

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

**NATIONAL SENIOR CERTIFICATE  
NASIONALE SENIOR SERTIFIKAAT**

**GRADE 12  
GRAAD 12**

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

**SEPTEMBER 2019  
MARKING GUIDELINE / NASIENRIGLYN**

**MARKS / PUNTE: 200**

**TIME / TYD: 3 hours / uur**

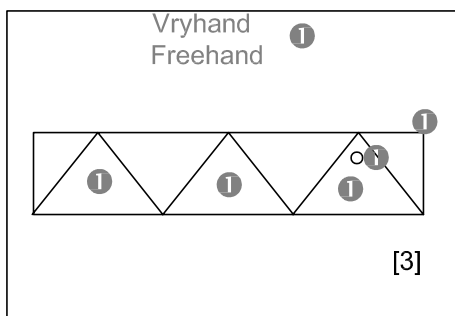
**This memorandum consists of 7 pages.  
Hierdie memorandum bestaan uit 7 bladsye.**

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<b>ANSWERS</b>		
1	SITE- 4200-19	1
2	5	1
3	1	1
4	ANJE & JANKE ARGITEKTE	1
5	Mr. W. HALLAT	1
6	SCHOOL PLAYGROUND	2
7	1m	2
8	INSPECTION CHAMBER	1
9	BUILDING LINE	1
10	4	1
11	WATER METER	1
12	BROWN	2
13	YES. THE GYMNASIUM IS NOT OVER THE BUILDING LINE	2
	<b>TOTAL</b>	<b>28</b>

<b>ANTWOORDE</b>		
1	SITE- 4200-19	1
2	5	1
3	1	1
4	ANJE & JANKE ARGITEKTE	1
5	Mnr. W. HALLAT	1
6	SKOOL SPEELGROND	2
7	1m	2
8	INSPEKSIE KAMER	1
9	BOULYN	1
10	4	1
11	WATERMETER	1
12	BRUIN	2
13	JA. DIE GIMNASIUM IS NIE OOR DIE BOULYN NIE.	2
	<b>TOTAAL</b>	<b>28</b>

**ANTWOORD / QUESTION 16**



**ANTWOORD / QUESTION 14**

Toon alle berekeninge / Show all calculations

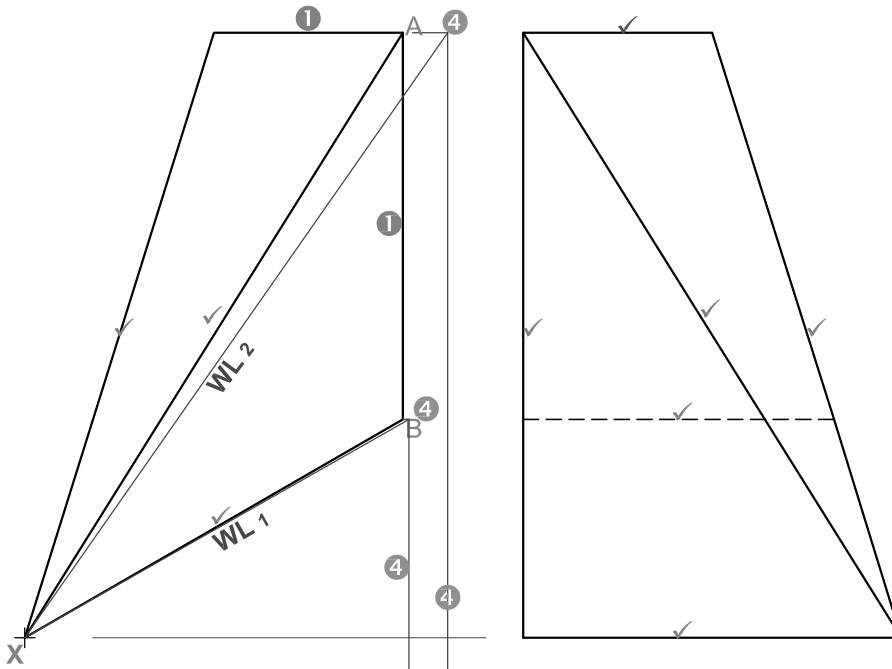
calculation: (+)(-)  $28.5 + 28.5 + 56.83 = 113.83$  berekening: (+)(-) correct values  $(5 \times 2.1) + 4.2 = 14.7$  korrekte waardes correct answer  $113.83 - 14.7 = 99.13m$  korrekte antwoord correct unit korrekte eenheid [4]

**ANTWOORD / QUESTION 15**

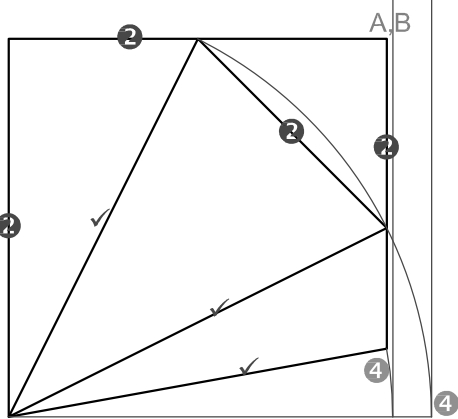
Toon alle berekeninge / Show all calculations

$5.4 \times 5.7 = 30.78$   
 $3.3 \times 1.8 = 5.94$   
 $30.78 + 5.94 = 36.72m^2$

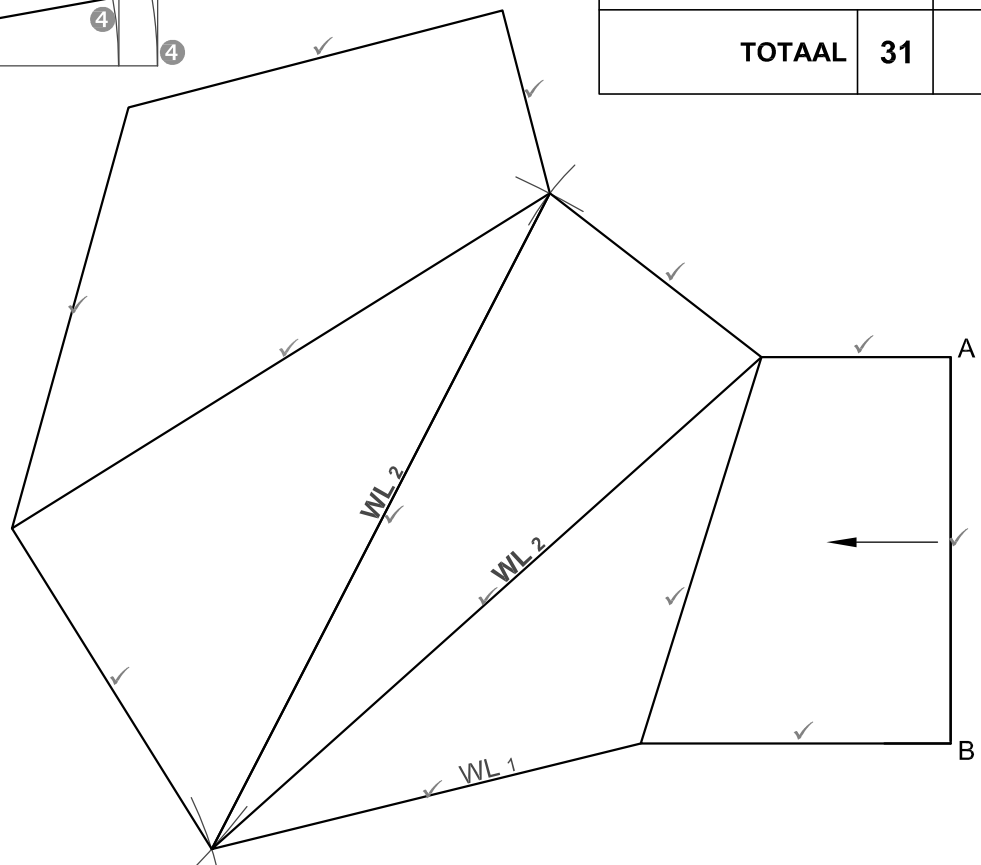
calculation (X), (+) optel berekening (X), (+)  
 correct values korrekte waardes  
 correct answer korrekte antwoord  
 correct unit  $m^2$  korrekte eenheid  $m^2$  [4]

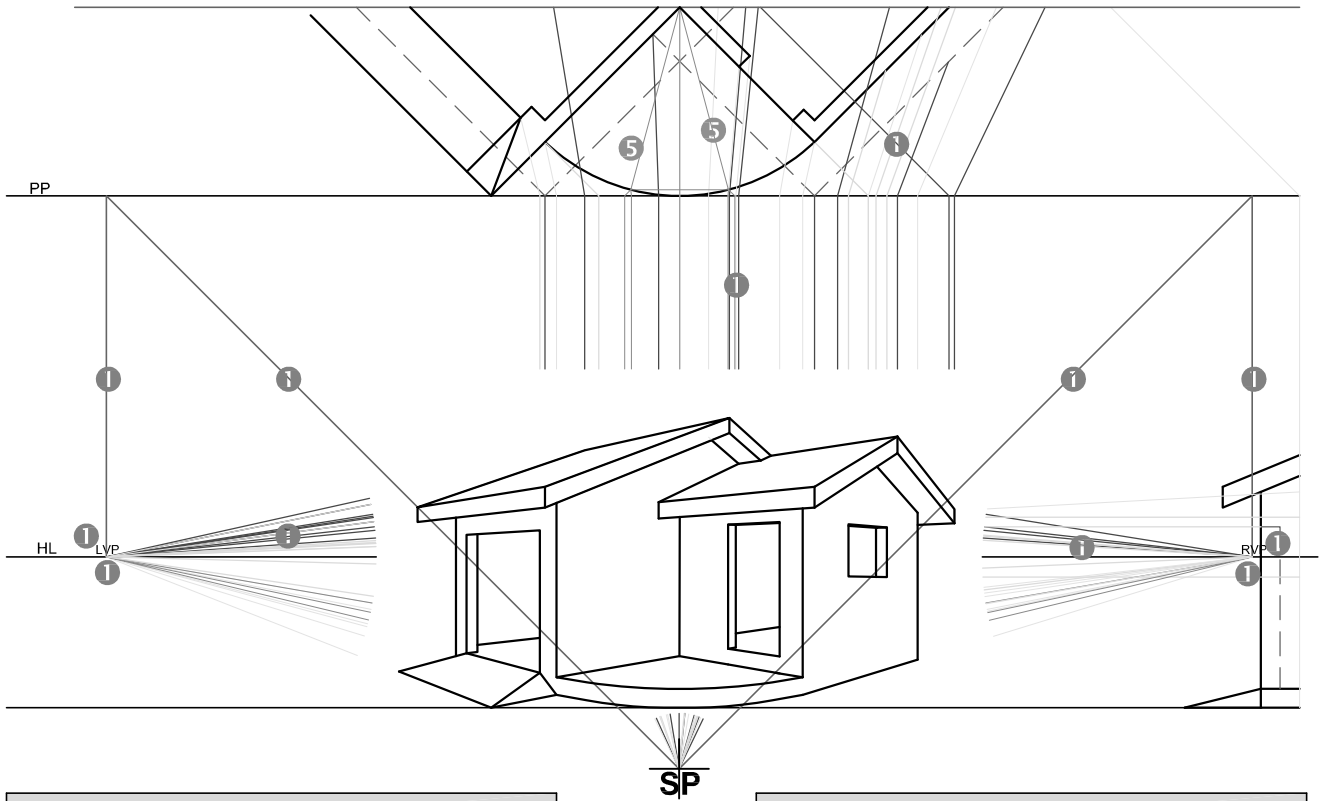


ASSESSMENT CRITERIA				
1	FRONT VIEW	4		
2	TOP VIEW	5		
3	LEFT VIEW	6		
4	CONSTRUCTIONS	3		
5	DEVELOPMENT	13		
PENALTIES (-)				
<b>TOTAL</b>		<b>31</b>		



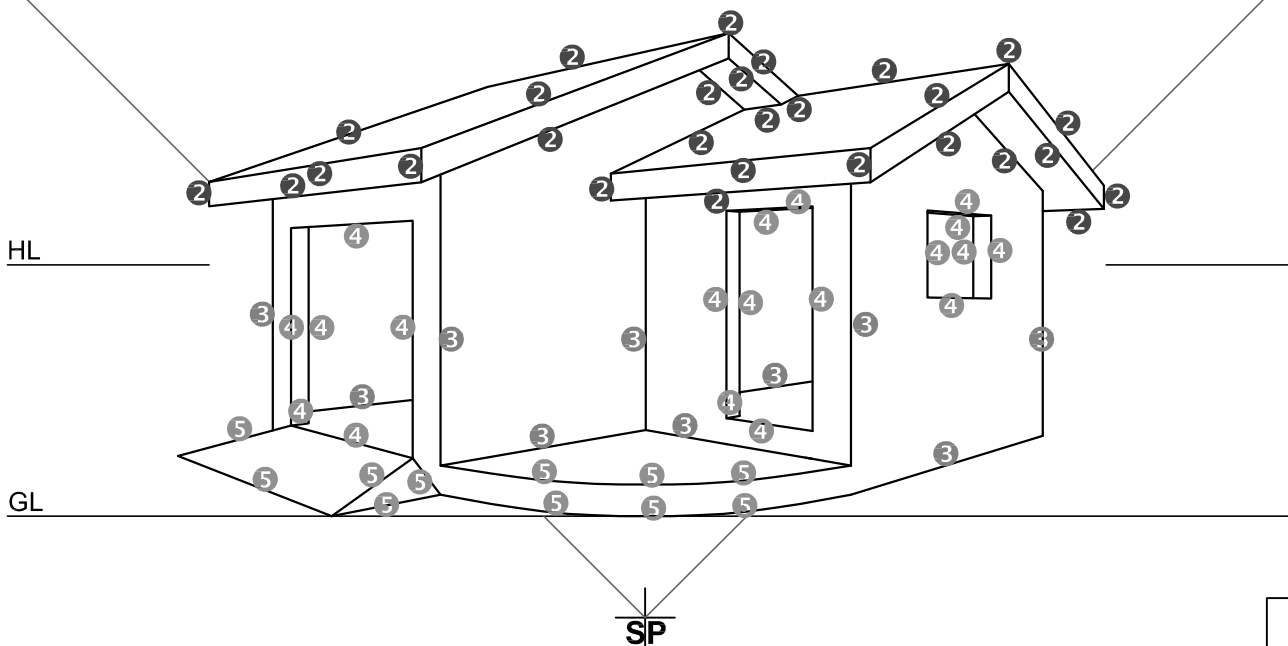
ASSESSERINGSKRITERIA				
1	VOORAANSIG	4		
2	BOAANSIG	5		
3	LINKERAANSIG	6		
4	KONSTRUKSIE	3		
5	ONTWIKKELING	13		
PENALISERING (-)				
<b>TOTAAL</b>		<b>31</b>		

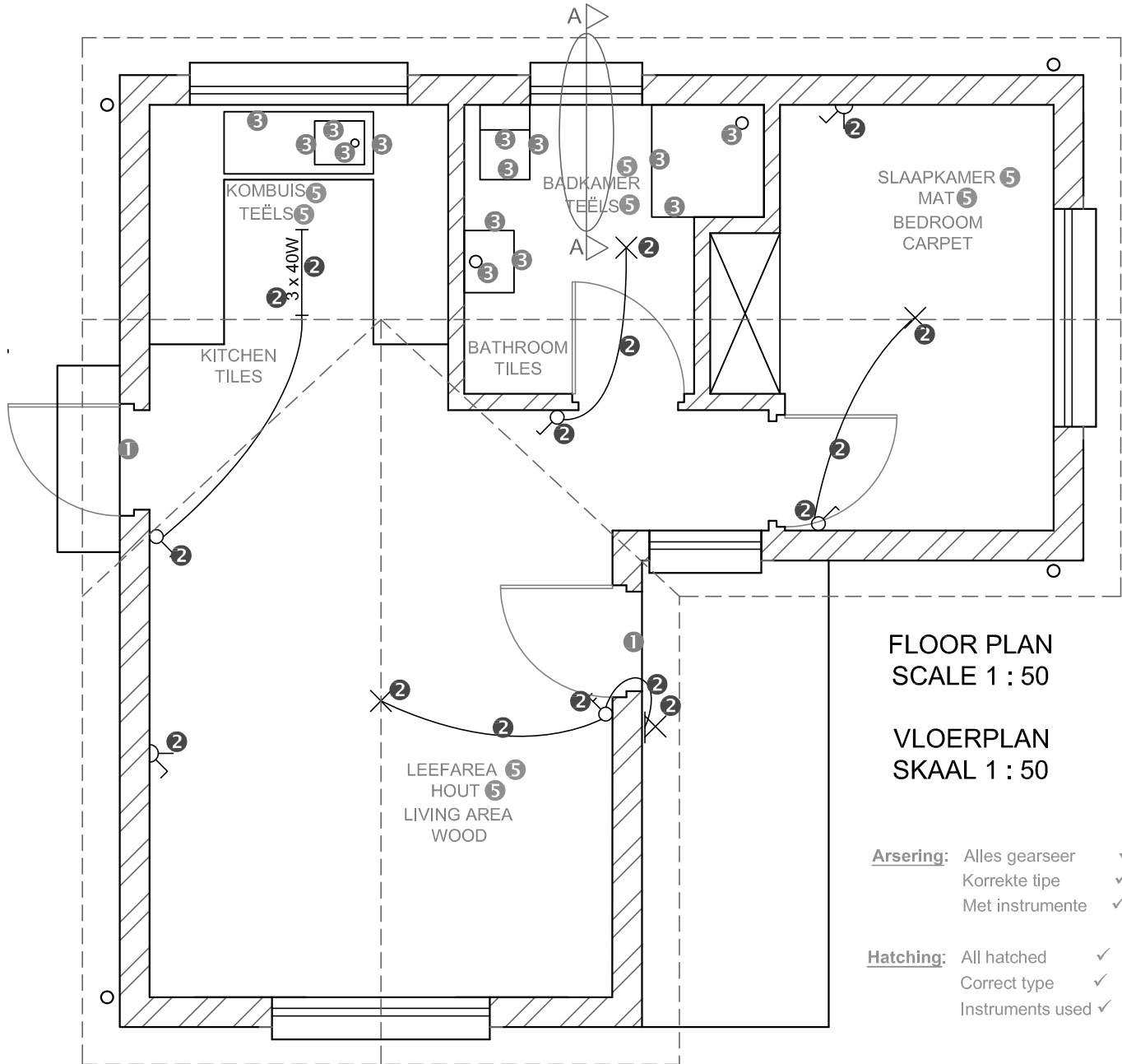




ASSESSERINGSKRITERIA			
1	KONSTRUKSIE EN VPte	6	
2	DAK	14	
3	MURE	5	
4	DEURE EN VENSTER	9 1/2	
5	SIRKEL EN OPRIT	6 1/2	
<b>TOTAAL</b>		<b>41</b>	

ASSESSMENT CRITERIA			
1	CONSTRUCTION AND VPs	6	
2	ROOF	14	
3	WALLS	5	
4	DOORS AND WINDOW	9 1/2	
5	CIRCLE AND RAMP	6 1/2	
<b>TOTAL</b>		<b>41</b>	





FLOOR PLAN  
SCALE 1 : 50

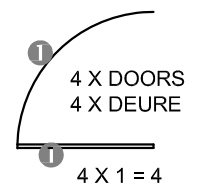
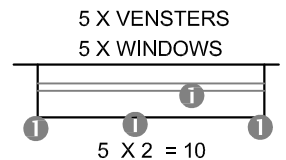
VLOERPLAN  
SKAAL 1 : 50

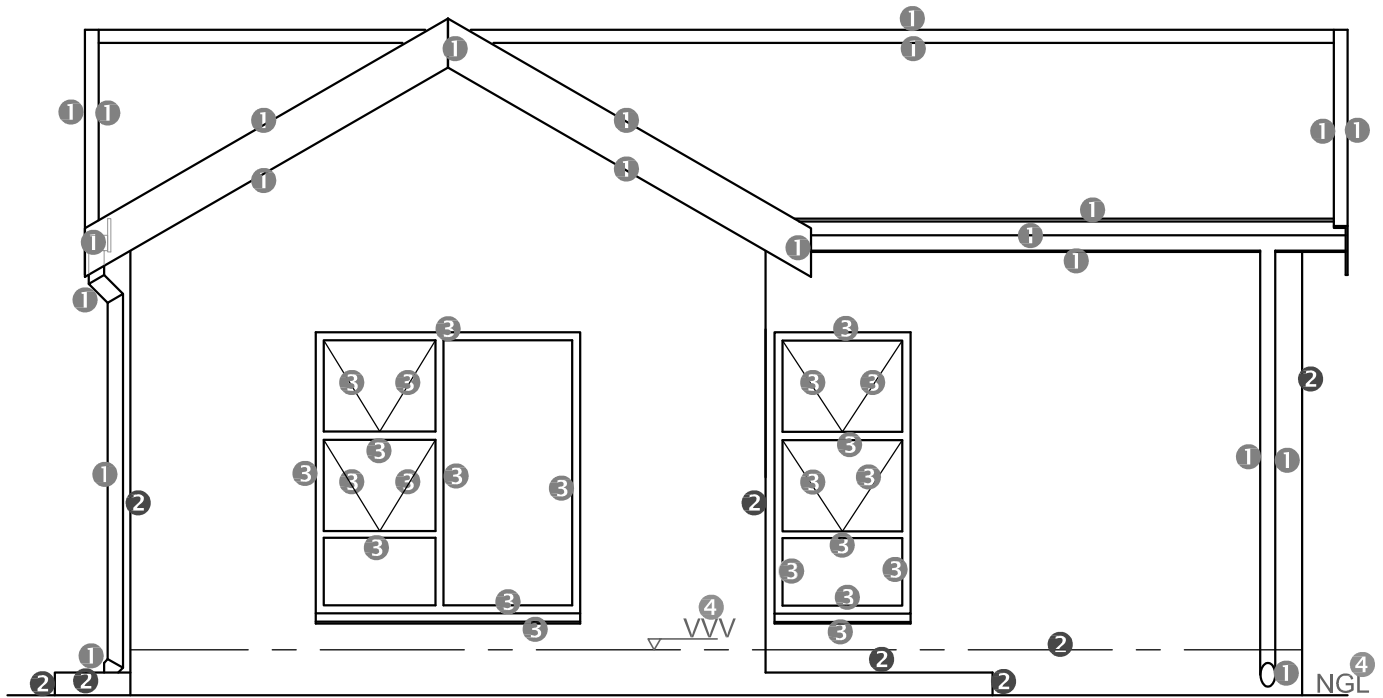
**Arsering:** Alles gearseer ✓  
Korrekte tipe ✓  
Met instrumente ✓

**Hatching:** All hatched ✓  
Correct type ✓  
Instruments used ✓

ASSESSMENT CRITERIA		
FLOOR PLAN		
1	DOORS AND WINDOWS	15
2	ELECTRICAL	8
3	FIXTURES	7
4	HATCHING	3
5	LABELS	4
<b>SUBTOTAL</b>		<b>37</b>

ASSESSERINGSKRITERIA		
VLOERPLAN		
1	DEURE EN VENSTERS	15
2	ELEKTRIES	8
3	TOEBEHORE	7
4	ARSERING	3
5	BYSKRIFTE	4
<b>SUBTOTAAL</b>		<b>37</b>





**SUIDAANSIG <sup>4</sup>**  
**SOUTH ELEVATION**

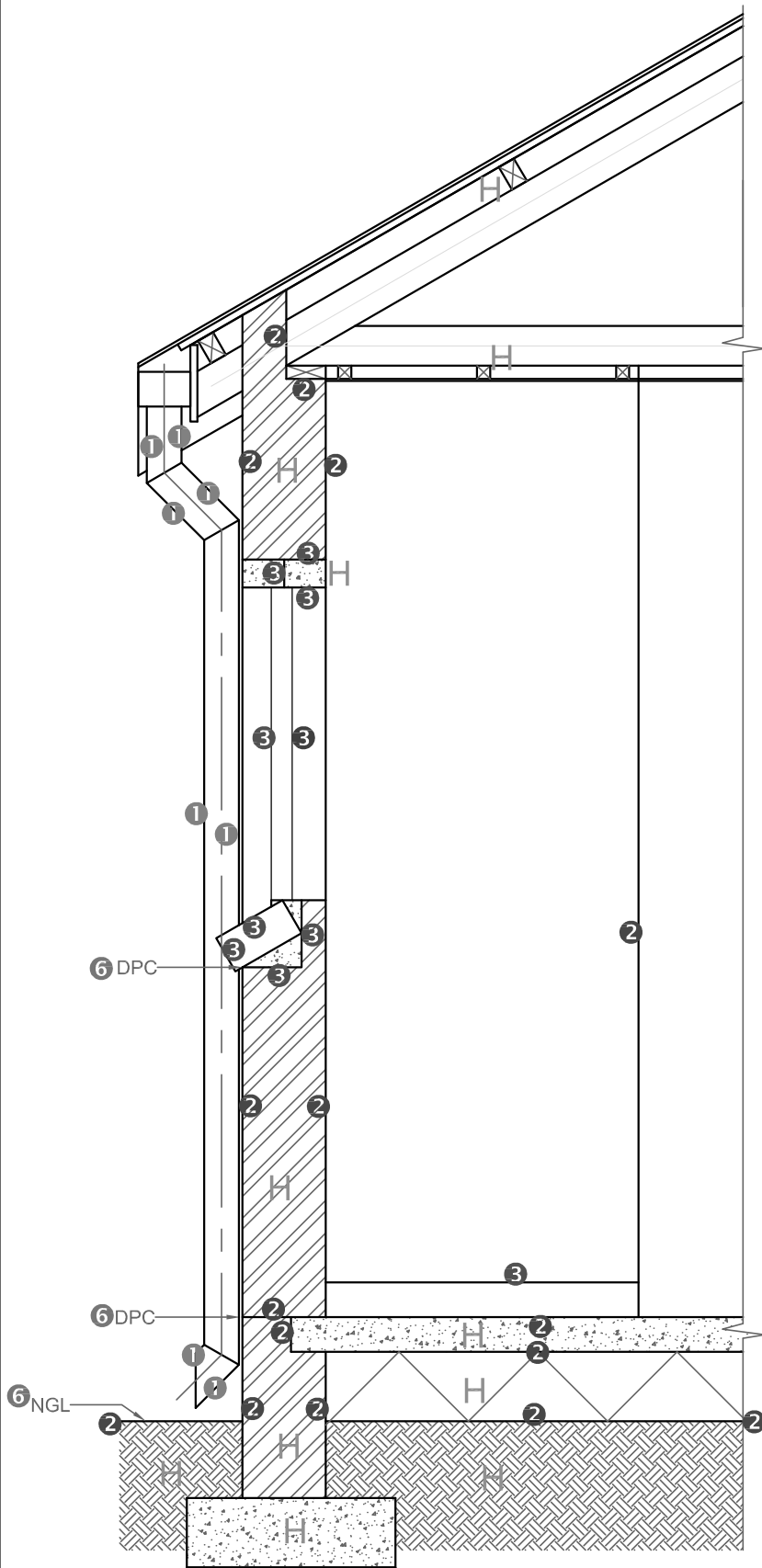
ASSESSMENT CRITERIA		
SOUTH ELEVATION		
1	ROOF, GUTTER, RWDP, FACIA AND BARGE BOARD	11
2	WALLS AND STEPS	4
3	DOORS AND WINDOWS	11 <sup>1</sup> / <sub>2</sub>
4	LABELS	1 <sup>1</sup> / <sub>2</sub>
<b>SUBTOTAL</b>		<b>28</b>

ASSESSERINGSKRITERIA		
SUID ELEVASIE		
1	DAK, GEUT, RWAP, FASSIE EN WINDVEER	11
2	MURE EN TRAPPE	4
3	DEURE EN VENSTERS	11 <sup>1</sup> / <sub>2</sub>
4	BYSKRIFTE	1 <sup>1</sup> / <sub>2</sub>
<b>SUBTOTAAL</b>		<b>28</b>

6. ROOF DETAIL: MARK ALLOCATION 6. DAKBESONDERHEDE: PUNTTOEKENNING		
6.1	ROOF ANGLE DAKHELLING	1/2
6.2	ROOF SHEET DAKPLAAT	1
6.3	ROOF TRUSS DAKKAP	2
6.4	PURLIN + SPACING PLAFONLAT + SPASIE	2
6.5	BARGE BOARD WINDVEER	1
6.6	BRANDERING + SPACING PLAFONLAT EN SPASIE	2
6.7	CEILING BOARD PLAFON	1/2
6.8	WALL PLATE MUURPLAAT	1/2
6.9	FACIA BOARD FASSIEBORD	1/2
6.10	GUTTER GEUT	1
<b>TOTAL / TOTAAL</b>		<b>11</b>

ASSESSERINGSKRITERIA		
DEURSNEE-AANSIG		
1	RWAP	4
2	FONDASIES, MURE EN VLOER	8
3	VERSTERBANK, VENSTER, STORT EN LATEIE	5
4	ARSERING	5 1/2
5	BYSKRIFTE	1 1/2
6	DAKBESONDERHEDE	11
<b>SUBTOTAAL</b>		<b>35</b>

ASSESSMENT CRITERIA		
DETAILED SECTION		
1	RWDP	4
2	FOUNDATIONS, WALLS EN SLAB	8
3	WINDOW SILL, WINDOW, SHOWER AND LINTELS	5
4	HATCHING	5 1/2
5	LABELS	1 1/2
6	ROOF DETAIL	11
<b>SUBTOTAL</b>		<b>35</b>



P DETAILED SECTION A-A  
SCALE 1 : 20

GEDETAILEERDE SNIT A-A  
SKAAL 1 : 20