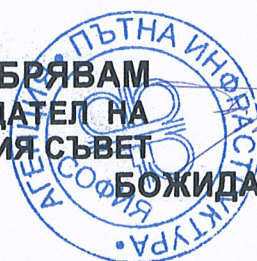




РЕПУБЛИКА БЪЛГАРИЯ  
МИНИСТЕРСТВО НА РЕГИОНАЛНОТО РАЗВИТИЕ И БЛАГОУСТРОЙСТВОТО

АГЕНЦИЯ „ПЪТНА ИНФРАСТРУКТУРА”

ОДОБРЯВАМ  
ПРЕДСЕДАТЕЛ НА  
УПРАВИТЕЛНИЯ СЪВЕТ  
БОЖИДАР ЙОТОВ



**ТЕХНИЧЕСКИ ПРАВИЛА**  
за приложение на ограничителни  
системи за пътища по Републиканската  
пътна мрежа

СЪСТАВИЛ:

(н.с.инж. Николай Стоянов)

ДИРЕКТОР  
на ЦИПТНЕНС:

(н.с.инж. Веселин Димитров)



2010 г.

Тези технически правила отменят и напълно заменят  
Технически правила за приложение на стоманени предпазни огради по Републиканските  
пътища от 1994 г.

1.	2
1.1	2
1.2	2
1.3	3
1.4	5
2.	6
2.1	6
2.2	6
2.3	7
2.4	7
2.5	8
2.6	9
2.7	9
2.8	9
3.	10
3.1	10
3.2	10
3.3	11
3.3.1	11
3.3.1.1	12
3.3.1.2	14
3.3.1.3	15
3.3.1.4	16
3.3.1.5	20
3.3.2	21
3.3.3	22
3.3.4	23
3.4	23
3.4.1	23
3.4.1.1	24
3.4.1.2	24
3.4.2	26
3.4.3	26
3.4.4	27
3.5	27
3.5.1	27
3.5.1.1	28
3.5.1.2	28
3.5.1.3	28
3.5.1.4	28
3.5.2	28
3.5.3	28
3.5.4	29
3.6	30
3.6.1	30
3.6.1.1	30
3.6.1.2	30
3.6.1.3	31
3.6.2	31
3.7	31
3.7.1	31
3.7.2	32
3.7.3	32
3.7.4	32
4.	33

:

EN 1317

# 1.

## 1.1

EN 1317

- 
- 
- 
- 
- 
- 
- 

## 1.2

EN 1317-1:2010, 1:  
EN 1317-2:2010, 2:  
EN 1317-3:2010, 3:  
ENV 1317-4, 4:  
prEN 1317-4, 4:  
( : ENV 1317-4:2001 );  
EN 1317-5, 5:  
prEN 1317-6, 6:  
( : );

’ ( ) ;  
;  
5 ;  
- ;  
;  
2004 .

**1.3** – ,  
.1.2 :

**1.3.1**

**1.3.2**

**1.3.3**

**1.3.3.1**

**1.3.3.2**

**1.3.4**

**1.3.5**

**1.3.6**

/ , / /-  
’  
“ ” (  
/ ).

**1.3.7**

, ,

**1.3.8**

**1.3.9**

**1.3.10**

ENV 1317-4.

**1.3.11**

–  
(VI), (W)

EN 1317-2.

**1.3.12**

**1.3.13**

**1.3.14**

EN 1317.

**1.3.15**

ENV 1317-4.

EN 1317-3,

**1.3.16**

EN 1317-2.

**1.3.17**

**1.3.18**

**1.3.18.1**

1.3.18.2

1.3.19

EN 1317-2

1.3.20

ENV 1317-4

1.3.21

EN 1317-3

1.3.22

EN 1317-3.

1.3.23

( ) – W

EN 1317-2.

1.3.24

EN 1317

1.3.25

/ ( )

e

1.3.26

(

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1.4

-  
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2.

2.1

EN 1317 „

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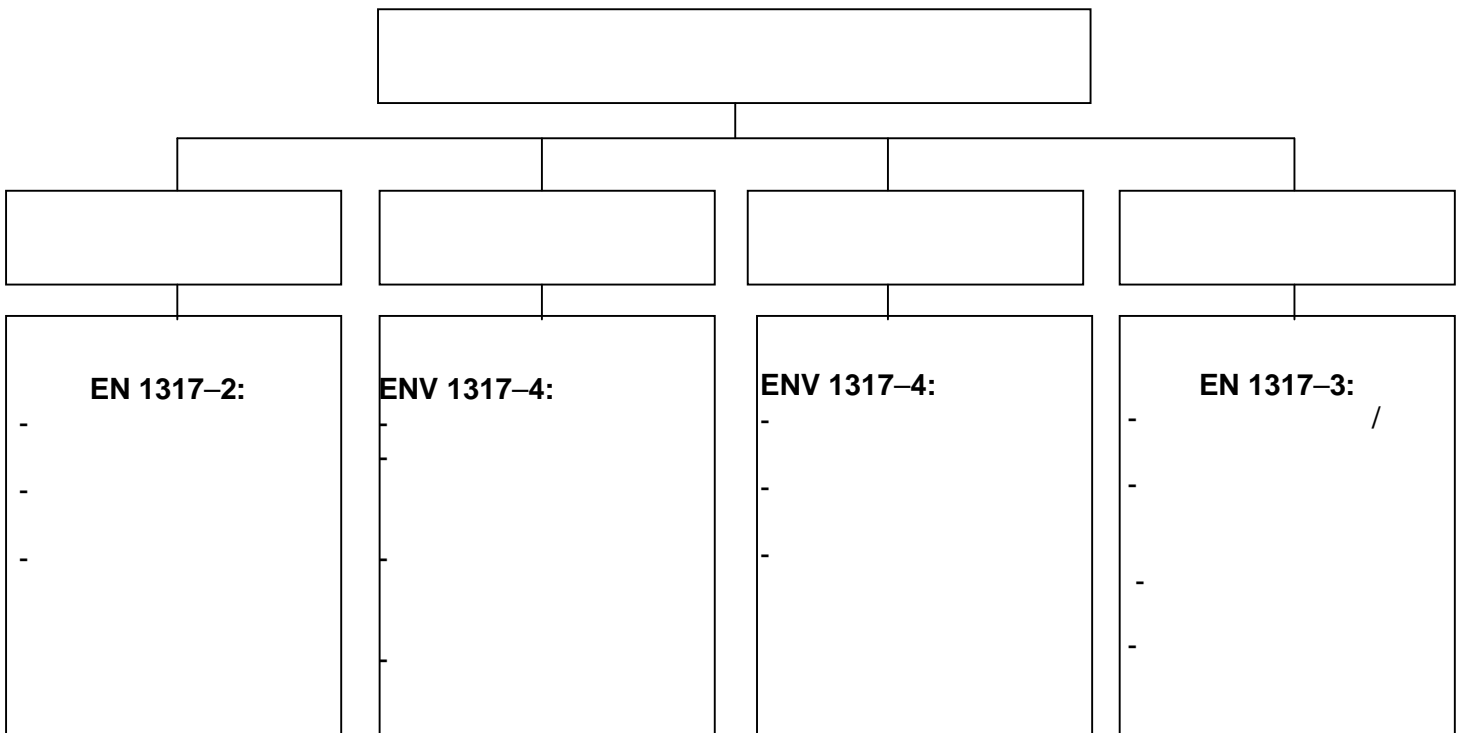
( F ),

EN 1317.

EN 1317 ( 1).

1

**EN 1317**



2.2

EN 1317-2

- ;
- ;
- .

3

3

( EN 1317-2).

3

### 2.3

ENV 1317-4

1.

1

	<b>N2</b>	<b>H1</b>	<b>H2</b>	<b>H4b</b>
<b>N2</b>	N2	N2	H1	H2
<b>H1</b>	N2	H1	H1	H2
<b>H2</b>	H1	H1	H2	H2
<b>H4b</b>	H2	H2	H2	H4b

### 2.4



1317-4

- ,  
 - ,  
 - ,  
 - ,  
 ( 6 9 )

2.

2

	- P2 A
	- P2 U

3 Y4.

Z4,

/

2.5

EN 1317-3

:/

3. R ( R. ),

3

V [km/h]				
	50 (R)	80 (R)	100 (R)	110 (R)
50	X			
60		X		
70		X		
80		X		
90			X	
100			X	
> 100				X

D8,

Z4.

2.6

7,5 cm.

2.7

EN 1317.

(

EN 1317-2, 3, 4.

2.8

### 3.

#### 3.1

- 
- 
- 
- 
- 
- 

EN 12767

- 
- 
- 

3.3 3.7:

- 3.3:
- 3.4:
- 3.5:
- 3.6:
- 3.7:

#### 3.2

- ;
- , - 1,5 ;
- .
- - 5 ;
- ” ;
- - .

**3.3**

- - : , 130 km/h, ;
- - : , 30 ;
- - : > 500 ;
- V- : ;
- > 1 > 1:3, > 3 > 1:3, ;
- > 76,1 mm > 76,0 mm > 2,9 mm > 3,0 mm ;
- V- ;
- > 1:3 V- ;

### 3.3.1

3.3.1.1

3.3.1.2

3.3.1.3

3.3.1.4

3.3.2

3.3.3

3.3.4

7.

#### 3.3.1.1

2,

3,

4,

$V \leq 100$  / ;

$V \leq 80$  / ;

$V \leq 60$  / ;

$V > 100$  /

$V > 100$  / ;

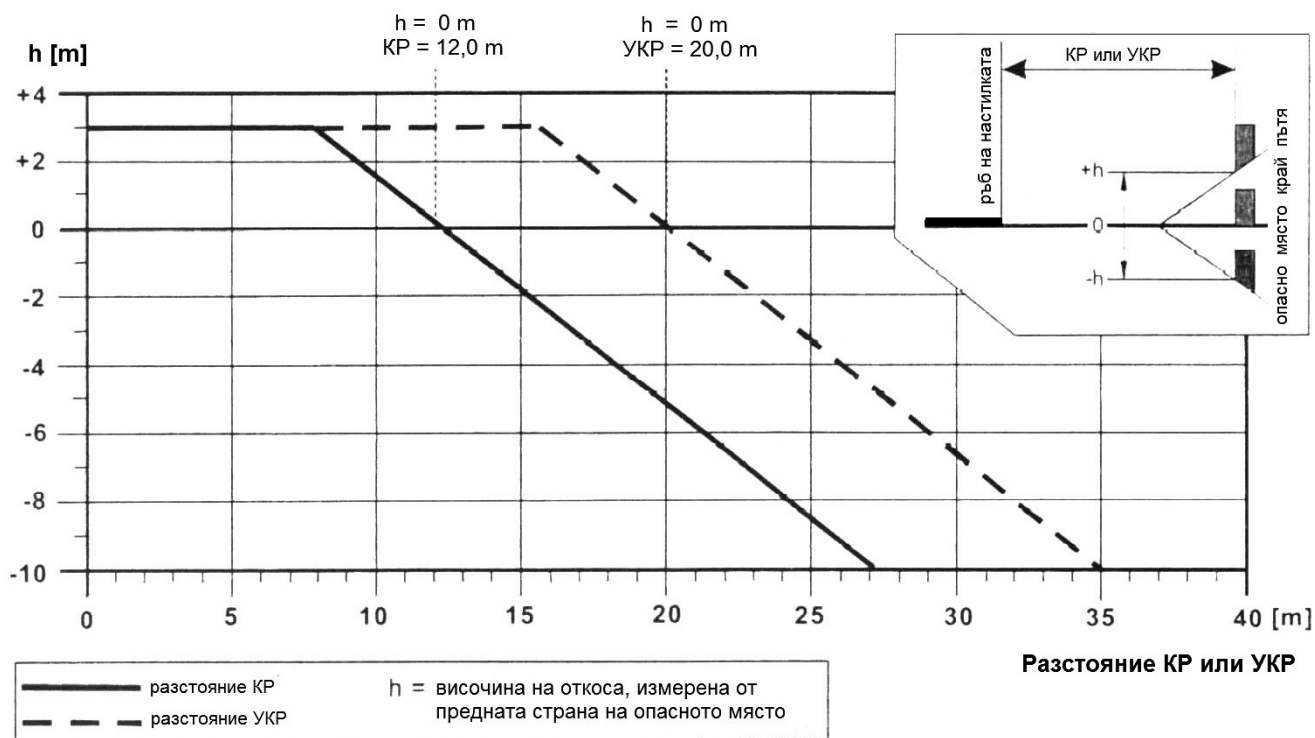
$V > 70$  / .

$V$  ( $V_{85}$ )  $V$  85 %

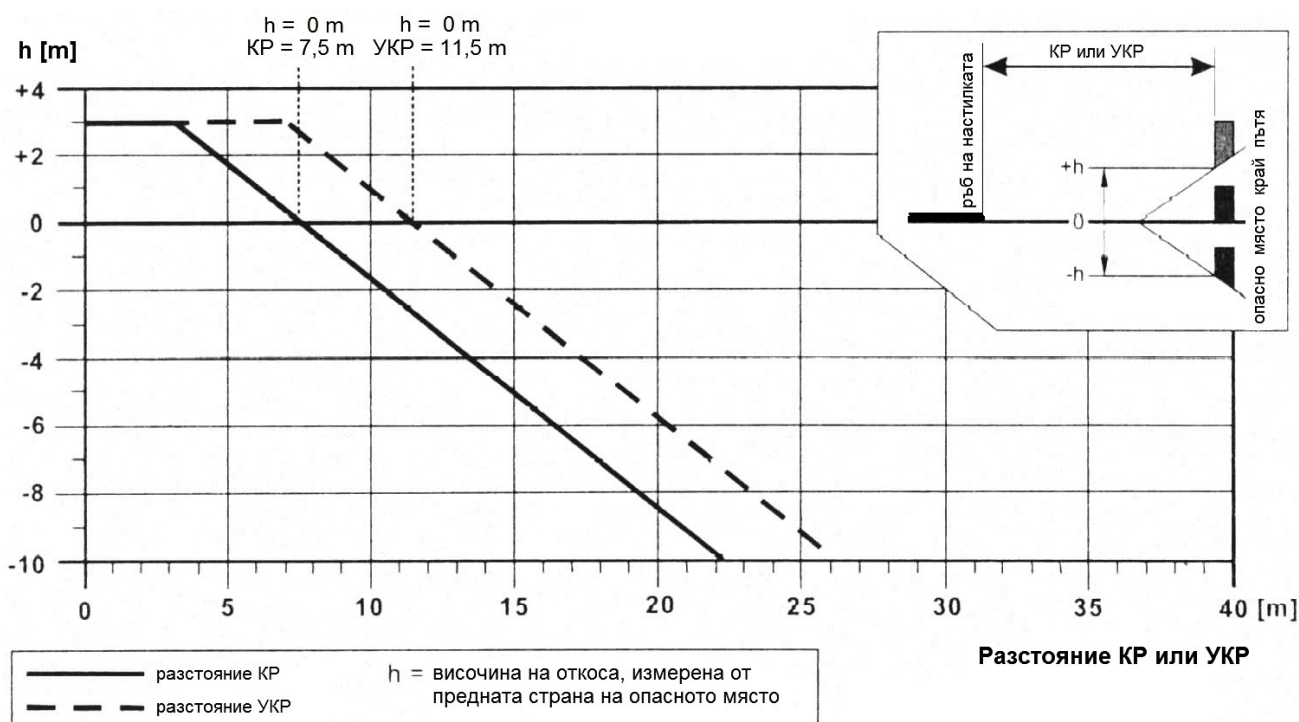
( . 5).

7 ( . 3.3.1.2).

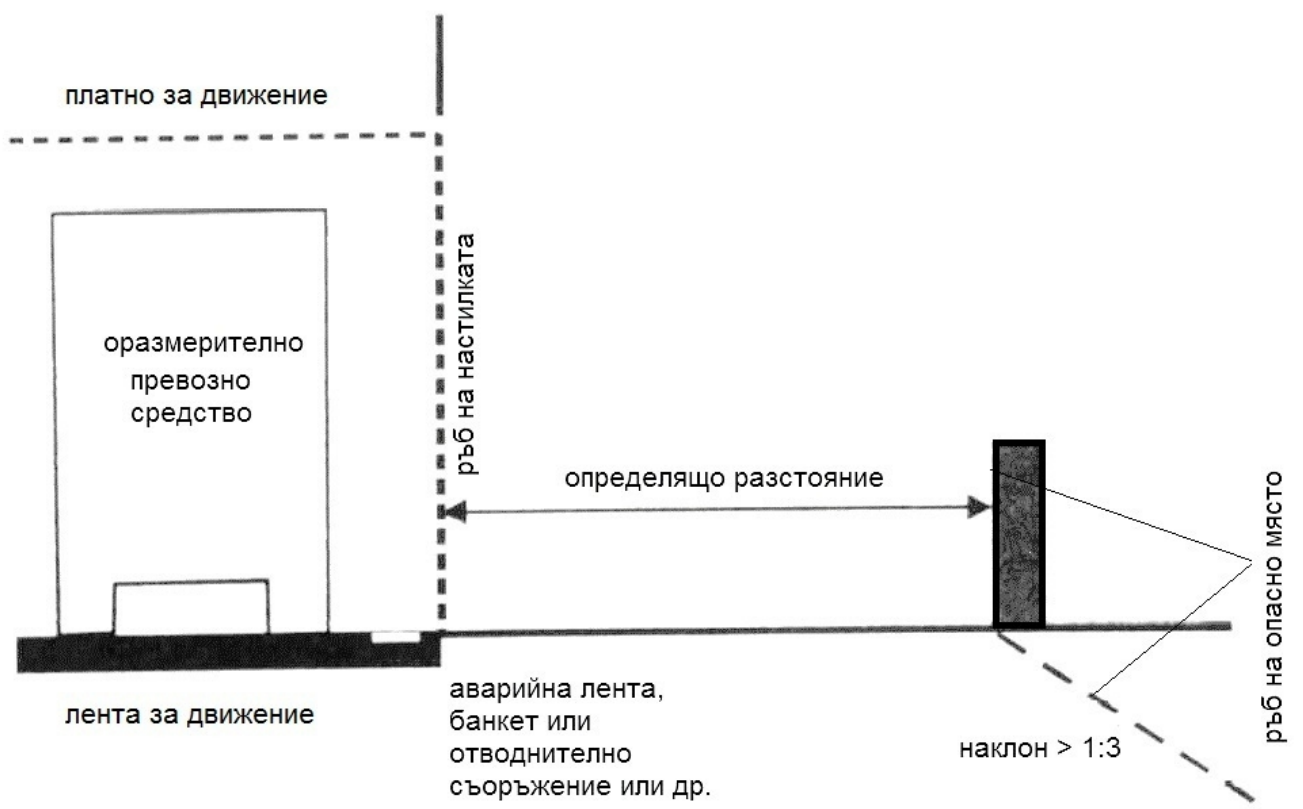
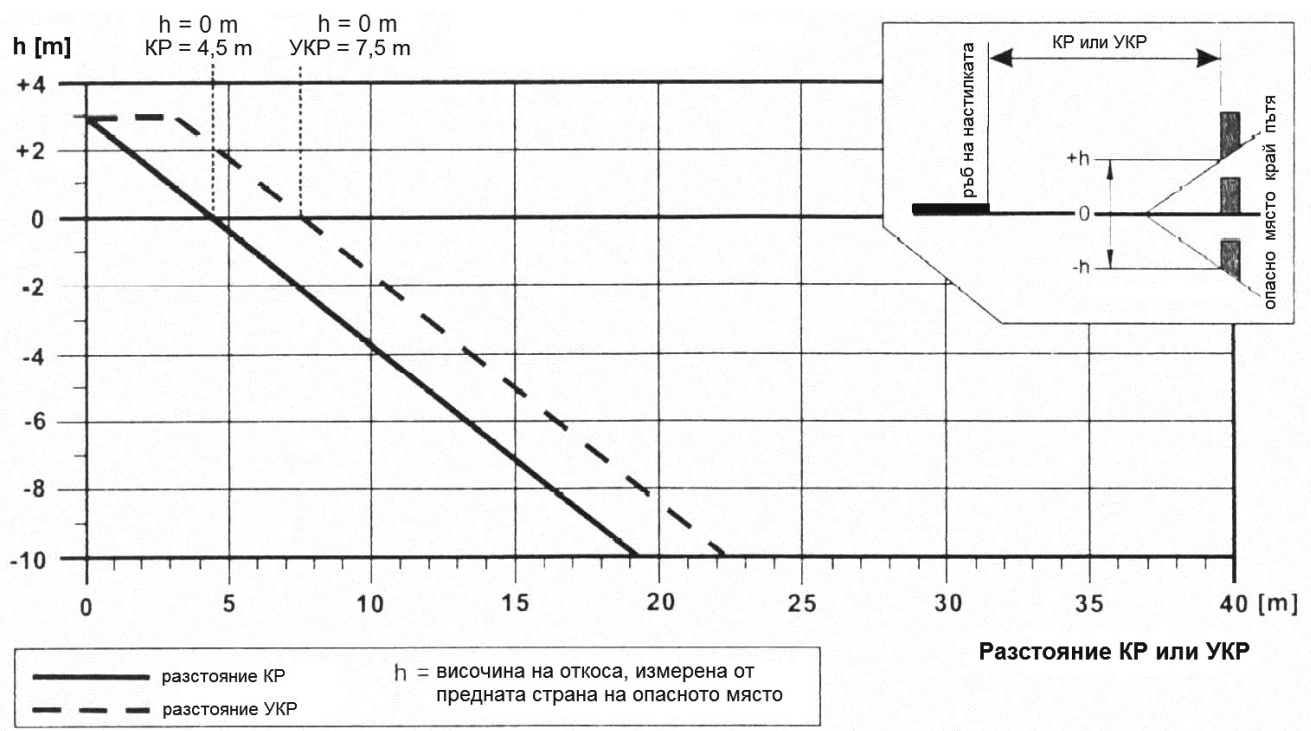
$$\begin{aligned} V &> 100 \text{ / ,} \\ V &\leq 100 \text{ /} \end{aligned}$$



$$V \quad 80 \text{ / } 100 \text{ /}$$



V 60 / 70 /



3.3.1.2

7, 7. EN 1317-2:2010, 4.

4

	<b>T1</b>			21
	<b>T2</b>			22
	<b>T3</b>			41 21
	<b>N1</b>			31
	<b>N2</b>			32 11
	<b>H1</b>			42 11
	<b>L1</b>			42 32 11
	<b>H2</b>			51 11
	<b>L2</b>			51 32 11
	<b>H3</b>			61 11
	<b>L3</b>			61 32 11
	<b>H4a</b>			71 11
	<b>H4b</b>			81 11
	<b>L4a</b>			71 32 11
	<b>L4b</b>			81 32 11

3.3.1.3

(W) -

( ) ( 6) 5.

0,5 m. -

1,0 m 1,5 m -

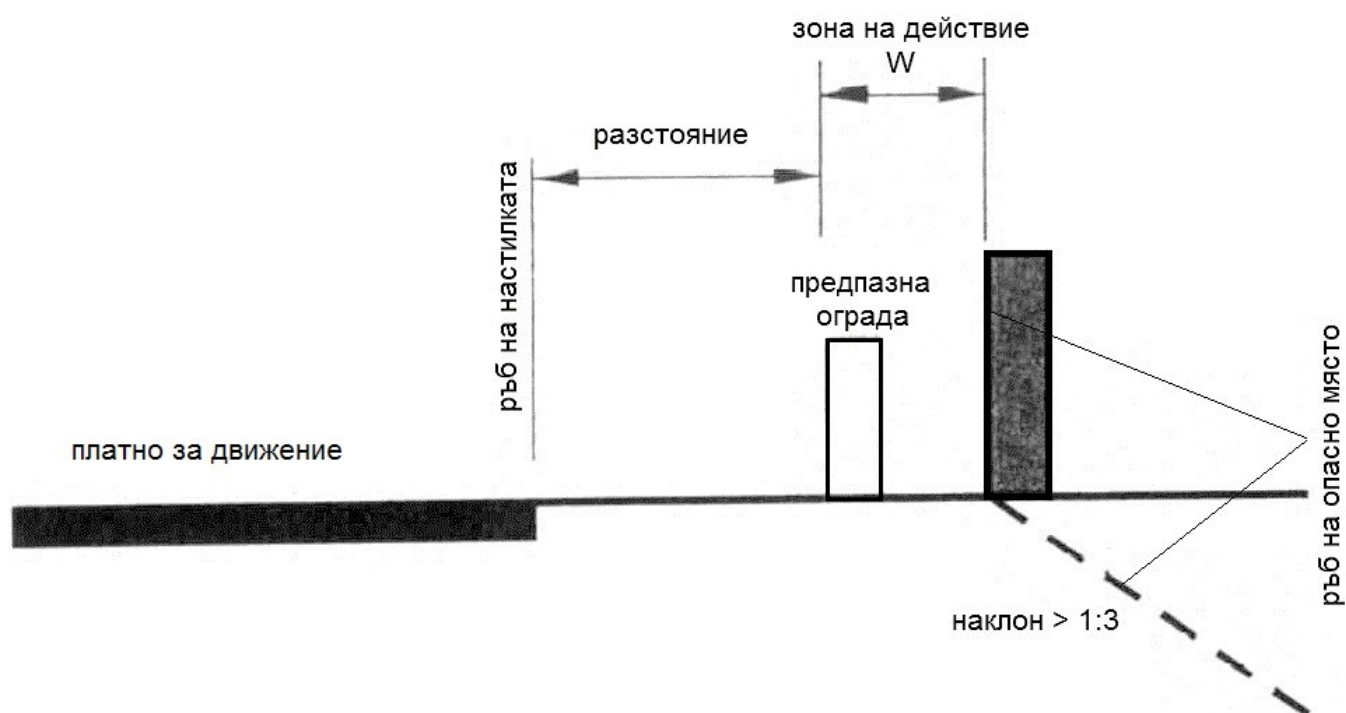
( ) -

7, -

- W7 W6.

EN 1317-2





5

	m
<b>W1</b>	$W_1 \leq 0,6$
<b>W2</b>	$W_2 \leq 0,8$
<b>W3</b>	$W_3 \leq 1,0$
<b>W4</b>	$W_4 \leq 1,3$
<b>W5</b>	$W_5 \leq 1,7$
<b>W6</b>	$W_6 \leq 2,1$
<b>W7</b>	$W_7 \leq 2,5$
<b>W8</b>	$W_8 \leq 3,5$
:	<b>W1.</b>

## 3.3.1.4

1.  $L_1$  –  
EN 1317-2

2.  $L_2$  –

8 8 ).

6

•  $L_2$   
 $\frac{1}{2} L_2$   $\frac{1}{2} L_2$   $L_2$   
 $\frac{1}{2} L_2$   $L_2$   
 2  $\frac{1}{2} L_2$   $L_2$  **H4b**  
 2  $\frac{1}{2} L_2$   $L_2$  ( 8 ).  
 .), 2.3  $L_1$   
 •  $L_2$  30 m ( 8 ).  
 $\frac{1}{2} L_2$   $\frac{1}{2} L_2$   $L_2$  5 m  
 -  $\frac{1}{2} L_2$  5 m **N2** 2 **N2.**  
 •  $L_2$  ( ) 6,  
 $L_2$  40 m. 40 m  
 •  $L_2$  1:20 ( 1:12)  
 $L_2$  6.  
 10 m 10 m  
 6. 9 .  
 • 9 .  
 •  $L_2$  1:20 ( 1:12),  
 $L_2$  6.  
 15 m 30 m 15 m  
 - 9 . 6. 9 .  
 • 1:12. 1:20,

6

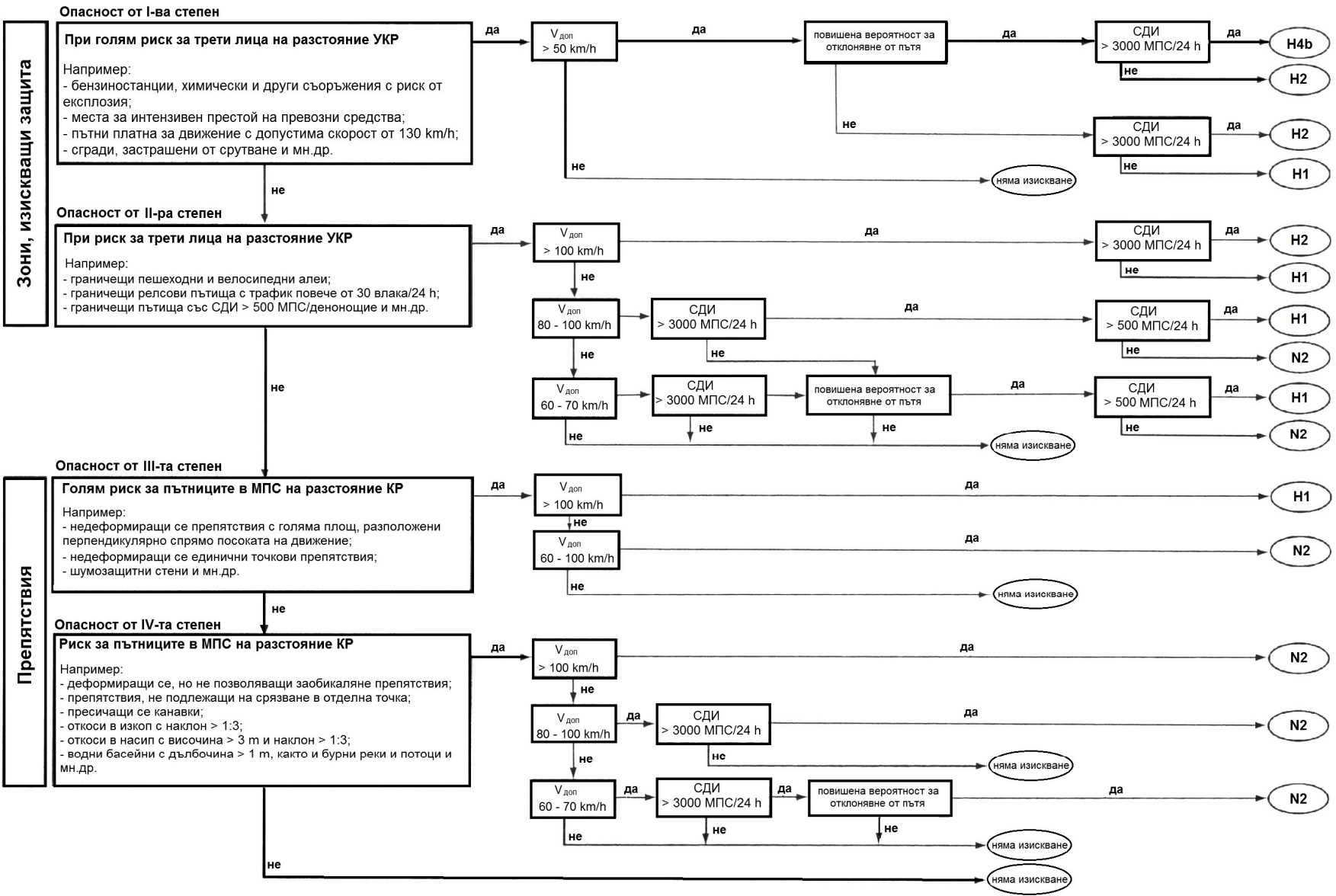
$L_2$

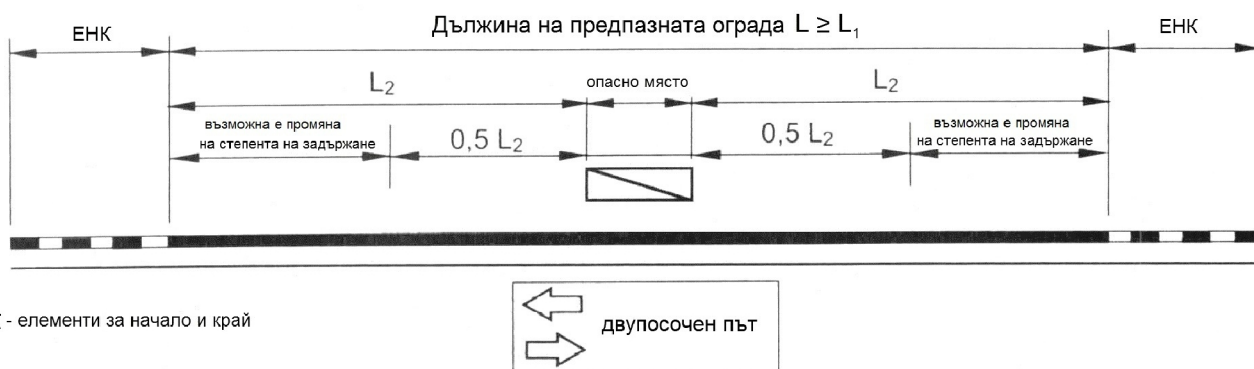
		$L_2 = 100$ m	
1,5 m		$L_2 = 140$ m	
		$L_2 = 80$ m	$L_2 = 60$ m
		$L_2 = 100$ m	$L_2 = 60$ m

$L_2$

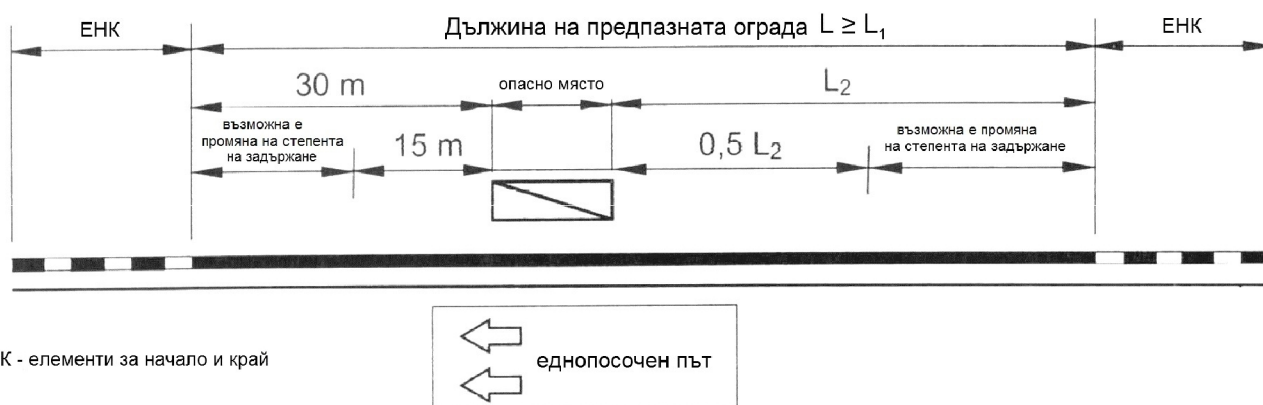
L

Опасни места

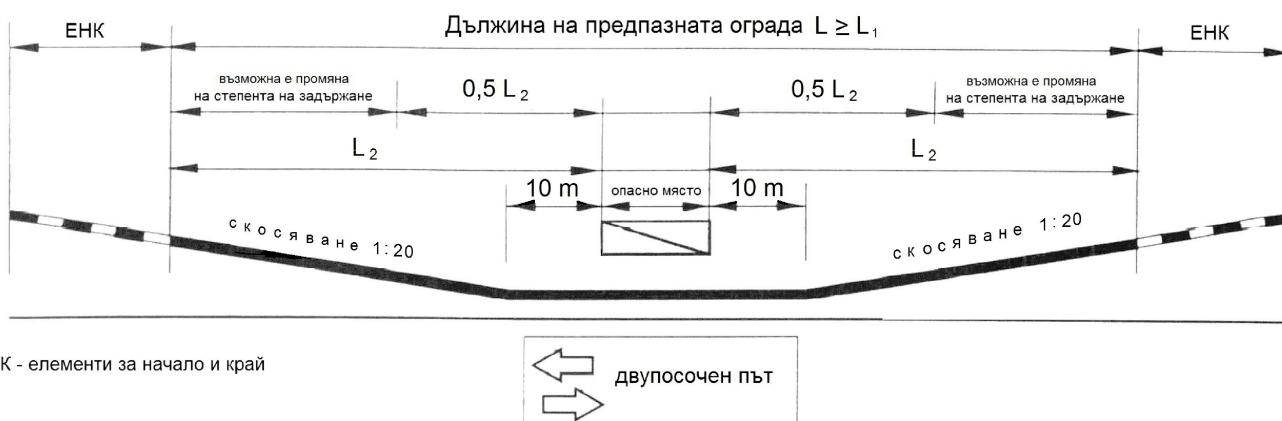




8

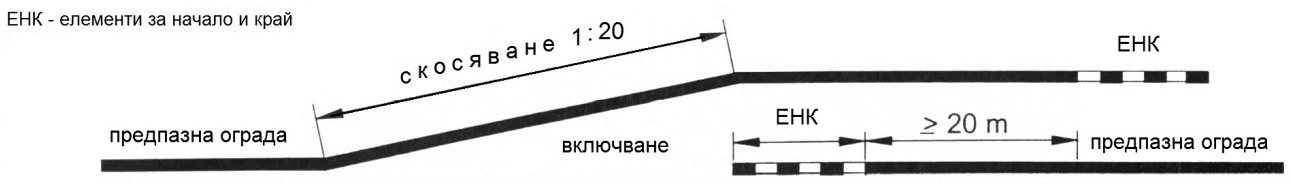
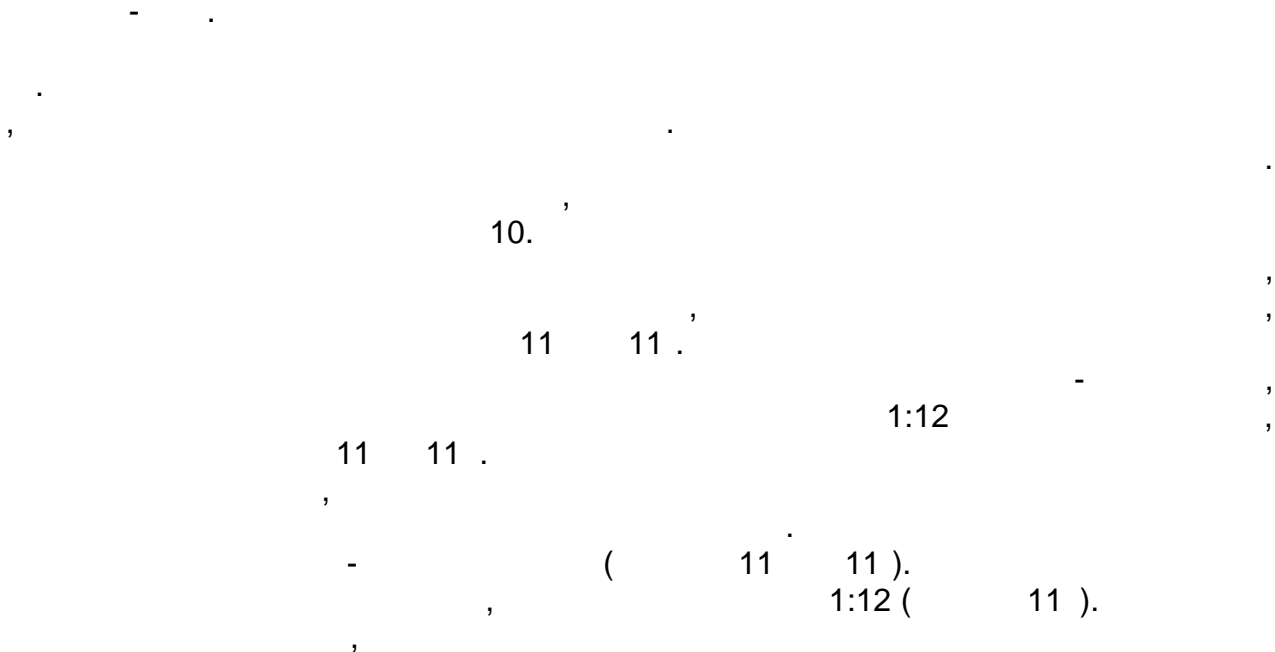


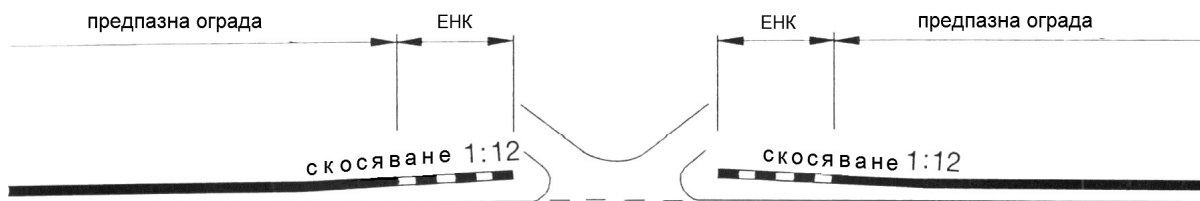
9



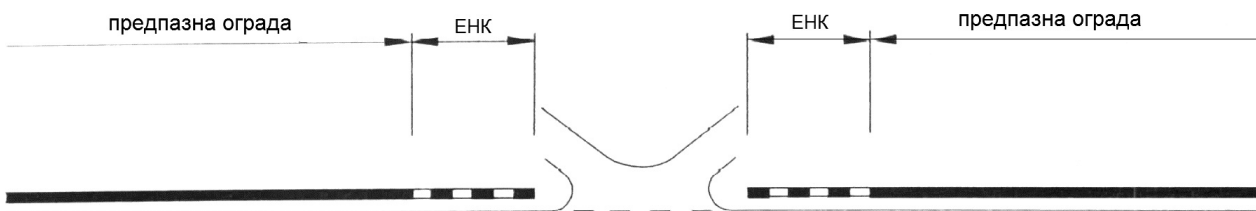


3.3.1.5





11

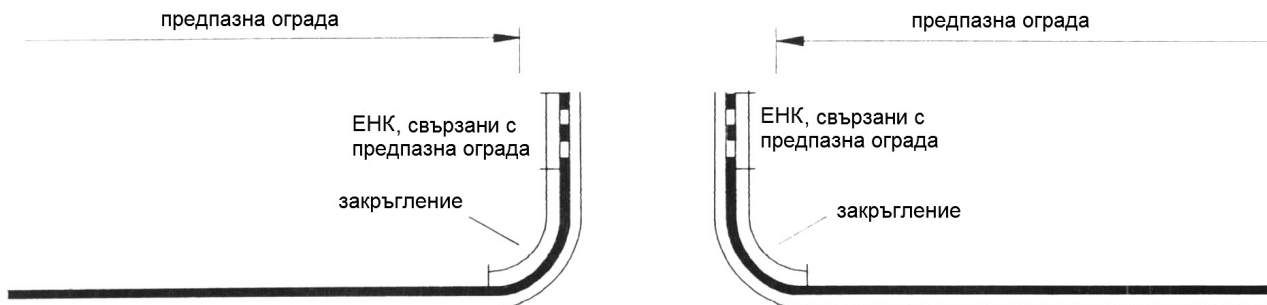


11

1:12



11



3.3.2

/ ,

2.3.

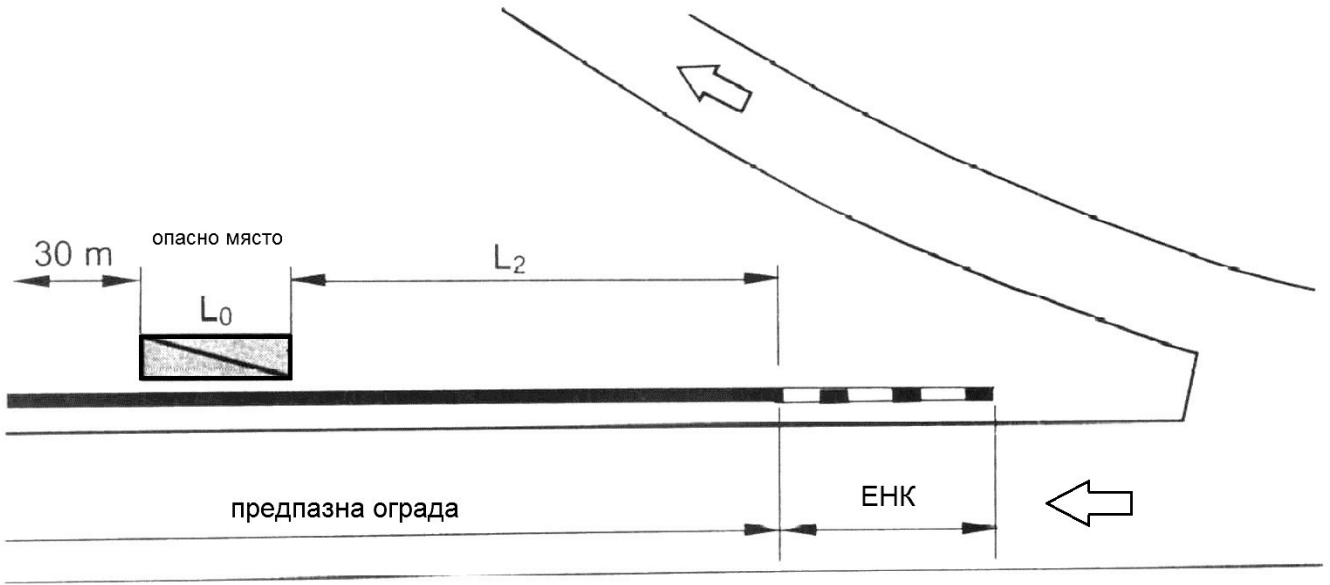
3.3.3

500

( 12).

2.4.

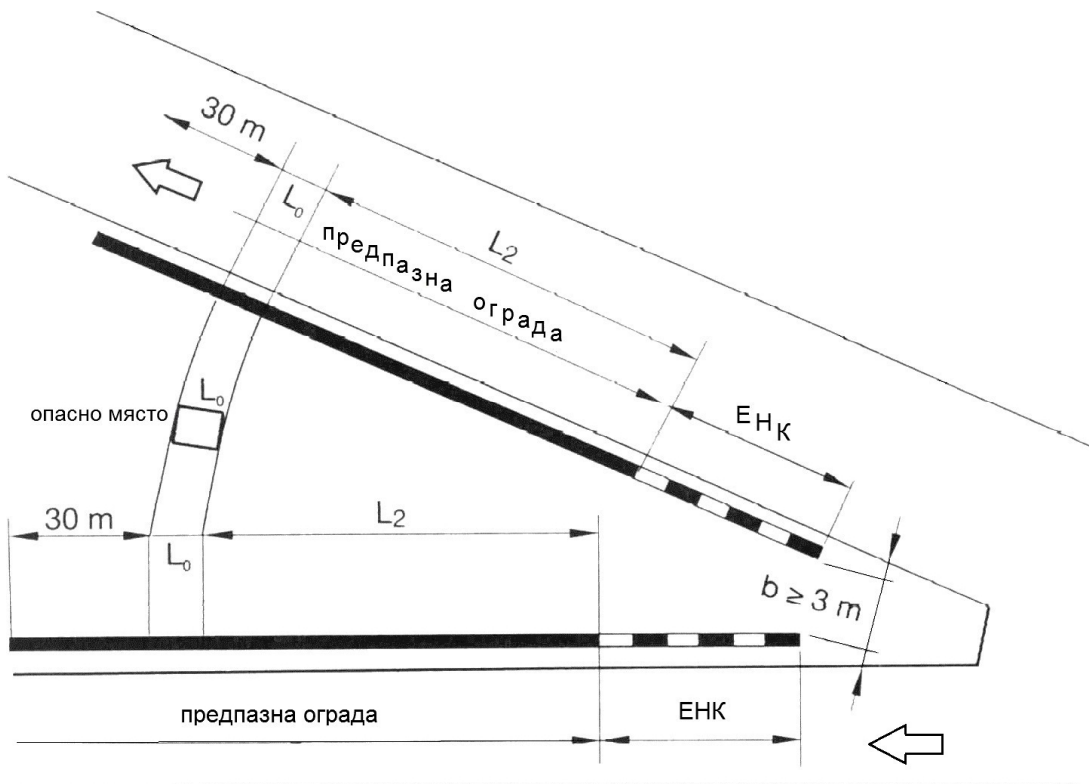
12



3 m

( 13).

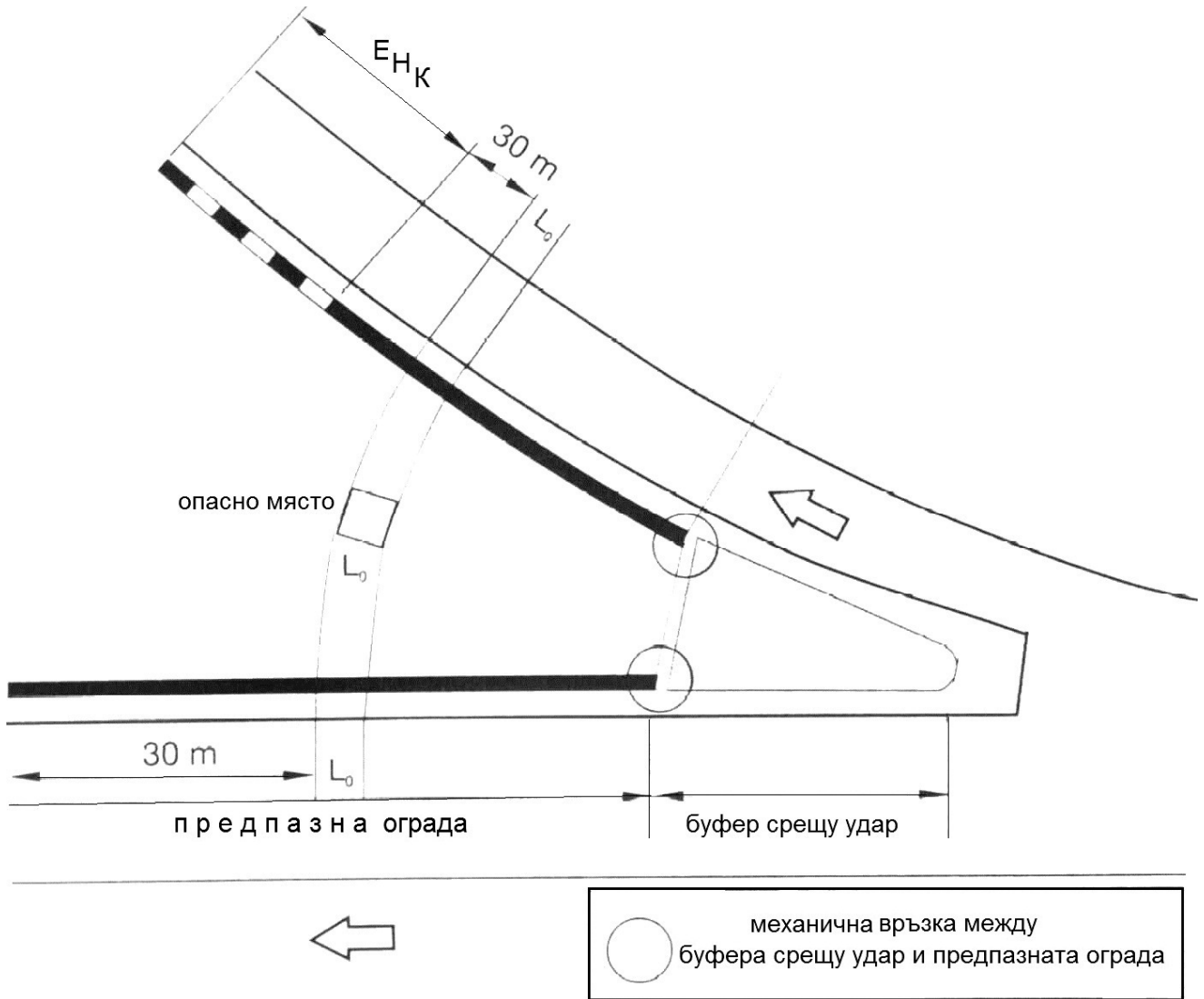
13



3.3.4

( 3.3.1.4 3.3.1.1 14)

L<sub>2</sub>  
2.5.  
14



3.4

3.4.1

V > 50 km/h

- ; ;
- ; ;
- ; ;
- ; ;



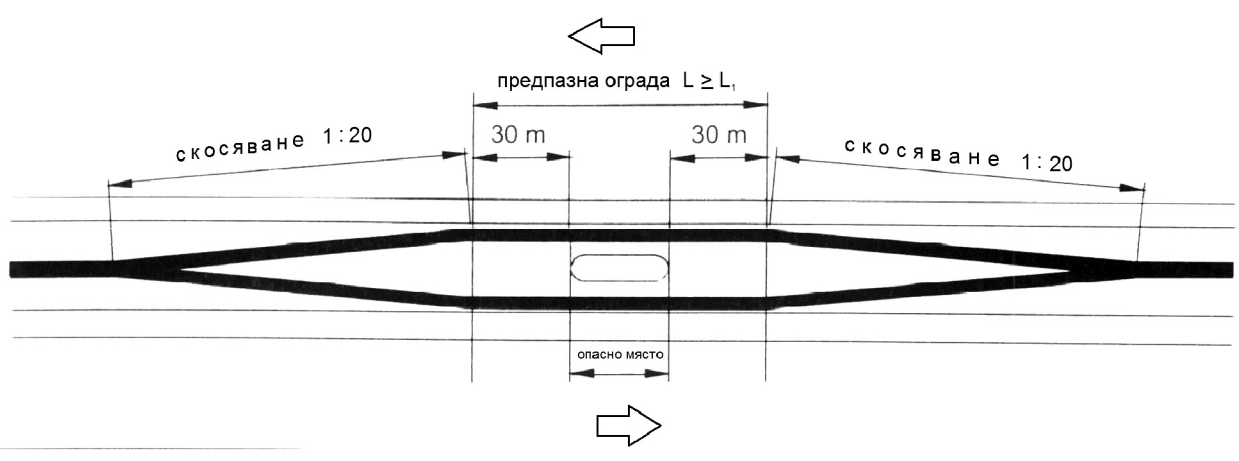
( 3.4.1.1).

1:20.

≥ 1:10,

( 3.4.2)

( 3.4.3),  
( 3.4.4).



3.4.1.1

$V > 50 \text{ km/h}$

2.

$> 3000$

H4b.

$V > 50 \text{ km/h}$

1.

$> 3000$

H4b.

3.2.

3.4.1.2

W

( 16 16 ).

W

W

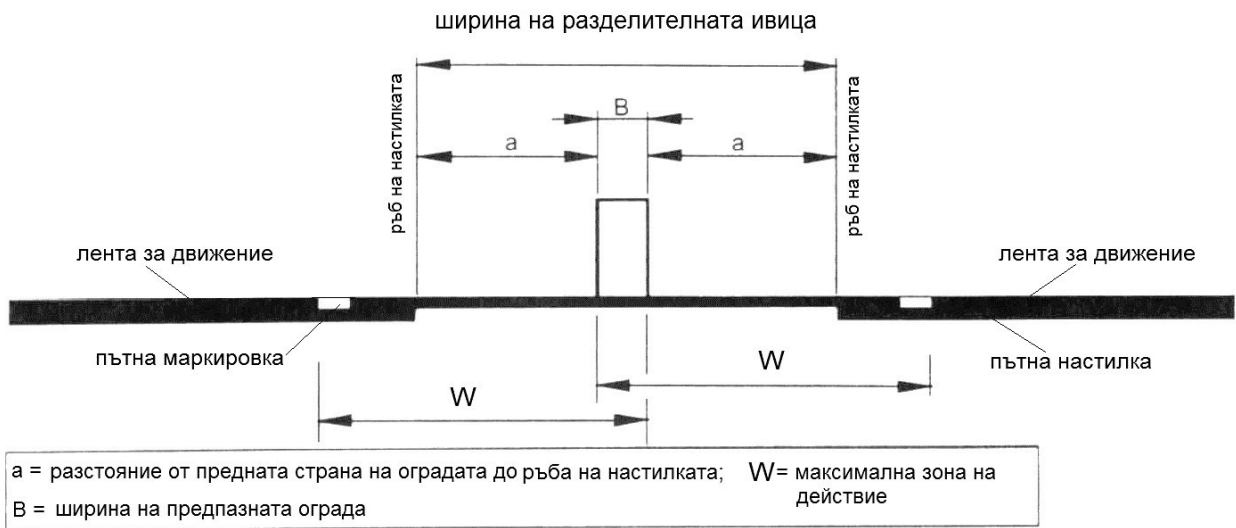
3.3.1.3.

( 6),

0,5 m.

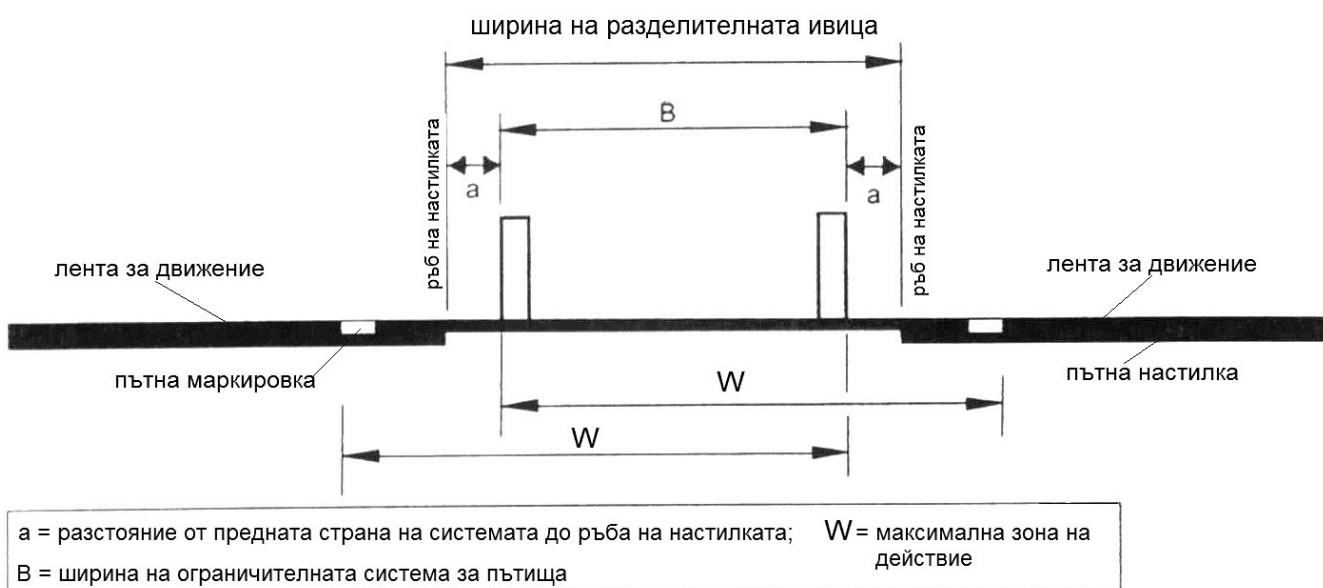
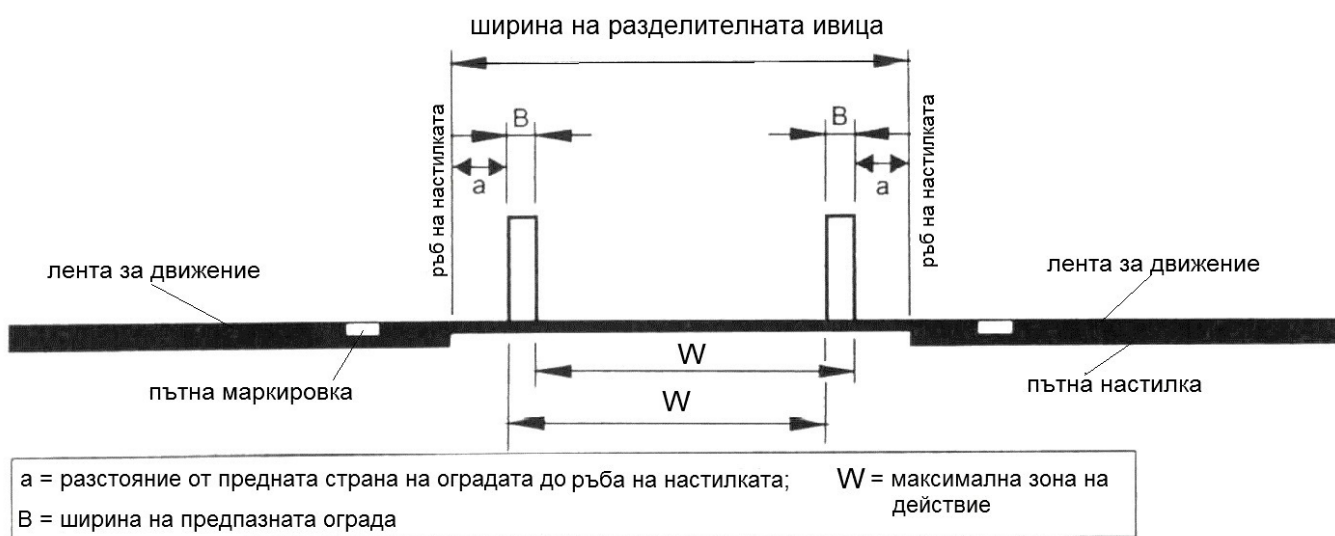
(  
EN 1317-2,

16



16





## 3.4.2

## 3.4.3

2.4.  
 3.3.1.4  $L_2$  ( 17).



3.4.4

3.3.1.4

$L_2$

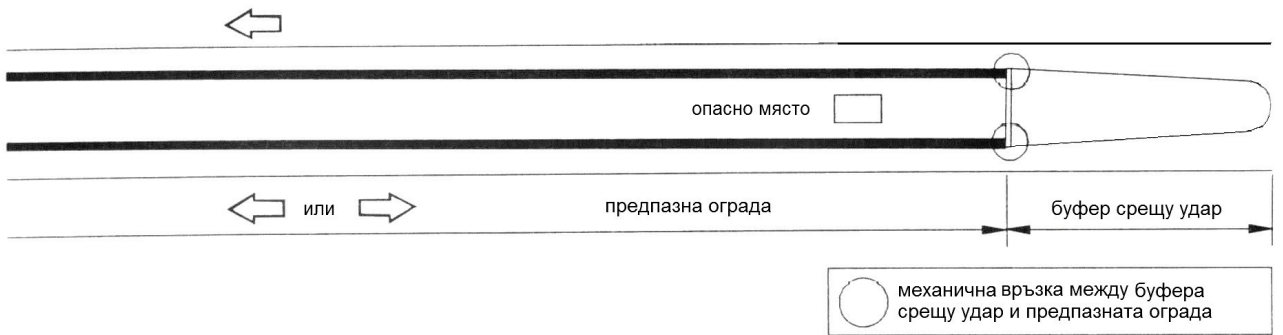
2.5.

( 18).

60 km/h, 50 m

( 2.5).

18



3.5

2 m.

3.3.

3.5.1

H1 N2,

**3.5.1.1**

7.

10 m

**3.3.1.2.**

7

	V > 100 km/h V 100 km/h	V 100 km/h > 500	V 100 km/h 500	V 50 km/h
-	H4b	H2	H2	H1
V-	H2	H2	H1	

**3.5.1.2**

N 1317-2.

**3.5.1.3**

3.3.1.4.

L<sub>2</sub>

/

( 19 ).

/

( 3.3.1.4. ; 19 ).

2.3.

**3.5.1.4**

**3.5.2**

/

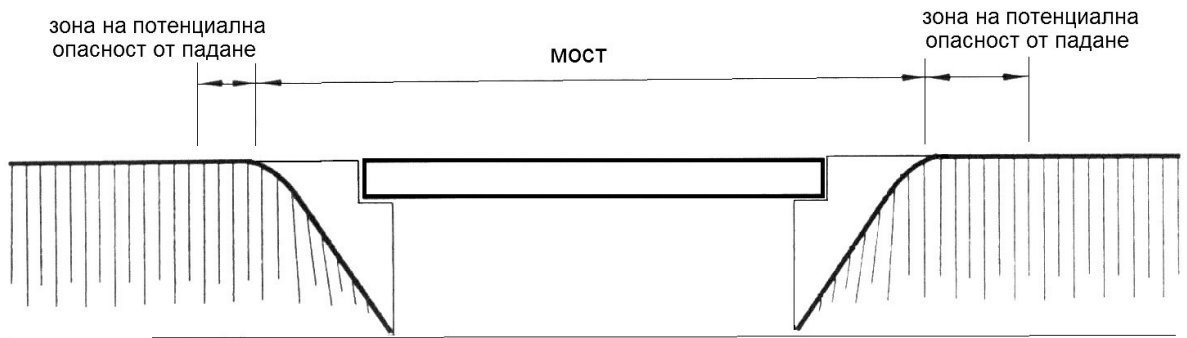
2.3.

**3.5.3**

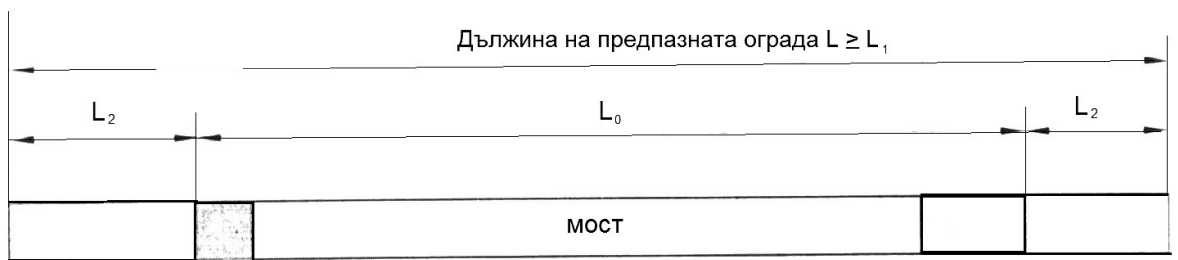
2.4.

3.5.4

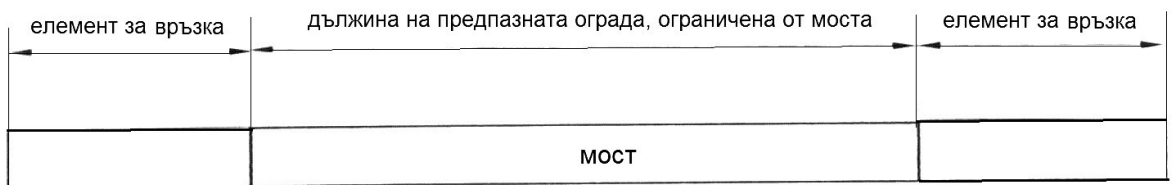
( 20).  
2.5.

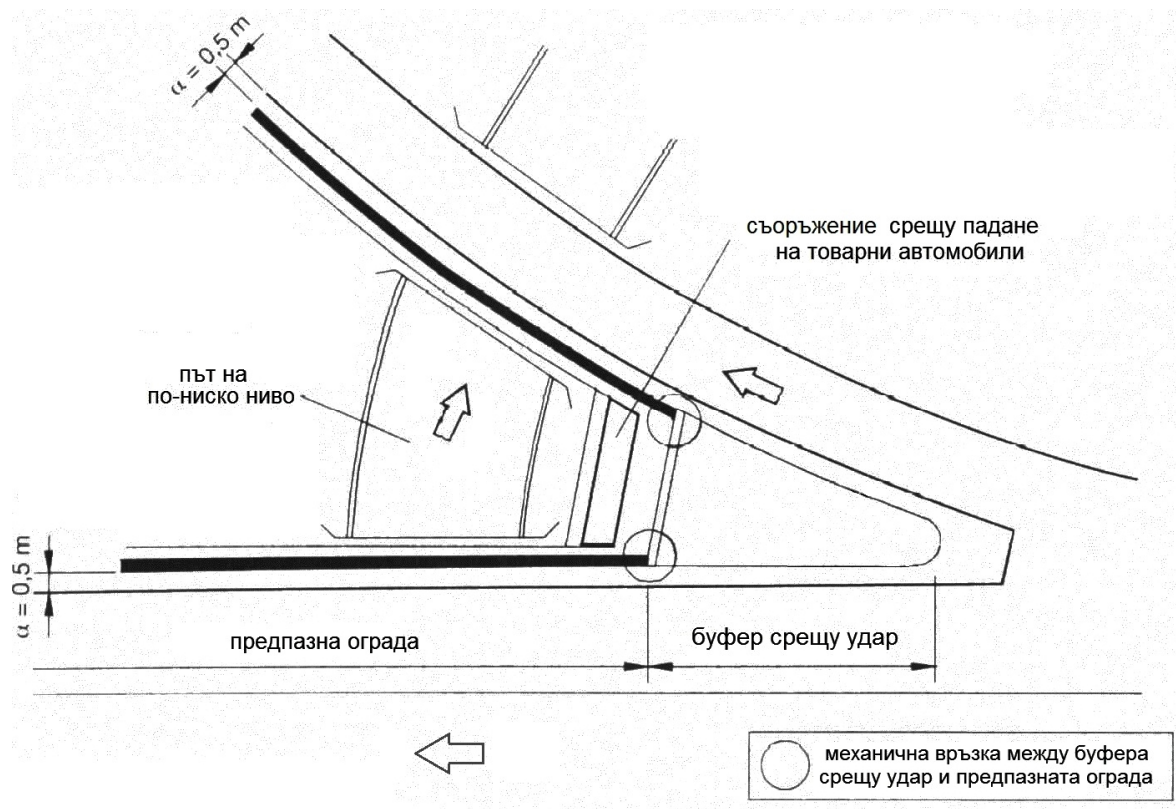


Случай а/: предпазна ограда върху мост



Случай б/: предпазна ограда върху мост с елемент за връзка





3.6

3.6.1

H1 N2,

3.6.1.1

1,5 m, - 1,5 m, - 3.4.1.1  
 ( ) .

1,5 m /  
 3.5.1.1.

3.6.1.2

- 0,1 m - 0,1 m,  
 3.4.1.2. ( ) .

0,1 m /

0,1 m,  
3.5.1.2.

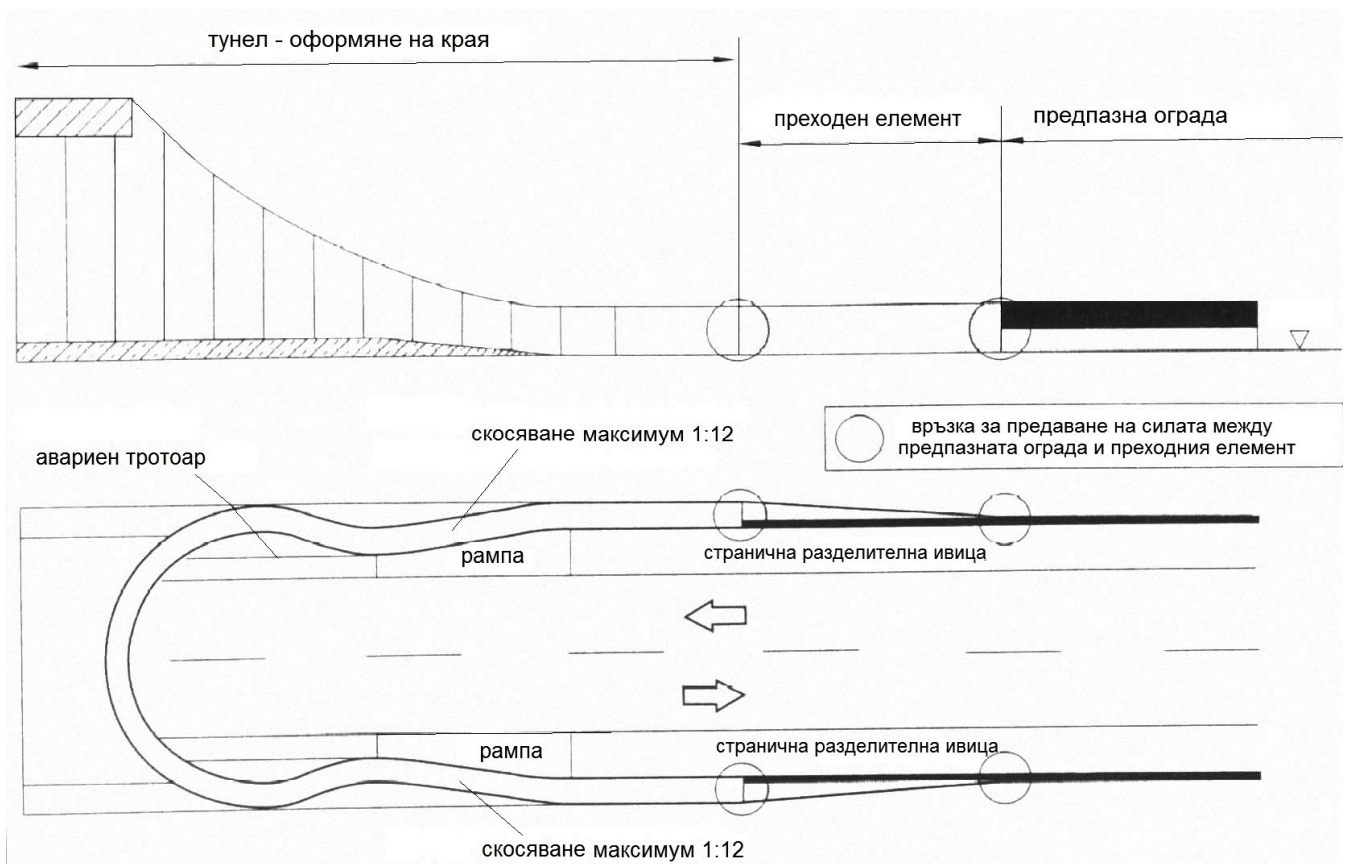
0,1 m

3.6.1.3

3.6.2

. 2.3

21



3.7

3.7.1

4 m  
0,1 m,

0,1 m

4 m,

3.3.1.2),

3.3

7



( ), ( )  
3.3.1.3.

3.3.1.4.

3.7.2

2.3.

3.7.3

2.4.

3.7.4

2.5.

**EN 1317**

1

- N 1317-2:2010

	[km/h]	[°]	[kg]	
11	100	20	900	
21	80	8	1 300	
22	80	15	1 300	
31	80	20	1 500	
32	110	20	1 500	
41	70	8	10 000	
42	70	15	10 000	
51	70	20	13 000	
61	80	20	16 000	
71	65	20	30 000	
81	65	20	38 000	

2

- EN 1317-2:2010

<b>A</b>	ASI ≤ 1,0		THIV ≤ 33 km/h
<b>B</b>	ASI ≤ 1,4		
	ASI ≤ 1,9		

3

- EN 1317-2:2010

		ASI – THIV	(VCDI)	
1	21	21	21	21
2	22	22	22	22
3	41 + 21	21	21	41
N1	31	31	31	31
N2	32 + 11	32 + 11 <sup>)</sup>	32 + 11	32 + 11
H1	42 + 11	11	11	42 + 11
H2	51 + 11	11	11	51 + 11
H3	61 + 11	11	11	61 + 11
H4a	71 + 11	11	11	71 + 11
H4b	81 + 11	11	11	81 + 11
L1	42 + 32 + 11	32 + 11 <sup>)</sup>	32 + 11	42 + 32 + 11
L2	51 + 32 + 11	32 + 11 <sup>)</sup>	32 + 11	51 + 32 + 11
L3	61 + 32 + 11	32 + 11 <sup>)</sup>	32 + 11	61 + 32 + 11
L4a	71 + 32 + 11	32 + 11 <sup>)</sup>	32 + 11	71 + 32 + 11
L4b	81 + 32 + 11	32 + 11 <sup>)</sup>	32 + 11	81 + 32 + 11
: VCDI				
EN 1317-1.				

## - EN 1317-2:2010

	[m]	B [m]
	2,2	10
	4,4	20

## - EN 1317-3:2010

a)		[kg]	[km/h]
1.1.50		900	50
1.1.80		900	80
1.1.100		900	100
1.2.80		1300	80
1.2.100			100
1.3.110		1500	110
2.1.80	, ¼	b) 900	80
2.1.100			100
3.2.80		1300	80
3.2.100	, 15°	1300	100
3.3.110		1500	110
4.2.50		1300	50
4.2.80		1300	80
4.2.100	15°	1300	100
4.3.110		1500	110
5.2.80		1300	80
5.2.100	165°	1300	100
5.3.110		1500	110
a)	1 : 2 80		
b)	ATD ( )		

## (Za Zd) -

## ENV 1317-4

Z	Za [m]	Zd [m]
Z1	4	4
Z2	6	6
Z3	4	
Z4	6	

(Da Dd)  
EN 1317-3:2010

	Da [m]	Dd [m]
<b>D1</b>	0,5	0,5
<b>D2</b>	1,0	1,0
<b>D3</b>	2,0	2,0
<b>D4</b>	3,0	3,0
<b>D5</b>	0,5	≥ 0,5
<b>D6</b>	1,0	≥ 1,0
<b>D7</b>	2,0	≥ 2,0
<b>D8</b>	3,0	≥ 3,0

- - ENV 1317-4

	e					
			[kg]	[km/h]		
<b>1</b>			, ¼	900 kg	80	TT 2.1.80
<b>P2</b>	A	U	, ¼	900 kg	80	TT 2.1.80
			15°, 2/3 L	1300 kg	80	TT 4.2.80
		D	165°, 1/2 L	900 kg	80	TT 5.1.80
<b>P3</b>	A	U	, ¼	900 kg	100	TT 2.1.100
			-	1300 kg	100	TT 1.2.100
			15°, 2/3 L	1300 kg	100	TT 4.2.100
		D	165°, 1/2 L	900 kg	100	TT 5.1.100
<b>P4</b>	A	U	, ¼	900 kg	100	TT 2.1.100
			-	1500 kg	110	TT 1.3.110
			15°, 2/3 L	1500 kg	110	TT 4.3.110
		D	165°, 1/2 L	900 kg	100	TT 5.1.100

		[m]	
<b>x</b>	1	<b><i>D<sub>a</sub></i></b>	0,5
	2		1,5
	3		3,0
<b>y</b>	1	<b><i>D<sub>d</sub></i></b>	1,0
	2		2,0
	3		3,5
	4		> 3,5