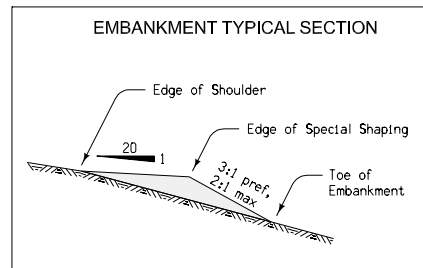


### EMBANKMENT DIMENSIONS

For Obstacle Widths:	Sand Barrel Layouts Required	W	X	Y (must not be negative)	Z
3'-6" or less	1	24'-3"	Y+5'-3"	Y+3'-3"	0.268(Y)+12'-0"
3'-7" - 10'-7"	2	25'-0"	Y+12'-3"	Y+10'-0"	0.268(Y)+38'-0"
10'-8" - 17'-9"	3	25'-9"	Y+19'-3"	Y+17'-0"	0.268(Y)+64'-0"
17'-10" - 32'-3"	4	26'-6"	Y+26'-3"	Y+24'-0"	0.268(Y)+89'-0"

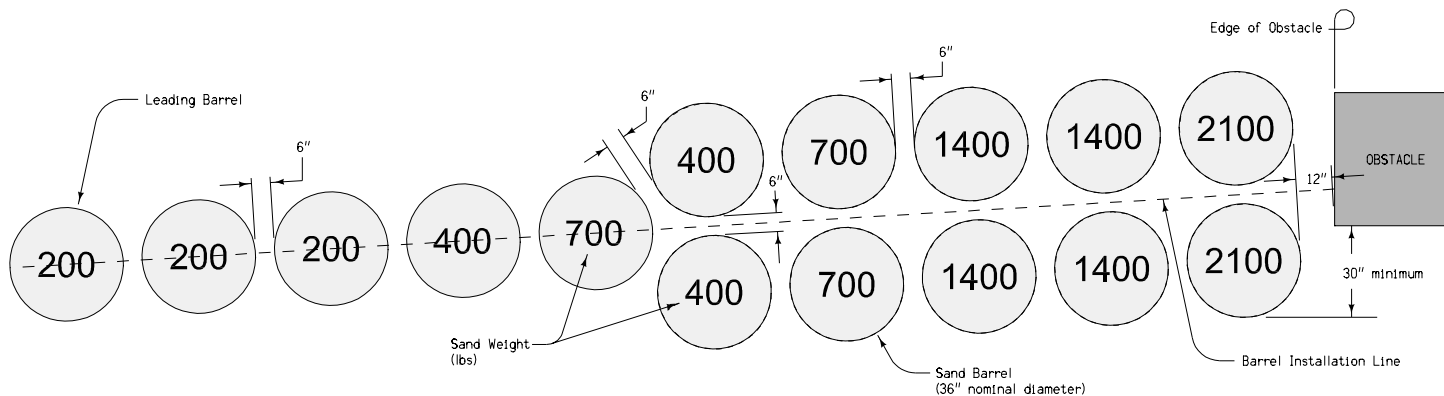
① For obstacles located within the traveled way where space is limited, Barrel Installation Line may be parallel to roadway centerline. In this case, Y dimension shall equal X dimension.

Contract Items:  
 Temporary Crash Cushion  
 Embankment In Place  
 Tabulation: 108-30



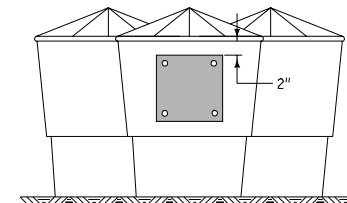
 Iowa Department of Transportation	REVISION
	NEW 04-17-07
STANDARD ROAD PLAN	RE-85
REVISIONS: New. Replaces RE-85(1).	SHEET 1 of 2
 APPROVED BY DESIGN METHODS ENGINEER	
<b>TEMPORARY CRASH CUSHIONS -</b> <b>SAND BARREL DETAILS</b>	

SAND BARREL LAYOUT

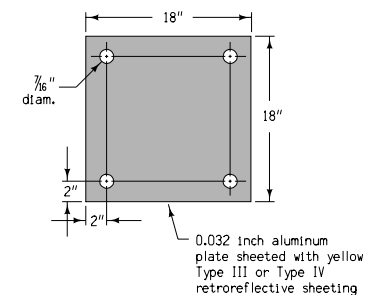


SAND BARREL DELINEATION

Mount marker plate on the leading barrel, centered on the barrel installation line.



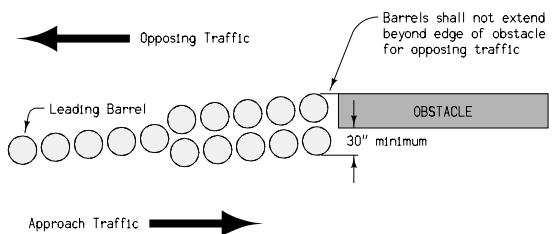
Marker Plate



Mount plate using four 3/8" bolts, nuts, and washers meeting the requirements of Article 4186.09 for Type A signs.

Self-adhesive sheeting meeting the above requirements may be substituted for the marker plate.

PROTECTING OBSTACLES BETWEEN OPPOSING TRAFFIC

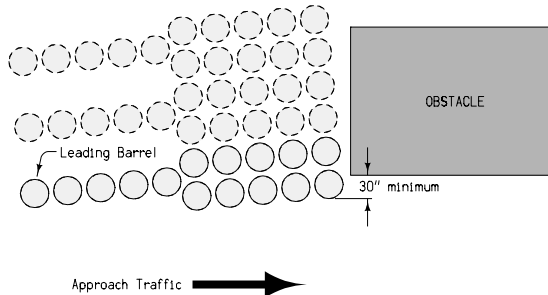


PROTECTING WIDE OBSTACLES

For wide obstacles, repeat sand barrel layout as needed

An installation consisting of multiple sand barrel layouts, similar to the one shown, will be measured as a single crash cushion.

Note: All barrels separated by 6 inches.



	REVISION NEW 04-17-07	
	<b>STANDARD ROAD PLAN</b>	
REVISIONS: New. Replaces RE-85(1).		<b>RE-85</b> SHEET 2 of 2

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**TEMPORARY CRASH CUSHIONS -**  
**SAND BARREL DETAILS**