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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 2016
MEMORANDUM**

MARKS / PUNTE: 200

TIME / TYD: 3 hours / uur

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

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ANSWERS		
1	10810	1
2	FREDDIE	1
3	PRINTALL CC	1
4	1	1
5	2	1
6	ADJACENT BUILDING	2
7	25 m	1
8	INSPECTION CHAMBER	1
9	RODDING EYE	1
10	MAN HOLE	1
11	4	1
12	STAIRCASE	1
13	CONTOUR LINE	1
14	RED	1
15	GREEN	1
16	----- ✓1	1

ANTWOORDE		
1	10810	1
2	FREDDIE	1
3	PRINTALL CC	1
4	1	1
5	2	1
6	AANGRENSENDE GEBOU	2
7	25 m	1
8	INSPEKIE KAMER	1
9	STEEK OOG	1
10	MANGAT	1
11	4	1
12	TRAPPE	1
13	KONTOERLYN	1
14	ROOI	1
15	GROEN	1
16	----- ✓1	1

ANSWER / ANTWOORD 17 (3)

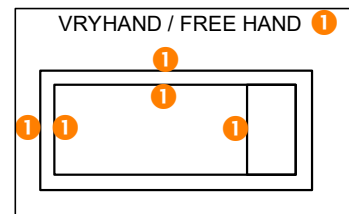
PERIMETER / OMTREK = 2(L + B) ✓1
 = 2 (38,5 + 25,0) ✓1
 = 127 m ✓1

ANSWER / ANTWOORD 18 (3)

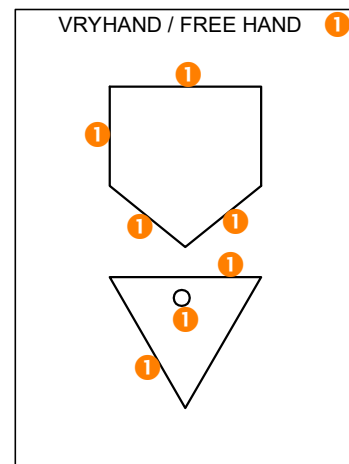
AREA / OPPERVLAK = L x B ✓1
 = (7,8 x 6) + (7 x 5) - (2 x 3) ✓1
 = 75,8 m² ✓1

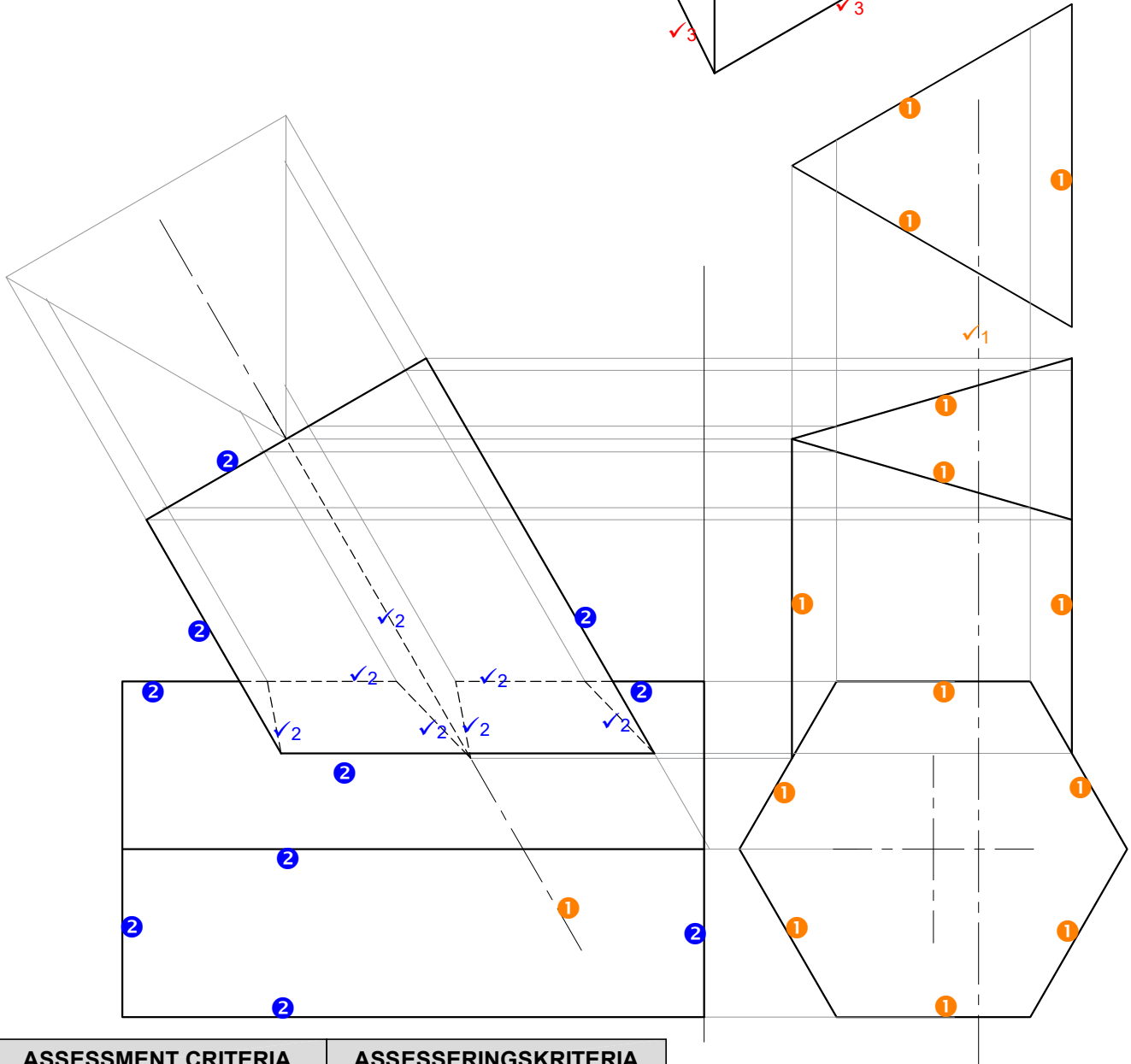
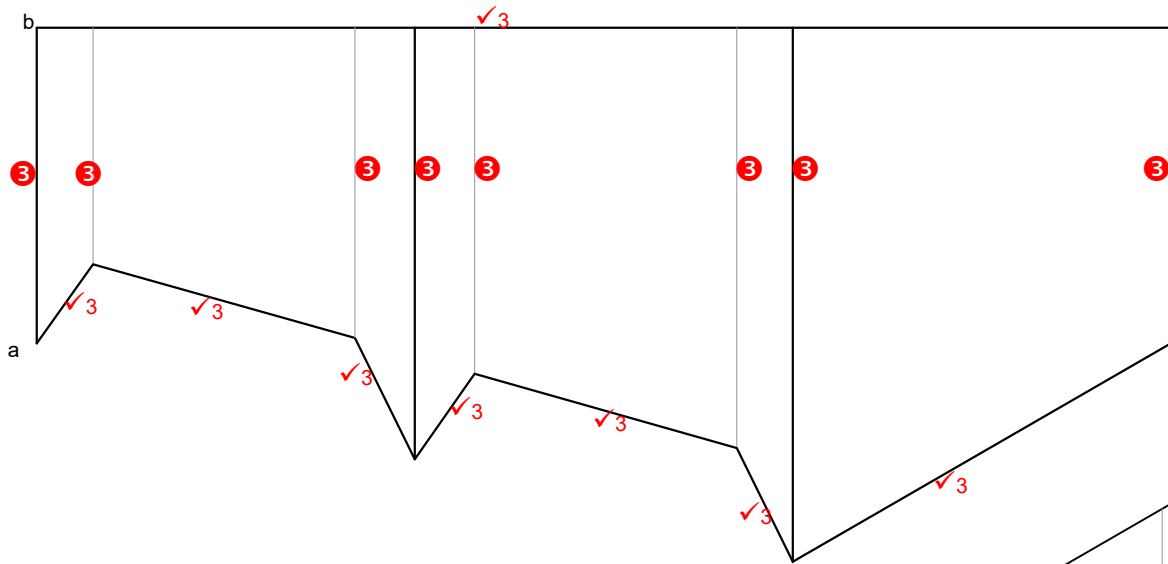
TOTAL: 30
 TOTAAL: 30

ANSWER / ANTWOORD 19 (3)



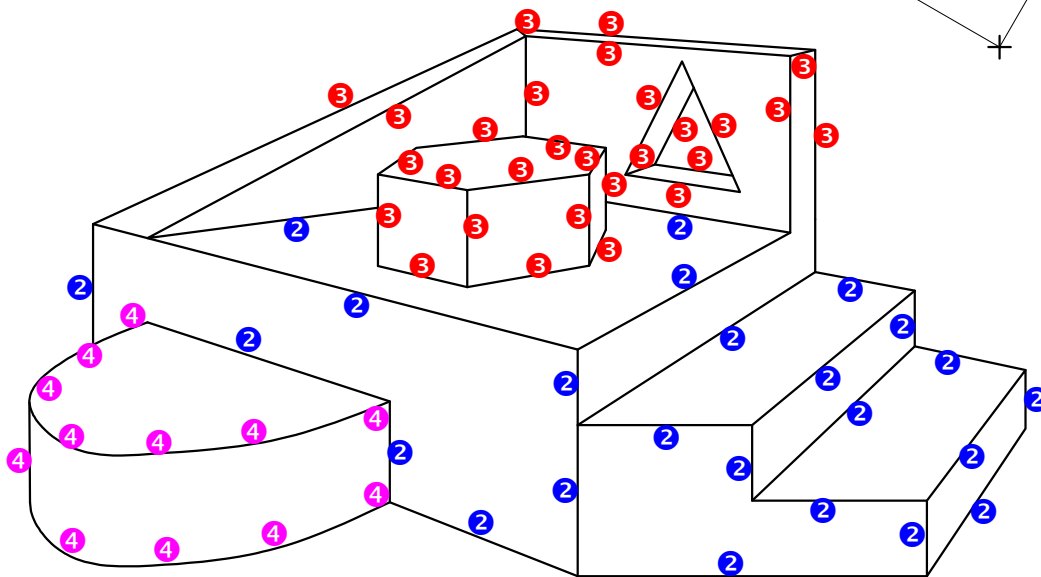
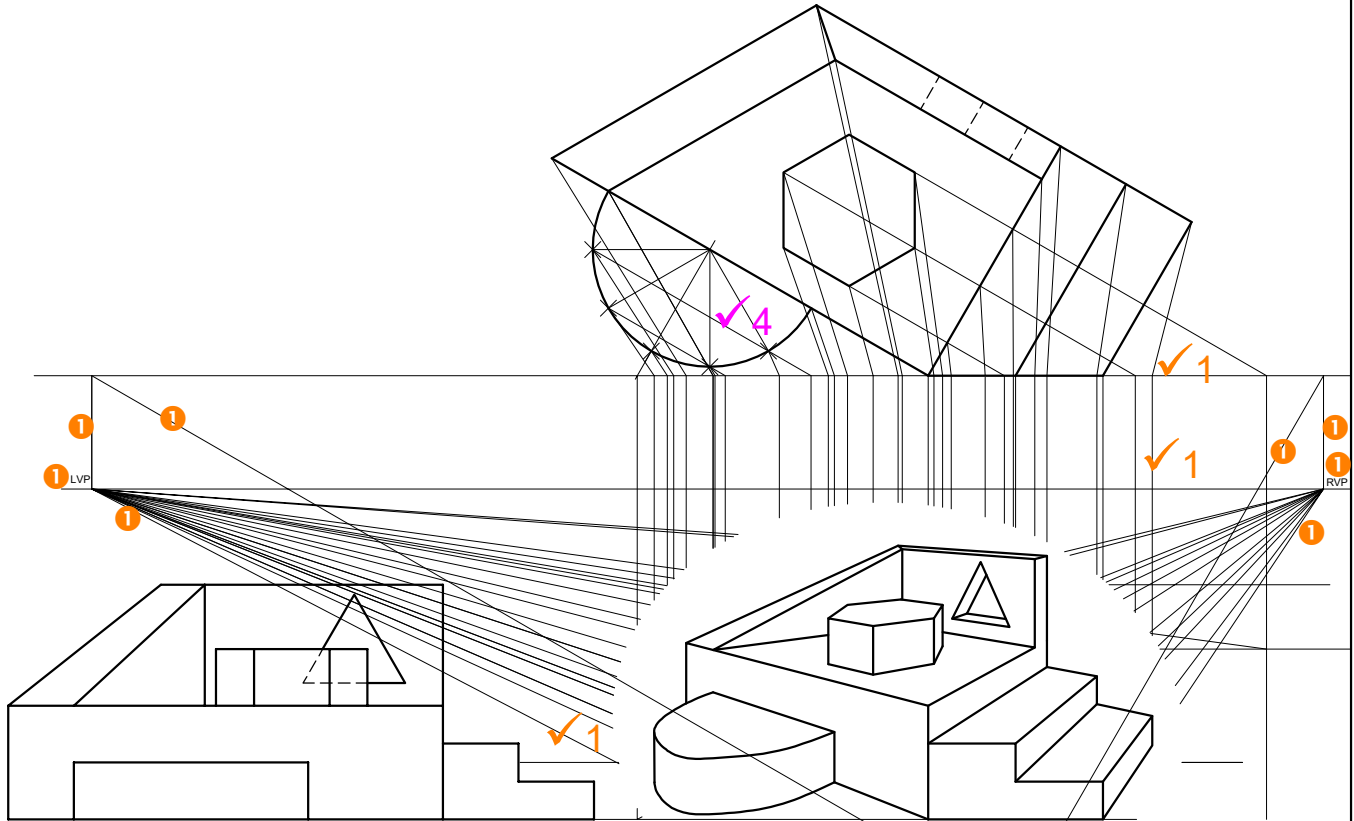
ANSWER / ANTWOORD 20 (4)





ASSESSMENT CRITERIA		ASSESSERINGSKRITERIA	
1	CONSTRUCTION + CENTRE LINES + TOP VIEW	8	1
			KONSTRUKSIE + SENTERLYNE + BOAANSIG
2	FRONT VIEW	12	2
			VOORAANSIG
3	DEVELOPMENT	12	3
			ONTWIKKELING
TOTAL		32	TOTAAL
			32

3



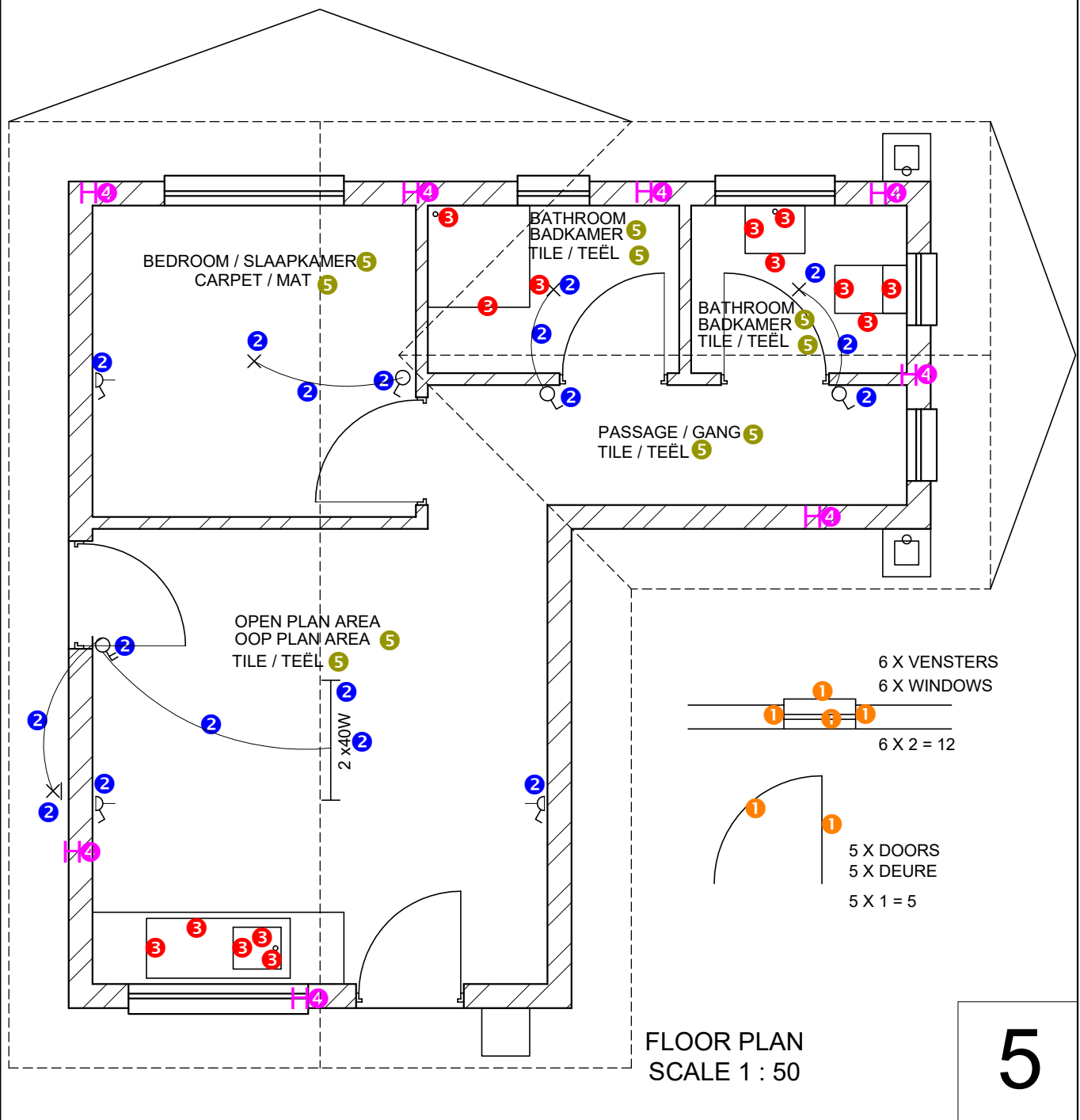
ASSESSMENT CRITERIA			ASSESSERINGSKRITERIA		
1	CONSTRUCTION + VPs	7	1	KONSTRUKSIES + VPs	7
2	STAIRS + BASE	12	2	TRAPPE + BASIS	12
3	WALLS + HEXAGON	14	3	MURE + SESKANT	14
4	SEMI-CIRCLE	7	4	HALFSIRKEL	7
TOTAL		40	TOTAAL		40

4

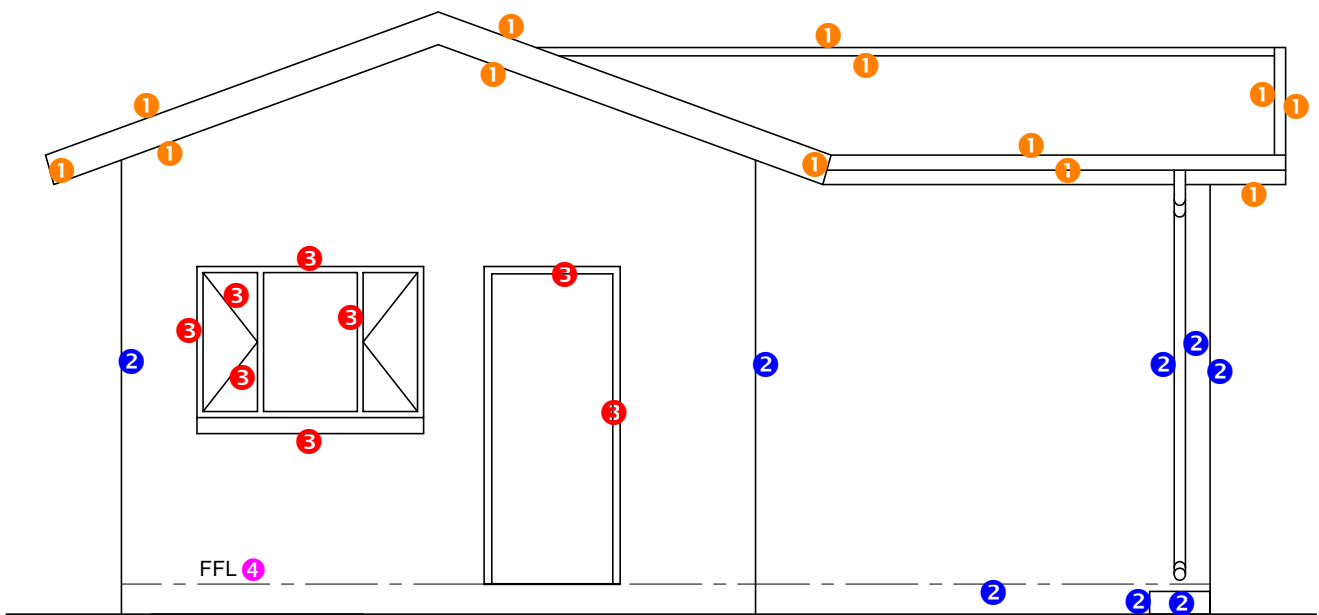
2. ELECTRICAL		
2.1	SWITCHES	2
2.2	CONDUCTERS	2 ½
2.3	LIGHTS	3
2.4	SWITCHED SOCKETS	1 ½
TOTAL		9
2. ELEKTRIES		
2.1	SKAKELAARS	2
2.2	GELEIERS	2 ½
2.3	LIGTE	3
2.4	MUURPROPPE	1 ½
TOTAAL		9

4. HATCHING ALLOCATION		
4.1	SANS COMPLIANT (TYPE)	2
4.2	HATCHING CORRECTLY APPLIED	2
TOTAL		4
4. ARSERINGSTOEKENNING		
4.1	SANS VOLDOEN (TIPE)	2
4.2	ARSERING KORREK TOEGEPAS	2
TOTAAL		4

ASSESSMENT CRITERIA		ASSESSERINGS-KRITERIA		
FLOOR PLAN		VLOERPLAN		
1	DOORS + WINDOWS	17	1 DEURE + VENSTERS	17
2	ELECTRICAL	9	2 ELEKTRIES	9
3	FIXTURES	7	3 TOEBEHORE	7
4	HATCHING	4	4 ARSERING	4
5	LABELS	5	5 BYSKRIFTE	5
SUBTOTAL		42	SUBTOTAAL	42



1. ROOF SOUTH EAST ELEV. MARK ALLOCATION			1. DAK SUIDOOS-AANSIG PUNTETOEKENNING		
1.1	ROOF CAP	1	1.1	DAKNOK	1
1.2	BARGE BOARD	1	1.2	WINDVEER	1
1.3	FACIA	3 ½	1.3	GEUTPLANK	3 ½
1.4	GUTTER	1	1.4	GEUT	1
TOTAL		6 ½	TOTAAL		6 ½



SOUTH EAST ELEVATION 4

SCALE 1 : 50 4

SUIDOOS-AANSIG

SKAAL 1 : 50

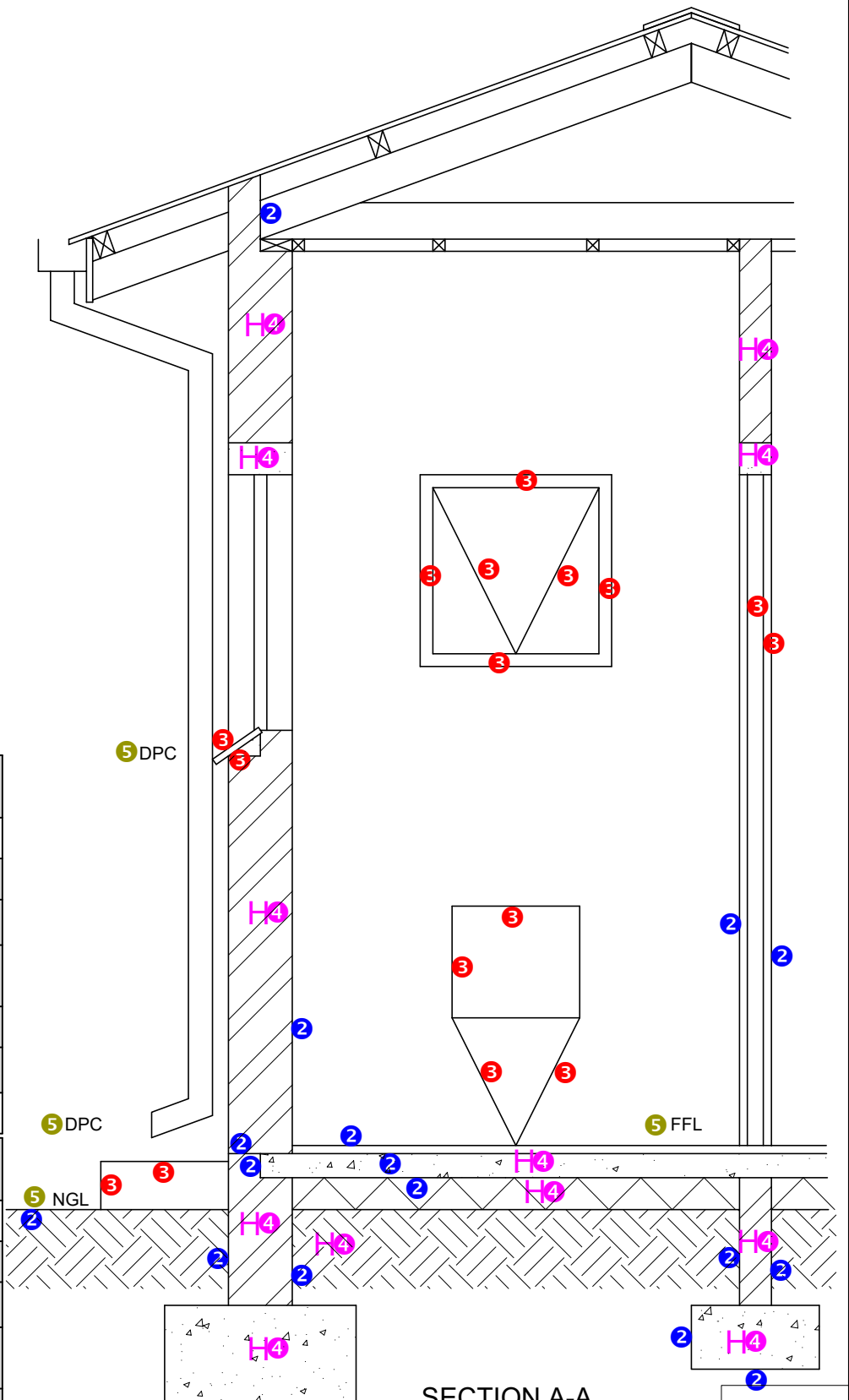
ASSESSMENT CRITERIA			ASSESSERINGSKRITERIA		
SOUTH EAST ELEVATION			SUIDOOS-AANSIG		
1	ROOF	6 ½	1	DAK	6 ½
2	WALLS + RWDP + FFL + GULLEY	4	2	MURE + RWAP + VVV + SYFERPUT	4
3	DOOR + WINDOW	4	3	DEUR + VENSTER	4
4	LABELS	1 ½	4	BYSKRIFTE	1 ½
SUBTOTAL		16	SUBTOTAAL		16

1. ROOF DETAIL MARK ALLOCATION			4. HATCHING ALLOCATION			4. ARSERINGTOEKENNING			
1.1	ROOF ANGLE	1	4.1	SANS COMPLIANT (TYPE)	3	4.1	SANS VOLDOEN(TIPE)	3	
1.2	ROOF SHEET	1	4.2	HATCHING CORRECTLY APPLIED	6	4.2	ARSERING KORREK TOEGEPAS	6	
1.3	PURLIN	1	TOTAL			9	TOTAAL		
1.4	PURLIN SPACING	1							
1.5	ROOF CAP	1							
1.6	TRUSS	1							
1.7	BRANDERNG + SPACING	2							
1.8	CEILING BOARD	1							
1.9	WALL PLATE	1							
1.10	FACIA BOARD	1							
1.11	GUTTER	1							
1.12	RWDP	1							
TOTAL		13							

1. DAK BESONDERHEDE PUNTE TOEKENNING		
1.1	DAKHELLING	1
1.2	DAKPLAAT	1
1.3	DAKLAT	1
1.4	DAKLAT SPASIE	1
1.5	NOK	1
1.6	DAKKAP	1
1.7	PLAFONLAT + SPASIE	2
1.8	PLAFONBORD	1
1.9	MUURPLAAT	1
1.10	GEUTPLANK	1
1.11	GEUT	1
1.12	RWAP	1
TOTAAL		13

ASSESSMENT CRITERIA		
DETAILED SECTION		
1	ROOF DETAIL	13
2	FOUNDATIONS + WALLS + SLAB	8
3	DOOR + GULLEY + GUTTER + SILL + WINDOW + WC	8
4	HATCHING	9
5	LABELS	2
SUBTOTAL		40

ASSESSERINGSKRITERIA		
DEURSNEE-AANSIG		
1	DAKBESONDERHEDE	13
2	VONDASIES + MURE + VLOERBLAD	8
3	DEUR + SYFERPUT + GEUT + VERSTERBANK + VENSTER + WC	8
4	ARSERING	9
5	BYSKRIFTE	2
SUBTOTAAL		40



SECTION A-A
SCALE 1 : 20