

0 BASIS

VALID REGULATIONS AND DIRECTIONS

- BOVERKET'S BUILDING REGULATIONS BBR25, BFS 2011:6 WITH AMENDMENTS UP TO AND INCLUDING BFS 2017:5.
- BOVERKET'S MANDATORY PROVISIONS AND GENERAL RECOMMENDATIONS ON THE APPLICATION OF EUROPEAN DESIGN STANDARDS (EUROCODES) EKS 10, BFS 2011:10 WITH AMENDMENTS UP TO AND INCLUDING BFS 2015:6.
- VALID EUROCODES.
- NORMATIVE STANDARDS ACCORDING TO RESPECTIVELY EUROCODE.
- DETAILS SHALL BE ACCORDING TO AMA HUS 14 AND RA HUS 13 IF NOTHING ELSE IS STATED.
- DETAILS SHALL BE ACCORDING TO AMA ANLÄGGNING 10 AND RA ANLÄGGNING 10 IF NOTHING ELSE IS STATED

ENVIRONMENTAL EVALUATION

ALL USED BUILDING MATERIAL MUST BE ENVIRONMENTALLY APPROVED BY DOCUMENTATION AND VALIDATION WITH RESPECT TO COMPONENT PARTS, ADDITIVES AND MANUFACTURE ACCORDING TO BYGGVARUBEDÖMNINGEN AND IN SOME PLACES BE VALIDATED WITH RESPECT TO RADIATION.

SAFETY CLASS

- SK 3 MAIN STRUCTURAL SYSTEM OF LOAD BEARING MEMBERS AND SECONDARY STRUCTURES PROVIDING NECESSARY BRACING FOR MAIN STRUCTURE, BEAMS, COLUMNS, SLABS, WALLS AND STAIRS IN ESCAPE ROUTES.
- SK 2 FOUNDATIONS, RETAINING WALLS, HEAVY EXTERNAL WALLS AND CURTAIN WALLS.
- SK 1 FLOOR SLABS ON GROUND.

ACCIDENTAL ACTION AND PROGRESSIVE COLLAPSE

REGARDING ACCIDENTAL ACTIONS AND PROGRESSIVE COLLAPSE SS-EN 1991-1-6 (ACTIONS DURING EXECUTION) AND SS-EN 1991-1-7 (ACCIDENTAL ACTIONS) SHALL BE CONSIDERED. DESIGN FOR CONSEQUENCES OF LOCALISED FAILURE IN BUILDING FROM AN UNSPECIFIED CAUSE IS DONE WITH THE STRATEGY USING VERTICAL AND HORIZONTAL TIES DESCRIBED IN SS-EN 1991-1-7 ANNEX A. CONSEQUENCE CLASS CC3, RISKANALYSIS SHALL BE PERFORMED IN DETAIL DESIGN PHASE.

DESIGN WORKING LIFE AND DURABILITY

LOAD BEARING STRUCTURES IN SAFETY CLASS 2 AND 3 SHOULD BE DESIGNED FOR A DESIGN WORKING LIFE CATEGORY OF:

- 4 (50 YEARS) IF THE MEMBERS ARE ACCESSIBLE FOR INSPECTION AND MAINTENANCE.
- 5 (100 YEARS) IF THE MEMBERS ARE NOT ACCESSIBLE FOR INSPECTION AND MAINTENANCE.

FURTHERMORE SHALL RECOMMENDATIONS IN EOTA GUIDANCE DOCUMENT 002 APPLY FOR ALL STRUCTURAL MEMBERS REGARDING ITS REPLACEABILITY AND REPAIRABILITY.

MEMBERS IN DESIGN WORKING LIFE CATEGORY 4 FOLLOW EOTA CATEGORY "NORMAL". MEMBERS IN DESIGN WORKING LIFE CATEGORY 5 FOLLOW EOTA CATEGORY "LONG". ALL OTHER SHOULD FOLLOW EOTA GUIDANCE DOCUMENT 002 CATEGORY "NORMAL"

SAFETY IN CASE OF FIRE

BUILDING CLASS: Br2
ALL STRUCTURES SUPPORTING EI60 FIRE COMPARTMENTS IN ALL AREAS R60.
SEE ALSO FIRE SAFETY STRATEGY REPORT, ESS-0002381

MOISTURE

ALL BUILDING MATERIALS SENSITIVE TO MOISTURE OR WITH LIMITED POSSIBILITY TO DRY SHOULD BE PROTECTED AGAINST MOISTURE DURING CONSTRUCTION.

STABILITY

THE TALL PART OF THE BUILDING IS STABILIZED WITH CONCRETE SLABS, THAT SHALL BE DESIGNED AS HORIZONTAL LOAD BEARING AND BE ABLE TRANSFER THE STABILITY LOADS TO THE STABILIZING CONCRETE WALLS, BOTH EXTERIOR AND INTERIOR.
THE LOWER PART OF THE BUILDING IS STABILIZED WITH A STEEL SHEETING, THAT SHALL BE DESIGNED AS HORIZONTAL LOAD BEARING WITH SUFFICIENT STIFFNESS TO TRANSFER THE STABILITY LOADS TO THE STEEL WIND BRACINGS AND THE CONCRETE WALLS.
THE CONTRACTOR IS RESPONSIBLE OF NECESSARY BRACING, ANCHORING AND ATTACHMENTS DURING EXECUTION. THEY SHALL PREPARE A METHOD STATEMENT SUBJECT TO THE CLIENT APPROVAL.

DEFORMATIONS / DEFLECTIONS

DEFLECTIONS FOR LOAD BEARING STRUCTURES SHOULD BE LIMITED ACCORDING TO THE FOLLOWING TABLE.
DEFLECTION CONTROL SHALL BE APPLIED AS A SERVICEABILITY LIMIT STATE WITH FREQUENT LOAD COMBINATION (6.15b).
DEFINITIONS ARE AS STATED IN FIGURE A1.1 OCH A1.2 SS-EN 1990.
CONCRETE STRUCTURES SHALL BE CALCULATED WITH CRACKED CROSS-SECTIONS.

ROOF CLADDING	$w_2 + w_3 = L/150$
ROOF BEAMS AND GIRDERS	$w_2 + w_3 = L/300$
WALKWAY AND STAIR BEAMS	$w_2 + w_3 = L/300$
SLABS AND BEAMS IN GENERAL	$w_2 + w_3 = L/400$
SLABS AND BEAMS SUPPORTING WALLS	$w_2 + w_3 = L/500$
BEAMS SUPPORTING COLUMNS	$w_2 + w_3 = L/500$
BEAMS SUPPORTING MASONRY	$w_2 + w_3 = L/1000$
GRATING	$w_2 + w_3 = L/200$
COLUMNS	$u = H/500, u_c = H_c/300$

CONDITIONS OF EXECUTION

COLUMNS ARE UNDERPOURED BEFORE WALLS, SLABS AND ROOF IS ASSEMBLED. STABILIZING ROOF METAL SHEET AND WIND STIFFENERS ARE ASSEMBLED BEFORE WALLS ARE ASSEMBLED.
ASSEMBLIES SHALL FOLLOW THE CONTRACTORS PLAN OR INSTRUCTION OF ERECTION.

OPENINGS

FOR OPENINGS/HOLES NOT STATED IN THE DESIGN DRAWINGS THE FOLLOWING APPLY:
HOLES/OPENINGS IN ROOF, SLABS, CONCRETE WALLS, COLUMNS, BEAMS AND BEAM SUPPORTS MAY NOT BE EXECUTED WITHOUT CONSULTATION OF THE RESPONSIBLE STRUCTURAL ENGINEER.
OVER CUTTING IS NOT ALLOWED DURING CUTTING IN CONCRETE STRUCTURES.

GROUNDING AND LIGHTNING PROTECTION

ALL BUILDINGS SHALL BE EQUIPPED WITH LIGHTNING PROTECTION AND POTENTIAL EQUALIZATION. CONNECTION OF STEEL FRAMEWORK, REINFORCING STEEL, STEEL STUDS AND EMBEDMENT OF GROUNDING CONDUCTOR ACCORDING TO E-DRAWINGS.

MATERIALS

ALL MATERIALS AND ALL SURFACES IN THE CONTROLLED AREA SHALL BE CHOSEN ACCORDING TO PAKT / TBY - "TECHNICAL REGULATIONS FOR SURFACE TREATMENT" IN ORDER TO EASE DECONTAMINATION.
FOR MOISTURE LEVELS, SEE CONCRETE STRUCTURES, EXECUTION ON K07---0-H09---002.

1 LOAD ACTIONS ON STRUCTURES

LOAD CONDITIONS

ACTIONS DURING EXECUTION:
ACCORDING TO SS-EN 1991-1-6

SNOW: SNOW ZONE 1,5 $s_{s,1.5} = 1,5 \text{ kN/m}^2$ $\Psi_s = 0,6; \Psi_1 = 0,3; \Psi_2 = 0,1$
EXPOSURE COEFFICIENT $C_e = 1,0$
SHAPE COEFFICIENT ACCORDING TO SS-EN 1991-1-3.

WIND: BASIC WIND VELOCITY $v_b = 26 \text{ m/s}$, TERRAIN CATEGORY I
PRESSURE COEFFICIENT $\Psi_s = 0,3; \Psi_1 = 0,2; \Psi_2 = 0$ ACCORDING TO SS-EN-1991-1-4.

DEAD LOAD:

STRUCTURAL MEMBER	STRUCTURE KN/m^2	INSTALLATIONS KN/m^2	MOVABLE PARTITIONS/WALLS KN/m^2	TOTAL KN/m^2
SLAB BJK01	5,60	0,50	0,80	6,90
SLAB BJK02	5,00	0,50	0,80	6,30
SLAB BJK03	5,00	0,50		5,50
SLAB BJK04	7,70	0,50	0,80	9,00
ROOF T01	5,00	0,50		5,50
ROOF T02	0,60	0,50		1,10
ROOF T03	7,50	0,50		8,00
OUTER WALL YV01	7,80			7,80
INNER WALL IVB01	7,50			7,50

LIVE LOADS:

SEE LOAD PLANS, K-07-01---1-H09100110, K-07-01---1-H09110110, K-07-01---1-H09115110 AND K-07-01---1-H09120110.

VEHICLES:

ATB 12K VEHICLE ACCORDING TO ESS-0149584 SHALL BE COMBINED WITH FORKLIFT.

OVERHEAD CRANES

OVERHEAD CRANES WITH CAPACITIES ACCORDING TO ESS-0046980 SHALL BE CONSIDERED. LOADS AND OPERATING CLASSES OF THE CRANES SHALL BE ACQUIRED FROM TRANSPORT SYSTEM OWNERS IN DETAIL DESIGN PHASE.

FORKLIFT:

ACCORDING TO SS-EN 1991-1-1 CHAPTER 6.3.2.3
CLASS OF FORKLIFT: FL5 AXLE LOAD $Q_k = 140 \text{ kN}$
NET WEIGHT $W = 90 \text{ kN}$

ACCIDENTAL ACTIONS FROM FORKLIFTS

ACCORDING TO SS-EN 1991-1-7, EKS 8 AND SS-EN 1991-1-1 TABLE 6.5.
 $F_d = 5 \cdot W$
IMPACT HEIGHT = 0,75 m ABOVE FLOOR LEVEL.

ACCIDENTAL ACTIONS FROM LOAD DROPS

ACCORDING TO DESIGN MANUAL, CONVENTIONAL FACILITIES ESS-0001497 CHAPTER 5.3.1.3.
 $F_k = 10 \text{ kN}$

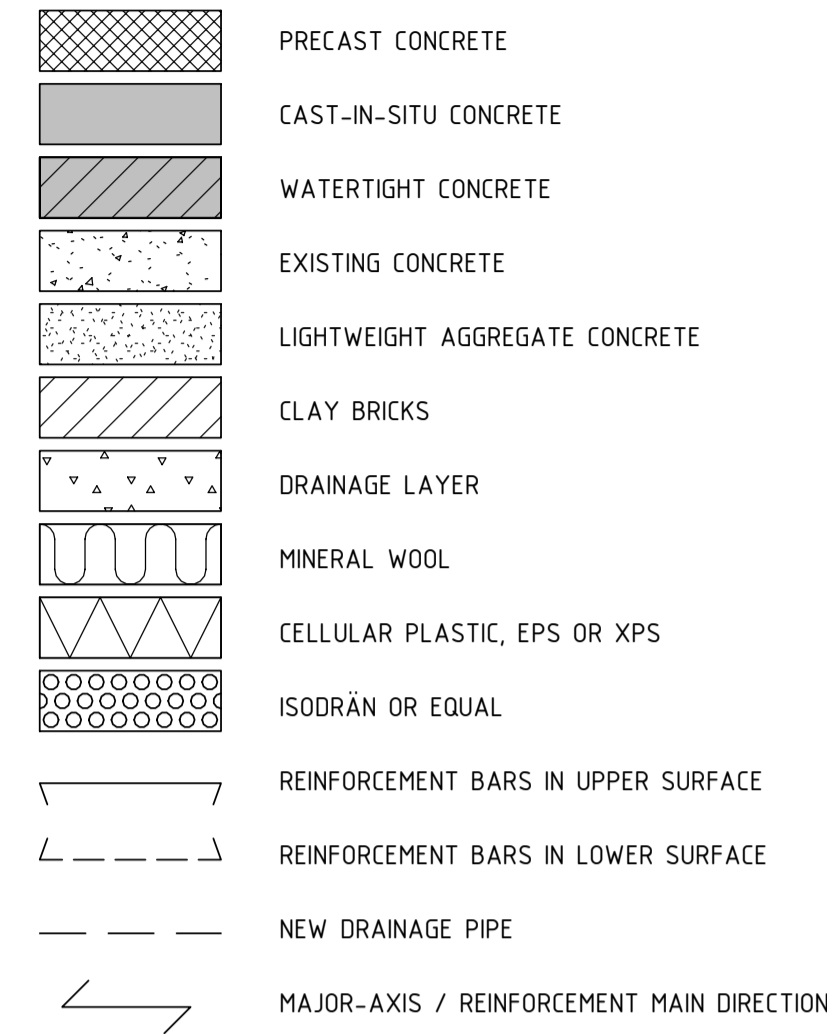
ACCIDENTAL ACTIONS FROM CRANES

LOADS SHALL BE ACQUIRED FROM TRANSPORT SYSTEM OWNERS IN DETAIL DESIGN PHASE

EXCEPTIONAL INTERNAL WATER PRESSURE

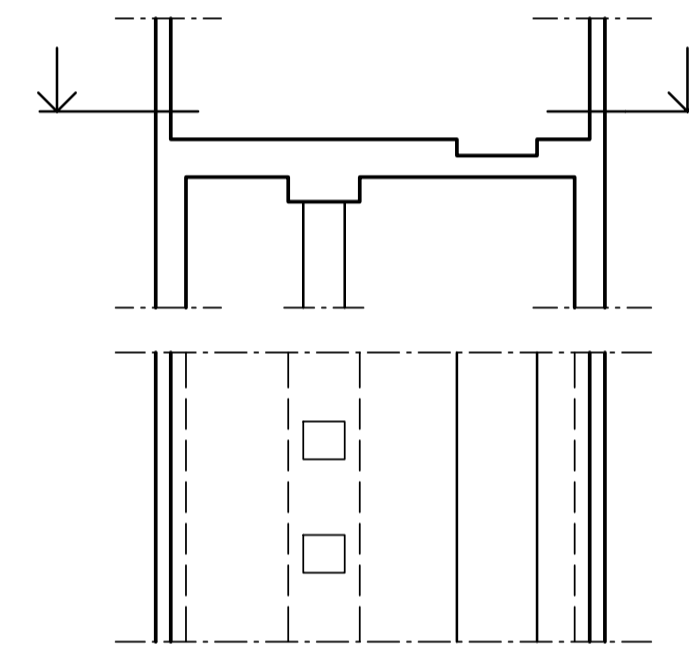
WATER PRESSURE ON WALLS IN TANK ROOM, IN CASE OF INTERNAL FLOODING, SHALL BE CONSIDERED.
ASSUMED MAXIMUM WATER LEVEL: 1500mm ABOVE FFL.

SYMBOLS



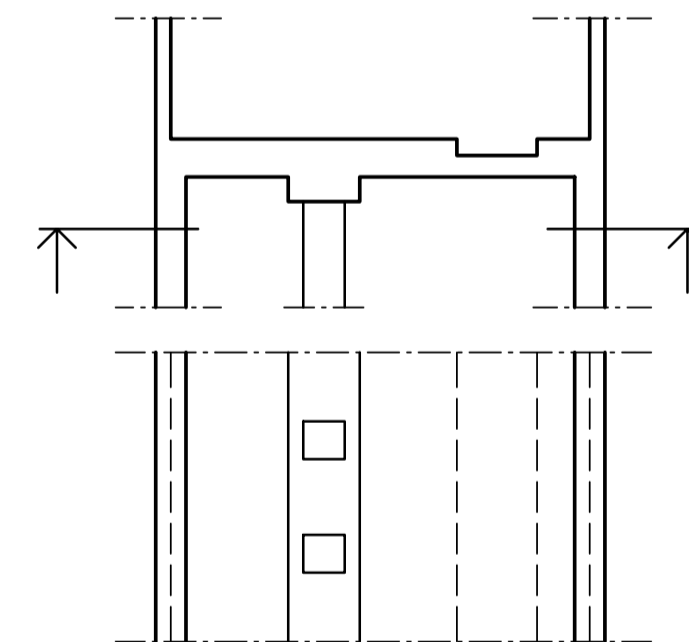
PLAN DRAWINGS

FOUNDATIONS AND FLOORS



DRAWINGS ARE PERFORMED WITH DIRECT PARALLEL PROJECTION

SLABS



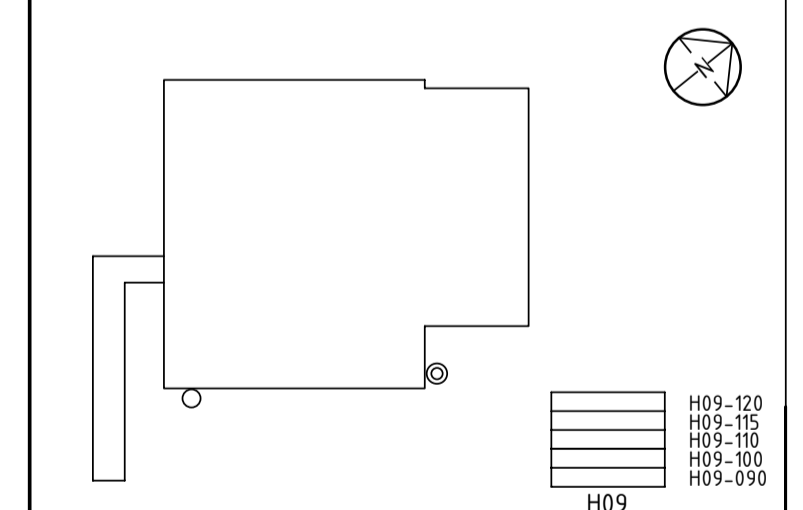
DRAWINGS ARE PERFORMED WITH MIRRORED PARALLEL PROJECTION

PD DRAFT 2018-01-09

REV	REVISION TYPE	DATE	SIGN
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TECHNICAL BASELINE

ESS CONVENTIONAL FACILITIES AUXILIARY BUILDINGS NORTH



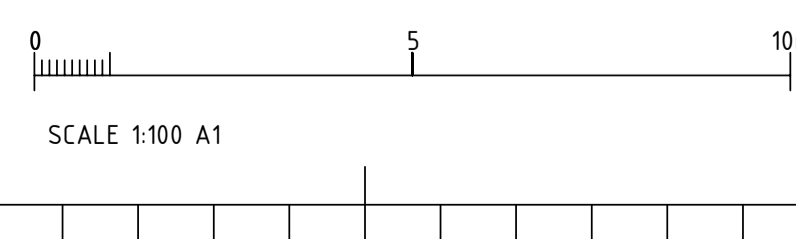
European Spallation Source ERIC
ESS, Tunavägen 24
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SE-221 00 Lund
SWEDEN
www.ess.se



DESIGN COORDINATOR FRANK KEZERLE	BUILDING OWNER BORIS KILDETOFT
CONSULTANT K07 TYRÉNS AB	PROJECT NUMBER 24766930
DRAWN BY JMÅ	MANAGED BY AAH
DATE	CHECKED BY HNO
APPROVED BY A.ABRAHAMSSON	

H09 WASTE BUILDING GENERAL INSTRUCTIONS PART 1

SCALE A1 A3	1 REV
DRAWING NUMBER K07-01---0-H09---001	



2 CONCRETE STRUCTURES

CONCRETE PROPERTIES AND REQUIREMENTS

THE CONCRETE WORK SHALL BE SUPERVISED BY PERSON THAT MEETS THE REQUIREMENTS OF THE COMPETENCE CLASS I-U IN AMA. CONCRETE AS BELOW ARE APPLICABLE REGARDING EXPOSURE CLASSES AND STRUCTURAL DEMANDS. BUILDING PARTS INCLUDED IN MULTIPLE CLASSES ARE TO BE CARRIED OUT SO THAT THE QUALITY OF ALL REQUIREMENTS ARE MET.
EXPOSURE CLASSES AS BELOW ARE APPLICABLE TO CONCRETE AND REINFORCEMENT ACCORDING TO SS-EN 206-1.

FLOOR SLABS ON GROUND:

G01, OVERHEAD CRANE HALL	
EXPOSURE CLASS, BOTTOM SIDE	XC3
EXPOSURE CLASS, UPPER SIDE	XF3
STRENGTH CLASS	C35/45
CURING CLASS	4
TIGHTNESS CLASS	1
VCT	≤0,40
DESIGN WORKING LIFE	L100
CONCRETE COVER AGAINST INSULATION	LARGEST OF 35mm AND Ø+15mm
CONCRETE COVER AGAINST SURFACE	LARGEST OF 55mm AND Ø+10mm

G01, OTHERWISE (INCLUDING ALSO WALL BASES STANDING ON G01, I.E. YV01A, YV01B, IVB01A, IVB01B)	
EXPOSURE CLASS	XC3
STRENGTH CLASS	C30/37
CURING CLASS	4
TIGHTNESS CLASS	1
VCT	≤0,55
DESIGN WORKING LIFE	L100
CONCRETE COVER AGAINST INSULATION	LARGEST OF 40mm AND Ø+15mm
CONCRETE COVER AGAINST SURFACE	LARGEST OF 35mm AND Ø+10mm

G02	
EXPOSURE CLASS	XC3
STRENGTH CLASS	C30/37
TIGHTNESS CLASS	1
VCT	≤0,55
CURING CLASS	4
DESIGN WORKING LIFE	L100
CONCRETE COVER AGAINST INSULATION	LARGEST OF 40mm AND Ø+15mm
CONCRETE COVER AGAINST SURFACE	LARGEST OF 35mm AND Ø+10mm

G03	
EXPOSURE CLASS	XC3
STRENGTH CLASS	C30/37
VCT	≤0,55
CURING CLASS	3
DESIGN WORKING LIFE	L100
CONCRETE COVER AGAINST INSULATION	LARGEST OF 40mm AND Ø+15mm
CONCRETE COVER AGAINST SURFACE	LARGEST OF 35mm AND Ø+10mm

BASEMENT WALL, KYV01:

EXPOSURE CLASS	XC4+XF3
STRENGTH CLASS	C30/37
TIGHTNESS CLASS	1
VCT	≤0,50
CURING CLASS	4
DESIGN WORKING LIFE	L100
CONCRETE COVER	LARGEST OF 30mm AND Ø+10mm

CULVERT	
EXPOSURE CLASS	XC4+XF3
STRENGTH CLASS	C30/37
TIGHTNESS CLASS	1
VCT	≤0,50
CURING CLASS	4
DESIGN WORKING LIFE	L100
CONCRETE COVER AGAINST INSULATION	LARGEST OF 40mm AND Ø+15mm
CONCRETE COVER AGAINST SURFACE	LARGEST OF 35mm AND Ø+10mm

BASE ELEMENTS:

EXPOSURE CLASS	XD3+XF4
STRENGTH CLASS	C35/45, FREEZE/THAW RESISTANT CONCRETE ACCORDING TO SS137244.
VCT	≤0,40
CURING CLASS	3
DESIGN WORKING LIFE	L50
CONCRETE COVER	LARGEST OF 45mm AND Ø+10mm

STACK FOUNDATION:

EXPOSURE CLASS	XD3+XF4
STRENGTH CLASS	C35/45, FREEZE/THAW RESISTANT AGGREGATE
VCT	≤0,40
CURING CLASS	4
DESIGN WORKING LIFE	L100
AIR CONTENT	MIN 4,5%
D _{MAX}	16mm
CONCRETE COVER AGAINST GROUND	LARGEST OF 40mm AND Ø+15mm
CONCRETE COVER AGAINST SURFACE	LARGEST OF 55mm AND Ø+10mm

INTERNAL CONCRETE STRUCTURES:

EXPOSURE CLASS	XC1
STRENGTH CLASS	C25/30
VCT	≤0,60
CURING CLASS	3
DESIGN WORKING LIFE	L50
CONCRETE COVER	LARGEST OF 20mm AND Ø+10mm

THE MAXIMUM CRACK WIDTH w_k SHALL, IN SERVICEABILITY LIMIT STATE AND IN QUASI PERMANENT SITUATIONS, BE LIMITED TO THE LOWEST OF 0,3 MM OR THE VALUE IN TABLE D-2 IN EKS 9.

REINFORCEMENT

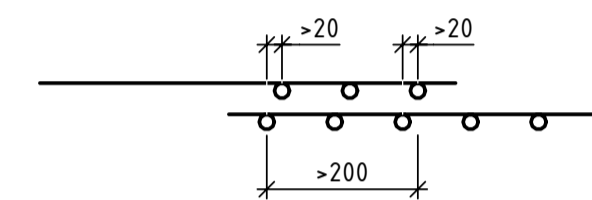
MESH REINFORCEMENT: NK500B, NK500AB
OTHER REINFORCEMENT: K500C, K500B

REINFORCEMENT LAPS

LAPS BETWEEN BARS SHOULD BE STAGGERED SO THAT NOT MORE THAN HALF OF THE REINFORCEMENT ARE LAPPED IN THE SAME SECTION. THE LONGITUDINAL DISTANCE BETWEEN TWO ADJACENT LAPS SHOULD NOT BE LESS THAN 0,3 TIMES THE LAP LENGTH, SEE SS-EN 1992-1-1 ARTICLE 8.7.2. REINFORCEMENT DESIGN LAP LENGTH ACCORDING TO THE TABLE BELOW.

BAR SIZE	BOTTOM REINFORCEMENT IN SLABS, VERTICAL IN WALLS		TOP REINFORCEMENT IN SLABS, HORIZONTAL IN WALLS	
	C30/37	C35/45	C30/37	C35/45
Ø10	550	500	780	710
Ø12	660	600	940	850
Ø16	870	800	1250	1130
Ø20	1090	990	1560	1420
Ø25	1360	1240	1950	1770

FOR WELDED MESH FABRICS THE LAPPING ARRANGEMENTS SHOULD BE PERFORMED BY OVERLAP JOINT WITH AT LEAST TWO TRANSVERSE BARS IN ONE MESH OVERLAPPING THE OUTER BAR IN THE OTHER. THE OVERLAP JOINT SHOULD BE AT LEAST ACCORDING TO THE TABLE BELOW.



BAR SIZE	BOTTOM REINFORCEMENT IN SLABS, VERTICAL IN WALLS		TOP REINFORCEMENT IN SLABS, HORIZONTAL IN WALLS		LEAST NUMBER OF WIRE PITCHES
	C30/37	C35/45	C30/37	C35/45	
Ø5	200	200	240	210	1
Ø6	220	200	310	280	1
Ø7	270	250	380	350	2
Ø8	310	280	440	400	2
Ø9	350	320	490	450	2
Ø10	380	350	540	500	2

BENT BARS

BARS ARE BENT ACCORDING TO SS-EN 13670.

BEND RADIUS:

STIRRUPS FOR BARS EXCEPT STIRRUPS (LARGE RADIUS) (STANDARD RADIUS) AT C/C MIN 75 mm, NOT ADJACENT TO A CONCRETE SURFACE.

Ø	24	C25/30 C30/37 C35/45 C40/50			
		100	100	64	64
Ø12	24	125	100	100	64
Ø16	32	160	160	125	100
Ø20	100	250	200	160	160
Ø25	100	320	250	250	200

CONSTRUCTION JOINTS

CONSTRUCTION JOINTS IN WATERTIGHT STRUCTURES SHALL BE PROVIDED WITH WATER BARRIERS. JOINTS SHALL BE ARRANGED TO AVOID SHRINKAGE CRACKS AND TO MEET THE CRACK WIDTH REQUIREMENTS FOR EACH STRUCTURAL ELEMENT. JOINTS IN FORKLIFT AFFECTED AREAS SHOULD BE DONE AS A FORMED FREE-MOVEMENT JOINT WITH A PROPRIETARY SYSTEM WITH ARRIS PROTECTION AND PLATE DOWEL CONFIGURATION.

EXECUTION

SPECIFIED CONCRETE QUALITIES ARE VALID AS MINIMUM QUALITY REGARDING STRENGTH AND EXPOSURE CLASSES.

MOISTURE LEVEL IN CONCRETE MUST NOT EXCEED 85% RH WHEN TIGHT COATING OR PAINT ARE APPLIED.
ACCORDING TO TBY, MOISTURE LEVEL IN CONCRETE MUST NOT EXCEED 93% RH WHEN SURFACE MATERIALS ARE APPLIED.

MEASURING PROCESS IS CARRIED OUT ACCORDING TO METHODS DESCRIBED IN AMA HUS 11 YSC.1.
FOR STRUCTURES TO BE TREATED WITH TIGHT COATING THE CONCRETE QUALITY MUST BE SELECTED, IN AGREEMENT WITH THE CLIENT AND WITH RESPECT TO EXECUTION TIME SCHEDULE, SO THAT MOISTURE LEVEL AS ABOVE CAN BE ACHIEVED.

BESIDE OPENINGS WHERE REINFORCEMENT MUST BE CUT OFF, IF OTHERWISE NOT SPECIFIED, THE REINFORCEMENT MUST BE COMPLETED WITH AT LEAST THE SAME AMOUNT AS THE CUT OFF REINFORCEMENT. THIS ADDITIONAL REINFORCEMENT SHALL BE DISTRIBUTED EQUAL ON BOTH SIDES OF THE OPENING AND BE EXTENDED WITH AT LEAST A DOUBLE LAP LENGTH.

FORMWORK

ALL OUTWARDS CORNERS SHALL BE PROVIDED WITH INSERTED INTERNAL FILLETS TO FORM CHAMFERED CORNERS UNLESS OTHERWISE STATED.

SAFETY REINFORCEMENT AND VERTICAL STRUTTING

ALL CONCRETE WALLS THAT DURING ANY CONSTRUCTION PHASE ARE STANDING BY THEMSELVES MUST AT LEAST BE PROVIDED WITH SAFETY REINFORCEMENT.
VERTICAL SAFETY STRUTTING OF SLABS MUST CONTINUE UNTIL THE CONCRETE ACHIEVED FULL STRENGTH OR AFTER DISCUSSIONS WITH THE STRUCTURAL ENGINEER.

PRECAST CONCRETE

PRECAST ELEMENTS IN GENERAL

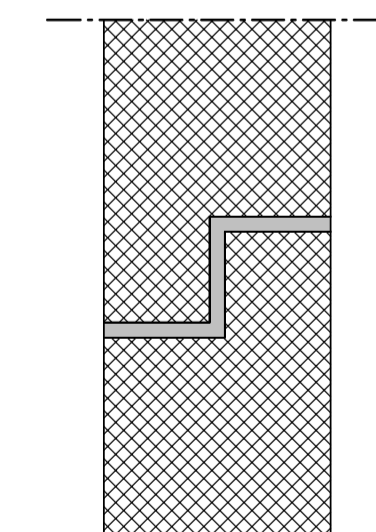
SS-EN 13369, SS 137005, RELEVANT PRODUCT STANDARDS AND CEN/TR 15728 APPLIES AS REGULATION. FURTHERMORE SS-EN 17660 APPLIES TO REINFORCEMENT WELDING AND SS-EN 1090-2 FOR STEEL WORK.
MANUFACTURING IS ASSUMED TO BE DONE BY A BBC-CERTIFIED MANUFACTURER. ONLY MATERIAL THAT ARE CE-MARKED SHALL BE USED, CONCRETE AND REINFORCEMENT ARE EXCEPTIONS.
THE SUPPLIER SHALL CARRY OUT AND BE RESPONSIBLE FOR DESIGN, MANUFACTURING, DELIVERY, ERECTION AND PERFORM REPAIR AND JOINT GROUTING OF PRECAST CONCRETE ELEMENTS. THE SUPPLIER IS RESPONSIBLE FOR ALL STRUCTURAL CALCULATIONS AND DESIGN OF SUPPLIED COMPONENTS, ATTACHMENTS ETC. AS WELL AS DRAWINGS AND REPORTS TO THE CLIENT AND THE AUTHORITIES.
SHOP AND ASSEMBLY DRAWINGS SHALL BE DELIVERED TO THE CLIENT FOR REVIEW IN GOOD TIME BEFORE MANUFACTURING.
THE SUPPLIER IS RESPONSIBLE FOR CO-ORDINATING JOINTS AND CONNECTIONS THAT AFFECT THE STEEL SUPPLIER, THE ROOF METAL SHEET SUPPLIER AND THE STRUCTURAL DESIGNER.

STANDARD TO WHICH EACH ELEMENT TYPE SHALL BE MANUFACTURED

SS-EN 1168 HOLLOW CORE SLABS
SS-EN 14843 STAIRS
SS-EN 14992 WALL ELEMENTS

JOINTS IN PRECAST WALL ELEMENTS

WALL ELEMENTS WITH RADIATION SHIELDING REQUIREMENTS SHALL BE MANUFACTURED AND MOUNTED WITH AN OVERLAP IN THE JOINTS, SEE PRINCIPLE FIGURE BELOW. JOINTS SHALL BE FILLED WITH MORTAR.



PRECAST STAIRS SPECIFIC

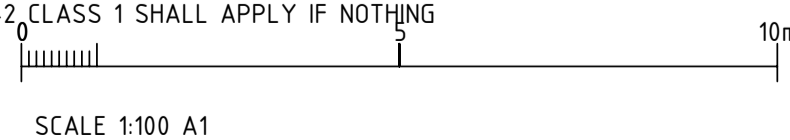
CONCRETE STAIRS (INCLUDING WAIST AND LANDING SLABS) ACCORDING TO THE ARCHITECT DRAWINGS SHALL BE PERFORMED PRECAST AND WITH COATING ACCORDING TO THE ARCHITECT. STAIRS AND LANDINGS MUST BE SEPARATED FROM THE BUILDING STRUCTURE WITH HIDDEN IMPACT SOUND REDUCTION.

EXECUTION CLASS ACCORDING TO SS-EN 13670

EXECUTION CLASS 2

TOLERANCES FOR PRECAST CONCRETE

TOLERANCES ACCORDING TO VALID PRODUCT STANDARD, CLASS B TABLE GSC/1 IN HUS-AMA AND AND SS-EN 13670 TOLERANCE CLASS 2.
REGARDING IN-CAST DETAILS AND CONCRETE ELEMENTS WHERE STEEL STRUCTURES CONNECT SS-EN 1090-2, CLASS 1 SHALL APPLY IF NOTHING ELSE IS STATED.



TOLERANCES FOR IN SITU CASTED CONCRETE

ACCORDING TO SS-EN 13670. TOLERANCE CLASS 1 ARE VALID FOR IN-SITU CAST CONCRETE.
VALID TOLERANCES ACCORDING TO SS-EN 1090-2 CLASS 1 SHALL BE APPLIED TO ATTACHED INSERTS AND CONCRETE TO WHICH STEEL STRUCTURES SHALL BE CONNECTED UNLESS OTHERWISE STATED.

INSPECTION

ACCORDING TO SS-EN 13670, EXECUTION CLASS 2.

CONCRETE FLOORS TYPE G01 AND G02

JOINTS IN CONCRETE FLOORS ARE DONE AS A FORMED FREE-MOVEMENT JOINT USING SYSTEM ALPHAJOINT OR A COMPARABLE SYSTEM.

DESIGN AND EXECUTION SHALL BE DONE IN ACCORDANCE WITH GUIDELINES IN TECHNICAL REPORT 34 - CONCRETE INDUSTRIAL GROUND FLOORS, CONCRETE SOCIETY, 2014.

TOLERANCE DEMANDS

TOLERANCES FOR CONCRETE FLOORS, TYPE G01 AND G02, ACCORDING TO CLASS A, TABLE GSC/1 IN HUS AMA

PD DRAFT 2018-01-09

REV	REVISION TYPE	DATE	SIGN
TECHNICAL BASELINE			
ESS CONVENTIONAL FACILITIES AUXILIARY BUILDINGS NORTH			
<p>European Spallation Source ERIC ESS, Tunavägen 24 P.O. Box 176 SE-221 00 Lund SWEDEN www.ess.se</p> <p style="text-align: right;">ESS EUROPEAN SPALLATION SOURCE</p>			
DESIGN COORDINATOR FRANK KEZERLE		BUILDING OWNER BORIS KILDETOFT	
CONSULTANT K07 TYRÉNS AB		PROJECT NUMBER 24766930	
DRAWN BY JMA	MANAGED BY AAH	CHECKED BY HNO	
DATE	APPROVED BY A.ABRAHAMSSON		
H09 WASTE BUILDING GENERAL INSTRUCTIONS PART 2			
SCALE A1 A3			
DRAWING NUMBER K07-01---0-H09---002	1 REV		

3 STEEL STRUCTURES

CORROSION PROTECTION AND DURABILITY

CORROSION PROTECTION SYSTEM SHALL BE SELECTED BASED ON THE FOLLOWING CORROSION CATEGORIES UNLESS OTHERWISE STATED:
 C1-ENVIRONMENT: INTERIOR STEEL STRUCTURES
 C2-ENVIRONMENT: STEEL STRUCTURES BUILT INTO EXTERNAL WALLS.
 C3-ENVIRONMENT: -
 C4-ENVIRONMENT: EXTERIOR STEEL STRUCTURES.
 IM3-ENVIRONMENT: STEEL STRUCTURES IMMERSED IN SOIL.

PAINT SYSTEM

ACCORDING TO SS-EN ISO 12944-5 AND "HANDBOK FÖR TILLÄMPNING AV SS-EN 1090-2" WITH EXPECTED DURABILITY AS TABLE BELOW.
 C1-ENVIRONMENT: C2 LOW
 C2-ENVIRONMENT: C2 HIGH
 C3-ENVIRONMENT: C3 HIGH
 C4-ENVIRONMENT: C4 HIGH
 IM3-ENVIRONMENT: Im3 HIGH

ALL PAINT WORK SHALL BE DONE IN COMPLIANCE TO SS-EN 1090-2 CHAPTER 10, SS-EN 12944-7, PAINT MANUFACTURERS DESCRIPTION AND "HANDBOK I ROSTSKYDDSMÅLNING" FROM SWEREA/KIMAB.

PAINT WORKS ALSO NEED TO FULFILL THE REQUIREMENTS STATED IN PAKT/TBY - "TECHNICAL REGULATIONS FOR SURFACE TREATMENT"

ON-SITE WELD ASSEMBLIES SHALL BE LEFT UNPAINTED 150MM FROM WELD IF WELDING IS TO BE DONE AFTER PROTECTIVE PAINTING. AFTER WELDING, STEEL SHALL BE PAINTED WITH THE SAME PAINT SYSTEM AS THE REST OF THE ASSEMBLY.

PREPARATION OF STEEL SUBSTRATES

ALL SURFACES SHALL BEFORE BLASTING BE FREE FROM OIL, SALTS AND OTHER POLLUTION ACCORDING TO SS-EN ISO 12944-4 6.13 AND 6.14. IF NOT STATED OTHERWISE THE SURFACE SHALL BE BLASTED TO A MINIMUM VALUE OF Sa 2½ ACCORDING TO SS-EN 8501-1. PREPARATION GRADES OF WELDS, CUT EDGES AND OTHER AREAS WITH SURFACE IMPERFECTIONS SHALL CONFORM TO CHOSEN PAINT SYSTEM DURABILITY ACCORDING TO SS-EN 1090-2 CHAPTER 10.2 AND HUS-AMA GSM-1. FOR Im3 HIGH, PREPARATION GRADE P3 SHALL APPLY.

SUPERVISION

THE STEEL CONTRACTORS WORK SHOP(S) SHALL EACH BE CERTIFIED, BY A BODY ADEQUATELY ACCREDITED, ACCORDING TO EN 1090-12009+A1:2011 FOR THE EQUIVALENT EXECUTION CLASS (EXC2 OR EXC3 FOR CRANE BEAMS). THE METHOD OF CERTIFICATION SHALL MATCH THE TENDER PROCEDURE. THE WELDING COMPANY SHALL BE CERTIFIED ACCORDING TO SS-EN ISO 3834-2 OR -3 (TO THE EQUIVALENT EXECUTION CLASS) TO PERFORM THE WELDS ON SITE. MANUFACTURING AND ASSEMBLY OF STEEL STRUCTURES SHALL BE SUPERVISED BY THE PERSON IN CHARGE WHO SHALL HAVE PROVEN COMPETENCE TR-STÅL/N (OR TR-STÅL/K IN EXC3) ACCORDING TO AMA, OR CORRESPONDING INTERNATIONAL SKILL OR COMPETENCE. THE PERSON IN CHARGE OF WELDING SHALL HAVE COMPETENCE ACCORDING TO THE WELDING COMMISSION GUIDELINES - TILLSYN VID SVETSNING- AND ACCORDING TO SS-EN ISO 17660-1 IF WELDING IN REINFORCEMENT IS PERFORMED. ALL WELDING PERSONAL SHALL HAVE PROVEN COMPETENCE ACCORDING TO SS-EN ISO 9606-1. ALL THE PERSONS WELDING IN REINFORCEMENT SHALL ALSO FULFILL THE DEMANDS IN SS-EN 17660-1.

MATERIALS

SECTIONS HEA/HEB/PE:	S355J2	SS-EN 10025-2
SECTIONS UPE:	S355N	SS-EN 10025-3
SECTIONS L:	S235JR	SS-EN 10025-2
HOLLOW SECTIONS VKR/VCKR:	S355J2H	SS-EN 10219
HOLLOW SECTIONS KKR/KCKR:	S355J2H	SS-EN 10219
SHEETS AND PLATES:	S355J2	SS-EN 10025-2
ANCHOR BOLTS:	S355J2	SS-EN 10025-2
BOLTED NON-PRELOADED		
CONNECTIONS:	BOLT M6S 8.8 tZn	SS-EN ISO 4014, 4017
	NUT M6M 8 tZn	SS-EN ISO 4032
	WASHER 200 HV tZn	SS-EN ISO 7090

COLD FORMED STRUCTURAL HOLLOW SECTIONS ACCORDING TO SS-EN 10219 SHALL TOGETHER WITH A THICKNESS NOT EXCEEDING 12.5 mm AND ARE AL-KILLED (AL≥0,20%) AND SATISFY C≤0.18%, P≤0,020%, S≤ 0,012%.

FASTENERS INTENDED FOR NON-PRELOADED BOLTED CONNECTIONS SHALL BE CE MARKED ACCORDING TO SS-EN 15048-1 AND DELIVERED WITH A CERTIFICATE OF INSPECTION 3.1 ACCORDING TO SS-EN 10204. GALVANIZING OF FASTENERS SHALL BE PERFORMED ACCORDING TO SS-EN ISO 10684.

WELDING PLAN

WELDING PLAN TO BE CARRIED OUT BY THE STEEL CONTRACTOR

EXECUTION

EXECUTION CLASS, CRANE BEAMS: EXC3
 EXECUTION CLASS, OTHER STRUCTURES: EXC2
 THERMAL CUTTING: RANGE 4
 WELD QUALITY LEVEL, CRANE BEAMS: B
 WELD QUALITY LEVEL, OTHER STRUCTURES: C WITH ADDITIONS AND EXCEPTIONS ACCORDING TO SS-EN 1090-2.7.6.

CATEGORIES OF BOLTED NON - PRELOADED

CONNECTIONS: A AND D
 SURFACES TO BE PROTECTED WITH CORROSION PROTECTION SYSTEMS IN COMPLIANCE WITH CORROSIIVITY CATEGORY C3 OR HIGHER (C4, IM3) SHALL BE EXECUTED ACCORDING TO SS-EN ISO 8501-3 PREPARATION GRADE P3. OTHER SURFACES SHALL BE EXECUTED ACCORDING TO SS-EN ISO 8501-3 PREPARATION GRADE P2.

ERECTION SCHEDULE

ERECTION SCHEDULE COVERING E.G. TEMPORARY BRACING AND STABILIZING SHALL BE ESTABLISHED BY THE CONTRACTOR IN AGREEMENT WITH THE STRUCTURAL DESIGN ENGINEER, SEE ALSO UNDER STABILITY ON DRAWING -001.

FIRE PROTECTION

FIRE PROTECTION ACCORDING TO THE FIRE SAFETY STRATEGY REPORT, ESS-0002381.
 ALL STRUCTURES SUPPORTING E160 FIRE COMPARTMENTS R60 FIRE PROTECTION OF STEEL STRUCTURES IS DONE USING COATING ON VISIBLE STEEL AND FIRE PROTECTION BOARDS ON BUILT-IN STEEL TO THE APPROPRIATE CLASS.

TOLERANCES

ESSENTIAL TOLERANCES ACCORDING TO SS-EN 1090-2 ANNEX D. FUNCTIONAL TOLERANCES IF NOTHING ELSE IS STATED ACCORDING TO SS-EN 1090-2 ANNEX D CLASS 1.
 FUNCTIONAL TOLERANCES FOR CRANE BEAMS ACCORDING TO SS-EN 1090-2 ANNEX D CLASS 2.

INSPECTION OF EXECUTION

INSPECTION SHALL BE CARRIED OUT ACCORDING TO SS-EN 1090-2 AND SBI'S MANUAL FOR APPLICATION OF SS-EN 1090-2. ADDITIONAL INSPECTIONS AND CONTROLS ACCORDING TO SEPARATE INSPECTION PLAN MADE BY THE STRUCTURAL ENGINEER COORDINATED WITH THE STEEL CONTRACTOR.

ROOF TRUSSES AND OTHER STEEL STRUCTURES

ROOF TRUSSES INCLUDING SUPPORT DETAILS SHALL BE DESIGNED BY THE MANUFACTURER WITH ACTUAL DEAD LOADS FROM THE ROOF STRUCTURE, SNOW AND WIND LOADS WITH RELEVANT SHAPE COEFFICIENTS AND WITH INSTALLATION LOADS. THE EFFECTS OF THE CONTINUITY OF THE LOAD BEARING METAL SHEET SHALL BE TAKEN INTO ACCOUNT WITH A CONTINUITY FACTOR OF 1.10. THE ROOF TRUSSES SHALL BE MANUFACTURED WITH A CAMBER EQUIVALENT TO THE DEFLECTION FROM PERMANENT LOAD.

TRUSSES ARE TO BE DESIGNED WITH LATERAL AND LATERAL TORSIONAL BRACING OF THE TOP CHORD USING THE ROOF METAL SHEET.

SHOP AND ASSEMBLY DRAWINGS SHALL BE DELIVERED TO THE CLIENT FOR REVIEW IN GOOD TIME (IN AGREEMENT WITH THE CLIENT) BEFORE MANUFACTURING.

LOAD-BEARING SHEET METAL STRUCTURES

ROOF SHEET METAL INCLUDING FIXING, EDGE FLASHING, ANCHORS, CONNECTIONS AND ALL PARTS NEEDED FOR INTENDED FUNCTION, SHALL BE DESIGNED BY THE SUPPLIER WITH THE ACTUAL DEAD LOAD FROM THE ROOF STRUCTURE, SNOW AND WIND LOADS WITH RELEVANT SHAPE COEFFICIENTS AND WITH INSTALLATION LOADS. THE METAL SHEET SHALL BE DESIGNED TO PREVENT BOTH LATERAL AND LATERAL TORSIONAL BUCKLING OF THE STEEL TRUSS BY CONNECTION THE METAL SHEET TO THE TOP CHORD. STRUCTURAL SYSTEM AND JOINTS FOR THE LOAD BEARING METAL SHEET SHALL BE DONE ENSURING A CONTINUITY FACTOR NOT EXCEEDING 1,10. THE ROOF PANEL IS ALSO USED AS A PART OF THE STABILIZING OF THE BUILDING. THE METAL SHEET IS A LARGE SHEET WITH THE FUNCTION TO DISTRIBUTE HORIZONTAL LOADS TO VERTICAL STIFFENERS. THIS SHALL BE TAKEN INTO ACCOUNT, (STRESSED SKIN DESIGN). THE SHEET METAL SHALL BE DESIGNED IN THE SAME SAFETY CLASS AS THE SUPPORTING STRUCTURE ITSELF FOR ALL LOAD COMBINATIONS, COMPARE SAFETY CLASS ON DRAWING -001. SHOP AND ASSEMBLY DRAWINGS SHALL BE DELIVERED TO THE CLIENT FOR REVIEW IN GOOD TIME (IN AGREEMENT WITH THE CLIENT) BEFORE MANUFACTURING.

INSPECTION PLAN

INSPECTION PLAN							REMARK	
MARKING	INSPECTION APPLIES TO	CONSTITUENT PRODUCTS	DIMENSIONS	WELDED CONNECTIONS	MECHANICAL FASTENING	SURFACE-TREATMENT		OTHER INSPECTIONS
	SS-EN 1090-2	5 and 12.2	11.2 and bil. D	7.6 and 12.4	8 and 12.5	10 and 12.6	Annex D2	* Sample test acc. to respective standard. If inspection gives non conforming results it shall be extended to 100% /b 8 h after welding. /c 16 h after welding. /d 24 h after welding.
		Compliance	Ultrasonic examination of material	Visual inspection of surfaces	Visual inspection of welds (VT)	Visual inspection of paint preparation	Visual inspection of straightness	
ALL	All elements	100	10	10	10			
ALL	All welds			100				Acc. SS-EN ISO 17637 id
ALL	All but welds			10				Acc. SS-EN ISO 17637
ALL	All fillet welds				S			Acc. SS-EN ISO 17638 id
ALL	All butt welds				S			Acc. SS-EN ISO 17640, class A id
ALL	Shop splices			10				Acc. SS-EN ISO 17640, class A id
ALL	Bolted connections				100	S	100	
ALL	Columns						10	
ALL	Preparation grade					S		Acc. SS-EN ISO 8503 and SS-EN ISO 8501
ALL	Surface treatment					S		Acc. SS-ISO 19840
ALL	Surface treatment					S		Acc. SS-EN ISO 4624
ALL	Surface treatment					S		Acc. SS-EN ISO 8502-3 class 3
ALL	Surface treatment					S		Acc. SS-EN ISO 8502-4 and SS-EN ISO 8502-9 less chlorides than 100 mg/m2
ALL	Fire protection paint				S	S	S	
ALL	Fire protection paint						S	Acc. SS-EN ISO 8502-3 class 2

BOLTING ASSEMBLIES AND WELDS

BOLTING ASSEMBLIES

BOLTING ASSEMBLIES FOR NON PRELOADED APPLICATION SHALL BE CE-MARKED ACCORDING TO SS-EN 15048-1. INSPECTION CERTIFICATE 3.1 ACCORDING TO SS-EN 10204. SHALL BE INCLUDED WITH THE DELIVERY. HOT DIP GALVANIZATION SHALL CONFORM TO TO SS-EN ISO 10684.

HEX HEAD SCREW FULLY THREADED	SS-EN ISO 4017 8.8 tZn
HEX HEAD SCREW PARTLY THREADED	SS-EN ISO 4014 8.8 tZn
WASHER	SS-EN ISO 7090 300 HV tZn
HEXAGON NUT	SS-EN ISO 4032 8 tZn

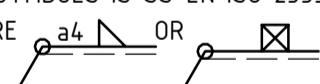
WASHERS SHALL BE USED IN ALL BOLTING ASSEMBLIES. CONNECTIONS SHALL BE IN FULL CONTACT BEARING. BOLTING ASSEMBLIES SHALL BE LOCKES WITH HEAVY PUNCH MARK OR LOCK NUT.

WELDS

THE FILLER METAL SHALL BE MATCHING, MEANING THAT YIELD STRENGTH, ULTIMATE TENSILE STRENGTH, ELONGATION AT FAILURE AND MINIMUM CHARPY V-NOTCH ENERGY VALUE OF THE FILLER METAL, SHOULD BE EQUIVALENT TO, OR BETTER THAN THAT SPECIFIED FOR THE PARENT MATERIAL.

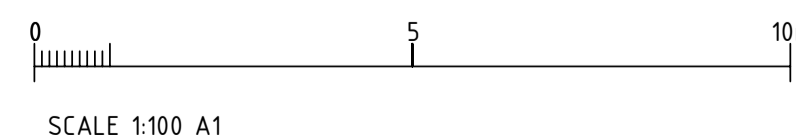
FACING SURFACES BETWEEN PROFILE AND BASE/TOP PLATE SHOULD BE WELL FITTED TO EACH OTHER AND BE IN FULL CONTACT. FACING SURFACES BETWEEN STIFFENER AND FLANGE SHOULD BE WELL FITTED TO EACH OTHER AND BE IN FULL CONTACT.

FOR WELDING SYMBOLS IS SS-EN ISO 2553 SYSTEM A USED.

ALL WELDS ARE  UNLESS OTHERWISE STATED.

EQUIPOTENTIAL BONDING

ALL COLUMNS ARE DONE WITH A UNPAINTED HEX HEAD FULLY SCREW M10 WELDED TO THE COLUMN 300MM FROM THE BASE ACCORDING TO PRINCIPLE DETAIL BELOW.



7 GEOTECHNICAL STRUCTURE

GEOTECHNICAL INVESTIGATIONS

GEOTECHNICAL INVESTIGATIONS ARE CARRIED OUT AND DOCUMENTED IN ESS-0005223, G02-DT-TBSIGD-----GDR, dated 2016-02-26. ESS, 0005205, G02-DT-TBSIGD-----GIR, dated 2016-02-26.

FROSTLESS ZONE

FROSTLESS DEPTH IS SET TO 1,3 m BELOW GROUND SURFACE.

GROUND WATER

CHARACTERISTIC VALUE OF GROUND WATER LEVEL IS NOT YET DECIDED IN THIS STAGE.

THE CONTRACTOR SHALL PERFORM AND BE LIABLE OF DRAINAGE AND GROUNDWATER LOWERING ALONG BUILDINGS IN THE EXECUTION PHASE IF NECESSARY.

LOWERING OF STATIC PORE-WATER PRESSURE MUST BE MADE IN THE EXCAVATION BY DITCHES WITH DRAINAGE AND PUMP PITS ARRANGED SO THE PRESSURE LEVEL IN THE CLAY TILL IS LOWERED AT LEAST 0,5 m BELOW LOWEST FOUNDATION LEVEL AND TO LET RAINWATER BE DRAINED.

EQUIPMENT FOR GROUNDWATER LOWERING SHALL BE INSTALLED SO THE EXCAVATION BOTTOM BELOW FUTURE FOUNDATIONS NOT WILL BE DISTURBED.

EXCAVATION

EXCAVATION CAN TAKE PLACE WITH UNLOADED SLOPE IN GRADIENT 2:1 AND WITH BOTTOM OF THE SLOPE ABOUT 1,5 m OUTSIDE THE STRUCTURE (FREE EXCAVATION).

UNCOVERED BOTTOM OF EXCAVATIONS MUST NOT BE EXPOSED TO RAIN DUE TO SENSIVITY OF WATER INFLUENCE. EXCAVATION FOR FOUNDATIONS SHALL BE CARRIED OUT PURSUANT TO THE FOLLOWING PROCEDURE.

- GROUNDWATER LEVEL LOWERED BY DITCHES WITH DRAINAGE AND PUMP PITS ARRANGED SO THE PRESSURE LEVEL IN THE CLAY TILL IS LOWERED AT LEAST 0,5 m BELOW LOWEST FOUNDATION LEVEL.
- THE FINAL EXCAVATION SHALL BE CARRIED OUT AT DRY WEATHER AND BE DONE WITH BUCKET WITHOUT TEETH.
- THE BOTTOM OF EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER ACCORDING TO THE PLAN OF SUPERVISION.
- IMMEDIATELY AFTER UNCOVERING AND INSPECTION THE EXCAVATION BOTTOM SHALL BE PROTECTED WITH COARSE CONCRETE OR GRAVEL.

FOUNDATIONS

FOUNDATIONS SHALL BE DESIGNED IN GEOTECHNICAL CLASS 2 (GK2) AND SECURITY CLASS 2 (SK 2) ACCORDING TO THE GEOTECHNICAL DESIGN REPORT.

SOME FOUNDATIONS SHALL BE PERFORMED ON COMPACTED AND STABILIZED FILLING ON TOP OF UNDISTURBED CLAY TILL.

DESIGN RESISTANCE IN BOTH ULTIMATE AND SERVICEABILITY LIMIT STATES ARE TO BE CALCULATED ACCORDING TO SS-EN 1997-1 WITH PARAMETERS AND PARTIAL FACTORS FROM THE GEOTECHNICAL DESIGN REPORT GDR.

- FOR DESIGN CONCERNING BEARING RESISTANCE IN CLAY TILL, CALCULATIONS ARE TO BE PERFORMED FOR BOTH DRAINED AND NON-DRAINED PARAMETERS, THE MOST UNFAVORABLE CASE DEFINES THE DESIGN.

DRAINAGE

CAPILLARY BREAKING AND DRAINAGE LAYER BELOW SLAB ON GROUND CONSIST OF MINIMUM 250 mm CRUSHED AGGREGATE. THE DRAINING LAYER IS TO BE CONNECTED TO THE EXTERIOR DRAINAGE PIPES AROUND THE BUILDING.

DRAINAGE PIPE

THE DRAINAGE PIPES CONSISTS OF DRAIN LINES Ø110 PLASTIC PIPES ACCORDING TO AMA ANLÄGGNING 10 PB-53. THE PIPES SHALL BE IN STRAIGHT RIGID LENGTHS, COMPLETE WITH BENDS, JOINT SLEEVES, RINSING WELLS ETC. THE PIPES ARE TO BE PLACED ON 50 mm MACADAM AND BACKFILLED ON REMAINING SIDES WITH A MINIMUM OF 100 mm MACADAM AND LAID WITH A GRADIENT OF MINIMUM 1:200 TOWARDS DRAINAGE WELLS. A NONWOVEN GEOTEXTILE SHALL BE PLACED AROUND THE BACKFILL.

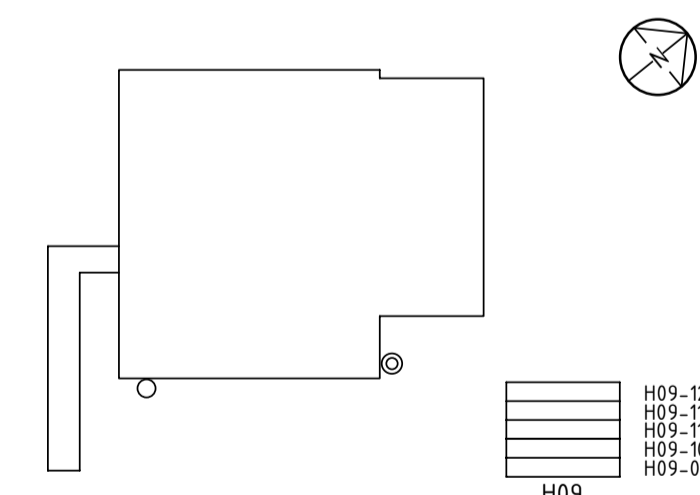

BACKFILLING

BACKFILLING SHOULD BE DONE EITHER WITH LIME STABILIZED MATERIAL ACCORDING TO GROUND EXCAVATION OR 0-90 CRUSHED MATERIAL IF STABILIZING IS NOT NECESSARY.

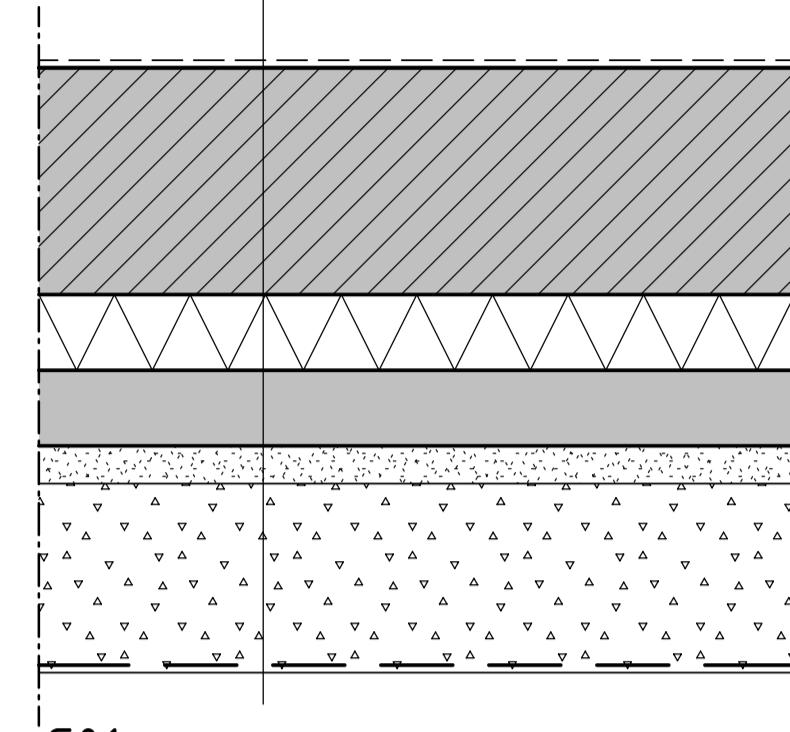
INSPECTION

INSPECTIONS ARE TO BE CARRIED OUT ACCORDING SS-EN 1997-1.

PD DRAFT 2018-01-09

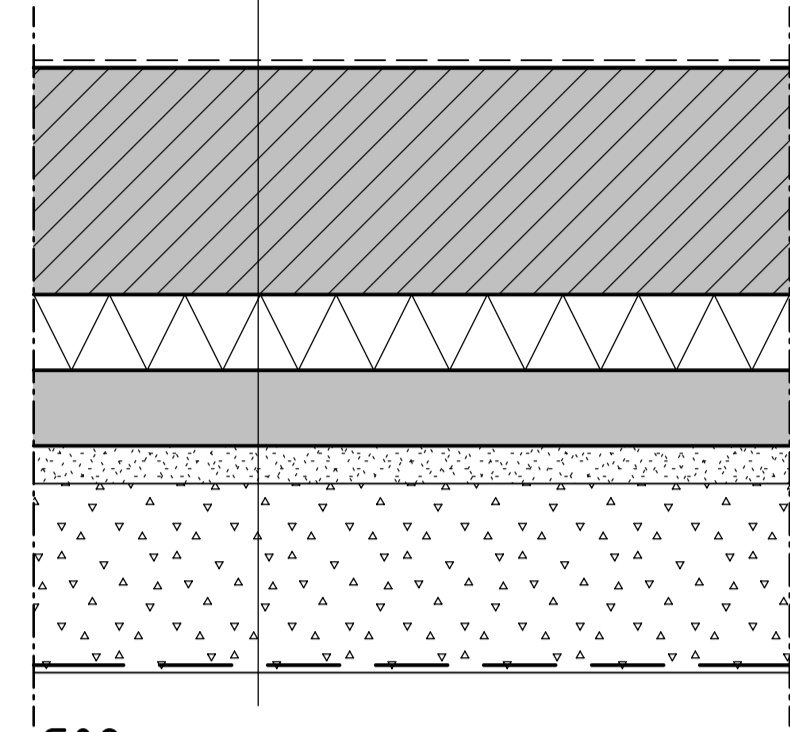
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ESS CONVENTIONAL FACILITIES			
AUXILIARY BUILDINGS NORTH			
			
European Spallation Source ERIC ESS, Tunavägen 24 P.O. Box 176 SE-221 00 Lund SWEDEN www.ess.se			
		EUROPEAN SPALLATION SOURCE	
DESIGN COORDINATOR		BUILDING OWNER	
FRANK KEZERLE		BORIS KILDETOFT	
CONSULTANT		PROJECT NUMBER	
K07 TYRÉNS AB		24.766930	
DRAWN BY	MANAGED BY	CHECKED BY	
JMÅ	AAH	HNO	
DATE	APPROVED BY		
	A.ABRAHAMSSON		
H09 WASTE BUILDING			
GENERAL INSTRUCTIONS PART 3			
SCALE			
A1			
A3			
DRAWING NUMBER	1 REV		
K07-01---0-H09---003			

- xx EPOXY FLOOR ACC. TO ARCHITECTURAL
- 300 WATERTIGHT CONCRETE
- 100 XPS 300 (XPS 500 UNDER STRIP FOOTINGS)
- 100 PROTECTIVE CONCRETE
- 50 CRUSHED AGGREGATE 0-16
- 250 CRUSHED AGGREGATE 0-90, DRAINAGE LAYER
- GEOTEXTILE



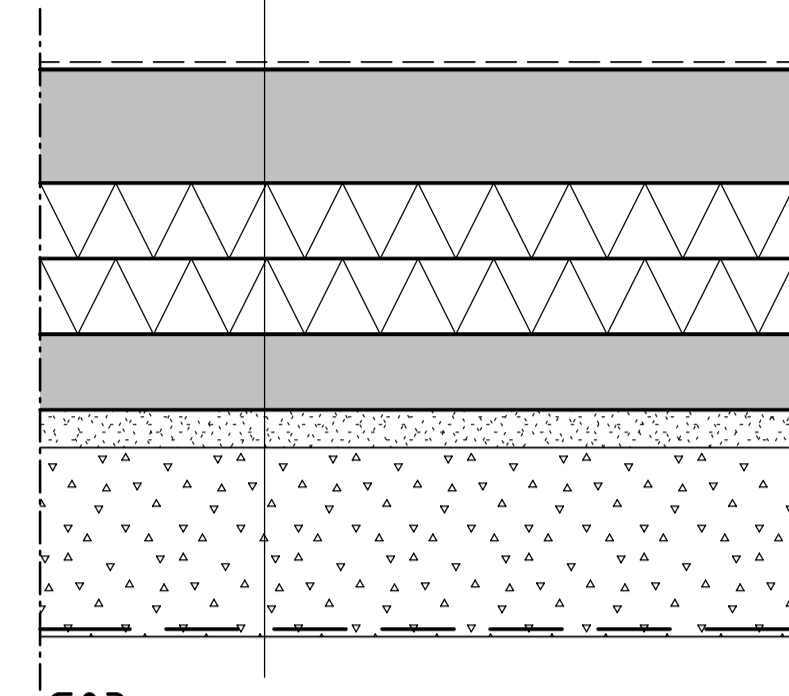
G01
1 : 10

- xx EPOXY FLOOR ACC. TO ARCHITECTURAL
- 300 WATERTIGHT CONCRETE
- 100 XPS 300
- 100 PROTECTIVE CONCRETE
- 50 CRUSHED AGGREGATE 0-16
- 250 CRUSHED AGGREGATE 0-90, DRAINAGE LAYER
- GEOTEXTILE



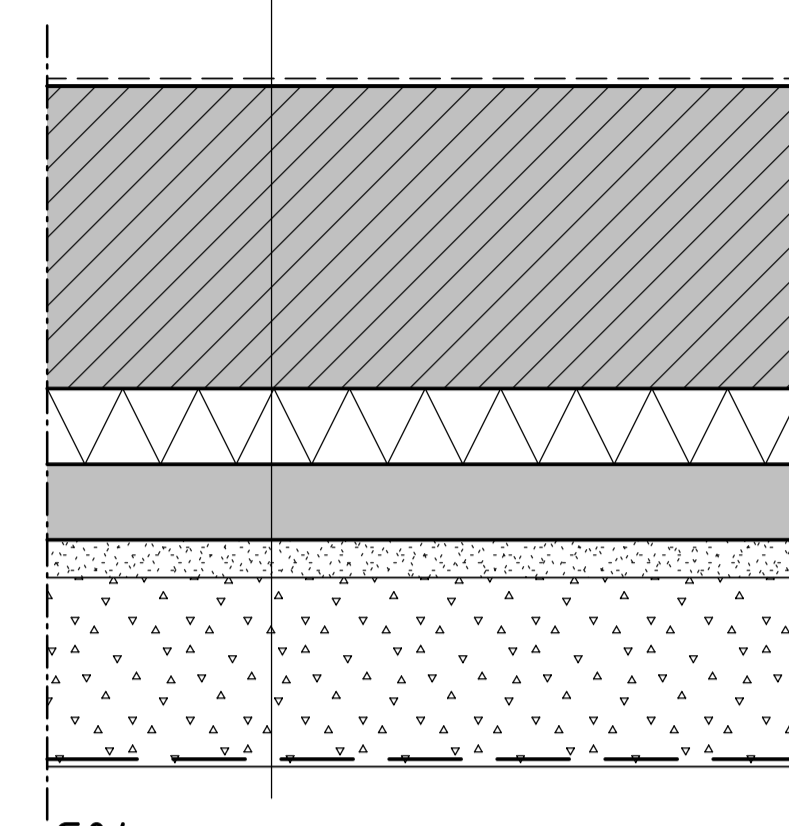
G02
1 : 10

- xx FLOOR MATERIAL ACC. TO ARCHITECTURAL
- 150 CONCRETE
- 2x100 XPS 250 (XPS 400 UNDER STRIP FOOTINGS)
- 100 PROTECTIVE CONCRETE
- 50 CRUSHED AGGREGATE 0-16
- 250 CRUSHED AGGREGATE 0-90, DRAINAGE LAYER
- GEOTEXTILE



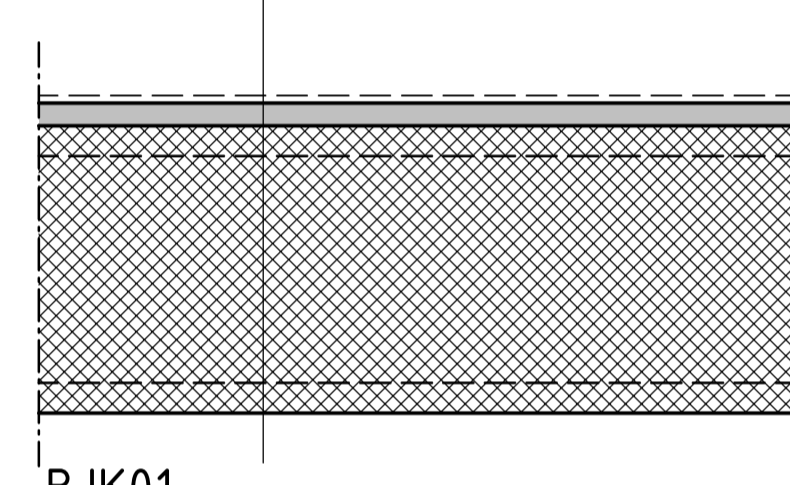
G03
1 : 10

- xx EPOXY FLOOR ACC. TO ARCHITECTURAL
- 400 WATERTIGHT CONCRETE
- 100 XPS 300 (XPS 500 UNDER STRIP FOOTINGS)
- 100 PROTECTIVE CONCRETE
- 50 CRUSHED AGGREGATE 0-16
- 250 CRUSHED AGGREGATE 0-90, DRAINAGE LAYER
- GEOTEXTILE



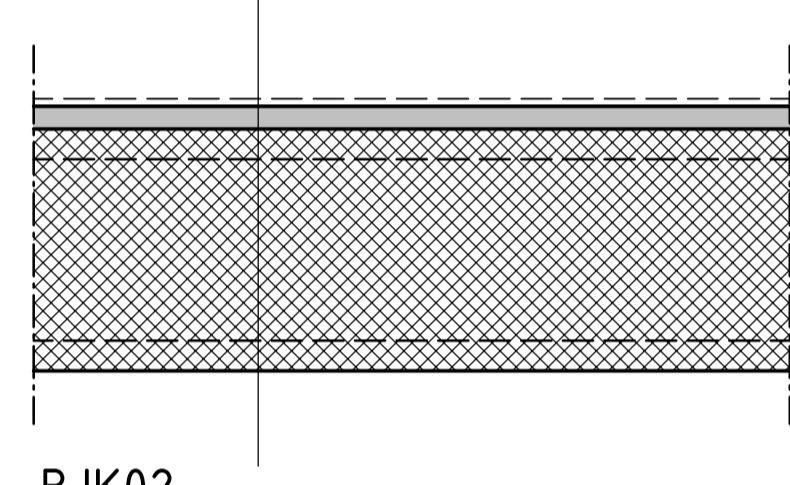
G04
1 : 10

- xx FLOOR MATERIAL ACC. TO ARCHITECTURAL
- 30 SCREED
- 380 PRECAST PRESTRESSED HOLLOWCORE SLAB



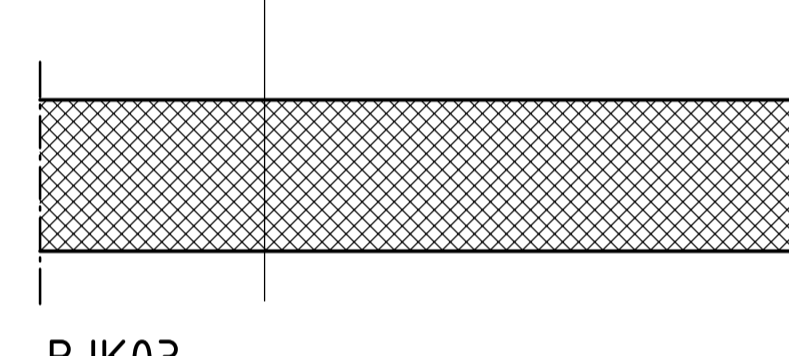
BJK01
1 : 10

- xx FLOOR MATERIAL ACC. TO ARCHITECTURAL
- 30 SCREED
- 320 PRECAST PRESTRESSED HOLLOWCORE SLAB



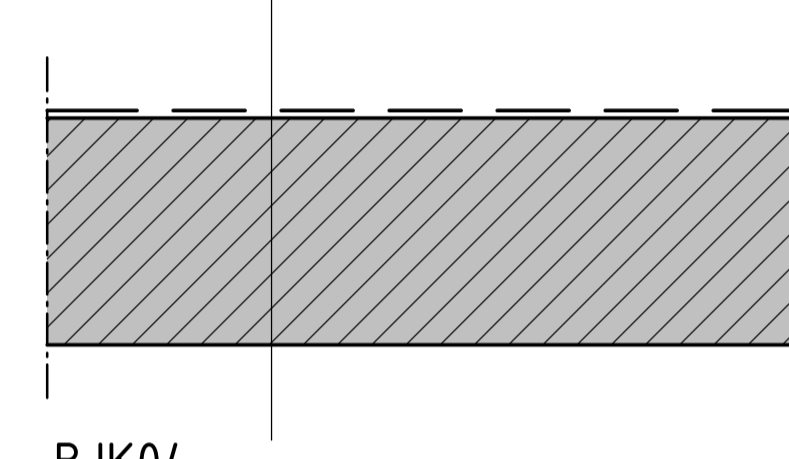
BJK02
1 : 10

- 200 PRECAST CONCRETE SLAB



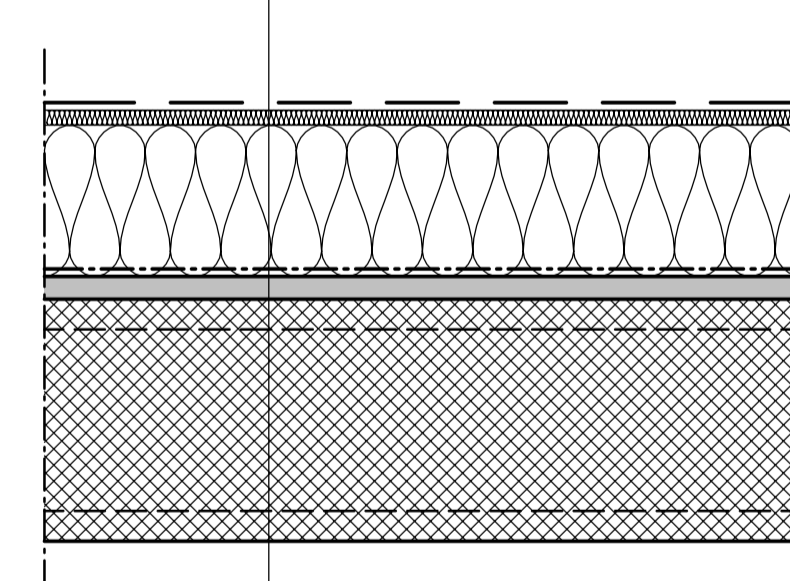
BJK03
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- xx EPOXY FLOOR ACC. TO ARCHITECTURAL
- 300 WATERTIGHT CONCRETE



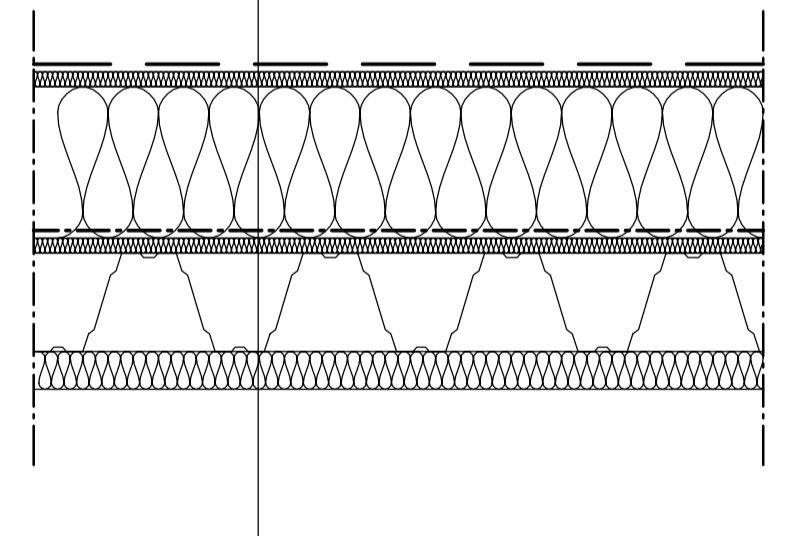
BJK04
1 : 10

- WATERTIGHT MEMBRANE
- 20 MINERAL WOOL BOARD
- 200 MINERAL WOOL
- PE PLASTIC FOIL
- 30 SCREED
- 320 PRECAST PRESTRESSED HOLLOWCORE SLAB



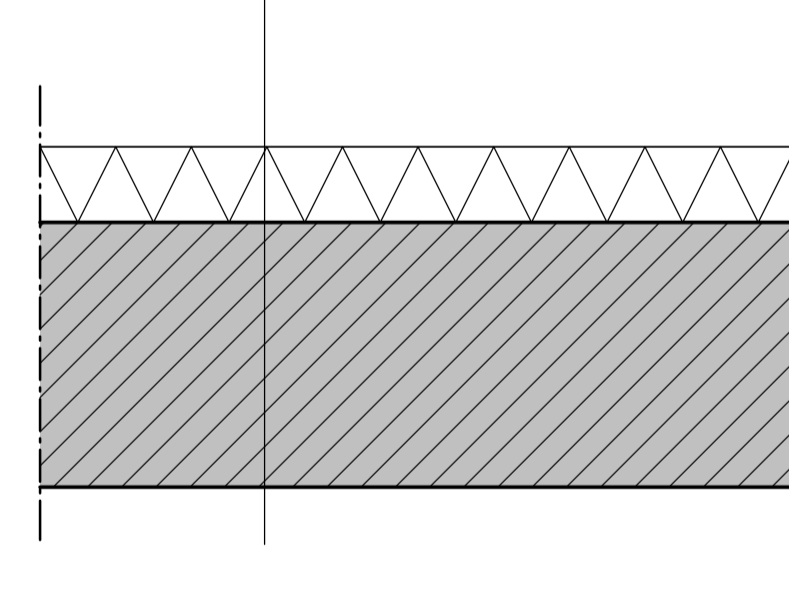
T01
1 : 10

- WATERTIGHT MEMBRANE
- 20 MINERAL WOOL BOARD
- 200 MINERAL WOOL
- PE PLASTIC FOIL
- 20 MINERAL WOOL BOARD
- 130 CORRUGATED STEEL SHEET
- 50 STONE WOOL FIRE PROTECTION BOARD (R60)

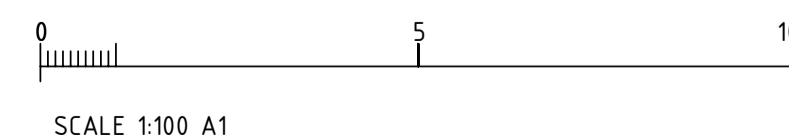


T02
1 : 10

- (EARTH SUPERSTRUCTURE)
- 100 XPS300
- 350 WATERTIGHT CONCRETE



T03
1 : 10



REFERENCES

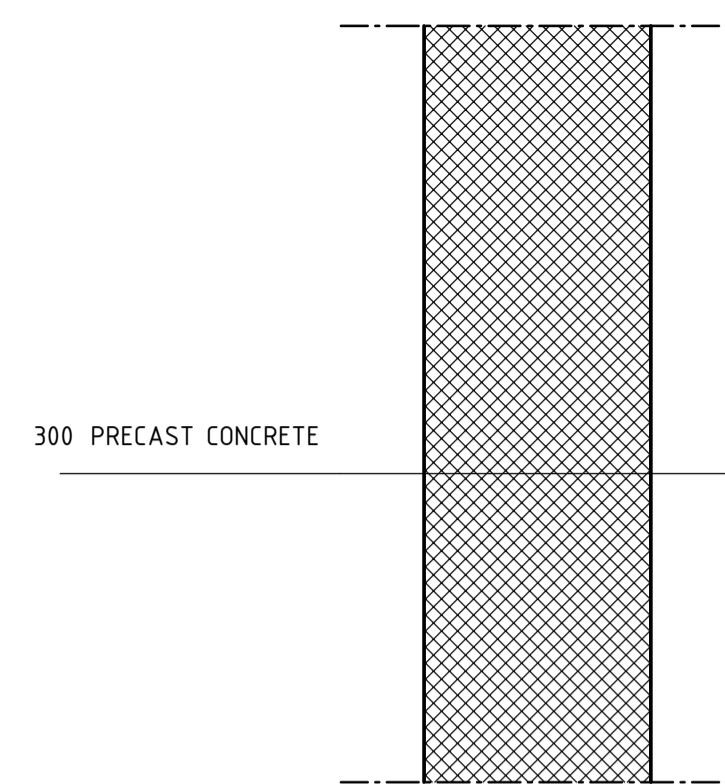
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 LOCATION OF BUILDING ELEMENTS, SEE PLAN DRAWINGS

PD DRAFT 2018-01-09

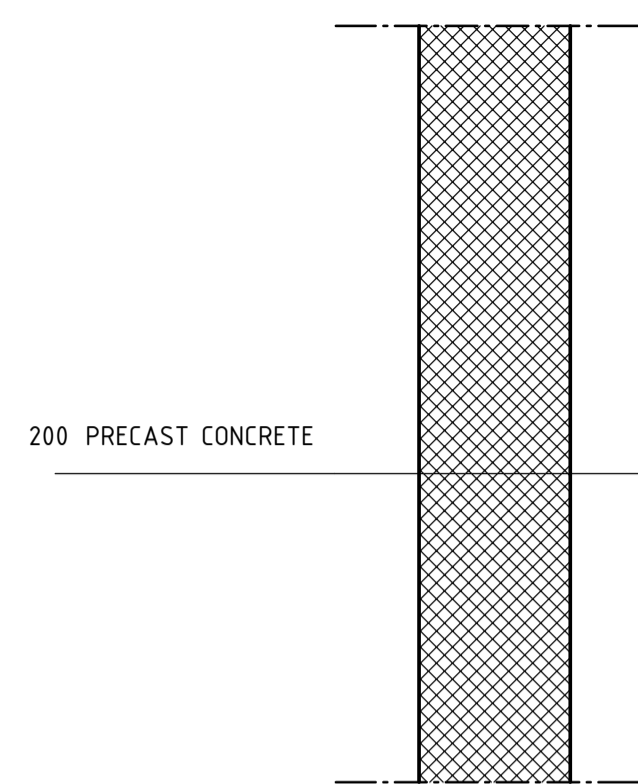
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ESS CONVENTIONAL FACILITIES AUXILIARY BUILDINGS NORTH			
<p>European Spallation Source ERIC ESS, Tunavägen 24 P.O. Box 176 SE-221 00 Lund SWEDEN www.esss.se</p>			
<p>DESIGN COORDINATOR FRANK KEZERLE</p>		<p>BUILDING OWNER BORIS KILDETOFT</p>	
<p>CONSULTANT K07 TYRÉNS AB</p>		<p>PROJECT NUMBER 24766930</p>	
<p>DRAWN BY JMÅ</p>	<p>MANAGED BY AAH</p>	<p>CHECKED BY HNO</p>	
<p>DATE A.ABRAHAMSSON</p>			
H09 WASTE BUILDING BUILDING ELEMENTS			
<p>SCALE A1 1:10 A3 1:20</p>		<p>DRAWING NUMBER K07-01---0-H09---011</p>	
			1 REV

REFERENCES

GENERAL INSTRUCTIONS ACCORDING TO K07-01---0-H09---001---003
 BUILDING ELEMENTS ACCORDING TO K07-01---0-H09---011-012
 LOCATION OF BUILDING ELEMENTS, SEE PLAN DRAWINGS

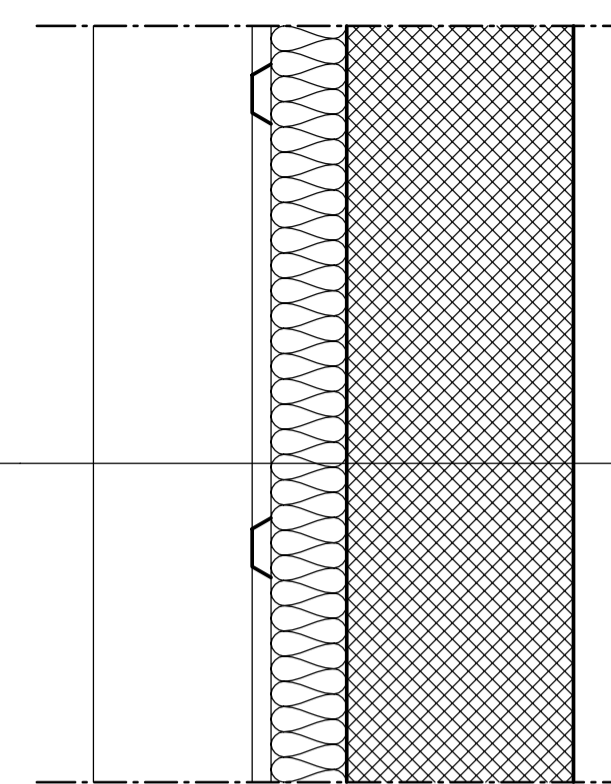


IVB01
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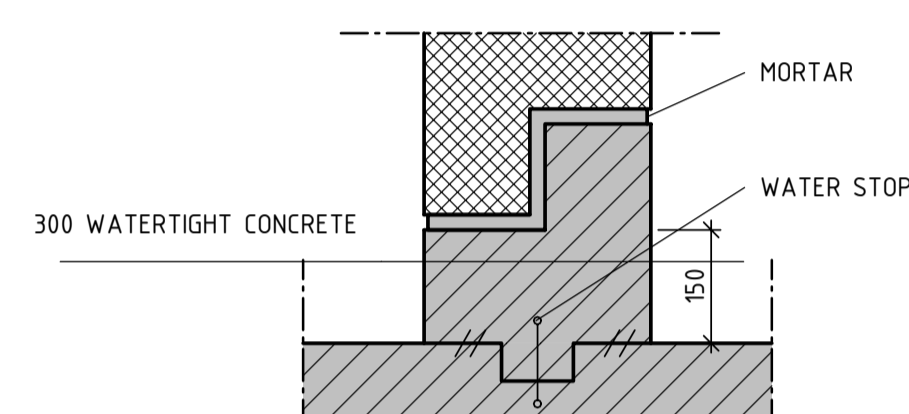


IVB02
1 : 10

210 CORRUGATED SHEET ACC. TO ARCHITECTURAL
 25 HORIZONTAL HAT PROFILES
 - WINDBREAKING FOIL
 100 THERMAL INSULATION/
 VERTICAL Z-PROFILES Z100X1, 5 S600, CORR. PORT C3
 300 PRECAST CONCRETE

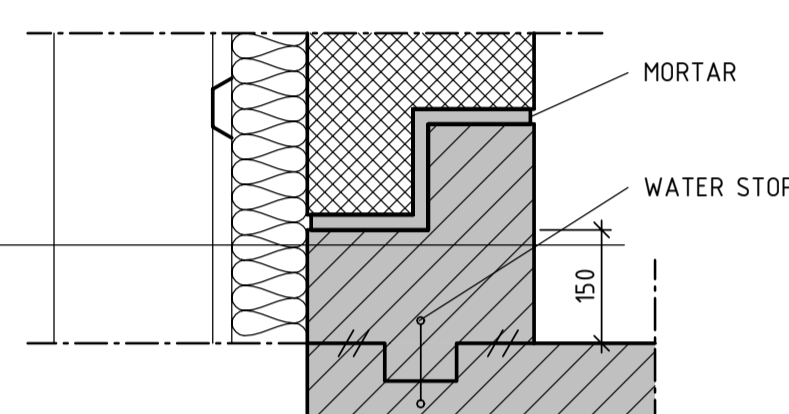


YV01
1 : 10



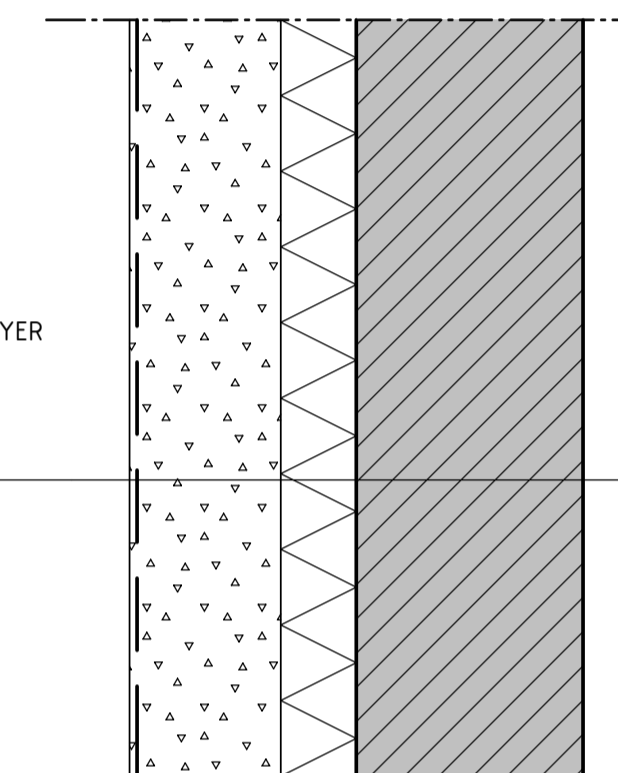
IVB01a
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210 CORRUGATED SHEET ACC. TO ARCHITECTURAL
 25 HORIZONTAL HAT PROFILES
 - WINDBREAKING FOIL
 100 THERMAL INSULATION/
 VERTICAL Z-PROFILES Z100X1, 5 S600, CORR. PORT C3
 300 WATERTIGHT CONCRETE

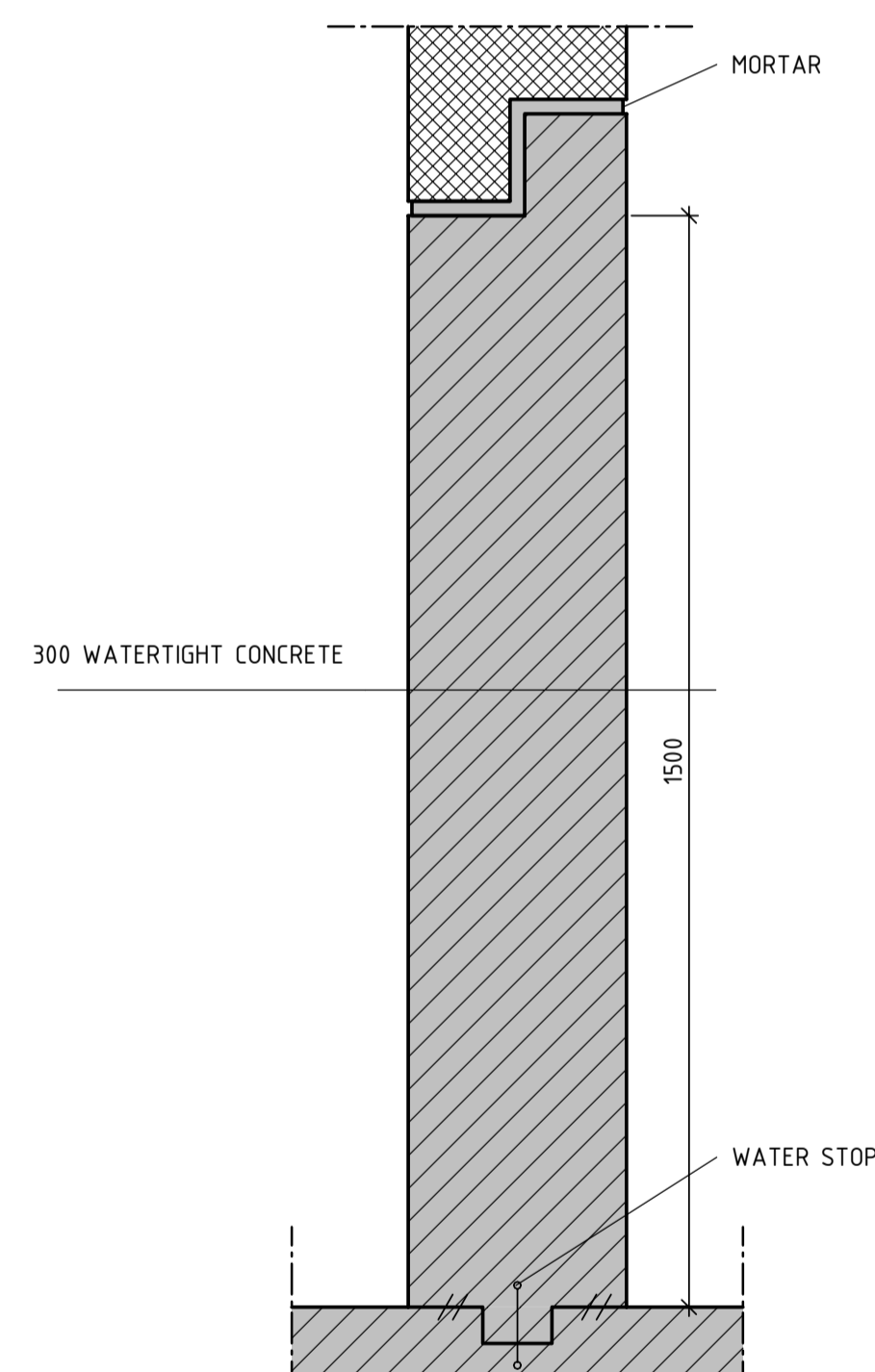


YV01a
1 : 10

xx GEOTEXTILE
 200 CRUSHED AGGREGATE 0-90, DRAINAGE LAYER
 100 XPS250
 300 WATERTIGHT CONCRETE
 xx EPOXY SURFACE ACC. TO ARCHITECTURAL

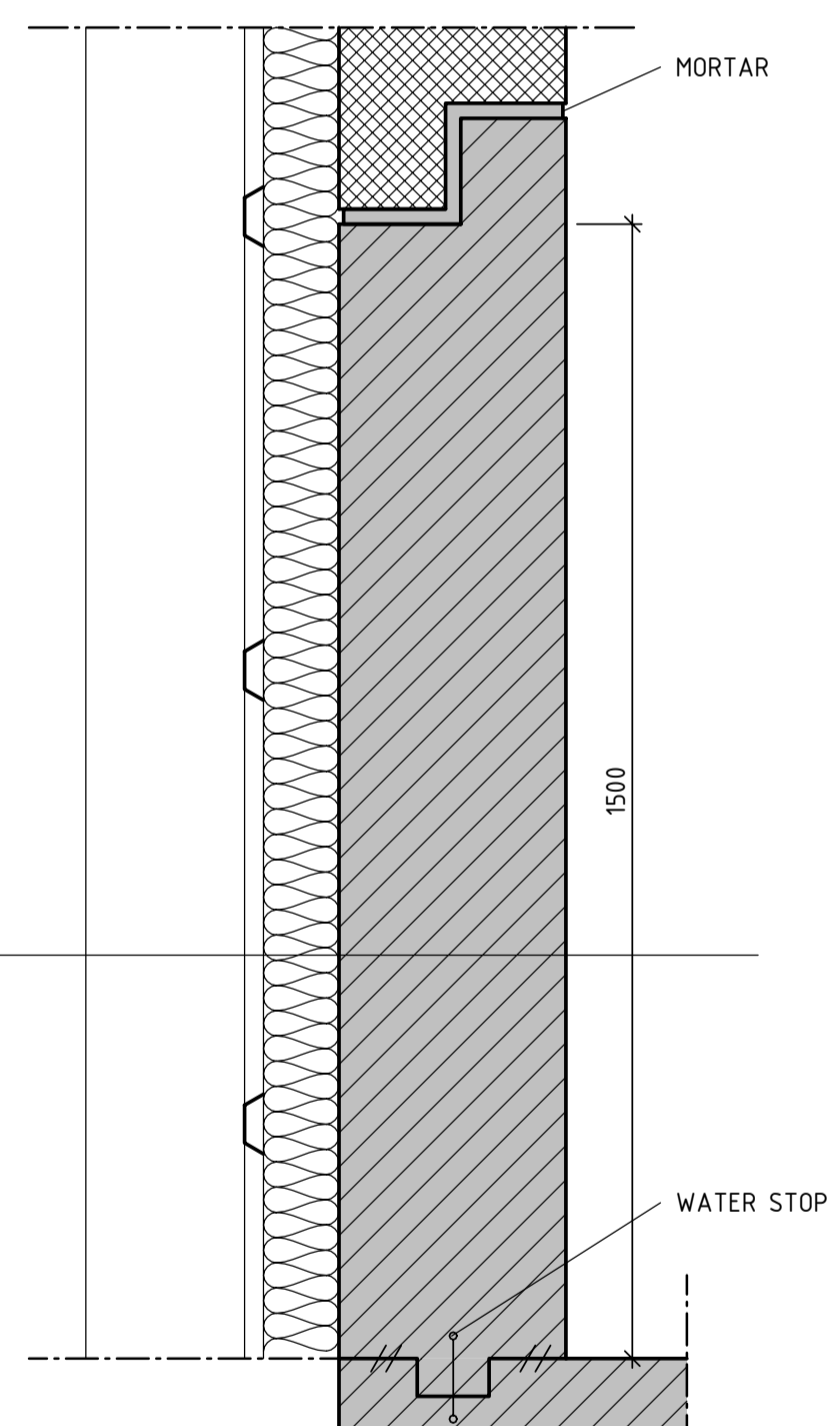


KYV01
1 : 10



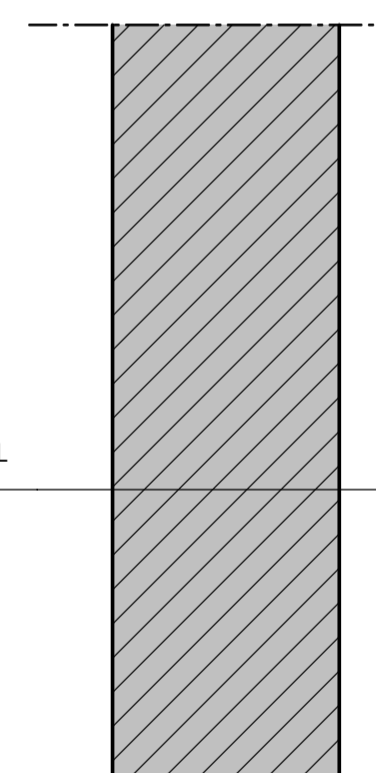
IVB01b
1 : 10

210 CORRUGATED SHEET ACC. TO ARCHITECTURAL
 25 HORIZONTAL HAT PROFILES
 - WINDBREAKING FOIL
 100 THERMAL INSULATION/
 VERTICAL Z-PROFILES Z100X1, 5 S600, CORR. PORT C3
 300 WATERTIGHT CONCRETE

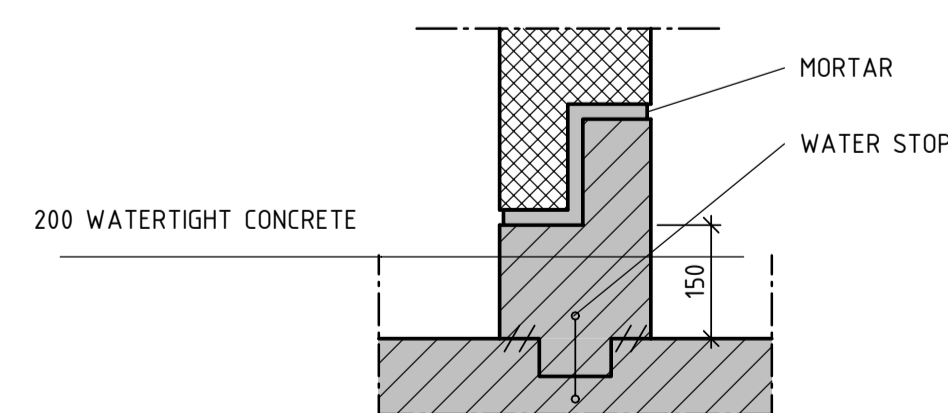


YV01b
1 : 10

300 WATERTIGHT CONCRETE
 xx EPOXY SURFACE ACC. TO ARCHITECTURAL



KIV01
1 : 10



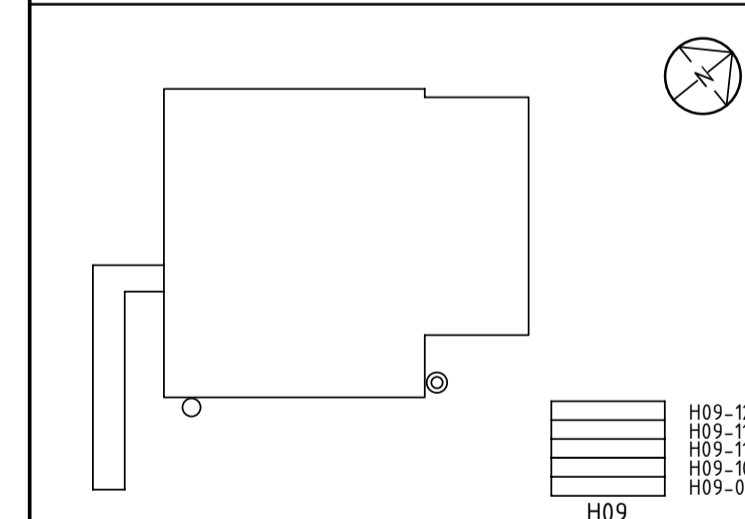
IVB01c
1 : 10

PD DRAFT 2018-01-09

REV	REVISION TYPE	DATE	SIGN
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TECHNICAL BASELINE

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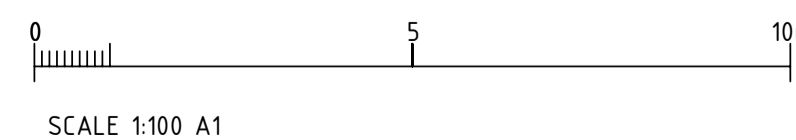


DESIGN COORDINATOR FRANK KEZERLE	BUILDING OWNER BORIS KILDETOFT
CONSULTANT K07 TYRÉNS AB	PROJECT NUMBER 24766930
DRAWN BY JMA	MANAGED BY AAH
DATE	CHECKED BY HNO
	APPROVED BY A.ABRAHAMSSON

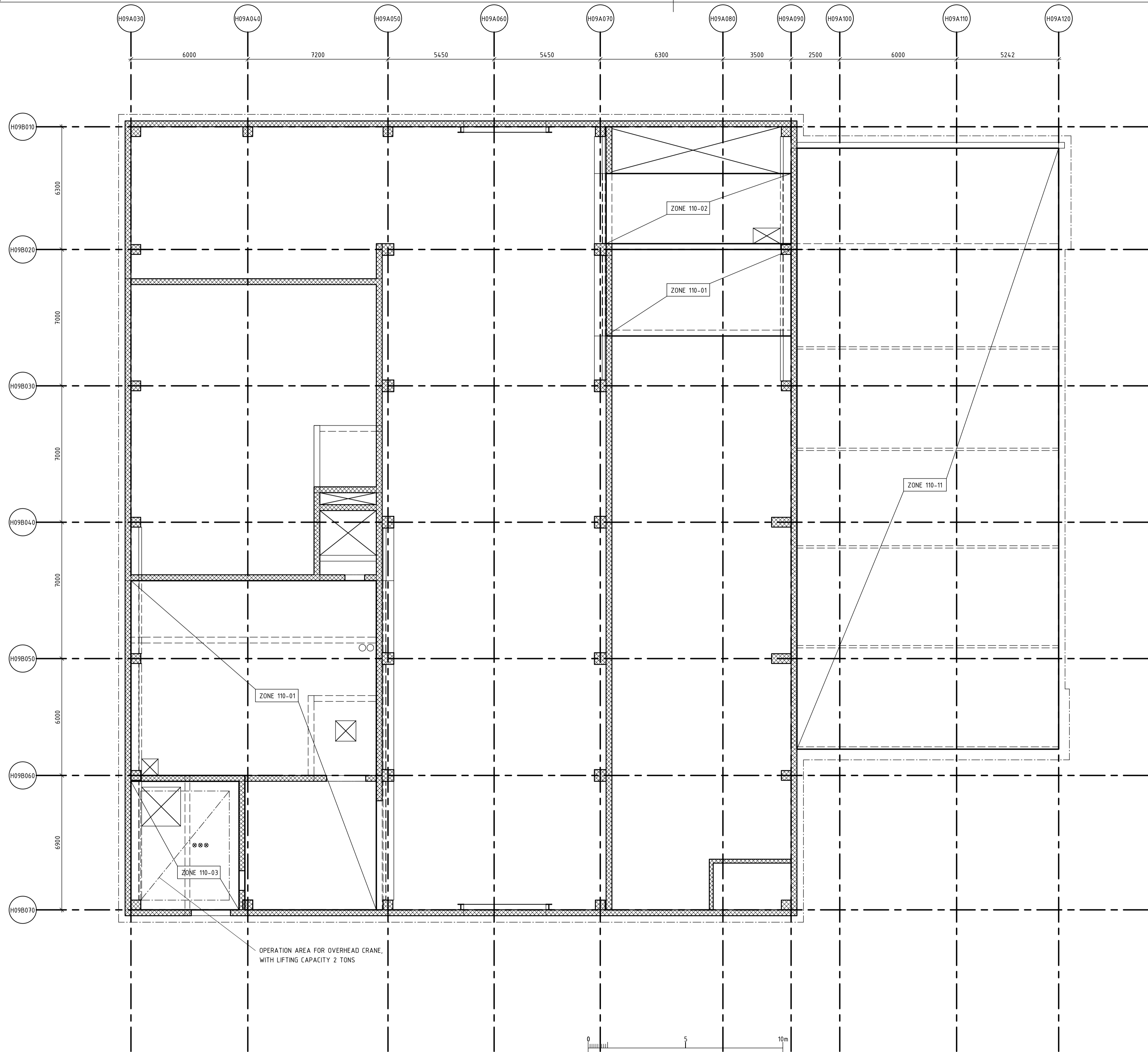
H09 WASTE BUILDING
 BUILDING ELEMENTS

SCALE
 A1 1:10
 A3 1:20

DRAWING NUMBER
K07-01---0-H09---012



2018-01-09 15:39:27 C:\Tyréns\LocalProject\K07-20---V-H09-----_jdm.rvt



REFERENCES

GENERAL INSTRUCTIONS ACC. TO K07-01---0-H09---001--003
BUILDING ELEMENTS ACC. TO K07-01---0-H09---011-012

EXPLANATIONS

ALL LOADS ARE GIVEN AS CHARACTERISTIC VALUES IF NOT STATED OTHERWISE.
LIVE LOADS TABLE BELOW SHOWS MAXIMUM ALLOWED UNIFORMLY DISTRIBUTED OR MAXIMUM ALLOWED CONCENTRATED LOAD.
LOAD REGULATION IS THAT THE UNIFORMLY DISTRIBUTED LOAD AND THE CONCENTRATED LOAD MUST NOT OCCUR SIMULTANEOUSLY.
SEE ALSO GENERAL INSTRUCTIONS DRAWINGS FOR FURTHER LOAD CONDITIONS.

LOADS

DEAD LOADS

SEE K07-01---0-H09-001 AND CORRESPONDING PLAN DRAWINGS.

LIVE LOADS

ZONE	CATEGORY	q_k kN/m ²	Q_k kN	ψ_0	ψ_1	ψ_2
100-01	E2	50	60	1,0	0,9	0,8
100-02	E2	50	60	1,0	0,9	0,8
100-03	E2	70	350	1,0	0,9	0,8
100-04	E2	150	300	1,0	0,9	0,8
100-05	E2	40	50	1,0	0,9	0,8
100-06	E2	5	5	1,0	0,9	0,8
100-07	B	2,5	3	0,7	0,5	0,3
110-01	E2	15	50	1,0	0,9	0,8
110-02	E2	15	50	1,0	0,9	0,8
110-03	E2	10	80	1,0	0,9	0,8
110-11	H	0,4	1	0	0	0
115-01	E2	5	5	1,0	0,9	0,8
120-11	H	0,4	1	0	0	0

SNOW LOAD

SEE K07-01---0-H09-001.
SNOW LOAD OCCUR ON ZONES 110-11 AND 120-11. FOR ZONE 110-11, SNOW CONCENTRATIONS SHALL BE CONSIDERED.

ATB 12K:

LOADS FROM ATB 12K OCCUR IN ZONE 100-02. LOADS FROM ATB 12K SHALL BE COMBINATED WITH LIVE LOADS AND LOADS FROM FORKLIFT.

FORKLIFT

LOADS FROM FORKLIFT CAN OCCUR IN ANY POINT IN ZONE 100-01, 100-02 AND 100-04. LOADS FROM FORKLIFT SHALL BE COMBINATED WITH LIVE LOADS AND LOADS FROM ATB 12K.

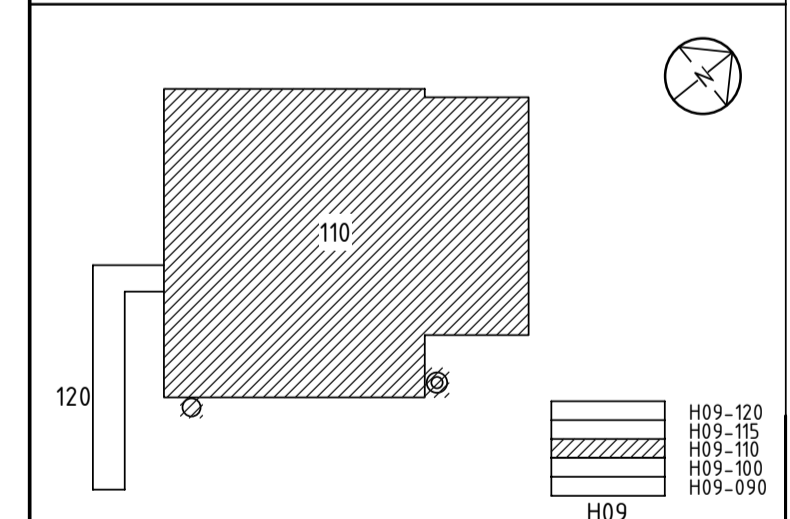
EXCEPTIONAL INTERNAL WATER PRESSURE

WATER PRESSURE ON WALLS IN CASE OF INTERNAL FLOODING SHALL BE CONSIDERED. ASSUMED MAXIMUM WATER LEVEL: 1500mm ABOVE F.F.L.

REV.	REVISION TYPE	DATE	SIGN.

TECHNICAL BASELINE

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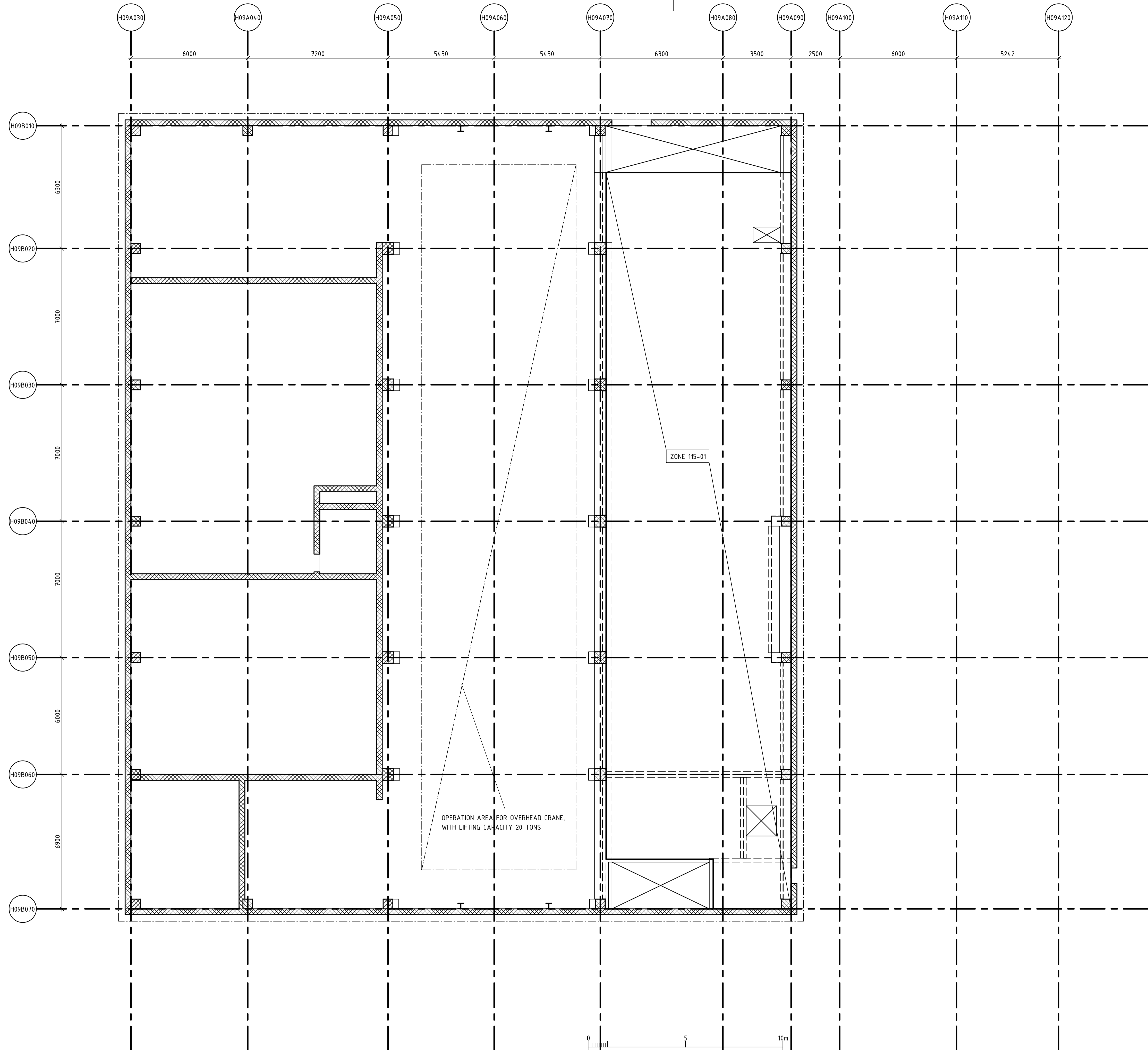
DESIGN COORDINATOR FRANK KEZERLE	BUILDING OWNER BORIS KILDETOFT
CONSULTANT K07 TYRÉNS AB	PROJECT NUMBER 24766930
DRAWN BY JMA	CHECKED BY HNO
MANAGED BY AAH	APPROVED BY A.ABRAHAMSSON

H09 WASTE BUILDING

LOAD PLAN, LEVEL H09-110, ZONE 110

SCALE A1 1:100 A3 1:200	DRAWING NUMBER K07-01---1-H09110110	REV 1
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REFERENCES

GENERAL INSTRUCTIONS ACC. TO K07-01---0-H09---001--003
BUILDING ELEMENTS ACC. TO K07-01---0-H09---011-012

EXPLANATIONS

ALL LOADS ARE GIVEN AS CHARACTERISTIC VALUES IF NOT STATED OTHERWISE.
LIVE LOADS TABLE BELOW SHOWS MAXIMUM ALLOWED UNIFORMLY DISTRIBUTED OR MAXIMUM ALLOWED CONCENTRATED LOAD.
LOAD REGULATION IS THAT THE UNIFORMLY DISTRIBUTED LOAD AND THE CONCENTRATED LOAD MUST NOT OCCUR SIMULTANEOUSLY.
SEE ALSO GENERAL INSTRUCTIONS DRAWINGS FOR FURTHER LOAD CONDITIONS.

LOADS

DEAD LOADS

SEE K07-01---0-H09-001 AND CORRESPONDING PLAN DRAWINGS.

LIVE LOADS

ZONE	CATEGORY	q_k KN/m ²	Q_k KN	ψ_0	ψ_1	ψ_2
100-01	E2	50	60	1,0	0,9	0,8
100-02	E2	50	60	1,0	0,9	0,8
100-03	E2	70	350	1,0	0,9	0,8
100-04	E2	150	300	1,0	0,9	0,8
100-05	E2	40	50	1,0	0,9	0,8
100-06	E2	5	5	1,0	0,9	0,8
100-07	B	2,5	3	0,7	0,5	0,3
110-01	E2	15	50	1,0	0,9	0,8
110-02	E2	15	50	1,0	0,9	0,8
110-03	E2	10	80	1,0	0,9	0,8
110-11	H	0,4	1	0	0	0
115-01	E2	5	5	1,0	0,9	0,8
120-11	H	0,4	1	0	0	0

SNOW LOAD

SEE K07-01---0-H09-001.
SNOW LOAD OCCUR ON ZONES 110-11 AND 120-11. FOR ZONE 110-11, SNOW CONCENTRATIONS SHALL BE CONSIDERED.

ATB 12K:

LOADS FROM ATB 12K OCCUR IN ZONE 100-02. LOADS FROM ATB 12K SHALL BE COMBINATED WITH LIVE LOADS AND LOADS FROM FORKLIFT.

FORKLIFT

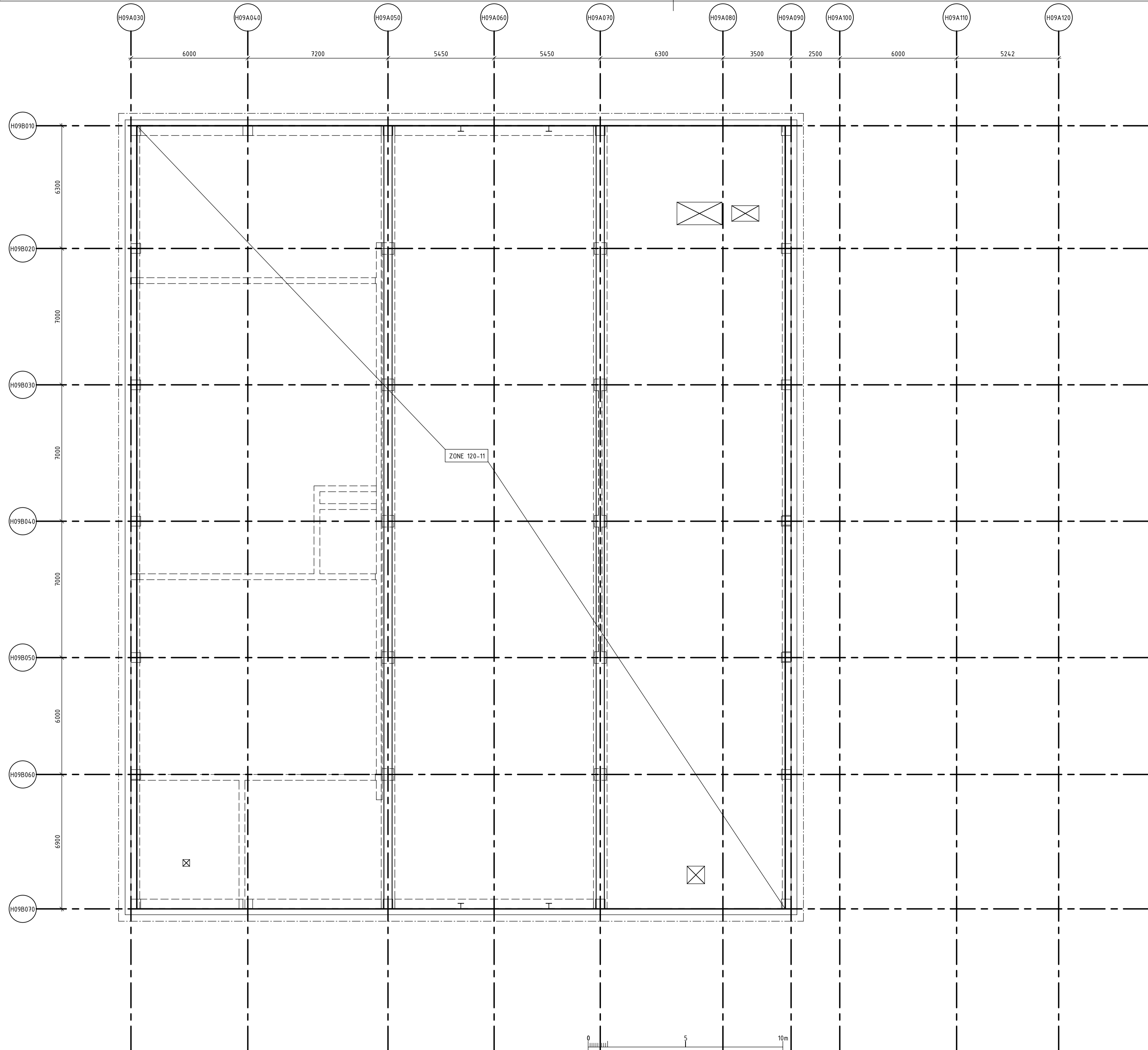
LOADS FROM FORKLIFT CAN OCCUR IN ANY POINT IN ZONE 100-01, 100-02 AND 100-04. LOADS FROM FORKLIFT SHALL BE COMBINATED WITH LIVE LOADS AND LOADS FROM ATB 12K.

EXCEPTIONAL INTERNAL WATER PRESSURE

WATER PRESSURE ON WALLS IN CASE OF INTERNAL FLOODING SHALL BE CONSIDERED.
ASSUMED MAXIMUM WATER LEVEL: 1500mm ABOVE F.F.L.

REV.	REVISION TYPE	DATE	SIGN
TECHNICAL BASELINE			
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<p>European Spallation Source ERIC ESS, Tunavägen 24 P.O. Box 116 SE-221 00 Lund SWEDEN www.ess.se</p>			
<p>DESIGN COORDINATOR FRANK KEZERLE</p>		<p>BUILDING OWNER BORIS KILDETOFT</p>	
<p>CONSULTANT K07 TYRÉNS AB</p>		<p>PROJECT NUMBER 24766930</p>	
<p>DRAWN BY JMA</p>	<p>MANAGED BY AAH</p>	<p>CHECKED BY HNO</p>	
<p>DATE</p>	<p>APPROVED BY A.ABRAHAMSSON</p>		
H09 WASTE BUILDING			
LOAD PLAN, LEVEL H09-115, ZONE 110			
<p>SCALE A1 1:100 A3 1:200</p>			
<p>DRAWING NUMBER K07-01---1-H09115110</p>			<p>1 REV</p>

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REFERENCES

GENERAL INSTRUCTIONS ACC. TO K07-01---0-H09---001--003
BUILDING ELEMENTS ACC. TO K07-01---0-H09---011-012

EXPLANATIONS

ALL LOADS ARE GIVEN AS CHARACTERISTIC VALUES IF NOT STATED OTHERWISE.
LIVE LOADS TABLE BELOW SHOWS MAXIMUM ALLOWED UNIFORMLY DISTRIBUTED OR MAXIMUM ALLOWED CONCENTRATED LOAD.
LOAD REGULATION IS THAT THE UNIFORMLY DISTRIBUTED LOAD AND THE CONCENTRATED LOAD MUST NOT OCCUR SIMULTANEOUSLY.
SEE ALSO GENERAL INSTRUCTIONS DRAWINGS FOR FURTHER LOAD CONDITIONS.

LOADS

DEAD LOADS
SEE K07-01---0-H09-001 AND CORRESPONDING PLAN DRAWINGS.

LIVE LOADS						
ZONE	CATEGORY	q_k kN/m ²	Q_k kN	ψ_0	ψ_1	ψ_2
100-01	E2	50	60	1,0	0,9	0,8
100-02	E2	50	60	1,0	0,9	0,8
100-03	E2	70	350	1,0	0,9	0,8
100-04	E2	150	300	1,0	0,9	0,8
100-05	E2	40	50	1,0	0,9	0,8
100-06	E2	5	5	1,0	0,9	0,8
100-07	B	2,5	3	0,7	0,5	0,3
110-01	E2	15	50	1,0	0,9	0,8
110-02	E2	15	50	1,0	0,9	0,8
110-03	E2	10	80	1,0	0,9	0,8
110-11	H	0,4	1	0	0	0
115-01	E2	5	5	1,0	0,9	0,8
120-11	H	0,4	1	0	0	0

SNOW LOAD
SEE K07-01---0-H09-001.
SNOW LOAD OCCUR ON ZONES 110-11 AND 120-11. FOR ZONE 110-11, SNOW CONCENTRATIONS SHALL BE CONSIDERED.

ATB 12K:
LOADS FROM ATB 12K OCCUR IN ZONE 100-02. LOADS FROM ATB 12K SHALL BE COMBINATED WITH LIVE LOADS AND LOADS FROM FORKLIFT.

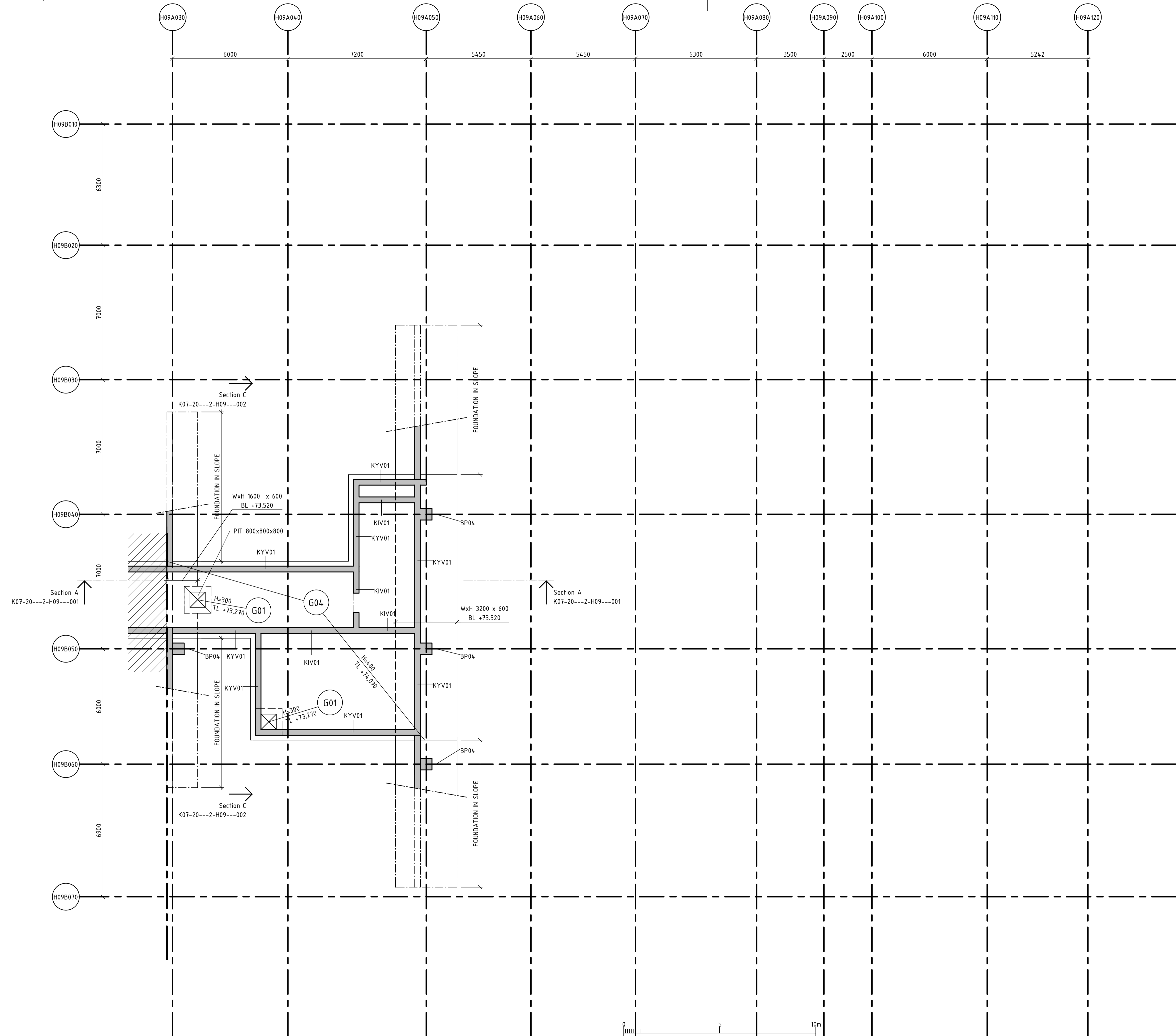
FORKLIFT
LOADS FROM FORKLIFT CAN OCCUR IN ANY POINT IN ZONE 100-01, 100-02 AND 100-04. LOADS FROM FORKLIFT SHALL BE COMBINATED WITH LIVE LOADS AND LOADS FROM ATB 12K.

EXCEPTIONAL INTERNAL WATER PRESSURE
WATER PRESSURE ON WALLS IN CASE OF INTERNAL FLOODING SHALL BE CONSIDERED.
ASSUMED MAXIMUM WATER LEVEL: 1500mm ABOVE F.F.L.

DATE: 2018-01-09

REV.	REVISION TYPE	DATE	SIGN.
TECHNICAL BASELINE			
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<p>European Spallation Source ERIC ESS, Tunavägen 24 P.O. Box 176 SE-221 00 Lund SWEDEN www.ess.se</p>			
<p>DESIGN COORDINATOR FRANK KEZERLE</p>		<p>BUILDING OWNER BORIS KILDETOFT</p>	
<p>CONSULTANT K07 TYRÉNS AB</p>		<p>PROJECT NUMBER 24766930</p>	
<p>DRAWN BY JMA</p>	<p>MANAGED BY AAH</p>	<p>CHECKED BY HNO</p>	
<p>DATE</p>	<p>APPROVED BY A.ABRAHAMSSON</p>		
<p>H09 WASTE BUILDING LOAD PLAN, LEVEL H09-120, ZONE 110</p>			
<p>SCALE A1 1:100 A3 1:200</p>		<p>DRAWING NUMBER K07-01---1-H09120110</p>	
			1 REV

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REFERENCES

GENERAL INSTRUCTIONS ACCORDING TO K07-01---0-H09---001--003

BUILDING ELEMENTS ACCORDING TO K07-01---0-H09---011-012

EXPLANATIONS

TL TOP LEVEL
BL BOTTOM LEVEL
WxH WIDTH x HEIGHT
WxD WIDTH x DEPTH
FC FINISHED CONCRETE

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REV	REVISION TYPE	DATE	SIGN
TECHNICAL BASELINE			
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<p>DESIGN COORDINATOR FRANK KEZERLE</p>		<p>BUILDING OWNER BORIS KILDETOFT</p>	
<p>CONSULTANT K07 TYRÉNS AB</p>		<p>PROJECT NUMBER 24766930</p>	
<p>DRAWN BY JMA</p>	<p>MANAGED BY AAH</p>	<p>CHECKED BY HNO</p>	
<p>DATE</p>	<p>APPROVED BY A.ABRAHAMSSON</p>		
<p>H09 WASTE BUILDING FOUNDATION PLAN, LEVEL 090, ZONE 110</p>			
<p>SCALE A1 1:100 A3 1:200</p>		<p>DRAWING NUMBER K07-15---1-H09090110</p>	

SCALE 1:100 A1

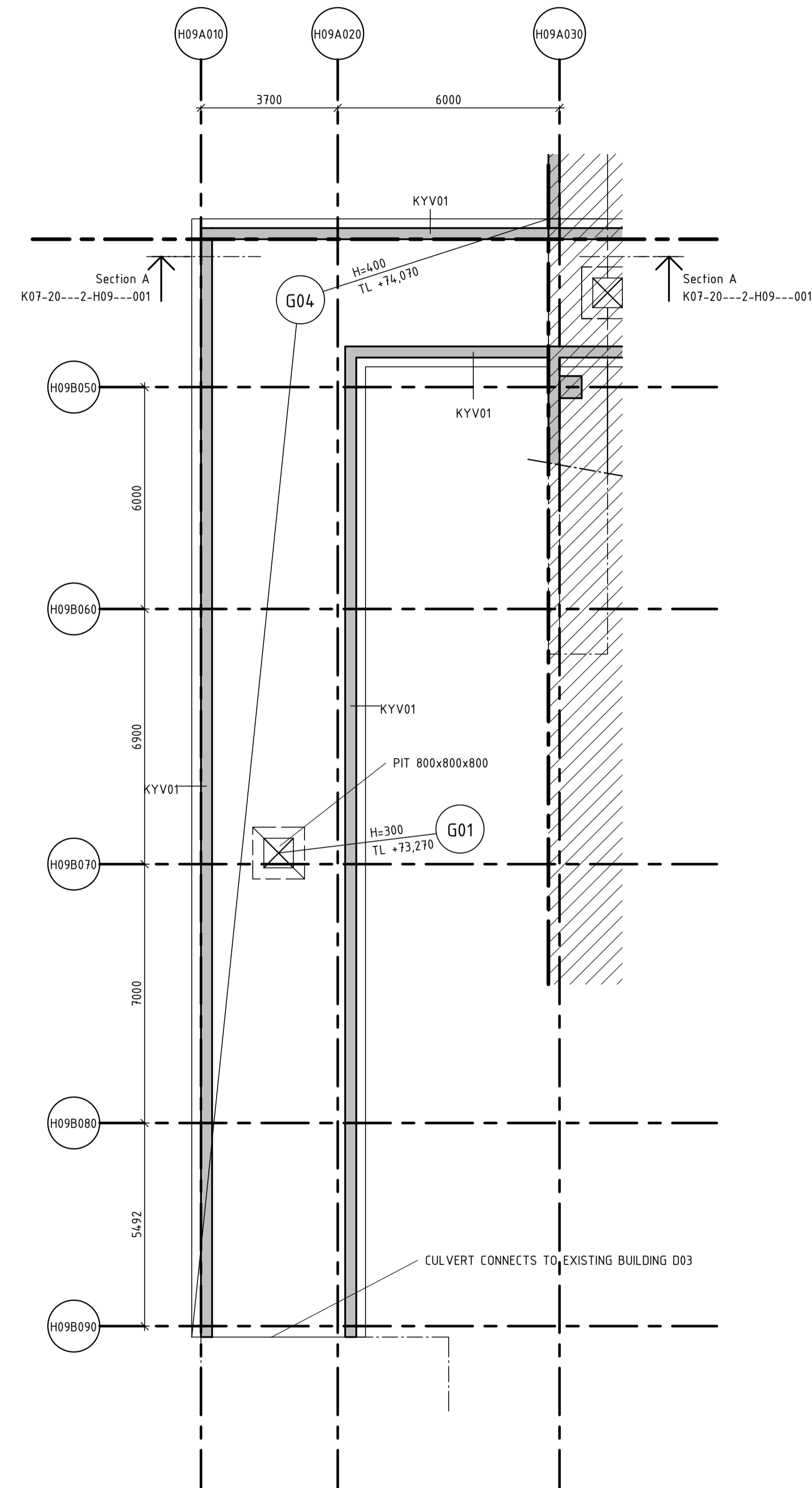
REFERENCES

GENERAL INSTRUCTIONS ACCORDING TO K07-01---0-H09---001---003

BUILDING ELEMENTS ACCORDING TO K07-01---0-H09---011-012

EXPLANATIONS

TL TOP LEVEL
 BL BOTTOM LEVEL
 WxH WIDTH x HEIGHT
 WxD WIDTH x DEPTH
 FC FINISHED CONCRETE

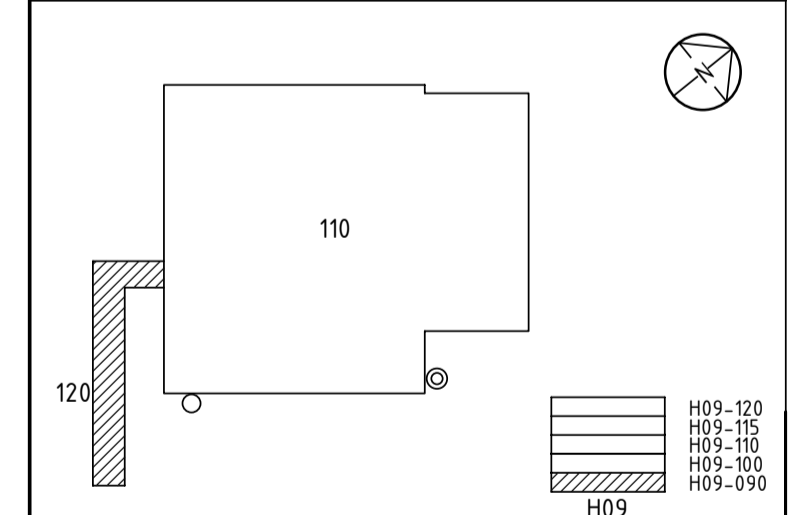


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REV	REVISION TYPE	DATE	SIGN
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TECHNICAL BASELINE

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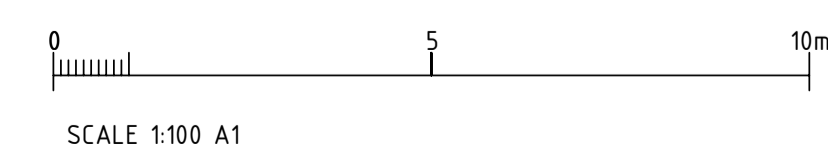


DESIGN COORDINATOR FRANK KEZERLE	BUILDING OWNER BORIS KILDETOFT
CONSULTANT K07 TYRÉNS AB	PROJECT NUMBER 24766930
DRAWN BY JMA	MANAGED BY AAH
DATE	CHECKED BY HNO
	APPROVED BY A.ABRAHAMSSON

H09 WASTE BUILDING
 FOUNDATION PLAN, LEVEL 090, ZONE 120

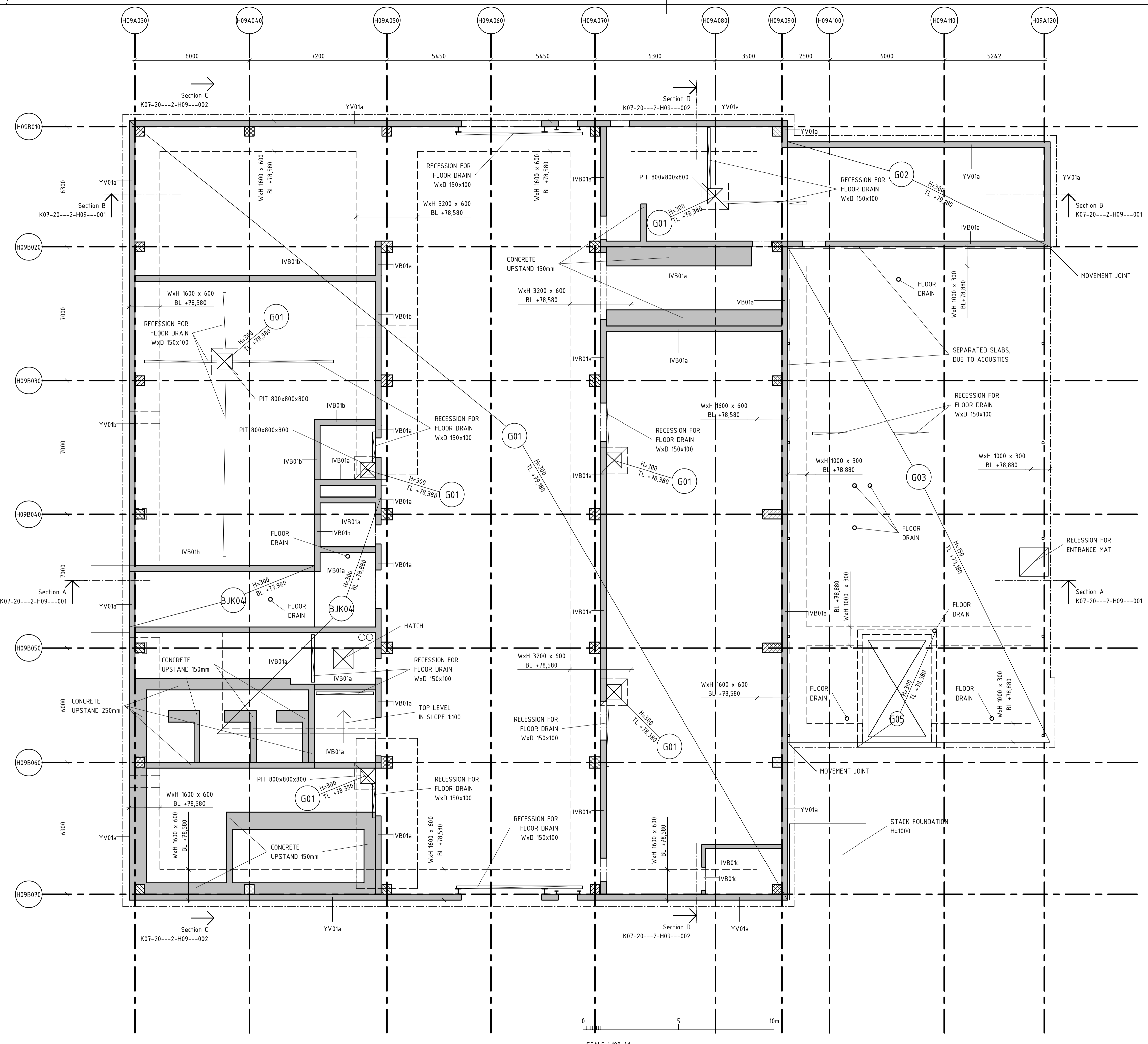
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DRAWING NUMBER K07-15---1-H09090120	REV
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REFERENCES
 GENERAL INSTRUCTIONS ACCORDING TO K07-01---0-H09---001-003
 BUILDING ELEMENTS ACCORDING TO K07-01---0-H09---011-012

EXPLANATIONS
 TL TOP LEVEL
 BL BOTTOM LEVEL
 WxH WIDTH x HEIGHT
 WxD WIDTH x DEPTH
 FC FINISHED CONCRETE



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REV	REVISION TYPE	DATE	SIGN
TECHNICAL BASELINE			
ESS CONVENTIONAL FACILITIES			
AUXILIARY BUILDINGS NORTH			
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<p>DESIGN COORDINATOR FRANK KEZERLE</p>		<p>BUILDING OWNER BORIS KILDETOFT</p>	
<p>CONSULTANT K07 TYRÉNS AB</p>		<p>PROJECT NUMBER 24.766930</p>	
<p>DRAWN BY JMA</p>		<p>MANAGED BY AAH</p>	
<p>DATE</p>		<p>CHECKED BY HNO</p>	
<p>APPROVED BY A.ABRAHAMSSON</p>			
<p>H09 WASTE BUILDING FOUNDATION PLAN, LEVEL 100, ZONE 110</p>			
<p>SCALE A1 1:100 A3 1:200</p>		<p>DRAWING NUMBER K07-15---1-H09100110</p>	

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SCALE 1:100 A1

REFERENCES

GENERAL INSTRUCTIONS ACCORDING TO K07-01---0-H09---001--003

BUILDING ELEMENTS ACCORDING TO K07-01---0-H09---011-012

EXPLANATIONS

TL TOP LEVEL
 BL BOTTOM LEVEL
 WxH WIDTH x HEIGHT
 WxD WIDTH x DEPTH
 FC FINISHED CONCRETE

BEAMS			
MARKING	MATERIAL	TYPE	COUNT
BB01	CONCRETE PRECAST	FB/FH 55/70	10
BB02	CONCRETE PRECAST	FB/FH 55/50	12
BB03	CONCRETE PRECAST	FB/FH 45/60	12
BB04	CONCRETE PRECAST	FB/F 70/70	12

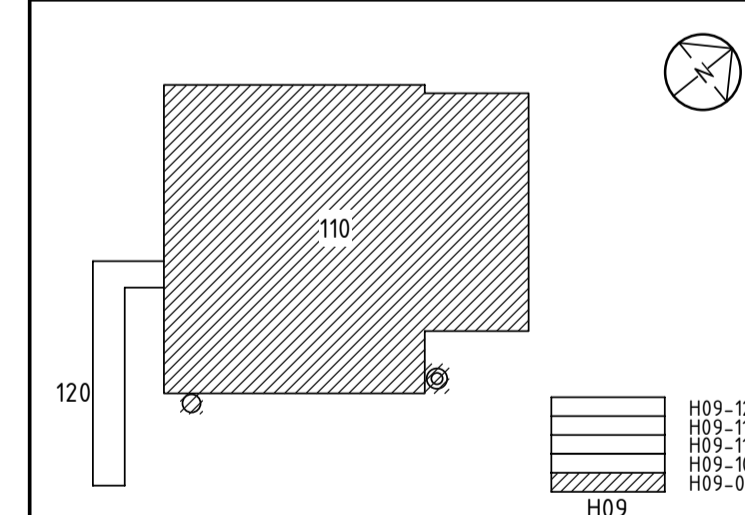
COLUMNS			
MARKING	MATERIAL	TYPE	COUNT
BP01	CONCRETE PRECAST	600x600	20
BP02	CONCRETE PRECAST	500x500	38
BP03	CONCRETE PRECAST	1000x500	4
BP04	CONCRETE	600x600	7
SP01	STEEL	VKR120x120x8	10

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REV	REVISION TYPE	DATE	SIGN

TECHNICAL BASELINE

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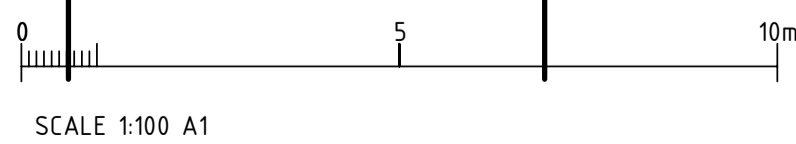
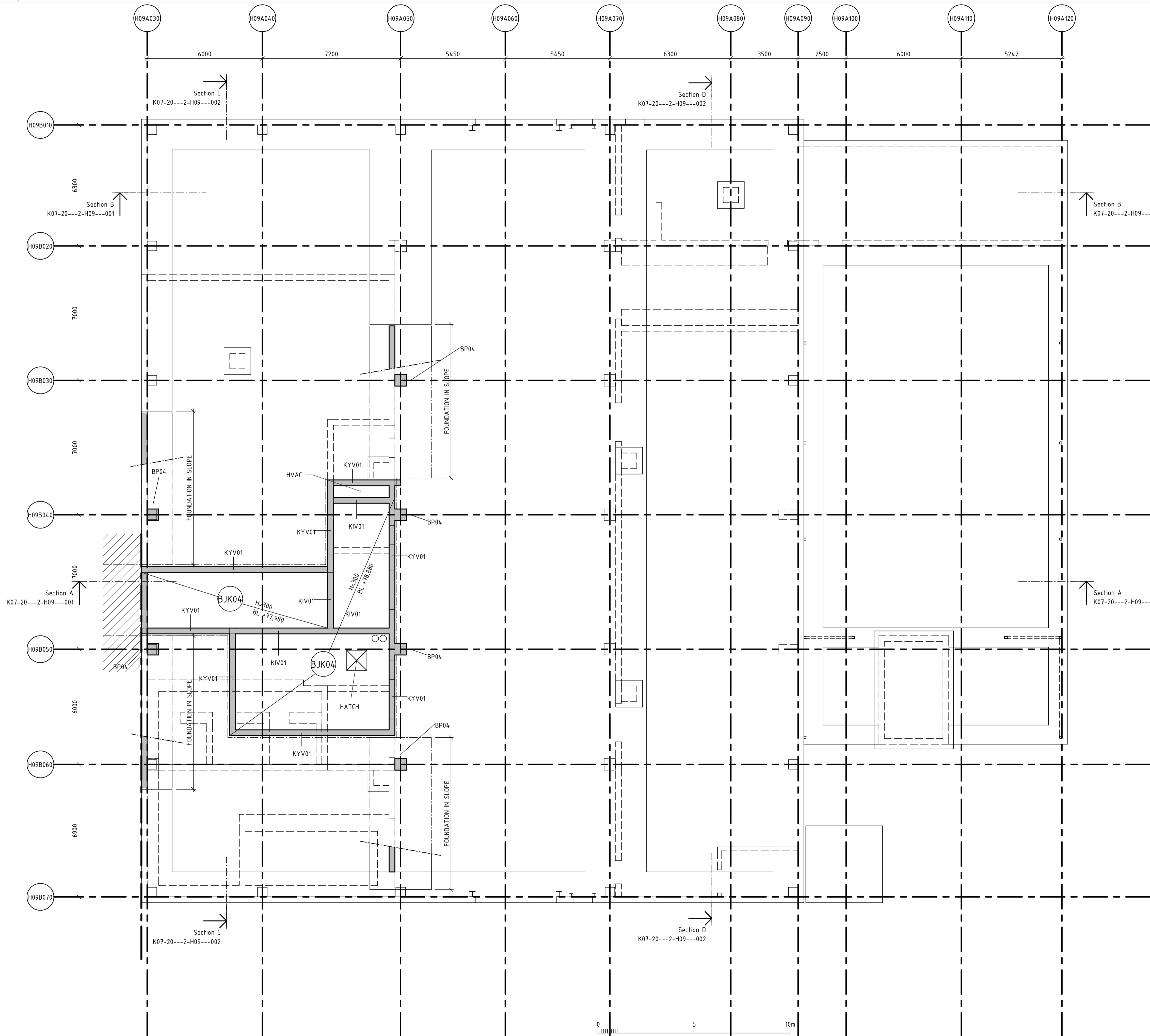


DESIGN COORDINATOR: FRANK KEZERLE
 CONSULTANT: K07 TYRÉNS AB
 DRAWN BY: JMA
 MANAGED BY: AAH
 APPROVED BY: A.ABRAHAMSSON
 BUILDING OWNER: BORIS KILDETOFT
 PROJECT NUMBER: 24.766930
 CHECKED BY: HNO

H09 WASTE BUILDING
 STRUCTURAL PLAN LEVEL 100, ZONE 110

SCALE
 A1 1:100
 A3 1:200

DRAWING NUMBER: K07-20---1-H09100110

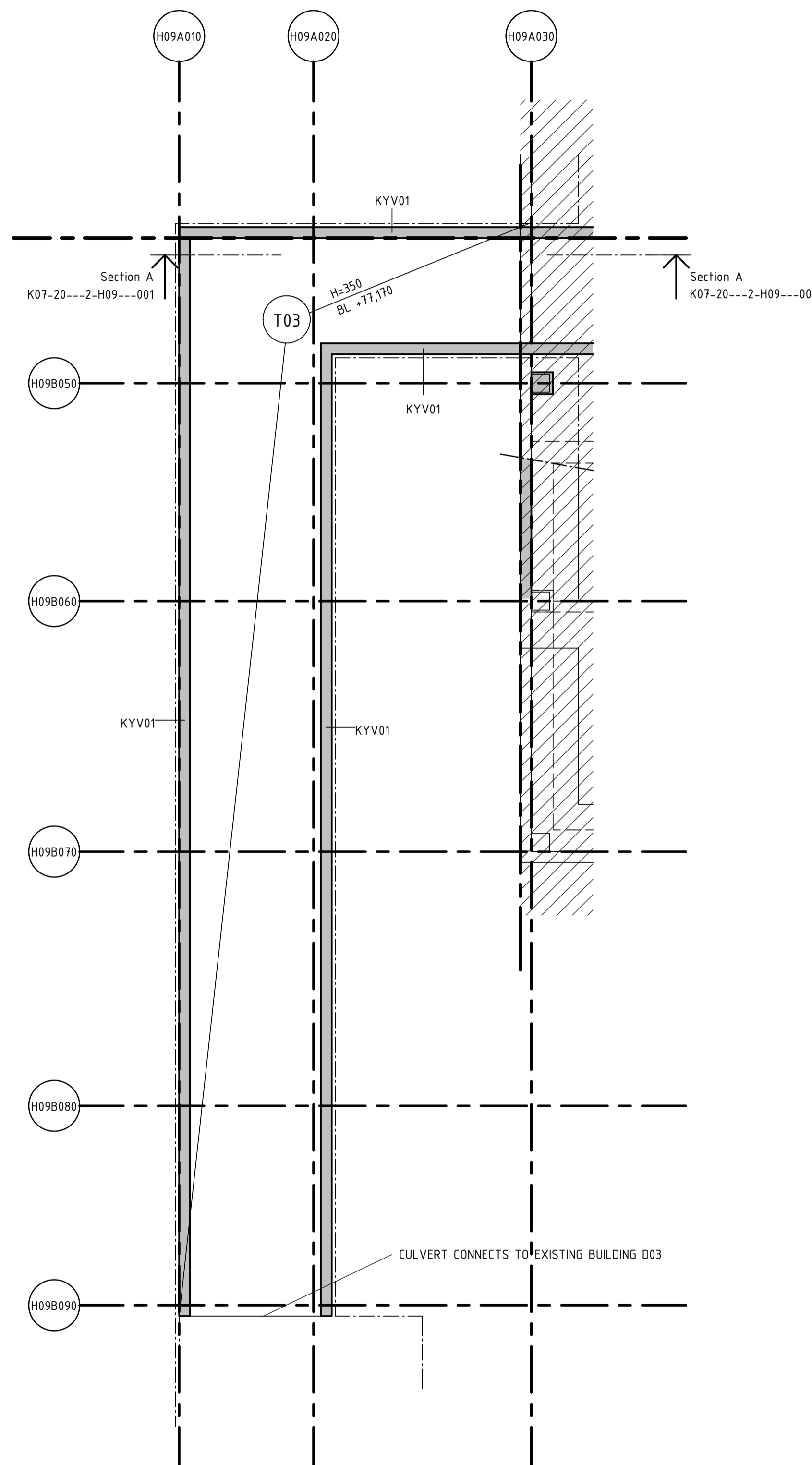


REFERENCES

GENERAL INSTRUCTIONS ACCORDING TO K07-01---0-H09---001-003
 BUILDING ELEMENTS ACCORDING TO K07-01---0-H09---011-012

EXPLANATIONS

TL TOP LEVEL
 BL BOTTOM LEVEL
 WxH WIDTH x HEIGHT
 WxD WIDTH x DEPTH
 FC FINISHED CONCRETE



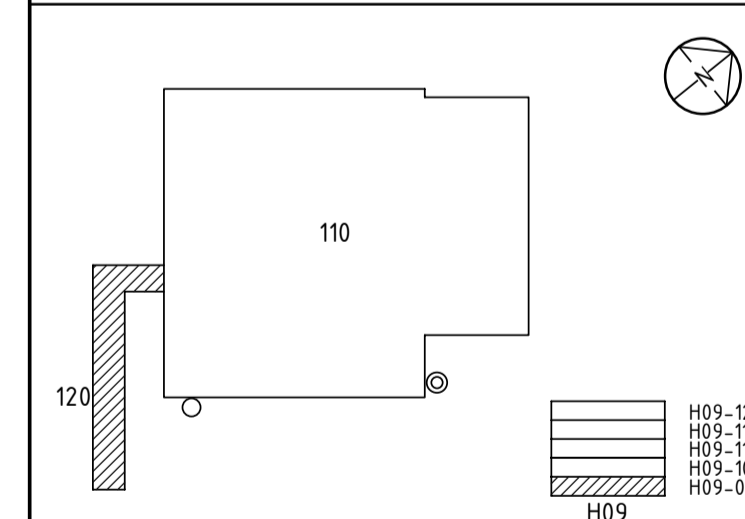
BEAMS			
MARKING	MATERIAL	TYPE	COUNT
BB01	CONCRETE PRECAST	FB/FH 55/70	10
BB02	CONCRETE PRECAST	FB/FH 55/50	12
BB03	CONCRETE PRECAST	FB/FH 45/60	12
BB04	CONCRETE PRECAST	FB/F 70/70	12

COLUMNS			
MARKING	MATERIAL	TYPE	COUNT
BP01	CONCRETE PRECAST	600x600	20
BP02	CONCRETE PRECAST	500x500	38
BP03	CONCRETE PRECAST	1000x500	4
BP04	CONCRETE	600x600	7
SP01	STEEL	VKR120x120x8	10

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DESIGN COORDINATOR FRANK KEZERLE	BUILDING OWNER BORIS KILDETOFT
CONSULTANT K07 TYRÉNS AB	PROJECT NUMBER 24.766930
DRAWN BY JMA	MANAGED BY AAH
DATE	CHECKED BY HNO
APPROVED BY A.ABRAHAMSSON	

H09 WASTE BUILDING
 STRUCTURAL PLAN LEVEL 100, ZONE 120

SCALE
 A1 1:100
 A3 1:200

DRAWING NUMBER
K07-20---1-H09100120

REFERENCES
 GENERAL INSTRUCTIONS ACCORDING TO K07-01---0-H09---001---003
 BUILDING ELEMENTS ACCORDING TO K07-01---0-H09---011-012

EXPLANATIONS
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 BL BOTTOM LEVEL
 WxH WIDTH x HEIGHT
 WxD WIDTH x DEPTH
 FC FINISHED CONCRETE

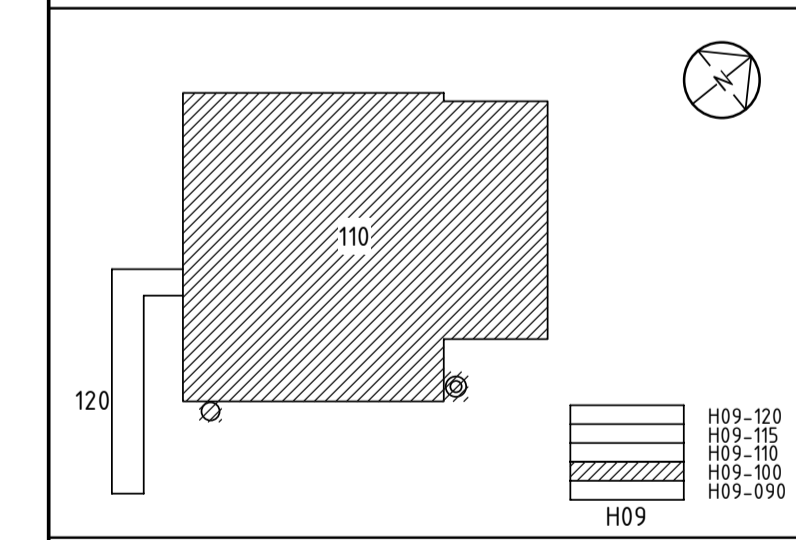
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BB02	CONCRETE PRECAST	FB/FH 55/50	12
BB03	CONCRETE PRECAST	FB/FH 45/60	12
BB04	CONCRETE PRECAST	FB/F 70/70	12

COLUMNS			
MARKING	MATERIAL	TYPE	COUNT
BP01	CONCRETE PRECAST	600x600	20
BP02	CONCRETE PRECAST	500x500	38
BP03	CONCRETE PRECAST	1000x500	4
BP04	CONCRETE	600x600	7
SP01	STEEL	VKR120x120x8	10

PD DRAFT 2018-01-09

REV	REVISION TYPE	DATE	SIGN

TECHNICAL BASELINE
ESS CONVENTIONAL FACILITIES
 AUXILIARY BUILDINGS NORTH



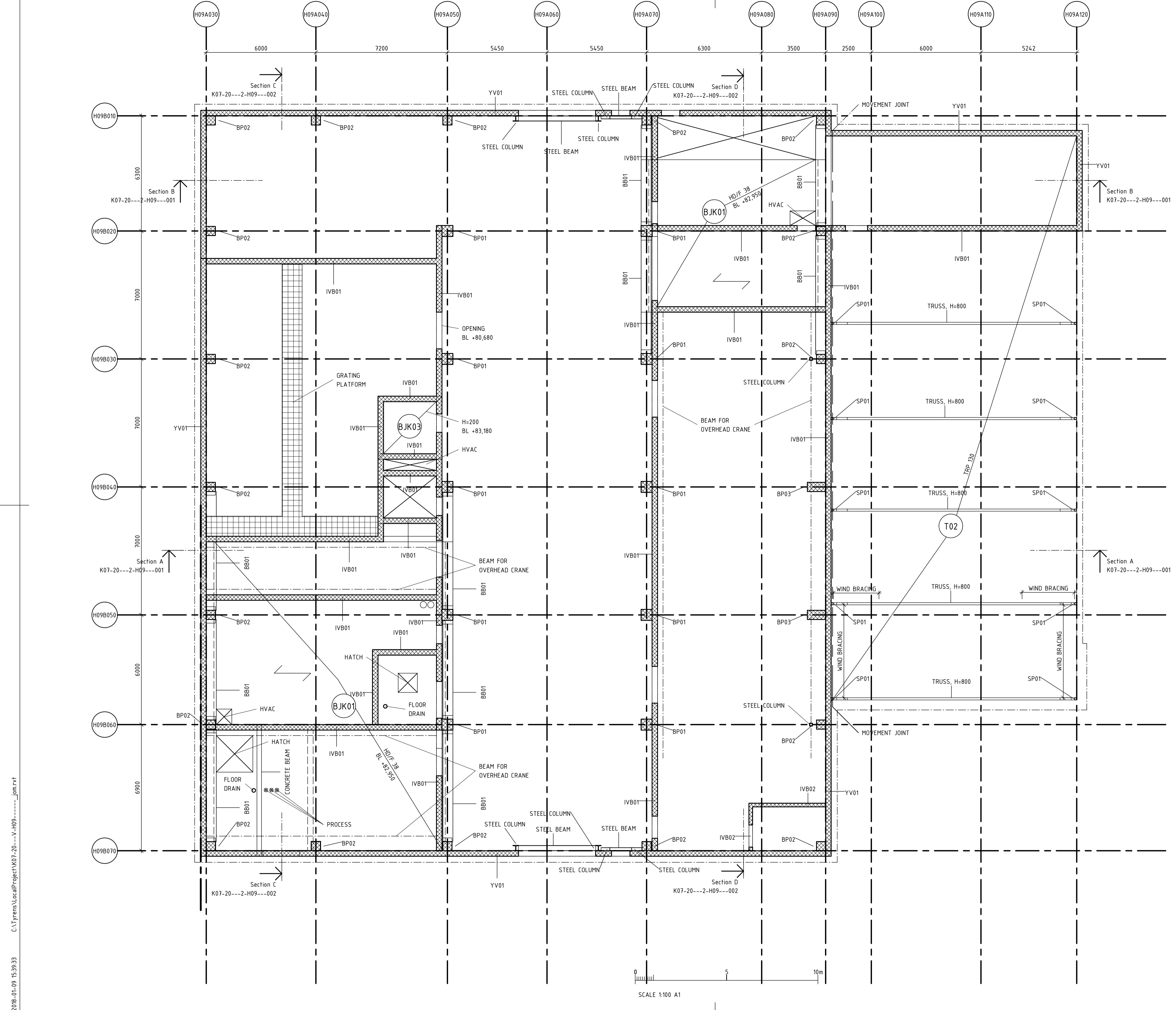
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DESIGN COORDINATOR FRANK KEZERLE	BUILDING OWNER BORIS KILDETOFT
CONSULTANT K07 TYRÉNS AB	PROJECT NUMBER 24766930
DRAWN BY JMA	CHECKED BY HNO
DATE	APPROVED BY A.ABRAHAMSSON

H09 WASTE BUILDING
STRUCTURAL PLAN LEVEL 110, ZONE 110

SCALE A1 1:100 A3 1:200	DRAWING NUMBER K07-20---1-H09110110	REV 1
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REFERENCES

GENERAL INSTRUCTIONS ACCORDING TO K07-01---0-H09---001---003

BUILDING ELEMENTS ACCORDING TO K07-01---0-H09---011-012

EXPLANATIONS

TL TOP LEVEL
 BL BOTTOM LEVEL
 WxH WIDTH x HEIGHT
 WxD WIDTH x DEPTH
 FC FINISHED CONCRETE

BEAMS			
MARKING	MATERIAL	TYPE	COUNT
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BB03	CONCRETE PRECAST	FB/FH 45/60	12
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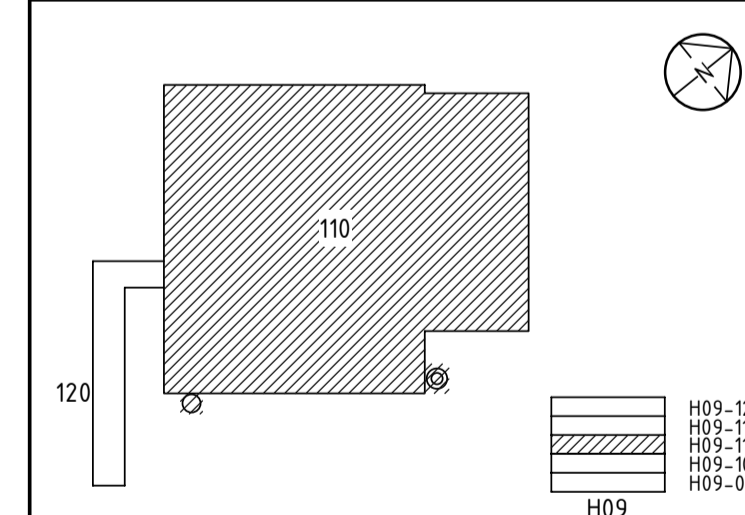
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BP04	CONCRETE	600x600	7
SP01	STEEL	VKR120x120x8	10

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REV	REVISION TYPE	DATE	SIGN

TECHNICAL BASELINE

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DESIGN COORDINATOR FRANK KEZERLE	BUILDING OWNER BORIS KILDETOFT
CONSULTANT K07 TYRÉNS AB	PROJECT NUMBER 24.766930
DRAWN BY JMA	CHECKED BY HNO
MANAGED BY AAH	APPROVED BY A.ABRAHAMSSON

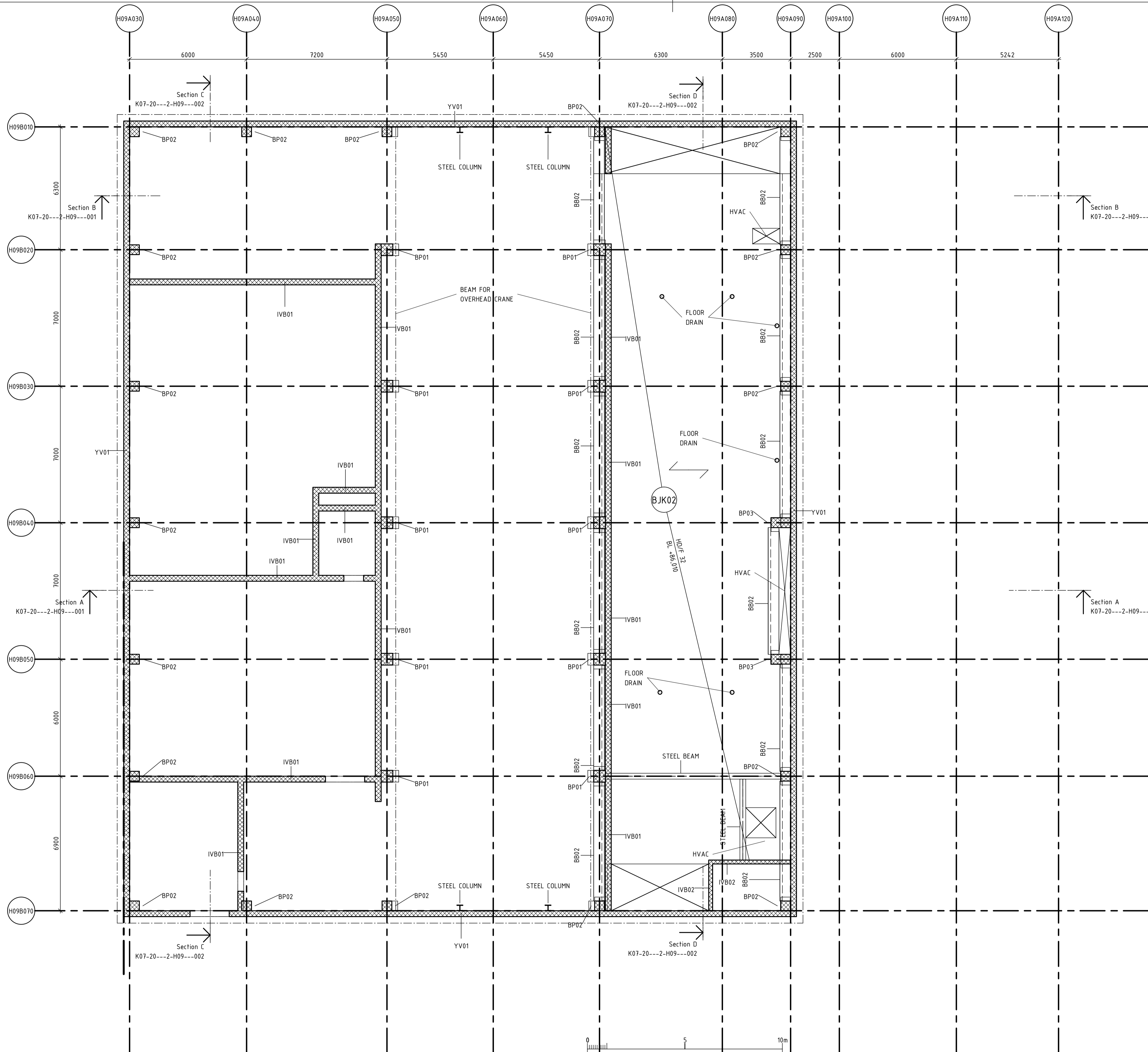
H09 WASTE BUILDING
 STRUCTURAL PLAN LEVEL 115, ZONE 110

SCALE
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 A3 1:200

DRAWING NUMBER
K07-20---1-H09115110

1 REV

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SCALE 1:100 A1

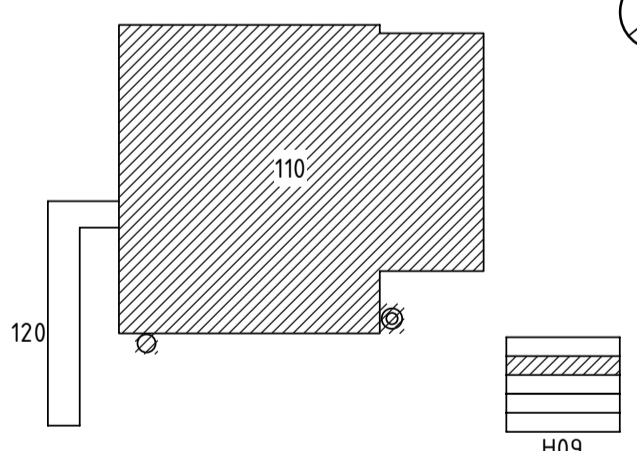
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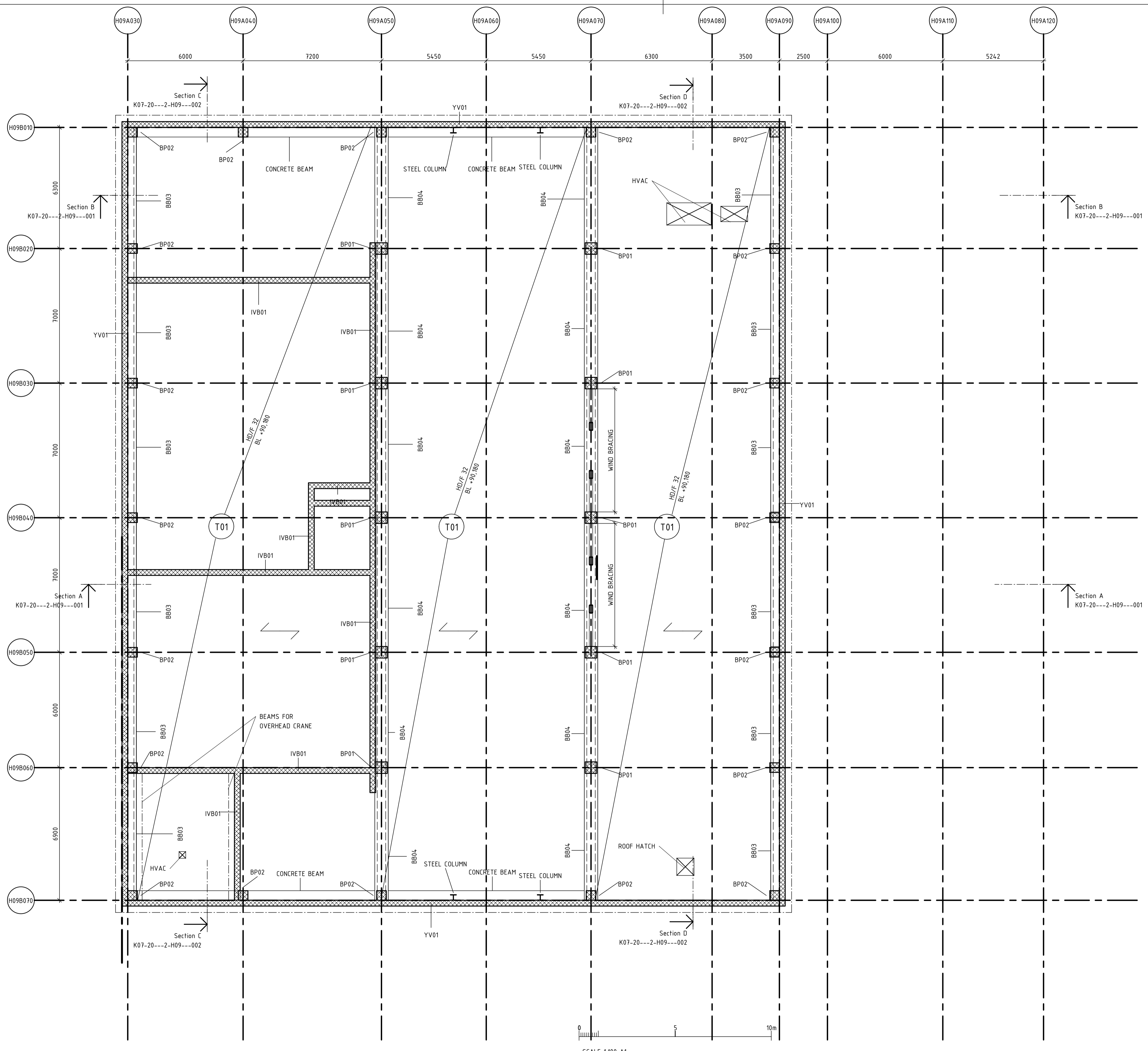
EXPLANATIONS
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 BL BOTTOM LEVEL
 WxH WIDTH x HEIGHT
 WxD WIDTH x DEPTH
 FC FINISHED CONCRETE

BEAMS			
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BB01	CONCRETE PRECAST	FB/FH 55/70	10
BB02	CONCRETE PRECAST	FB/FH 55/50	12
BB03	CONCRETE PRECAST	FB/FH 45/60	12
BB04	CONCRETE PRECAST	FB/F 70/70	12

COLUMNS			
MARKING	MATERIAL	TYPE	COUNT
BP01	CONCRETE PRECAST	600x600	20
BP02	CONCRETE PRECAST	500x500	38
BP03	CONCRETE PRECAST	1000x500	4
BP04	CONCRETE	600x600	7
SP01	STEEL	VKR120x120x8	10

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REV	REVISION TYPE	DATE	SIGN
TECHNICAL BASELINE			
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<p>DESIGN COORDINATOR FRANK KEZERLE</p>		<p>BUILDING OWNER BORIS KILDETOFT</p>	
<p>CONSULTANT K07 TYRÉNS AB</p>		<p>PROJECT NUMBER 24766930</p>	
<p>DRAWN BY JMA</p>	<p>MANAGED BY AAH</p>	<p>CHECKED BY HNO</p>	
<p>DATE APPROVED BY A.ABRAHAMSSON</p>			
<p>H09 WASTE BUILDING STRUCTURAL PLAN LEVEL 120, ZONE 110</p>			
<p>SCALE A1 1:100 A3 1:200</p>		<p>DRAWING NUMBER K07-20---1-H09120110</p>	



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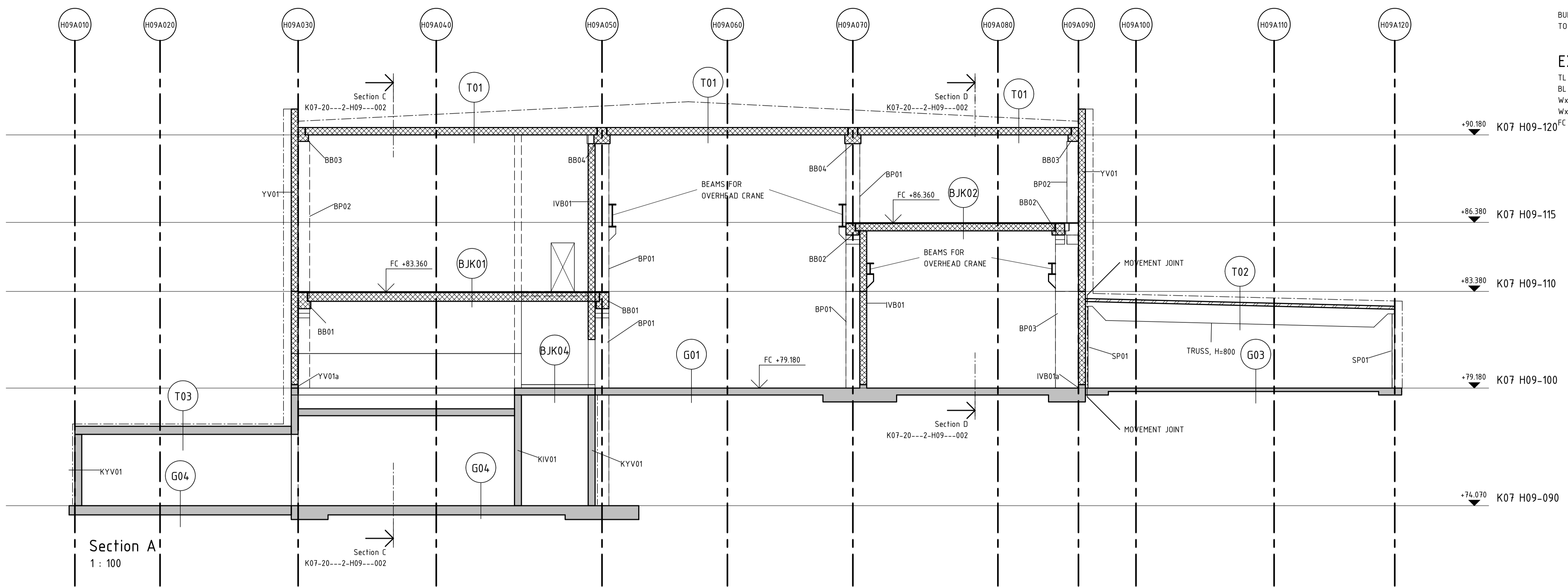
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GENERAL INSTRUCTIONS ACCORDING TO K07-01---2-H09---001-003

BUILDING ELEMENTS ACCORDING TO K07-01---2-H09---011-012

EXPLANATIONS

TL TOP LEVEL
 BL BOTTOM LEVEL
 WxH WIDTH x HEIGHT
 WxD WIDTH x DEPTH
 FC FINISHED CONCRETE

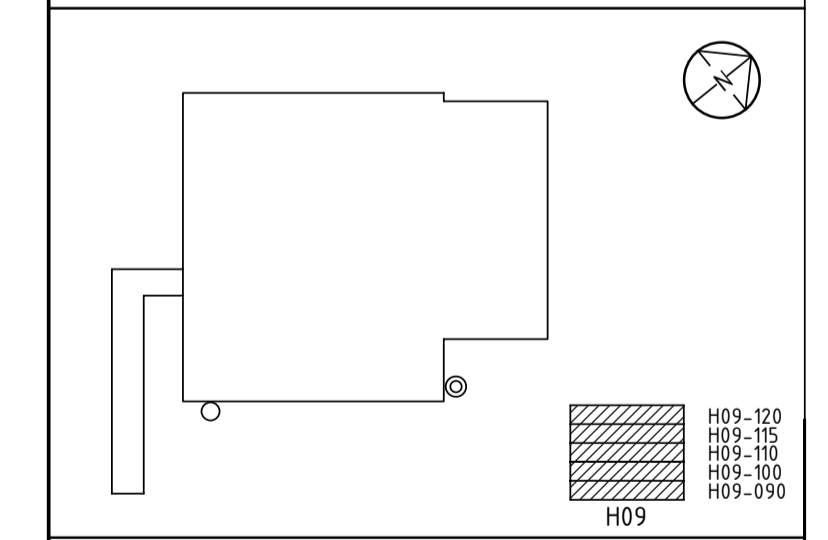


Section A
1 : 100

PD DRAFT 2018-01-09

REV	REVISION TYPE	DATE	SIGN
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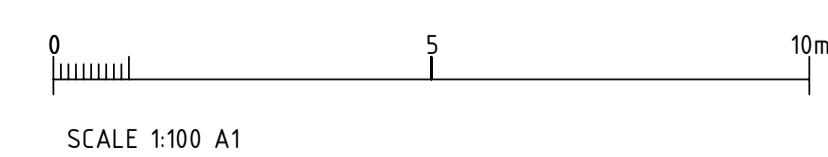
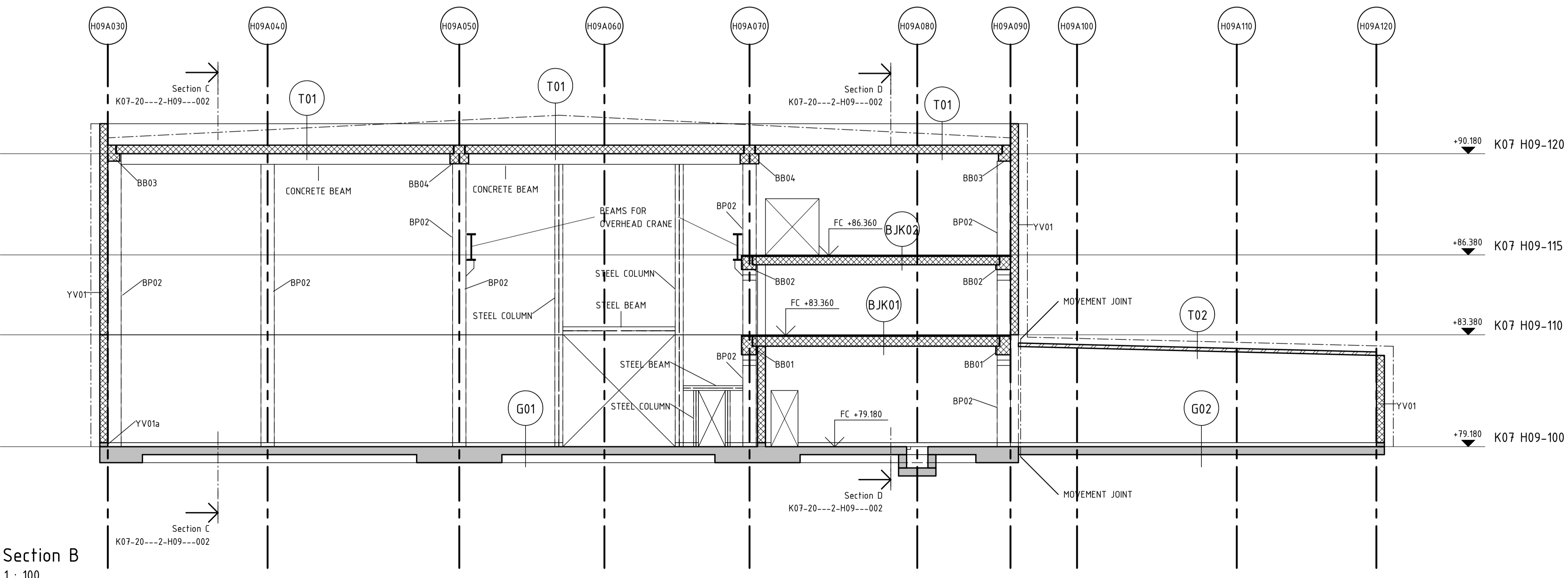


DESIGN COORDINATOR FRANK KEZERLE	BUILDING OWNER BORIS KILDETOFT
CONSULTANT K07 TYRÉNS AB	PROJECT NUMBER 24766930
DRAWN BY JMA	MANAGED BY AAH
DATE	CHECKED BY HNO
	APPROVED BY A.ABRAHAMSSON

**H09 WASTE BUILDING
 MAIN SECTIONS**

SCALE A1 1:100 A3 1:200	REVISION 1 REV
DRAWING NUMBER K07-20---2-H09---001	

Section B
1 : 100



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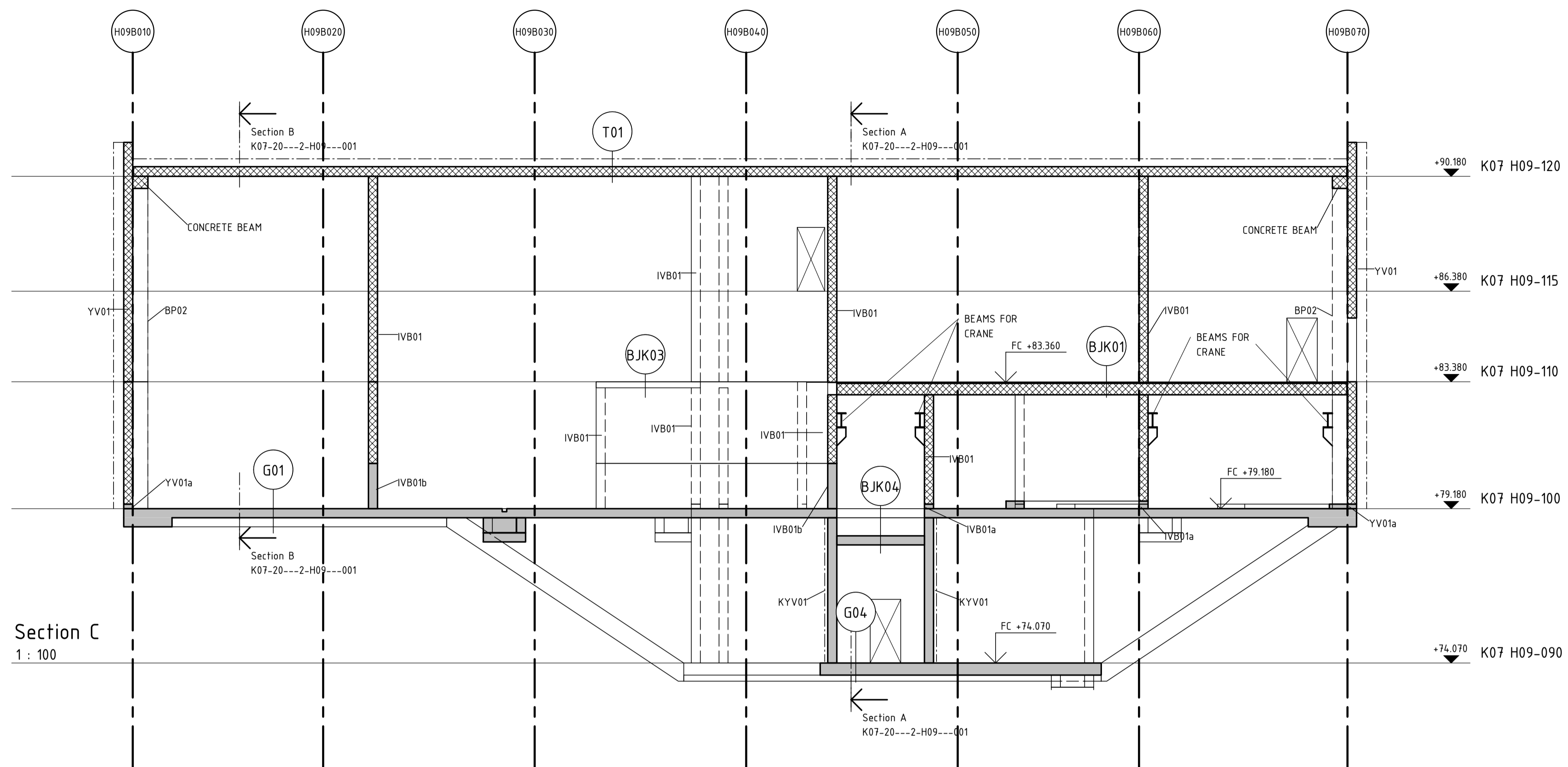
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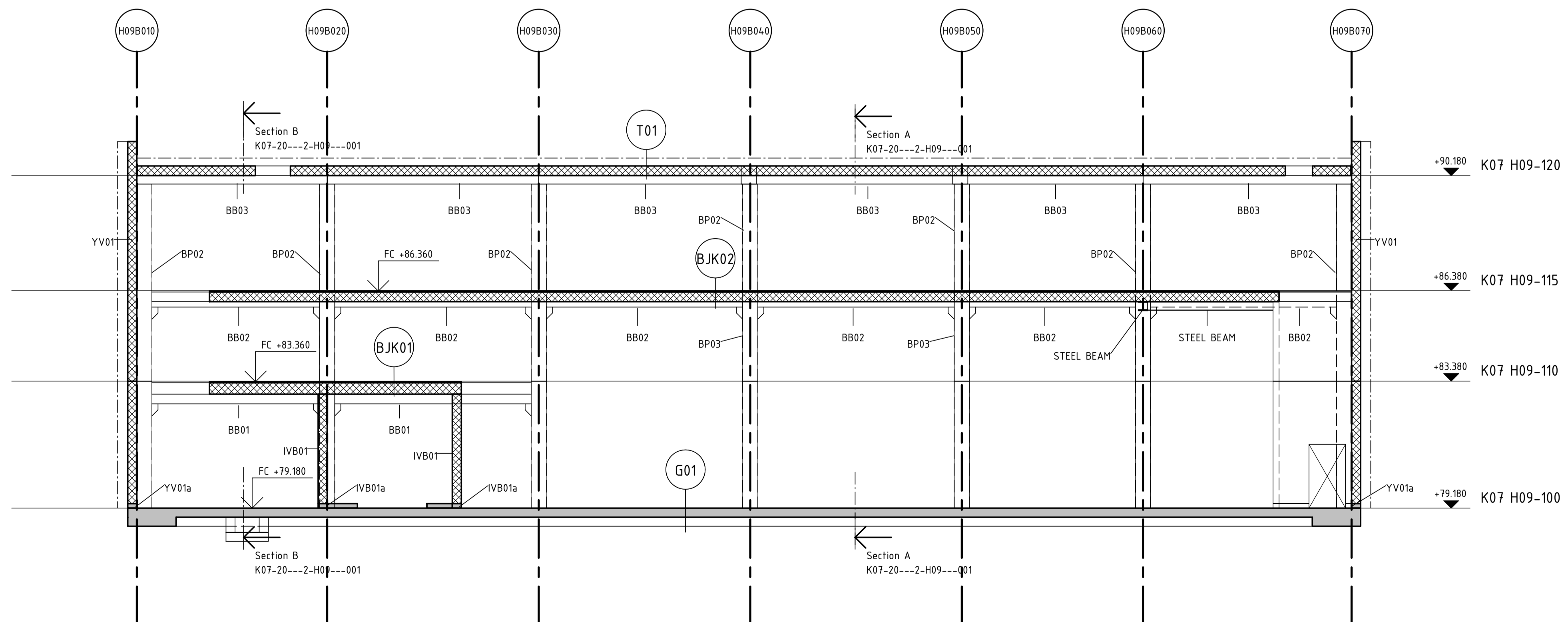
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EXPLANATIONS

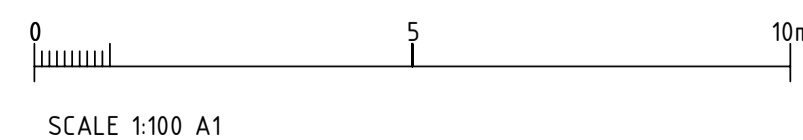
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Section C
1 : 100



Section D
1 : 100

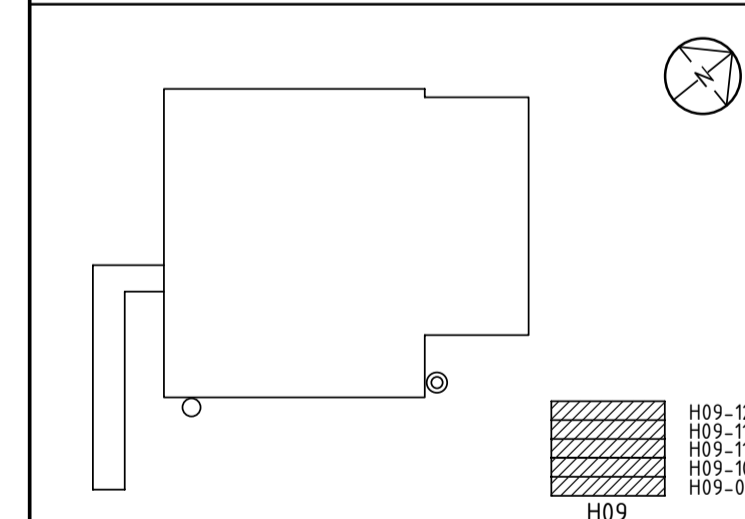


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CONSULTANT K07 TYRÉNS AB	PROJECT NUMBER 24766930
DRAWN BY JMA	MANAGED BY AAH
DATE	CHECKED BY HNO
	APPROVED BY A.ABRAHAMSSON

H09 WASTE BUILDING
MAIN SECTIONS

SCALE
A1 1:100
A3 1:200

DRAWING NUMBER
K07-20---2-H09---002 1 REV