



**ISEBE LEMFUNDO LEMPUMA KOLONI
EASTERN CAPE EDUCATION DEPARTMENT
OOS-KAAP ONDERWYSDEPARTEMENT**

**NATIONALSENIOR CERTIFICATE
NASIONALE SENIOR SERTIFIKAAT**

**GRADE 11
GRAAD 11**

**ENGINEERING GRAPHICS AND DESIGN P1
INGENIEURSGRAFIKA EN -ONTWERP V1**

**NOVEMBER 2016
MEMORANDUM**

MARKS / PUNTE: 200

TIME / TYD: 3 hours / uur

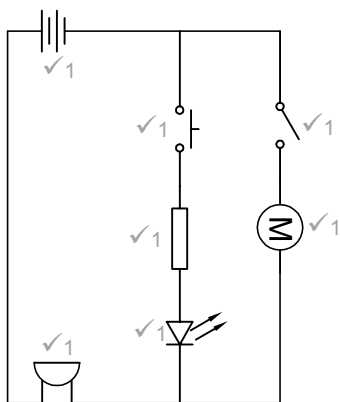
**This memorandum consists of 8 pages.
Hierdie memorandum bestaan uit 8 bladsye.**

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QUESTION 1A / VRAAG 1A:
ANALYTICAL (CIVIL) / ANALITIES (SIVIEL)

ANSWERS			ANTWOORDE		
1	456BDE	1	1	456BDE	1
2	RUAN E.	1	2	RUAN E.	1
3	1 : 300	1	3	1 : 300	1
4	3	1	4	3	1
5	GRANO	1	5	GRANO	1
6	SLIDING DOOR / SLIDING DOOR DIRECTION	1	6	SKUIFDEUR / SKUIFDEUR OPEN RIGTING	1
7	SLOPE OF 1 : 4	1	7	HELLING VAN 1 : 4	1
8	FINISHED FLOOR LEVEL (FFL)	1	8	VOLTOOIDE VLOERVLAK (VVV)	1
9	DOUBLE POLE SWITCH	1	9	DUBBELPOOLSKAKELAAR	1
10	SWITCHED SOCKET OUTLET	1	10	SKAKELAARMUURPROP	1
11	NORTH ELEVATION	1	11	NOORD-AANSIG	1
12	PLAN / FLOORPLAN	2	12	PLAN / VLOERPLAN	2
13	NORTH SYMBOL / NORTH POINT	1	13	NOORD-SIMBOOL	1
14	HINGE AND OPENING OF WINDOW	1	14	SKARNIER EN OOPMAAKKANT VAN VENSTER	1
15		2	15		2
16		3	16		3
17		3	17		3
TOTAL		23	TOTAAL		23

VRAAG / QUESTION 1B:
ELEKTRONIKA / ELECTRONICS



[7]

ANSWER /
ANTWOORD 15

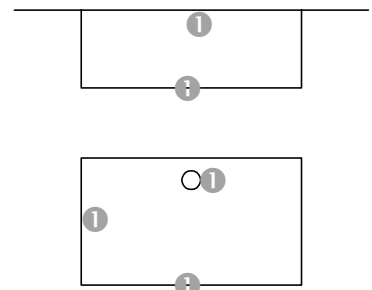
PERIMETER / OMTREK = $2L+2B$ ✓1
 = $2 \times 8,5 + 2 \times 4$
 = 25 m ✓1

ANSWER /
ANTWOORD 16

AREA / OPPERVLAK = $L \times B$ ✓1
 = $8,5 \times 4$
 = 34 m^2 ✓1 ✓1

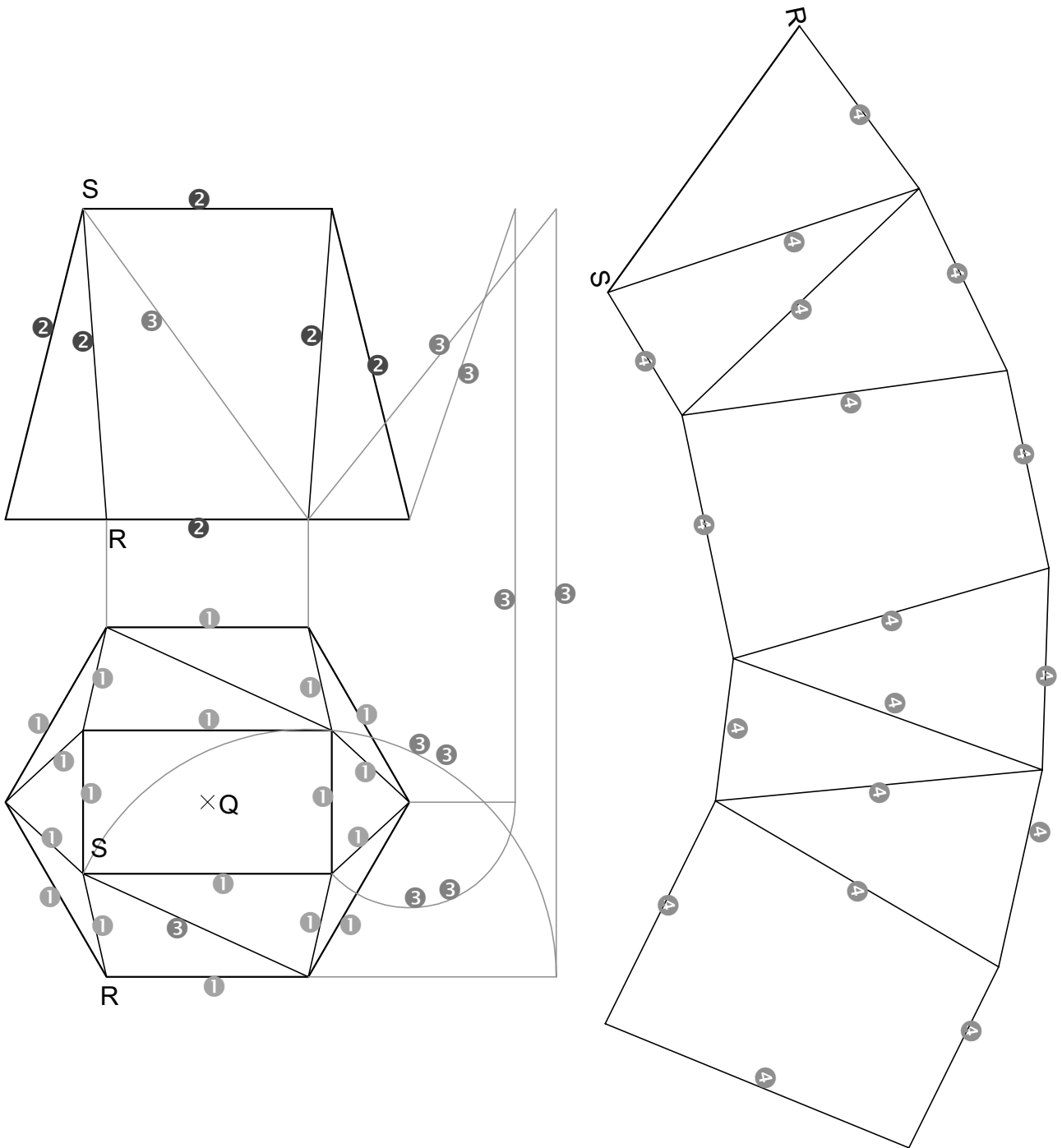
ANSWER / ANTWOORD 17

FREEHAND / VRYHAND ①



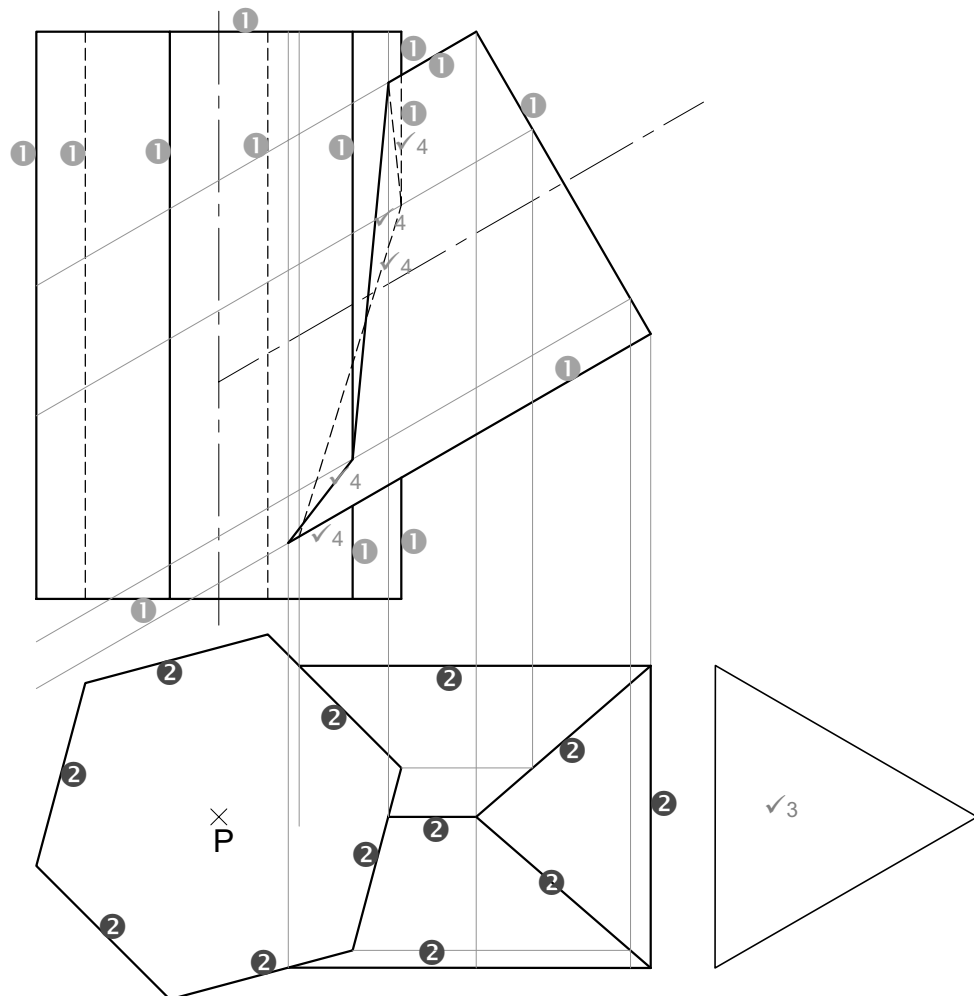
1 A	23
1 B	7
TOT	30

QUESTION 2A

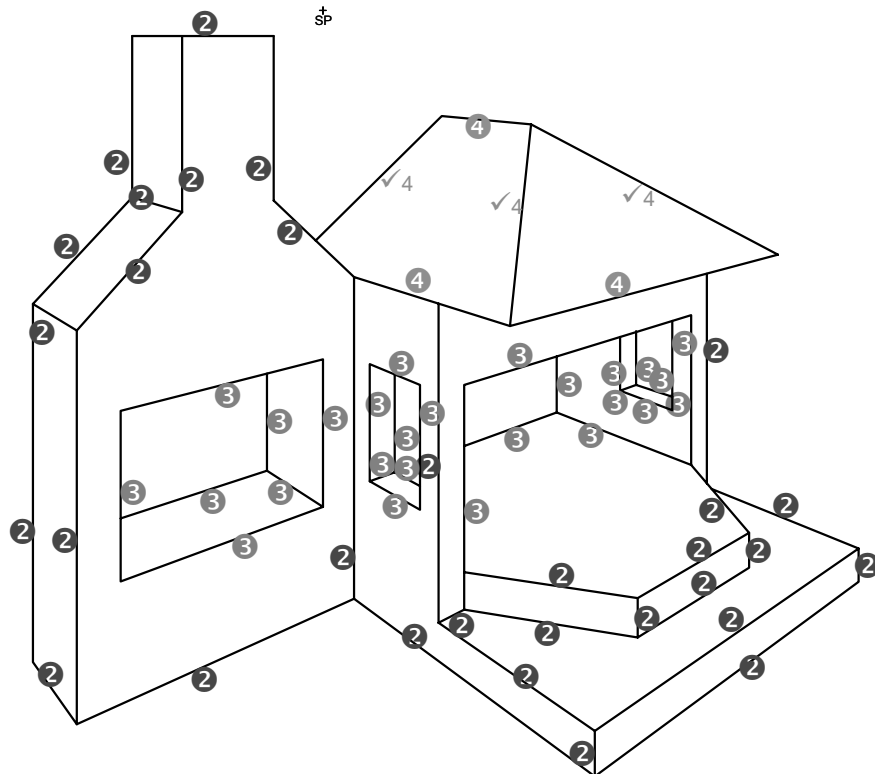
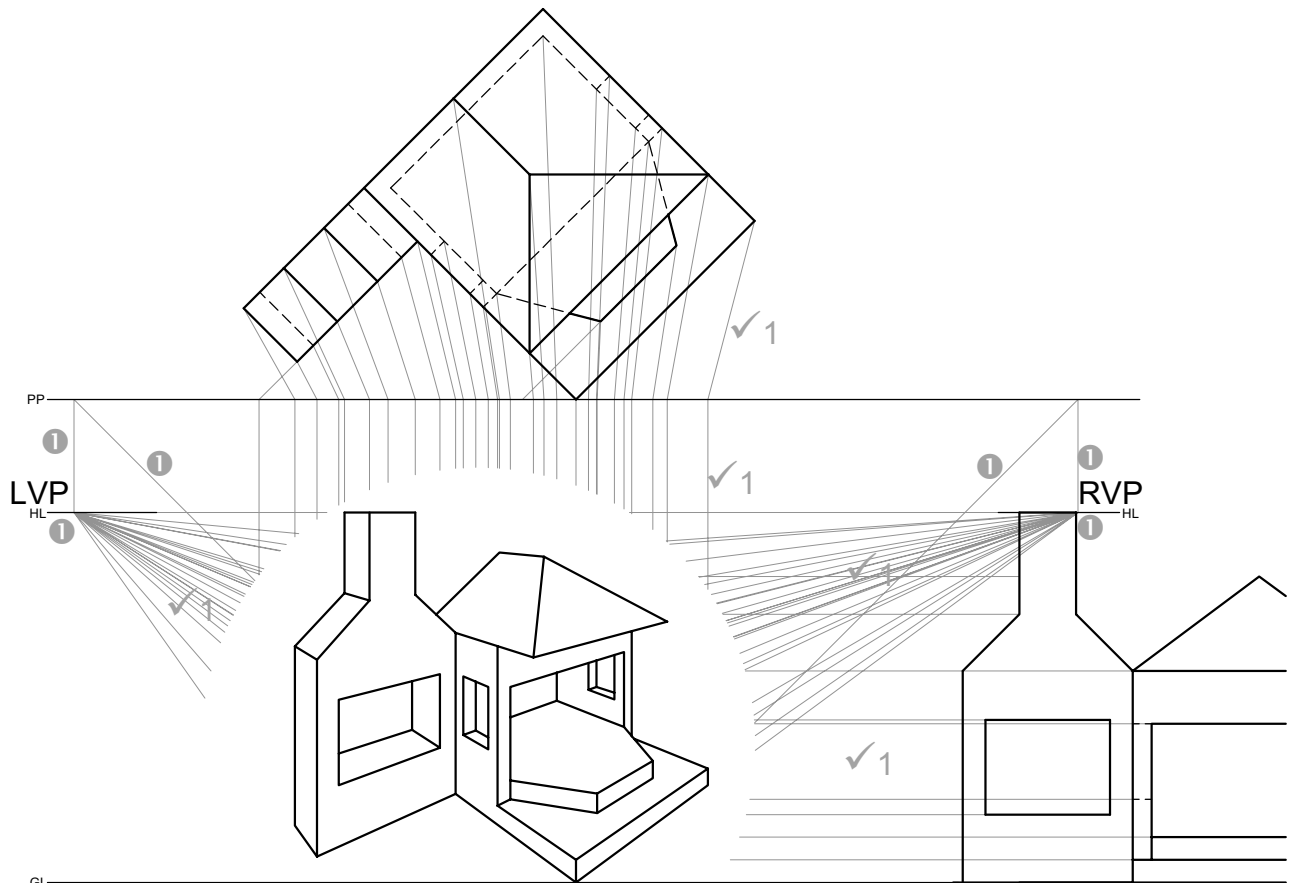


ASSESSMENT CRITERIA			ASSESSERINGSKRITERIA		
1	TOP VIEW	9	1	BOAANSIG	9
2	FRONT VIEW	3	2	VOORAANSIG	3
3	CONSTRUCTION	5	3	KONSTRUKSIE	5
4	DEVELOPMENT	9	4	ONTVOUING	9
SUBTOTAL		26	SUBTOTAAL		26

QUESTION 2B

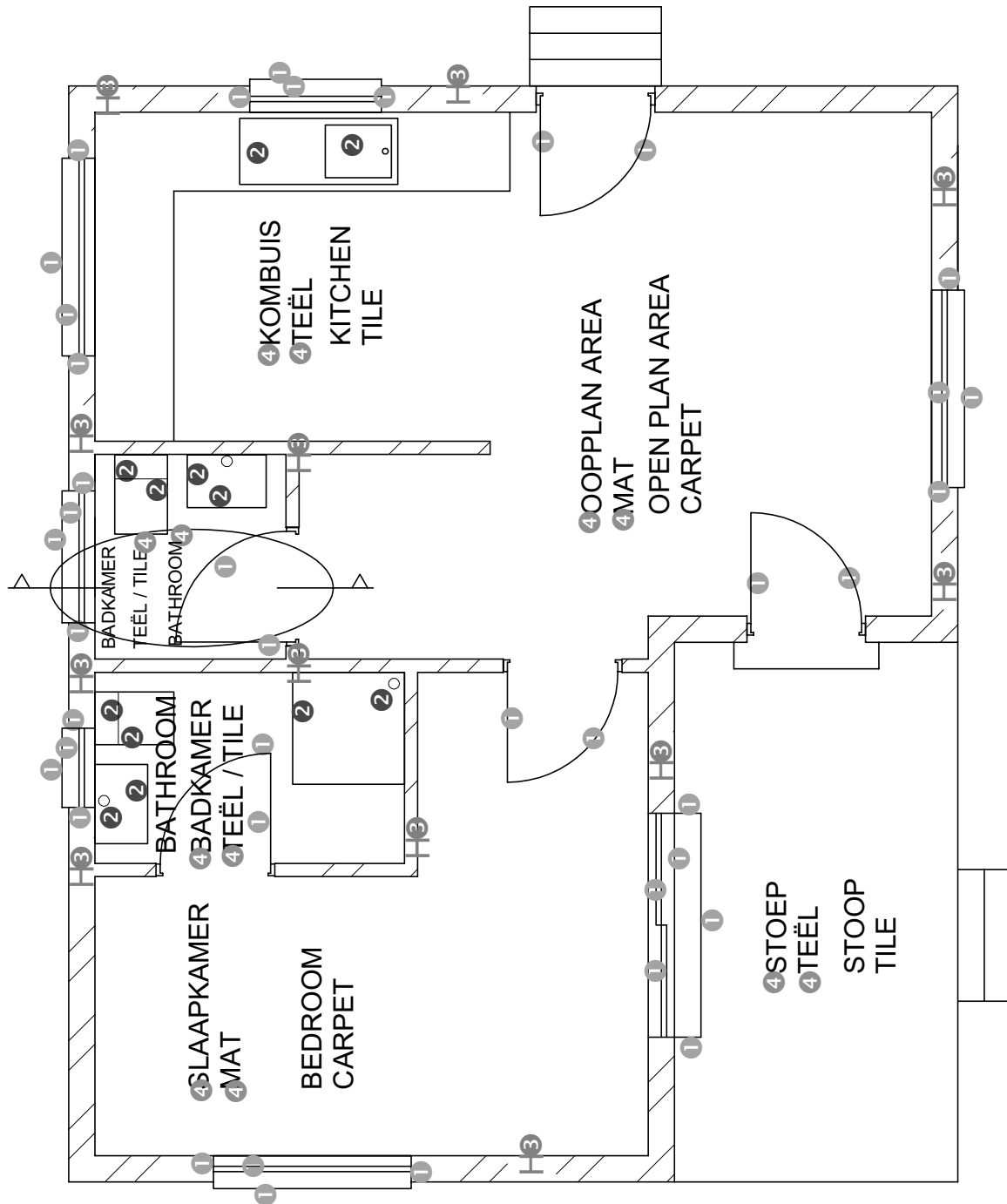


ASSESSMENT CRITERIA			ASSESSERINGSKRITERIA		
1	FRONT VIEW	7	1	VOORAANSIG	7
2	TOP VIEW	6	2	BOAANSIG	6
3	AUX VIEW	1	3	HULPAANSIG	1
4	INTERPENETRATION	5	4	INTERPENETRASIE	5
SUBTOTAL		19	SUBTOTAAL		19
TOTAL		45	TOTAAL		45

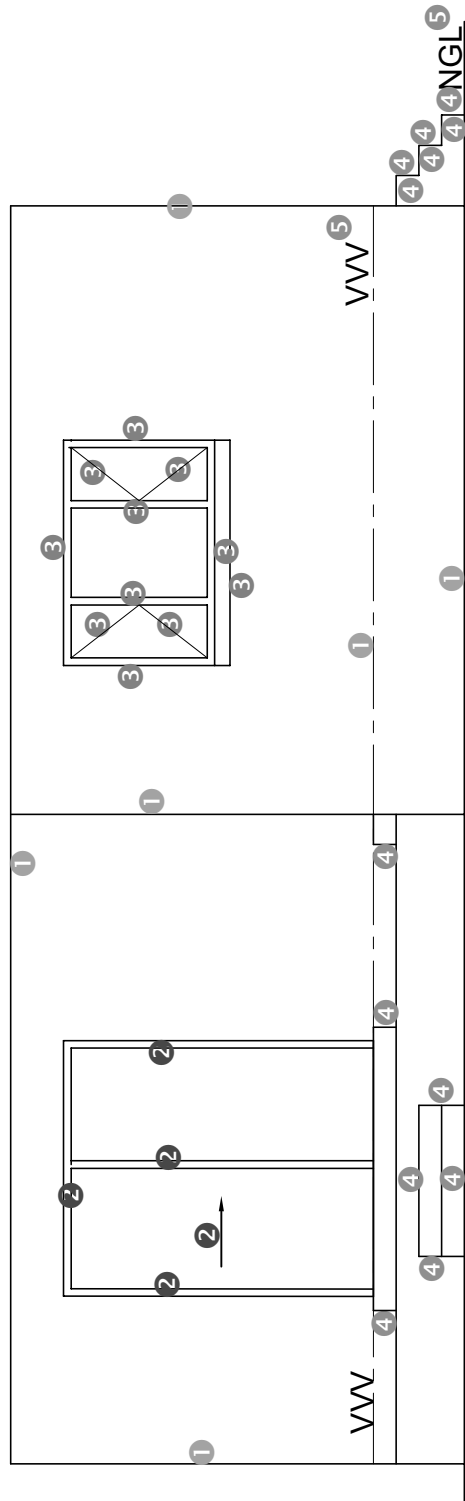


+ SP

ASSESSMENT CRITERIA			ASSESSERINGSKRITERIA		
1	CONSTRUCTION + VPs	8	1	KONSTRUKSIE + VPs	8
2	WALLS + STEPS	15 $\frac{1}{2}$	2	MURE + TRAPPE	15 $\frac{1}{2}$
3	OPENINGS	13	3	OPENINGE	13
4	ROOF	4 $\frac{1}{2}$	4	DAK	4 $\frac{1}{2}$
TOTAL		41	TOTAAL		41

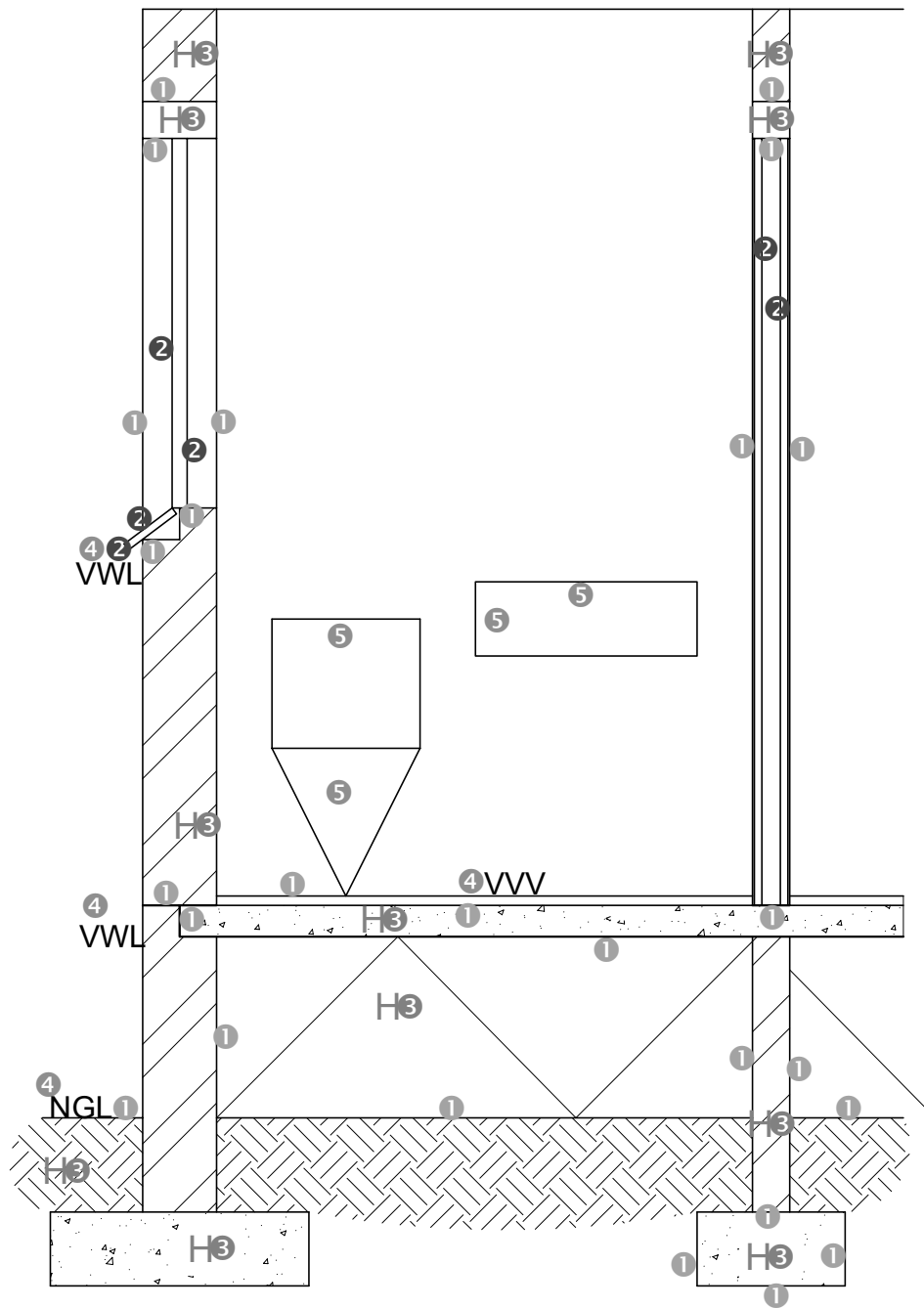


ASSESSMENT CRITERIA		ASSESSERINGSKRITERIA		
FLOOR PLAN		VLOERPLAN		
1	DOORS + WINDOWS + STEPS	20	1 DEURE + VENSTERS + TRAPPE	20
2	FIXTURES	6	2 TOEBEHORE	6
3	HATCHING	6	3 ARSERING	6
4	LABELS	6	4 BYSKRIFTE	6
SUBTOTAL		38	SUBTOTAAL	38



SOUTH ELEVATION ✓₅
 SUID-AANSIG
 SCALE / SKAAL 1 : 50 ✓₅

ASSESSMENT CRITERIA			ASSESSERINGSKRITERIA		
SOUTH ELEVATION			SUIDAANSIG		
1	WALLS + FFL	3	1	MURE + VVV	3
2	DOOR	2½	2	DEUR	2½
3	WINDOW	5½	3	VENSTER	5½
4	STEPS	6½	4	TRAPPE	6½
5	LABELS	3	5	BYSKRIFTE	3
SUBTOTAL		20½	SUBTOTAAL		20½



ASSESSMENT CRITERIA		ASSESSERINGSKRITERIA			
DETAILED SECTION		DEURSNEE AANSIG			
1	FOUNDATIONS + WALLS + SLAB	11	1	FONDASIES + MURE + VLOERBLAD	11
2	DOOR + WINDOW + LINTEL + SILL	5	2	DEUR + VENSTER + LATEI + VENSTERBANK	5
3	HATCHING	5 1/2	3	ARSERING	5 1/2
4	LABELS	2	4	BYSKRIFTE	2
5	FIXTURES	2	5	TOEBEHORE	2
SUBTOTAL		25 1/2	SUBTOTAAL		25 1/2
TOTAL		84	TOTAAL		84