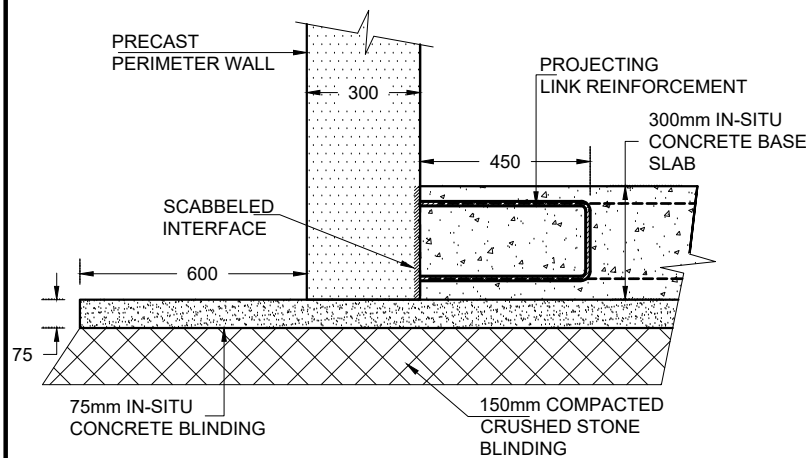
INTERNAL WALL - TOP OF WALL DETAIL:
SCALE: 1:20



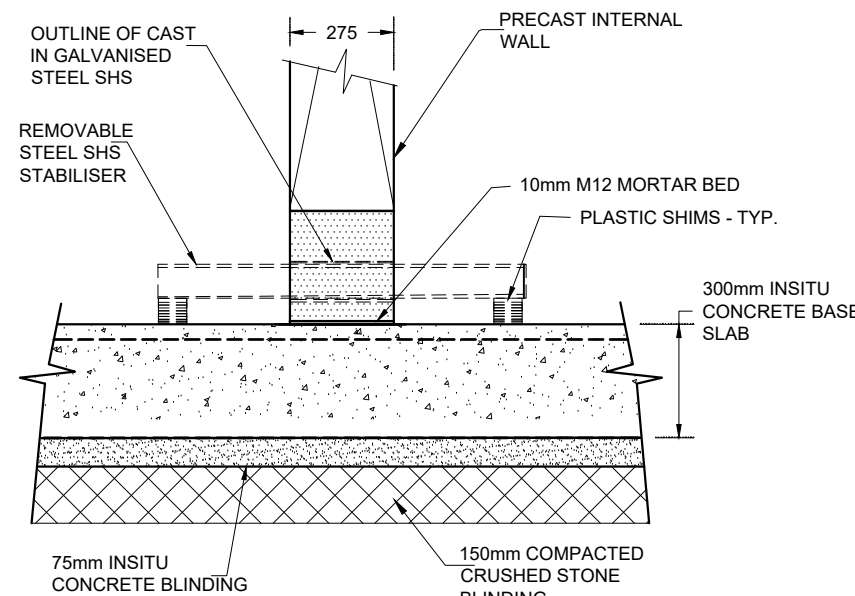
PLAN VIEW - TYPICAL WALL JOINT DETAIL:
SCALE: 1:20



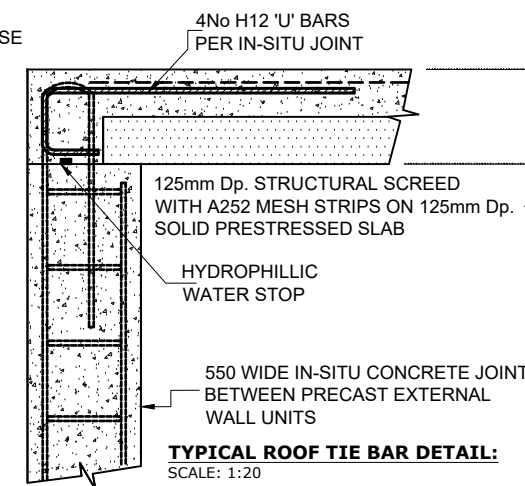
PIPE CONNECTION SECTION
SCALE: 1:20



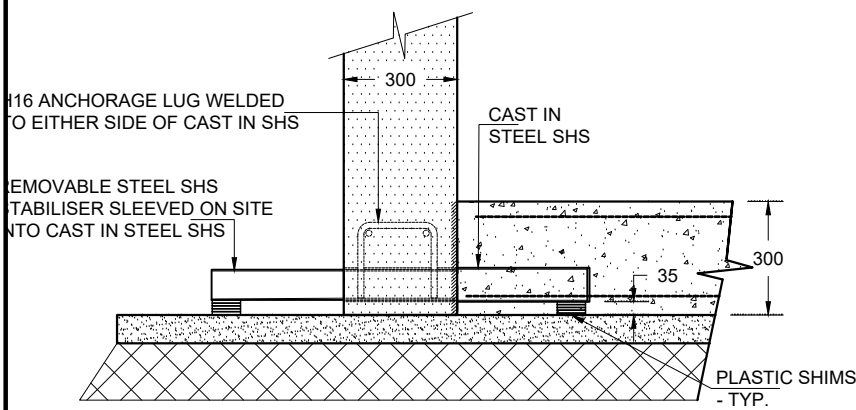
PERIMETER WALL DETAIL:
SCALE: 1:20



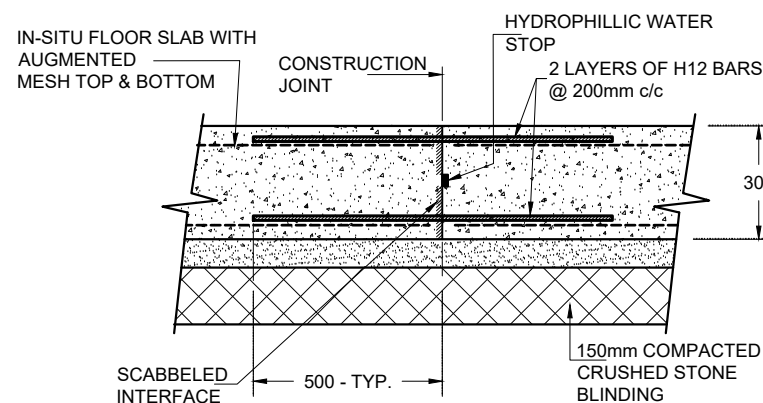
INTERNAL WALL DETAIL:
SCALE: 1:20



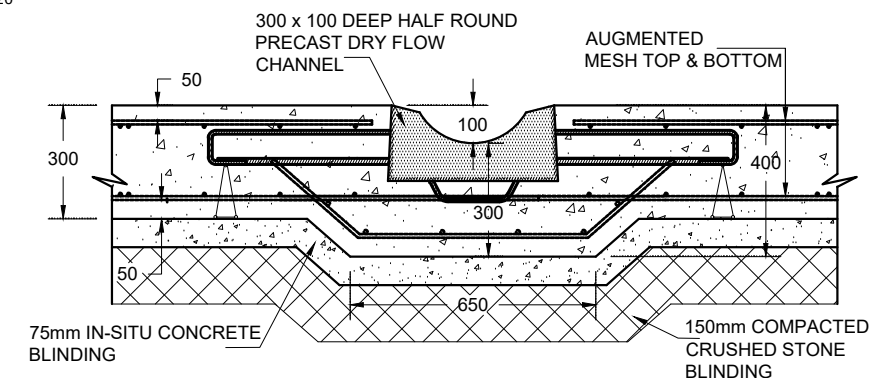
TYPICAL ROOF TIE BAR DETAIL:
SCALE: 1:20



PERIMETER WALL - TEMPORARY STABILITY FOOTING DETAIL:
SCALE: 1:20



CONSTRUCTION JOINT DETAIL:
(AS REQUIRED)
SCALE: 1:20



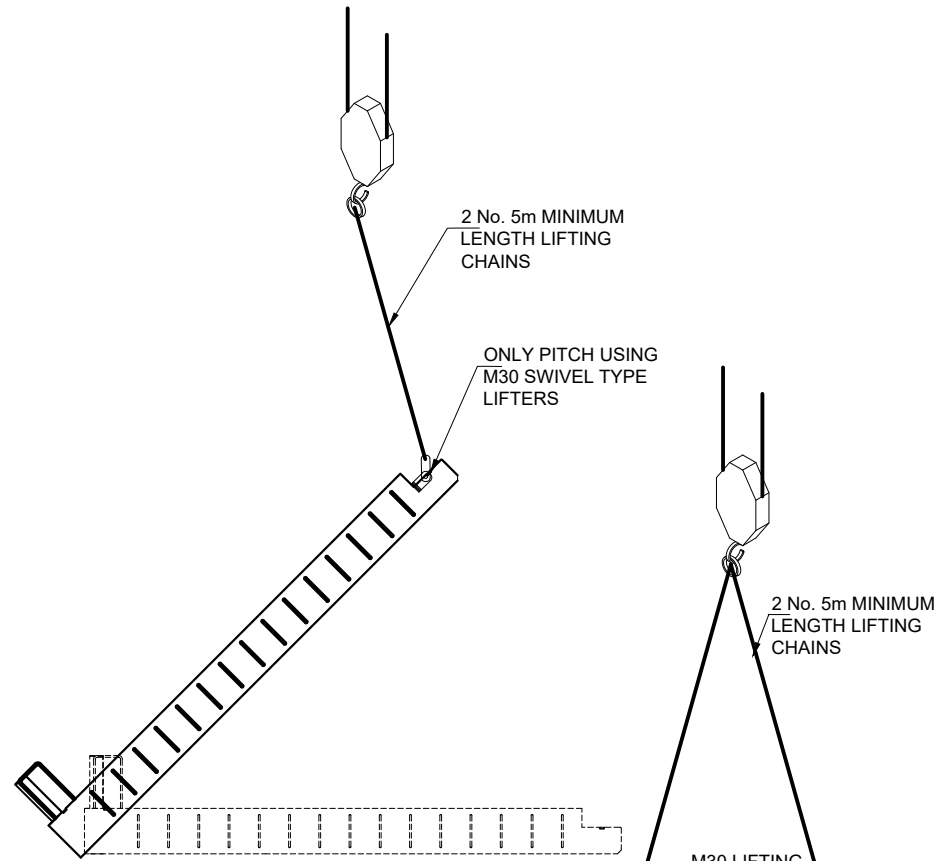
DRY FLOW CHANNEL DETAIL:
SCALE: 1:20

ISSUED FOR CONSTRUCTION

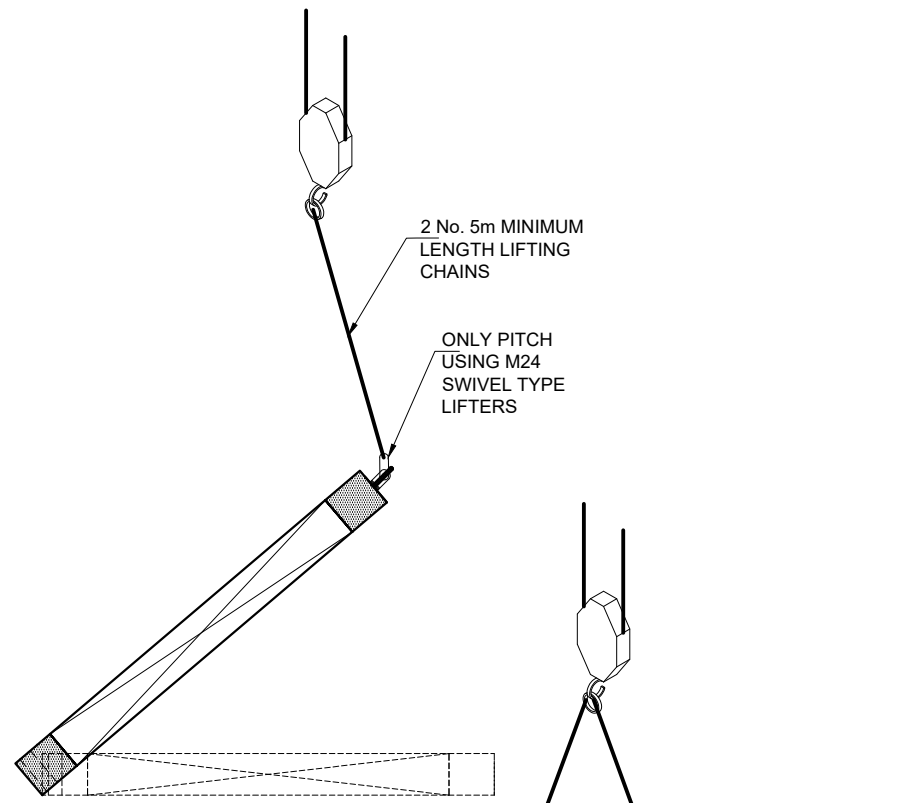
Drawn By:	TH	Rev.	Date.	Comments.
Chkd By:	PL	A	03-11-25	INLET PIPE SIZE REVISED. TANK LEVELS AND COVER LEVELS REVISED
Date:	23-09-25	B	14-11-25	ISSUED FOR CONSTRUCTION
Drg No.:	STS3623-307	C	01-12-25	INLET PIPE NOW ENTERS THE TANK PERPENDICULARLY

DRAWING TITLE: MILLER HOMES
BLACKMOORFOOT, HUDDERSFIELD - TANK 3
3.0m DEEP ATTENUATION TANK
LIFTING DETAILS

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION], THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED

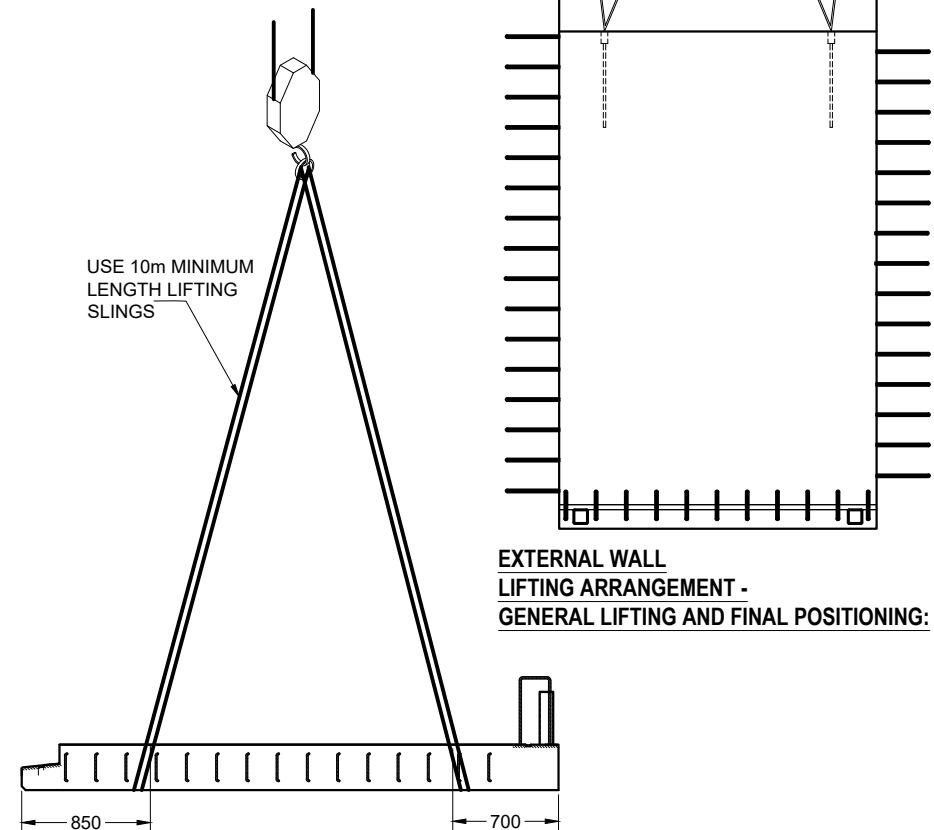


EXTERNAL WALL LIFTING ARRANGEMENT - PITCHING UNIT:

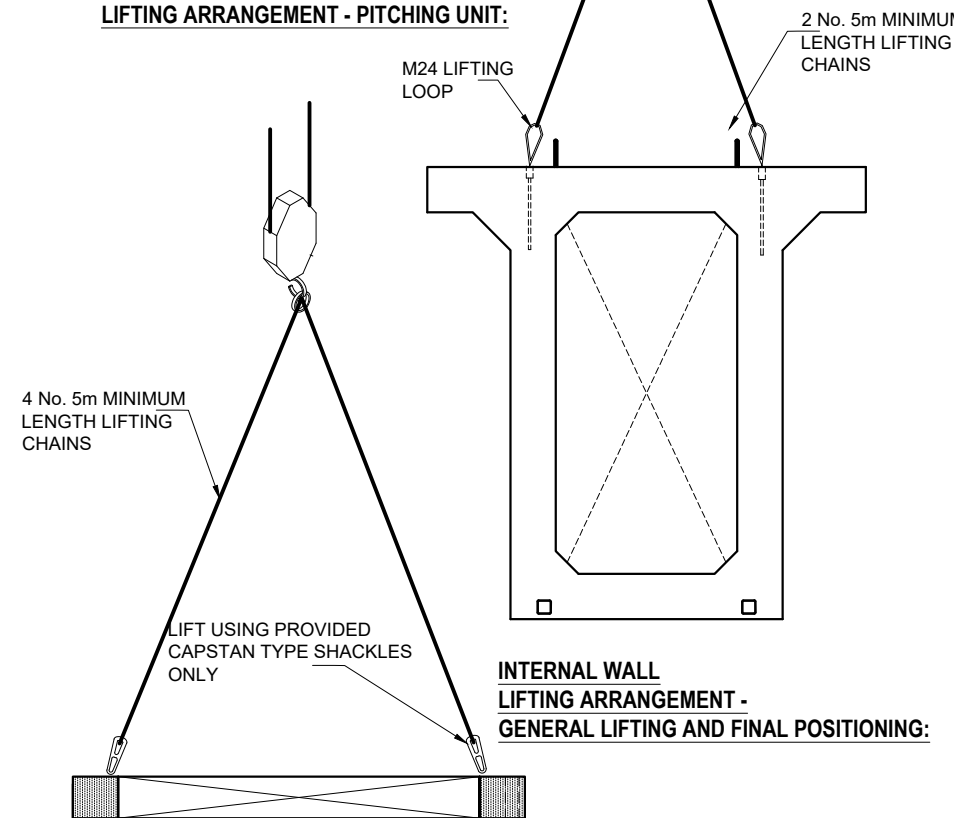


INTERNAL WALL LIFTING ARRANGEMENT - PITCHING UNIT:

ISSUED FOR CONSTRUCTION

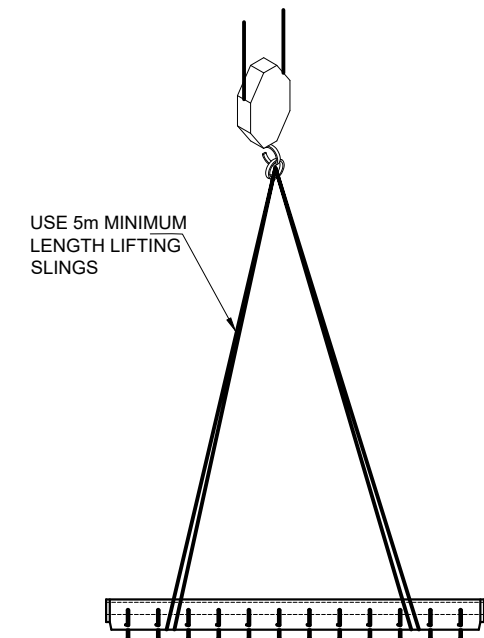


EXTERNAL WALL LIFTING ARRANGEMENT - HORIZONTAL LIFTING:



INTERNAL WALL LIFTING ARRANGEMENT - GENERAL LIFTING AND FINAL POSITIONING:

INTERNAL WALL LIFTING ARRANGEMENT - HORIZONTAL LIFTING:

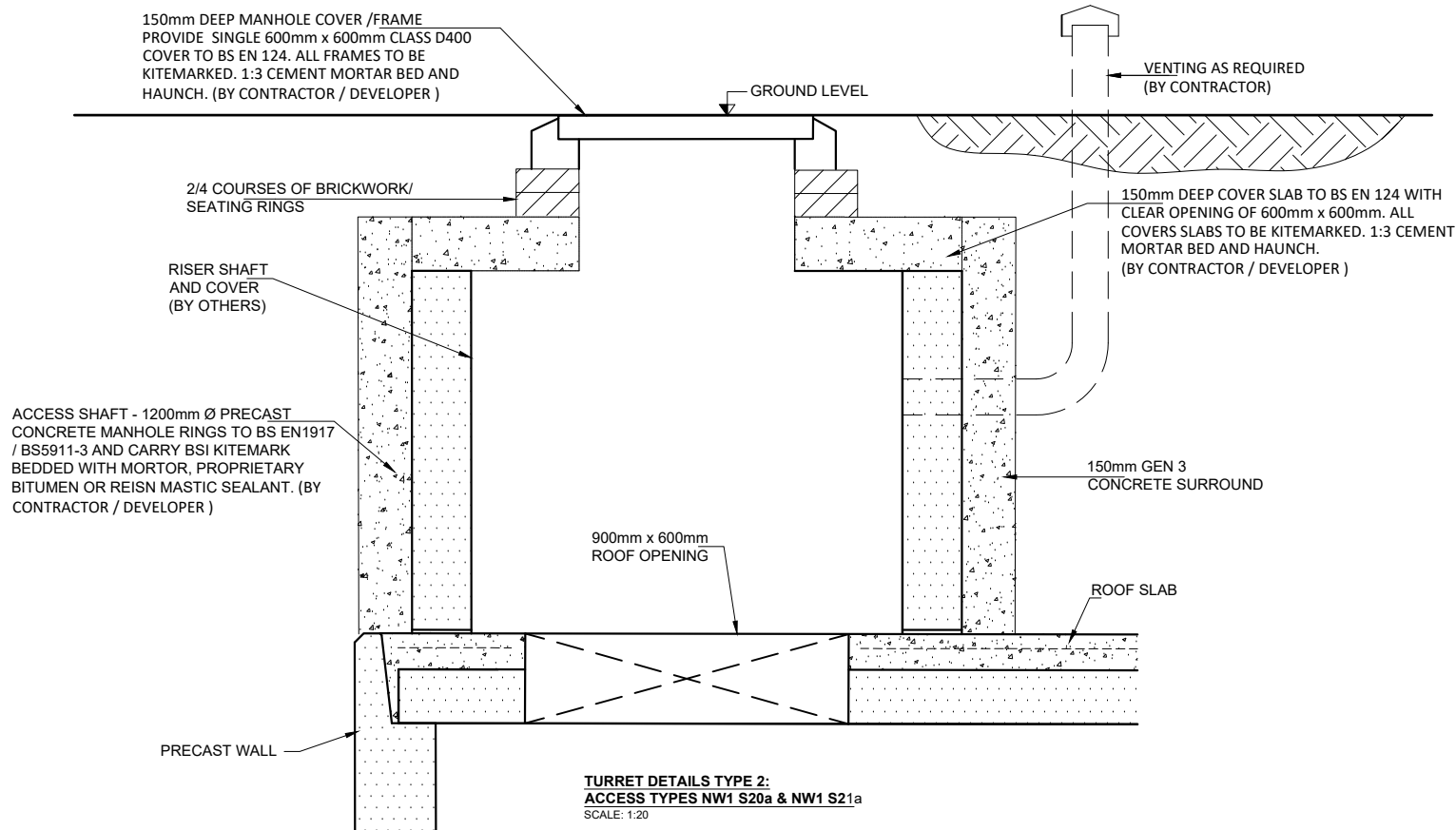
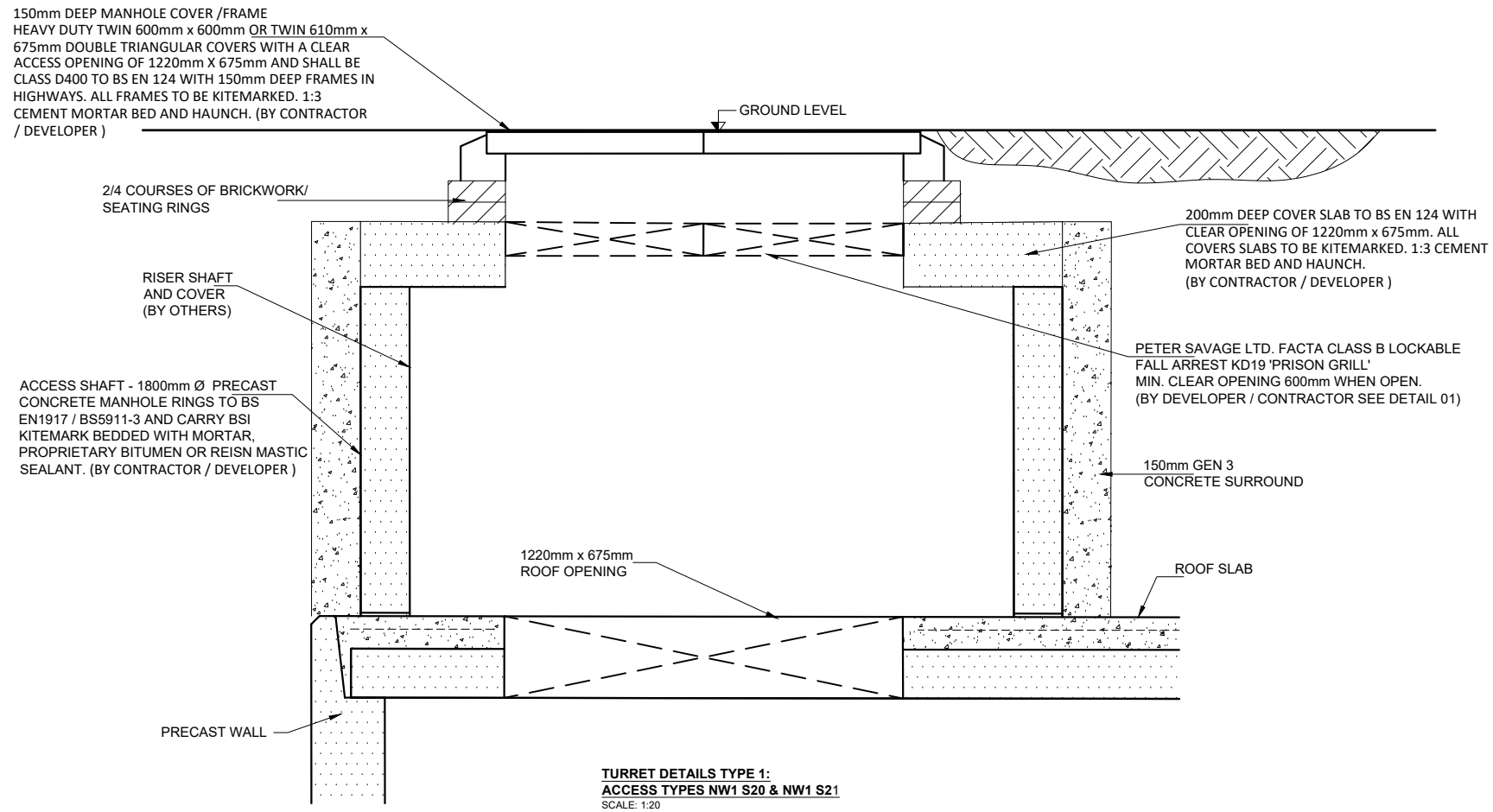


PRECAST DRY FLOW CHANNEL LIFTING ARRANGEMENT - GENERAL LIFTING AND FINAL POSITIONING:

Drawn By:	TH	Rev.	Date.	Comments.
Chkd By:	PL	A	03-11-25	INLET PIPE SIZE REVISED. TANK LEVELS AND COVER LEVELS REVISED
Date:	23-09-25	B	14-11-25	ISSUED FOR CONSTRUCTION
Drg No.:	STS3623-309	C	01-12-25	INLET PIPE NOW ENTERS THE TANK PERPENDICULARLY

DRAWING TITLE: MILLER HOMES
BLACKMOORFOOT, HUDDERSFIELD - TANK 3
3.0m DEEP ATTENUATION TANK
TURRET DETAILS

ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION]. THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED



ISSUED FOR CONSTRUCTION

