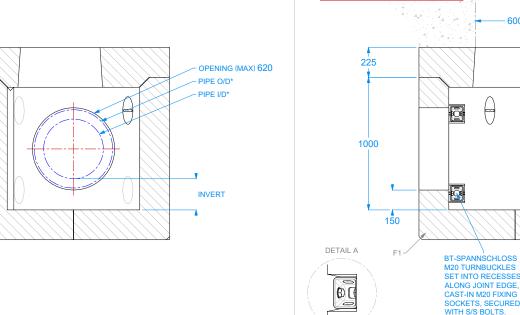


INVERT

VIEW: SECTION F-F



M20 TURNBUCKLE

GENERAL DRAWING NOTES

- C. DO NOT SCALE DRAWING.



SPECIFICATION INFORMATION

## Openings sized to suit outer dimension of pipe. Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1

- concrete base to ensure units are level and stable.
- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

- MATERIAL Self-compacting Reinforced Cement Concrete DC4/DS4.
- B. Lifting strength based on 2 cubes = 20N/mm².
   C. Characteristic 28 day cube strength = 50N/mm².
- D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT
  A. Reinforcement Wire structure to BS EN 13369.
  B. Scheduling, dimensions, bends & cutting to BS8666.

## C. Reinforcing Wire structure to be machine tied with steel wire

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1.

	-			
	Top	Sides	Rear	Rear of Backwall
s	A	A	A	Self-Levelled

- Class Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number
- Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- C. Units are designed to withstand a vertical live load surcharge of 10kN/M².

  D. Weight of soil = 18kN/M².
- Angle of internal friction = 30 Deg.
- Design Life as table below \* (all cover sizes in mm).

Design Life	>50 yrs, 100mm Thickness			>100	yrs,	150mm+	Thickness		
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block Size Cover		Min Size Cover	Max Size Cover		
All Faces	33	28	38	55		50	63		
Design life of >100 yrs can be extended to >120 yrs with Bitumen coating application.									
Exposure	Exposure	induced	Corrosion in	duced	Fre	eze/thaw	Chemical		

	Exposure Class	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
Γ	All Faces	XC3/4	XD3	XF4	XA3

- FABRICATION SPECIFICATION

  A. Manufacture IAW EN 1090-2 EXC CLASS 1.

  B. Material grade is to be: BS EN 10025 S275.
- Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.
  Holes by punching are permitted with reaming.
  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set below the site surface level as indicated on drawing view.



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## DRAWING TITLE:

150

−B1

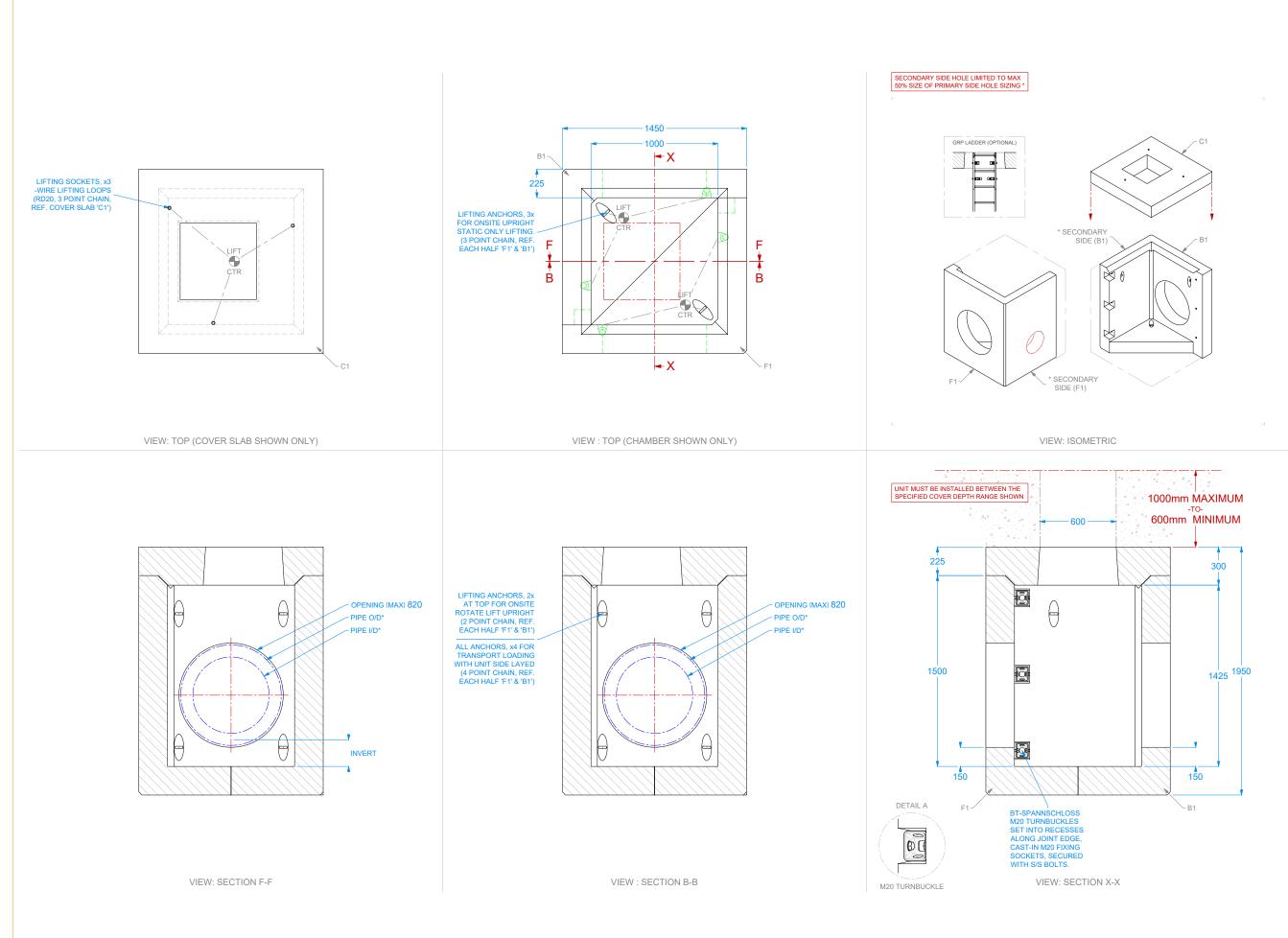
VIEW: SECTION X-X

V CHAMBER 225mm WALL THICKNESS. 1000x1000x1000mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #:	ECO1	/	DS4
CONCRETE CO2 EMISSION (ESTIMATE) kg:	-		

WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

				0		0
CHAI	MBER, M	ULTIPLE-PIE	CE:			0
F1:	1865	0		0		0
B1:	1865	0		0		0
C1:	1340	0		0		0
	0	0		0		0
	0	0		0		0
TOE	BEAM:	0		0	TOTAL V	VEIGHT: 5070
DRA	WN: PN	ISSUE #:	01	SHEET	#: 1	DATE: 12/2/24



- C. DO NOT SCALE DRAWING.

## SPECIFICATION INFORMATION

Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

## PRECAST UNIT INSTALLATION Units should be bedded on minimum 100mm thick layer GEN1

concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

## MATERIAL

- Self-compacting Reinforced Cement Concrete DC4/DS4.
- Lifting strength based on 2 cubes = 20N/mm².

  Characteristic 28 day cube strength = 50N/mm².
- D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT
  A. Reinforcement Wire structure to BS EN 13369.
  B. Scheduling, dimensions, bends & cutting to BS8666. Reinforcing Wire structure to be machine tied with steel wire

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1.

Surface F	inishing:			
	700	 _	_	

- Top
   Sides
   Rear
   Rear of Backwall

   Class
   A
   A
   A
   Self-Levelled
- D. Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- C. Units are designed to withstand a vertical live load surcharge of 10kN/M².

  D. Weight of soil = 18kN/M².
- Angle of internal friction = 30 Deg.
- Design Life as table below \* (all cover sizes in mm).

Design Life	>50 yrs,	>50 yrs, 100mm Thickness			>100 yrs, 150mm+ Thickness				
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover		
All Faces	33	28	38	55		50	63		
Design life of	>100 yrs car	be exten	ded to >120 y	rs with B	itum	en coating	application.		
Exposure			Corrosion in		Fre	eze/thaw	Chemical		

	Exposure Class	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
	All Faces	XC3/4	XD3	XF4	XA3

- FABRICATION SPECIFICATION

  A. Manufacture IAW EN 1090-2 EXC CLASS 1.

  B. Material grade is to be: BS EN 10025 S275.
- Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.
  Holes by punching are permitted with reaming.
  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.





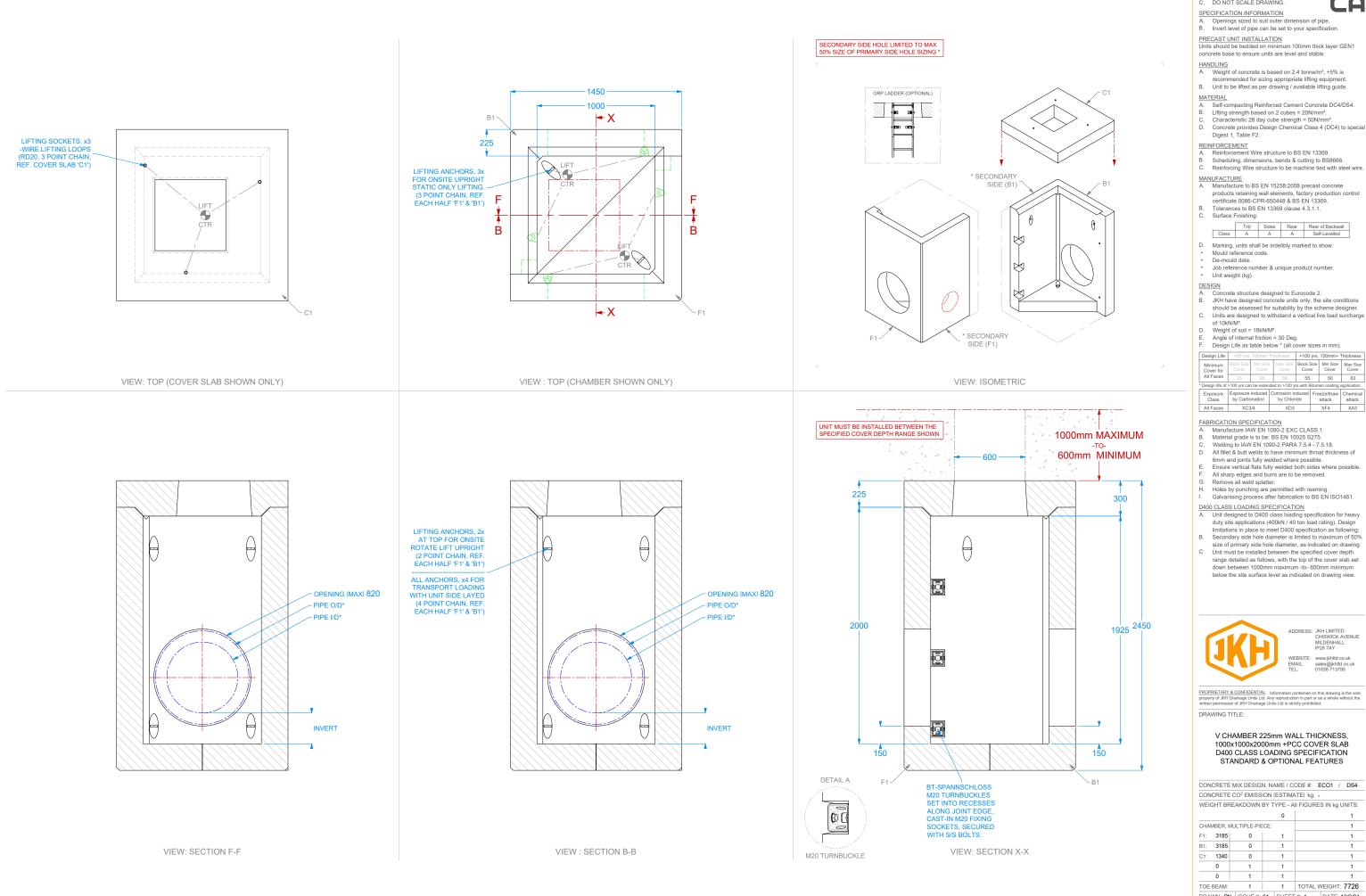
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## DRAWING TITLE:

V CHAMBER 225mm WALL THICKNESS. 1000x1000x1500mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4
CONCRETE CO <sup>2</sup> EMISSION (ESTIMATE) kg: -
WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

				0		0
CHAI	MBER, M	JLTIPLE-PIE	CE:			0
F1:	2530	0		0		0
B1:	2530	0		0		0
C1:	1340	0		0		0
	0	0		0		0
	0	0		0		0
TOE	BEAM:	0		0	TOTAL V	VEIGHT: 6400
DRA'	WN: PN	ISSUE #:	01	SHEET	#: 1	DATE: 12/2/24



- C. DO NOT SCALE DRAWING.



concrete base to ensure units are level and stable.

- Self-compacting Reinforced Cement Concrete DC4/DS4.
- Concrete provides Design Chemical Class 4 (DC4) to special
- Reinforcing Wire structure to be machine tied with steel wire

	-			
	Top	Sides	Rear	Rear of Backwall
Class	A	A	A	Self-Levelled

- Job reference number & unique product number

- Design Life as table below \* (all cover sizes in mm). mess >100 yrs 150mm+ Thickness

Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover
All Faces	33	28	38	55	П	50	63
Design life of	>100 yrs car	be extende	ed to >120 y	rs with B	itume	n coating a	application.
Evnosuro	Evaneura	induced (	orrogion in	hasub	Eroo	To/thou	Chamical

Exposure Class	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
All Faces	XC3/4	XD3	XF4	XA3

- All sharp edges and burrs are to be removed.

## D400 CLASS LOADING SPECIFICATION

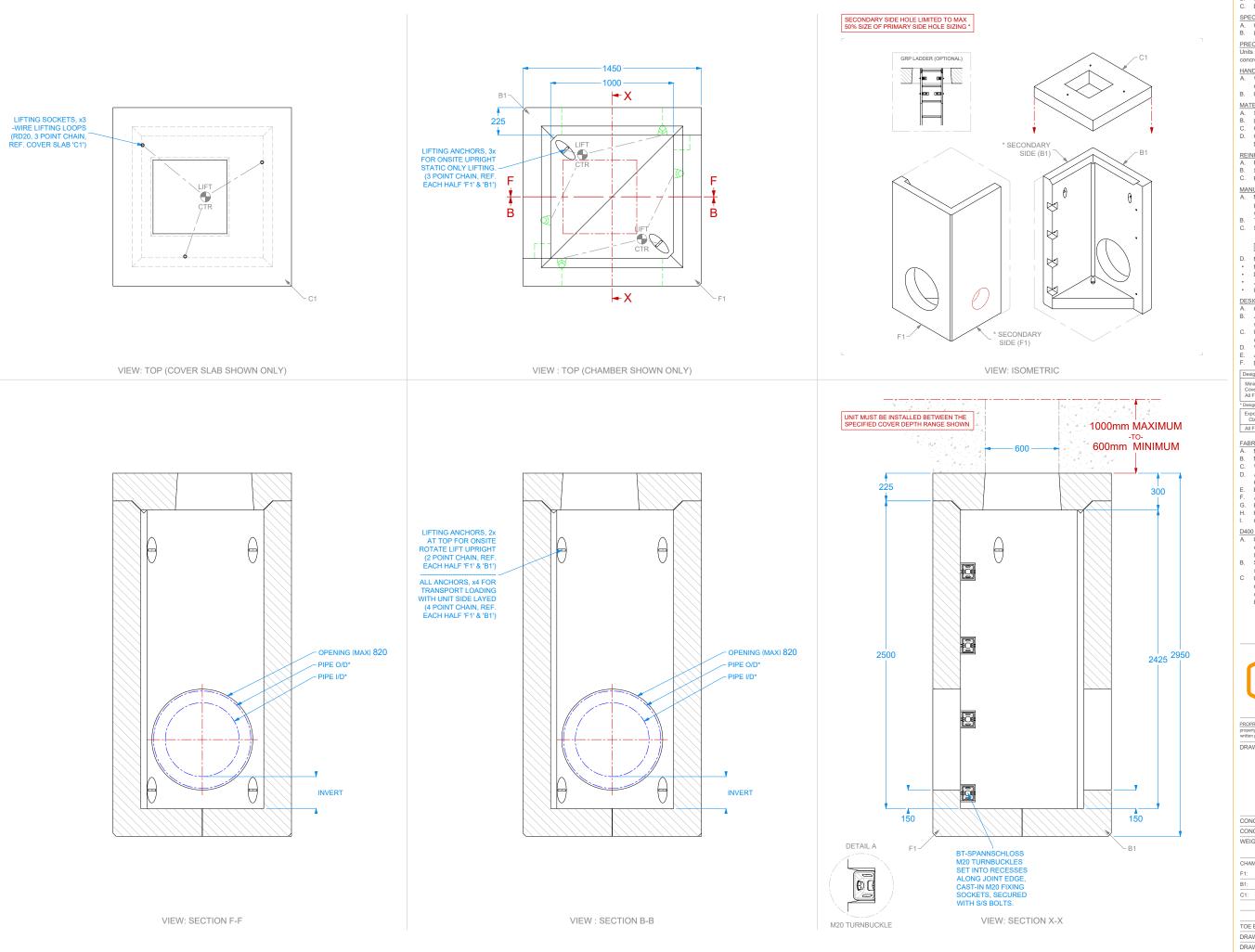


1000x1000x2000mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -

WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

1 TOTAL WEIGHT: 7726 DRAWN: PN | ISSUE #: 01 | SHEET #: 1 | DATE: 12/2/24



- C. DO NOT SCALE DRAWING.

## SPECIFICATION INFORMATION

Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

## PRECAST UNIT INSTALLATION Units should be bedded on minimum 100mm thick layer GEN1

concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

- Self-compacting Reinforced Cement Concrete DC4/DS4.
- MATERIAL
  A. Self-compacting Reinforced Cement Concrete D
  B. Lifting strength based on 2 cubes = 20N/mm².
  C. Characteristic 28 day cube strength = 50N/mm².
- Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT
  A. Reinforcement Wire structure to BS EN 13369.
  B. Scheduling, dimensions, bends & cutting to BS8666.
- Reinforcing Wire structure to be machine tied with steel wire

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1. Surface Finishing:

	mioring.			
	Top	Sides	Rear	Rear of Backwall
000	Δ.	Λ	Λ	Colf Lovellad

- Class A A A Self-Levelled Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- C. Units are designed to withstand a vertical live load surcharge of 10kM/M².

  D. Weight of soil = 18kN/M².

  E. Angle of internal friction = 30 Deg.

- Design Life as table below \* (all cover sizes in mm).

Design Life	>50 yrs, 100mm Thickness			>100 yrs, 150mm+ Thickness			Inickness
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover
All Faces	33	28	38	55		50	63
Design life of	>100 yrs car	be extend	led to >120 y	rs with B	itum	en coating	application.
Exposure	Exposure	induced	Corrosion in	duced	Fre	eze/thaw	Chemical

	Exposure Class	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
	All Faces	XC3/4	XD3	XF4	XA3

- FABRICATION SPECIFICATION
  A. Manufacture IAW EN 1090-2 EXC CLASS 1.
  B. Material grade is to be: BS EN 10025 S275.
  C. Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- UNIT designed to A400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum below the site surface level as indicated on drawing view.



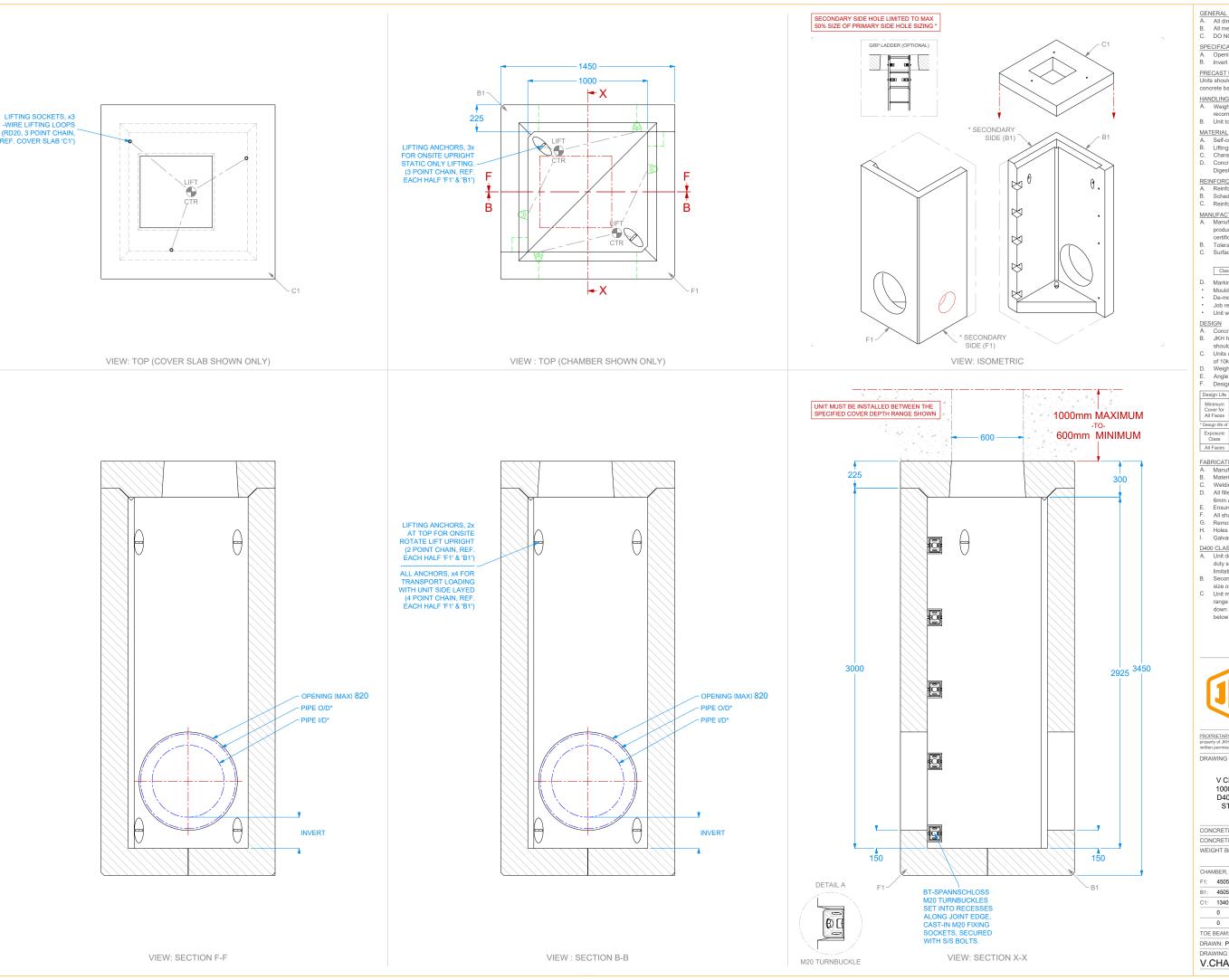
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## DRAWING TITLE:

V CHAMBER 225mm WALL THICKNESS. 1000x1000x2500mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECOT / DS4
CONCRETE CO <sup>2</sup> EMISSION (ESTIMATE) kg: -
WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

			U			
СНА	MBER, MI	JLTIPLE-PIE	CE:			1
F1:	3845	0	1			1
B1:	3845	0	1			1
C1:	1340	0	1			1
	0	1	1			1
	0	1	1			1
TOE	BEAM:	1	1		TOTAL V	VEIGHT: 9046
DRΔ	WN: PN	ISSUE #-	n1 SH	FFT	#- 1	DATE: 12/2/24



- DO NOT SCALE DRAWING.



SPECIFICATION INFORMATION

Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1 concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

- Self-compacting Reinforced Cement Concrete DC4/DS4.
- Lifting strength based on 2 cubes = 20N/mm².

  Characteristic 28 day cube strength = 50N/mm².
- Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT
  A. Reinforcement Wire structure to BS EN 13369.
  B. Scheduling, dimensions, bends & cutting to BS8666.
- Reinforcing Wire structure to be machine tied with steel wire

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1. Surface Finishing:

ace i	ii iisi iii iy.			
	Top	Sides	Rear	Rear of Backwa

- Class A A A Self-Levelled Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- C. Units are designed to withstand a vertical live load surcharge of 10kN/M².

  D. Weight of soil = 18kN/M².
- Angle of internal friction = 30 Deg.
- Design Life as table below \* (all cover sizes in mm).

Design Life	>50 yrs,	>50 yrs, 100mm Thickness			>100 yrs, 150mm+ Thickness		
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover
All Faces	33	28	38	55		50	63
Design life of	>100 yrs car	n be exten	ded to >120 y	rs with E	Bitum	en coating	application.
Exposure	Exposure		Corrosion in			eze/thaw	Chemica

	Class	by Carbonation	by Chloride	attack	attack	
	All Faces	XC3/4	XD3	XF4	XA3	

- FABRICATION SPECIFICATION
  A. Manufacture IAW EN 1090-2 EXC CLASS 1.
  B. Material grade is to be: BS EN 10025 S275.
  C. Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.

- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum below the site surface level as indicated on drawing view.



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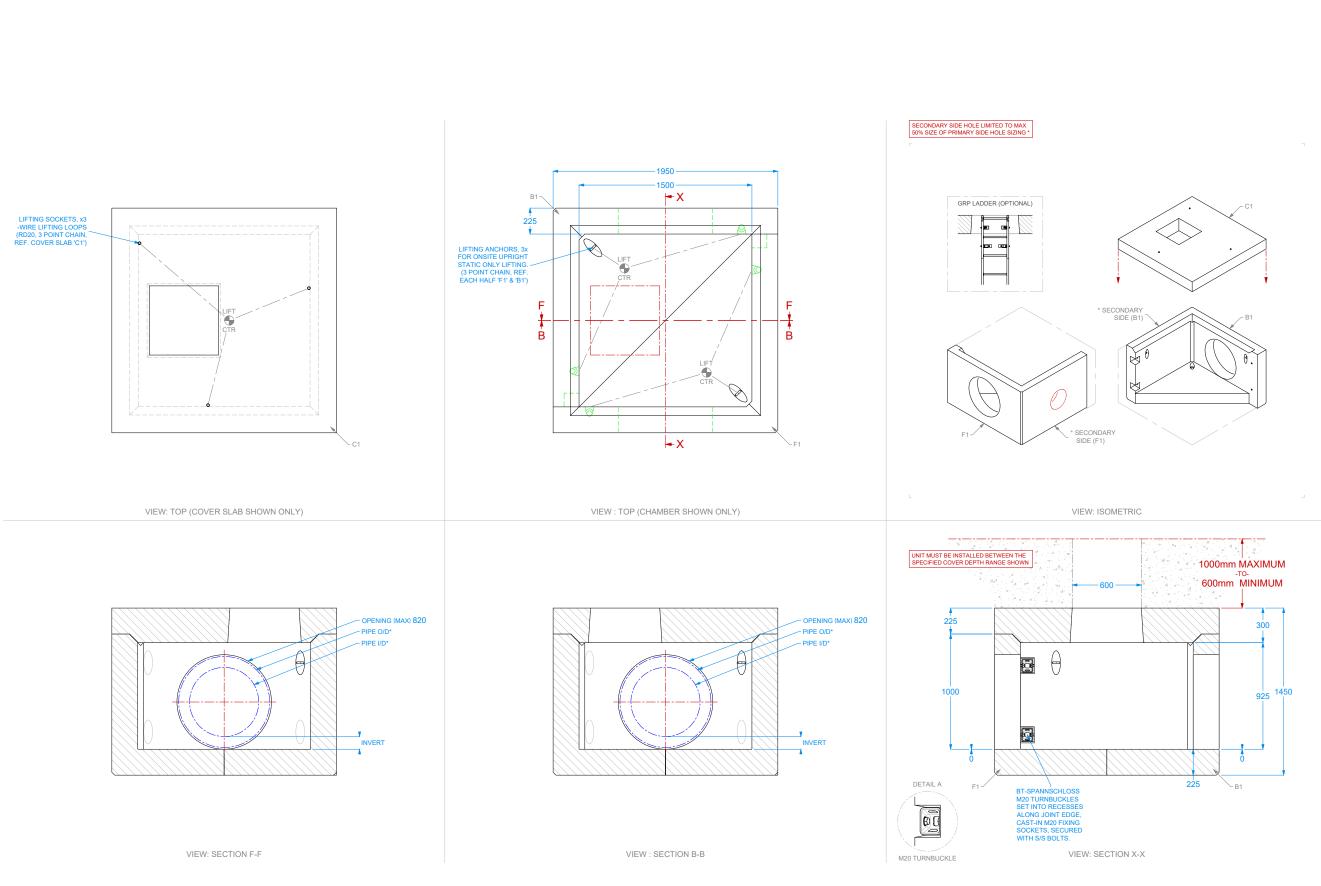
## DRAWING TITLE:

V CHAMBER 225mm WALL THICKNESS. 1000x1000x3000mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

CHAMBER, MULTIPLE-PIECE: F1: 4505 0 0 B1: 4505 C1: 1340 0

TOF BEAM: 1 TOTAL WEIGHT: 10366 DRAWN: PN | ISSUE #: 01 | SHEET #: 1 | DATE: 12/2/24



- C. DO NOT SCALE DRAWING.



SPECIFICATION INFORMATION

## Openings sized to suit outer dimension of pipe. Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1 concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

- MATERIAL
- Self-compacting Reinforced Cement Concrete DC4/DS4.
   Liftling strength based on 2 cubes = 20N/mm².
   Characteristic 28 day cube strength = 50N/mm².
   Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT

  A. Reinforcement Wire structure to BS EN 13369.

  B. Scheduling, dimensions, bends & cutting to BS8666.
- Reinforcement wire squadure to BS EN 19999.
   Scheduling, dimensions, bends & cutting to BS8666.
   Reinforcing Wire structure to be machine tied with steel wire.

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1.

Surface F	inishing:			
	Ter.	 _	_	 _

- Top
   Sides
   Rear
   Rear of Backwall

   Class
   A
   A
   A
   Self-Levelled

- Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date. Job reference number & unique product number

## Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- C. Units are designed to withstand a vertical live load surcharge of 10kN/M².

  D. Weight of soil = 18kN/M².

  E. Angle of internal friction = 30 Deg.
- Design Life as table below \* (all cover sizes in mm).

Design Life	n Life >50 yrs, 100mm Thickness			>100 yrs, 150mm+ Thickness			
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover
All Faces	33	28	38	55		50	63
* Design life of >100 yrs can be extended to >120 yrs with Bitumen coating application.							
Exposure			Corrosion in		Fre	eze/thaw	Chemical

Class	by Carbonation	by Chloride	attack	attack
All Faces	XC3/4	XD3	XF4	XA3

- FABRICATION SPECIFICATION
  A. Manufacture IAW EN 1090-2 EXC CLASS 1.
  B. Material grade is to be: BS EN 10025 S275.
  C. Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum below the site surface level as indicated on drawing view.



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## DRAWING TITLE:

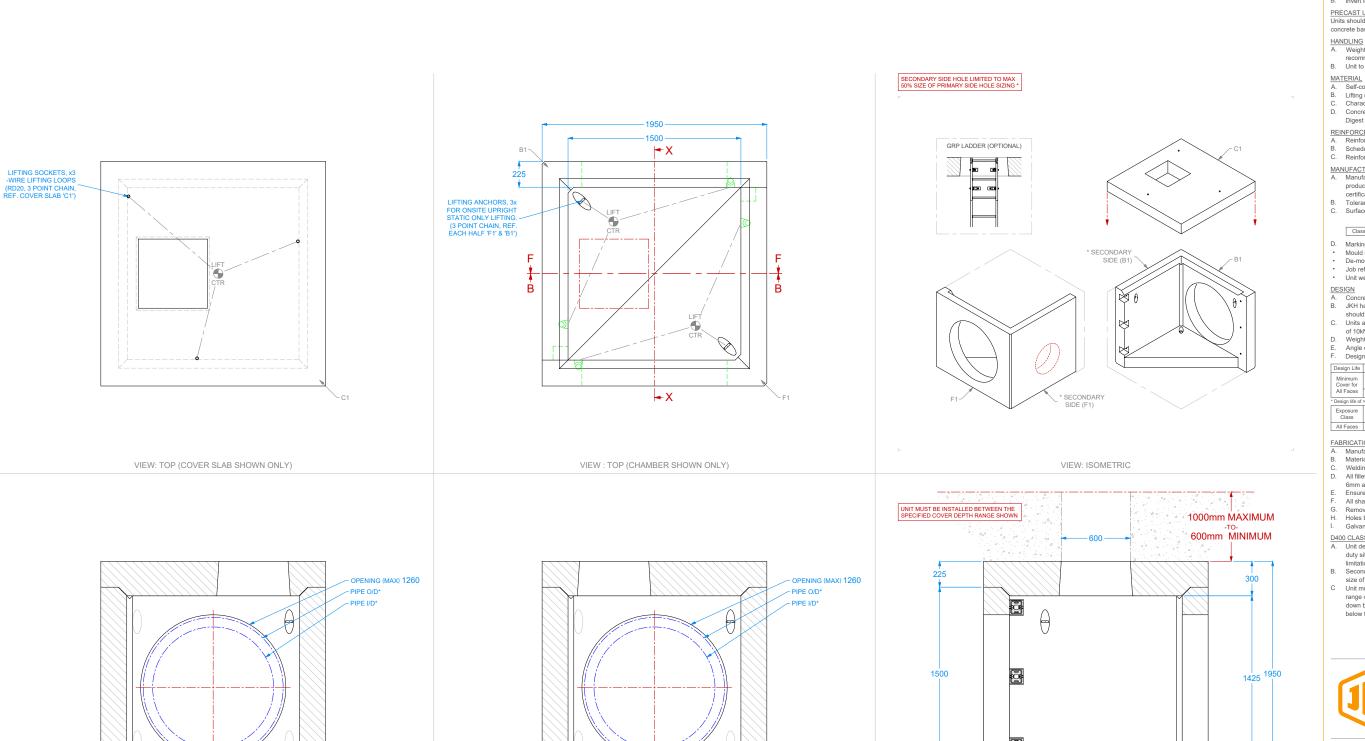
V CHAMBER 225mm WALL THICKNESS. 1500x1500x1000mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -

WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

			0	0
CHA	MBER, N	MULTIPLE-PIE	ECE:	0
F1:	2855	0	0	0
B1:	2855	0	0	0
C1:	2495	0	0	0
	0	0	0	0
	0	0	0	0
TOE	BEAM:	0	0	TOTAL WEIGHT: 8205

DRAWN: PN | ISSUE #: 01 | SHEET #: 1 | DATE: 12/2/24



VIEW: SECTION F-F

DETAIL A

BI

M20 TURNBUCKLE

VIEW: SECTION X-X

## GENERAL DRAWING NOTES

- C. DO NOT SCALE DRAWING.



## SPECIFICATION INFORMATION

Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1 concrete base to ensure units are level and stable.

- HANDLING A. Weight
- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

- Self-compacting Reinforced Cement Concrete DC4/DS4.
- B. Lifting strength based on 2 cubes = 20N/mm².
   C. Characteristic 28 day cube strength = 50N/mm².
- D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT

  A. Reinforcement Wire structure to BS EN 13369.

  B. Scheduling, dimensions, bends & cutting to BS8666. Reinforcement wire substance of State |
   Scheduling, dimensions, bends & cutting to BS8666.
   Reinforcing Wire structure to be machine tied with steel wire.

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1.

Surface	Finishing:		

	Тор	Sides	Rear	Rear of Backwall
Class	A	Α	Α	Self-Levelled

- Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- Situation to accessor and sometime of the state of the s

- Design Life as table below \* (all cover sizes in mm). Design Life >50 yrs, 100mm Thickness >100 yrs, 150mm+ Thickness

Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover
All Faces	33	28	38	55		50	63
Design life of	>100 yrs car	be extend	ed to >120 y	rs with B	Bitum	en coating	application.
Exposure	Exposure by Carbo		Corrosion in			eze/thaw	Chemical

l		Exposure Class	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
١	Į	All Faces	XC3/4	XD3	XF4	XA3

- FABRICATION SPECIFICATION
  A. Manufacture IAW EN 1090-2 EXC CLASS 1.
  B. Material grade is to be: BS EN 10025 S275.
  C. Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum

below the site surface level as indicated on drawing view.





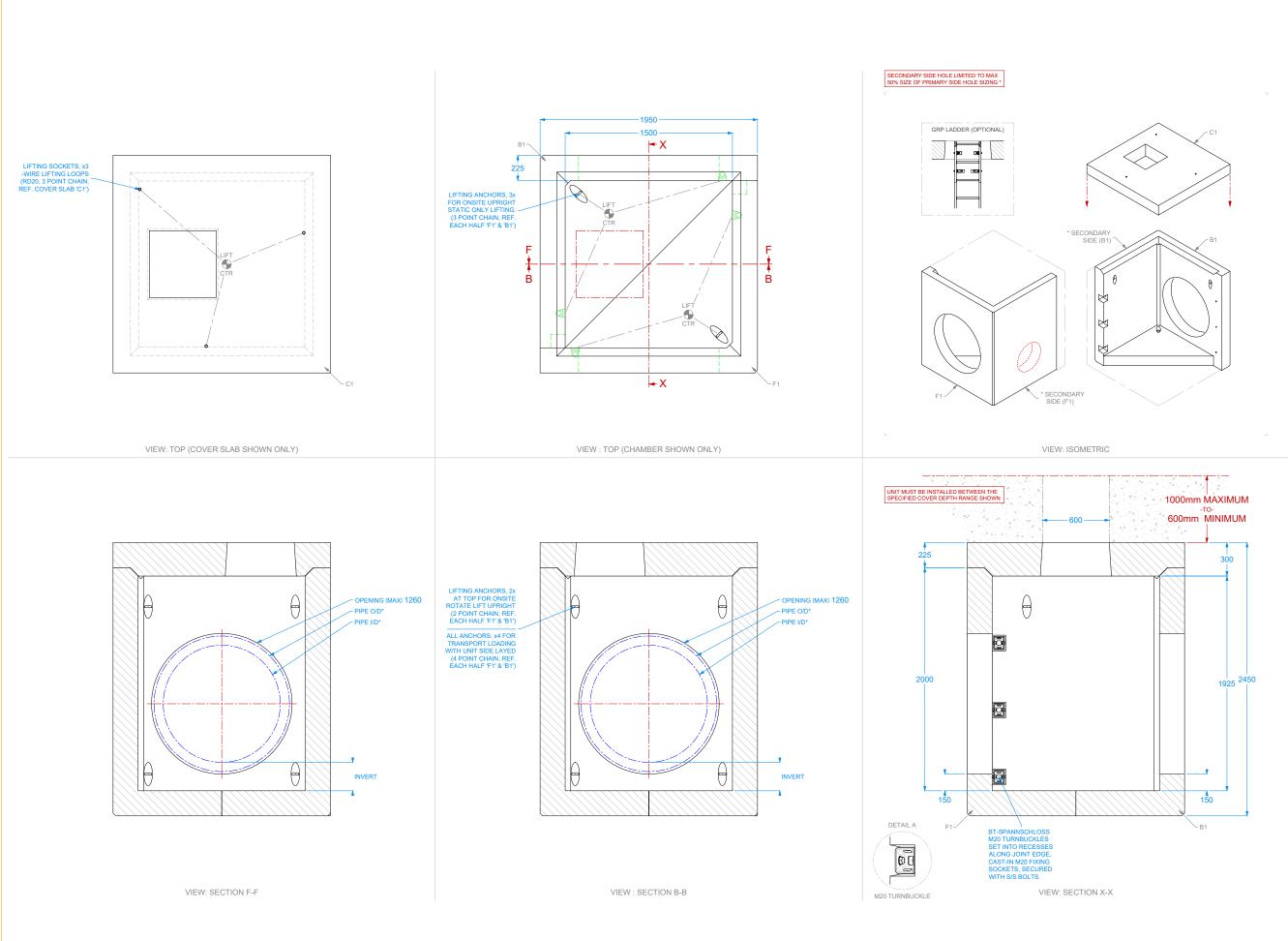
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DRAWING TITLE:

V CHAMBER 225mm WALL THICKNESS. 1500x1500x1500mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

				0		0
CHAI	MBER, M	ULTIPLE-PIE	CE:			0
F1:	3790	0		0		0
B1:	3790	0		0		0
C1:	2495	0		0		0
	0	0		0		0
	0	0		0		0
TOE	BEAM:	0		0	TOTAL V	VEIGHT: 10075
DRA'	WN: PN	ISSUE #:	01	SHEET	#: 1	DATE: 12/2/24



- C. DO NOT SCALE DRAWING.



## SPECIFICATION INFORMATION

Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1 concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

## MATERIAL

- Self-compacting Reinforced Cement Concrete DC4/DS4.
- B. Lifting strength based on 2 cubes = 20N/mm².
   C. Characteristic 28 day cube strength = 50N/mm².
- D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT
  A. Reinforcement Wire structure to BS EN 13369.
  B. Scheduling, dimensions, bends & cutting to BS8666. Retiniocens...
   Scheduling, dimensions, bends & cutting to BS8000.
   Reinforcing Wire structure to be machine tied with steel wire.

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1. Surface Finishing:

urtace F	-inishing:			
	Top	Sides	Rear	Rear of Backwall

- Class A A A Self-Levelled Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number
- Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- C. Units are designed to withstand a vertical live load surcharge of 10kN/M².

  D. Weight of soil = 18kN/M².
- Angle of internal friction = 30 Deg.
- Design Life as table below \* (all cover sizes in mm). Design Life kness >100 yrs 150mm+ Thickness

Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover
All Faces	33	28	38	55		50	63
Design life of	>100 yrs car	be extend	ed to >120 y	rs with B	Bitum	en coating	application.
Exposure Class	Exposure by Carbo		Corrosion in by Chlor			eze/thaw attack	Chemical attack

## All Faces XC3/4 XD3 XF4 XA3

- FABRICATION SPECIFICATION

  A. Manufacture IAW EN 1090-2 EXC CLASS 1.

  B. Material grade is to be: BS EN 10025 S275.
- Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum below the site surface level as indicated on drawing view.



ADDRESS: JKH LIMITED CHISWICK AVENUE MILDENHALL IP28 7AY

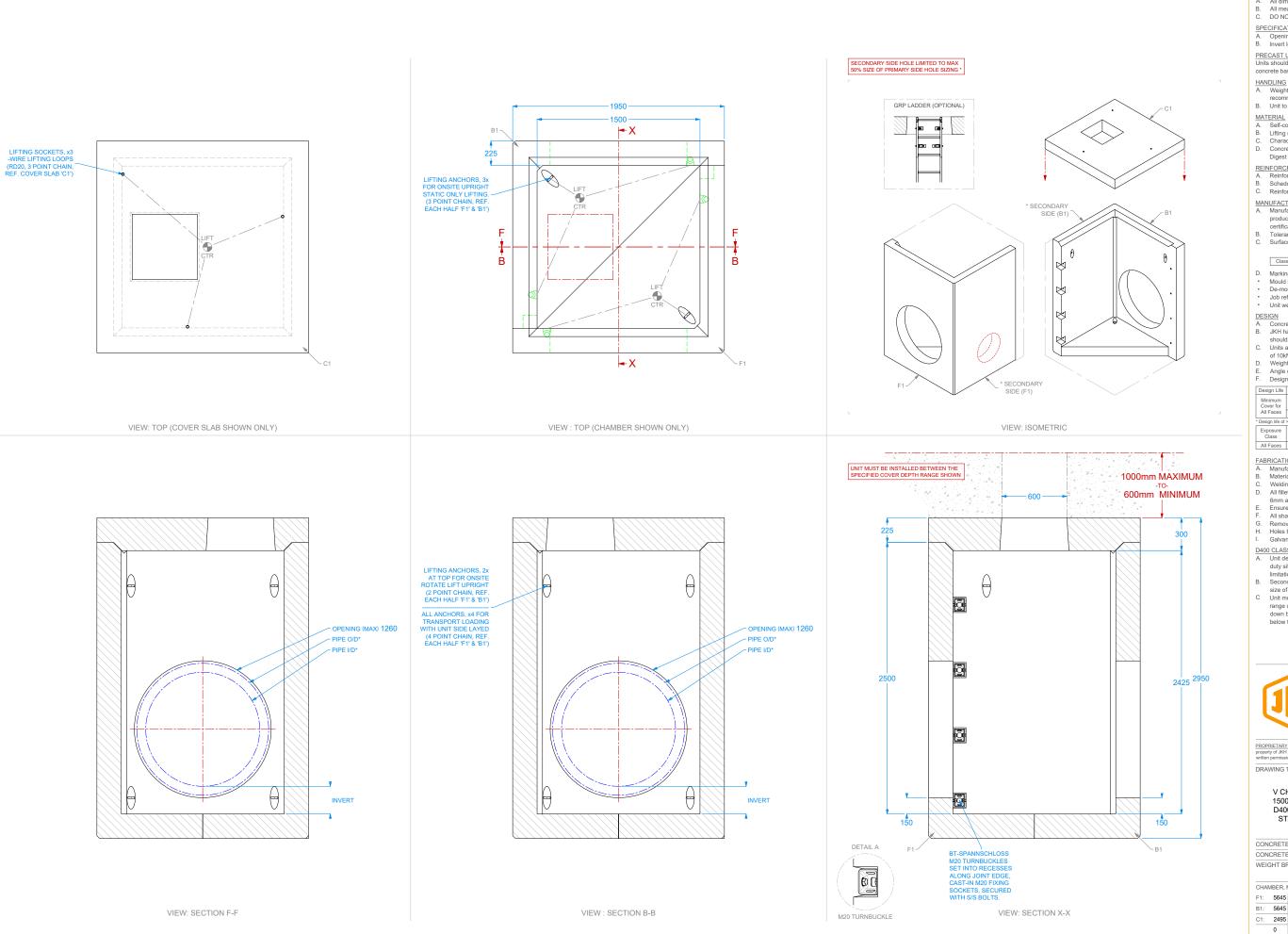
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DRAWING TITLE:

V CHAMBER 225mm WALL THICKNESS. 1500x1500x2000mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -

VA/EI	OUT DD	ALCDONA(AL	D)/ 7			O INTI LINUTO
VVEI	JH I BRE	EAKDOWN	BYI	TPE - A	II FIGURE	S IN kg UNITS:
				0		0
CHAI	MBER, M	ULTIPLE-PIE	CE:			0
F1:	4720	0		0		0
B1:	4720	0		0		0
C1:	2495	0		0		0
	0	0		0		0
	0	0		0		0
TOE	BEAM:	0		0	TOTAL V	VEIGHT: 1193
DRA'	WN: PN	ISSUE #:	01	SHEET	#: 1	DATE: 12/2/24



- C. DO NOT SCALE DRAWING.



SPECIFICATION INFORMATION

## Openings sized to suit outer dimension of pipe. Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1 concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.
- Self-compacting Reinforced Cement Concrete DC4/DS4.
- A. Self-compacting Remindred Centers Contracts Devices.

  B. Lifting strength based on 2 cubes = 20N/mm².

  C. Characteristic 28 day cube strength = 50N/mm².

  D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT
  A. Reinforcement Wire structure to BS EN 13369.
  B. Scheduling, dimensions, bends & cutting to BS8666.
- Reinforcing Wire structure to be machine tied with steel wire

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1. Surface Finishing:

	-			
	Top	Sides	Rear	Rear of Backwall
s	A	A	A	Self-Levelled

- Class Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.

- C. Units are designed to withstand a vertical live load surcharge of 10kM/M².

  D. Weight of soil = 18kN/M².

  E. Angle of internal friction = 30 Deg.
- Design Life as table below \* (all cover sizes in mm).

Design Life	>50 yrs, 100mm Thickness			>100 yrs, 150mm+ Thickness			
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block Siz Cover	Min Size Cover	Max Size Cover	
All Faces	33	28	38	55	50	63	
Design life of	>100 yrs car	be extend	ded to >120 y	rs with Bit	umen coating	application.	
Exposure			Corrosion in		reeze/thaw	Chemica	

	Exposure Class	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
ı	All Faces	XC3/4	XD3	XF4	XA3

- FABRICATION SPECIFICATION
  A. Manufacture IAW EN 1090-2 EXC CLASS 1.
  B. Material grade is to be: BS EN 10025 S275.
  C. Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum below the site surface level as indicated on drawing view.



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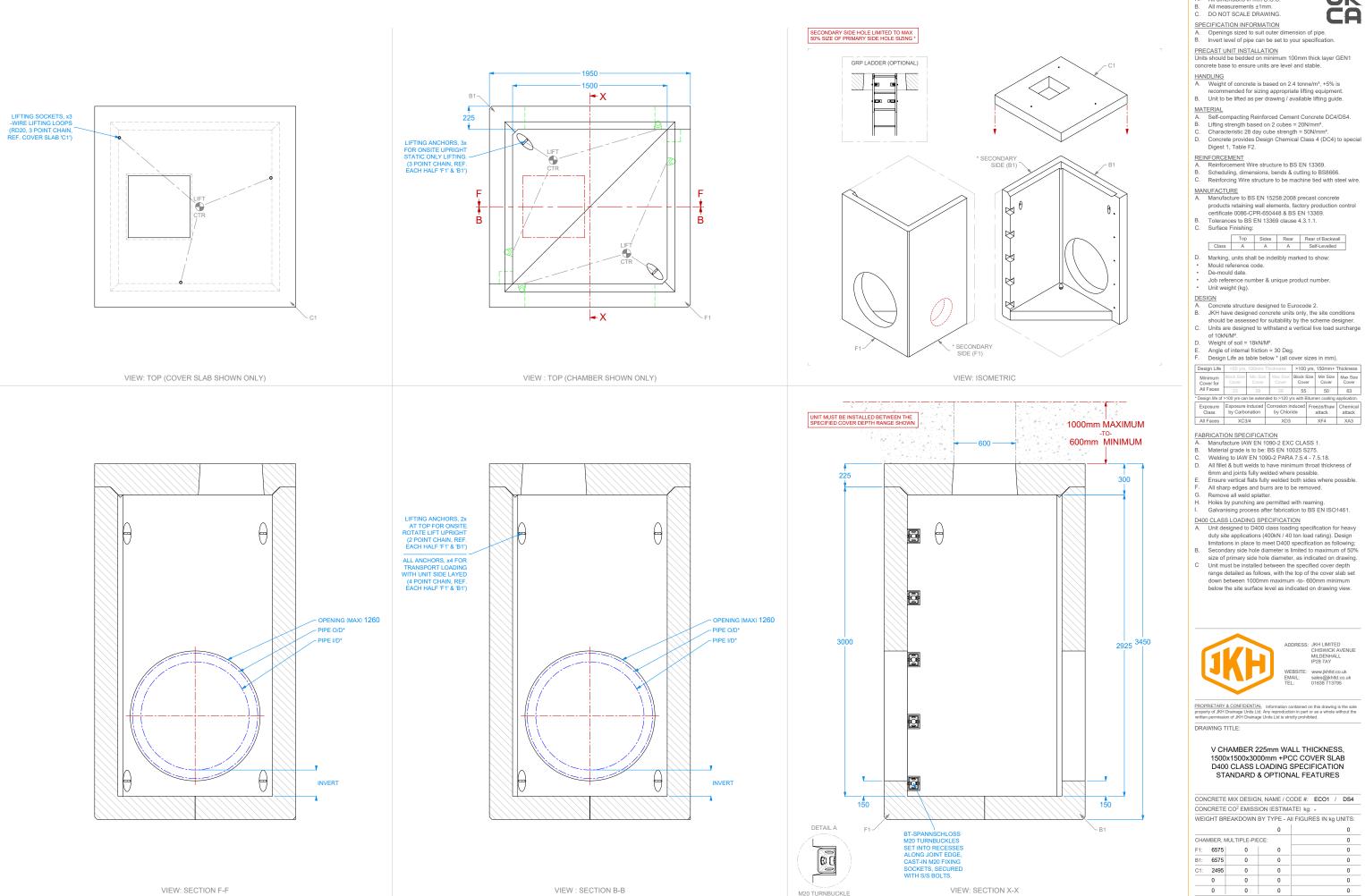
DRAWING TITLE:

V CHAMBER 225mm WALL THICKNESS. 1500x1500x2500mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -

WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

				0		0
CHAI	MBER, M	JLTIPLE-PIE	CE:			0
F1:	5645	0		0		0
B1:	5645	0		0		0
C1:	2495	0		0		0
	0	0		0		0
	0	0		0		0
TOE	BEAM:	0		0	TOTAL V	VEIGHT: 13785
DRA'	WN: PN	ISSUE #:	01	SHEET	#: 1	DATE: 12/2/24



M20 TURNBUCKLE

GENERAL DRAWING NOTES

- C. DO NOT SCALE DRAWING.

## SPECIFICATION INFORMATION

Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.
- Digest 1, Table F2.

- Reinforcing Wire structure to be machine tied with steel wire

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1.

		Surface	Finishing:	
--	--	---------	------------	--

	Тор	Sides	Rear	Rear of Backwall
s	A	A	A	Self-Levelled

- Job reference number & unique product number

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- S. Intuit De assessed for sunaning by the softening designed.

  Units are designed to withstand a vertical live load surcharge of 10kN/M².

  E. Angle of internal friction = 30 Deg.

- Design Life as table below \* (all cover sizes in mm).

Cover for	Hulli	Min Size Cover	Max Size Cover	Block Siz Cover	Min Size Cover	Max Size Cover						
All Faces	aces 33	28	38	55	50	63						
* Design life of	* Design life of >100 yrs can be extended to >120 yrs with Bitumen coating application.											
Exposure			Corrosion in		reeze/thaw	Chemical						

	posure	Exposure induced	Corrosion induced	Freeze/thaw	Chemical
	Class	by Carbonation	by Chloride	attack	attack
All	Faces	XC3/4	XD3	XF4	XA3

- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set



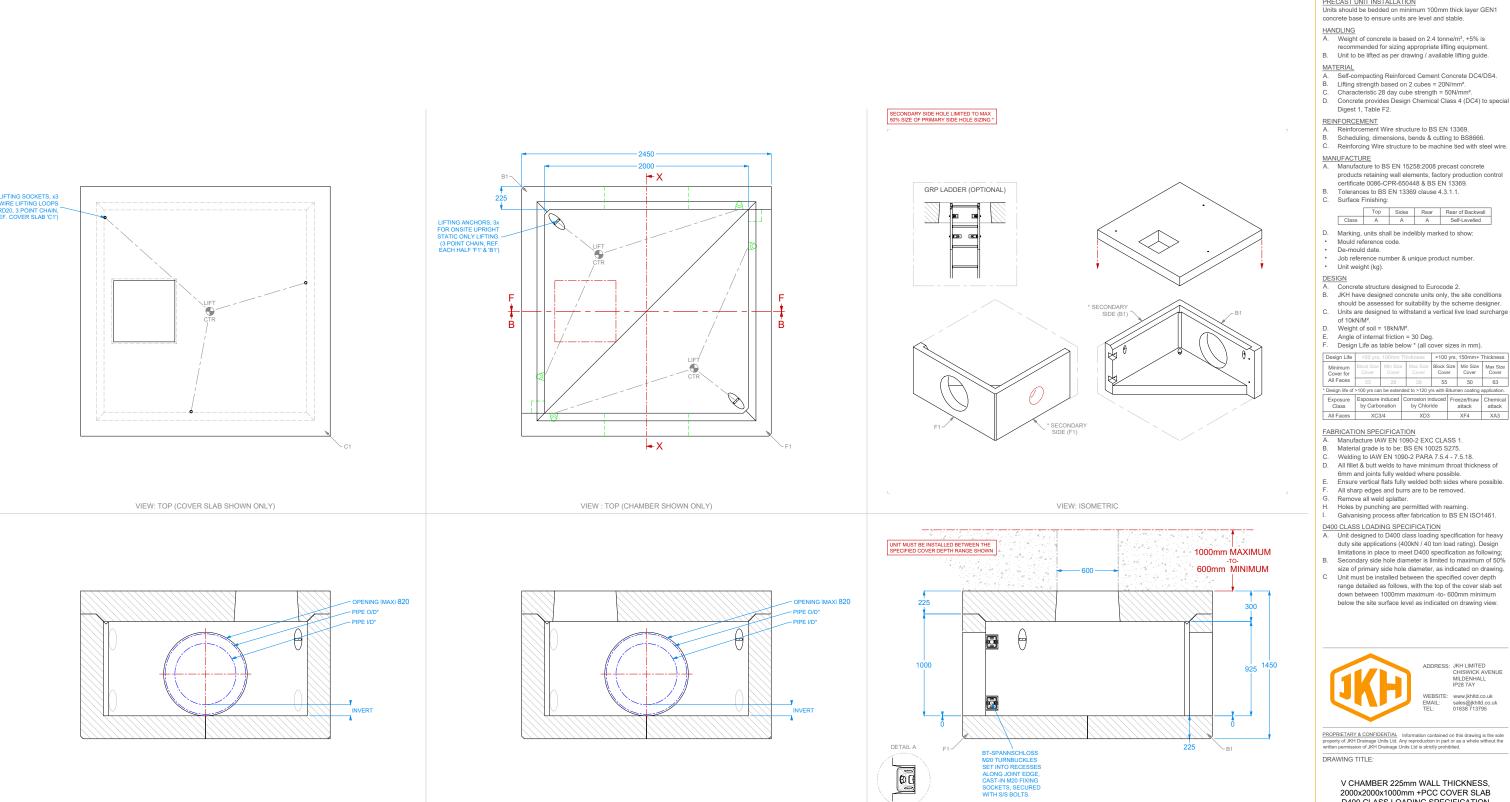
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V CHAMBER 225mm WALL THICKNESS. 1500x1500x3000mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -

WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

				0		0
CHA	MBER, MI	JLTIPLE-PIE	CE:			0
F1:	6575	0		0		0
B1:	6575	0		0		0
C1:	2495	0		0		0
	0	0		0		0
	0	0		0		0
TOE	BEAM:	0		0	TOTAL V	VEIGHT: 15645
DRA	NN: PN	ISSUE #:	01	SHEET	#: 1	DATE: 12/2/24



VIEW: SECTION F-F

GENERAL DRAWING NOTES

- C. DO NOT SCALE DRAWING.



SPECIFICATION INFORMATION Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1 concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

- MATERIAL
  A. Self-compacting Reinforced Cement Concrete DC4/DS4.
  B. Lifting strength based on 2 cubes = 20N/mm².
  C. Characteristic 28 day cube strength = 50N/mm².
  D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT

  A. Reinforcement Wire structure to BS EN 13369.

  B. Scheduling, dimensions, bends & cutting to BS8666.
- Reinforcement wine substance of Section
   Scheduling, dimensions, bends & cutting to BS8666.
   Reinforcing Wire structure to be machine tied with steel wire.

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1. Surface Finishing:

	Top	Sides	Rear	Rear of Backwall
Class	Α	Α	Α	Self-Levelled

- Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- Situation to accessor and sometime of the state of the s

Design Life as table below \* (all cover sizes in mm). Design Life | >50 yrs, 100mm Thickness | >100 yrs, 150mm+ Thickness

Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover	
All Faces	33	28	38	55		50	63	
Design life of	>100 yrs car	be extend	ed to >120 y	rs with E	Bitum	en coating	application.	
Exposure	Exposure by Carbo		Corrosion in			eze/thaw	Chemical	

FABRICATION SPECIFICATION
A. Manufacture IAW EN 1090-2 EXC CLASS 1.
B. Material grade is to be: BS EN 10025 S275.
C. Welding to IAW EN 1090-2 PARA 7.5.4 - 7.5.18.

- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.
  Holes by punching are permitted with reaming.
  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.





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DRAWING TITLE:

VIEW: SECTION X-X

M20 TURNBUCKLE

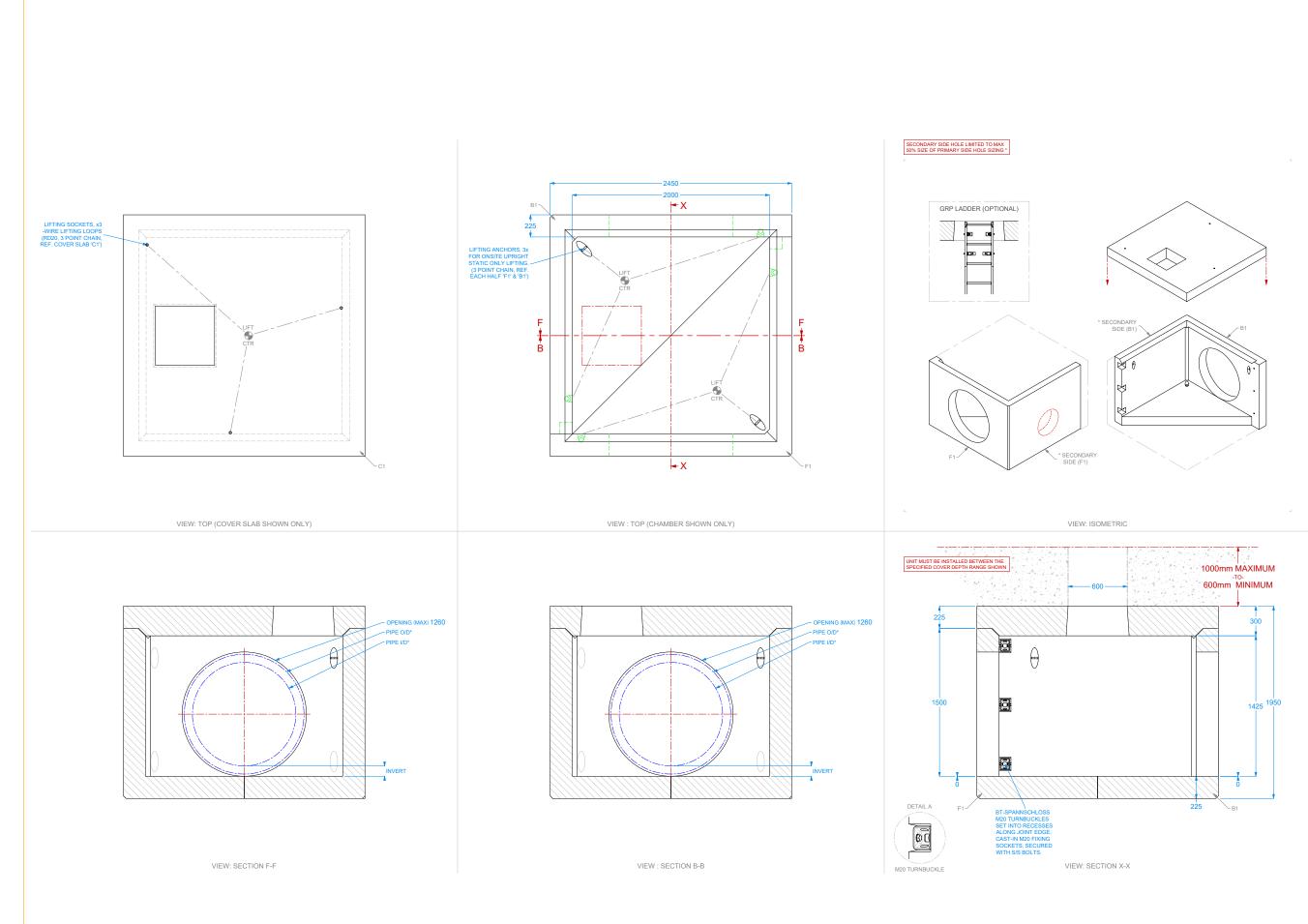
V CHAMBER 225mm WALL THICKNESS. 2000x2000x1000mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -

WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

			0	0
CHA	MBER, I	MULTIPLE-PIE	ECE:	0
F1:	3985	0	0	0
B1:	3985	0	0	0
C1:	4010	0	0	0
	0	0	0	0
	0	0	0	0
TOE	BEAM:	0	0	TOTAL WEIGHT: 11980

DRAWN: PN | ISSUE #: 01 | SHEET #: 1 | DATE: 12/2/24



- C. DO NOT SCALE DRAWING.



SPECIFICATION INFORMATION Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1

## concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.
- MATERIAL A. Self-co Self-compacting Reinforced Cement Concrete DC4/DS4.
- Sein-compacting Reinforced Cement Concrete DC4/DS4.
   Lifting strength based on 2 cubes = 20N/mm².
   Characteristic 28 day cube strength = 50N/mm².
   Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT

  A. Reinforcement Wire structure to BS EN 13369.

  B. Scheduling, dimensions, bends & cutting to BS8666.
- Reinforcement wire squadure to be an 1999.
   Scheduling, dimensions, bends & cutting to BS8666.
   Reinforcing Wire structure to be machine tied with steel wire.
- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1.

Surface	Finishing:	
Surface	Finishing:	

	Top	Sides	Rear	Rear of Backwall
Class	Α	Α	Α	Self-Levelled

- Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number
- Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- C. Units are designed to withstand a vertical live load surcharge of 10kM/M².

  D. Weight of soil = 18kN/M².

  E. Angle of internal friction = 30 Deg.

- Design Life as table below \* (all cover sizes in mm).

Design Life	>50 yrs, 100mm Thickness			>100 yrs, 150mm+ Thickness			
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover
All Faces	33	28	38	55		50	63
Design life of	>100 yrs car	n be exten	ded to >120 y	rs with E	Bitum	en coating	application.
Exposure	Exposure by Carbo		Corrosion in			eze/thaw	Chemical

	Exposure Class	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
	All Faces	XC3/4	XD3	XF4	XA3

- FABRICATION SPECIFICATION
  A. Manufacture IAW EN 1090-2 EXC CLASS 1.
  B. Material grade is to be: BS EN 10025 S275.
  C. Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.

- SIZE of primary side hole distinction, as indicated on drawing.

  C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum below the site surface level as indicated on drawing view.



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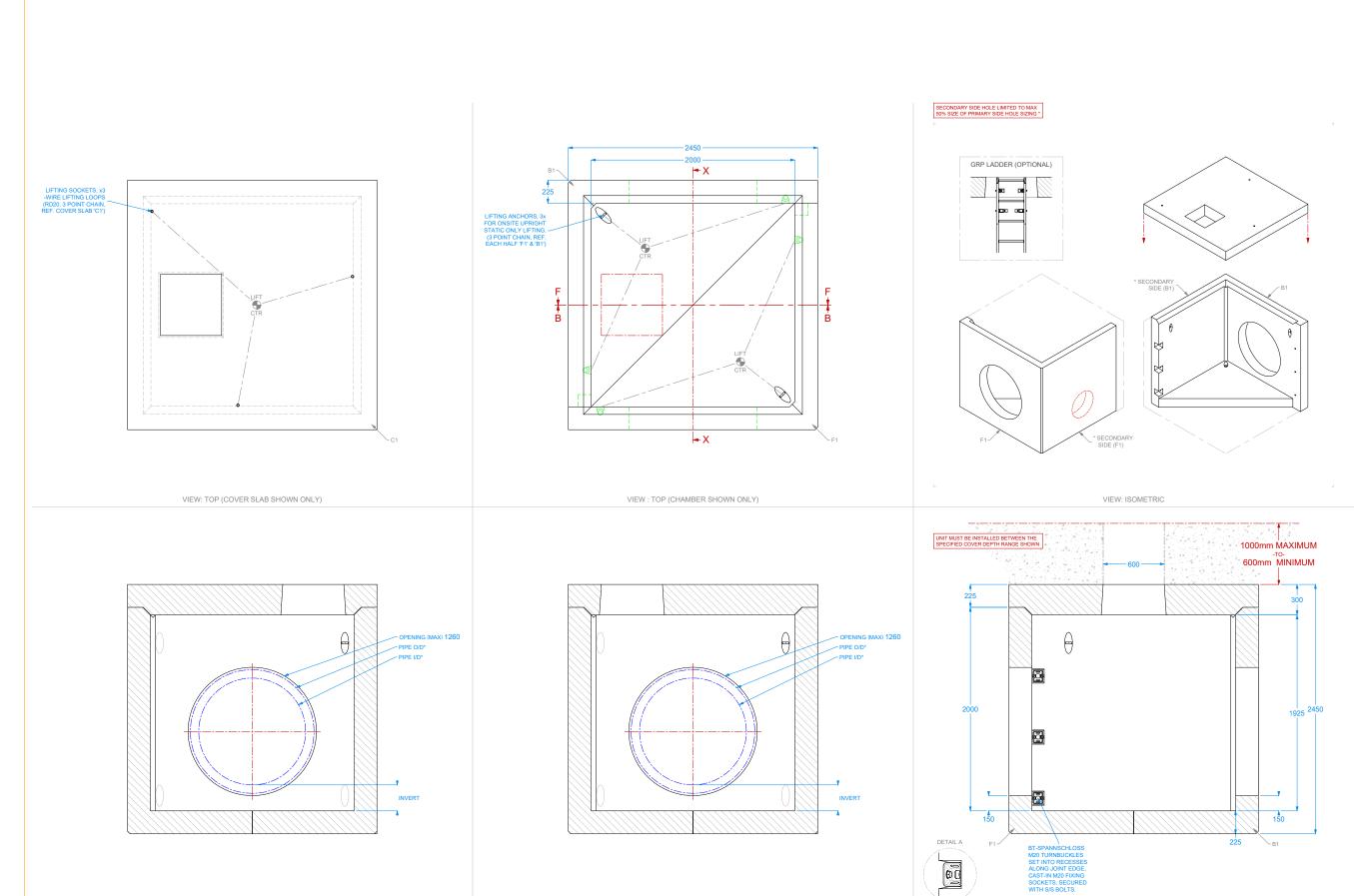
## DRAWING TITLE:

V CHAMBER 225mm WALL THICKNESS. 2000x2000x1500mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -

WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

				0		0
CHAI	MBER, MI	JLTIPLE-PIE	CE:			0
F1:	5285	0		0		0
B1:	5285	0		0		0
C1:	4010	0		0		0
	0	0		0		0
	0	0		0		0
TOE	BEAM:	0		0	TOTAL V	VEIGHT: 14580
DRA	NN: PN	ISSUE #:	01	SHEET	#: 1	DATE: 12/2/24



VIEW: SECTION F-F

GENERAL DRAWING NOTES

- C. DO NOT SCALE DRAWING.

## SPECIFICATION INFORMATION

Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

## PRECAST UNIT INSTALLATION Units should be bedded on minimum 100mm thick layer GEN1

concrete base to ensure units are level and stable.

- HANDLING A. Weight
- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

- MATERIAL Self-compacting Reinforced Cement Concrete DC4/DS4.
- B. Lifting strength based on 2 cubes = 20N/mm².
   C. Characteristic 28 day cube strength = 50N/mm².
- C. Characteristic 28 day cube strength = 50N/mm².

   D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT
  A. Reinforcement Wire structure to BS EN 13369.
  B. Scheduling, dimensions, bends & cutting to BS8666.

- Reinforcement wire squadure to be an 1999.
   Scheduling, dimensions, bends & cutting to BS8666.
   Reinforcing Wire structure to be machine tied with steel wire.
- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1.

Surface	Finishing	

	Тор	Sides	Rear	Rear of Backwall
Class	Α	Α	Α	Self-Levelled

- Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number

## Unit weight (kg).

# DESIGN A Concrete structure designed to Eurocode 2. B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.

- C. Units are designed to withstand a vertical live load surcharge of 10kN/M².

  D. Weight of soil = 18kN/M².

  E. Angle of internal friction = 30 Deg.
- Design Life as table below \* (all cover sizes in mm).

Design Life	>50 yrs,	>50 yrs, 100mm Thickness >100 yrs, 150			150mm+ '	Thickness		
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover	
All Faces	33	28	38	55		50	63	
Design life of	sign life of >100 yrs can be extended to >120 yrs with Bitumen coating appli							
Exposure	Exposure	induced	Corrosion in	duced	Fre	eze/thaw	Chemical	

	Exposure Class	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
	All Faces	XC3/4	XD3	XF4	XA3

- FABRICATION SPECIFICATION
  A. Manufacture IAW EN 1090-2 EXC CLASS 1.
  B. Material grade is to be: BS EN 10025 S275.
  C. Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.
  Holes by punching are permitted with reaming.
  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum below the site surface level as indicated on drawing view.



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DRAWING TITLE:

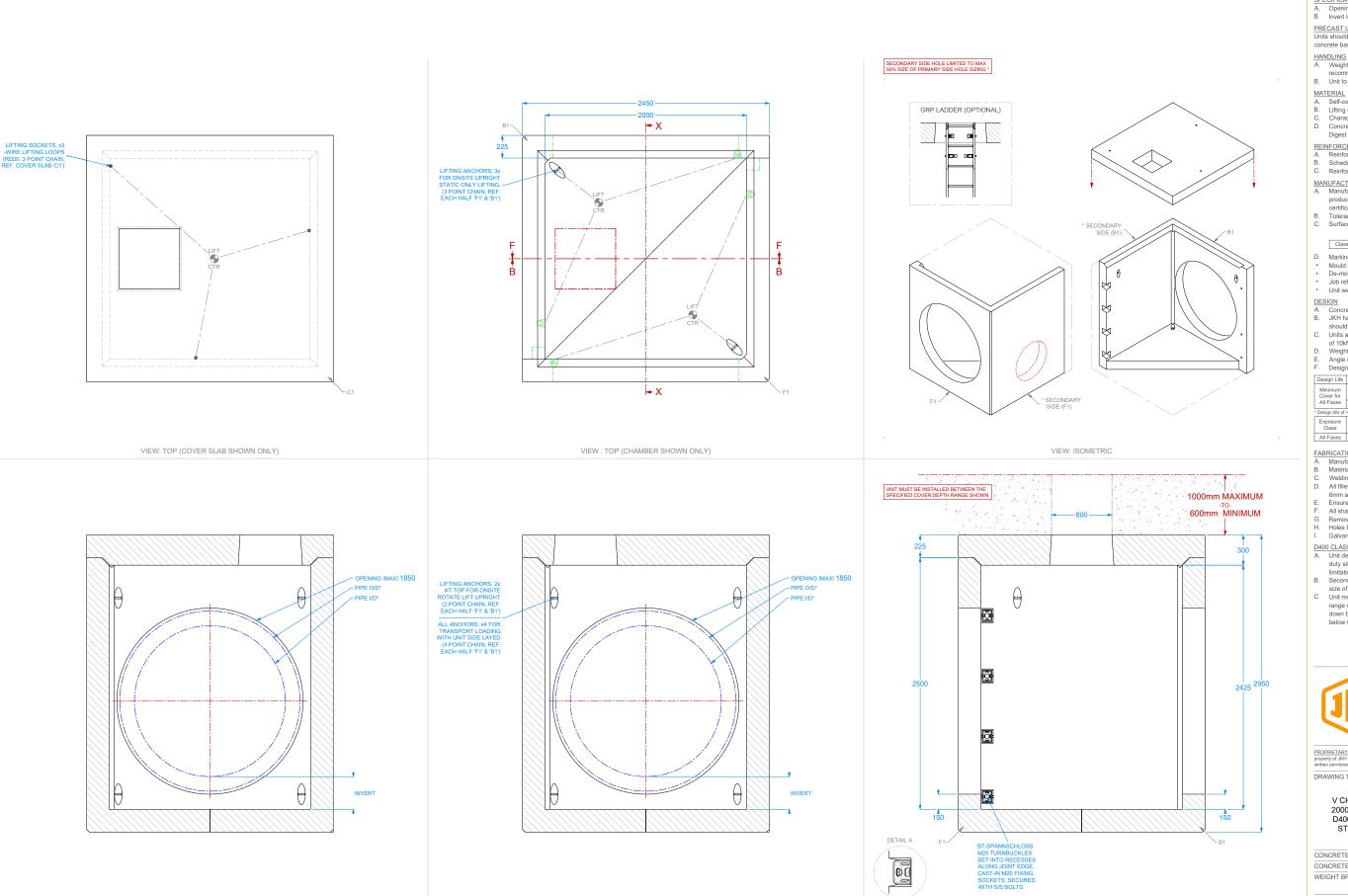
VIEW: SECTION X-X

V CHAMBER 225mm WALL THICKNESS. 2000x2000x2000mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4

CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

					I	
				0		0
CHA	MBER, MI	JLTIPLE-PIE	CE:			0
F1:	6385	0		0		0
B1:	6385	0		0		0
C1:	4010	0		0		0
	0	0		0		0
	0	0		0		0
TOE	BEAM:	0		0	TOTAL V	VEIGHT: 16780
DRA	WN: PN	ISSUE #:	01	SHEET	#: 1	DATE: 12/2/24



VIEW: SECTION F-F

GENERAL DRAWING NOTES

- C. DO NOT SCALE DRAWING.

SPECIFICATION INFORMATION Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1 concrete base to ensure units are level and stable.

## HANDLING A. Weight

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.

- Self-compacting Reinforced Cement Concrete DC4/DS4.
- Sein-compacting Reinforced Cement Concrete DC4/DS4.
   Lifting strength based on 2 cubes = 20N/mm².
   Characteristic 28 day cube strength = 50N/mm².
   Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT
  A. Reinforcement Wire structure to BS EN 13369.
  B. Scheduling, dimensions, bends & cutting to BS8666.

# A. Relinforcement .... B. Scheduling, dimensions, bends & cutting to BSeboo. C. Reinforcing Wire structure to be machine field with steel wire.

MANUFACTURE

A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.

Tolerances to BS EN 13369 clause 4.3.1.1. Surface Finishing:

Top Sides Rear Rear of Back	
	wall

- Class A A A Self-Levelled
- Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number Unit weight (kg).

- DESIGN
  A Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- C. Units are designed to withstand a vertical live load surcharge of 10kN/M².

  D. Weight of soil = 18kN/M².

  E. Angle of internal friction = 30 Deg.

Design Life as table below \* (all cover sizes in mm).

Design Life			150mm+	Thickness			
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover
All Faces	33	28	38	55		50	63
Design life of	>100 yrs car	be exten	ded to >120 y	rs with B	Bitum	en coating	application.
Exposure			Corrosion induced Fr			eze/thaw	Chemica

## Class by Carbonation by Chloride attack attack All Faces XC3/4 XD3 XF4 XA3

- FABRICATION SPECIFICATION
  A. Manufacture IAW EN 1090-2 EXC CLASS 1.
  B. Material grade is to be: BS EN 10025 S275.
  C. Welding to IAW EN 1090-2 PARA 7.5.4 7.5.18.
- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum below the site surface level as indicated on drawing view.



ADDRESS: JKH LIMITED CHISWICK AVENUE MILDENHALL IP28 7AY

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## DRAWING TITLE:

VIEW: SECTION X-X

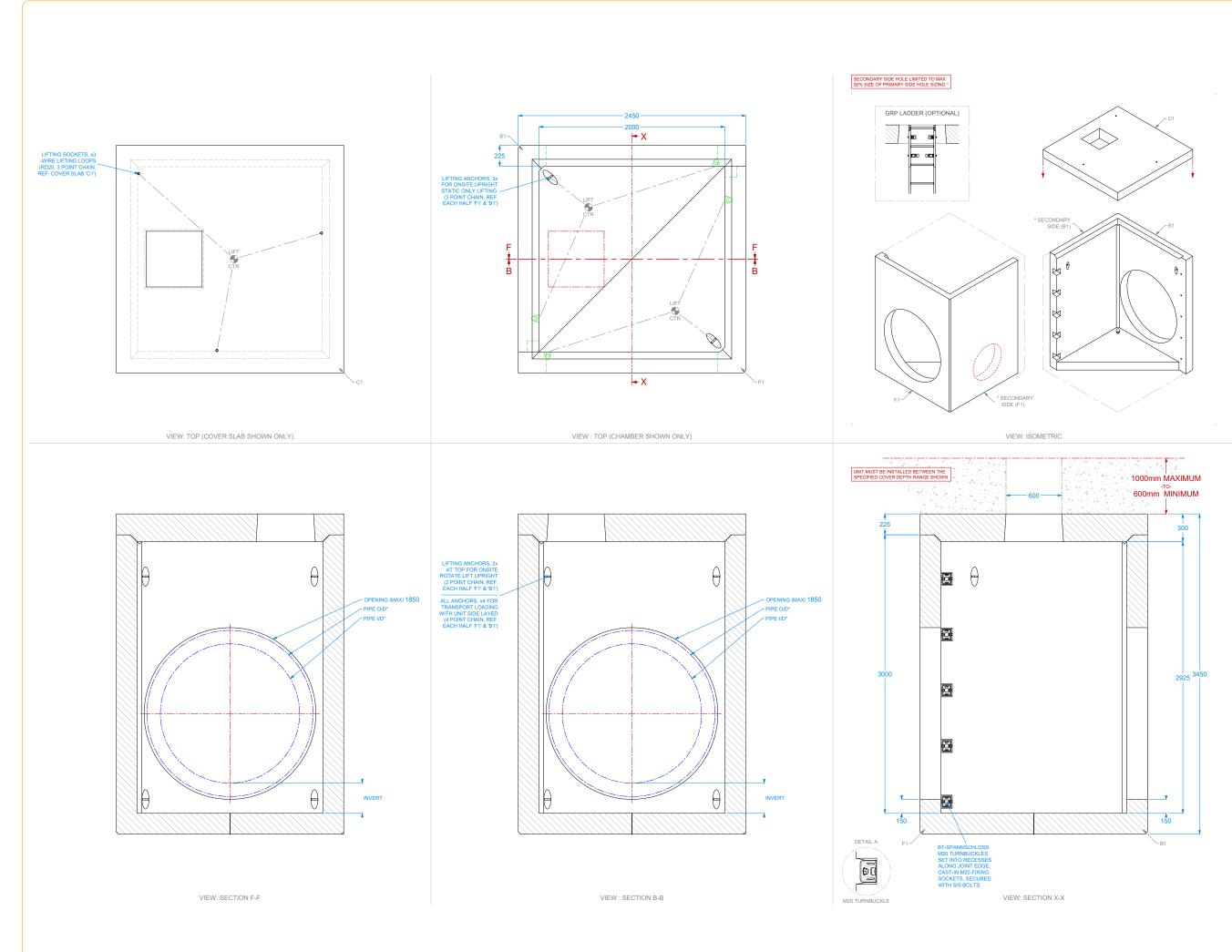
M20 TURNBUCKLE

V CHAMBER 225mm WALL THICKNESS. 2000x2000x2500mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4 CONCRETE CO<sup>2</sup> EMISSION (ESTIMATE) kg: -WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

			0	0
CHA	MBER, N	MULTIPLE-PIE	ECE:	0
F1:	7580	0	0	0
B1:	7580	0	0	0
C1:	4010	0	0	0
	0	0	0	0
	0	0	0	0
TOE	BEAM:	0	0	TOTAL WEIGHT: 19170
	DE/ 1111.			TOTAL VILIOITI: 1017

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- C. DO NOT SCALE DRAWING.



SPECIFICATION INFORMATION

Openings sized to suit outer dimension of pipe.
 Invert level of pipe can be set to your specification

PRECAST UNIT INSTALLATION
Units should be bedded on minimum 100mm thick layer GEN1 concrete base to ensure units are level and stable.

- Weight of concrete is based on 2.4 tonne/m³, +5% is recommended for sizing appropriate lifting equipment.
   Unit to be lifted as per drawing / available lifting guide.
- MATERIAL

  A. Self-compacting Reinforced Cement Concrete DC4/DS4.

  B. Lifting strength based on 2 cubes = 20N/mm².

  C. Characteristic 28 day cube strength = 50N/mm².

  D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

- REINFORCEMENT
  A. Reinforcement Wire structure to BS EN 13369.
  B. Scheduling, dimensions, bends & cutting to BS8666.
- Reinforcing Wire structure to be machine tied with steel wire

- MANUFACTURE

  A. Manufacture to BS EN 15258:2008 precast concrete products retaining wall elements, factory production control certificate 0086-CPR-650448 & BS EN 13369.
- Tolerances to BS EN 13369 clause 4.3.1.1. Surface Finishing:

ace i	ii iisi iii iy.			
	Тор	Sides	Rear	Rear of Backwall
100	Δ	Δ	Δ	Self-Levelled

- Class
- Marking, units shall be indelibly marked to show:
   Mould reference code.
   De-mould date.
- Job reference number & unique product number

Unit weight (kg).

- DESIGN
  A. Concrete structure designed to Eurocode 2.
  B. JKH have designed concrete units only, the site conditions should be assessed for suitability by the scheme designer.
- S. Intuit De assessed for sunaning by the softening designed.

  Units are designed to withstand a vertical live load surcharge of 10kN/M².

  E. Angle of internal friction = 30 Deg.

- Design Life as table below \* (all cover sizes in mm).

Design Life	Design Life >50 yrs, 100mm Thickness			>100 yrs, 150mm+ Thickn				
Minimum Cover for	Block Size Cover	Min Size Cover	Max Size Cover	Block S Cove		Min Size Cover	Max Size Cover	
All Faces	33	28	38	55		50	63	
Design life of	>100 yrs car	100 yrs can be extended to >120 yrs with Bitumen coating application						
Exposure Class	Exposure induced by Carbonation		Corrosion induced by Chloride			eze/thaw attack	Chemical attack	
All Faces	XC3/4		XD3			XF4	XA3	

FABRICATION SPECIFICATION
A. Manufacture IAW EN 1090-2 EXC CLASS 1.
B. Material grade is to be: BS EN 10025 S275.
C. Welding to IAW EN 1090-2 PARA 7.5.4 - 7.5.18.

- All fillet & butt welds to have minimum throat thickness of 6mm and joints fully welded where possible.

  Ensure vertical flats fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld splatter.

  Holes by punching are permitted with reaming.

  Galvanising process after fabrication to BS EN ISO1461.

## D400 CLASS LOADING SPECIFICATION

- Unit designed to D400 class loading specification for heavy duty site applications (400kN / 40 ton load rating). Design limitations in place to meet D400 specification as following; Secondary side hole diameter is limited to maximum of 50% size of primary side hole diameter, as indicated on drawing.
- SIZE of primary side note defined, as indicated on drawing.

  C Unit must be installed between the specified cover depth range detailed as follows, with the top of the cover slab set down between 1000mm maximum -to- 600mm minimum below the site surface level as indicated on drawing view.



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## DRAWING TITLE:

V CHAMBER 225mm WALL THICKNESS. 2000x2000x3000mm +PCC COVER SLAB D400 CLASS LOADING SPECIFICATION STANDARD & OPTIONAL FEATURES

CONCRETE MIX DESIGN, NAME / CODE #: ECO1 / DS4
CONCRETE CO <sup>2</sup> EMISSION (ESTIMATE) kg: -
WEIGHT BREAKDOWN BY TYPE - All FIGURES IN kg UNITS:

			0	0
CHAMBER, MULTIPLE-PIECE:				0
F1:	8785	0	0	0
B1:	8785	0	0	0
C1:	4010	0	0	0
	0	0	0	0
	0	0	0	0
TOE BEAM:		0	0	TOTAL WEIGHT: 21580

DRAWN: PN | ISSUE #: 01 | SHEET #: 1 | DATE: 12/2/24