



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P1

FEBRUARY/MARCH 2018

MARKING GUIDELINES

MARKS: 200

These marking guidelines consist of 7 pages.

	ANSWERS	
1	2017-08-01	1
2	177 WEST PARK DRIVE	1
3	P1Q1-2017	1
4	MOVE SUBSTATION	1
5	ASPHALT	1
6	14	1
7	10	1
8	D	1
9	1 : 40	1
10	PAVEMENT	1
11	BUILDING LINE	1
12	BOUNDARY OF ADJACENT STAND	1
13	RODDING EYE (RE)	1
14	BLUE	1
15	GULLY	2
16	NORTH EAST	2
17	167 m	2
18	147 m (calculation 1, answer 1, metre 1)	3
19	2192 m ² (calculation 1, answer 1, metre ² 1)	3
20	See below	4

TOTAL: 30

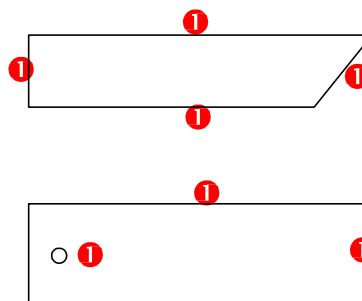
ANSWER 18
Show ALL calculations.

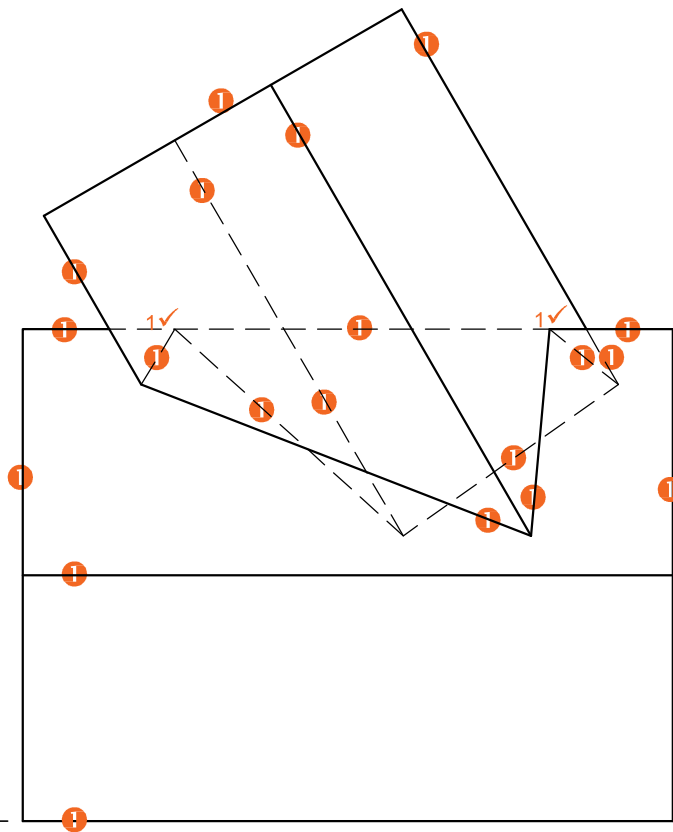
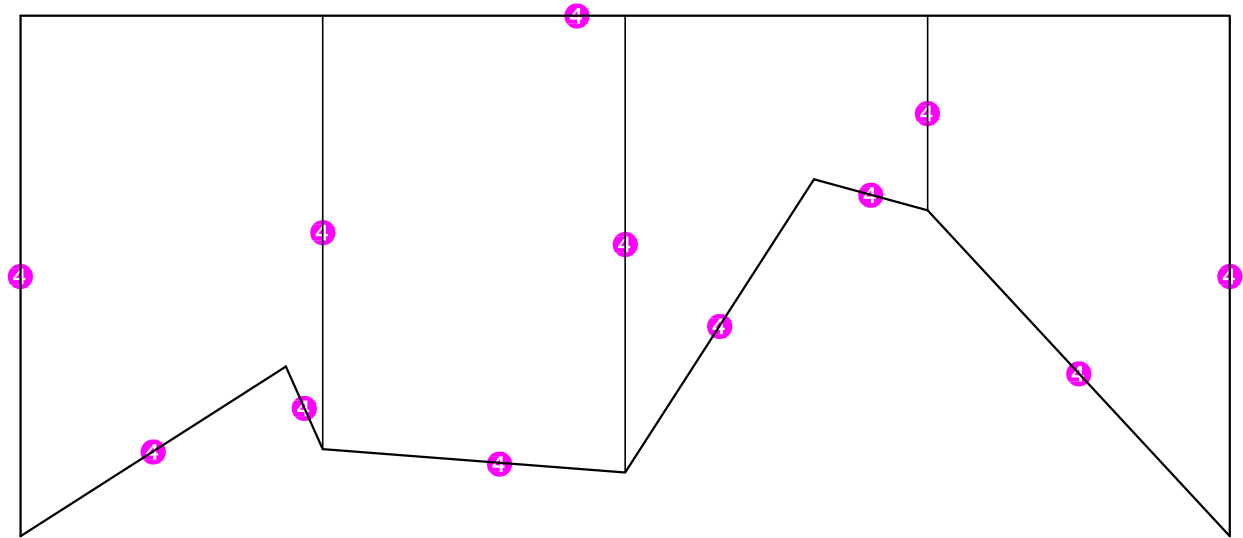
$$\begin{aligned}
 &L+L+L+L+L+L+L+L \\
 &=14+17,75+4+11+10+16.75+28+45.5 \\
 &= 147 \text{ m}
 \end{aligned}$$

ANSWER 19
Show ALL calculations.

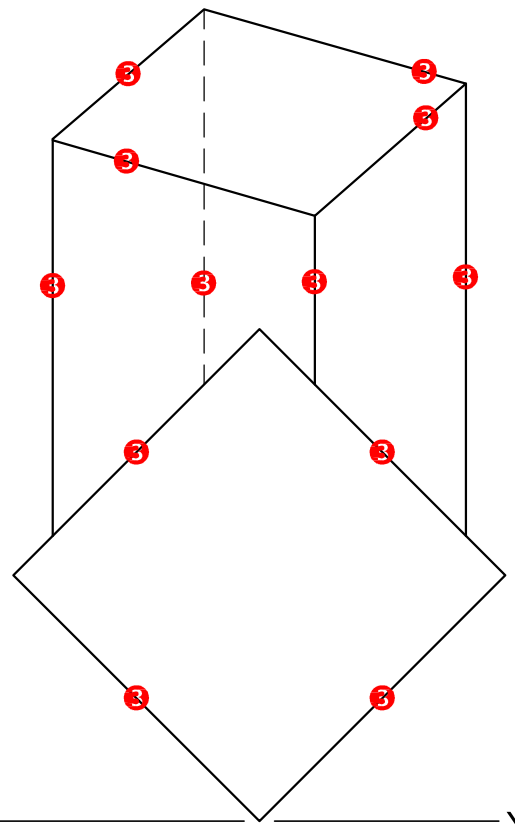
$$\begin{aligned}
 &(L \times B \times 5) + (L \times B) \\
 &=(14 \times 32.5 \times 5) + (14 \times 45.5) \\
 &= 2912 \text{ m}^2
 \end{aligned}$$

ANSWER 20
FREEHAND ①



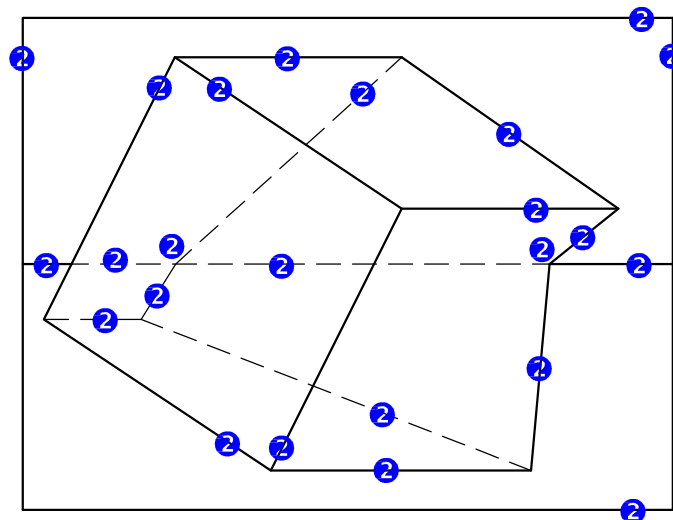


X'



X

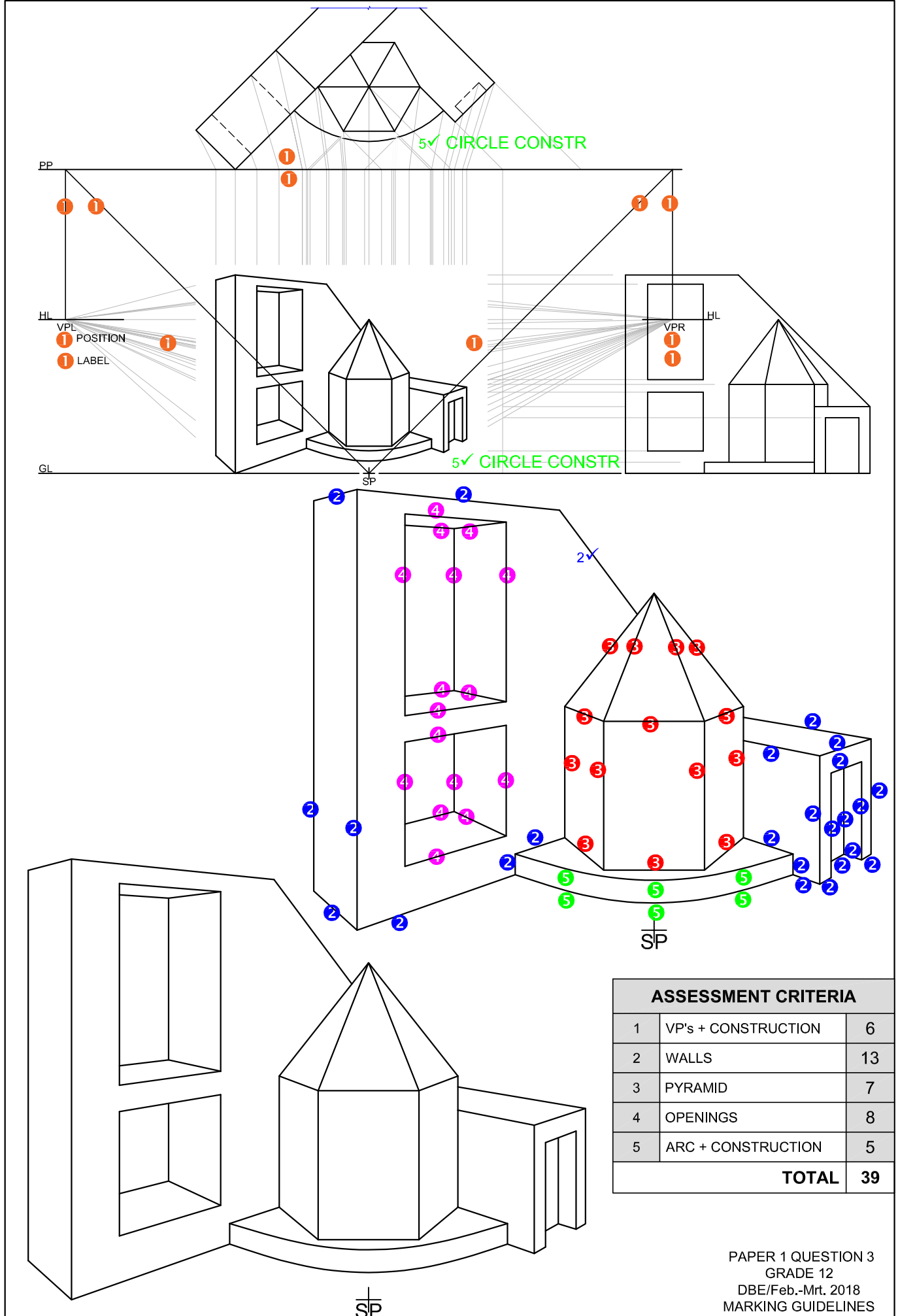
Y

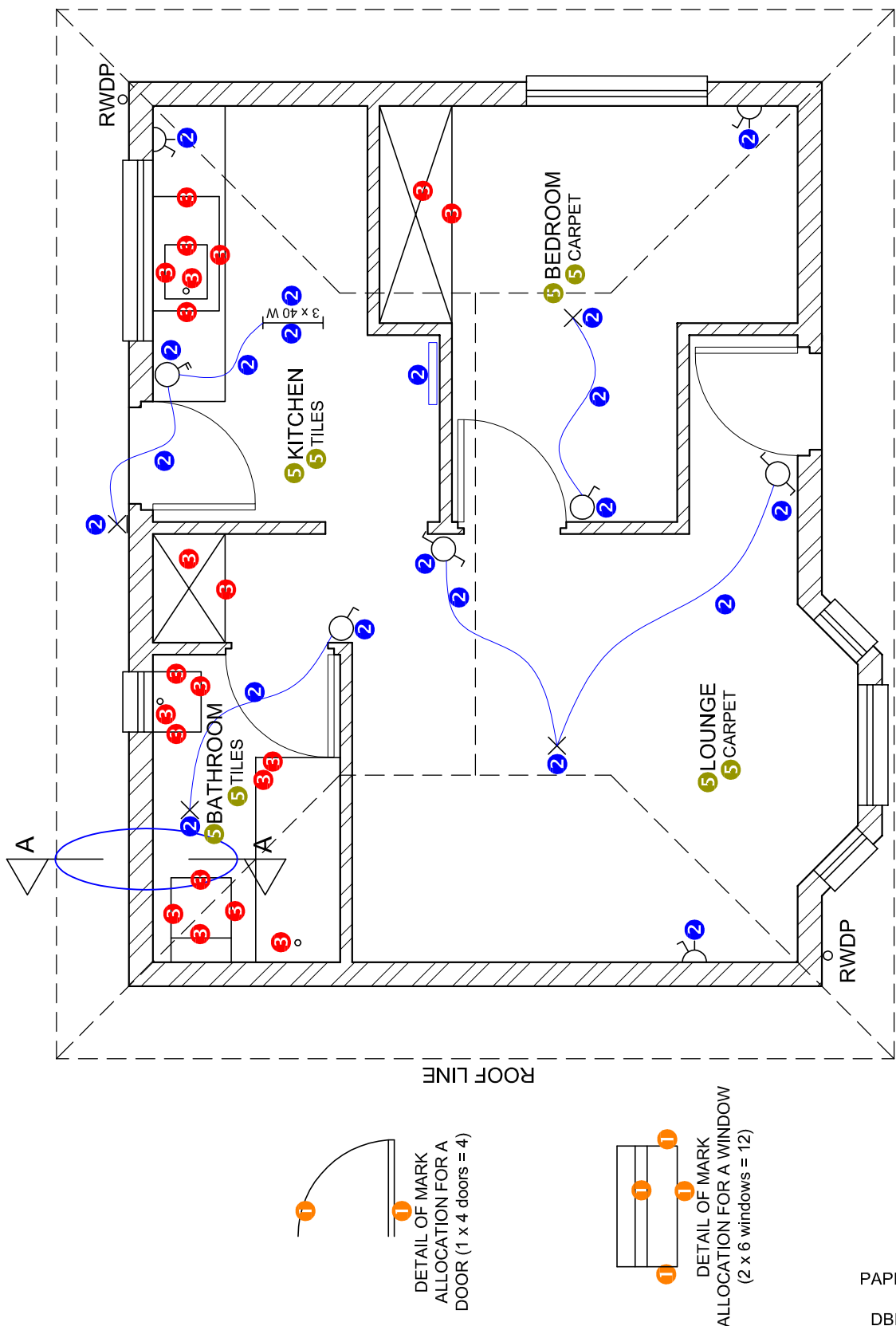


Y'

ASSESSMENT CRITERIA		
1	FRONT VIEW	12
2	TOP VIEW	12
3	LEFT VIEW	6
4	DEVELOPMENT	6
PENALTIES (-)		
TOTAL		36

PAPER 1 QUESTION 2
GRADE 12
DBE/Feb.-Mrt. 2018
MARKING GUIDELINES

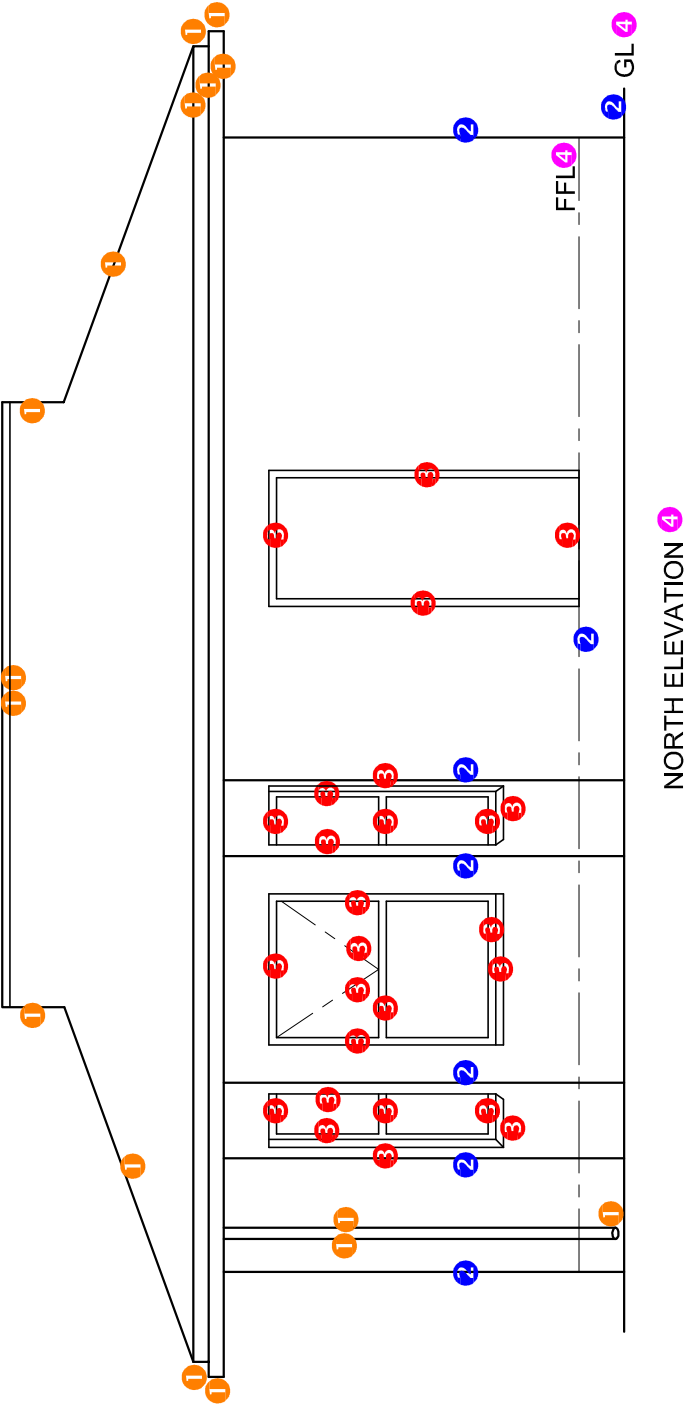




FLOOR PLAN		
1	DOORS + WINDOWS	16
2	ELECTRICAL	10 $\frac{1}{2}$
3	FIXTURES	10 $\frac{1}{2}$
4	HATCHING	3
5	LABELS	4
SUBTOTAL		44

FLOOR PLAN
SCALE 1 : 50

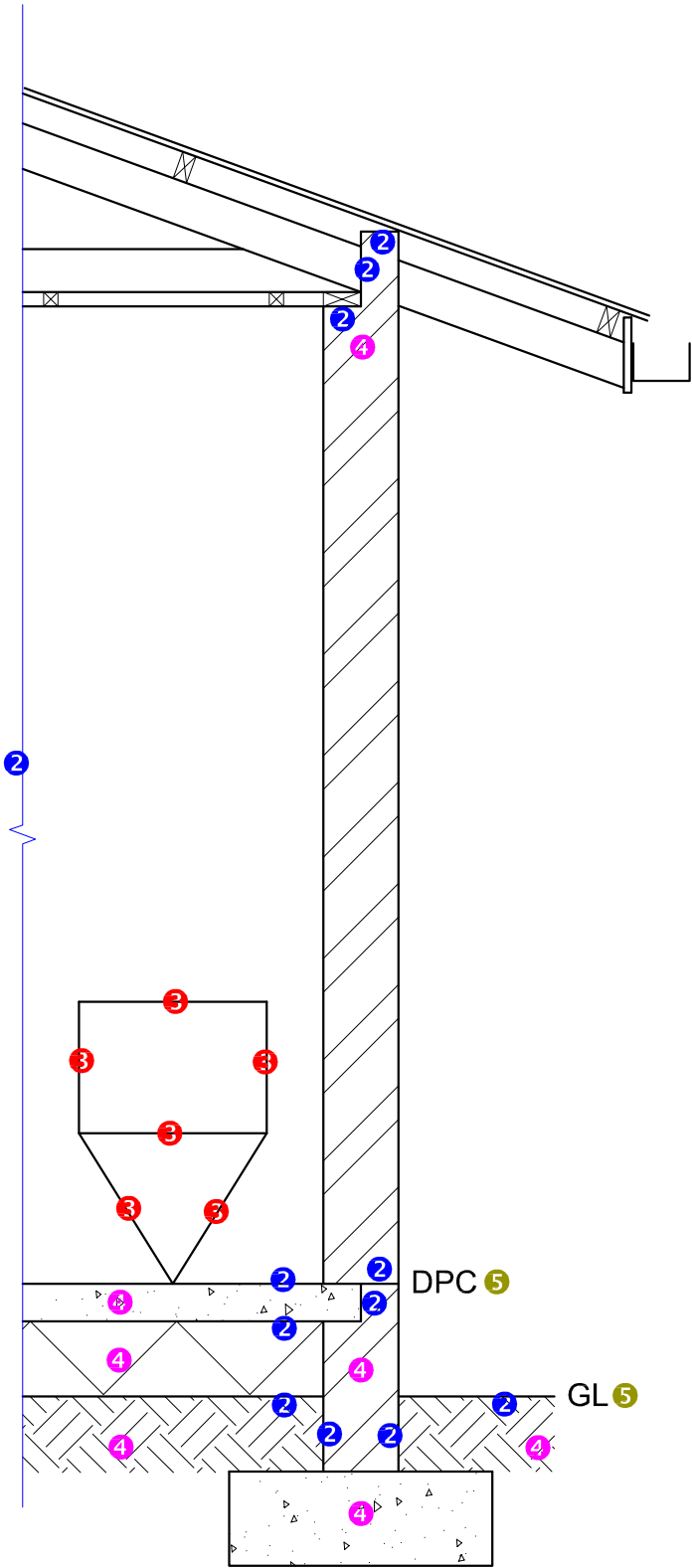
4 HATCHING ALLOCATION	
SANS COMPLIANT (TYPE)	1
HATCHING CORRECTLY APPLIED	2
TOTAL	3



NORTH ELEVATION	
1	ROOF + RWDP
2	WALLS + FFL
3	DOOR + WINDOW
4	LABELS
SUBTOTAL	
26 $\frac{1}{2}$	

MARK ALLOCATION FOR ROOF (1)

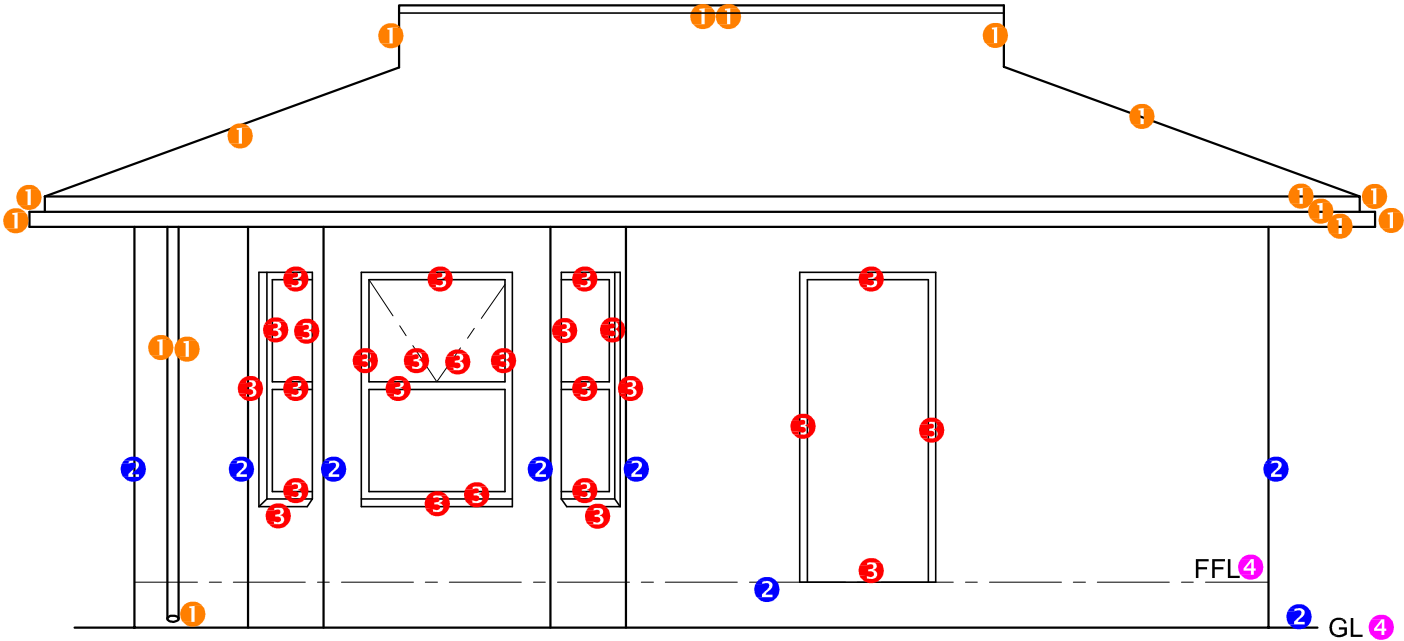
A: ROOF ANGLE	1
B: ROOF SHEET	1
C: PURLIN	1
D: PURLIN SPACING	$\frac{1}{2}$
E: TRUSS	3
F: FASCIA BOARD	1
G: WALL PLATE	1
H: BRANDERING	1
I: CEILING BOARD	$\frac{1}{2}$
J: GUTTER	1
TOTAL	11



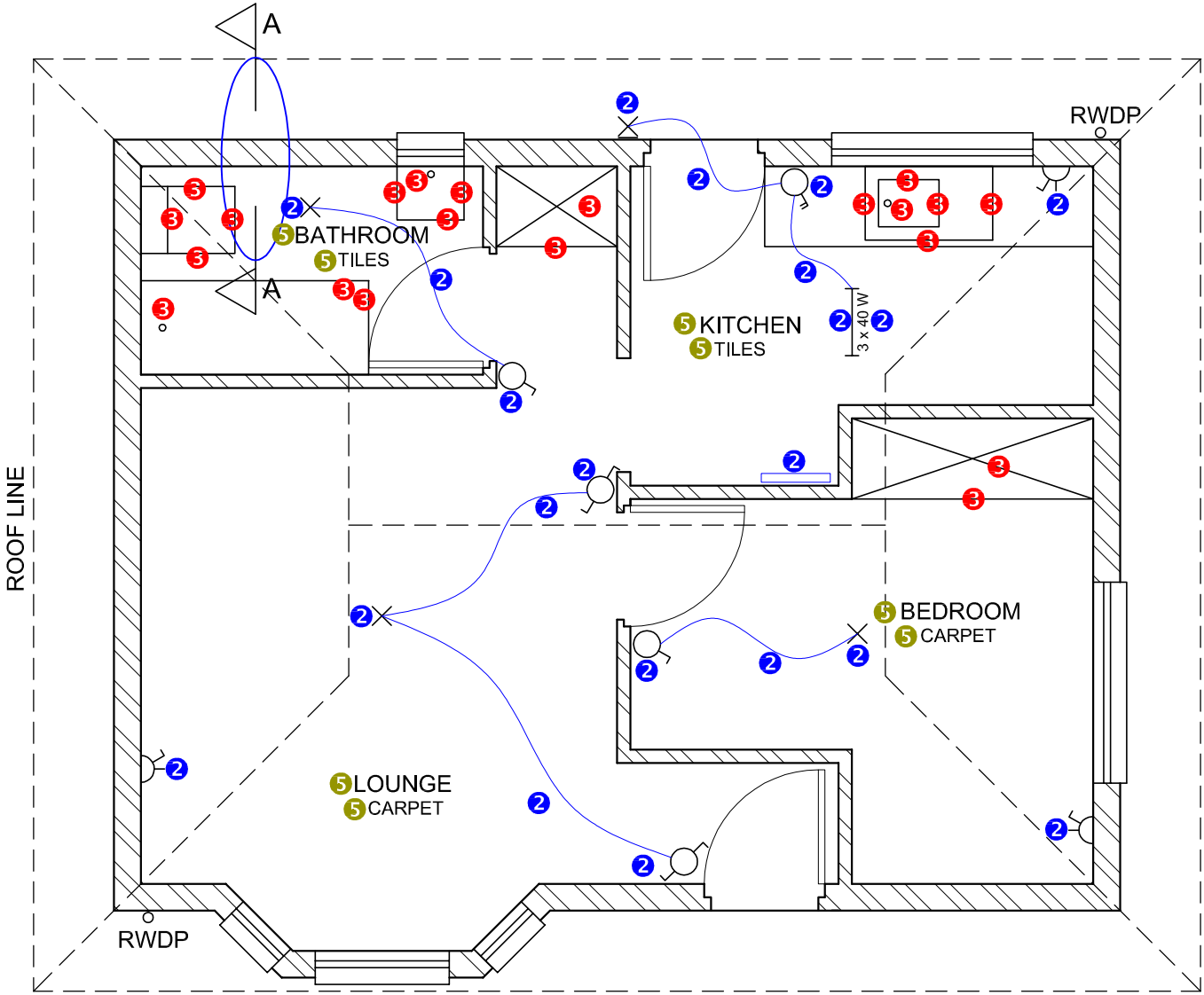
DETAILED SECTION		
1	ROOF DETAIL + RWDP	11
2	FOUNDATION + WALL + SLAB	6
3	WC	3
4	HATCHING	$3\frac{1}{2}$
5	LABELS	1
SUBTOTAL		$24\frac{1}{2}$

DETAILED SECTION A-A
SCALE 1 : 20

MARK ALLOCATION FOR ROOF (1)	
A: ROOF ANGLE	1
B: ROOF SHEET	1
C: PURLIN	1
D: PURLIN SPACING	½
E: TRUSS	3
F: FASCIA BOARD	1
G: WALL PLATE	1
H: BRANDING	1
I: CEILING BOARD	½
J: GUTTER	1
TOTAL	11



NORTH ELEVATION 4



FLOOR PLAN
SCALE 1 : 50

4 HATCHING ALLOCATION	
SANS COMPLIANT (TYPE)	1
HATCHING CORRECTLY APPLIED	2
TOTAL	3

FOR OFFICIAL USE ONLY

INCORRECT SCALE(S) USED		
NON-ALIGNMENT OF VIEWS		
VIEW(S) ROTATED		
SECTION VIEWED INCORRECTLY		
INCORRECT LETTERING		
TOTAL PENALTIES (-)		

MARK ALLOCATION FOR ROOF SECTION

A	B	C	D	E	F	G	H	I	J

ASSESSMENT CRITERIA

FLOOR PLAN

		POSSIBLE	OBTAINED	SIGN	MODERATED
1	DOORS + WINDOWS	16			
2	ELECTRICAL	10½			
3	FIXTURES	10½			
4	HATCHING	3			
5	LABELS	4			
SUBTOTAL		44			

NORTH ELEVATION

1	ROOF + RWDP	8			
2	WALLS + FFL	4			
3	DOOR + WINDOW	13			
4	LABELS	1½			
SUBTOTAL		26½			

DETAILED SECTION

1	ROOF DETAIL + RWDP	11			
2	FOUNDATION + WALL + SLAB	6			
3	WC	3			
4	HATCHING	3½			
5	LABELS	1			
SUBTOTAL		24½			
TOTAL		95			
PENALTIES (-)					
GRAND TOTAL					

DETAILED SECTION A-A
SCALE 1 : 20